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RADIO — TV PARTS AND EQUIPMENT

1962
26th Edition

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OFFICIAL

PARTS and EQUIPMENT CATALOG

OF THE

RADIO, TELEVISION &

ELECTRONIC INDUSTRY

for products

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•

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1962 (26th) Edition

FOREWORD

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THE RADIO-ELECTRONIC MASTER

GUIDE TO PRODUCT SECTIONS

As publishers of The Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the changes and growth of the electronic industry for more than 25 years.

The 31 Product Sections listed below broadly categorize related electronic products and services so that you can quickly compare similar items within the sections. However, to locate specific products within the catalog pages, always refer to the General Index. NOTE: Manufacturers' pages are arranged alphabetically within each section.

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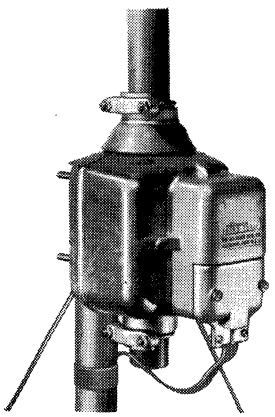
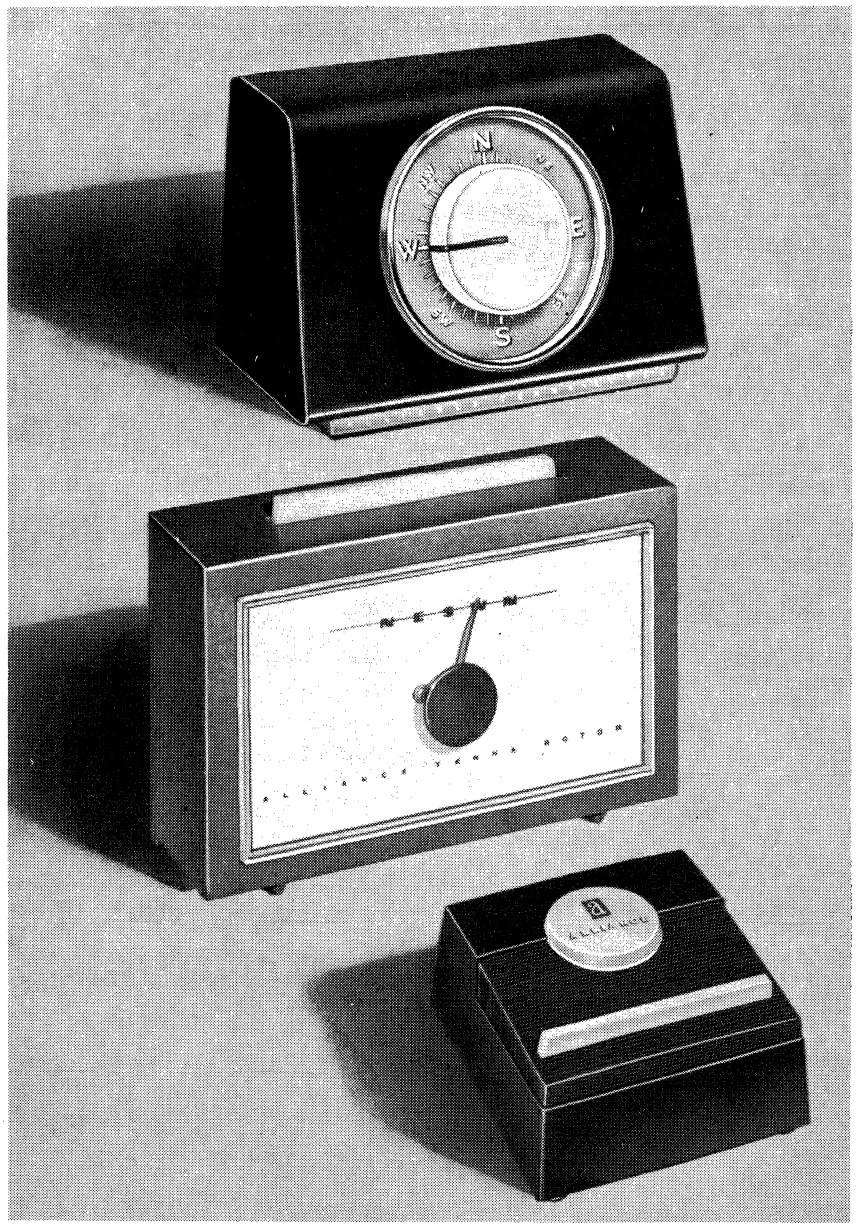
Choose from Alliance

for the world's most popular TV antenna rotator

ALLIANCE TENNA-ROTOR

Designed to rotate all conventional type TV antennas, the Alliance Tenna-Rotor consists of a fully enclosed, electrically driven one RPM rotator (shown at right) into which the antenna center-post is clamped. Four-conductor "zip" cable connects rotator with plastic control case (three models illustrated below) placed near receiver. A selector switch controls rotation to point antenna in any direction for optimum reception.





Model U-98—Fully Automatic

Simply set the pointer—antenna automatically turns by itself and stops at the direction shown on the indicator dial. New styling plus the exclusive automatic feature makes Model U-98 the ultimate in rotators! Available in Forest Green, Ivory and Mahogany Grain.

Model T-12—with exclusive Tenna-Teller direction indicator

This finger-tip, electrically driven and manually operated model is noted for extreme accuracy, compactness and smart styling. "Tenna-Teller" indicator dial shows the exact compass direction to which the antenna is pointed. Available in Forest Green, Ivory and Mahogany Grain.

Model K-22—finger-tip control bar

When pressed on one end, control bar rotates antenna in one direction, reverses when pressed on other end. Center disc signal light indicates limit of travel is reached. Offers accurate, trouble-free control of antenna at extremely reasonable price. Available in standard color only.

For further details, write direct to

Tenna-Rotor Division

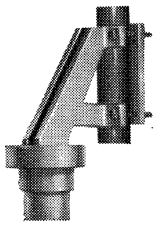
THE ALLIANCE MANUFACTURING COMPANY, INC.

Alliance, Ohio

(Subsidiary of Consolidated Electronics Industries Corp.)

Thrust Bearing Brackets for Alliance Tenna-Rotors

The Alliance Thrust Bearing Bracket, accessory to Alliance Tenna-Rotor, is made to provide added support for all heavier conventional type antennas. It assures extra rigid support and maximum resistance to high winds.



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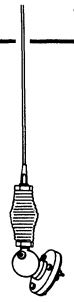
the antenna specialists co.

• CLEVELAND 6, OHIO

THE FINEST BRAND FOR CITIZENS BAND



M-1D (102") (27 mc)

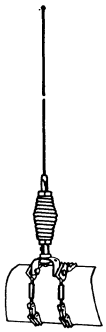
Chrome plated swivel base and spring, 102" stainless steel whip. One-piece Cycolac insulator. Complete with sealing gasket and mounting hardware. Official size.

Dealer net.....**$11.97**

M-1 (102") (27 mc)

Same as M-1D except swivel ball is aluminum and spring is cadmium plated.

Dealer Net.....**$8.97**



MB24 (27 mc)

Double chain bumper mount. Cadmium plated spring, 102" stainless steel whip, 20'RG-58/U cable with PL-259 connector, and whip hold-down clip.

Dealer net.....**$19.05**

M-49 (27 mc)

Center loaded cowl mount antenna provides best omnidirectional pattern. Low VSWR. Extended length 60", 43" collapsed Chrome Tubes. Rocker support assures positive ground and up to 35° mounting angle. 5' RG-58/U lead with PL-259 connectors.

Dealer net.....**$9.96**

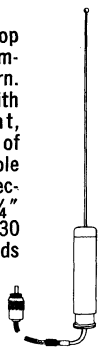
M-23 (27 mc)

For rear or side mounting. 102" stainless steel whip, cadmium plated spring. Beautiful chrome plated swivel base. 2 rubber mounting pads and hardware. 20' of RG-58/U cable with PL-259 connector on both ends.

Dealer net.....**$17.82**

M-67 (27 mc)

Base loaded rooftop antenna. Excellent omnidirectional pattern. Only 44" long with waterproof mount, loading coil. 12' of RG-58/U coax. cable with PL-259 connector. Mounts in ¾" hole. Also available 30 thru 50 mc. Exceeds 100 watts.



Dealer net.....**$15.68**

M-52 (27 mc)

Complete cowl mount antenna with 4' Fiberglass loaded whip and mounting. Fits 15/16" to 1¼" hole. 5' of RG-58/U cable with PL-259 connector.

Dealer net.....**$9.95**

M-53 (27 mc)

Fiberglass whip only for M-52. Chrome plated brass ferrule. ⅜"-24 male thread.

Dealer net.....**$7.20**

M-71 (27 mc)

"CB" Marine antenna. Complete with mounting pipe, "Lay-down" mount, and 15' RG-58/U cable with PL-259 connector. Does not require separate ground plate.

Dealer net.....**$34.05**

M-59 (27 mc)

Trunk lid mount version of Model M-49. Center loaded, provides best omnidirectional pattern. No conspicuous holes to drill. Fits all trunks. 15' RG-58/U lead with PL-259 connector.

Dealer net.....**$ 9.96**

ACCESSORIES

M-3

Cadmium plated aluminum swivel ball. Accepts ⅜"-24 threaded spring or whip.

Dealer net.....**$3.03**

M-3D

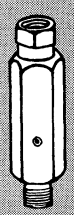
Same as M-3 except chrome plated.

Dealer net.....**$4.83**

M-13

A deluxe chrome plated swivel base and coaxial adapter. Ready to mount.

Dealer net.....**$6.00**



M-54

Kwick Kupler permits whips to be removed from spring or base with a quick and simple twist. For use in storing or changing whips for different bands. Chrome plated brass ⅜", 24 male and female threads.

Dealer net.....**$2.95**

MA54

Top section of M-54 only. Used on bottom of whips for more frequent changing.

Dealer net.....**$2.26**

M-36 (27 mc)

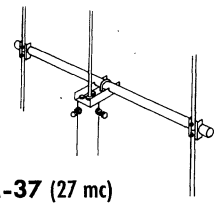
Coaxial antenna. ½ wave length. Offers excellent omnidirectional pattern. Composed of 9' radiator and 9' (2" dia.) skirt. All aluminum. Exceptionally neat appearance.

Dealer net.....**$19.95**

MA-36

Same as M-36 but has jointed skirt and packaged for Parcel Post mailing.

Dealer net.....**$21.00**



M-37 (27 mc)

Vertical directional beam antenna. 7 db forward gain over ground plain with 5x power gain. 13.5 db front to back ratio. All aluminum, 18' high, 11' wide. Operates with 52 ohm cable.

Dealer net.....**$45.00**

MC27 (27 mc)

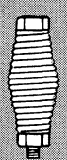
Aluminum ground plane antenna. 108" solid aluminum radiator and radials. 50 ohm match. Coax. fitting. "U" clamps accept 1" pipe, 1¼" tubing.

Dealer net.....**$15.95**

M-38 (27 mc)

Isolating skirt for MC27. All aluminum, mounts 9' below antenna.

Dealer net.....**$11.37**



M-9A

Heavy duty spring necessary for long whips. Cadmium plated. Standard ⅜" 24 male and female threads at opposite ends.

Dealer net.....**$4.77**

M-9AS

Same as M-9A except spring is stainless steel, end bells are chrome plated.

Dealer net.....**$8.95**

M-3AD

Chrome plated spring designed for 102" whips. Will bend through 90° arc. Standard ⅜" 24 male and female threads at opposite ends.

Dealer net.....**$3.24**

M-3A

Same as M-3AD except cadmium plated.

Dealer net.....**$2.04**

M-4

Attaches to gutter of car without drilling. Only 1 screw. Fastens whip out of way quickly and easily.

Dealer net.....**$.75**

ASP-143

Double chain, "Z" shaped links, easily adjusts to any width bumper. Adaptor accepts spring or whip. Alloy steel, cadmium plated.

Dealer net.....**$7.95**

M-2A

Same as ASP-143 only single chain.

Dealer net.....**$5.25**

For complete Citizens Band Antenna Listings write for: Catalog SD-147

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the antenna specialists co.

CLEVELAND 6, OHIO

THE FINEST BRAND FOR EVERY BAND

G-1 (30-50 mc)

Professional antenna, includes 96" stainless steel whip, cadmium plated spring and black swivel base. Hardware furnished. Original Equipment acceptance.

Dealer net.....**$18.81**

G-2 (30-50 mc)

Same as G-1 except all elements are of stainless steel.

Dealer net.....**$33.16**

G-5 (30-50 mc)

Heavy duty model. Choice of many police, fire and utility depts. 96" stainless steel whip with set screw type adapter. Cadmium plated iron ball. Cadmium plated spring. Allen wrench and plate hardware furnished.

Dealer net.....**$21.39**

ASP-239 (series)

(25-54 mc)

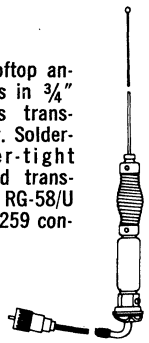
Portable antenna for mounting directly on transceivers. Incorporates tunable base coil with PL-259 connector. 43" stainless steel whip. Specify frequency

Dealer net.....**$16.40**

ASP-177

(130-174 mc)

3 db gain rooftop antenna. Mounts in ¾" hole. Doubles transmitting power. Solderless, weather-tight mount. Sealed transformer. 12' RG-58/U cable and PL-259 connector.



Dealer net.....**$24.00**

ASP-203 (130-174 mc)

Kit to convert GE and RCA ¼ wave length rooftop antenna to 3 db ½ wave length gain antenna. Construction features same as ASP-177. Lead not included.

Dealer net.....**$19.50**

ASP-206 (130-174 mc)

Same as ASP-203 except converts Motorola ¼ wave length antennas.

Dealer net.....**$19.50**

ASPC201L

(130-470 mc)

Snap in feature rooftop antenna. Provides quick, solderless connection at antenna. Whip has set-screw type adapter. 12' RG-58/U cable and PL-259 connector furnished.

Dealer net.....**$5.55**

ASPC201

(130-470 mc)

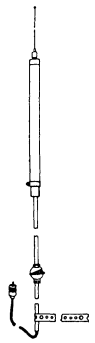
Same as ASPC201L, except without lead.

Dealer net.....**$3.08**

ASP-243

(130-174 mc)

Vertical High Band Coaxial cowl mounting. Adjustable chrome-plated brass skirt and stainless steel whip. Under-fender mount. 12' RG-58/U cable and PL-259 connector furnished.



Dealer net.....**$18.00**

M-64

Forty Meter Fiberglass whip. Continuously loaded. White plastic covering. Chrome Ferrule has ⅜"-24 Male thread. 6' long.

Dealer net.....**$11.05**

Also available:

M-60 6 meters, 3' long **$ 9.96**

M-61 10 meters, 5' long **$ 9.96**

M-62 15 meters, 5' long **$ 9.96**

M-63 20 meters, 6' long **$ 9.96**

M-65 80 meters, 6' long **$11.05**

M-39 (29 mc)

10 meter vertical coaxial antenna. ½ wave length. Low angle, omnidirectional pattern. Solid aluminum, total height 16½'. 2" dia. skirt.

Dealer net.....**$19.95**

M-40 (52 mc)

6 meter antenna, same features as M-39, only 9½' high.

Dealer net.....**$14.85**

ASP-244

(130-150 mc)

Omnidirectional coaxial antenna. Field tunable. Stainless steel radiator, aluminum skirt. Includes support pipe and connecting cable.

Dealer net.....**$29.95**

ASPA244

(130-174 mc)

Same features as ASP-244.

Dealer net.....**$29.95**

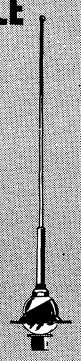
POLICE

ASP-144

(30-50 mc)

Disguise antennas. Looks exactly like normal telescoping antennas. Swivel base permits mounting on any surface with slant of 35°. 16' Stub Loading, RG-58/U cable with PL-259 connector furnished. Specify frequency.

Dealer net.....**$18.00**



ASP-145

(30-50 mc)

Inconspicuous antenna with tapered, flexible, stainless steel rod. Otherwise same as ASP-144.

Dealer net.....**$18.00**

ASP-298 (130-174 mc)

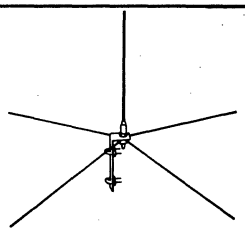
Heavy duty Colinear vertical omnidirectional antenna. Has 6 db gain and adequate lightning protection. Frequency must be specified when ordering. Max. power 1000 watts.

Dealer net.....**$149.79**

ASP-313 (450-470 mc)

Same general design as ASP-298. Power 300 watts.

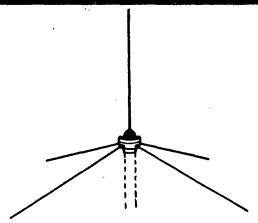
Dealer net.....**$80.00**



M-7A (130-470 mc)

Chrome plated brass tube radiator. Radials are removable stainles steel rods. "U" bolt hardware furnished for ¾" IPS pipe.

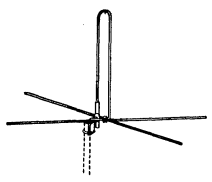
Dealer net.....**$5.40**



GB3 (130-470 mc)

Handles up to 3 KW with 50 ohm match. Cadmium plated steel radials. Rods are removable. Accepts PL-259 connector. Specify frequency.

Dealer net.....**$25.56**



ASP-241 (130-174 mc)

Grounded ground plane. Aluminum radiator and radials. Cadmium plated heavy gauge steel mounting bracket. Mounts on ¾"-1¼" pipe. Accepts PL-259 connector.

Dealer net.....**$50.00**

Write for: Catalog SD-144 (Mobile Listings) • Catalog SD-152 (Base Station Antenna) • Catalog SD-149 (Standard Broadcast Auto Antennas)

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NORMAL MODE HELICAL ANTENNAS

STYLE 62
73

Distributed-load antenna eliminates additional loading coils. Shorter length mounts in choice of positions.

Standard Model metallic gray		$11.25								
	73-0	73-1	73-2	73-3	73-4					
Deluxe Model white	$15.90					$18.75			$21.00	
	62-0	62-1	62-2	62-3	62-4	62-5	62-6	62-7	62-8	62-9
Band	27 mc Citizens	30-35 mc	35-42 mc	10 Meters	15 Meters	20 Meters	40 Meters	80 Meters	40 Meters	80 Meters
Approx. Length	4'	4'	4'	4'	4'	6'	6'	6'	8'	8'

STYLE 45

3 DB GAIN HIGH GAIN ANTENNAS

To double your effective mobile transmitter power.

STYLE 45 — 19" roof top antenna for 440-470 MC. STYLE 45U with UHF connector, 45B with BNC connector, $20.00.

STYLE 56 — cowl or bumper mounted; 54" height. Includes 3/8-24 mount stud, 10' RG 58/U transmission cable, connector (-specify whether UHF or BNC)—$18.75.

STYLE 85 — as above, with aluminum ball mount through which transmission cable passes for maximum protection. 3/4" mounting hole. 56½" overall height. (Specify connector)—$25.50.

144-155 MC	155-165 MC	165-174 MC
STYLE 56-1, 85-1	56-2, 85-2	56-3, 85-3

STYLE 56

STYLE 85

STYLE 10

WHIP ANTENNA and BASE EXTENSION

STANDARD WHIP ANTENNA — lightweight . . . high flexural and impact strength . . . corrosion resistant.

STYLE 10-1 ____ 54"-60", $5.75
10-2 ____ 60"-104", $6.95
10-3 ____ 96" 27MC CB, $6.95

BASE EXTENSIONS — STYLE 29-1 ____ 18", $4.80
29-2 ____ 27", $5.48
29-3 ____ 36", $5.82

STYLE 29

STYLE 61

COMPLETE ANTENNA LINE

Shakespeare WONDERODS

We produce custom antennas for industrial and military applications

GROUND PLANE ANTENNA

For Base Stations — High strength fiberglass radiating elements. Fits 1¼" pipe thread. UHF connector, $39.95.

STYLE 61-0,	CB-27 MC	61-1,	25-30 MC
61-2,	30-35 MC	61-3,	35-40 MC
61-4,	40-47 MC	61-5,	47-54 MC
61-6,	54-72 MC	61-7,	72-88 MC

— cutting curve furnished

ANTENNA ACCESSORIES

STYLE 71-1

ALUMINUM BALL MOUNT — has low-loss molded fiberglass insulator plate, neoprene gasket, unique locking band. STYLE 70-1, $7.95.

STYLE 100

BARREL SPRING — cadmium plated. STYLE 71-1, $4.50

STYLE 97

BUMPER MOUNT — adjusts to any bumper. Low-loss insulator, cadmium plated metal parts. STYLE 97, $7.50.

STYLE 146

STYLE 72

27MC CITIZENS BAND ANTENNAS

RAIN GUTTER MOUNTED ANTENNA — convenient, detachable CB installation has all exceptional benefits of light-weight fiberglass. Includes 9' RG 58/U transmission cable and phono plug. STYLE 74-0, $14.40.

SLIM GEM BASE LOADED CB — efficient space wound, air core loading coil construction molded into slim, 4' antenna that tapers to keen whip. Fits std. base mount. STYLE 146, $8.95.

LOADED COAXIAL SLEEVE ANTENNA — ideal for marine and for base station use. Hardware for mounting on 1½" dia. pipe or mast. Terminated with UHF connector. STYLE 72-0, $39.95

STYLE 74

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COLUMBIA PRODUCTS COMPANY

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look for the spiral markings of genuine Shakespeare Wonderods.

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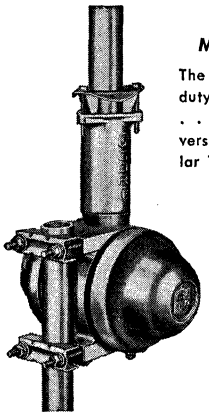
CDR ANTENNA ROTORS

Circle and Detect like Radar

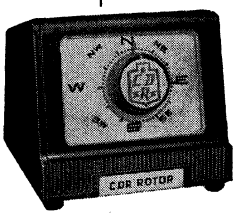
Automatic ROTORS

THE INDUSTRY'S SHARPEST TUNING ROTORS



MODEL AR-1

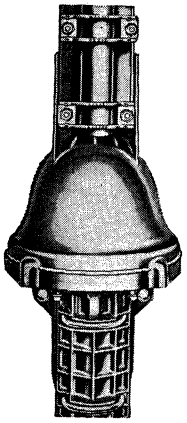
The standard heavy duty economy model . . . the automatic version of the popular TR-11



- Mechanical Brake magnetically released
- Quick Mounting Mast Collet
- Speedy Installation . . . no loose parts to assemble
- Minimum Wind Resistance
- Takes Masts up to 1½" O.D. — self-centering sawtooth clamps
- Fits Standard Towers
- Completely Weather Sealed . . . Factory Lubricated

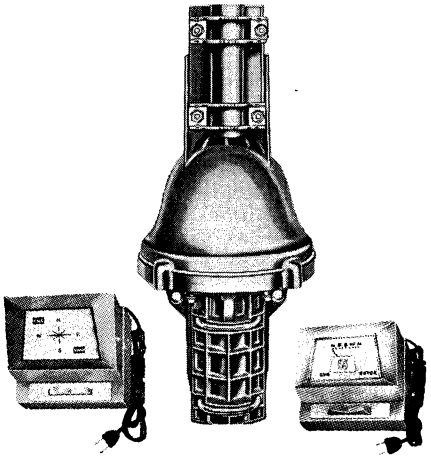
MODEL AR-22

The rugged extra heavy duty, time tested and proven famous TR-2, NOW FULLY AUTOMATIC.



- Powerful beyond any TV need . . . the giant of the industry.
- Handles loads to 150 pounds
- Heavy ball bearings in 6½" races
- Reinforced die cast housing
- Mechanical Brake magnetically released
- Will handle ⅞" to 2" masts
- Heavy duty motor — reverses instantly
- Mast, tower or platform mounting
- 3 heavy duty guy wire lugs
- Completely weather-sealed — factory lubricated

HEAVY-DUTY ROTORS

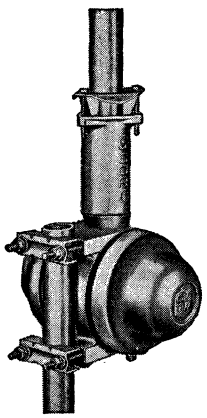


TR-2A TR-4A

CDR MODEL TR-4A . . . the most POWERFUL and dependable manually controlled DeLuxe Heavy Duty ROTOR on the market . . . complete with modern design METER CONTROL cabinet using 4-wire cable.

CDR MODEL TR-2A . . . same as TR-4A except furnished with COMPACT CONTROL cabinet with illuminated "compass pattern" dial. Uses 8-wire cable.

CDR TR-11A ROTOR



WITH FEATURES NEVER BEFORE AVAILABLE IN THE POPULAR PRICE RANGE.

- Mechanical Brake magnetically released
- Quick Mounting Mast Collet
- Speedy Installation . . . no loose parts to assemble
- Minimum Wind Resistance
- Takes Masts up to 1½" O.D. — self-centering sawtooth clamps
- Fits Standard Towers
- Completely Weather Sealed . . . Factory Lubricated

TR-11A

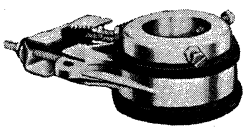
THRUST BEARING

MODEL TA-6

For use with AR-1 and TR-11A rotors to equalize side thrust.

Utilizes six precision roller bearings.

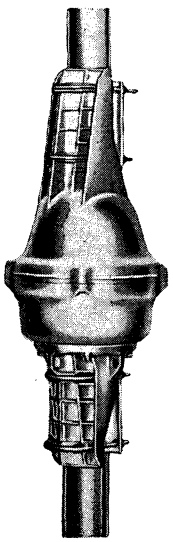
Noncorrosive, weatherproof, and waterproof.

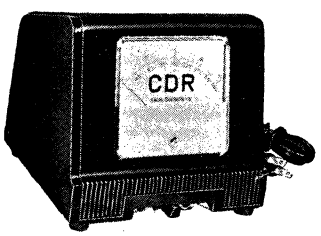


CDR MODEL "HAM-M"

DESIGNED EXCLUSIVELY FOR HAMS

- A complete rotational system
- Supports 1000 lbs. of dead weight
- Super-accurate calibration
- Double-stage switch permits instant direction reading without moving rotor
- Positive brake locks rotor in position against any wind
- Will support and operate heaviest beams commercially available





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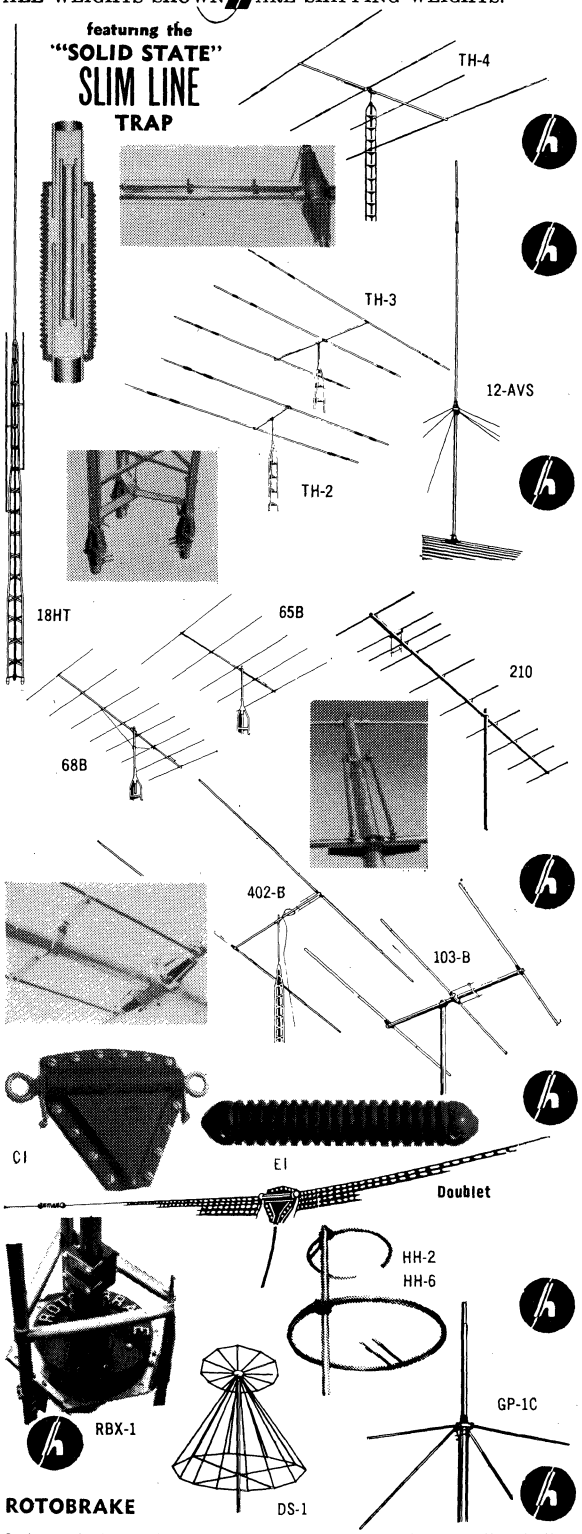
featuring the "SOLID STATE" SLIM LINE TRAP



ROTOBRAKE

Spring actuated, solenoid released braking unit. High capacity starting motor. Limit switches. Mounts internally in steel tower 10-18" inside clearance. Multicolored Great Circle wall map indicator, 16" dia. Moving wedge of light shows beam direction. Available centered West, Midwest, East. Compass rose for other countries. Control box. Model RBX-1: 47 lbs. **$199.95**

Mounting Kit for tower less than 10" dia. Model XK-1: 22 lbs. **$34.95**

Mounting Kit for pole or pipe masts. Model XK-2: 24 lbs. **$34.95**

Mounting Kit for telephone pole masts. Model XK-3: 26 lbs. **$34.95**

RC-9 9 Conductor Rotor Cable - 100 ft. spool. 8 lbs. **$12.00**

WRITE FOR LATEST FULL LINE HY-GAIN CATALOG

TRAP TRIBANDERS

4-Element Thunderbird. For 10-20M. 2" OD, 1¼" telescoping to ¾" elements, aluminum. Longest element 32 ft. Full size elements, full size boom spacing 16 ft. Interlaced 4th element for higher gain and F/B. Model TH-4: 42 lbs. **$117.50**

3-Element Thunderbird. For 10-20M. Boom 14 ft., longest element 26 ft. 2" OD boom. Elements telescoping 1¼-¾". 100% rustproof. Less than 2:1 SWR. Model TH-3: 36 lbs. **$89.95**

2-Element Thunderbird. For 10-20M. Light wt., easy to install most anywhere, but same top construction as the TH-3. Rotates easily with TV-rotator. Boom 6 ft., longest element 26 ft. Model TH-2: 23 lbs. **$59.95**

DUO-BANDER

20-40M Beam. Full size, 3-element 20M beam combined with 2-element linear loaded 40M beam. 52 ohm feedline. No traps. Longest element 44 ft. Boom, approx. 20 ft. Model DB-24: 45 lbs. **to be announced**

TRAP VERTICALS

10-20M Vertical. Self-supporting. 13.5 ft. high. Factory pretuned. SWR 2:1 or less. Weatherproof nylon base assembly. 52 ohm coax fed. Model 12-AVS: 9 lbs. **$21.95**

10-40M Vertical. Includes Hy-Gain Capacity Hat and nylon base mount. 21 ft. high. ¼-wave marconi resonance each band. Model 14-AVS: 10 lbs. **$27.95**

10-80M Hy-Tower. No traps. 52 ohm coax fed. 24 ft. tower, 2"-¾" OD aluminum mast extends to overall 50 ft. Self-supporting.. X-braced tower 15" at base. Model 18HT: 105 lbs. **$129.50**

12AVS Roofmount Kit, Model 12 RMK: 7 lbs. ..... **$ 9.50**
14AVS Roofmount Kit, Model 14 RMK: 9 lbs. **$11.95**
LC80, **80M Loading Coil** for 14AVS: ½ lb. ..... **$ 7.95**
6MK, **6M Add Kit** (12 or 14AVS): 2 lbs. ..... **$ 4.95**

VHF BEAMS

8-Element, 6M Beam with Beta Match for 12.1 db gain, 25db F/B. Rotate with TV Rotator. Boom 18 ft. Longest element 9'8". Factory pre-assembled. Model 68B: 13 lbs. **$32.50**

5-Element, 6M Beam with Beta Match for 9 db gain, 25 db F/B. Rotate with TV Rotator. Boom 9 ft. Longest element, 9'8". Pre-assembled. Model 65B: 8 lbs. **$18.95**

5-Element, 2M Beam. Extremely light weight. Factory pre-tuned. Fed either coax or parallel. Boom 5'4". Longest element 41¾". 9 db gain. Model 25: 3 lbs. **$8.95**

10-Element, 2M Beam. 13.4 db gain with excellent F/B characteristics. Boom 12 ft. Longest element 41¾". Coax or parallel. Model 210: 6 lbs. **$14.95**

11 Element, 1¼M Beam. 220mc beam, boom 12 ft. Longest element 27". Folded ratio dipole. Hi-Q element design. 14.2 db gain. Model 111: 5 lbs. **$13.95**

13 Element, ¾M Beam. Highest gain of 16.1 db. Boom 8 ft. Longest element 13¾". Model 313: 3 lbs. **$12.95**

Dual Stacking Kit (2-VHF Beams) Model DS: 1½-3 lbs. ..... **$ 4.95**
Quad Stacking Kit (4-VHF Beams) Model QS: 4-7 lbs. **$15.95**
Stacking Frame (for 4-Stacked beams) Model SF: 30-45 lbs. **$59.95**

Specify Beam Model Number when Ordering

MONOBANDERS

10-Meter Monobander. Full size, easily installed and rotated by TV Rotator. Boom 8 ft. Longest element 17 ft. 8 db gain. 25 db F/B Model 103-B: 12 lbs. **$32.95**

15-Meter Monobander. Full size, 2' OD boom 12 ft. Longest element 23 ft. Rotate with heavy duty TV Rotator. 8 db gain 25 db F/B. Model 153-B: 19 lbs **$38.50**

20-Meter Monobander. Full size, "full spacing". 16 ft. boom. Longest element 35 ft. Massive all-aluminum construction. 8 db gain. 25 db F/B. Model 203-B: 35 lbs. **$65.95**

40-Meter Monobander "Hy-Seven". 2-Element, longest element 42 ft. Boom 16 ft. High efficiency linear loading. No coils. Model 402-B: 40 lbs. **$99.75**

MULTIBAND DOUBLETS

Unique process of extruding polyethylene ribbon eliminates traps for doublets with SWR less than 2:1 all bands. No matching required. Handle 1 KW AM, 2 KW SSB. Unroll and install in minutes. Complete with all insulators.

40 & 80M Doublet. 122 ft. long. Model 2-BD: 5¾ lbs. **$34.95**
6-80M Doublet. 122 ft .long. Model 6-BD: 6 lbs. **$37.50**
6-40M Doublet. 60 ft. long. Model 5-BD: 4½ lbs. **$29.95**
6-20M Doublet. 30 ft. long. Model 4-BD: 3¾ lbs. **$21.95**
Center Insulator. Model CI: 8 oz. ..... **$ 3.95**
End Insulator. Model EI: 3 oz. ..... **$ 1.00**

HALOS

2-Meter Halo. 14" dia. heavy wall ½" dia. aluminum tubing. Cycolac bracket accepts any 1" mast. Gamma match for 52 ohms. Factory pre-tuned, but adjustable over 2M band. Up to 15 db gain over vertical whips. Stack for additional 3 db gain. Model HH-2: 1 lb. **$5.95**

6-Meter Halo. High mechanical stability and min. wind resistance with 1" dia. aluminum tubing. Cycolac base takes 1" mast. No external matching. Gamma match factory pre-tuned. Tune to resonance quickly on any frequency in 6M. Model HH-6: 3 lbs. **$12.95**

Stacking Kit for two HH-2's, Model HHS-2. **$3.00**

Telescoping Mast. Heavy duty, 5 ft. length. **$4.95**

GROUND PLANES

Heavy duty commercial construction. Radiator and ground plane elements heat-treated aluminum alloy. Hardware iridite treated. Cycolac base insulators adjust to mast ¾"-1⅝". Better than 1.2:1 SWR. Omni-directional radiation pattern, unity gain. 52 ohms.

25-50mc Ground Plane. Easy assembly. Telescoping radiator and radials, ⅞"-¾". Model GP-1C: 10 lbs. **$32.70**

50-88mc Ground Plane. Telescoping radiator and radials ⅞"-¾". Model GP-2C: 7 lbs. **$21.90**

100-500mc Ground Plane. Radiator, radials solid ¼" dia. aluminum rod. Model GP-3C: 4 lbs. **$14.97**

Discone. Vertically polarized, omnidirectional broad band antenna, 50-500 ohms, without adjustments. Unity gain, low angle radiation, SWR less than 1.5:1. Heat treated aluminum elements. Hardware iridite treated. Model DS-1: 9 lbs. **$49.95**

Net

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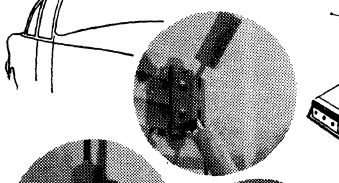
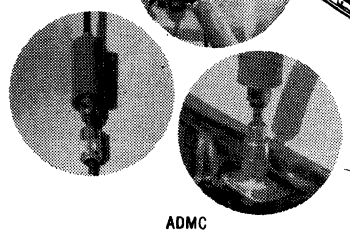
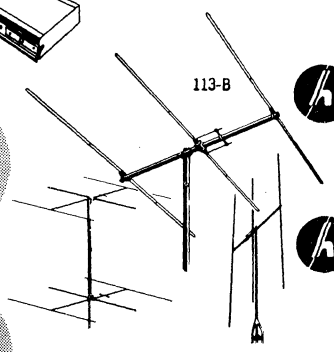
hy-gain Antennas for Citizens Band

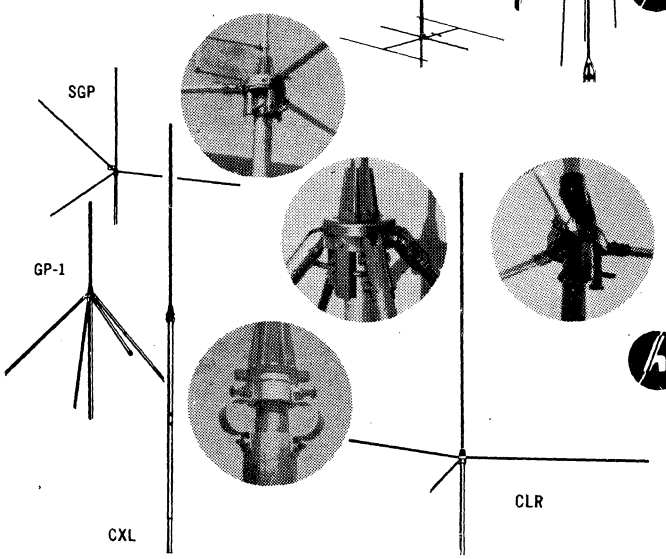
ALL WEIGHTS SHOWN ARE SHIPPING WEIGHTS

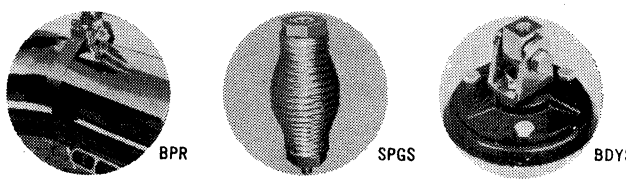
ALL PRICES SHOWN ARE NET

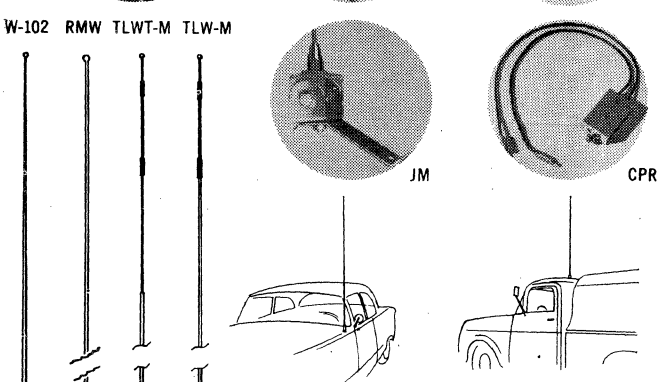












CLOSE RANGE

Citizens Whip. Telescoping 45" to 15" chrome plated whip for transceiver mounting. Efficient polyproylene base loading coil. Swivel joint. Model CW. Wt: 1 lb. **$5.95**

Auto Door Mount. Adapts Citizens Whip for mobile. Attaches to door top easily, quickly. 12 ft. RG-58/U coax. Model ADMC . Wt: 1 lb. **$8.97**

Citizens Dipole. Efficient "Rabbit Ears", telescoping 45" to 15". Suction cup mounting on transceiver, windows, etc. Orients vertically or horizontally. L-matching network. Model CD. Wt: 1½ lbs. **$13.17**

3-ELEMENT BEAM

Highest gain (9 db) commercially manufactured antenna for Citizens Band. F/B Ratio: 25db. F/Side Ratio: 40db. 2" OD aluminum boom 8 ft. long. 16½ ft. elements. Maximum weather resistance. Perfect 50 ohm match, factory pre-tuned. May be rotated by TV rotator. May be mounted vertically or horizontally. Model 113-B. Wt: 15 lbs. **$31.50**

BASE STATION

Standard Ground Plane. Maximum efficiency, lowest cost. Radiator & radials ⅝" OD aluminum tubing. Cycolac plastic base for masts up to 1⅝" OD. Tuned & matched for 52 ohm coax. Model SGP. Wt: 5 lbs. **$16.17**

Heavy Duty Ground Plane. Radiator & radials ⅞" - ¾" OD aluminum tubing. Departure angle adjusted for perfect 50 ohm match. Cycolac base assembly for masts up to 1⅝". Model GP-1. Wt: 10 lbs. **$26.25**

Coaxial Antenna. For inconspicuous roof or side mounting. Half-wave sleeve antenna, ⅝" OD aluminum tubing radiator, 2" OD aluminum sleeve. Easy to mount std. 1¼" masting or 1" ID plumbers pipe. Model CXL. Wt: 7½ lbs. **$19.95**

Colinear Ground Plane. Three-quarter wave length ground plane concentrates power at lower angles to horizon and doubles radiated power (3.4db gain). Precision matched, tuned for 52 ohm coax. 20 ft. height. Radiator 1¼" OD to ¾" OD heavy wall aluminum tubing. Radials 9 ft. ⅝" OD tubing. Cycolac base insulator. Model CLR. Wt: 15 lbs. **$29.97**

MOBILE

Full Size Quarter Wave Whip Stainless steel 102" whip. Std. ⅜" by 24 threaded cadmium plated base stud. Model W-102. Wt.: 1¼ lbs. **$4.35**

Roof Mounted Whip. Extremely flexible tapered stainless steel base loaded whip for vehicular roof top mounting. Installs in single hole. Solderless connector for RG58U cable. Model RMW. Wt.: 1 lb. **$8.97**

Top Loaded Stainless Steel Whip. Coil capsule polyethylene enclosed and fused to same diameter steel whip. Radiation resistance 52 ohms for perfect match to coax. 50" overall height. Complete with chrome plated, single hole top mounting body mount and coaxial receptacle Model TLW-M. Wt.: 1 lb. **$7.17**

Model TLW. Same as above Model TLW-M, but with std. ⅜" x 24 base stud. Model TLW. Wt.: ¾ lbs **$5.37**

Top Loaded Telescoping Whip. Identical to TLW-M but with telescoping stainless steel and chrome plated brass whip sections. Telescopes down to 28" Complete with chrome plated, single hole top mounting body mount and coaxial receptacle. Model TLWT-M Wt.: 1 lb. **$7.17**

Model TLWT. Same as above Model TLWT-M, but with std. ⅜" x 24 base stud. Model TLWT. Wt.: ¾ lbs. **$5.95**

Standard Spring. Cadmium plated, double tapered, with ends ground flat for perfect alignment. Accepts ⅜" x 24 stud. Provided with ⅜ x 24 stud to fit body or bumper mount. Model SPGS. Wt.: 1½ lbs. **$2.04**

Deluxe Spring. Chrome plated. For heavy duty applications. Model SPG. Wt.: 2 lbs. **$4.77**

Standard Body Mount. Improved design, superior to split-ball types. Cad-plated steel swivel. Molded cycolac base. Easy top-side mounting. Model BDYS. Wt.: ¾ lbs. **$3.03**

Deluxe Body Mount. Same as BDYS, except heavily chrome plated. Model BDY. Wt.: 1 lb. **$4.77**

Jiffy Body Mount. Completely adjustable, easily installed mount requiring only two 7/32" holes, for trunk groove, hood groove, door edge, etc. Accepts ⅜" x 24 stud. Cad-plated. Model JM. Wt.: ½ lb. **$2.7(**

Gutter Clip. Attaches to auto gutters. Holds full length whip in position for easy garaging. Model GC. Wt.: 1/6 lb. **$1.1**

Broadcast to Citizens Band Coupler. Unique isolating coupler in 2" x 3" aluminum tube with mounting bracket. Use any Citizens Band Mobile antenna for AM broadcast as well as Citizens Band. No switching. Model CPR. Wt.: ¼ b. **$8.9**

Universal Bumper Mount. Chrome plated, stainless steel mounting strap, fully adustable for most auto bumpers. Model BPR. Wt.: 1½ lbs. **$6.5'**

ACCESSORIES

Model PLSA adapts PL-259 coax plug to auto radio plug	$ .4
Model PLP adapts PL-259 coax to phono plug	$ .4
Model SOSA adapts SO-239 coax socket to auto antenna	$ .4
Model SAP adapts auto radio plug to phono type	$ .2
Model CC-5PL 5 ft. RG-58/U coax (PL-259 both ends). Use with TLW-M and TLWT-M	$3.4
Model CC-12. 12 ft. RG-58/U coax (PL-259 & solder lugs)	$3.4
Model CC-12PL. 12 ft. RG-58/U coax (PL-259 both ends)	$4.1
Model CC-25. 25 ft. RG-58/U coax (PL-259 both ends)	$5.9
Model CC-50. 50 ft. RG-58/U coax (PL-259 both ends)	$9.4

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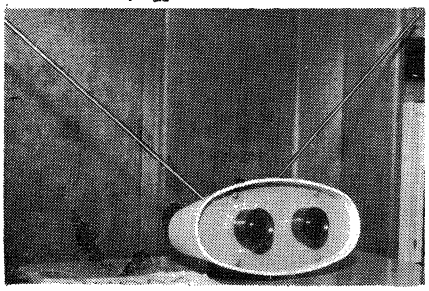
hy-gain SWL Antennas



INDOOR

Attractively housed in unbreakable plastic with chrome plated antennas, this Indoor SWL system is completely wired, covering frequencies from 5 through 30 megacycles and including all the important short wave and amateur bands. Greatly increases the performance of any short wave receiver. Easy to operate. Simply attach 6 ft. cable included to the receiver, extend "rabbit ears'" and adjust "match" and "tune" controls for maximum signal strength. Model SWI, Shpg. Wt.: 2½ lbs.

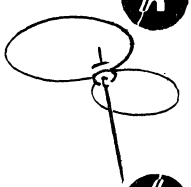
$14.75 Net

OUTDOOR

High efficiency outdoor doublet antenna, peaked for top performance on the important 11, 13, 16, 19, 24, 31 and 40 meter short wave bands. Includes eight trap assemblies, end insulators and 100 ft. of lead-in cable with complete instructions for rapid assembly. Mounts easily under eaves, in attic space, etc. Overall length: 40 ft. Model SWO, Shpg. Wt. 2½ lbs.

$14.75 Net

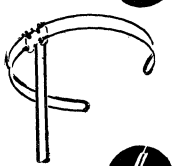
hy-gain FM Antennas



FM AUTO BUTTERFLY

Polished, anodized aluminum rings 6" dia., high impact cycolac plastic and chrome plated brass fittings. Rugged antenna converts existing AM whips to ¾-wave FM antennas. 3 db gain. Increases range, eliminates fading, decreases background noise. Attaches 30 sec. Model FMB: Shpg. wt. 1½.

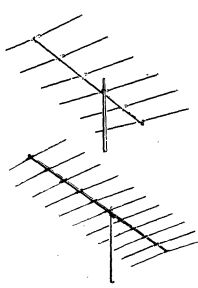
$5.97 Net



FM HALO

½-wave dipole in unique configuration for uniform omnidirectional pattern. Increases fidelity of home FM reception. Universal bracket for minute-mounting. Heat treated alloy aluminum tubing. Designed for std. 300 ohm twin-lead. Model FMH: Shpg. Wt. 2½ lbs.

$5.97 Net



FM HY-LOGS

Fringe area log periodic antennas employ revolutionary concept for tremendous forward gain. Uniform impedance characteristics 88-108mcs. Outperform equivalent-sized Yagis. Heavy wall 1¼" dia. aluminum boom, 7/16" elements. 72 ohm coax or 300 ohm twin lead.

6-ELEMENT

For medium fringe area reception. 9 db gain. Boom 7 ft. Model FM-6: Shpg. Wt. 5 lbs.

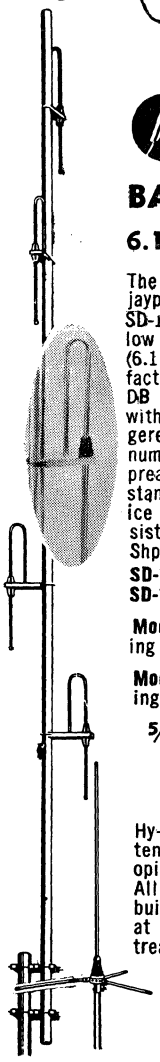
$13.77 Net

11-ELEMENT

For ultimate fringe reception. 12 db gain. Boom 12 ft. Model FM-11: Shpg. wt. 7½ lbs.

$22.50 Net

hy-gain 150 mc Antennas Communication Band (144-174 MC)



BASE STATION

6.1 DB STACKED JAYPOLE

The first mass produced stacked jaypole array — the Hy-Gain Model SD-150 — available at amazingly low price. Produces highest gain (6.1 db) of any commercially manufactured 150 mc antenna. With 9.5 DB gain in one favored direction with a slight reorientation of staggered jaypole positions. All aluminum (wt.: 19 lbs.) complete factory preassembly. Constructed to withstand 100 mph winds with ½" radial ice load. Iridite treated for resistance to corrosion. Model SD-150: Shpg. Wt. 28 lbs.

SD-150A (144-159 mc.)
SD-150B (159-174 mc.)

$125.70 Net

Model MSD-150 — Mast side mounting kit for SD-150. Shpg. Wt. 11 lbs.

$9.57 Net

Model PSD-150 — Pole side mounting kit for SD-150. Shpg. Wt. 11 lbs.

$10.17 Net

⅝-WAVE - 3.4 DB GAIN COMMERCIAL DUTY GROUND PLANE

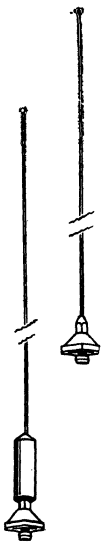
Hy-Gain Model GPG-150 is an extended ⅝-wave ground plane developing 3.4 DB omnidirectional gain. All aluminum (wt. 4 lbs.). Ruggedly built to withstand 100 mph winds at ½" radial ice load. Completely treated. Model GPG-150: Shpg. Wt. 5 lbs.

$21.90 Net

¼-WAVE STANDARD UNITY GAIN GROUND PLANE

Lowest cost base station antenna available — yet built to commercial duty standards. All aluminum — iridite treated. Ideal for small two-way systems when price is important. Model GP-150: Shpg. Wt. 1 lb.

$5.40 Net



MOBILE WHIPS FOR ROOF MOUNTING

UNITY GAIN, ¼-WAVE

New design stainless steel Model MW-150 ¼-wave rooftop mounted vehicular whip. High impact cycolac molded base mounts easily from top of roof with unique positive grip locking mechanism. Solderless connector for RG58U cable. Whip only is easily replaceable. Model MW-150: Shpg. Wt.: ¼ lb.

$2.85 Net

3.4 DB GAIN, ⅝-WAVE

Double effective power both receiving and transmitting with the Hy-Gain MWG-150 mobile whip. Extremely flexible stainless steel whip only 52" high. Hermetically sealed matching inductor. Single hole top mounting base and solderless RG58U connector. Model MWG-150: Shpg. Wt. 1 lb.

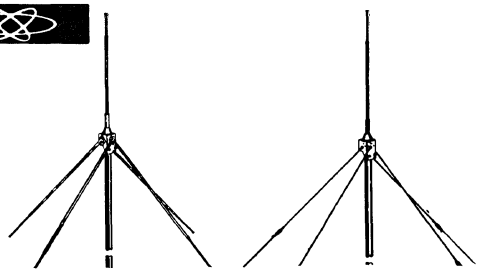
$8.97 Net

Net

© U.C.P., Inc.

GC CITIZENS BAND ANTENNAS and ACCESSORIES

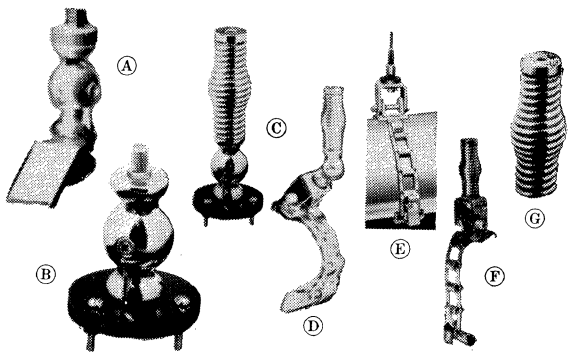
GC ELECTRONICS

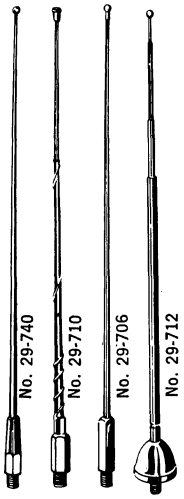


GROUND PLANE ANTENNA KIT RADIAL WIRE TYPE—Base station antenna kit—including mast, co-ax cable and all hardware. Most parts are pre-assembled average installation time is ½ hour. 4 guy wires act as "ground plane." Cat. No. 29-730 Net **$23.85**

102" STAINLESS STEEL TAPERED WHIP—High-impact, flexible whip made of selected alloy. Standard threated fitting used with body mount or bumper mount. Cat. No. 29-700 Net **$6.90**

100" STAINLESS STEEL TAPERED WHIP—Same as 102" Whip #29-700, but designed for use with flexing spring type body mount or bumper mount. Cat. No. 29-702 Net **$6.90**





GROUND PLANE ANTENNA KIT ROD RADIAL TYPE—Complete Base Station Antenna, pre-assembled and including mast, cable and all hardware. No guy wires. Radial elements are durable aluminum tubing. For use with chimney, wall or tripod mount.
Cat. No. 29-740 Net **$25.50**

"TEL-COIL" WHIP (Pat. Pend)—48" tapered fibre glass whip, "loaded" type. Step-taper wound helical conductor is superior to other "short" Whips which use base or center loading coils. Standard threaded fitting for any body or bumper mount, trunk lid mount.
Cat. No. 29-710 Net **$7.20**

101" FIBRE GLASS TAPERED WHIP—Unaffected by weather conditions, comparable performance to steel whips. Conductor is fibre glass insulated. Standard threaded fitting.
Cat. No. 29-706 Net **$8.40**

"TEL-E-SCOPE" FOUR-SECTION TELESCOPING WHIP—Chrome plated, 101" extended, 32" collapsed. For installations where constant-length whip is inconvenient and fully extended use is occasional. Standard threaded fitting for use with body mounts or bumper mounts.
Cat. No. 29-712 Net **$4.80**

(A) TRUNK LID MOUNT—Unique mount requiring no outside holes on car. Designed specifically for "Telcoil" 29-710 antenna, but may be used with other short "whips." Cat. No. 29-716 Net **$3.30**

(B) BODY MOUNT—Heavy-duty, chrome plated body mount fastens to side, cowl, or fender. Ball swivel provides all angle adjustment, from vertical to horizontal. Cat. No. 29-718 Net **$4.80**

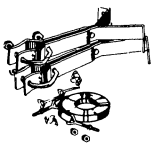
(C) BODY MOUNT—Same as Body Mount #29-718 except this model is supplied with flexing spring #29-726. Cat. No. 29-720 Net **$8.40**

(D) BUMPER MOUNT—With Swivel Joint and Spring For cars where bumpers do not protrude sufficiently for standard mount. Cat. No. 29-728 Net **$15.45**

(E) BUMPER MOUNT—Durable, chrome plated chain type bumper adjusts to most bumpers from sports car to truck. Cat. No.29-722 Net **$7.95**

(F) BUMPER MOUNT—Same as Bumper Mount #29-722 except this model includes flexing spring #29-726. Cat. No. 29-724 Net **$11.85**

(G) FLEXING ANTENNA SPRING—Tapered, heavy-duty, chrome plated steel spring built-in flexible center conductor. Cat. No. 29-726 Net **$3.90**



SNAP-IN CHIMNEY MOUNT—Fits masts up to 1¾" diameter. Extra heavy gauge steel. Zinc plated and dichromate dipped. Complete with straps and hardware.
Cat. No. 8610 Net **$1.98**
With Stainless Steel Strapping
Cat. No. 8930 Net **$2.82**

CHIMNEY QUICK MOUNT—Brackets will support masts up to 1¾" diameter. Straps and hardware included.
Cat. No. 8005 Net **$1.77**
With Stainless Steel Strapping
Cat. No. 9025 Net **$2.49**

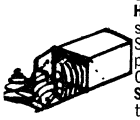
"Z" MOUNT—Same as No. 8005 Mount with 20 feet of strapping supplied for each mount.
Cat. No. 9125 Net **$1.50**
With Stainless Steel Strapping
Cat. No. 9127 Net **$2.29**

SPECIAL "Z" MOUNT — Galvanized Strapping Steel zinc plated finish. Eyebolts attached to one end of heavy galvanized strapping.
Cat. No. 8005-U Net **$1.50**
With Stainless Steel Strapping
Cat. No. 9025-U Net **$1.98**

CABLE ASSEMBLIES—Made of RG 58/U cable, terminated on one end with PL 259 plug, other end stripped and terminated with lugs.

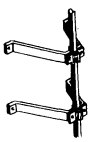
Cat. No.	Cable Lengths	Dealer Net
29-760	6 ft.	**$2.91**
29-762	10 ft.	**3.21**
29-764	15 ft.	**3.57**

DIS-CO-NECT — Remove mobile whip antennas in two seconds — without tools. Incorporates bayonet lock device . . . made of stainless steel.
Cat. No. 29-772 Net **$2.97**



HUB CAP STATIC SPRING—Stops static caused by wheel friction. Springs have riveted metal points for firm, smooth contact.
Cat. No. 1058 Net **$ .09**

STATIC CHASER—Dissipates static which causes radio noise and contact shock. Minimizes static interference caused by friction of wheels, tires, etc.
Cat. No. 5604 Injector Only Net **$1.77**
5605 Static Powder for 5 Tires **.72**



V-7 WALL MOUNT — Constructed of heavy gauge steel. Fully plated nuts, U-bolt and hardware. Completely assembled.
Cat. No. 9236 Net **$1.05 per set**

CLOSE WALL MOUNTS—Ideal where large clearance is not needed. Complete with hardware. Hold masts up to 1¾" diameter.

Cat. No.		Net
8302	Clearance 2¼"	**$ .90 per set**
8304	Clearance 4"	**1.08 per set**

4-INCH SPECIAL WALL MOUNT—Economy close wall mount. Made of heavy gauge steel, zinc-plated for extra protection.
Cat. No. 9241 Net **$ .54**

SNAP-IN WALL MOUNTS—Simply snap the mast in, tighten and the job is done. Holds mast up to 1¾" diameter.

Cat. No.		Net
8306	6" Wall Mount	**$1.44**
8308	8" Wall Mount	**2.34**

MASTER DELUXE SNAP-IN MOUNTS—Brackets are spaced 16" wide so as to fasten solid to 16" 2x4 spacing in homes. Eliminates "side sway" of antennas. Will fit mast up to 1¾" diameter.

Cat. No.		Net
8312	12" Clearance	**$2.52**
8318	18" Clearance	**3.24**
8324	24" Clearance	**4.38**

RIGHT ANGLE ADAPTER—Designed for attaching Tel Coil Loaded Whip #29-710 or similar antenna to base station. Fits all transceivers using PL 259 antenna plug.
Cat. No. 29-780 Net **$3.45**

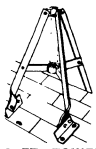
ADAPTER—Adapts a PL 259 plug to a standard auto radio (Motorola type) plug.
Cat. No. 29-782 Net **$ .45**

ADAPTER—Adapts a PL 259 plug to a phono pin (RCA type) plug.
Cat. No. 29-784 Net **$ .45**

ADAPTER—Adapts a SO 239 Socket to a standard auto radio (Motorola type) socket.
Cat. No. 29-786 Net **$ .45**

ADAPTER—Adapts a standard auto radio (Motorola type) plug to a phono pin (RCA type) plug.
Cat. No. 29-788 Net **$ .24**

GUTTER CLAMP—Holds long whip antennas down when not in use. Fastens easily to drain rails on any car.
Cat. No. 29-770 Net **$ .99**



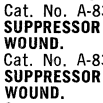
2 FT. TOWER TRI-POD ANTENNA BASE—For supporting masts up to 10 feet without guying. Extra sturdy support for higher installations where guying is necessary.
Approx. 24 inches high. Supports masts up to 1½" diameter.
Cat. No. 9063 Net **$4.29**

3 FT. TOWER—Self supporting. Made of electro galvanized tubing. Folds and unfolds like an umbrella.
Cat. No. 9144 Net **$4.98**

5 FT. TOWER—Self supporting. Made of electro galvanized tubing. Folds and unfolds like an umbrella.
Cat. No. 9143 Net **$9.54**

AMMETER SILENCER CONDENSER
Cat. No. A-837 Net **$ .45**
GENERATOR TYPE CONDENSER
Cat. No. A-838 Net **$ .59**
HEAVY DUTY TYPE CONDENSER
Cat. No. A-841 Net **$ .75**

SLIP-ON SUPPRESSORS. FITS ALL CARS CARBON TYPE.
Cat. No. A-830 Net **$ .27**
DISTRIBUTOR SUPPRESSORS CARBON TYPE.
Cat. No. A-832 Net **$ .27**
SUPPRESSOR SPARK PLUG TYPE. FITS ALL CARS. CARBON TYPE.
Cat. No. A-833 Net **$ .27**
SUPPRESSOR SLIP-ON TYPE. SUPER WIRE WOUND.
Cat. No. A-835 Net **$ .45**
SUPPRESSOR DISTRIBUTOR MODEL. SUPER WIRE WOUND.
Cat. No. A-836 Net **$ .45**



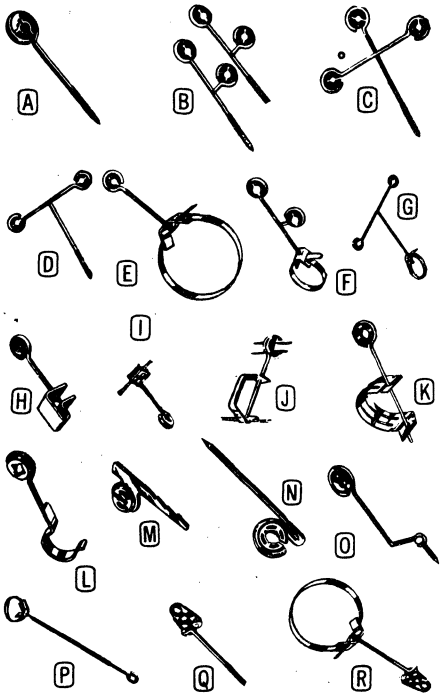
CALL LETTERS—Metal foil, pressure sensitive labels to mark mobile station with FCC call letters. Set of 78 numerals plus two "W"s Characters ¾" high.

Cat. No.	Description	Net Per Set
29-776	Gold Letters on White	**1.20**
29-778	Silver Letters on Black	**1.20**

SEND FOR FREE CATALOG on the complete GC Electronics line of Citizens Band equipment.

TV Mounting Accessories

STANDOFFS



Quality standoffs available in several styles to meet all requirements; flat line inserts unless otherwise specified.

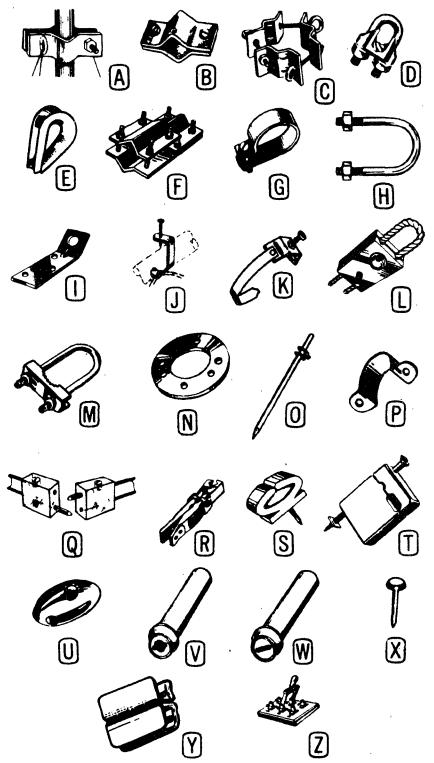
IE No.	Fig.	Description	Net 100
1330	A	3½" wood screw	$ 2.50
1350	A	5½" wood screw	3.50
1370	A	7½" wood screw	4.00
1390	A	12" wood screw	7.50
1222	B	7½" machine screw inline double type	12.50
1320	B	7½" wood screw inline double type	12.50
1345	C	7½" wood screw 3-way type	17.50
1380	D	3½" wood screw T-type	11.50
1343	D	5½" wood screw T-type	12.00
1340	D	7½" wood screw T-type	12.50
1230	E	3½" machine screw, galvanized strap	8.50
1250	E	5½" machine screw, galvanized strap	11.00
1270	E	7½" machine screw, galvanized strap	16.50
1290	E	12" machine screw, galvanized strap	17.50
1231	E	3½" machine screw, stainless strap	12.50
1251	E	5½" machine screw, stainless strap	15.00
1271	E	7½" machine screw, stainless strap	17.50
1220	F	7½" inline double, galvanized strap	15.00
1221	F	7½" inline double, stainless strap	17.50
1280	G	3½" T-type, galvanized strap	14.00
1243	G	5½" T-type, galvanized strap	14.50
1240	G	7½" T-type, galvanized strap	15.00
1281	G	3½" T-type, stainless strap	16.50
1241	G	7½" T-type, stainless strap	17.50
1245	.....	7½" 3-way, galvanized strap	22.50
1246	.....	7½" 3-way, stainless strap	30.00
1200	H	3½" machine screw with gutter clamp	12.50
1210	H	7½" machine screw with gutter clamp	17.50
1212	.....	7½" inline double with gutter clamp	20.00
1780	I	3½" guy wire standoff	9.50
1790	I	7½" guy wire standoff	12.50
1800	.....	7½" inline double, guy wire type	15.00
1880	J	3½" mast and guy wire clamp type	12.50
1215	K	1½" "Lok-On" standoff	7.00
1216	K	1½" "Lok-On" standoff	7.50
1234	L	1" snap-on mast standoff	5.00
1235	L	1¼" snap-on mast standoff	5.00
1260	M	Masonry type hot nail standoff	7.00
1310	N	3½" nail-in standoff	4.00
1300	N	7½" nail-in standoff	8.00
1305	O	Long arm mortar type, masonry nail	7.50
1720	P	Spring type rotator standoff	75.00
LL1330	Q	3½" wood screw "Line-Lok" type	4.50
LL1350	Q	5½" wood screw "Line-Lok" type	5.00
LL1370	Q	7½" wood screw "Line-Lok" type	6.00
LL1230	R	3½" machine screw "Line-Lok", galvanized strap	11.50
LL1250	R	5½" machine screw "Line-Lok", galvanized strap	12.00
LL1270	R	7½" machine screw "Line-Lok", galvanized strap	12.50

COMBINATION WOOD AND MACHINE SCREW STANDOFFS

Wood screw tip snaps off for machine screw use.

1332	A	3½" combination screw "Plus" type	$ 2.50
1333	A	5½" combination screw "Plus" type	3.50
1334	A	7½" combination screw "Plus" type	4.00
1381	D	3½" T-type combination screw "Plus"	11.50
1382	D	5½" T-type combination screw "Plus"	12.00
1383	D	7½" T-type combination screw "Plus"	12.50
1223	B	Inline double combination screw "Plus"	12.50
1183	E	9" galv. strap for "Plus" standoffs	5.50
1165	E	9" stainless strap for "Plus" standoffs	9.00

GUYING ACCESSORIES



IE No.	Fig.	Description	Net Ea.
1500	A	Guy wire clamp fits 1¾" masts	$0.26
1510	B	Screw-on guy wire clamp fits 1¾" masts	.20
1512	C	3-way guy clamp for 1¼–2¼" masts	.32
1650	D	⅛" zinc-plated cable clamp	.15
1651	D	¼" zinc-plated cable clamp	.15
1660	E	Guy wire thimble, zinc-plated	.03
2320	F	3-piece mast clamp couples masts of equal or unequal size ¾"–1⅝" dia.	.86
3800	G	Guy ring clamp for ¾"–1" masts	.08
3810	G	Guy ring clamp for 1¼"–1¾" masts	.09
5090	H	2" x 3½" h. U-bolt for masts to 1¾" dia.	.09
5095	H	1½" x 3½" h. U-bolt for masts to 1½" dia.	.08
1670	I	Guy wire anchor bracket; can't fray wire	.17
1675	J	C-type ground clamp for pipe to 1¼" dia.	.14
1676	K	Strap ground clamp, copper-plated, ⅜"–3"	.13
1680	L	Guy clamp for ⅛"–¼" wire	.10
5100	M	Positive grip U-clamp; lockwashers and nuts	.24
3900	N	Zinc-plated floating guy ring for 1" masts	.11
3910	N	Same, for 1¼" mast	.11
3920	N	Same, for 1½" mast	.11
3940	N	Same, for 1½" mast	.11
3941	N	Same, for 1¾" mast	.11
3942	N	Same, for 1¾" mast	.15
3950	N	Same, for 2" mast	.15
3951	N	Same, for 2¼" mast	.15
3953	N	Same, for 2½" mast	.15
4401	O	4' x ⅝" dia. copper-plated grnd. rod	.65
4402	O	6' x ⅝" dia. copper-plated grnd. rod	.85
4403	O	8' x ⅝" dia. copper-plated grnd. rod	1.20
4404	O	8' x ½" dia. copper-plated grnd. rod	2.10
1580	P	Mast and pipe strap for 1" masts	.03
1590	P	Mast and pipe strap for 1¼" masts	.05
1750	Q	Solderless twin lead connectors, pair	.34
1602	R	3-way solderless test clip	.13
1770	S	Rubber, twin-lead, wall standoff	.07
3000	T	Porcelain 300-ohm nail-in standoff	.13
3090	U	1½" x ¾" dia. porcelain strain insulator	.14
3100	U	1" x 2" dia. porcelain strain insulator	.17
3110	V	4" UHF porcelain lead-in tube fits ¾" hole	.30
3120	V	Same, but 6" long	.31
3130	V	Same, but 8" long	.39
3130	V	Same, but 8" long	.39
3040	W	4" VHF porcelain lead-in tube for ¾" hole	.30
3060	W	Same, but 6" long	.31
3080	W	Same, but 8" long	.39
1771	X	Fiber-head wiring tack, box of 100	.60
1690	Y	TV fuse clip, insulation covered	.15
1603	Z	DPDT high-low antenna knife switch	.42

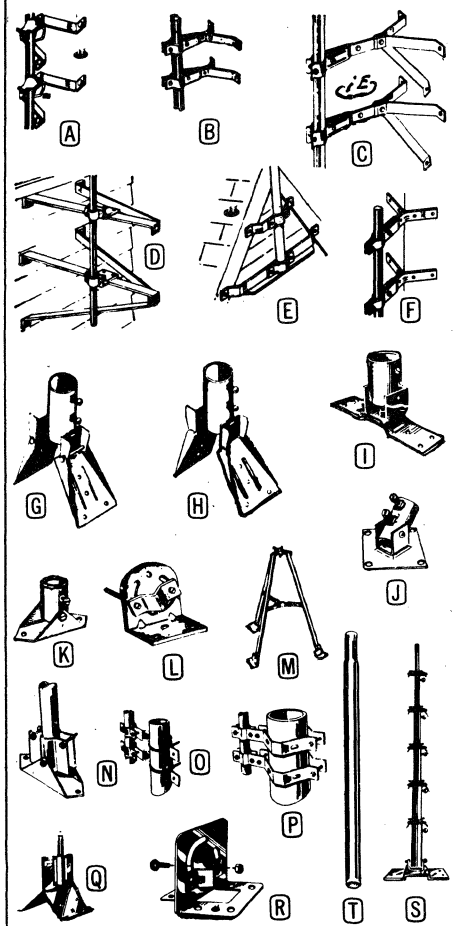
LIGHTNING ARRESTERS

IE Model 4000 (Fig. A)—Multi-purpose design has perfect electrical path for all lead-ins. Quick, easy installation indoors or outdoors without wire stripping. Long teeth insure positive contact. Compact, sturdy construction; U/L approved. Net Each..... **63c**

IE Model 4005—Same but with strap. Net **75c**

IE Model 4001 (Fig. B)—Low cost unit takes hollow, oval, open or flat line. Mounts on wall or pipe. Net Each..... **45c**

WALL AND EAVE MOUNTS
TELESCOPING MASTS ANTENNA MAST



WALL AND EAVE MOUNTS

DE LUXE UTILITY MOUNT (FIG. A)

Heavy gauge steel 1¼" wide, zinc plated for long life. Heavy clamp fastens with U-bolts. Permits quick installations of masts to 1¼" diameter.

IE Model 1422—Has 2¼" clearance. Net Each..... **74c**
IE Model 1440—Has 4" clearance. Net Each..... **$1.02**
IE Model 1421—Economy 4" special made of 1" wide steel. Has 2¼" clearance. Net Each..... **45c**
IE Model 1441—4" clearance, 1" wide steel. Net Each..... **48c**

SNAP-ON WALL MOUNT (FIG. B)

Sturdy steel mount for quick installation. Kit includes two brackets and hardware. Holds masts to 1⅞" dia. **$1.20**
IE Model 1460—6" wall mount. Net Each.....
IE Model 1480—8" wall mount. Net Each..... **$1.96**

DE LUXE SNAP-ON WALL MOUNT (FIG. C)

Preassembled for fast installation; has 16" spread to fit 2 x 4 joists. Heavy gauge steel is zinc plated. Takes masts to 2¾" dia. Third leg for added support. **$2.45**
IE Model 1430—13½" mount. Net Each.....
IE Model 2180—18" mount. Net Each..... **$3.16**
IE Model 2240—24" mount. Net Each..... **4.17**

ADJUSTABLE WALL MOUNT (FIG. D)

For difficult overhanging situations; permits 1" to 20" wall clearance. Rugged ⅛" steel is zinc plated. Extra leg for firm support. Preassembled design takes masts to 1⅞" dia. **$3.75**
IE Model 1450—Net Each.....

EAVE MOUNT (FIG. E)

Simple, long lasting mast support at eaves where roof-peak installation is desired. Rugged heavy gauge steel with carriage bolts holds masts to 1⅞" dia. **$1.74**
IE Model 1469—For 25" eaves. Net Each.....
IE Model 1470—For 30" eaves. Net Each..... **$2.37**
IE Model 1471—For 36" eaves. Net Each..... **2.97**
IE Model 1472—For 48" eaves. Net Each..... **3.30**
IE Model 1473—For 60" eaves. Net Each..... **4.77**

CHICAGO, ILLINOIS

Net

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iE® TV Mounting Accessories

CORNER WALL MOUNT (FIG. F)
Mounts quickly on any corner, wood or brick. Snap-on type for masts to 1⅞" dia. With hardware.
iE Model 1420—Net Each **$1.56**

ROOF MOUNTS

HINGE TYPE RIDGE MOUNT (FIG. G)
Popular design adjustable for flat roofs, walls or peak roofs of any slope. Permits one-man swing-up installation.
iE Model 1090—For masts to 1½" dia. Net Each **$1.10**
iE Model 1091—For masts to 2" dia. Net Each **$1.38**

UNIVERSAL RIDGE MOUNT (FIG. H)
Assembled design for flat, or peaked roofs and walls. One man swing-up installation. Mast locks in place.
iE Model 1095—For masts to 1½" dia. Net Each **$1.00**
iE Model 1096—For masts to 2" dia. Net Each **$1.26**

HEAVY-DUTY SWIVEL BASE (FIG. I)
Mounts on roof ridge or flat surfaces easily. Permits swiveling mast to assure best reception; locks into position.
iE Model 1110—For masts to 2¾" dia. Net Each **$1.70**
iE Model 1120—Less tube, for masts to 2¾" dia. Net Ea. **$1.13**

PULL-UP BASE (FIG. J)
Can be used on slanted or flat roofs. Heavy duty construction for mast installation up to 30 ft.
iE Model 1114—For masts to 1½" dia. Net Each **$1.00**
iE Model 1115—For masts to 2" dia. Net Each **$1.50**

ECONOM-iE SWING-UP BASE MOUNT (FIG. K)
Economy design with permanent nut in tube to hold securely masts up to 1½" dia.
iE Model 1121—Net Each ..... **45¢**

RIBBED MAST BASES (FIG. L)
Special slot arrangement permits "walk up" of mast; accommodates masts to 1⅜" dia. Complete with installation hardware.
iE Model 1560—Net Each ..... **33¢**
iE Model 1550—Similar to above but with extra screw holes instead of slots. Can also be mounted at any angle. Net Each ..... **33¢**

TRIPOD MOUNT (FIG. M)
Angle iron construction opens and closes like an umbrella. Has flexible grippers to fit roof of any slope. Legs adjustable to 32" center. Fully assembled, riveted construction. Takes 1¾" masts.
iE Model 2702—2 ft. mount. Net Each **$2.93**
iE Model 2703—3 ft. mount. Net Each ..... **$ 3.93**
iE Model 2705—5 ft. mount. Net Each **6.83**
iE Model 2710—10 ft. mount. Net Each **17.00**

ECONOM-iE ANGLE BASE MOUNT (FIG. N)
For small installations, 5 to 10 ft. high. Accommodates masts to 1¼" dia. Clamp type. Zinc plated, heavy gauge steel.
iE Model 1123—Net Each ..... **37¢**

DE LUXE ANGLE BASE MOUNT
Similar to Fig. K, designed for flat or slanted roofs of any pitch. Tilts 180°. Heavy gauge steel is zinc plated.
iE Model 1127—For 1½" masts. Net Each ..... **86¢**
iE Model 1128—For 2" masts. Net Each **$1.04**

VENT PIPE MOUNT (FIG. O)
Features special U-bolt for holding vent pipes up to 2" dia. Simple, quick installation. Extra-strudy construction. Plated to withstand any weather condition.
iE Model 1405—Net Each **$1.13**

VENT PIPE MOUNT (FIG. P)
Quickly, simply attaches to any vent or round object. Adjustable bracket permits fitting to pipes 4" to 6" in diameter. Positive clamp action.
iE Model 1406—Net Each **$1.43**

UNIVERSAL MOUNT (FIG. Q)
Fits ridge roofs, chimneys and corners. Adjustable clamp mounts masts to either of two positions; takes masts to 1⅜" dia. Zinc plated steel construction. Complete with mast clamp and hardware.
iE Model 1540—Net Each **$1.55**

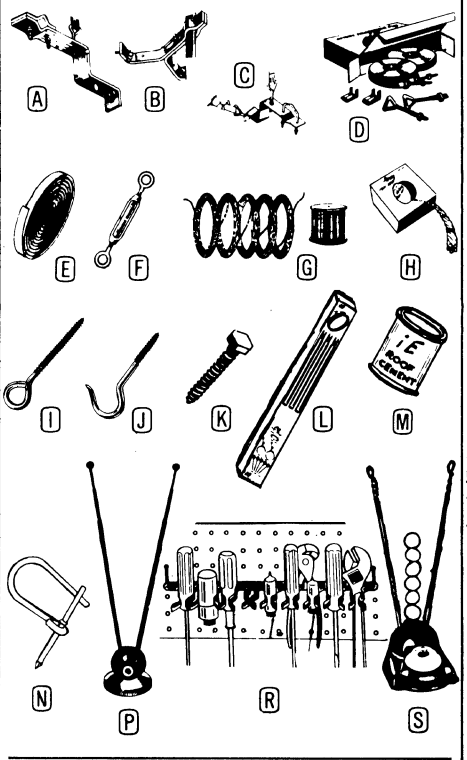
JUMBO UNIVERSAL RIDGE MOUNT (FIG. R)
Heavy duty base for large masts and telescoping towers up to 2¾" dia. Permits "walk-up" erection. Non-twisting clamp and carriage bolts for sure safety; one-hand installation.
iE Model 1080—Net Each **$1.28**

ANTENNA MAST (FIG. S)
High carbon steel, hot dip galvanized inside and out for positive weather protection. Swaged end for positive lock.

Dia., In.	Gauge	5 Ft. Length iE No.	5 Ft. Length Net Each	10 Ft. Length iE No.	10 Ft. Length Net Each
1¼	16	2635	$1.25	2636	$2.35
1½	16			2637	2.50
1¾	18	2633	1.18	2634	1.95
1¾	20	2625	.89	2626	1.65

TELESCOPING MASTS (FIG. T)
Completely assembled with all hardware. High carbon steel is hot dip galvanized inside and out.

iE No.	Mast Lgth.	Description	Wt., Lbs.	Net Each
2822	20′	18 ga. telescoping mast	16	$ 4.30
2832	30′	18 ga. telescoping mast	23	8.00
2842	40′	18 ga. telescoping mast	31	10.50
2852	50′	18 ga. telescoping mast	41	14.00
2522	20′	16 ga. telescoping mast	19	8.50
2532	30′	16 ga. telescoping mast	28	9.70
2542	40′	16 ga. telescoping mast	31	13.00
2552	50′	16 ga. telescoping mast	50	17.00
1120	Base for any of above; add to Net			1.13



CHIMNEY MOUNTS

DELUXE "Z" TYPE (FIG. A)
Supports masts to 1⅜" dia. Longest made; 9¼" long, 1⅜" wide, using ⅛" steel. Ribbed construction prevents vibration; improves reception. Gussets prevent bending and loosening when triangle eyebolts are tightened. Complete with triangle eye bolt, factory assembled with strapping.

Strapping	With Galvanized Strap iE No.	With Galvanized Strap Net Each	With Stainless Strap iE No.	With Stainless Strap Net Each
24′ x ¾" w.	1060	$1.44	1065	$2.25
20′ x ¾" w.	1060-SP	1.35	1065-SP	1.95
36′ x ¾" w.	1060-XL	2.28	1065-XL	2.80

SNAP-ON CHIMNEY MOUNT (FIG. B)
Designed for the most rapid assembly possible; requires no special tools; just snap brackets onto chimney and snap-on mast. Brackets are made of heavy gauge steel; support masts to 1⅜" dia. Angle gussets prevent bending and loosening when assembled. Ribbed design prevents vibration; improves reception. Solid rivet construction. 9" long. Supplied complete with strapping. Factory assembled, strapping to eyebolts at one end; two brackets and hardware.

Strapping	With Galvanized Strap iE No.	With Galvanized Strap Net Each	With Stainless Strap iE No.	With Stainless Strap Net Each
24′ x ¾" w.	1070	$1.89	1075	$2.55
20′ x ¾" w.	1070-SP	1.68	1075-SP	2.26
36′ x ¾" w.	1070-XL	2.40	1075-XL	3.32

ECONOM-iE CHIMNEY MOUNT (FIG. C)
Supports masts up to 1¼" dia. Comes factory assembled with two U-bolts and strapping (¾" wide). Individually boxed.
iE No. 1061—With 20′ galvanized strapping. Net Each **$1.32**
iE No. 1062—With 20′ stainless strapping. Net Each **$1.65**
iE No. 1063—With 24′ stainless strapping. Net Each **2.04**

CHIMNEY STRAPPING REPAIR KIT (FIG. D)
Handy replacement kit for defective or worn-out strapping. Includes four eye-bolts, two clips, four nuts and 24 ft. of strapping. Eye bolts are factory assembled on ends.
iE No. 1645—With galvanized strapping. Net Each ..... **85¢**
iE No. 1646—With stainless strapping. Net Each **$1.65**

STEEL STRAPPING (FIG. E)
Available in galvanized, stainless steel or perforated, zinc-plated types. Strong and flexible. Weather resistant. Perforated type has ¼" holes, zinc-plated to resist rust.

Type	12-ft. Coils iE No.	12-ft. Coils Net Each	100-ft. Coils iE No.	100-ft. Coils Net Each
Perforated	1610	$0.43	1620	$2.83
Galvanized	1640	.55	1630	2.60
Stainless	1641	.58	1631	4.85

MISCELLANEOUS HARDWARE

HEAVY-DUTY, GALVANIZED TURNBUCKLES (FIG. F)

iE No.	Size, Inches Closed	Size, Inches Open	Take-up, Inches	Bolt Size	Net Each
3330	3⅜	4⅝	1¼	¼"	12c
3400	4	5⅝	1⅝	⅜"	13c
3450	4½	6⅜	1⅞	7/16"	14c
3550	5½	7⅝	2⅛	½"	18c
3630	6¾	9¼	2½	5/8"	30c
3750	7½	10½	3	¾"	44c

STEEL STRANDED GUY WIRE (FIG. G)
Heavily galvanized TV guy wire in non-tangling coils.

iE No.	Wire Strand	Wire Size	Length and Put-Up	Net Per 1000 Ft.
4600L	4	#20	50′ connecting	$4.50
4600M	4	#20	1000′ spool	4.50
4601L	6	#20	50′ connecting	5.65
4601M	6	#20	1000′ spool	5.65
4602L	6	#18	50′ connecting	8.50
4602M	6	#18	1000′ spool	8.50

TEN-SPOT FLAT PACK GUY WIRE (FIG. H)
Handy package keeps wire clean and free from tangling; can't roll away. Neat package of 1000 ft. marked in red every 10 ft. Six strands, #20.
iE No. 4601T—Net Each **$5.65**

ALUMINUM GROUND WIRE (FIG. G)
Uncoated; pliable and easy to use for grounding mast from lightning and electrical disturbances. Diameter, ⅛".

iE No.	Description	Net Each	iE No.	Description	Net Each
4604	50′ coil	$0.84	4606	500′ coil	$ 7.50
4605	100′ coil	1.68	4607	1000′ spool	13.80

SCREW EYES (FIG. I) AND HOOKS (FIG. J)

Screw Eyes iE No.	Long	Wire Dia.	Eye Dia.	Net Each	Screw Hooks iE No.	Long	Wire Dia.	Opening	Net Each
4902	2"	7/64"	7/32"	3c	4916	3½"	7/32"	17/32"	4c
4901	3"	7/64"	7/32"	4c	4914	4"	1/4"	13/16"	6c
4903	3½"	1/4"	3/8"	6c	4912	4½"	9/32"	15/16"	8c
4904	5"	1/4"	3/8"	7c	4910	5"	5/16"	1¼"	10c
4907	7"	1/4"	3/8"	11c					
4905	5"	5/16"	1"	10c					

HEX HEAD LAG SCREWS (FIG. K)
Fit standard socket and speed wrenches for fast assembly; zinc-plated.

iE No.	Size, Inches Dia. x Long	Net Each	iE No.	Size, Inches Dia. x Long	Net Each
4810H	¼ x 1	3c	4813H	¼ x 3	6c
4811H	¼ x 1½	4c	4819H	5/16 x 3	8c
4812H	¼ x 2	5c			

ANTENNA INSTALLATION KIT (FIG. L)
Complete accessory kit for TV antenna installation. Quick and easy to use. All steel parts are galvanized. Includes: Three 3′ mast sections; two mast standoffs; five wood screw standoffs; 20 ft. aluminum ground wire; a lightning arrester; and, 100 ft. 300-ohm twin lead. Single carton package is parcel post size.
iE Model 6307 Installation Kit—Net Each **$3.25**

ROOF CEMENT (FIG. M)
Seals holes and cracks; prevents rusting around screws and fitting of antenna installations.
iE Model 6738—Pint can. Net Each ..... **70¢**

DRIVE RINGS (FIG. N)
Fastens wire the easy, fast way. For communication systems, phone, doorbell, outdoor lighting, extension cords, etc. Galvanized to prevent rust and corrosion.

iE No.	Ring Size	Capacity	Net Per 100
05	⅜"	16 jacketed drop wires	$2.68
04	⅝"	6 jacketed drop wires	1.78
01	½"		1.08

INDOOR ANTENNAS

INDOOR VHF MODEL 6020 (FIG. P)
Eight-ball type. Mahogany base with 3-section telescoping aluminum dipoles. Ratchet grip locks dipoles in any position. Tip-proof. Complete with 300-ohm lead-in with lugs on end.
iE Model 6020—Net Each **$1.42**

TOOL AND TUBE HOLDER (FIG. R)
For displaying tools on peg board. Use in Lab., Shop, Home and Technician use. Bright nickel-plated. Holds tools under spring pressure. Used for holding tubes, prevents bent pins that occur when tubes are laid down. Can be used as a stamp rack.
iE No. 4332—TOOL & TUBE HOLDER for peg board. Each ..... **.60¢**
iE No. 4333—TOOL & TUBE HOLDER with 2 wood screws and holes in tool holder for wall mounting. Net Each ..... **.60¢**

SIX-POSITION SWITCH ANTENNA (FIG. S)
Designed for clean reception of UHF, VHF and color TV. Fully assembled with twin lead. Can not tip. Covers all channels, 2 to 83. Handy, 6-position switch selects maximum signal pick-up on every channel. Mahogany finish base.
iE Model 6008—Aluminum dipoles. Net Each **$5.80**
iE Model 6007—Chrome-plated dipoles. Net Each **$6.50**

iE® CHICAGO, ILLINOIS

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JONTZ MFG. CO.

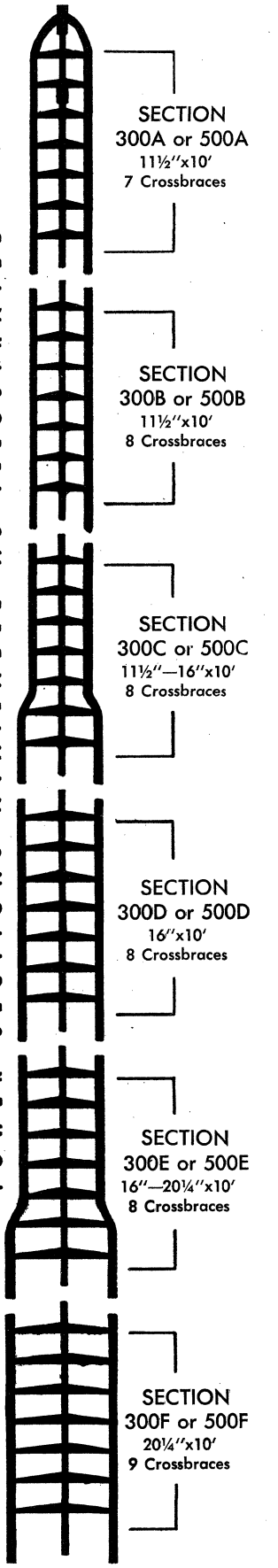
MISHAWAKA, INDIANA

SELF-SUPPORTING

Super Kwick-Climb

TOWERS

SELF-SUPPORTING UP TO 60 FEET HIGH
ECONOMY OR HEAVY-DUTY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING



With these two Jontz Tower models you can fill any tower needs . . . from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. Heavy Duty Model No. 500 will withstand hurricane force winds having been **tested** at wind loads of 80 mph.

Both models are self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 400 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

The towers are fabricated in 10'0" sections and can be erected in one-piece or by sections. Model 300 is fabricated from 1¼" x 18 ga. tubular uprights with ⅛" x 1¼" corrugated cross-braces; Model 500 from 1¼" x 16 ga. tubular uprights with 1¼" x 16 ga. tubular cross-braces. Sections are zinc electroplated and dipped in clear Butyrate lacquer. **(Model 300 also available galvanized.)** These sections are locked together with two self-locking ⅜" bolts in each leg. The splined bolts allow the threaded section to be inserted without damage and prevent the hole from stretching when the tower moves in the wind.

HOW TO ORDER

1. Specify if to be mounted in concrete or drive-in base.
2. Order by specific sections, starting at the base. See illustration for section numbers.
3. If Model 300 is wanted with galvanized finish be sure to specify.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of sections A, C, D, E and 2 F's.)

ECONOMY MODEL NO. 300

Size	Ship. Wt.
40'0"	130 lbs.
50'0"	172 lbs.
60'0"	214 lbs.
70'0"	244 lbs.
80'0"	286 lbs.

HEAVY-DUTY MODEL NO. 500

Size	Ship. Wt.
40'0"	154 lbs.
50'0"	205 lbs.
60'0"	256 lbs.
70'0"	294 lbs.
80'0"	345 lbs.

Add 15 lbs. per Tower for hardware.
Add approximately 3 lbs. per section—galvanized.

HEAVY DUTY DRIVE-IN BASE

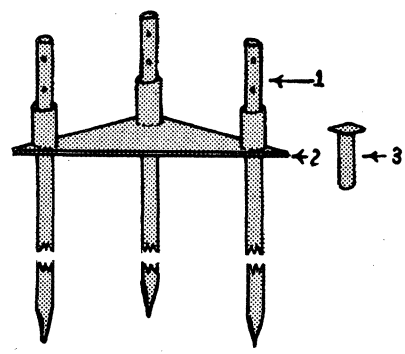
For Jontz self-supporting towers

Specifications:

1—Drive-in legs: 1¼" x 16 gauge x 36"

2—Base plate: 18" triangle x 11 gauge for 40' towers—22" triangle for towers 50' or higher —state tower height

3—Driving cap: 2" x 1¼" to drive individual legs.



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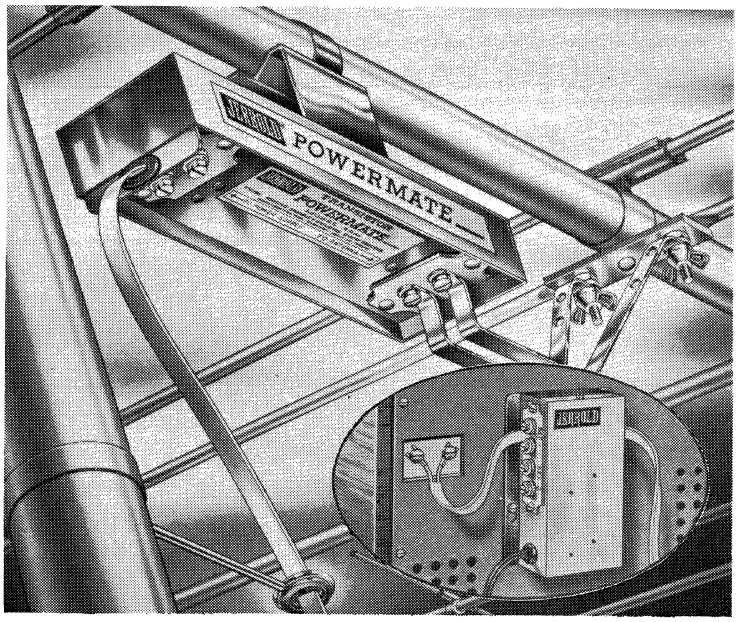
JERROLD®

TV RECEPTION AIDS FOR THE HOME

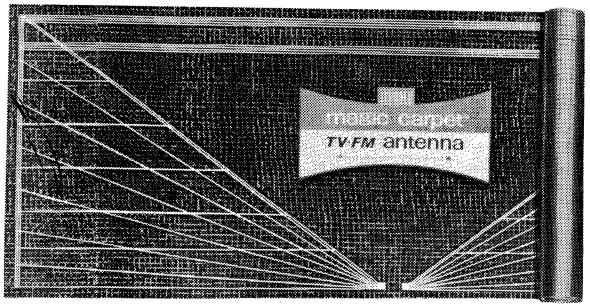
NEW TRANSISTOR PREAMPLIFIER POWERMATE MODEL APM-101



Jerrold's POWERMATE is a transistorized TV-FM preamplifier with exceptional high gain and excellent noise figure, far better than any single-tube or transistor amplifier in its class on the market. Ideal for fringe and weak signal areas, it works with any TV-FM antenna new or already installed, does away with tube replacements, needs no batteries and is fed from a remote power supply consuming only 3 watts (less than an electric clock). Compact, light-weight construction permits mounting directly on antenna boom for maximum transfer of antenna energy. The aluminum case is weatherproof and serves as a shield against spurious signal interference. "No-strip sure-contact" terminals allow quick efficient hookup to antenna and receiver. Model APM-101 has dual outputs to feed two TV and/or FM sets, with Jerrold MF-type multi-couplers will feed up to five sets. Shipping weight 2 lbs. **$26.63 Net**

JERROLD MAGIC CARPET* ANTENNA

THE INDOOR ANTENNA WITH OUTDOOR PERFORMANCE



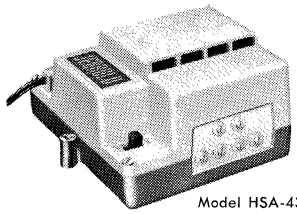
MODEL MK-1

This new antenna by Jerrold is the first full-scale printed-circuit antenna. Truly a "Magic Carpet" carrying quality TV/FM signals to receivers in the home, the MK-1 is easily installed (lay it on any flat, horizontal surface in the attic, under a rug, or staple to a ceiling) and simple to orientate (shift its position for best reception). Ideal for use with the Jerrold Amplified TV/FM Home System, the Magic Carpet eliminates the unsightliness and maintenance costs of outdoor antennas. When properly installed, the Magic Carpet provides reception comparable to an outdoor, conical-type antenna mounted in the same location. This means that the MK-1 will provide excellent reception of TV stations within a 30-mile radius and of FM stations within a much greater radius. The antenna is shipped complete with 6 plastic strap insulators (Model HS-36) and 25 feet of twin-lead for attachment to a home amplifier or to a TV receiver. Shipping Weight — 1¾ lbs.

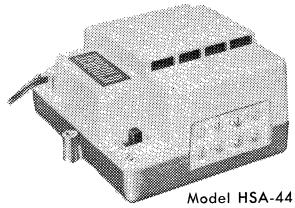
$5.97 Net

*Trademark Patent Pending

NEW TV/FM AMPLIFIED COUPLERS



Model HSA-43



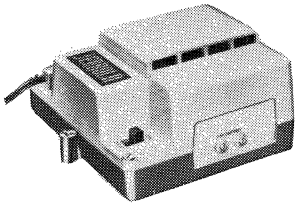
Model HSA-44

Model HSA-43 (For 3 Sets) The new JERROLD amplified 3-set coupler, Model HSA-43, employs a single 6DJ8 tube to provide 5 db minimum gain from two outlets and unity gain from the other. It is ideal for operating 2 TV and 1 FM receivers from a common antenna. The HSA-43 amplified coupler operates on an input as low as 100 microvolts and has an excellent noise figure. The input and output impedance of 300 ohms permit the use of twin-lead in installation. This compact (4½" x 4½" x 3") rugged unit is powered from 117 V 60 cycle ac, consumes only 10 watts and incorporates "no-strip" twin-lead terminals.
Shipping weight — 1¼ lbs. UL Approved. **$17.95 Net**

Model HSA-44 (For 4 Sets) Similar to the HSA-43 but serves up to four TV/FM sets with a minimum of 1½ db gain at each output.
$18.95 Net

Note: Where desired, use Jerrold's no-strip twin-lead outlets to create convenient plug-in locations.

FM RANGE EXTENDER MODEL FMX



Jerrold's latest FM preamplifier Model FMX has been especially designed with a high gain of 20 db minimum over the entire FM band, while eliminating unwanted background noise and drifting. A frame-grid tube (6DJ8), printed circuitry, and built-in power supply provide stable top performance and long life. Model FMX brings in many more FM stations, makes even inexpensive FM tuners and receivers sound like "a million." It is ideally suited for FM Multiplex reception, will increase to 46 miles the ordinary reception range of 23 miles from FM Multiplex transmitters. With Jerrold MF-type multi-couplers this powerful preamp will feed two, three or four FM sets. Housed in an appealing light-alloy case and equippped with "no-strip" twin lead connectors, Model FMX can be quickly installed anywhere in the home between antenna and receiver. Shipping weight 1¼ lbs. **$18.95 Net**

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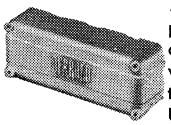
Net

JERROLD® TV RECEPTION AIDS

MULTI-SET TV/FM COUPLERS



Jerrold Multi-Set Couplers provide the best method of connecting 2, 3 or 4 television and/or FM receivers to a common antenna array. Units feature positive matching, extremely low forward loss and high isolation. All models equipped with "No-Strip" serrated washers which bite into twin-lead to make positive, permanent connections.

(Each unit packed with special bracket, for outdoor mounting, and necessary hardware.)
*Best for UHF

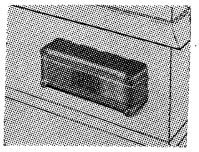
MODEL M-2* TWO SET COUPLER FOR STRONG SIGNAL AREAS—inductively compensated with emphasis on positive matching for reduction of ghosting and smear. Color: blue grey. **$2.10 Net**

MODEL MF-2 TWO SET COUPLER FOR FRINGE AREAS—for use wherever extremely low forward losses are mandatory. Featuring a highly efficient transformer design and positive matching. Provides complete isolation between receivers. Color: ivory. **$2.70 Net**

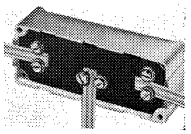
MODEL MF-4 FOUR SET COUPLER FOR ALL AREAS—designed with the same basic circuit as MF-2, but for use in feeding 3 or 4 sets from one antenna. Color: ivory. **$3.45 Net**

MODEL TX-FM SPECIAL TV-FM COUPLER

Splits TV and FM signals frequency-wise and without loss to either signal from a common antenna. Gives complete isolation between TV and FM sets. **$3.57 Net**

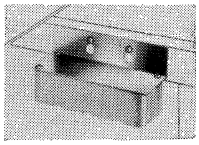


Baseboard

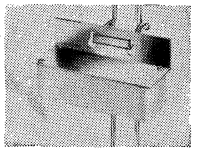


Attic & Basement

INDOOR MOUNTING—on the baseboard for a neat and attractive appearance, with connectors concealed and protected. For attic or basement use, the unit mounts with terminals exposed for ease of servicing.



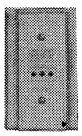
Outside



Mast

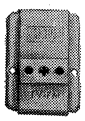
OUTDOOR MOUNTING—a bracket is supplied for strapping to antenna mast. The unit is weather resistant.

JERROLD'S AMPLIFIED TV-FM HOME SYSTEM

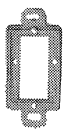


FLUSH MOUNTING OUTLET ASSEMBLY WITH PLUG
Model HS-140
Contains all items for flush mounting. One HS-21, one HS-22, one HS-23 and one HS-24. **$1.65 Net**

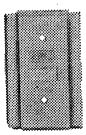
MODEL HS-140-J
Same as HS-140 but without isolating resistors. **$1.50 Net**



HOME OUTLET
Model HS-21
An efficient press-on tap unit for surface or flush-mounting (with HS-22 and HS-23). Provides 10 db isolation between receiver and 300-ohm line. **$.87 Net**



MOUNTING RING
Model HS-22
Plastic bracket used to adapt HS-21 for flush mounting in standard plas- **$.18 Net**

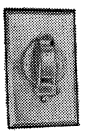


COVER PLATE
Model HS-23
Ivory cover plate to cover the outlet in flush-mounting applications. **$.30 Net**

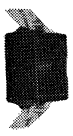
PRESS-ON PLUG
Model HS-24
Male plug for simple attachment to 300-ohm twin-lead. No soldering. Inserts into HS-21 outlet **$.30 Net**

SURFACE MOUNTING OUTLET ASSEMBLY WITH PLUG
Model HS-135
Contains all items for surface mounting. One HS-21 and one HS-24. **$1.17 Net**

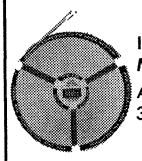
TWIN-LEAD INSULATORS
Model HS-36
Plastic insulators for attaching twin-lead throughout the home. **$1.08/24 Net**



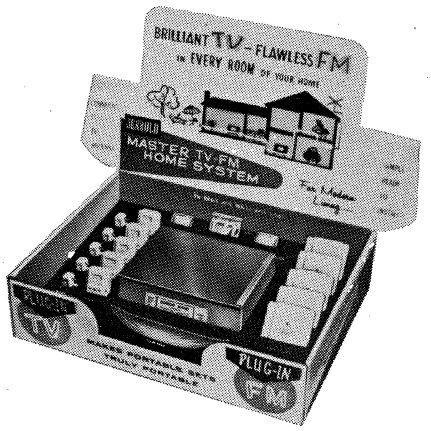
OUTDOOR COVER PLATE
Model HS-37
Weather-proof flush-outlet plate. **$1.13 Net**



OUTLET BOX
Model HS-50
Non-metallic outlet box for new construction. **$.30 Net**

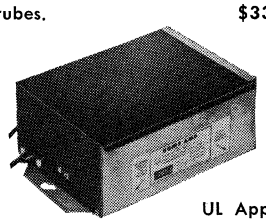


IVORY TWIN-LEAD
Model IV-300
A convenient 100' coil of ivory, 300-ohm twin-lead. **$1.89 Net**



HOME SYSTEM KIT
Model HSK-300
Contains all items necessary (except antenna) for a complete installation in either new construction or existing buildings. Contains one HSA-46, five HS-140, twelve HS-36, and 100' of twin-lead. **$43.98 Net**

HOME AMPLIFIER
Model HSA-46
A printed circuit amplifier with a low-noise input. Response is flat, ±1.5 db over TV and FM band. Gain is a minimum of 15 db. Output capabilities permit input signals as high as 30,000 microvolts without overload. Input and output matched to 300 ohms. Utilizes two 6BK7-A tubes. **$33.30 Net**



UL Approved

ALL JERROLD EQUIPMENT DESIGNED FOR COLOR

Net

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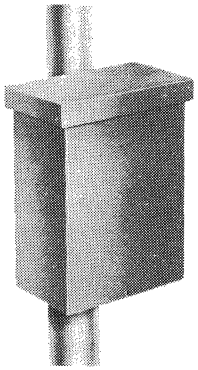
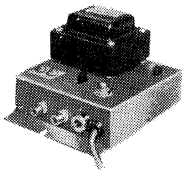
FOR THE HOME

"DE-SNOWER" PREAMPLIFIERS



Mast-Mounted "De-Snower" Model DSA-202 with Remote Power Supply

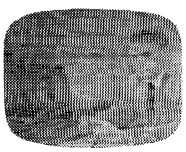


JERROLD "De-Snower" preamplifiers provide the high gain and low noise figure necessary to deliver "snow-free" TV pictures and "hiss-free" FM sound to your TV/FM receiver. These mast-mounted units bring your TV/FM tuner to the antenna to take full advantage of extremely weak signals by overcoming noise pick-up and antenna lead-in losses.

Each "De-Snower" is shipped with a remote power supply (to be placed at any easily-accessible location) which provides low-voltage ac power to the preamplifier and acts as a feed-thru for amplified signal from the pre-amplifier to the receiver. Only one cable is necessary to carry ac power up to and amplified signal down from the preamplifier to the power supply.

"De-Snower" preamplifiers will improve color TV reception and boost TV/FM signal strengths in al fringe areas. See SPECIFICATIONS chart to determine which model is best suited for your particular needs.

"TRAP-EASE"
TUNABLE INTERFERENCE TRAPS



BEFORE

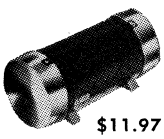
AFTER

Eliminate adjacent channel interference, permit reception of weak, distant stations normally blocked by a strong local channel.

"TRAP-EASE" KNOCKS OUT ADJACENT CHANNEL INTERFERENCE. This tunable "deep notch" antenna trap (greater than 50 db) permits TV viewers to remove "beat" or "herringbone" patterns caused by adjacent channel sound or video carriers. Permits clear reception of even weak distant stations.

Works with any TV receiver and any 300 ohm antenna that would normally bring in pictures from the distant stations if the interfering adjacent channel was not on the air. Does not affect reception of regularly viewed channels.

TWO MODELS AVAILABLE



$11.97 Net

LOW TRAP-EASE (Model HQ-91) covers Channels 2 to 6.

HIGH TRAP-EASE (Model HQ-92) covers Channels 7 to 13

SPECIFICATIONS FOR "DE-SNOWER" PREAMPLIFIERS

PREAMPLIFIER MODELS	ALL BAND PLUS FM DSA-202	ALL BAND DSA-132	SINGLE CHANNEL DSA-*	FM ONLY DSA-FM
BANDWIDTH	54-108 mc, 174-216 mc	54-88 mc. 174-216 mc	6 mc any TV ch.	88-108 mc
GAIN-TV BAND	20 db min.	25 db min.	28 db any TV ch.	NA
GAIN-FM BAND	20 db 88-98 mc. 8 db min. at 108 mc	NA	NA	25 db min.
FREQUENCY RESP.	1½ db max. peak to valley	1 db max. peak to valley	½ db max. peak to valley	1 db max. peak to valley
NOISE FIGURE	4.5 db max. lo-ch. 6 db max. hi-ch.	6.5 db max. lo-ch. 8.5 db max. hi-ch.	6 db max. lo-ch. 7.5 db max. hi-ch.	NA
MAXIMUM INPUT	17,000 microvolts pr. ch./3 lo chs. 11,000 microvolts pr. ch./4 hi channels	5,500 microvolts	40,000 microvolts	NA
MAXIMUM OUTPUT AT 300 OHMS	.17 v/pr. ch. at each of 3 ch. lo .11 v/pr. ch. at each of 4 ch. hi	0.2 v/pr. ch. at each of 7 ch.	1.2 v rms lo 1.0 v rms hi	0.5 rms.
MAXIMUM OUTPUT AT 75 OHMS	.085 v/pr. ch. at each of 3 ch. lo. .055 v/pr. ch. at each of 4 ch. hi.	0.1 v/pr. ch. at each of 7 ch.	0.6 v rms lo 0.5 v rms hi	NA
INPUT IMPEDANCE	300 ohms			
OUTPUT IMPEDANCE	75 or 300 ohms			
TUBE COMPLEMENT	(2) 6DJ8	(3) 6BQ7-A (1) 6CB6 (1) 6AK5	Lo-band (1) 6BQ7-A (1) 6CB6 Hi-band (1) 6BQ7-A (1) 6AK5	(1) 6BQ7-A (1) 6CB6
FINISH	Iridite			
DIMENSIONS	4"x8½"x4"	5"x10¼"x 7¼"	2½"x5"x 10¼"	2½"x5"x 10¼"
POWER SUPPLY	407-P	405-P		
INPUT	117 V 60 cycle ac			
OUTPUT VOLTAGE	22-27 volts	24-32 volts		
POWER CONSUMPTION	25 watts	50 watts	30 watts	30 watts
DIMENSIONS	3½"x3½"x 6½"	2⅞"x6¾"x 5⅛"		
SHIPPING WEIGHT	5½ lbs.	12¾ lbs.	8¼ lbs.	8¼ lbs.
ACCESSORIES FURN. (All Models)	(3) F-59 Cable fittings, mounting screws for power supply, mast clamp and strap			
NET PRICE	$53.97	$71.70	$59.70	$59.70

NA = Not Applicable *Specify channel

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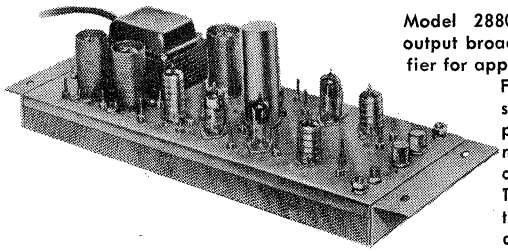
Net

JERROLD® TV DISTRIBUTION SYSTEMS

as simple as A-B-C

A AMPLIFYING

NEW JERROLD DISTRIBUTION AMPLIFIER MODEL 2880



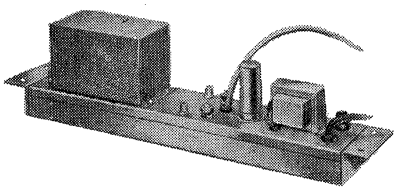
Model 2880 is a high-output broad-band amplifier for application in TV-FM distribution systems. Incorporating the newly developed Jerrold TJ-880 tube, this amplifier delivers a full 1 volt on both low and high band channels, at a minimum gain of 45 db. The unit is equipped with manual gain control and a receptacle for connecting the new automatic overload control Model OC-238. Model 2880 has an extended band-width that provides amplification of FM as well as TV. It is the ideal amplifier for distribution systems in apartment buildings, hotels, schools, hospitals and similar installations requiring extra long cable runs.

Shipping weight 16 lbs. **$178.80 Net**

SPECIFICATIONS

	Low Band	High Band
Gain:	45 db	45 db
Bandwidth:	54-92 mc	174 to 216 mc
Frequency Response:	± ¾ db	± ¾ db
Rated Output for ½ % Intermodulation Distortion:	+60 dbj with 3 ch. in	+60 dbj with 3 ch. in
Input:	75 ohm, single terminal	1.5 max. V.S.W.R.
Output:	75 ohm, single terminal, to work into 75 ohm load	
Tilt of Response in Factory Alignment:	For 950' of RG-11 type cable	
Gain Control, Manual:	16 db	16 db
Equalization:	Plug-in Attenuators, Model PIP, used to provide low band equalization on long runs.	
Power Requirements:	105 watts, 117 volts, 60 cycles A.C.	
Tube Complement:	(1) 6EH7, (2) 6EJ7, (2) 6ES8, (2) 12BY7A, (3) TJ-880	
Mounting:	19" relay rack or surface	
Dimensions:	Panel 19" x 7"	

NEW JERROLD AUTOMATIC OVERLOAD CONTROL MODEL OC-238



This new control unit has been especially designed for use with Model 2880 or Model 2300. Equipped with separate controls for the high and the low band, Model OC-238 permits setting the amplifier output at the optimum operational level. Once set, highest picture quality is maintained throughout the entire system regardless of fluctuations in signal strength. Model OC-238 is energized from the amplifier to which it is connected.

Shipping weight 6 lbs. **$112.80 Net**

SPECIFICATIONS

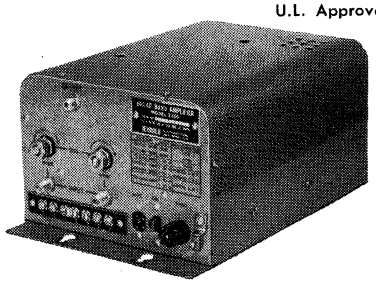
Gain requirement of Associated Amplifier:	35 to 50 db
Controlled Frequencies:	54 to 98 mc and 174 to 216 mc
Frequency Response:	±1½ db over stated range
Minimum Output Levels for Optimum Control per Band:	5 channels—40 dbj 3 channels—43 dbj 2 channels—46 dbj 1 channel —49 dbj
Maximum Output:	60 dbj
Input Impedance:	75 ohms at 1.2 max. V.S.W.R.
Output Impedance:	75 ohms at 1.2 max. V.S.W.R.
Insertion Loss:	0.5 db. max.
Gain Control:	Separate high and low band composite level adjustments
Power:	18 watts at 117 volts, 60 cycles A.C.
Mounting:	19" relay rack or surface
Dimensions:	Panel 19" x 3½"

THE JERROLD HIGH GAIN, HIGH OUTPUT TV DISTRIBUTION AMPLIFIER MODEL 2300

U.L. Approved

SPECIFICATIONS

Gain:	38 db min.
Gain Controls:	16 db range Hi and Lo bands.
Tilt Controls:	Hi and Lo bands.
Rated Output (Max.):	.3v/channel for 9 channel operation
Rated Input (Mox.):	26000 uv
Tube Complement:	4-6BQ7-A, 2-12BY7A, 1-6CB6.
Cable Fittings:	75 ohms — (3) F-61; 300 ohms — screw terminals
Fuses:	Primary — 1 amp.
Finish:	Gray hammertone.
Dimensions:	11" x 7¼" x 5¼"
Shipping Weight:	10 lbs.
Power Requirements:	117 volts AC .58 amps.; 63 watts



COVERS CHANNELS 2 TO 6 AND 7 TO 13
The Jerrold high gain, high output TV distribution amplifier for large motels, hotels, apartment buildings and "neighborhood cable" systems.

$107.70 Net

TECHNICAL DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE

Above units shipped complete with coaxial fittings and hardware.

ALL JERROLD EQUIPMENT DESIGNED FOR COLOR

Net

© U.C.P., Inc.

MODELS ABD-1, ABD-8 and 406A

Provide the key to superior television distribution for small economical systems. Combining latest cascode circuitry and superior mechanical design, these amplifiers deliver strong, snow-free pictures and keep installation costs to a minimum.

SPECIFICATIONS: MODEL ABD-1

COVERS CHANNELS 2 TO 6 and 7 TO 13

Gain: 25 db

Rated Output (Max.): 0.1 v/channel (7 channel operation)

Rated Input (Max.): 5500μv

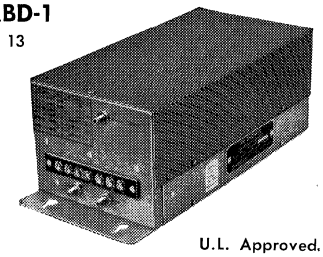
Noise Figure: 6 db low band, 7.5 db high band

Tube Complement: 3-6BQ7A, 1-6AK5, 1-6CB6

Cable Fittings: 75 ohms-(3) F-61; 300 ohms — screw terminals

Fuses: B+, 1/10 amp. Slo Blo; Pri. ½ amp. Slo Blo

Dimensions: 11" x 4" x 5"



U.L. Approved.

Shipping Weight: 7 lbs. 7 ozs.

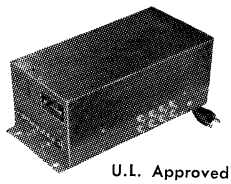
Power Requirements: 117 v AC, 50-60 cps, 35 Watts

Includes coax connectors **$65.67 Net**

SPECIFICATIONS: MODEL ABD-8

COVERS CHANNELS 2 TO 13

Same circuitry as ABD-1 except output circuit, which delivers 15 db gain to each of eight F-61 output terminals. No coax connectors supplied. **$65.67 Net**

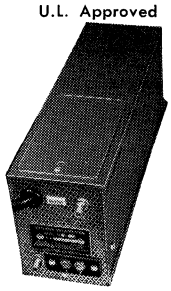


U.L. Approved

SPECIFICATIONS: MODEL 406A-*

U.L. Approved

COVERS ANY SINGLE CHANNEL FROM 2 TO 13



Gain: 28 db

Bandwidth: 6 mc. ±½ db

Rated Output (Max.): .6v RMS Lo band, .5 v RMS Hi band

Noise Figure: 6 db Lo band, 8 db Hi band

Tube Complement: Lo band, 1-6CB6, 1-6BQ7A; Hi band, 1-6BQ7A, 1-6AK5

* Specify channel desired

Housing: Gray hammertone finish

Dimensions: 3" x 4" x 10½" overall

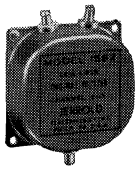
Shipping Weight: 4¼ lbs.

Power Consumption: 15 Watts

$41.97 Net
Includes coax connectors

B BRANCHING

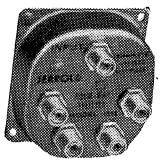
TWO-WAY SPLITTER Model 1562



Hybrid two way splitter with only 3 db forward loss in each leg. Isolation between outputs is 15-20 db. B-59 coax bushings do not require cable connectors.

$4.95 Net

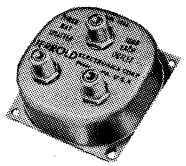
FOUR-WAY SPLITTER Model 1514



Four-way reactive splitter with only 6 db forward loss to each output. Isolation between outputs, 12 db. Complete with five F-59 cable connectors. (Unused outputs must be terminated with TR-72F terminating resistors.)

$8.70 Net

HYBRID DUAL SPLITTER MODEL 1582

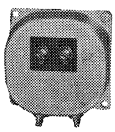


A low-loss, high-isolation, three-terminal directional coupler. VSWR 1.2 input, 1.3 output. JERROLD F-fittings for convenient cable connections. Connectors incl. **$7.50 Net**

C CONNECTING

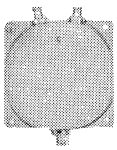
Connect the signal to TV receivers quickly and efficiently — using simple and rapidly installed Jerrold tap-off units. Designed for high isolation between receivers. Compensates for cable characteristics.

FOR INDOOR USE (Surface Mounting)



Model LT-310 — 300 ohm output
Taps RG-59/U line to 300 ohm receivers. Full AC isolation. B-59 coax bushings do not require cable connectors. Surface mounting, ivory radiation-proof steel case. Three color-coded attenuation values (specify R, Y or G). Terminate the last tap on feeder line with model TR-72B terminator.

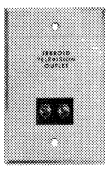
$3.00 Net



Model LT-77 — 75 ohm output
Taps RG-59/U line to 75 ohm receiver or to 300 ohm in direct pick-up locations. B-59 coax bushings do not require cable connectors. Surface mounting, ivory radiation-proof steel case. Three color-coded attenuation values (specify R, Y or G). Terminate the last tap on a feeder line with model TR-72B terminator.

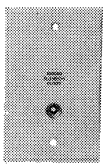
$3.00 Net

(Flush Mounting)



Model 1431 — 300 ohm output
Electrically identical to LT-310. Mounts in 2" x 4" electrical outlet box or 4" x 4" outlet box with single gang plaster ring. Specify R, Y or G. Terminate the last tap on a feeder line with model TR-72B terminator.

$3.00 Net



Model 1477 — 75 ohm output
Electrically identical to Model LT-77. Mounts in 2" x 4" electrical outlet box or 4" x 4" outlet box with single gang plaster ring. Specify R, Y or G. Complete with 75 ohm output plug. Terminate the last tap on a feeder line with model TR-72B terminator. Available in satin-finish stainless steel plate at slight additional cost. (min. order of 100)

$3.00 Net

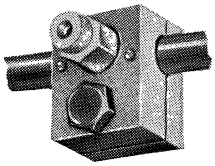
TECHNICAL DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE

LOOK TO JERROLD FOR AIDS TO BETTER TELEVIEWING

JERROLD®

CONNECTING

FOR OUTDOOR USE



Model PT 1461 — For RG-11/U

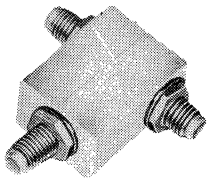
Pressure tap for RG-11/U type feeders. Surface mounting. Removable color coded isolation units. (Specify R, Y or GR.) Unique design minimizes shunt capacity. (Requires use of CD-11 Cutting Punch.) Complete with F-59 cable connector. Terminate the last tap on a feeder line with TR-72F terminator. (Use F101-59 cable adaptor.)

$4.50 Net

Model 1401 — For RG-59/U, RG-6/U

Surface mounting non-resistive line tap for RG-59/U type feeders. Color coded attenuation values permit use with highest gain amplifiers. Specify R, Y, GR. Complete with mounting bracket and three C-52 cable connectors. (Use C-56 connectors for RG-6 type feeders.) Terminate the last tap on a feeder line with TR-72 terminator.

$4.50 Net

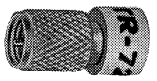


TERMINATORS

Model TR-72B

Inexpensive 75 ohm terminator for easy connection to B-59 type bushings.

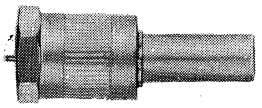
$.90 Net



Model TR-72

Close tolerance 75 ohm resistor for line or equipment termination. Mates with C-61, C-81 or C-5911.

$.90 Net



Model TR-72F

Similar to TR-72. Mates with F-61, F-81, A-61 or F-101-59.

$.90 Net

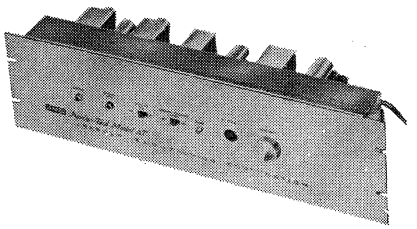
NEW DIMENSIONS IN TV SYSTEMS

NEW JERROLD AUDIOTROL MODEL AT-*

SPECIFICATIONS

RF Output:	Up to 55 dbj**, each carrier separately controlled at 75, at each of two outputs.
Frequency Stability:	Video carrier crystal controlled, sound carrier AFC controlled referenced to crystal.
Spurious Signals:	Down 50 db.
Frequency:	Any VHF TV channel.
Carriers:	One at video, unmodulated. One at sound, FM modulated with 25 kc max. deviation (TV standards).
Signal for Max. Deviation:	50 millivolts.
Input Impedance:	100,000 ohms.
Output Impedance:	75 ohms VSWR 1.2.
Distortion:	Less than 1%, 2nd harmonic and hum.
Regulation:	All critical voltages regulated.
Power Requirement:	45 watts at 117 volts, 60 cycles.
Mounting:	19" rack.
Dimensions:	19 x 5¼ x 5 inches.
Weight:	9 lbs.
Availability:	Late fall 1961.

*Specify TV channel desired.
**0 dbj = 1,000 microvolts across 75 ohms.



Jerrold's audio modulator Model AT-* utilizes the unused TV channels to transport music, voice, radio, etc. to every receiver in a TV distribution system. The audio source may be an FM tuner, an AM radio, records, tape or microphone. Any commercial TV receiver can be used to reproduce the audio program through the speaker. Simply installed at the head-end, there is no need for additional equipment or alterations in any room. Model AT-* presents a unique method to add audio to an existing or planned TV distribution system in Hotels, Hospitals, Schools and Apartment Houses.

Shipping weight 9 lbs. **$195.00 Net**

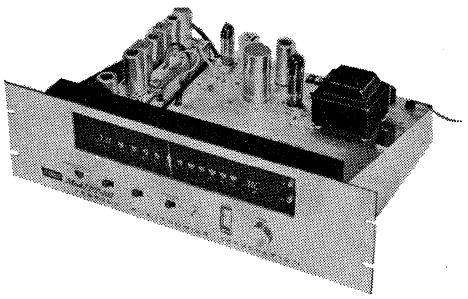
*Specify channel when ordering.

NEW FM TUNER MODEL FT-100

SPECIFICATIONS

Sensitivity:	Standard: 0.85 microvolts for 20 db of quieting. Usable: (HFM) 3.0 microvolts.
Selectivity:	6 db down at 120 kc from center frequency.
Image Rejection:	66 db.
Antenna Input Impedance:	300 ohms, balanced.
Radiation:	Well within FCC specifications.
Discriminator Peak-to-Peak Separation:	1 megacycle, ultra-linear.
Limiter:	Gated beam, constant output.
Hum Level:	60 db below 100% modulation.
Frequency Response:	±1 db, 10 to 15,000 cycles per second.
Distortion:	Unmeasurable at 30% modulation. Less than 0.1% at 100% modulation.
Mounting:	Standard 19" rack.
Dimensions:	Panel—19" x 5¼", depth behind panel—13".
Shipping Weight:	22 lbs.

*Specify frequency desired.



Jerrold's new Model FT-100 is a highly selective, extremely sensitive, drift-free tuner for converting any FM broadcast signal into an audio source for feeding in to the Audio-trol Model AT-*.

While absolutely independent in its function, Model FT-100 is a perfect companion piece to Model AT-* and can be incorporated together with the Audio-trol in a single cabinet, or can be rack-mounted separately.

Shipping weight 22 lbs. **$167.97 Net**

Net

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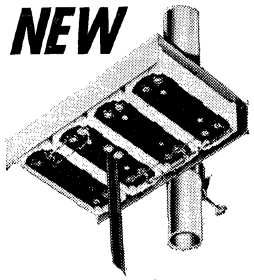
JERROLD TV SYSTEM ACCESSORIES

ANTENNA MIXING NETWORKS

NEW



Group of 4 Model TX-(†) Units on GP-4 Mount

For mixing single channel or broadband antennas into a common line. May be used in reverse as channel splitters.

INDOOR OR MAST MTG.—FIXED FILTER—300 OHM

Complete with Matched Mixing Jumpers, and appropriate hardware. **NET**

TX-(†) Specify Channel Desired Ch. 2 thru 13 — $3.57

TX-(FM) FM From TV Antenna With No Losses — $3.57

TX-(H-L) To Be used When Mixing Hi and Lo VHF Chs. — $3.57

TX-(VHF-UHF) Mix or Separate VHF and UHF Signals — $3.57

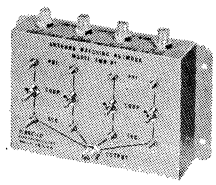
GP-4 GANG PLATE For Mounting 4 TX-(†) Complete With Hardware and Strap — $1.67

INDOOR MTG.—TUNABLE FILTER—75 OHM

AMN-HI Gray Hammertone Finish 4 ch. 7-13 — $18.15

AMN-LO Gray Hammertone Finish 3 ch. 2-6 — $18.15

† Specify channel desired.

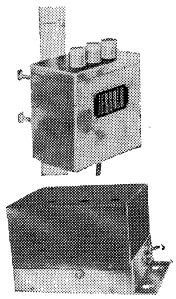


Model AMN-HI

UHF CONVERTER MODEL U2V

UHF Converter Model U2V

Pulling UHF pictures out of the snow where other converters haven't a chance, the U2V mast mounting mixer head converts right at the antenna. The UHF oscillator is mounted at the amplifier location (or at the TV receiver for individual home installation) and sends local oscillator signals up to the mixer, (a technique developed in radar installations). Signals leave the mixer as VHF so coaxial cable may be used. The U2V will convert any UHF channel to any VHF channel. Order by specifying UHF channel to be converted to a specific VHF channel. $82.17 Net



MIXER HEAD

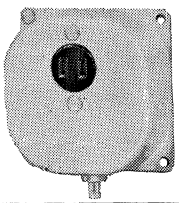
UHF Input: double cavity tuned, 10 mc bandwidth, 75 ohms
VHF Output: 75 ohms
Mixer Crystal: CK 710 or CK 731
Dimensions: 4¼" x 4⅞" x 2⅝"
Weight: 1 lb. 13 oz.
Mounting: Mast mounted, brackets and straps supplied

OSCILLATOR

Tube complement: 1-6AF4, 1-OB2.

Oscillator Output: 1.0. v RMS
Power Requirements: 117v AC, 50-60 cps, 25 watts
Dimensions: 4½" x 5½" x 7"
Weight: 3½ lbs.
Mounting: May be mounted horizontally on a shelf or vertically on a wall.
Shipping Weight: 7 lbs. (Head & Oscillator).

WALL TERMINAL UNITS



Model ST 1611

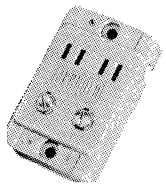
Features quick-disconnect receptacle. Matches receiver to 75 ohm line. Terminates tap line. Isolates line from AC-DC receivers. Metal construction minimizes radiation. Male plug not included.
$2.49 Net

MODEL 1201

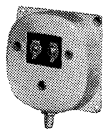
Matches receiver to 75 ohm line. Terminates line. Isolates line from AC-DC receivers. Molded plastic economy model. Surface mounting.
$1.59 Net

MODEL 1202

Same as model 1201 but mounts flush in 2 x 4 electric outlet box. Requires one Model 1202-P Cover Plate.
1202 $1.59 Net
1202P $.21 Net

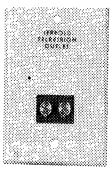


MATCHING TRANSFORMERS



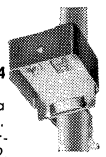
Model T-372

Surface mounting. 6 db voltage gain between 75 ohm and 300 ohm line. Flat response 50-250 mc. VSWR 1.26. Isolates line from AC-DC receivers. C-52 male connector included.
$3.60 Net



Model T-373

Flush Mounting version of T-372.
$3.60 Net



Model TO-374

Antenna mounting. Outdoor version of T-372. Bypasses AC open line in long runs between De-Snower preamplifier and power supply. Matches 300 ohm broadband or yagi antennas to 75 ohm line. Complete with mounting strap and cable connector (F-59). $6.00 Net

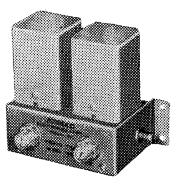
Model T-375

Receiver mounting. Economy version of T-372. Has B-59 crimp-on bushing in place of C-61 female 75 ohm connector, pre-connected 6" 300 ohm lead instead of terminal strip for mounting directly to receiver.
$2.91 Net

Model T-377

Receiver mounting, miniaturized version of T-375. Complete with C-52 fitting for attachment to coaxial cable and a solidly connected length of twin-lead (with terminals) for attachment to receiver terminals.
$1.99 Net

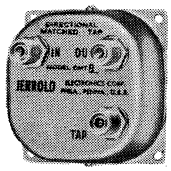
HIGH Q TRAPS



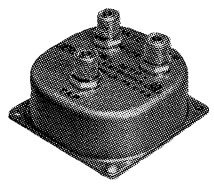
Each trap consists of two tunable L-C circuits in a modified bridged-tee network. Tuning is by Teflon-dielectric trimmers with screwdriver adjustment. With both circuits tuned to an interfering signal, rejection is 40 db minimum with insertion loss only 1 db at 1 mc off the interfering frequency. Complete with two F-59 connectors for RG-59/U cable $38.55 Net

Model TLB-1 59.75 — 83.75 mc
Model TFM-1 88-108 mc
Model THB-1 179.75 — 211.25 mc

MATCHED T PADS



Model DC-8 is a back-matched directional-coupler type tap unit with a band pass from 7 mc to 216 mc. The insertion loss is 1.5 db and tap loss is 8 db. Isolation between line and tap outputs is 30 db at channel 6. Excellent 75-ohm match on all three terminals. VSWR is 1.3. Shipped complete with 3 mating F-59 connectors. Shipping weight — 6 oz. $7.70 Net



Model MTP-20 is a resistive splitting device designed to match the trunk line in and out as well as the tap. The band width is 0-216 mc. The insertion loss is 2 db and tap loss is 20 db. Excellent 75-ohm match on all three terminals. VSWR is better than 1.2. Shipped complete with 3 mating F-59 connectors. Shipping weight — 6 oz.
$6.50 Net

FIXED RF PADS

Model PDL — Fixed attenuator pad for 75-ohm circuits. Shipped with two F-59 connectors for in-line applications. For chassis mounting, order F-71 connectors. Specify 3, 6, 10, or 20 db.
$3.51 Net

Technical Data Sheets Available for Products Listed on this Page.

LOOK TO JERROLD FOR AIDS TO BETTER TELEVIEWING

JERROLD®

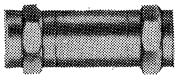
© U.C.P., Inc.

Net

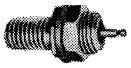
JERROLD *Solderless* COAXIAL CABLE CONNECTORS and ADAPTERS

JERROLD solderless connectors can be permanently bonded to all types of RG-59/U, RG-6/U and RG-35/U cables with simple crimping tools. JERROLD connectors are carefully machined of brass and all exposed surfaces are heavily silver plated. All the new JERROLD "F" series connectors are accurately matched to 75 ohm with a V.S.W.R. less than 1.05 up to 200 mc. "F" connectors can be wrench tightened and all sizes will adapt to each other.

NEW "F" SERIES (For RG-59/U and RG-6/U)

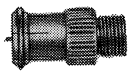


F-71 Male Coupling Adapter. Mates with F-61, F-81, F-101-59 or A-61. **$.96 Net**



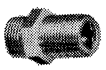
F-61 Female Chassis Fitting. Accepts F-59, F-56 and TR-72F. Mounts in 3/8" diameter chassis hole. **$.55 Net**

A-61 Adapter. Mates new F-59 or F-56 male connectors to older type C-61 female fittings. **$1.25/25 Net**



PF-59 Push-On Connector eliminates need for screwing an F-59 connector on an F-61 fitting in temporary equipment hook-ups. Simply pushes on and pulls off. Features a split-spring-tightened F-59 connector on one end and an F-61 fitting on the other. **$1.70 Net**

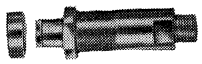
F-59 Male Cable Connector. For RG-59-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. **$.48 Net**



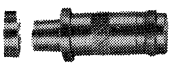
F-56 Male Cable Connector. For RG-6-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. **$.62 Net**

F-81 Female Coupling. Accepts F-59 or F-56. Mounts in 3/8" diameter panel hole for use as feed-thru. **$.75 Net**

NEW "F" SERIES (For RG-11/U)



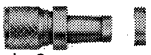
Model F-101-59 ADAPTER ASSEMBLY
Connects RG-11/U type cables to F-59, F-56 or TR-72F. Requires Crimping Tool PL-602. **$1.46 Net**



Model AF-101 ADAPTA-FIT MALE CONNECTOR
For RG-11/U type cables. Mates with F-81, F-1159, F-61, F-101-59 and A-61. Requires Crimping Tool PL-602. **$1.26 Net**

AF-201. Same as AF-101, but for RG-11 Poly Foam Cables. **$1.26 Net**

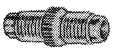
"C" SERIES



C-52 Male Connector mates with C-61 or C-5911. For RG-59/U type cables requires Crimping Tool PL-601 or PL-602. **$.48 Net**

C-56 Male Connector. Same as C-52 but for RG-6/U type cables. **$.62 Net**

C-61 Female Chassis Fitting. Accepts C-52, C-56 or A-61. Mounts in 3/8" diameter chassis hole. **$.48 Net**



C-81 Female Coupling. Accepts two C-52, C-56 or A-61. Mounts in 1/4" diameter panel hole and feed-thru. **$.60 Net**

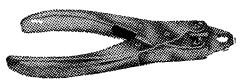
Ferrules — for use with Jerrold Solderless Fittings

1026 Ferrule—For use with RG-6/U type cables. **$2.86/100 Net**

1051 Ferrule—For use with RG-59/U type cables. **$1.43/100 Net**

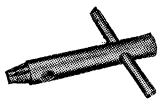
1095 Ferrule—For use with RG-11/U type cables. **$4.29/100 Net**

TOOLS



Crimping Tool PL-601 — Crimps type 1051 ferrules. For F-59, F-56 and C-52 connectors and B-59 bushings. Does not distort cable or cause impedance mis- **$4.29 Net**

Crimping Tool PL-602 — Crimps all three ferrules — 1051, 1026 and 1095. For F-59, C-52, F101-59, AF-101 and B-59 bushings. Does not distort cable or cause impedance mismatches. Made of hardened **$5.39 Net**

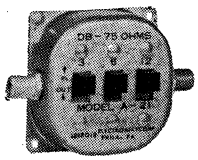


Cable Cutting Tool CD-11 — Cuts attenuator opening in coax cable for JERROLD pressure taps. Made of hardened steel. **$2.16 Net**

CT-1. Replacement cutting tip for CD-11. **$1.10 Net**

JERROLD TEST EQUIPMENT

VARIABLE ATTENUATORS

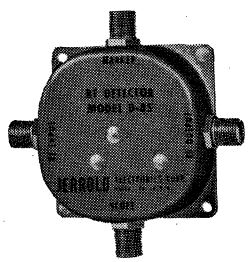


Model A-21
$12.87 Net
Model A-72
(Not Shown)
$59.95 Net

Models A-72 and A-21

Switch type, Variable RF Attenuators providing precise attenuation over the frequency range of 0 to 250 megacycles. The units are matched to 75 ohms with a VSWR of less than 1.05 and are capable of handling 500 milliwatts of power. Model A-72 attenuates from 0 to 82 db in 2 db steps. Model A-21 attenuates from 0 to 21 db in 3 db steps. Two F-59 connectors included with both items.

SPLIT RF DETECTOR — Model D-86



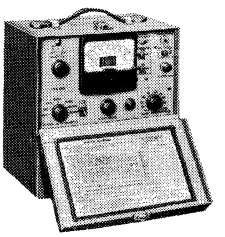
Model D-86 Detector removes the modulation envelope from an RF carrier and applies it to the vertical input of an oscilloscope. Terminals are: RF Input; RF Output; Scope; and External Marker Input. Voltage doubler circuit for up to 1 volt DC output. For testing and aligning RF amplifiers, VSWR measurements and checking impedance match of RF devices. Response flat from 1.5 to 220 mc. Impedance of 75 ohms with a VSWR of 1.06. Price includes three F-59 and one TR-72F.

$27.50 Net

THE UTMOST IN RELIABILITY AND SENSITIVITY— The Incomparable

MODEL 704B FIELD STRENGTH METER

Reads Down to 5 Microvolts and Up to 3 Volts



Recognized throughout the industry as outstandingly accurate and reliable, the Model 704B—Jerrold's Top-of-the-Line in field strength meters—is a calibrated, direct reading instrument for TV and FM measurements. It is a professional quality instrument for making measurements of RF signal strength within the frequency range of 54 to 220 mc. Its specially-designed tuner assures increased selectivity, 75 ohm impedance and uniform gain—as required for highest accuracy. Extremely versatile, its range of uses includes field intensity surveys, orienting antennas, measuring RF attenuation of coaxial cables and balancing TV distribution systems.

FEATURES

- Reads down to 5 microvolts and up to 3 volts, in 8 ranges
- Bandwidth is 0.6 mc
- Separates audio carriers from adjacent video carriers.
- Precise readings in db or microvolts ±0.8 db over entire range
- Reads percent of amplitude modulation of FM carriers, percent of AM distortion of FM amplifiers and percent of AM of RF generators.
- Lightweight, durable aluminum cabinet with carrying handle
- Calibration card on hinged door panel for permanent reference
- Phone outputs for listening to FM signals
- Oscilloscope output for examining composite video

$395.00 Net

TECH DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE

LOOK TO JERROLD FOR THE BEST IN EVERY TEST

JERROLD®

Net

© U.C.P., Inc.

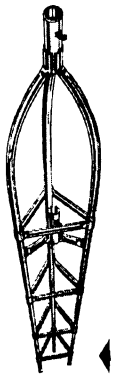
KTV Towers
and communications equipment

A TOWER OF STRENGTH

- *Safe in gales up to 80 mph without ugly, hazardous guy wires.*
- *Free-standing to 50 feet high.*
- *No rusting, ripping or weakening holes . . . safest by far!*
- *Big, husky, steel gird-around tubular ties for extra strength.*
- *Exclusive lateral load bearers take all strain off joints.*
- *Easy installation and dismantling on roof or ground.*
- *Free - drainage joints prevent trapped moisture and corrision.*

All communication towers are built of hot dipped tubing inside and out, then dipped and galvanized, baked in a bright aluminum after fabrication.

#820-K Straight Section. Used as bottom of free-standing 50 ft. tower and in other applications. Legs of 16 ga. cold rolled steel triangularly spaced on 10⅞" centers. Gird-around cross ties spaced at 12" intervals. Over-all length 10 ft. Complete with hardware 38 lbs. #818-K. same quality, but cross ties are spaced at 15" intervals. Wt. 34 lbs. #816-K, Cross ties spaced 20" apart. Wt. 30 lbs.



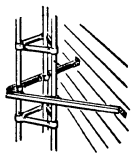
#710K Top Section. Equipped with 21" spaced mast socket rings to take 1½" to 2½" dia. mast. Threaded external receptacle securely welded to each ring gives extra bearing for 2" x ½" set screw. Hi-tensile bolts, washers, hex nuts and set screws furnished. Over-all length 10 ft. Wt. 28 lbs.

packages available in 10, 20, 30, 40 and 50 ft. Towers

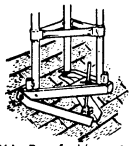
40 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K tower sections and all connecting hardware. Shipping wt. 126 lbs. Order concrete base or roof mount separately.

50 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K and 1 #820-K tower sections; all connecting hardware. Shipping wt. 164 lbs. Order concrete base or roof mount separately.

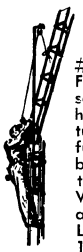
DEALER NET PRICES—10 FT.—$21.20, 20 FT.—$39.00, 30 FT.—$55.50, 40 FT.—$74.00, 50 FT.—$92.50



#864-H *Wall or House Bracket.* Adjustable to 20 inches.



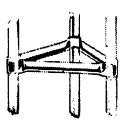
#863H *Roof Mount.* Assures a strong, accurately vertical installation of one or more tower sections. Adjusts up to 45° roof pitch. Takes full advantage of KTV's lateral load support. Wt. 8 lbs.



#852-J *"Gin Pole".* For easy tower assembly. Has 1¼" heavy duty steel tubing with powerful strap-steel grab brackets. Fits all tower sections. With forged ring and iron pulley. Length 12 ft. Wt. 18 lbs.

Gird-Around Tubular Cross Ties

Bigger, safer, stronger. Actually **grip around** vertical tubing. Take all outward strain. The tower itself takes none.

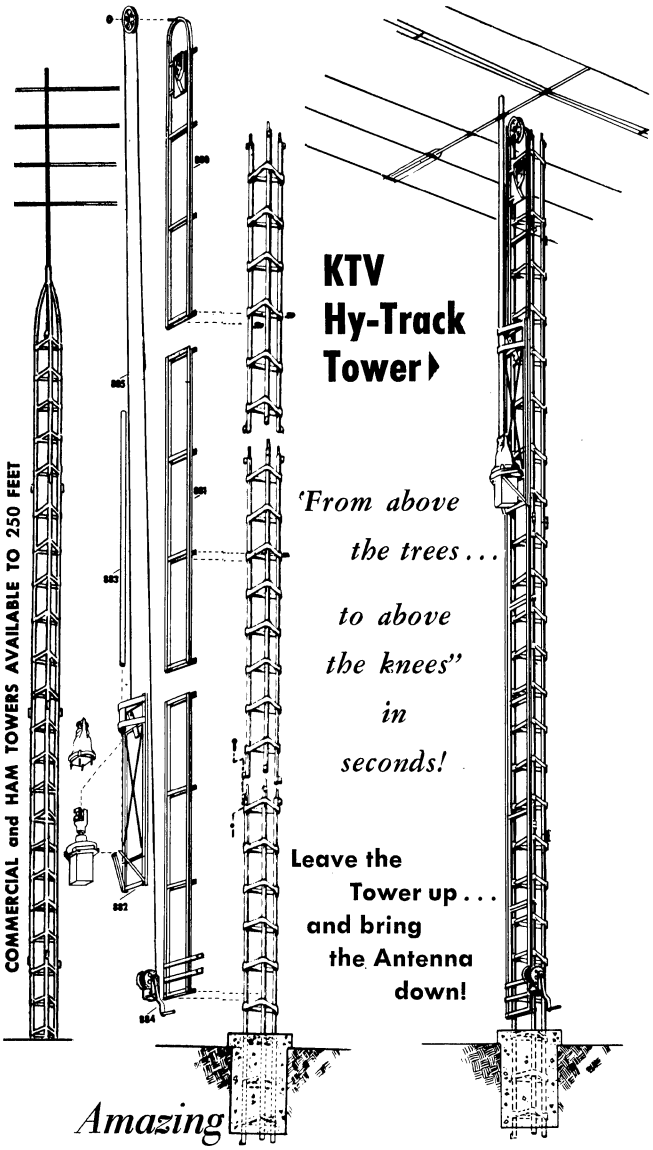


#862H: Concrete base mount. The recommended installation.
#857-F: Mast 10 ft. x ¼" O.D.
#859-F: Mast 15 ft. x 1¼" O.D.
#865-H: Rotor post brackets—adjustable
#866-H: Tower mast bushing. 1¼" I.D.1½" O.D.
#867-H: Base plate for drive-in base.

900 Series —130 Ft.—16 Ga.—Single Lateral Load Bearers
1200 Series —175 Ft.—14 Ga.—Double Lateral Load Bearers
1200xx Series—200 Ft.—14 Ga.—Double Lateral Load Bearers
1600 Series —200 Ft.—14 Ga.—Double Lateral Load Bearers
1600xx Series—250 Ft.—14 Ga.—Double Lateral Load Bearers

1600 and 1600xx are towers with legs of 14 ga. cold rolled steel tubing triangularly spaced at 16 inches center to center; tubular gird around cross ties spaced at 12 inch intervals.

Engineering available for special towers for radiation and special antennas.



Amazing

KTV Hy-Track Tower

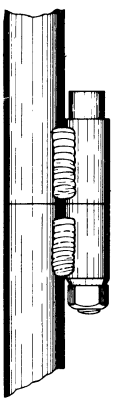
"You Crank the Antenna Up the Tower"

PERFECT FOR

Research • Antenna Testing • Survey Work • VHF-UHF Commercial or Private Receiving — Retransmitting applications.

Dealer Net, 30 ft. tower — Complete. $229.50

Write for details today.

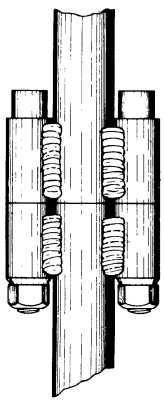


***Exclusive* SINGLE LATERAL LOAD BEARERS**

No dangerous rust. Arrow (X) shows open joint section. Assures free drainage and ventilation, less corrosion. • • • *No hazardous holes.* Arrow (Y) shows lateral load bearers lifetime welded to side of each section leg with twin 1⅛" fillets. Sections are bolted vertically. Bear 100% of the load. No load on joints. No horizontal bolts to tear through. Nothing safer Only KTV has it!

DOUBLE LOAD BEARERS

Exclusive!! Double Lateral Load Bearers welded to both sides of each section leg with twin 1⅛th inch filllets—Sections are bolted vertically to bear 100% of the load. No load on joints, nothing safer, nothing so easy to assemble —only KTV has it.



KTV Tower and Communications Equipment Company
Sullivan, Illinois

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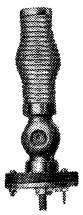
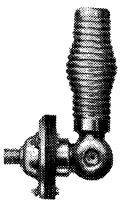
ANTENNAS *Master Mobile* MOUNTS

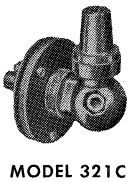


MODEL 232



MODEL 232C (COAXIAL TYPE)
(Coaxial Type Base Mounts Optional)

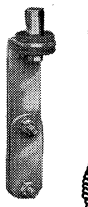
MODEL 232C



MODEL 321C

232 SERIES

MODEL 140

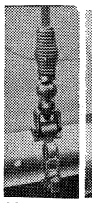


MODEL 142

100 SERIES

SEPARATE SPRINGS FOR UNIV. MOUNTS

100W SERIES



No. 444 Universal Mount $17.80

No. 445 Mount $7.95

No. 446 Mount $13.45

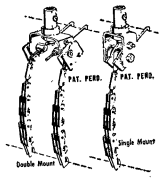
All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

MOUNT SPECIFICATIONS (All types are tapped for 3/8" Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

232	Base Mount—Double Tapered Spring—Swivel Base	$ 8.75
232C	Base Mount—Double Tapered Spring—Swivel Base Coax Conn.	8.75
232SS	Base Mount—Double Tapered Spring—Spec. Stainless	12.95
232SSC	Base Mount—Double Tapered Spring—Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount—Heavy Duty—Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount—Heavy Duty—Double Tapered Spring—Coax. Conn.	9.85
232XSSC	Base Mount—Heavy Duty—Double Tapered Spring— Spec. Stainless—Coax Conn.	14.95
232XSS	Base Mount—Heavy Duty—Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount—Extra Heavy Duty Spring	10.85
232XXC	Base Mount—Extra Heavy Duty Spring—Double Tapered Spring—Coax Conn.	10.85
232XXSS	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless	15.95
232XXSSC	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless—Coax Conn.	15.95
321 or 321C	Base Mount—Where no spring desired—with spec. rigid type ball joint	7.95
140	Universal Mount—Double Tapered Spring	6.95
140X	Universal Mount—Heavy Duty—Double Tapered Spring	7.95
140SS	Universal Mount—Special Stainless	9.65
140XSS	Universal Mount—Special Heavy Duty Stainless	10.95
140XX	Universal Mount—Extra Heavy Duty—Double Tapered Spring	8.95
140XXSS	Univresal Mount—Extra Heavy Duty—Stainless Steel	11.95
142	Universal Mount—Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or 92 Ext. and 106 Antenna	3.95
446SS	Universal Mount—Special Stainless—Chain Mount	14.90
446XSS	Universal Mount—Heavy Duty—Special Stainless—Chain Mount	15.90
446XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Chain Mount	16.90
446	Universal Mount—Heavy Duty Spring—Chain Mount	13.45
446L	Universal Mount—Double Tapered Spring—Chain Mount	12.45
446XX	Universal Mount—Extra Heavy Duty Doubled Tapered Spring—Chain Mount	14.45
444	Universal Mount—Heavy Duty Spring—Swivel Base—Chain Mount	17.80
444L	Universal Mount—Double Tapered Spring—Swivel Base—Chain Mount	16.70
444XX	Universal Mount—Extra Heavy Duty Spring—Swivel Base—Chain Mount	18.80
444SS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount	20.90
444XSS	Universal Mount—Special Stainless—Heavy Duty—Swivel Base—Chain Mount	22.90
444XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Swivel Base—Chain Mount	23.90
445	Universal Mount—Threaded, 3/8"-24—Chain Mount	7.95

SEPARATE SPRINGS FOR BUMPER MOUNTS

	Net
100—Regular	$4.50
100-X—Heavy Duty	5.50
100SS—Stainless Steel	6.95
100XSS—Heavy Duty Stain. Steel	7.95
100WX —Hvy. Duty w/Male stud.	5.50
100XX—Extra Heavy Duty Spring	6.50
100WXX—Extra Heavy Duty Spring —Male Stud on one end.	6.50
100XXSS—Extra Heavy Duty Spring —Stainless Steel	8.95



UNIVERSAL MOUNTINGS

Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/8"-24 thread.) Easily attaches in minutes.

MM530	Deluxe Dbl. Mt. Stain. Steel Net	$21.95
MM531	Deluxe Sgl. Mt. Stain. Steel Net	11.95
MM520	Dbl. Mt. S-Cad. Plated ....Net	7.95
MM519	Single Mt. S-Cad. Plated ....Net	4.95

SILICON-CHROME WHIP ANT.

New 9 Series—with 3/8" Thr. Studs		
Model No.	Overall Length	Net Price
9-60T	60"	$2.97
9-72T	72"	3.24
9-84T	84"	3.30
9-86T	86"	3.60
9-96T	96"	3.75

New 8 Series—without Studs		
Model No.	Overall Length	Net Price
8-60	60"	$2.82
8-72	72"	3.07
8-84	84"	3.13
8-86	86"	3.42
8-96	96"	3.55

New Model No. 132-J Junior Body Mount —Same design as standard No. 232 Master Mount but smaller size. Built to approved Master spec. for quality, workmanship and finish.
Attractively priced at only $4.17

Model No. 132-JC—Same as above with Coax Connector .....**Only $5.17**

New Model No. 140-J Junior Bumper Mount —Same design as our standard No. 140 Master Mount but smaller spring—yet of same high quality construction and finish. **Net $4.17**

Coaxial Conversion Kit—No. 118 fits No. 232 and No. 118J fits No. 132J Models. **Net $1.00**

WHIP ANTENNA SPECIFICATIONS

MODEL Overall St. Steel Length	Base Specifications	Net Price
100-60S	60" Threaded 3/8" Stud to fit all Mounts...	$4.95
100-72S	72" Threaded 3/8" Stud to fit all Mounts...	4.95
100-78S	78" Threaded 3/8" Stud to fit all Mounts...	5.00
100-86S	86" Threaded 3/8" Stud to fit all Mounts...	5.15
100-90S	90" Threaded 3/8" Stud to fit all Mounts...	5.20
100-96S	96" Threaded 3/8" Stud to fit all Mounts...	5.25
100-103S	103" Threaded 3/8" Stud to fit all Mounts	6.95
106-60S	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.20
106-86S	86" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.50
106-103S	103" Pl. End 1/4" Dia. (Fits Mod. 92 Ext.)	6.45

Comb. 106-96" whip with #92 Ext. (18") gives up to 112" adj. .....**Net $8.00**

ORDER FROM YOUR JOBBER TODAY!

Master Mobile Mounts, Inc.
LOS ANGELES, CALIFORNIA

WRITE FOR OUR NEW COMPLETE SPECIAL CATALOG OF TRI-BAND, VERTICAL, SINGLE BAND AND ALL DELUXE BEAMS.

Net

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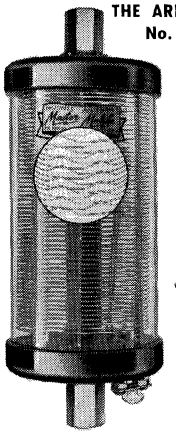
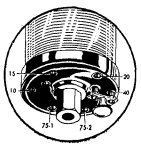
ANTENNAS *Master Mobile* MOUNTS



THE ARISTOCRAT
No. 900



10-15-20-40-75
METERS

THE VICTORY
No. 999
10-15-20
METERS
ONLY

NEW MULTI-BAND TRANS. ANTENNA COILS

New Plug-In Coils! Just plug into desired pair of jacks and presto! . . . your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

- Rigidly tested and engineered—found to have a "Q" of 525
- Operates into a 52-ohm cable
- Positive contact—noisefree, trouble-free operation
- Weathersealed
- Ruggedized construction
- Factory pre-tuned—no adjustment is necessary
- Higher efficiency—lower loss

YOUR CHOICE $14.95

All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

NEW SLIM-JIM

All-Band BASE LOADING Antenna Coil

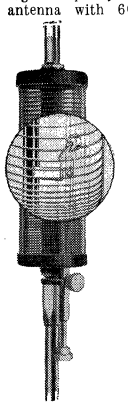
For 10, 11, 15, 20, 40, 80 Meters.

96″ S.S. Whip included. Positive locking action whip provides accurate and tight contact wherever set. Just slide in or out to final loading point and lock whip into position.

No. B-1080
$17.95

THE GREAT NEW ADVANCEMENT IN VARIABLE ANTENNA COILS!

HY "Q" construction with wider spacing of turns for high frequency bands. Use as center or base loaded antenna with 60″ whip.



New! . . . Silver-Plated Roller with Positive Action, Stay-Put Contact

No. 333 MASTER MIGHTY MIDGET
For 40-20-15-11-10 Meters
$9.95

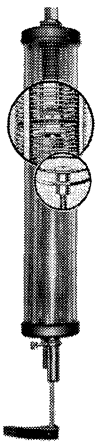
No. 750 MASTER DELUXE ALL-BANDER

Covers 10 thru 75 and all intermediate frequencies.

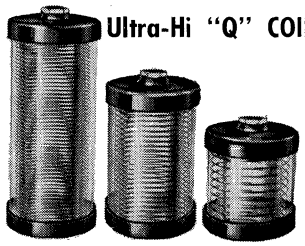
Silverplated single turn contact, positive spring. Eccentric cam contact, easy selection of turn.

Automatic lock prevents damage to coil.

Net **$14.95**



Ultra-Hi "Q" COILS



FOR 80-40-20 & 15, METERS

After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 36″ base section, 60″ whip.

- Ruggedized construction • Greater efficiency • Precision made • 2¾″ Diameter

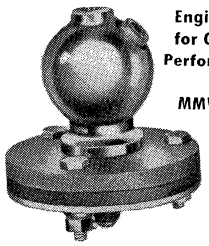
ANY BAND . . . AMATEUR

NET EA. $5.25

BASE MOUNT

Engineered for Greater Performance!

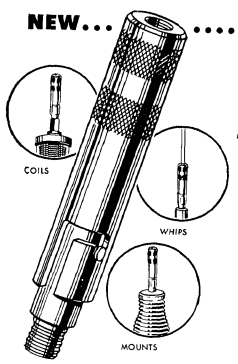
MMW-3 APS



Latest and greatest is this new design in universal swivel bases, incorporating the last word in modern design for strength and service.
Easy one man installation, no special tools needed. Mounts watertight on curved or flat surface. Mounting Template provided. ⅜-24 thread mounting hole for whips and antennas.

Model MMW-3AE $6.95
High Gloss Ebony Finish
Model MMW-3AP $7.95
High Gloss Polished Finish
Model MMW-3AES $8.95
Ebony Finish with Stainless Steel Hardware
Model MMW-3APS $9.25
Polish Finish with Stainless Steel Hardware

NEW... ..... *Master Mobile*



NOISE-FREE

E-Z-OFF ANTENNA CONNECTOR

Connect or remove your loading coils, whips or mounts in a jiffy. No wrenches, pliers or screwdrivers needed. High-grade stainless steel throughout.

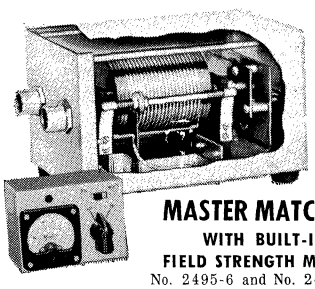
- Precision made
- Maximum efficiency
- Positive lock — will not corrode

AMATEUR NET $2.95
Model No. E-Z-295

ULTRA HY "Q" C.A.P. COILS

				Net
UH	"Q"	2374	KC.	$ 8.95
UH	"Q"	2738	KC.	8.95
UH	"Q"	2768	KC.	8.95
UH	"Q"	4507.5	KC.	7.95
UH	"Q"	4585	KC.	7.95
UH	"Q"	4325	KC.	7.95
UH	"Q"	160	Meters	12.95
UH	"Q"	2251	KC.	12.95

Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.



Automatically tunes the band by remote control

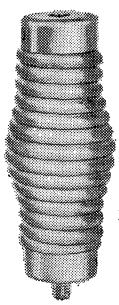
Available in 6 (2495-6) and 12 (2495-12) volt models.

MASTER MATCHER

WITH BUILT-IN FIELD STRENGTH METER
No. 2495-6 and No. 2495-12

Motor driven variable inductance controlled by a switch from the operating position, enabling him to remotely tune the antenna to the exact resonant frequency. Just flip the switch and presto! . . . the Master-Matcher goes to work! QSY in any PARTICULAR band without moving to adjust antenna loading coil. All guesswork is eliminated with the Master-Matcher and the built-in FIELD STRENGTH METER. Automatic panel light indicates when the roller is at minimum inductance position. With the Master-Matcher, maximum efficiency is possible with minimum of time and effort.

Complete $24.95 Amateur Net



HEAVY DUTY UNIVERSAL SPRINGS

Heavy duty flexible mounting spring mounts on the base and holds the antenna. Special flexible "give" spring prevents sharp impacts and breakage. Maintains vertical antenna position under normal wind loads.

⅜-24 tapped hole for antenna mast. ⅜-24 stud for antenna base. 5″ h. Tightening wrenches supplied.

Model MMW-7 ..... $4.50
Cadmium plated with black painted ends. Lockwasher included.
Model MMW-7HC $5.50
Heavy Cadmium plated for extra protection. Lockwasher included.
Model MMW-7SS $8.95
Deluxe—Stainless Steel spring high quality appearance. lockwasher included.

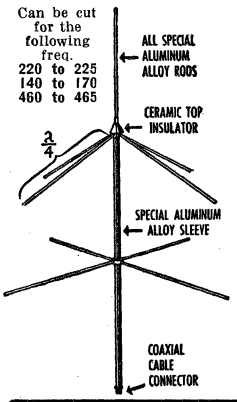
WRITE FOR OUR NEW COMPLETE SPECIAL CATALOG OF TRI-BAND, VERTICAL, SINGLE BAND AND ALL DELUXE BEAMS.

ANTENNAS *Master Mobile* MOUNTS

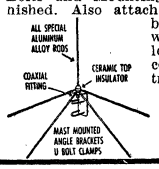
2 METER ANTENNAS — FIXED • MOBILE

GROUND PLANE ANTENNA

Model 300—Master DeLuxe . . . NEW! . . . brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad Band char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest alloys to withstand corrosion, high winds and extreme icing. With 36" length of ¾" pipe for mounting purposes.
Model 300 Amateur's . . Net $12.95
MB-1—Mounting Bracket Net 1.00

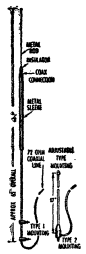


Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts. (U-Bolts and Mounting Brackets furnished. Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.



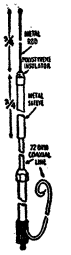
MODEL GP-4
Amateur's Net $5.95

TWO METER COAX ANTENNAS



No. 214—MASTER DE-LUXE . . . ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproofed. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable.
Type 1—On side with 2 brackets furnished. **$15.95**
Type 2 — Master Mount (No. 232X or 140X)—Mounts sold separately.
Complete $17.45
Adjustable mtg.—adjusts to 17".

2 METER STANDARD MODEL



No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18" Adjustable Section.
Net, Only $9.95

232X
Sugg'd Mtg.

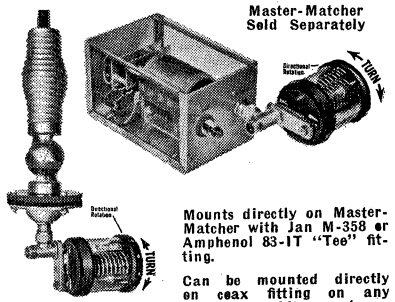
No. 613—NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable.....**Net $4.95**

No. 113—ROOF TOP ANTENNA without De Luxe Connections .....Net 3.96
No. 117—Extra Antenna for No. 113 and No. 114....Net .97
No. 116—Extra Antenna for No. 214 and No. 613....Net 1.70

All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

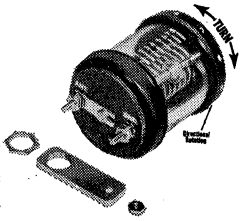
MICRO-Z-MATCH

MICROMETER IMPEDANCE MATCHING INDUCTANCE for MOBILE ANTENNAS



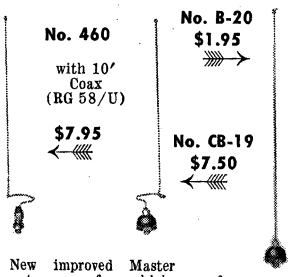
- Used on all bands with any type coaxial cable to match any mobile antenna.
- Roller coil construction with rear cap rotating the inductance within the case. 4 microhenries maximum inductance.
- Silver plated coil and roller contacts for low loss.
- Micrometer type calibration permits infinite adjustment and positive resetting.
- Adjustability — Easily adjustable for minimum standing wave ratio (1:1).

Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.



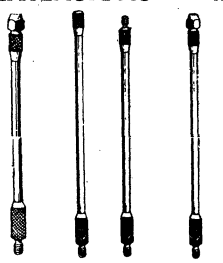
No. 825 Complete with Coax Adp. Kit Net $7.95

CITIZEN BAND — 2 METER



New improved Master antennas for high performance. Stainless steel and chrome plated brass. Self-tapping threads. Easy to install with one 7/16" hole.

EXTENSIONS — with ⅜"-24 thread, fits all mounts and coils



EXTENSIONS			Net
88	36"	Lower Section for all Band Antennas	$4.95
88C		In Chrome Plate	5.25
90	26"	Extension for 100 Series Whips	3.95
92	18¼"	Extension for 106 Series Whips	3.50
94	36¼"	Extension for 106 Series Whips	4.95
115	36"	Extension for Models No. 114 and No. 214	4.25
12*	12"	Base Section for AB Antenna (baked enamel)	2.95
12C*	12"	Chrome Base Section for AB Antenna	3.50
18*	18"	Base Section for AB Antenna (baked enamel)	3.25
18C*	18"	Chrome Base Section for AB Antenna	3.75
24*	24"	Base Section for AB Antenna (baked enamel)	3.95
24C*	24"	Chrome Base Section for AB Antenna	4.50
88*	36"	Base Section for AB Antenna (baked enamel)	4.95
88C*	36"	Chrome Base Section for AB Antenna	5.25

*NOTE: Base Sections for use with ALL-BANDER Antenna Coils.

CIVIL DEFENSE ANTENNAS

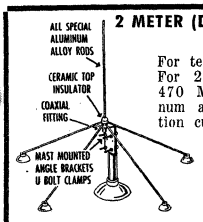
Freq. Range 220-225 MC

Master deluxe antennas, ruggedly constructed, vertically polarized. Completely waterproofed, highly polished chrome. Furnished with 10' of 72 ohm coax. Special designed positive action rubber suction cups for easy mounting . . . **No. 220-3**.....**$15.95**

Available in Type 1.....**$15.95**
(Similar to No. 214)

Available in Type 2.....**$17.45**
(Similar to No. 214)

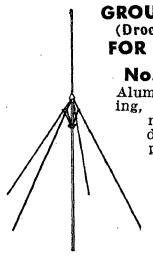
2 METER (DROOPING TYPE) GROUND PLANE GP4-3



For temporary vehicle installations. For 2 meter, 220 MC, 450 to 470 MC. Made of special aluminum alloy. 5 positive action suction cups permit fast mounting on all vehicle rooftops. 4 drooping radials for perfect match to 52 or 72 ohm coaxcable. Spec. Freq. when ordering.

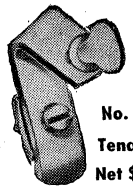
$8.95

GROUND PLANE (Drooping Type) FOR 6 METERS



No. MGP-6
Aluminum alloy tubing, coax cable connector. For medium or low powered trans.

$14.95



No. 10-H Tenahold Net $1.00

NEW MASTER FLEX-'R No. 711

Designed to relieve stress and strain and prevent damage that could be transmitted to the loading voil.

$1.95

Master Mobile Mounts, Inc.
LOS ANGELES, CALIFORNIA

WRITE FOR OUR NEW COMPLETE SPECIAL CATALOG OF TRI-BAND, VERTICAL, SINGLE BAND AND ALL DELUXE BEAMS.

Net

© U.C.P., Inc.

ANTENNAS *Master Mobile* MOUNTS

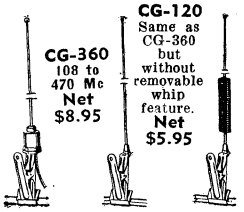
MASTER FIBRE-GLAS WHIPS

FLEXIBLE, INDESTRUCTIBLE UNIVERSAL ANTENNA

- **Completely Weatherproof** — permanent and rust resistant, corrosion proof.
- **Break-Proof** — specially designed flexibility prevents failure due to fatigue or breakage.
- **Safe**—permanent insulation featured in Master Whips make it absolutely safe, prevents burns.
- **Base Fitting**—⅜" x 24 thread with male brass—chrome plated fittings.

FG-60 60" Amateur Net.....$4.95
FG-72 72" Amateur Net.....$4.95
FG-84 84" Amateur Net.....$5.15
FG-96 96" Amateur Net.....$5.25
FG-103 103" Amateur Net.....$6.95

CLAMP-ON ANTENNAS



CG-360 108 to 470 Mc **Net $8.95**

CG-120 Same as CG-360 but without removable whip feature. **Net $5.95**

CG-110 11 Met. Cit. Bd. 27 Mc **Net $10.30**

SKYMASTER COAX ANTENNA

Skymaster gives you a lower "radiation angle" of your antenna for a better contact for vertically polarized stations in the citizens band. The Skymaster has a nominal impedance of 72 ohms, used with 72 ohm cable. Matches RG59/U coax cable for perfect match to most transmitters and improves receiving.

Both radiator and skirt are of heavy-gauge aluminum tubing, and a resilient machined polyethylene insulator is used for low weight and high strength. Silver-plated coax connector is used for easier connection and lowest SWR.

- **Easily installed on any existing mount**
- **Concentrated signal for best coverage**
- **Perfect match for transmitting and receiving.**
- **Highest quality components**
- **Tested and approved in Master Mobile's own laboratory**

SM-700- 2 2 Meters .....Net $10.95
SM-700- 6 6 Meters .....Net $15.95
SM-700-10 10 Meters .....Net $17.95
SM-700-11 11 Meters .....Net $17.95

MASTER MAGIC WAND TUNABLE

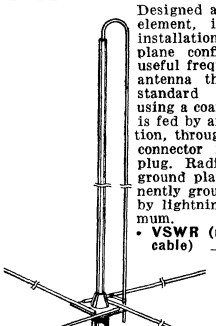
Combination Coil & Whip
New Magic-Wand Top-Loaded Antenna Mounts On Any Standard Base Mount.

A newly designed single band coil and whip antenna in 1 compact and attractive unit. Top loaded to provide top performance and efficiency at the most useful radiation angle for communications. Built and tested in the Master Mobile Laboratories, the Master Magic-Wand provides a minimum wind resistance which minimizes detuning effects at high speeds. Antenna wound over tapered fiberglass whip for maximum strength.

Available in 5 ft. & 6 ft. Lengths

No. MM810—10 Meters—5 Ft. L. $8.95
No. MM811—11 Meters— 27 Mc.—5 Ft. L. 8.95
No. MM811-35—11 Meters—35" 8.95
No. MM811-45—11 Meters—45" 8.95
No. MM815—15 Meters—5 Ft. L. 8.95
No. MM820—20 Meters—5 Ft. L. 8.95
No. MM840—40 Meters—6 Ft. L. 9.95
No. MM880—80 Meters—6 Ft. L. 9.95

BASE STATION MONOPOLE ANTENNA

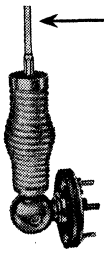


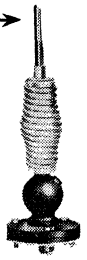
Designed around a folded radiating element, intended for service in installations requiring a ground plane configuration and a wider useful frequency range for a single antenna than is possible in the standard ground plane design using a coaxial stub tuner. Antenna is fed by an end seal type termination, through a Type SO.239 female connector mating with a PL.259 plug. Radiating elements and all ground plane elements are permanently grounded, hterefore, damage by lightning is reduced to a minimum.

- **VSWR (using 50 ohm cable) 1.3:1**
- **Bandwidth (under 2.1 VSWR) .....±4%**
- **Max. power input .....750 watts**
- **Internal feed-line RG-8A/U**
- **Nominal input imped. .....50 ohms**
- **Termination SO. 239**

SR-600-2 2 Meters Net $14.95
SR-600-6 6 Meters Net $16.95
SR-600-10 10 Meters Net $24.50
SR-600-11 11 Meters Net $24.50

103" WHIP — CITIZEN BAND ANTENNA SPECIAL





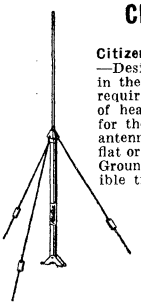
Complete set consists of Mount with Spring and Stainless Steel 103" whip. Write today for special prices.

No. 102-132 **No. MM-1003**

All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

CITIZENS BAND ANTENNA

26.960 to 27.225 MC



Citizens Band Home Station Ground Plane—Designed to give maximum performance in the 27.0 MC range with minimum space requirements, easy installation. Constructed of heavy wall special alloy aluminum tube for the whip and support pipe. Swivel type antenna base mount permits installation on flat or peaked roof.

Ground plane radials made of heavy flexible tinned copper braid.

VSWR under 1.5:1 at resonance. Furnished complete with all mounting hardware, insulators, guy hooks, screws and 50 ft. of RG 58/U cable terminated with Motorola type auto radio connector.

GP27-11 .....$34.50

11 METER CITIZENS BAND ANTENNA

A base-loaded stainless-steel whip antenna with an overall height of 40 inches.

The bottom of the whip has been wound into a coil which is potted in a pliable plastic to add rigidity to the coil.

The base of the whip is fitted with a ¼" diameter brass slug, for use with a standard-broadcast 8-ball type cowl mount; also roof-top or trunk-lid type mounting.

The antenna is cut to offer very low standing-wave ratio over most of the band when fed with a 52-ohm coax.

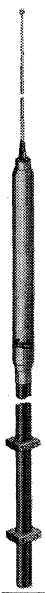
YOUR CHOICE EACH $12.95

SB-27 — 8B-27

ANTENNA WITH PL-259 PLUG

Model No. C-259....$6.95

MASTER MARINE MARVEL MARINE ANTENNA

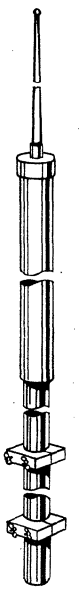


Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world! The Marine Marvel, sea-sure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! . . engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

- **10½ Ft. Overall Length.**
- **Capacity 4 Ft. Stainless Steel Plastic-Coated Whip**
- **18" Center-Loaded Impregnated Coil.**
- **5 Ft. Anodized Base Section.**
- **Absolutely Waterproof - Weatherproof.**
- **No Electrolysis.**
- **Rugged Insulators.**
- **Adjustable Antenna Lead.**

COLORS AVAILABLE —
WHIP—Yellow, Blue or Black
COIL—Yellow, Blue or Black
BASE—Gold (Spec. Saltwater Anodized)

No. MMM-2710 Antenna & Solid Mounts—5 Ft. Base ...$29.95
No. MMM-2715 Antenna & Solid Mounts—10 Ft. Base $35.95
No. MMM-2700 Antenna—5 Ft. Base (less Mts.) $27.95
No. MMM-2705 Antenna—10 Ft. Base (less Mts.) $33.95
MMM-10 SOLID MOUNTS per set $5.00



3 ELEMENT Beam Antenna

Designed for maximum power up to 1 KW Input

Don't waste power — Beam your signal where you want it.

Sturdy and lightweight 3 element beam provides a power gain of approximately 2½ (8 DB) in the forward direction and reduces interference from the sides and rear by approximately 10 to 1 (Front to back ratio 20 DB).

A coaxial gamma match is pretuned at the factory to give an excellent VSWR of 1.1 to 1 at band center when fed with a 52 OHM coax.

SR-500-2 2 Meters $10.95
SR-500-6 6 Meters $12.95
SR-500-10 10 Meters $24.95
SR-500-11 11 Meters $24.95

MASTER SUPER MARINE ANTENNA No. MMM-2750

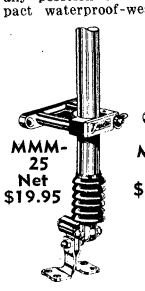
MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1⅝" tubing. Coil section is 35" long. Impregnated coil covered with phenolic tubing. 8' fibreglas whip. Here is the ultimate in Marine Antennas!

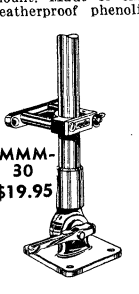
MMM-2750 Antenna & Solid Mounts $49.95
Without Mounts $47.95

MARINE LAYDOWN MOUNTS

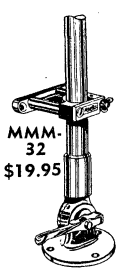
New deluxe laydown mounts that can be mounted on either the side of cabin or upright on the deck. Mounts swivel and are adjustable to any position or mount. Made of chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.



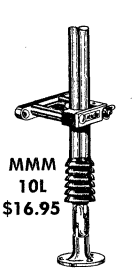
MMM-25 Net $19.95



MMM-30 $19.95



MMM-32 $19.95



MMM 10L $16.95

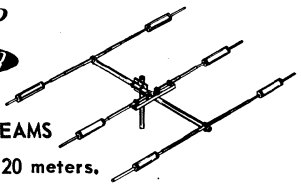
Additional Brackets Available

Master Mobile Mounts, Inc.
LOS ANGELES, CALIFORNIA

WRITE FOR OUR NEW COMPLETE SPECIAL CATALOG OF TRI-BAND, VERTICAL, SINGLE BAND AND ALL DELUXE BEAMS.

Mosley AMATEUR RADIO ANTENNAS Mosley

TRAP MASTER



3 BAND BEAMS
10 – 15 – 20 meters.

3 ELEMENT beam provides outstanding performance on 10, 15 and 20 meter bands. Up to 8 db., forward gain with 25 db., or better, front-to-back. 1.1/1 or less, SWR at resonant frequencies.

Model TA-33 . . . . Amateur Net, $99.75

2 ELEMENT version of the famed TRAP MASTER Beam rated to a full KW. 5.5 db. forward gain with 20 db. front-to-back. 7' boom and 28' maximum element length.

Model TA-32 . . . . . Amateur Net, $69.50

3 BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 "Trap-Master" Beam.

Model TA-31 . . . . . Amateur Net, $25.85

Conversion Kit to make the TA-31 a TA-32.

Model TA-31-32 . . . . . Amateur Net, $43.65

Conversion Kit to make the TA-32 a TA-33.

Model TA-32-33 . . . . . Amateur Net, $30.25

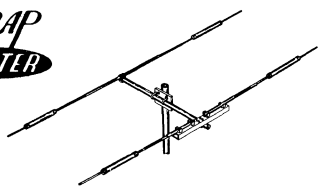
"JR" FOR 300 WATTS or LESS
10 – 15 – 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).

3 ELEMENT "JUNIOR" with up to 8 db. forward gain and 25 db. front-to-back. SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1¼" OD. x 12'. Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 20 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. . . . . Amateur Net, $69.50

TRAP MASTER



2 ELEMENT "JUNIOR" with 5.5 db. forward gain with approximately 20 db. front-to-back. Aluminum boom is 6' long and maximum element length is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

Model TA-32 Jr. . . . . Amateur Net, $49.50

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. . . . . Amateur Net, $19.75

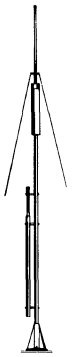
Conversion Kit to make the TA-31 Jr. a TA-32 Jr.

Model TA-31-32 Jr. . . Amateur Net, $29.75

Conversion Kit to make the TA-32 Jr. a TA-33 Jr.

Model TA-32-33 Jr. . . Amateur Net, $25.85

"TRAP-MASTER" VERTICAL ANTENNAS



3 BAND VERTICALS for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM), the V-3 Jr. is rated to 300 watts (AM).

Model V-3 . . . Net, $22.95

Model V-3 Jr. . Net, $17.95

Six meter adapter kit for V-4-6 and V-3 Antennas.

Model AK-6 . . . . . Amateur Net, $3.04

10 thru 40 Meters

Automatic bandswitching with this vertical. Electrical ¼ wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Sturdy aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6 . . Amateur Net, $27.95

80 Meter BASE LOADING COIL. Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. With coax connectors.

Model D-4BC . . . . . Amateur Net, $15.67

5 BANDS!

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs brilliantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna! Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.

Model V-5 . . . Amateur Net, $118.50

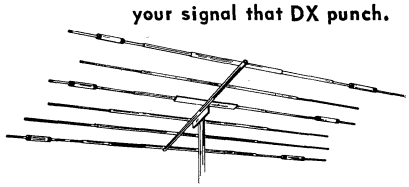
HEAVY DUTY BASE MOUNT
Supplied with the V-5 and V-4-8 Antennas.

2 BANDS!

For 40 and 80 meter bands. ¼ wavelength vertical on each band. Oversize trap assembly handles 1 KW(AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty), polyethylene guy rope and hardware.

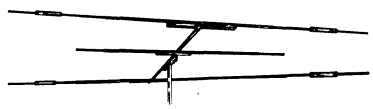
Model V-4-8 . . Amateur Net, $85.00

. . . the 3 BAND BEAM that will give your signal that DX punch.



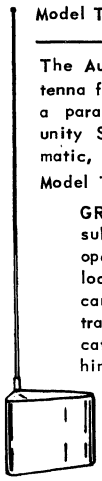
This wide spaced, six element configuration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswitching built for operation at maximum legal amateur power. Forward gain on 10 meters is 9 db., on 15 meters is 8.5 db. and on 20 meters is 8 db. Front-to-back is 20 db. or better on all 3 bands. SWR is 1.5/1 or better at resonance. Maximum element length is 29'. Boom is 24'. Turning radius is 19' 3". Assembled weight is 69 lbs. Just one coaxial feed line needed. 52 ohm, RG-8/U is recommended.

Model TA-36 . . . . . Amateur Net, $129.50



3 ELEMENT BEAM for 20 and 40 meters. Forward gain on 20 meters, 8 db.; on 40 meters, 5.0 db.; front-to-back on 20 meters, 25 db.; on 40 meters, 20 db.; maximum element length, 54' 8"; turning radius, 29'; boom length, 20'. Antenna weight (with Tilting Head), 150 lbs. Just one coaxial feed-line is needed. 52 ohm, RG-8/U is recommended.

Model TA-20-40 . . Amateur Net, $337.50



The AutoWhip-5 is a 5 band mobile antenna for 10, 15, 20 and 40 meters with a parallel network that achieves near unity SWR on 80 meters. Fully automatic, changes bands without switches.

Model TM-5 . . . . Amateur Net, $73.45

GROUND SYSTEM KIT serves as a substitute for your automobile when operating from a fixed or portable location such as an apartment roof, campsite, fishing cottage, house trailer, boat or any of the many locations the active Ham may find himself and his equipment. Easily assembled and installed.

Model TM-5-AK
. . Amateur Net, $26.62

"TRAP-MOBILE"
for 10, 15 and 20 meters.

Automatic Bandswitching! 3 Band Mobile Antenna functions without switches. Overall length of 7' 8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Stainless steel whip sections permit antenna to lay forward over car for garaging. Stainless steel base stud, 3/8"–24, fits standard mounts. Feed with RG-8/U coax, preferably 22½ feet in length.

Model MA-3 . . . . . Amateur Net, $20.96

Whip-Klip – Universal clip for mobile whip antennas.

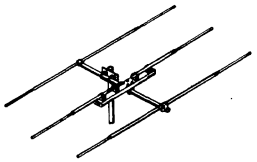
Model MWK . . Amateur Net, $ .98

Net

© U.C.P., Inc.

Mosley AMATEUR RADIO ANTENNAS Mosley

"POWER-MASTER" BEAM ANTENNAS



"Power-Master" Antennas are full sized arrays, each designed for a single band, 10, 15, or 20 meter. All are 100% rust-proof, stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom. "Power-Master" is fed with 52 ohm coax.

Forward gain - 8.9 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 18' 7", boom - 12' x 1¼" OD x .058, turning radius - 11' 1", wind load - 69 lbs.

Model A-310 . . . . . Net, $39.39

Forward gain - 8.5 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 23' 4", boom - 12' x 1¼" OD x .058, turning radius - 13' 2", wind load - 87 lbs.

Model A-315 . . . . . Net, $44.63

Forward gain - 8.0 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 35' 4", boom - 14' x 1½" OD x .125, turning radius - 18' 9", wind load - 200 lbs.

Model A-320 . . . . . Net, $81.10

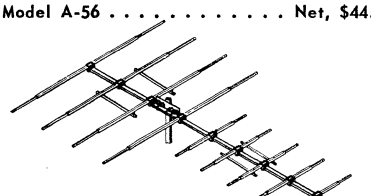
VHF "POWER-MASTER" ANTENNAS

14 element, 2 meter beam. Forward gain - 13 db., front-to-back - 20 db., SWR - 1.1, maximum element length 3' 5", boom - 1¼" x .058" x 12', turning radius - 6' 5", wind load 37 lbs., assembled weight - 11½ lbs. element sections are 5/8" OD and ½" OD establishing an extremely low ratio of length-to-diameter.

Model A-142 . . . . . Net, $51.18

5 element, 6 meter beam. Forward gain - 11 db., front-to-back - 20 db., SWR - 1.1, maximum element length - 9' 8¾", boom - 1¼" x .058" x 12', turning radius - 8' 5", wind load - 38 lbs. assembled weight - 11½ lbs. "Power-Master" VHF Antennas combine superlative performance with the most rugged construction to be found in any VHF antenna for amateur use!

Model A-56 . . . . . Net, $44.05



5 element, 2 meter beam and 4 element, 6 meter beam. Forward gain - (2M) 11.4 db., (6M) 9.6 db., front-to-back - (2M) 11.5 db., (6M) 16.3 db., SWR - (2 and 6M) 1.1, maximum element length - (2M) 3' 5", (6M) 8', boom - 1½" x .125" x 14', turning radius - 8' 9", wind load - 50 lbs., assembled weight - 20 lbs. 100% rust proof.

Model A-2N6 . . . . . Net, $70.40

STACKING KITS

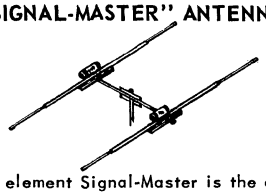
Stacking Kit for A-142, vertical or horizontal.

Model SK-2 . . . . . Net, $24.94

Stacking Kit for A-56, vertical or horizontal.

Model SK-6 . . . . . Net, $34.39

"SIGNAL-MASTER" ANTENNAS



This 2 element Signal-Master is the antenna for 40 meters. Rated to 1 KW. 100% rust proof. Forward gain – 5 db., Transmission line – 52 ohm coax (RG-8/U), Boom – 2" OD x .110" wall x 20', Maximum element length – 44' 3", Turning radius – 24' 4", Wind load (EIA Standard) – 200 lbs., Antenna weight – 58 lbs. F/B – 20 db.

Model S-402 . . . . . Amateur Net, $124.50

"VEST-POCKET" ANTENNAS

2 element, 40 meter "Vest-Pocket" beam with 5 db. forward gain. Front-to-back, 19 db., SWR; 1.1/1, boom, 15'; maximum element length, 36' 1"; turning radius, 19½'. Assembled weight, 68 lbs.

Model VPA40-2 . . . . . Net, $82.45

TRAP DIPOLES

Resonates at 40 and 80 meters. ½ wavelength on each band. Rated to 1 KW. Antenna length, 114' 11". Ideal where a bi-directional pattern is desired. Antenna weight, 7 lbs.

Model TD-2 . . . . . Net, $37.54

Will operate on 10, 15 and 20 meters. Rated to 300 watts AM. Overall wire length of 24 feet. ½ electrical wavelength on each of three bands. Antenna weight, 1¾ lbs.

Model TD-3 Jr. . . . . Net, $13.13

DIPOLE LOADING COILS

Coils are space-wound with plated No. 12 copper wire and are rated to 1 KW.

Type 40-D . . . . . Net, $8.36

Type 75/80-D . . . . . Net, $8.36

MAST PLATE ADAPTER KIT

Mast Plate Adapter for 2" OD Mast complete with Aluminum Angle and hardware.

Model AK-60 . . . . . Net, $4.78

CITIZENS BAND ANTENNAS

DELUXE LINE

3 element beam for best point-to-point communication. 9.3 db. gain. Use the A-311 on each end to develope 80 watts ERP. Less mast, coax line and rotor.

Model A-311 . . . . . Net, $37.50

Coaxial ground plane vertical antenna. 100% rust and corrosion proof. Can be mounted on tower, pole or chimney mount. Excellent base station antenna.

Model CA-27 . . . . . Net, $36.70

CITIZENS BAND ANTENNAS

DELUXE LINE

Cardioid Vertical Antenna provides a cardioid shaped radiation pattern with gain over an azimuth of 180 degrees. The gain in the direction of maximum signal is 3 db. plus or minus 90 degrees from the axis of the main forward lobe. Front-to-back ratio is 15 db. and VSWR is 1.5/1 maximum. The cardioid vertical is ideal for mobile services operating along city or state borders, shorelines, or back-to-back with other services.

Model VGR-27 . . . . . Net, $45.85

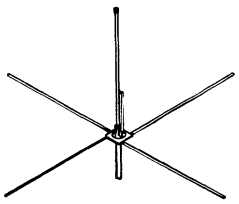
Ground Plane Vertical is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. High impact polystyrene base with internal coax fitting, less coax line.

Model V-27-GP . . . . . Net, $34.95

102" stainless steel vertical whip antenna designed for high efficiency mobile operation. Antenna may be mounted on bumper or rear fender. Base has 3/8" threaded stud to fit any standard mobile base mount.

Model V-102-SS . . . . . Net, $6.84

STANDARD LINE



The V-11-UGP is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. Rugged, 6061-T6 aluminum. 100% rust and corrosion proof.

Model V-11-UGP . . . . . Net, $21.95

A 57" telescoping three section disguise antenna. Designed to be mounted on front fender of vehicle. Complete with coax matching system and M-1200 connector.

Model LC-57-A . . . . . Net, $15.70

Chrome plated 4 section disguise antenna that telescopes from 100 inches to 39 inches. Designed to be mounted on rear fender. Use standard mobile whip mount, not supplied.

Model LC-100 . . . . . Net, $8.94

A 57" three section telescoping vertical antenna, designed for mounting on transceiver, window or desk. Mounting is achieved by means of a large suction cup at the antenna base. Loading coil is enclosed in a molded plastic cover. Complete with coax and M-1200 connector.

Model LC-27-V . . . . . Net, $7.35

for SHORT WAVE LISTENERS

A seven band receiving dipole that offers real "DX-Ability" on 11, 13, 16, 19, 25, 31 and 49 meters. Made of No. 16 tinned copper wire with glazed porcelain insulators. Entire antenna weighs just 2 lbs. and is 40 feet in length. 75 ohm twin-lead transmission line supplied.

Model SWL-7 . . . . . Net, $14.75

A receiving dipole for 10, 15, 20, 40 and 75/80 meters. Antenna is 69 feet in length. Has all the same mechanical construction as the Model SWL-7.

Model RD-5 . . . . . Net, $15.75

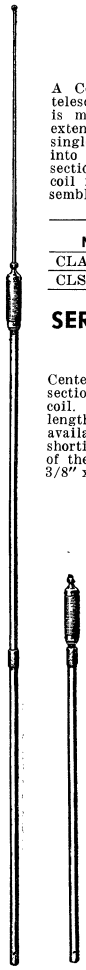
© U.C.P., Inc.

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

SERIES C CENTER-LOADED MARINE ANTENNAS

A Center-Loaded Collapsible type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of seamless aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000"	.834"	5	$50.00
CLS-1119	Stainless	1.000"	.900"	7	110.00



SERIES C

SERIES B CENTER-LOADED ANTENNAS FOR MOBILE & MARINE USE

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8" x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	$15.00
BXS-23	2374 kc. (CAP)	15.00
BXS-31	3105 kc. (APT)	15.00
BXS-38	3800 kc. (75M)	15.00
BXS-43	4325 kc. (CAP)	15.00
BXS-46	4585 kc. (CAP)	15.00
BXM-25	2000 to 3000 kc. (Marine)	15.00
	(Same as BXS but with Spring)	
BSS-14	14,000 kc. (20M.)	25.00
BSS-23	2374 kc. (CAP)	25.00
BSS-31	3105 kc. (APT)	25.00
BSS-38	3800 kc. (75M.)	25.00
BSS-43	4325 kc. (CAP)	25.00
BSS-46	4585 kc. (CAP)	25.00
BSM-25	2000 to 3000 kc. (Marine)	25.00

SERIES B COILS

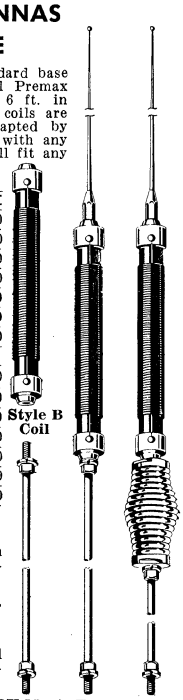
Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

List Price.....$9.00 ea.

MAST EXTENSIONS

Polished Stainless Mast Extensions—threaded 3/8"-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12", 18", 24", 30" and 36" lengths.

Prices range from $4.00 to $8.00 list each



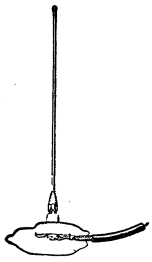
Style B Coil — BX Mast Extension — Type BXS — Type BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru 1/2" hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	$4.00
CD-114	144 mc.	4.00
CD-115	152 to 162 mc.	4.00
CD-212	108 to 120 mc.	2.80
CD-214	144 mc.	2.80
CD-215	152 to 162 mc.	2.80



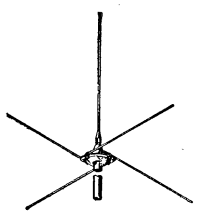
CD-11

CD-21

GROUND PLANE ANTENNAS FOR POINT-TO-POINT USE

For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2" pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	$8.00
GP-314	140 mc.	For 2 meter and CD.	8.00
GP-315	150 mc.	For police and taxi	8.00

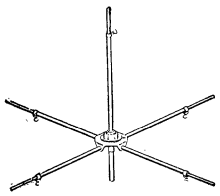


GP-3

PREMAX ADJUSTABLE GROUND PLANE ANTENNAS 20-60 mc

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.23 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	$50.00
GP-450	Adjustable 40-60 mc.	40.00



GP-400 Series

MOBILE MOUNTINGS FOR USE WITH WHIPS WITH 3/8"—24 MALE THREAD

Type CA

CA BUMPER MOUNTING

"Chain Style — clamps on any bumper with 1" clearance; no drilling; theft-proof.

Price $11.00

Type SA-2

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4 1/4", diameter 2 3/8".

Price $12.50

Type R-2

R-2 UNIVERSAL COAX TYPE MOUNTING

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

Price $15.00

Type R-3

R-3 UNIVERSAL MOUNTING

Solid Polished Aluminum Swivel Ball. Heavy stainless steel back-up plate with grounding screws. Stainless steel hardware.

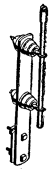
Price $15.00

Type NA-1

TYPE NA-1

Bumper mounting with ceramic cone insulator and steel bracket.

Price $8.50



Type L-1

TYPE L-1

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10" adjustment.

Price $14.00

Type RS-2

TYPE RS-2 COMBINATION

Similar to R-2 except has spring as shown under SA-2.

Price $25.00

Type F

TYPE F

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price $13.50

Type V

TYPE V

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2" deck. Stud threaded 7/16"-24.

Price $9.00

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

Trade Discount Applies to List Prices Only

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PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS

Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

PREMAX ALUMINUM ANTENNAS

Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

PREMAX STEEL ANTENNAS

Inexpensive, popular, fully adjustable telescoping steel antennas for commercial, amateur, civil defense or other installations, made of high-tensile copper-nickel steel tubing, are heavily cadmium-plated. A positive locking device insures proper electrical contact between sections. *Not recommended for marine use on salt water.*

SPECIFICATIONS & DESCRIPTIONS OF TELESCOPING VERTICALS

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18'4"	6'3"	.750"	.680"	6	$ 90.00
SS-1124	4-Sec. Stainless	24'3"	6'3"	1.000"	.900"	9	135.00
SS-1130	5-Sec. Stainless	30'0"	6'4"	1.250"	1.120"	13	185.00
SS-1135	6-Sec. Stainless	35'7"	6'4"	1.500"	1.370"	19	255.00
AL-312	2-Sec. Aluminum	12'4"	6'4"	.500"	.334"	1½	15.00
AL-518	3-Sec. Aluminum	18'5"	6'4"	.750"	.584"	3	25.00
AL-324	4-Sec. Aluminum	24'4"	6'4"	1.000"	.834"	5	35.00
AL-530	5-Sec. Aluminum	30'0"	6'5"	1.250"	1.084"	7	55.00
AL-535	6-Sec. Aluminum	35'8"	6'5"	1.500"	1.310"	12	75.00
112-M	2-Sec. Steel	11'8"	6'0"	.656"	.556"	4	12.00
318-M	3-Sec. Steel	17'3"	6'2"	.875"	.775"	7	18.00
224-M	4-Sec. Steel	22'9"	6'3"	1.063"	.963"	11	25.00
130-M	5-Sec. Steel	28'3"	6'4"	1.250"	1.150"	15	30.00
136-M	6-Sec. Steel	33'9"	6'5"	1.500"	1.400"	20	38.00

BASE MOUNTINGS FOR VERTICALS

TYPE 1 BASE INSULATOR

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price.....$52.00 to $105.00

TYPE 6 BASE INSULATOR

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6" in diameter with 6 bolts on a 5" circle. For ½" to 3" deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3" to 5". Wt., 11½ lbs.

List Price.....$78.00 to $170.00

STANDOFF INSULATORS

TYPE 10-S

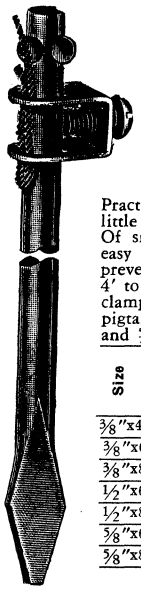
A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4½". Wt., 3 lbs.

List Price.....$60.00 to $72.00

TYPE 13-S

Heavy, rugged cast caps and base plates in aluminum, or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4¾". Wt., 2½ lbs.

List Price.....$13.00 to $25.00



PROTECT YOUR EQUIPMENT WITH A PREMAX GROUND ROD!

Practical and efficient Ground Rods, costing so little that it doesn't pay to fuss with makeshifts! Of smooth, hard-drawn steel, chisel-pointed for easy driving and heavily copper-plated for rust prevention and to insure clean electrical contact. 4' to 8' lengths in ⅜", ½" and ⅝" with screw clamp (illustrated) or in 6' and 8' lengths in pigtail wire, drilled hole or plain style, ½" and ⅜" only.

Size	Screw No.	Clamp List	Hole No.	Hole List	Pigtail No.	Pigtail List	Plain No.	Plain List
⅜"x4'	J-64	$ 80						
⅜"x6'	J-66	110						
⅜"x8'	J-68	165						
½"x6'	G-86	210	H-86	$200	P-86	$225	X-86	$180
½"x8'	G-88	250	H-88	240	P-88	265	X-88	220
⅝"x6'	G-106	300	H-106	290	P-106	315	X-106	265
⅝"x8'	G-108	380	H-108	370	P-108	395	X-108	345

(Prices are per 100 rods, bundled in 25s)

MOBILE WHIP ANTENNAS

HEAVY DUTY TAPERED STAINLESS—TYPE ES

Solid one-piece taper-ground whips, ¼" at base tapering to 3/32" at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

STANDARD WEIGHT TAPERED STAINLESS WHIP WITH NON-REMOVABLE ADAPTOR—TYPE TS

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with ⅜" male thread.

STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—TYPE VS

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60"	$6.00
ES-772	72"	6.00
ES-784	84"	7.00
ES-796	96"	7.00
EC-660	60"	5.50
EC-672	72"	5.50
EC-684	84"	6.50
EC-696	96"	6.50

AD-700 — Separate Stainless Adaptor with ⅜" male thread for ES and EC series whips.

NO.	LENGTH	PRICE
TS-860	60"	$7.00
TS-872	72"	7.00
TS-884	84"	7.50
TS-896	96"	7.50
TS-8108	108"	8.00
VS-960	60"	8.00
VS-972	72"	8.00
VS-984	84"	8.50
VS-996	96"	8.50
VS-9108	108"	9.00

AD-900 Same as AD-700 except drilled for VS series whips.

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

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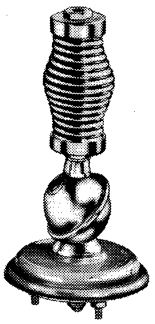
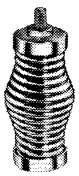
NEW-TRONICS MOBILE COMMUNICATION ANTENNAS

MECHANICALLY BETTER . . . ELECTRICALLY SUPERIOR



NTS-1

NTS-2



NTS-3

MODEL NT

FEATURES

of the base and spring assembly

- **NO EXPOSED MOUNTING BOLT HEADS**
  Attractively contoured base with integral mounting studs. Long leakage path.
- **ONE MAN INSTALLATION**
  Other mobile antenna bases require one man to hold a tool on outside of car body while another man tightens bolts on underside.
- **LIGHTER WEIGHT**
  Weighs almost a pound less than ordinary styles. Reduces flexing ("oil canning") of fender or body.
- **REDUCED SPRING ASSEMBLY LENGTH**
  Has all the deflecting properties and characteristics of standard barrel - type springs. Neater appearance.
- **TOUGH, MOULDED MOUNTING PAD**
  Fits snugly, provides excellent water seal and protects against excessive strain on mounting insulator.

STAINLESS MODELS

Stainless ball, spring and exposed hardware

MODEL NTS-1 Base, ball and spring assembly
MODEL NTS-2 Base and ball assembly only
MODEL NTS-3 Spring only

CADMIUM PLATED MODELS

Same as stainless models except all elements are cadmium plated.

MODEL NTC-1 Base, ball and spring assembly
MODEL NTC-2 Base and ball assembly only
MODEL NTC-3 Spring only

CHROMIUM PLATED MODELS

Same as stainless models except all elements are triple plated. First copper, then nickel and finally chrome.

MODEL NT-1 Base, ball and spring assembly
MODEL NT-2 Base and ball assembly only
MODEL NT-3 Spring only

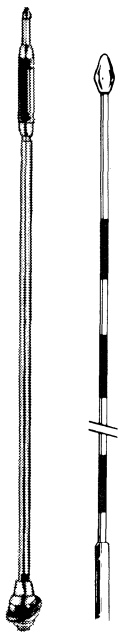
SHIPPING WEIGHTS

Apply to all above models

Base, ball and spring assembly.	Individual pack	3 lbs.
	6 pack master	18 lbs., 11 oz.
Base and ball assembly only.	Individual pack	1 lb., 6 oz.
	3 pack master	8 lbs., 10 oz.
Spring only.	Individual pack	1 lb., 11 oz.
	6 pack master	10 lbs., 10 oz.

Other antenna models, cable and accessories are also available for immediate delivery.

MODEL CB-27
MOBILE ANTENNA for CITIZENS BAND and AMATEUR (28-30 MC)



23 channel coverage...tunable...low SWR

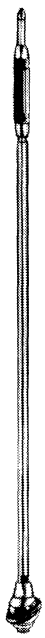
4 section, heavy duty brass tubing assembly, triple chrome plated for long lasting qualities. Precision fit to avoid rattling and to provide 100% contact. Opens to 60". Collapses to 27".
Ball type swivel base mounts on any car surface. Fits any hole 15/16" or 1". Adjusts to 30°. Excellent grounding properties.
Sealed loading coil solidly affixed to tubing.
Stainless tuning rod with etched tuning scales.
Includes 5 feet of RG58/U coaxial cable with PL-259 connector on one end. 52 ohm match.

TUNING FEATURES

Tunable top rod section has etched tuning scales permitting field adjustment for use with either 27 MC Citizens Band or 28-30 MC Amateur Bands.
This feature (pat. applied for) is found on no other antenna of this type.

Shipping weight:
Individual pack.....1 lb., 4 oz.
6 pack master.....8 lbs., 3 oz.

MODEL NB-40
40 MC MOBILE ANTENNA SPECIALLY DESIGNED FOR SUPERIOR PERFORMANCE OF COLLINS NOISE BLANKER



4 Section, heavy duty brass tubing assembly, triple chrome plated. Precision fit. Opens to 60". Collapses to 27". Stainless tuning rod.
Ball type swivel base mounts on cowl, fender or rear deck of car. Adjusts to 30°.
Sealed loading coil firmly attached to tubing.
Includes 5 feet of RG58/U coaxial cable with split end for termination on blanker. 52 ohm match.
Similar in appearance and construction as the CB-27, however electrical characteristics are different.
Model NB-40 is designed for the COLLINS Noise Blanker normally used in connection with the COLLINS KWM-2 or COLLINS "S" line. The broad banding characteristics of the tunable antenna permit extensive attenuation of even power line noises, as well as car ignition.

Shipping weight:
Individual pack.....1 lb., 4 oz.
6 pack master.....8 lbs., 3 oz.

STAINLESS STEEL WHIPS

All made of 17-7PH taper ground stainless steel, the best available for this purpose. Available in four standard sizes.
Adaptors are machined brass, triple chrome plated to better than automotive specifications. They have two hex hollow head screws to firmly seize whip when installed. 3/8"-24 male thread.

WR-108	108"	WR-96	96"
WR-102	102"	WR-60	60"

Minimum of 6 per master (Mixed sizes if desired)

NEW-TRONICS DIVISION — CLEVELAND, OHIO

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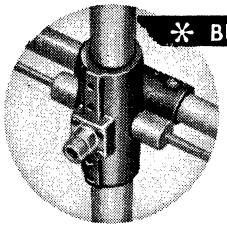
UHF • VHF — Complete Antenna Coverage —

Precision Industrial Antennas by SCALA

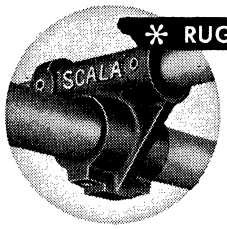
Why you get better performance with Scala Antennas–



✲ BUILT-IN BALUN

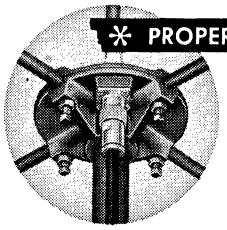
(pat. pending)

Provides a balanced feed system assuring equal distribution of current to the driven element, greater electrical and mechanical stability. The balun allows the driven element to be supported by metal and eliminates the necessity of using the insulator as a mechanical support.



✲ RUGGED CONSTRUCTION

Elements are supported by machined castings providing a larger support area, damping vibrations and reducing the concentration of stress and metal fatigue. Mechanical splices are never used. All units are available in metals other than aluminum if desired.



✲ PROPER STRUCTURAL DESIGN

A machined casting, webbed for extra strength and structural support is used to hold parasitic elements in the ground plane antenna. Set screws and lock nuts provide simple assembly and easy installation.

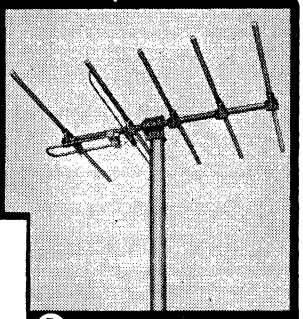
✲ BUILT-IN HEATER

Most of the antennas described below can be obtained with a 24 volt heating system for maximum weather protection and assured winter operation.

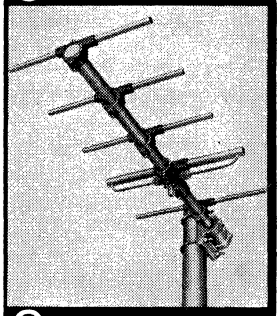
✲ TESTING AND INSPECTION

Each antenna is tested twice for impedance match—once during manufacture and again prior to dis-assembling for shipment. New models are field-tested for one year before released for production.

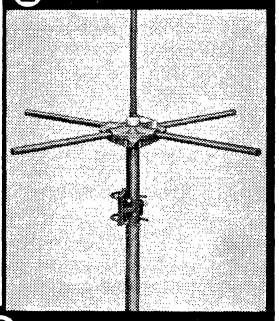
**Shipped complete—all U-bolt mounting clamps and brackets are included. Unit is ready for installation.*



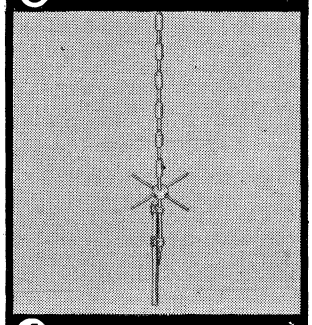
1 MODEL CA5-150



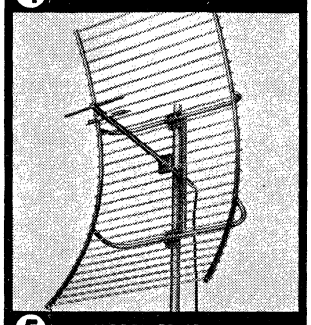
2 MODEL CA5-450



3 MODEL GPC-150



4 MODEL OG-6



5 MODEL PR-450

1 YAGI—VHF

The Scala Model CA5-150 is a 52-ohm 5 element yagi. Nine db gain on the major lobe is assured by careful design and Scala's exclusive feed system which eliminates radiation from the feed line and provides equal distribution of current to the driven element. The VSWR is less than 1.3 to 1. For complete weatherproofing and year-around operation, the boom can be provided with a 24 v heater. The unit is annodized and dichromate sealed.

2 YAGI—UHF

The Scala Model CA5-450 general communications antenna is a product of years of extensive research. Its construction is possible only because of developments in foam plastics and Teflon insulated cable. A Teflon insulated balun is located within a chamber filled with a special foam plastic for complete moisture and corrosion protection. High strength 7/16" solid aluminum rod is used for the parasitic elements. VSWR is less than 1.3 to 1. Gain is 10 db. Two units may be mounted in an array for an increase in gain up to 3 db and greater directivity. Shipped completely assembled, the unit is annodized and dichromate sealed.

3 GROUND-PLANE—40-170 MC

The Scala Model GPC-150 ground-plane antenna is ideal for non-directional, all weather communications. It is the first ground-plane antenna that can be obtained with 24 v heaters throughout — including the radial elements, providing a completely weatherproof and safe year-round operating antenna. Another version of this unit, comes equipped with a reflector and provides a cardioid radiation pattern with increased gain. In all cases the VSWR is less than 1.3 to 1. The unit is annodized and dichromate sealed.

4 OMNI-DIRECTIONAL GAIN ANTENNAS

Scala's Omni-Directional Gain Antennas—150 Mc and 450 Mc—use half-wave independently fed radiators. Model OD-4 (150 Mc) provides 4 db plus gain over dipole; Model OD-6 (450 Mc) 6 db plus gain over dipole. All elements at DC ground supported by metal. Extremely rugged anodized aluminum construction. Shipped ready for installation.

5 PARAFLECTOR®—350-1000 MC

The Scala Model PR-450 Paraflector® is a major contribution toward the improvement of antenna construction and performance in the 350 to 1000 mc range. Essentially, a parabolic section in one plane, the driver is positioned to approach a point source. Over the 350 to 1000 mc range, the Paraflector® is equal to a parabolic dish of the same aperture and has the advantage of lower cost, lighter weight, ease of assembly, installation and rugged construction.

EXACTING DESIGN—TESTED MATERIALS—PRECISION MANUFACTURE

In addition to the antennas described above, and other standard communications, telemetering and community systems, Scala maintains a complete engineering service to design and manufacture special antennas to your specific requirements.

Write for complete catalog on Scala antennas and engineering services. Address Dept. EM 58.

SCALA RADIO COMPANY

SAN FRANCISCO, CALIF.

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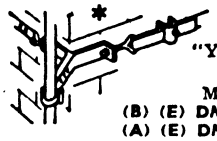
South River — THE COMPLETE QUALITY LINE OF ANTENNA MOUNTING ACCESSORIES

CHIMNEY MOUNTS

U.S. Pat. #2482575, Can. Pat. #463261

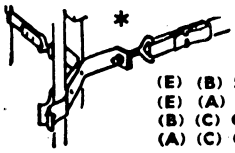


"Y" TYPE HOT DIP GALV. STEEL

MODEL	LIST
(B) (E) DM-36	$3.75
(A) (E) DM-36-ST	5.25
(B) (C) "Y" Special	2.95
(A) (C) "Y" ST Special	3.75

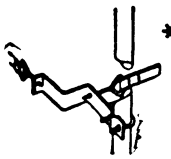
COMPLETELY ALL STAINLESSS

(A) ST-DM	7.65



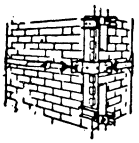
SNAP-IN TYPE

MODEL	LIST
(E) (B) SN-50	$3.30
(E) (A) SN-50-ST	4.30
(B) (C) CM-20	2.95
(A) (C) CM-20-ST	3.75



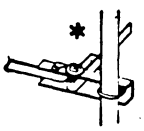
"Z" TYPE

MODEL	LIST
(B) (C) ZM	$2.25
(A) (C) ZM-ST	3.50
(B) (C) ZM-2	2.15
(A) (C) ZM-2-ST	2.75



ONE PIECE TYPE

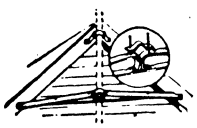
MODEL	LIST
(E) (A) (One Strap) UM-1-ST	$6.65



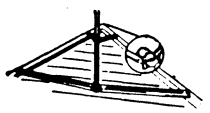
RATCHET TYPE

MODEL	LIST
(B) RT	$4.25
(A) RT-ST	5.25

EAVE MOUNTS

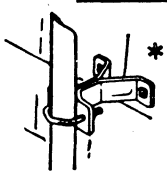


MODEL	LIST
EM-1	$5.30



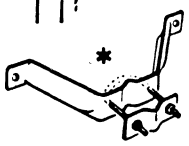
MODEL	LIST
30" EM-30	$4.35
48" EM-48	6.10
60" EM-60	7.65

WALL BRACKETS

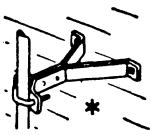


"U" BOLT TYPE

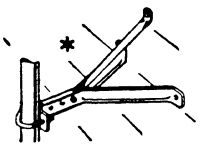
MODEL	LIST
3" Alum. WB-3	$2.15



MODEL	LIST
3" NT-3	$1.35
4" NT-4	1.50



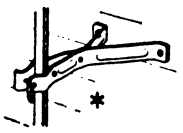
MODEL	LIST
6" WB-6	$2.20

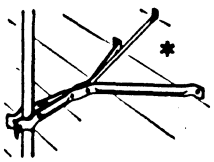


MODEL	LIST
9" WB-9	$3.20
12" WB-12	4.45
15" WB-15	5.15
18" WB-18	5.80
24" WB-24	7.35

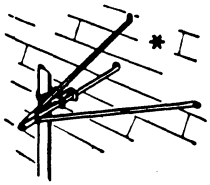
SNAP-IN TYPE

MODEL	LIST
6" SN-6	$2.20



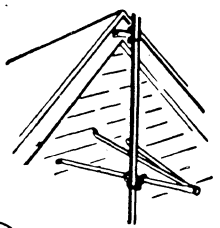


MODEL	LIST
9" SN-9	$3.20
12" SN-12	4.45
15" SN-15	5.15
18" SN-18	5.80
24" SN-24	7.35

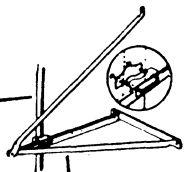


ADJUSTABLE

MODEL	LIST
18" Alum. WB-18A	$7.55



MODEL	LIST
Combination WB-3-18A	$5.40
All Aluminum	



MODEL	LIST
ST-18A Assembled	$9.05
ADJ-18 Unassembled	6.60
ALL STEEL	

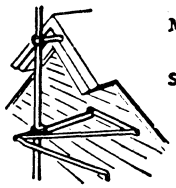
CODE:

* TWO TO A SET

(A) Stainless Steel Banding
(B) Galv. Steel Banding
(C) Economy Model
(D) Not Illustrated
(E) With Kwik Klip
(F) U.S. Pat. # 2734708
(G) Fits Masts Up To 1½"
(H) Fits Masts Up To 2"

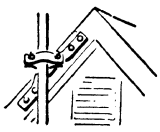
Complete descriptions and list of South River Products available in latest catalog. Write for your copy.

WALL BRACKETS



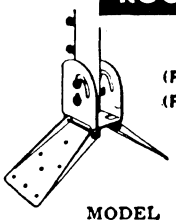
MODEL	LIST
Combination Assembled	
ST-3-18A	$5.65
Combination Unassembled	
ADJ-3-18	4.95
ALL STEEL	

HEAVY SWIVEL GROUND UP TYPE

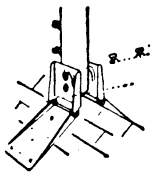


MODEL	LIST
GU-3 (Fits Masts Up To 3⅜" O.D.)	$5.85 pr.
GU-7 Fits Masts up to 2⅝" O.D.	$3.50 pr.

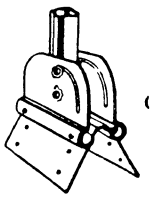
ROOF MOUNTS



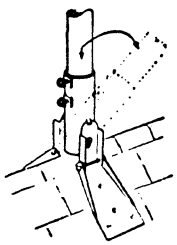
MODEL	LIST
(F) (G) PFM-1	$3.60
(F) (H) PFM-1-LM	4.45



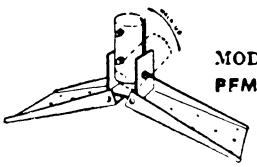
MODEL	LIST
(F) (G) PFM-30	$3.15
(F) (H) PFM-30-LM	4.10



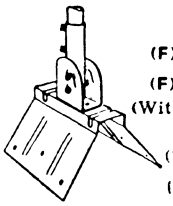
MODEL	LIST
(F) (G) PFM-2 All Aluminum	$6.70



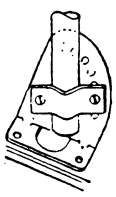
MODEL	LIST
(G) PFM-90	$2.10
(H) PFM-90-LM	3.05
(C)(D)(G) SPF-9	1.75
(C)(D)(H) SPF-9-LM	2.30



MODEL	LIST
PFM-XL (Fits Masts Up to 2¼" O. D.)	$5.60



MODEL	LIST
(F) (G) PM-10	$4.60
(F) (H) PM-10-LM (Without Patented Walk-Up Drop-Lock Feature)	5.30
(D) (G) PM-12	2.80
(D) (H) PM-12-LM	3.50



MODEL	LIST
(G) UR-1	$.55
(G)(D) UR-2 Slotted	.55
UR-3 Slotted—with U-Bolt & Saddle	.65

SOUTH RIVER METAL PRODUCTS CO., INC., South River, New Jersey

Trade Discount Applies To List Prices Only

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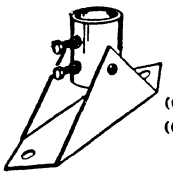
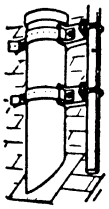
South River — THE COMPLETE QUALITY LINE OF ANTENNA MOUNTING ACCESSORIES

ROOF MOUNTS



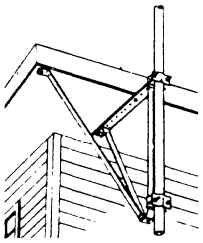
MODEL	LIST
(G) RM-80	$1.20
(H) RM-80-LM	2.20
(C) (G) SRM-8	.90
(C) (H) SRM-8-LM	1.40
(D) RM-XL*	3.40

*(Fits Masts Up To 2¼" O.D.)

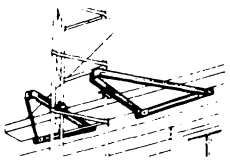


PIPE MOUNT

MODEL	LIST
(B) P-1	$2.85
(A) P-1-ST	3.20
(D) P-2 Clamp Type	$2.30

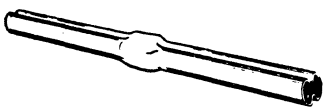


Under-Eave Mount
Model #UE-1 — $6.10 ea

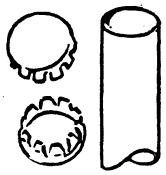


Tower Support
Model TS-1 — $8.35 pr.

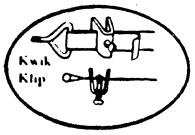
ACCESSORIES



Mast Coupler MC $.95



Mast Plug MP .20

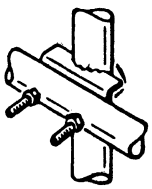


KWIK KLIP

MODEL	LIST
KK	$.25

Complete descriptions and list of South River Products available in latest catalog. Write for your copy.

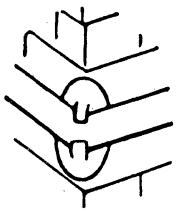
ACCESSORIES



MODEL	LIST
"U" Bolt & Saddle UBS	$ .35

CORNER GUARD

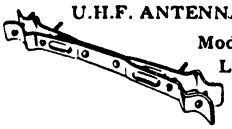
MODEL	LIST
CG	$.49



STRAP CLAMPS

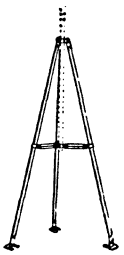
MODEL	LIST
(C)-Q Galv. Steel	$ .07
(C)-QS Stainless Steel	.15

U.H.F. ANTENNA MAST ADAPTERS
Model UHB-15
List $1.75

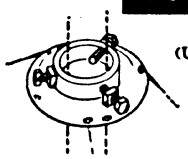


BANTAM TOWERS

MODEL	LIST
BT-5	$ 7.15
BT-10	10.00

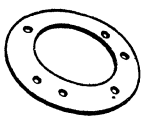


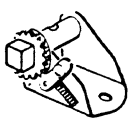
GUY RINGS



(Universal Type Fits Masts up to 2")
Model GR-1
List $1.55

MODEL	LIST
1¼" MASTS GR-5	$ .20
1⅜" MASTS GR-6	.30
1½" MASTS GR-7	.30
(D) Guy Ring Support RS-5 (For 1¼" Masts)	.25



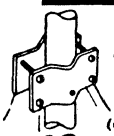


RATCHET GUY WIRE TIGHTENER
Model GW-RT
List $ .70

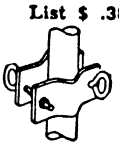
GROUND RODS

MODEL	LIST
(D) 4 Ft. GND-4 CP	$1.05
(D) 6 Ft. GND-6 CP	1.55
(D) Gnd. Rod Clamp GRC-2	.17

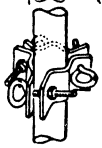
GUY WIRE CLAMPS



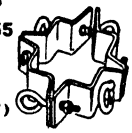
(G) Model GC-1 List $ .38



(G) Model GC-2
List $ .41



(H) Model GC-3
List $ .55
Model GC-4
List $ .75
(For Masts Up to 3")



ALUMINUM MAST TUBING

ALLOY: 6063 T832
NATURAL SILVER TYPE
WALL THICKNESSES—.042", .050", .054", .056"
LENGTHS: 5', 6', 7½', 10'
GOLDEN ANODIZED TYPE
WALL THICKNESSES—.042", .050"
LENGTHS: 5', 10'

ALUMINUM GUY WIRE

ALCLAD, STRANDED—#500 lb. TEST
7 STRAND 17 GAUGE
REGULAR, STRANDED—#400 lb. TEST
7 STRAND 18 GAUGE
50' INTER-CONNECTED COILS
100' INTER-CONNECTED COILS
1000' CONTINUOUS COILS

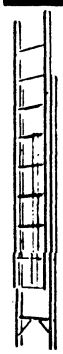
ALUMINUM GROUND WIRE

#8 E.C. Grade (Dead Soft)
50' INTER-CONNECTED COILS
100' INTER-CONNECTED COILS
1000' CONTINUOUS COILS

REPLACEMENT BANDING KITS

A	12 Ft. Straps	$1.80
AT	10 Ft. Straps	1.45
C	12 Ft. S.S. Straps	3.05
CT	10 Ft. S.S. Straps	2.60
XLG	18 Ft. Straps	2.45
XLST	18 Ft. S.S. Straps	4.45

SOUTH RIVER SUPERLIGHT MAGNESIUM LADDERS



Magnesium: 1/3 Lighter than Aluminum, Strongest Metal Lb. for Lb. in existence.

EXTENSION LADDERS

Size	Weight	List Price
40'	57 Lbs.	$136.00
36'	51 "	122.40
32'	46 "	108.80
28'	32 "	84.00
24'	28 "	72.00
20'	23 "	60.00
Rubber Safety Feet		4.00 pr.

STRAIGHT LADDERS

Size	Weight	List Price
20'	22 Lbs.	$56.00
16'	18 "	44.80
14'	15 "	39.20
12'	13 "	33.60
10'	11 "	28.00
Rubber Safety Feet		pr. 4.00
Roof Hooks		pr. 3.65

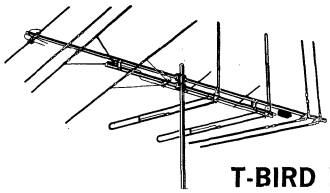
STEPLADDERS

Size	Weight	List Price
8'	16 Lbs.	39.50
6'	12 "	28.00
4'	9 "	21.50
26" Jr.	5 "	9.98

These ladders furnished immediately from complete warehouse stocks in South River, N. J.

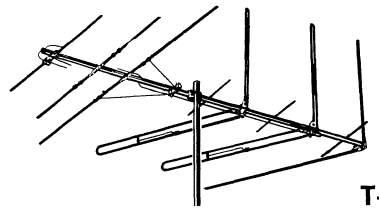
SOUTH RIVER METAL PRODUCTS CO., INC., South River, New Jersey

TACO the Complete Antenna line



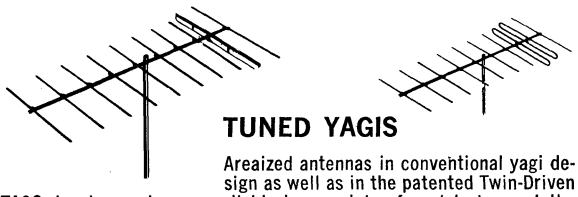
TRANSISTORIZED T-BIRD ELECTRA

All the inherent gain and sharp directivity characteristics of the famous TACO T-Bird—amplified electronically for the highest signal-to-noise ratio and the sharpest, clearest pictures obtainable. The T-Bird Electra increases gain more than 1000% over non-powered models. Ideal for color or black and white. Two in-built networks—for 2 TV sets, or TV and FM. Tremendous power permits feeding any number of receivers through distribution systems*. Transistorized circuitry eliminates costly, bothersome tube burnouts. Powered by house current. Available in three models. The right one for every area.
***Several additional receivers can be fed from the "Electra" utilizing TACO multi-set couplers.**



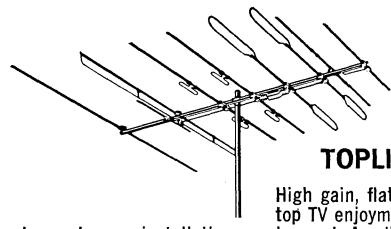
T-BIRD ANTENNA

The world's most famous non-powered broad-band VHF antenna. Provides flat response across every channel at very high gain. Three models available, with gain of each designed to meet the requirements of any reception area. Stacking lines obtainable to meet the most extreme problem area needs. All TACO T-Birds are rust-resisting through the application of chromate finish on steel parts... Golden models completely protected by Golden Anodizing of **ALL** aluminum parts including connection terminals. Unique T-Bird design completely eliminates side lobes thus producing pictures that are noticeably sharper... clearer... brighter.



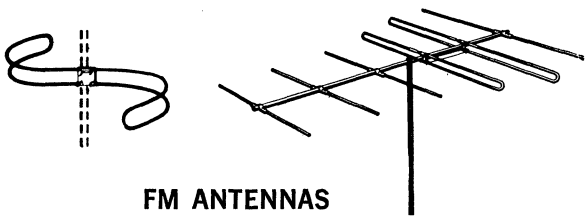
TUNED YAGIS

Areaized antennas in conventional yagi design as well as in the patented Twin-Driven TACO developments are available in a variety of models to meet the specific needs of the installer. Employing advanced engineering techniques, they are "tuned" to meet specific requirements, such as local conditions which would otherwise make TV viewing unsatisfactory or impossible. TACO areaized antennas are available in two series... Deluxe and Highlander models.



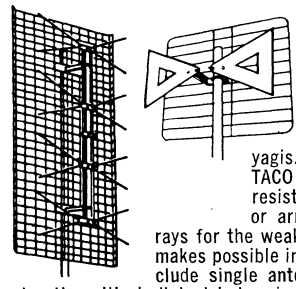
TOPLINER ANTENNAS

High gain, flat response VHF yagis for top TV enjoyment. Four models offered to meet every installation requirement. Anodized and iridited finishes result in 100% rustproof assembly. Also available in polished aluminum finish. Streamlined design, lightweight, and extra-strong construction make the Topliner Series ideal for use with rotors. Stacking lines available for extra gain.



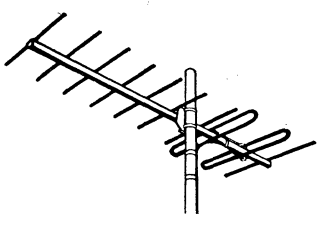
FM ANTENNAS

The most complete line of FM antennas offered. Omnidirectional designs include turnstile and S-shaped dipoles. Directional extra-gain yagis in various element designs for fringe and ultra-fringe areas. All TACO FM antennas are engineered for flat response over the entire FM band with optimum impedance match to transmission line for maximum transfer of signal.



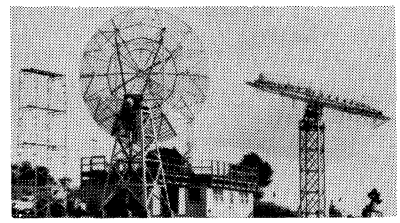
UHF TV ANTENNAS

UHF antennas for every installation, including bow-ties and yagis. Bow-tie series includes the famous TACO "open design" for minimum wind resistance. Bow-ties available in singles, or arrays, including ultra-high gain arrays for the weakest signal areas. Quick-rig feature makes possible installation in minutes. UHF yagis include single antennas and arrays. All welded construction with air dielectric terminal. To meet the special requirements of the Educational TV and Translator applications, TACO has developed a complete line of companion models, specifically tuned to these important communication frequencies.



RUGGEDIZED YAGIS

All-welded, all-aluminum construction, tuned-to-function yagis for community systems, off-the-air rebroadcasting, satellite transmission, point-to-point transmission, or any other application requiring the finest, longest-lasting service. Coaxial feed. Built-in balun. Available for any VHF or FM frequency. May be horizontally or vertically polarized. All types of mounting and stacking arrangements. Screen reflectors for multiple arrays.



TACO TEST SITE PROVES PERFORMANCE

TACO owns and operates the most comprehensive and complete engineering, development and testing facilities in the antenna industry. Many of the most advanced antenna systems for both the military and industrial markets have been designed and built by TACO. This experience, plus the outstanding facilities of the TACO organization are reflected in every TACO product through better performance, longer life, and maximum value.

ASK YOUR TACO DISTRIBUTOR FOR COMPLETE DETAILS... NOT ONLY ON THE PRODUCTS INDICATED, BUT ALSO ON ALL PRODUCTS USED IN RECEPTION AND TRANSMISSION OF SIGNALS.

TECHNICAL APPLIANCE CORPORATION, SHERBURNE, NEW YORK.

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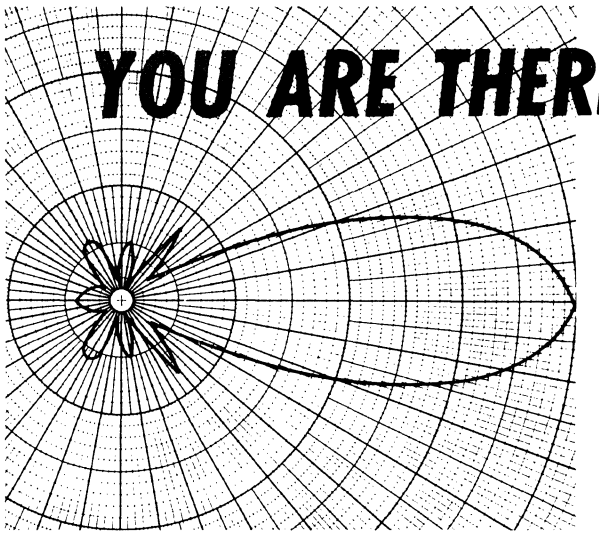
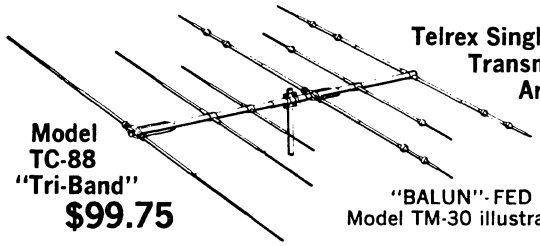


YOU ARE THERE! with Telrex

—"the-performance-line"—

with a "MATERIAL" difference!

Send for (or, at your distributor), PL 77 Technical Specifications and Performance Bulletin describing 106 Antennas from ¾ through 80 meters including "BALUN"—FED ROTATABLE DIPOLES, MONO, DUO, TRI, 4-BAND AND "SPIRALRAY" ANTENNAS, ROTATOR/INDICATOR SYSTEMS, TOWERS, BROAD-BAND "BALUNS," ACCESSORIES AND "NICE-TO-HAVE-AROUND-YOUR-SHACK" INFO.



Telrex Single Transmission Line Arrays

Model TC-88 "Tri-Band" $99.75

"BALUN"-FED Model TM-30 illustrated

TC-88- thirty pounds of educated aluminum—
World Renowned for performance, excellence and value. Also—

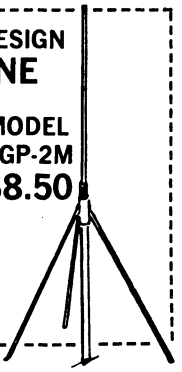
Model TC-99 . . $159.50
Model TM-30 . . $328.00
Model DP-3 . . . $38.50
(10-15-20 Meter Dipole)
Model DP-4 . . . $195.00
(10-15-20-40 Meter Dipole)

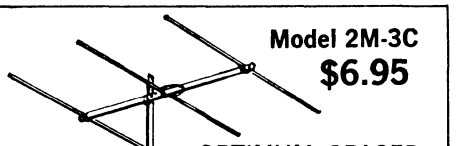
TELREX ADVANCED DESIGN GROUND—PLANE

THE VERY BEST GROUND-PLANES MONEY CAN BUY!

MODEL CGP-2M $8.50

CGP-2M . . . $8.50
CGP-6M . . . $11.75
CGP-1011M $19.95
CGP-15M . . $37.95
CGP-20M . . $88.00

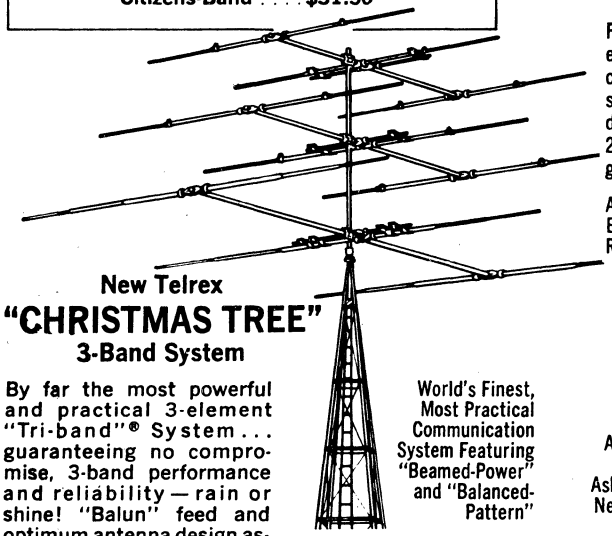




Model 2M-3C $6.95

3 ELEMENT OPTIMUM SPACED "BALUN"-FED YAGI'S

Model 2M-3C $6.95
Model 6M-309 . . . $14.95
Model 10M-309 . . $31.50
Citizens-Band $31.50

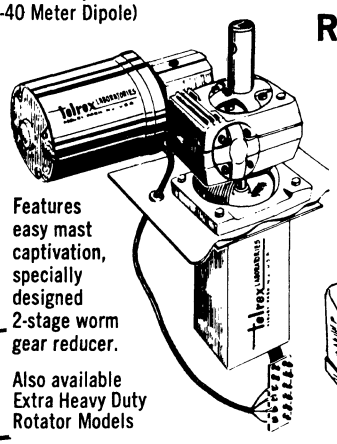


New Telrex "CHRISTMAS TREE" 3-Band System

By far the most powerful and practical 3-element "Tri-band"® System . . . guaranteeing no compromise, 3-band performance and reliability—rain or shine! "Balun" feed and optimum antenna design assures...maximum gain, and impedance bandwidth, plus pattern symmetry with minimum TVI, BCI and harmonic radiation qualities not possible with single transmission line "Tri-banders".

World's Finest, Most Practical Communication System Featuring "Beamed-Power" and "Balanced-Pattern"

All prices FOB Asbury Park, New Jersey, subject to change without notice.

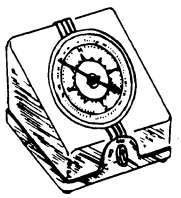


Features easy mast captivation, specially designed 2-stage worm gear reducer.

Also available Extra Heavy Duty Rotator Models

Telrex Model 175-RIS ROTATOR/INDICATOR System $198.50

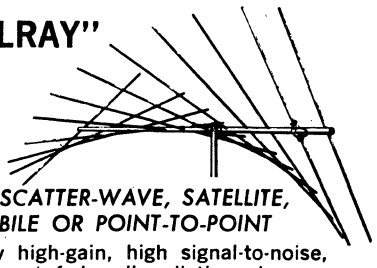
Designed to out-perform and outlast any other beam rotator in its class. Will hold and rotate beams in winds up to 110 mph. Control Housing is Telrex quality thru-out. Black japanned aluminum housing. Tri-colored azimuth rose and reciprocal readings. Has selsyn indication and limit of rotation circuitry.



"SPIRALRAY"

Model 2MSR-1114 illustrated

$19.50



FOR SCATTER-WAVE, SATELLITE, MOBILE OR POINT-TO-POINT

Extremely high-gain, high signal-to-noise, practically no fade, all radiation planes—horizontal, vertical or oblique! 9 models available on ¾, 1¼, 2 and 6 meters.

For TOP-MAN-ON-THE-FREQUENCY results...

Install a Telrex antenna...dollar for dollar better in every way! Antenna systems from $6.95 to $688.00

ANTENNAS SINCE 1921

Communication and TV Antennas

Telrex LABORATORIES

ASBURY PARK, NEW JERSEY, U.S.A.

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ward Highest Quality AUTO ANTENNAS

FRONT MOUNTS

LOKMATIC MODEL L-1000

Triple lock top mount. Fits all cars, including '60 — '61 models. Fits any hole 7/8" to 1 1/4". Installed in seconds by one man from the top — Water proof — Highest "Q" ever.

- 3 section to 56" from 19½".
- Triple chrome plated brass tubing.
- Adjusts to 43° LokMatic mount.
- 54" low loss Elektran lead cable.

12 cartons 12 lbs., 1 lb. ea.

DISAPPEARING MODEL D-2000

Collapses to only 6½" — complete installation from the top and Lok Matic mount. Fits any hole from 7/8" to 1¼". A really major advance in disappearing antenna.

- 3 section.
- Extends to 52" from 6½".
- 54" low loss Elektran lead cable.

12 carton — 24 lbs.

MODEL FM-100

The first practical FM Auto Antenna in Life-Lasting Fiberglass®.

- Rattle free "8" ball mount.
- Pre-cut at factory to 31" for finest FM reception.

12 carton: 11 lbs.

NEW SUPER "8" MODEL TCF-4

Extra heavy. Rugged 4 section antenna. "8" Ball mount. Installed in minutes, by one man, from the outside.

- 4 sections, to 57" from 18".
- Triple Chrome plated brass tubing.
- Adjust to 35° "8" ball mount.
- 54" low loss Elektran lead cable.

12-carton: 13 lbs., 1 lb. ea.

MODEL M-182-D

The only disappearing antenna specifically designed for Foreign, Sports and American Compact cars.

- 3 section disappearing mount.
- Extends to 20½" from 1".
- No brackets needed — LokMatic mount.
- 48" low loss Elektron lead cable.

DELUXE PHANTOM COMPLETE DISAPPEARING MODEL DCF-3C

Collapses to 1". Smart, sleek, with flame tip. Aluminum shield tube is water-sealed. Mounting bracket. Waterseal grommet.

- 3 sections to 45" from 1".
- Triple chrome plated brass tubing.
- 54" low loss Elektran lead cable.

12 carton: 15 lbs., 1¼ lbs. ea.

FIBERGLASS MODEL TGF-1

Chrome Fiberglass: Life - lasting Fiberglass® not merely painted with color, but impregnated. 16 carton: 6 lbs. Duraramic: Six colors — White, blue, green, yellow, tan, red. Cannot fade, rust, wear off; 6 carton: 6 lbs. Model TGF-1 Chrome. Model TGF-1 Color (specify)

- Single section 38" long.
- 4 inner-conductor wires.
- Will bend almost double, flex back.
- 54" low loss Elektran lead cable.
- "8" ball mount.

6 carton: 6 lbs.

MODEL M-171

Short 3 section for Sports and Foreign Cars

- Extends to 38" from 15".
- Adjusts to 35° — "8" ball mount.

12 carton: 24 lbs.

"8" BALL MODEL TCF-3C

The ageless "8" Ball, rattle-proof, always modern. Installed in minutes by one man, from the outside.

- 3 sections, to 56" from 22".
- Triple chrome plated brass tubing.
- Adjusts to 35°. "8" ball mounting.
- 54" low loss Elektran lead cable.

12 carton: 12 lbs. 14 ozs. ea.

REAR MOUNTS

SPARKLE MODEL TFL-1

Here's rear-fin styling that's the very latest! Deck or fender. Flat mounting pad and contour pad for high-crown fenders. Colorful display carton.

- 3 sections, to 27" from 9".
- 18" Elektron lead cable with built-in capacitors.

12 carton: 16½ lbs., 1⅓ lbs. ea.

Dummy model TFD-1:
Same as TFL-1 except no lead cable. Will not receive. *12-carton: 12 lbs., ¾ lb. ea.*

MIDGET "8" BALL MODEL TCT-2

Live short twins. Rear fender or deck. Same fine Ward Quality.

- 3 sections, to 24" from 11½".
- Triple chrome plated brass tubing.
- Adjusts to 35° "8" ball mount.
- Two 54" low loss Elektran lead cables.
- 15' lead extension with built-in capacitors.
- "T" connector and 5 clips.

6 twins to carton 13¼ lbs., Twin set 2 lbs.

SIDE MOUNTS

SKY QUEEN MODEL SC-6

Clean, simple styling. Two chrome capped stanchions assure sturdy mounting. Trouble-free, rugged and rattle-proof. Adaptable to foreign cars.

- 3 sections, to 56" from 25"
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable.

12-carton: 12¾ lbs., 1 lb. ea.

LONG RANGER MODEL SC-8

Extra length for extra pull in low-signal areas. Ideal for over-the-road truck equipment. Rattle-proof. Adaptable to foreign cars.

- 4 sections, to 100" from 39".
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable.
- Sturdy 2 stanchion mount with chrome caps.

12-carton: 21 lbs., 1½ lbs. ea.

CONTINENTAL FLEX ANGLE MODEL CF-6

The only antenna that fits the Volkswagon. Adaptable to other foreign cars. Flexible adjustment. Locks vertically.

- 3 sections, to 56" from 22".
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable

12 carton: 15 lbs., 1 lb. 7 oz. each

ACCESSORIES

REPLACEMENT MAST

3-section telescopic. Just slip on and tighten over stub of original mast with plated screws provided. Triple chrome plated brass tubing.

MODEL TCFR-1 extends to 57" from 24" — ½ lb.

Individual packed in cardboard tube — shipped bulk.

"T" CONNECTOR MODEL C-50

To connect two lead cables and lead extensions of Twin Rear mounts. One 3-way connector and 5 clips. *12 on display card — 1 lb.*

REPLACEMENT LEADS

Part No. 15-289	36"	bulk packed
Part No. 15-291	48"	bulk packed
Part No. 15-290	54"	bulk packed

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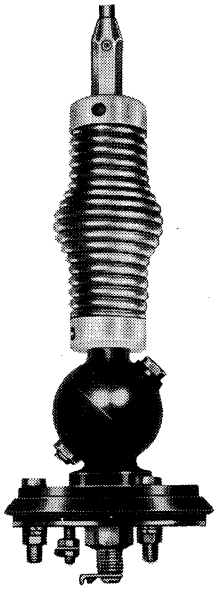
COMMUNICATION ANTENNAS by ward

for every mobile frequency and application

CITIZENS BAND KIT, BASE, MAST & SPRING COMBINATION



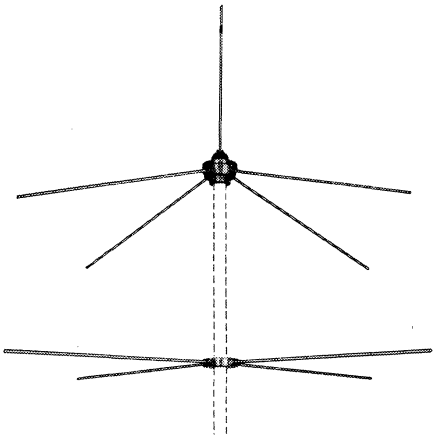
Here is a mast made from the highest grade stainless steel available for antenna masts. 17-7 P.H. Exceptionally high strength and corrosion resistant. Heavy duty performance assured. Secured to shock mounting spring that provides real "give" while maintaining verticle mast position under wind load — Mounted on a strong light, but rugged swivel base.

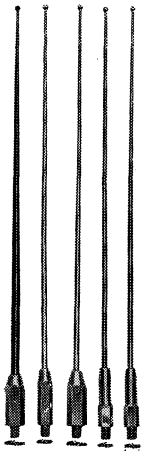
Citizens Band — special combination ideal for citizens band use. Base WCA 310. Mast WCA 323B cut to 102". Spring WCA 3 A. Available with chrome plated spring if specified.

WARD GROUND PLANE ANTENNAS are general purpose, non-directional and vertically polarized, fixed-station antennas. For any frequency in 144-174 mc. range; will handle up to 3 kw of power. Good impedance, minimum VSWR. Radiate equal power in all horizontal directions. Built-in lightning arrester; weather-protected with cable terminating in mounting mast. Supplementary rods available to lower vertical radiation angle.

WCA-A94 for 144-152 mc.
WCA-B94 for 152-164 mc.
WCA-94 for 164-174 mc.
WCA-95 for lowering angle of radiation (Ring and 4 ground rods)

ADAPTERS
WCA-96 for use with RG-58/U and RG-8/U cables
WCA-97 for use with RG-17/U cables, takes 1¼" IPS
VSWR: less than 1.5:1; 52 ohms impedance. Vertical polarized. 300 watts maximum.



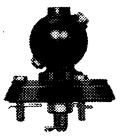


HEAVY DUTY MASTS

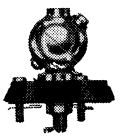
Finest stainless steel: heavy-duty performance. 84½" mast bends to bring tip and base 30" apart without distortion. All base studs ⅜-24 threads. All taper ground with ball tip. WCA-320 series — 60" long, choice of adapters: Chrome press fit, cadmium plated press fit; ⅝" hex steel, cadmium plated with set screws; ½" hex stainless steel with set screws.

WCA-321 series — 72", same choices.
WCA-322 series — 84", same choices.
WCA-323 series — 96", same choices.
WCA-324 series — Fiberglass in all 4 lengths.

NEW HEAVY DUTY DIE CAST MOBILE BASES

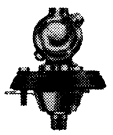


WCA-310 — Universal swivel base. Plated & painted parts. Stainless steel mounting hardware.

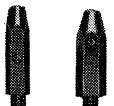


WCA-312 — Chrome plated swivel base w/ stainless steel mounting hardware.

WCA-313 — Coaxial type. New rugged metal backup plate and shell is one unit. Connector mounted in the shell is PL-258 which accepts a PL-259.



WCA-315 — Same as WCA-313 except base is chrome plated. Mast Extension. Heavy chrome plated brass tubing with ⅜-24 thread at both ends. 3 lengths: WCA-330 in 12" or 24" or 36"



Adapters have ⅜-24 thread for use on any standard Ward mast. Lock washer and set screws included.
WCA-89-357 Stainless; ½" hex.
WCA-89-358 cadmium plated; ⅜" hex.

Spring protect car and mast. Shock mounting "gives" under impact. Normal vertical.
WCA-3A is cadmium plated with lock washers.
WCA-3AL is extra heavy cadmium plated with lock washers.
WCA-301 Deluxe has stainless steel spring and mounts.

DISGUISE ANTENNAS

Look and mount like ordinary car antennas, with Ward "8" ball mount. The secret is in the lead: stub load type for 30-50 mcs.; standard leads for 144-174 mcs. WCAB-71 has triple chrome plated brass tubing and stainless steel tip rod. Looks like 3 section car antenna, but length fixed at 55½". (Permanent at telescopic joints.) Has heavy mounting brackets.

WCA-235 same but with 70" mast.
WCA-143 same but tapered stainless steel mast.
WCA-248 looks like 3 section, "8" ball mount.
WCA-249 55½" tapered stainless steel, "8" ball mount.

LEADS FOR DISGUISE ANTENNAS

Available in various lengths with either RG-8/U or RG-58A/U cables. Stub type loading is employed for 30-50 mc. operations to compensate for the short length of the antenna mast. Regular coaxial cable leads are used for 144-174 mc. operation.

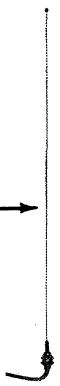
WALKIE TALKIE MODEL WCA-254

Expressly for 2-way radio. Greatest operating range, clearest reception. 19" whip rod fits any adapter which accepts PL-259 connector.

ROOF TOP ANTENNAS

Three models with varing megacycle ranges. All mount from outside; only one ⅜" hole required. 12' cable. Weather proof, positive ground. Specify for fleets, police, taxi, fire, etc.

- **WCA-250 — 144-174 mc.**
- **WCA-251 — 450-470 mc.**
- **WCA-A250 — 108-174 mc.**



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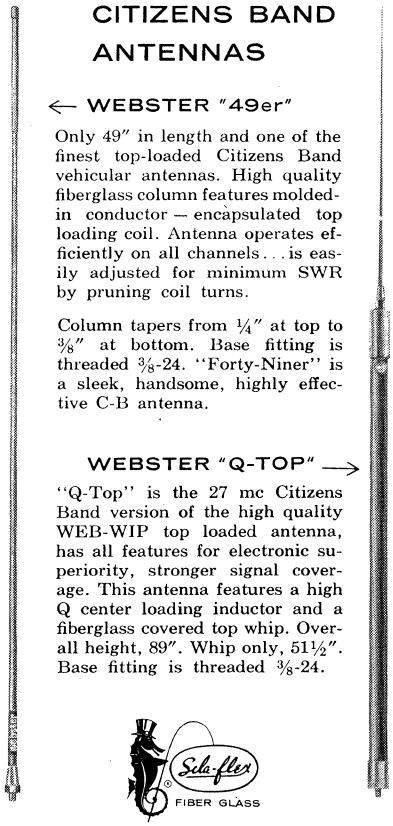
SECTION 1200

Webster MANUFACTURING

CITIZENS BAND ANTENNAS • STAINLESS STEEL WHIPS • BAND SPANNER AMATEUR ANTENNA • MARINE ANTENNAS • ANTENNA MOUNTS • MARINE ELECTRONIC EQUIPMENT

CITIZENS BAND ANTENNAS



← WEBSTER "49er"

Only 49" in length and one of the finest top-loaded Citizens Band vehicular antennas. High quality fiberglass column features molded-in conductor — encapsulated top loading coil. Antenna operates efficiently on all channels . . . is easily adjusted for minimum SWR by pruning coil turns.

Column tapers from ¼" at top to ⅜" at bottom. Base fitting is threaded ⅜-24. "Forty-Niner" is a sleek, handsome, highly effective C-B antenna.

WEBSTER "Q-TOP" →

"Q-Top" is the 27 mc Citizens Band version of the high quality WEB-WIP top loaded antenna, has all features for electronic superiority, stronger signal coverage. This antenna features a high Q center loading inductor and a fiberglass covered top whip. Overall height, 89". Whip only, 51½". Base fitting is threaded ⅜-24.

Sela-flex® FIBER GLASS

All Webster products are built to highest standards—are rugged, dependable . . . fully treated to withstand shock, vibration, moisture and corrosion.

STAINLESS STEEL WHIPS

Precision ground from the finest grade of stainless 17-7 alloy, formulated specifically for mobile whip applications. Highly flexible, withstands bending without taking permanent set—will not work harden or snap when striking overhead obstructions. Available in lengths 36" to 103".

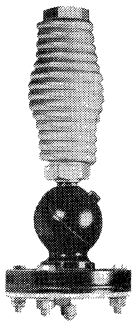
Whip specifications: Diameter at base, 0.200". Diameter at corona ball, 0.100".(Ball 5/16"D)

Available base fittings:
Steel, plated: ⅜-24(M), 3/18(F) threads.
Brass, chrome plated, ⅜-24(M) thread.

Other types on special order.

Fiber glass covered whips also available. Information on request.

ANTENNA MOUNTINGS



Model SH-Spring: Heavy duty cadmium plated spring, threaded ⅜-24(F), supplied with male adaptor fitting. Hex end caps for side wrench tightening. For use with WEB-WIP, Band-Spanner and similar antennas.

Model S Spring: Similar to *SH* except lighter construction overall. For 49'er, steel or fiberglass covered whips.

Model SH-D Spring: Similar to *SH* except coarse knurled end caps.

Model SL-D Spring: Similar to *SH-D* but lighter construction.

Model B Ball Mount: Heavy-duty, universal, for ⅜-24 whip and antenna fittings. Durable phenolic insulator, hardened socket-head adjustment screw. Split ball natural aluminum.

Model BD Ball Mount: Same as Model B except that split ball is bronze chrome plated.

Model BC Ball Mount: Similar to Model B except entirely chrome plated. Handsome and durable.

Model D Insulated Base Mount: Rugged, for flush mounting on bumper pan or rear deck of vehicle. Co-ax connector molded into cone insulator also serves as threaded mounting stud. Insulator accepts ⅜-24 threaded butts. Bottom co-ax mates with standard PL-259

BAND SPANNER MOBILE ANTENNA

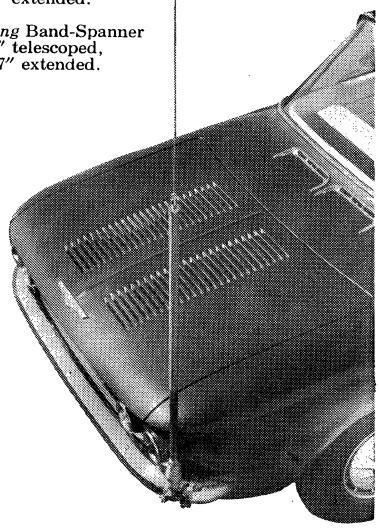
Band-spanner, an exclusive Webster design —distinctive—fine looking on any car—a top performer on 80-40-20-15-10 meter amateur bands (and MARS frequencies)—one of the finest antennas for use with multi-band equipment. Easily handles transceivers with power inputs of 100 watts or more; Collins KWM-2, Gonset G-76 among others.

Loading inductor is wound directly on upper portion of strong, lightweight fiberglass support column. Exact resonance anywhere within any band is obtained by simple, plunger-type adjustment of stainless steel top whip. *Winding is contacted internally,* is encapsulated in durable epoxy for lasting exterior protection. No exposed joints to corrode, no flimsy plastics involved. *Strong! Durable! Unaffected by moisture.*

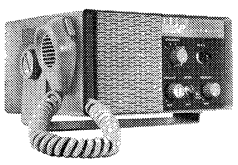
TWO MODELS:

Short Band-Spanner, 60" telescoped, 93" extended.

Long Band-Spanner 63" telescoped, 117" extended.



FOUR-ELEVEN MARINE 2-WAY RADIO FOR 27 mc CITIZENS BAND SERVICE



Compact, self-contained—easily installed in any type of boat or vehicle—car, plane, truck—and on shore. Ship-grip mount permits quick, postive lock-in and rapid release when not in use. Features full crystal-controlled transmitter and receiver . . . four selectable channels . . . superhet receiver . . . automatic noise limiter and "squelch".

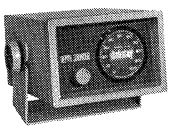
Complete with microphone and transmitter/receiver crystals for one channel. Built-in power supply operates on 12V DC/115V AC.

WEBSTER DEPTH SOUNDERS

For small outboards and light inboards

Locate fish . . . detect underwater objects . . . observe interesting formations . . . determine bottom conditions . . . find depth of water under boat . . . use for navigation . . .

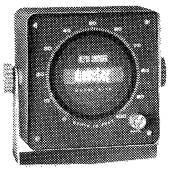
S-4 . . .



It's packaged, simple to install . . . furnished with ship-grip mounting for quick, positive lock-in and rapid release when not in use.

S-4 operates from boat's battery, steps up voltage for "power-type" operation . . . for stronger sonic pulses . . . brighter depth readings. Step-up method makes available alternating current for operation of constant speed, clock-type scanning motor. 0-100 foot calibration is accurate . . . depth readings reliable!

S-12 . . .



Similar to S-general characteristics . . . calibrated to 100 feet. S-12 stresses an overall de luxe design. Scale is large full-view for easy reading. Gimbal-type mounting allows equipment to be tilted for best viewing angle. Unit can also be removed from cradle when not in use.

TRANSOM MOUNTED TRANSDUCER

Unique transducer furnished with both sounders—mounts on boat's transom . . . eliminates need for drilling holes in hull . . . simplifies installation. Connects to indicator unit with 20' flexible shielded cable. (Supplied.)

WEBSTER MANUFACTURING
South San Francisco, Calif.

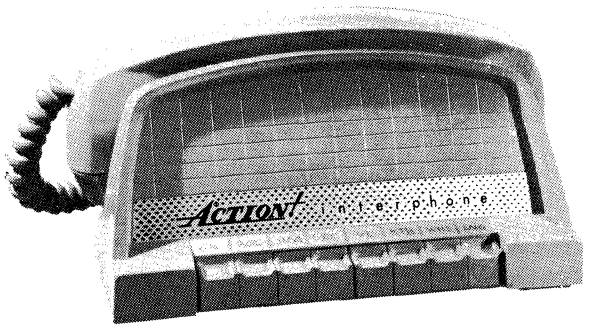
© U.C.P., Inc.

ACTION!® PRIVATE INTERPHONE SYSTEMS

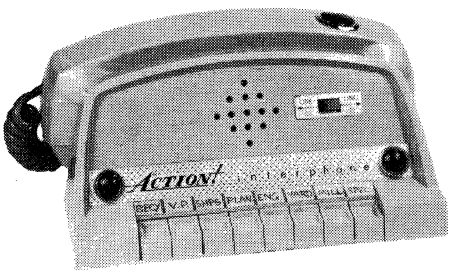
ACTION! INTERPHONE

Serves two to nine stations with regular telephone-quality performance (see handset specs below). Direct selective pushbutton signalling. Available with one or two conversation channels and busi-lites to indicate busy lines. Every interphone is a master station.

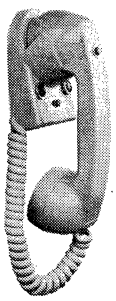
#200	Action 4 button (2-5 stations) interphone	$32.50
#400	Action 8 button (2-9 stations) interphone	$36.50
#250	Action 4 button interphone with busi-lite	$36.50
#450	Action 8 button interphone with busi-lite	$39.50



Interphones also available with 2 channels and 2 busi-lites.



A.



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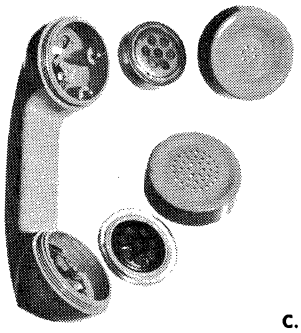

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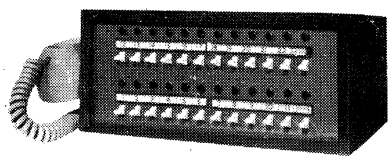

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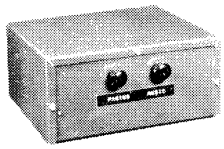
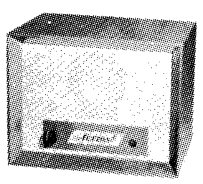


E.



F.

A. ACTION! PAGE-ALL*

Push handset button and page or announce through speakers in base of PAGE-ALL phones; release button to talk privately through the telephone. Has buzzer for conventional pushbutton signalling where desired. All phones equipped with busi-lite indicators and individual volume control with speaker shut-off switch. Up to 30 stations on system. Horn or baffle speakers may be hooked up with system in noisy or outdoor areas. Optional services include 2-way talk-back stations, background music, AM-FM broadcast pick-up.

#941	Action Page-All 4 button phone: single talking plus one paging channel	$43.50
#942	Action Page-All 4-button phone: 2 talking plus one paging channel; channel selector slide switch	$46.50
#982	Action Page-All 8 button phone: 2 talking plus one paging channel; channel selector slide switch	$48.50

B. ACTION! UNIPHONE*

#300	Action Uniphone with no buttons or buzzers; has hang-up switch in hanger	$29.50
#304	Action Uniphone with 4 signal buttons and buzzer, and hang-up switch	$32.00
#308	Action Uniphone with 8 signal buttons and buzzer, and hang-up switch	$33.50
#351	Action Uniphone (for Page-All system) with one talking plus one paging channel, busi-lite, paging button in handset	$33.50
#352	Action Uniphone (for Page-All system) with 2 talking plus one paging channel, 2 busi-lites and channel selector switch	$35.50

C. HANDSETS

Designed to accommodate all standard microphone and receiver units manufactured by Western Electric, Conn. Telephone, and Yankee Telecom Labs. Available with push-button switch bar, or butterfly switch in handle.

MICROPHONES: standard carbon capsule equivalent WECo F-1 and T-1 for flat response (300-4000cps).

RECEIVERS: standard magnetic, equivalent WECo HA-1, U-1 and CTE 3163. Impedance 128 ohms (also available with higher impedances).

D. CENTRAL CALL DIRECTOR

#2000	Compact switchboard for motels, schools, dormitories, YMCA's, etc. Provides direct communication to main office where connection can be arranged for other phones in the system. Switchboard has selective ringing and selective talking for 22 stations. Designed for single-pair wiring. Use with Action series 2200 Interphones	$275.00

E. POWER CONTROL UNITS

#PCU-1	Power Control Unit for use with #941 and 351 Page-All phones, provides talking and ringing voltage for one talking channel plus paging channel, with provision for busi-lite control. Terminal strip for connection of amplifier and AM-FM tuner or record player, and controls to regulate separate volume levels for music and paging	$51.50
#PCU-2	Power Control Unit for use with #942-982-352 Page-All phones, provides talking and ringing voltage for 2 talking plus paging channel, with provision for busi-lite control. Terminal strips for connection of amplifier and AM-FM tuner or record player, and controls to regulate separate volume levels for music and paging	$54.50

F. VOICE-COM* SPEAKER

#503-W	Voice-Com 2-way amplifier-speaker unit. Two-way loudspeakers can be connected on the same system with Interphones or tied into any paging system with horns and amplifiers. Speaker unit is combined with #501 2-way talk-back adapter unit	$68.50

*Registered

ACTION!® SYSTEMS COMPANY • Meriden, Connecticut

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

INSTITUTIONAL ELECTRONICS FOR OVER 25 YEARS

Dealers, Installation and Service groups, Laboratory workers, Designers, now may obtain in less than production quantities, all the equipment and materials necessary to complete a variety of electronic Systems installations. Technicians are invited to discuss specialized applications of these Systems; all required materials, including multi-conductor cable in necessary footage, will be made available, and custom equipment can be designed and built. Available Systems include the following:

Status Controls (for hotel/motel rooms, factory production, test and inspection procedures, hospitals, etc.)

Signal Mail Rack	Area Sound/Lighting
Message-at-Desk	Selective Paging
Maid Call	Motel-O-Phone
Master Radio/TV Antennas	Automatic Wake-up
Centralized Radio	Emergency Alert
Room TV · Stereo Sound	Automatic Fire Alarm
Public Address	Audio/Visual (silent) Call
Background Music	Doctor's Call Board

Closed-circuit TV (for hotel and motor-inn auto registration and check-out, convention halls, industrial and laboratory monitoring, school systems, apartment buildings, department store advertising, remote inspection).

Projected installations using **AMERICAN COMMUNICATIONS CORPORATION** equipment will be laid out by **AMERICAN'S** Professional Engineers, on architectural plans, without cost or obligation.

Fig. D. No. A-P5-A Guest-room Radio Panel. Has added Maid Call Jack and Status Keyswitch. Light on office control boards does not blink until Maid plugs into jack. Inspectress or Maid can return status to green (available) when room has been readied. Panel is 9″ x 2½″ high.

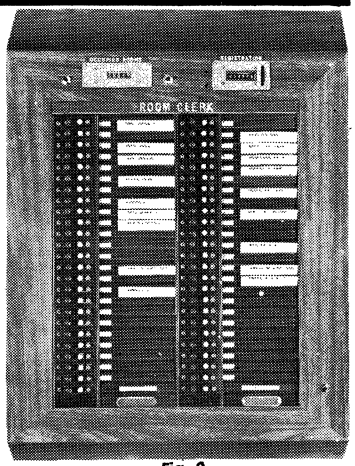

Fig. C. No. 707-1/50 Automatic Status Control, 50 rooms. Room Clerk unit has Totalizers, Registration File, Maid Call signal (blink light), remote status control (if desired). Cashier and Housekeeper unit do not include Totalizers or Registration File.

STATUS CONTROLS—(ROOM TYPES)

AMERICAN COMMUNICATIONS CORPORATION manufactures two basic types of Status Controls — Manual, and Automatic. A Status Control installation, although primarily a means of instant contact and control beween two or more offices (interconnected by multi-conductor cable), makes conveniently available a number of other desirable facilities **at only slight additional cost.**

Status Controls are applicable wherever sequential control and monitoring are wanted — as in hotels, motels, factories (for production control), laboratories (process control), hospitals (between Head Nurse, Cashier and Housekeeper), offices (message handling), missile check-out (data handling), etc. In hotel/motel use, room rental is accomplished more rapidly and conveniently. (See available bulletins.) Specialized installation applications are solicited.

Manual—The Manual type, using lamps controlled by slide-switches, is represented by the Leamertronic model. In hotel/motel room control, 3 panels are provided, one each for Room Clerk, Cashier, and Housekeeper; or, a **combination panel** is used where one person can conduct the duties of Room Clerk and Cashier by using two separate rows of switches (see insert, Fig. A).

In operation, Room Clerk registers guest, records name on a standard hotel-type Registration File (optional), opposite a green light (room available), and moves a slide switch. Instantly, the room's green lights in 3 offices change to yellow (room rented); when the Cashier moves his switch the 3 yellow lights change to red (room to be readied). The Housekeeper now has control, and after maid has readied room, moves her switch to change color back to green—room available. (Room Status can be shown continuously to management by an office Monitor panel provided only with lamps — no switches.) This System is suitable for installations of up to 1,000 room units, and in older buildings difficult to wire to each guest room. If centralized radio is wired to each room, the Model L-2, Figs. A and B, can be recommended. **It has an additional light for Maid Call.** When maid plugs into a jack in the guest room, a fourth lamp on each of the control boards shows white, indicating maid is in room. Details in **Bulletin LSI.**

Automatic — AMERICAN COMMUNICATIONS' Model 707 Automatic, the result of over 25 years' experience in the hotel/motel electronics field, accomplishes the same purposes as described for the Manual type, but by means of relays and lampswitches instead of slide-switches, affording greater operating speed and additional features. To operate, clerk just presses lampswitch to change status indication. Ideal for hostelries with high room turnover.

(1) Totalizers can be provided to show total occupancy at any given moment, and total rentals over a given period.

(2) Housekeeper knows by blinking light in which rooms maids are working (and, where System includes Maid Call facility, can contact them without annoying guests in rented rooms).

(3) Maid or Inspectress may assume control, and change status from red to green, when room is ready for occupancy, by pressing a button on a panel in the guest room. Other features and facilities, many of special value to Design Engineers, are detailed in **Bulletin 707.**

SPECIFICATIONS — Models Leamertronic and 707
Available in console, flush or surface-mounting, in banks of lamps and switches to suit space and number of room units. Specify facilities wanted. Consoles and Desk-top models of wood-grain plastic to suit decor; panel controls are mounted on steel plates. Flush and surface mounting Status Controls are on steel panels finished in velvet black enamel. Boards operate on 110 V. A-C; house wiring carries only low-voltage D-C, and circuits are designed for long lamp life. Lamps are standard, low-current type.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used between boards, and No. A-19/2 Twisted-pair is used for house wiring to remote room units.

Quotations, upon request, will depend upon panel construction and finish, number of room units, features desired, and length of cables and wiring. No charge for laying out installation on architectural plans, where AMERICAN'S equipment is used.

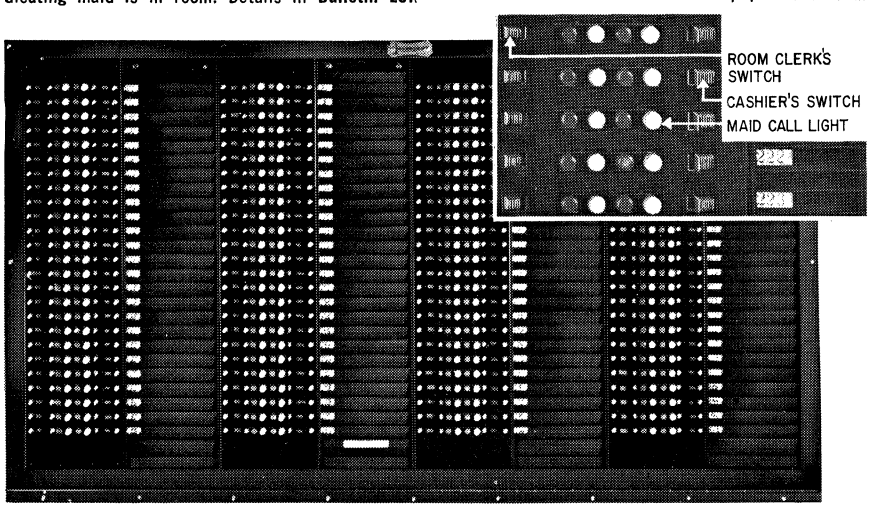

Fig. A. Leamertronic No. LC-2/100 Manual Status Control, 100 rooms. Room Clerk/Cashier Combination Panel has two separate columns of slide-switches, a Registration File, and Maid Call lights (see insert). Up to 1,000, or more, rooms can be accommodated by the L-1 and L-2.

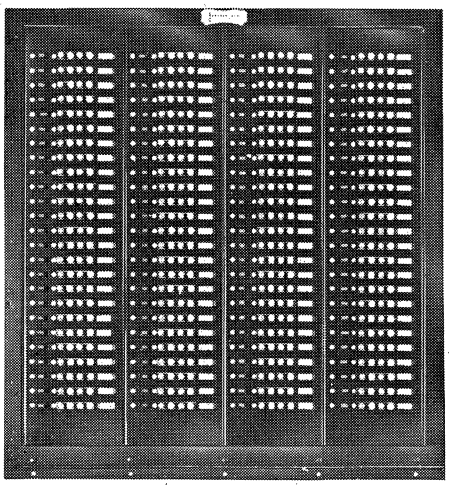

Fig. B. Leamertronic No. L-2/100 Manual Status Control, 100 rooms. Housekeeper Panel w/Maid Call Lights; (Cashier Panel, if separate, has same appearance). Piano-hinged at bottom, like No. LC-2/100, for servicing. More than 1,000 rooms can be accommodated.

AMERICAN RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

SIGNAL MAIL RACK & MESSAGE-AT-DESK

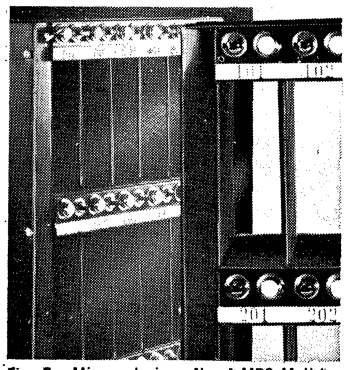


Fig. F. Mirrored view, No. A-MR2 Mail/Message Rack, **showing both sides.**

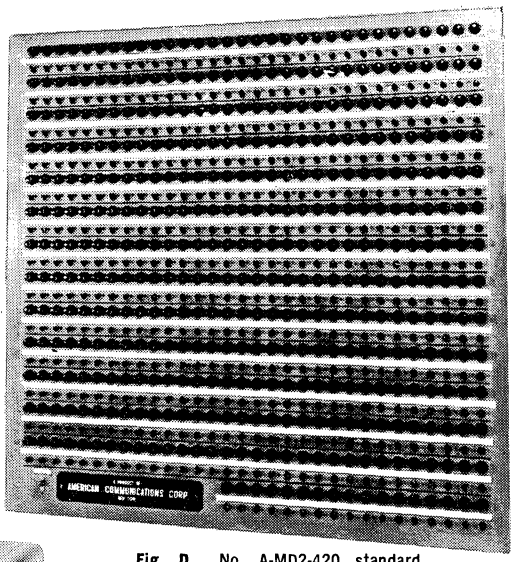
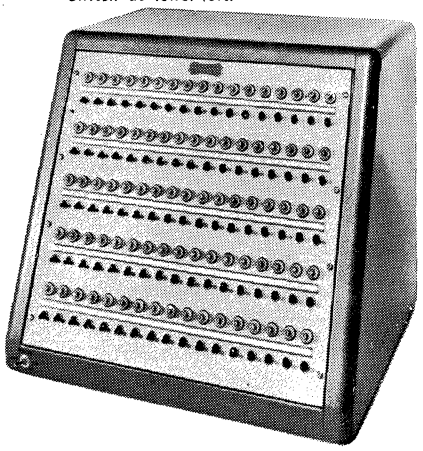


Fig. D. No. A-MD2-420 standard flush Panel-type, 420-room Message-at-Desk unit. Metal panel is approx. 38″ sq. x 2½″ deep. Supplied with or without rear cover.

Fig. C. No. A-MD1/85 standard Desk-top type, 85-room size, Message-at-Desk unit, in metal cabinet approx. 19″ x 19″ x 22″ wide, overall. Off-On Power Switch at lower-left.



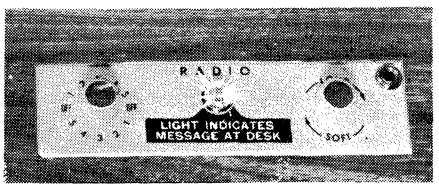


Fig. G. No. A-P4-A Radio/Signal Plate, w/Maid Call jack.

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The **Mail (and Message) Rack Signal System** is comprised of numbered pockets, one for each room (or other unit), and a lamp and switch for each pocket, Fig. A. Each pocket is wired to a guest-room. When clerk files mail (or messages) in pocket, he switches on a corresponding lamp; simultaneously, a duplicate lamp in the remote room lights, and remains lit until guest acknowledges the signal, Fig. B.

The **Message-at-Desk Signal System** is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described. Figs. C, D.

The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key, Fig. E. A new 2-Way model, No. A-MR2, with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest, and for Telephone Operator to insert messages from the opposite side (and also signal the guest), as shown in a close-up, Fig. F.

If guest room is not wired for radio, a separate wall plate, Fig. B, is provided for the signal lamp; otherwise, it can be included on the radio control panel, Fig. G (for example).

Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or No. A-MR3/Mail/Message Rack, permits insertions only from front. The model shown in Fig. A is for 100 rooms, but units can be built to suit 1,000 or more. They may be made for flush-wall (recessed) or surface-wall mounting, or desk (table-top) mounting. An easily removable end cover plate permits access to wiring. Power Supply unit (included) is controlled by toggle switch. House signal wiring carries only low, safe voltage.

Fig. B. No. A-P20-3-A Signal Plate, in guest room, 4⅝″ sq.

Quotations upon request.

SPECIFICATIONS
Signal Mail/Message Racks

Standard finish, velvet black enamel; other finishes to order. Material is steel. Standard pocket measurements: approx. 8″ deep x 7¾″ high (incl. 1⅛″ for Key Shelf where used) x 2″ wide. Other measurements to order.

SPECIFICATIONS — Message-at-Desk units are illustrated in Figs. C. (Desk-top type), and D (flush panel).

Supplied complete with Power Supply.

Standard finishes: Wall Type, velvet gray or black enamel; Desk-top, gray enamel. Other colors to order. Material is steel. Measurements to order.

Quotations on all materials, including multi-conductor cable in required lengths and room indicator panels to complete an installation of either System, can be given.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used between boards, and No. A-19/2 Twisted-pair is used for house wiring to remote room units.

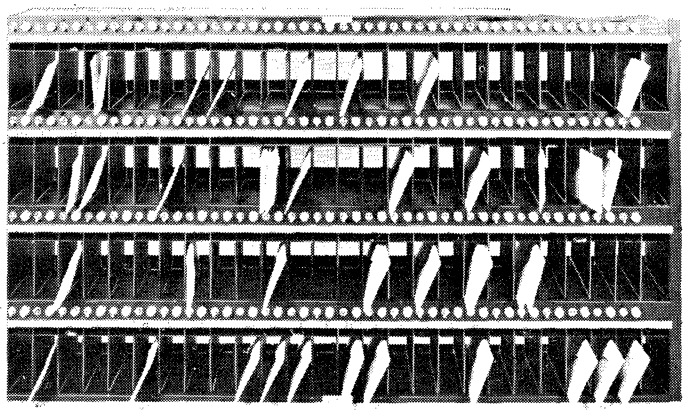


Fig. A. No. A-MR3/100 standard Mail/Message Rack with stop strip and shelf at top of each pocket for room key. A designation strip below each row of lamps and switches identifies each room by number. Dimen., overall, approx. 53″ x 31″ x 8″ deep.

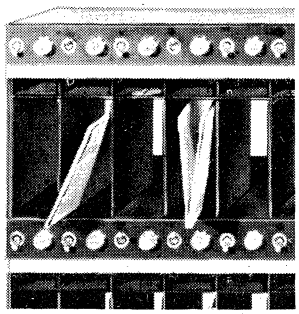


Fig. E. No. A-MR3 Mail/Message Rack has Key Shelf at top of pocket

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NEW YORK CITY 7, NEW YORK

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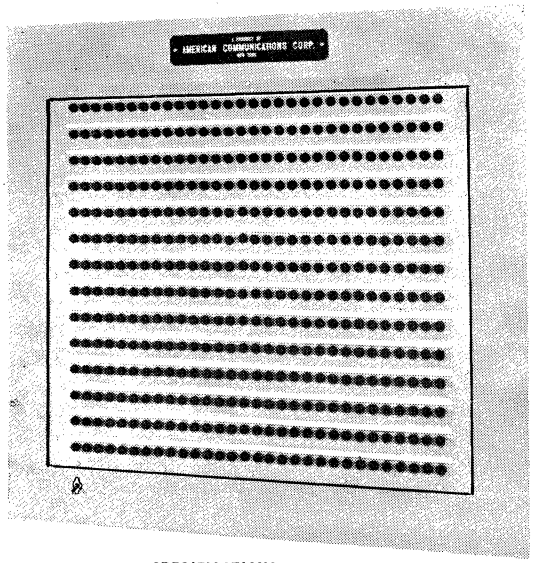
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

MAID CALL SYSTEM



The **Maid Call System** provides a signal and 1-way communication between the Housekeeper's office and guest rooms; 2-way communication can be provided if desired. The standard installation is comprised of a No. A-MC Light Panel, Maid Jack, 2-conductor cable, Microphone, and Audio Amplifier. In operation, Maid plugs into jack in guest room, which lights a lamp on the Housekeeper's Light Panel, who then has only to talk into her microphone to give the maid instructions. System permits Housekeeper to contact all maids at one time, without disturbing guests.

House rooms may be wired with No. A-19/2 Twisted-pair. Microphone (w/press-to-talk switch) and Amplifier may be standard, good-fidelity types.

SPECIFICATIONS

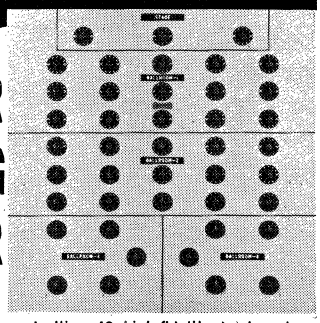
Panel dimensions and finish to be specified. Standard finish is gray Hammertone. Panel material is steel. Each Panel is supplied complete with Power Supply. Available in flush, surface or desk-top mounting construction.

No. A-MC/420 Maid Call Light Panel, 420 rooms, flush-wall-mounting type, is on a steel plate finished in gray Hammertone. Has designation strip for room numbers above each row of lamps. Uses 24 V. screw-base lamps, removable from front of panel. Off/On Power Switch (shown at lower-left).

Dimen., overall, approx. 21″ x 21″ x 3″ deep.

Quotations upon request, for any complement of materials, and for any number of rooms.

SPEAKER SWITCHING CENTER



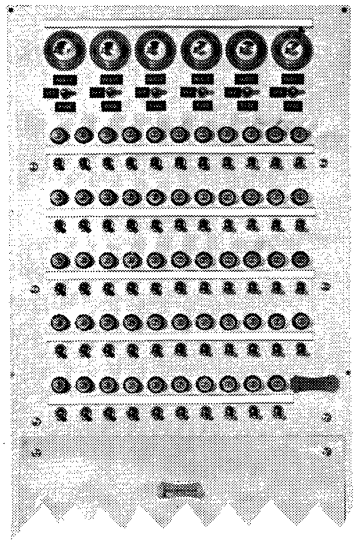
Problem: Provide a means of controlling 43 high-fidelity loudspeakers in a large public room, so room can be partitioned into 5 acoustically isolated areas and specific sound programs directed only to these areas. **Solution: AMERICAN'S** No. A-SC/43 Speaker Switching Center. In this example, 43 5-position (and OFF) switches are shown mounted on a metal panel outline-marked to show the available 5 area divisions — a Stage and 4 Ballrooms — of a Main Ballroom. Switching Centers can be designed and built to suit other room and speaker layouts. The switches are spotted on the layout in the same relative positions as the 43 (ceiling) speakers.

Designed to meet Convention needs, the No. A-SC/- Switching Center is located in the Radio Control Room. Its switches terminate in 3-circuit jacks, to permit patching into a jack field in associated Master Control Board. Speakers in any area can then be connected to receive programs originating anywhere.

SPECIFICATIONS No. A-SC/43 Speaker Switching Center, for 43 high-fidelity loudspeakers. Panel is 1/16″ sheet metal, approx. 40″ sq.; assembly is approx. 3½″ deep. Finish: gray Hammertone; other finishes to order. Design of switches and circuit depend upon installation with which it is to be used. Mounting design — surface or flush — to suit location requirements.

Quotations upon request.

MESSAGE & MUSIC/PAGING CENTER



The unit shown here, **AMERICAN'S No. A-MD/MP/-** combination Message-at-Desk and Music/Paging Center, illustrates two useful design factors: (1) provision of an expansion area on the panel for the later addition of more room signals; and, (2) the integration of one facility with another. This design is applicable to any number of rooms.

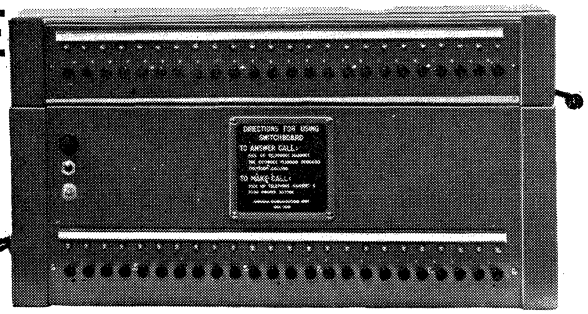
In this No. A-MD/MP/65, a Message-at-Desk signal is provided to 65 rooms, plus control of speaker volume in 6 public areas, with choice of music or paging in these areas at controlled volumes.

SPECIFICATIONS

No. A-MD/MP/65 Message & Music/Paging Center, 65 rooms. Steel panel measures approx. 21 x 46 x 4″ deep. Supplied with or w/out rear housing. Finish, pearl gray Hammertone.

Prices upon request.

MOTEL-O-PHONE SYSTEM



MOTEL-O-PHONE was specially developed by **AMERICAN COMMUNICATIONS** for use in Motels, Motor-Inns, and the smaller Hotels, as a low-cost, simplified central control and interior telephone service to guests. However, it is also admirably suited to an almost limitless number of other applications — in factories, schools, hospitals, laboratories, etc.

A complete Motel-O-Phone installation for 48 telephones, as illustrated here, is comprised of the following:

1 — Model 100 Basic Unit (24 positions)
1 — Model Add-A-Board (24 positions)
49 — French-style Desk Phones, ea. w/bell
(*) — Wire, 2-conductor
(Wall Telephones, each with bell, can be supplied in place of Desk Telephones.)

Add-A-Board units are purchased only where the number of Desk Telephones to be installed exceeds 25 (as in above example). Therefore, the Basic Unit can be bought initially, and one or more Add-A-Board units only when needed. No skill to install more — just place one Add-A-Board atop the other, and connect by means of a 3-prong plug!

No experience to operate!

(1) **To ring station,** after having turned on Basic Unit, press button numbered for that room or location.
(2) **To receive station call, lift handset.** This stops bell ringing.

When a station rings in, an annunciator plunger, one of a row under the designation strip, projects from panel and remains so until operator manually resets it by pushing it back. **This allows operator to answer rooms which signaled during absence of operator.** A toggle switch controls A-C power to the Basic Unit. Above it is the Fuse Holder and below, a Pilot Light. Line fuse is replaceable from front of panel.

SPECIFICATIONS

No. A-MT Motel-O-Phone is a complete Multiple Telephone Switchboard, and operates on 115 V., 60 cy. A-C. Cabinet is steel, finished in scratch-resistant gray enamel. Desk and Wall Telephones are finished in dull black enamel. (Other colors to order.)

Model 100 Basic Unit measures approx. 22¼ x 8 x 6½″ deep; Add-A-Board units, 22½ x 3½ x 4¾″ deep. Approx. net weights, respectively, 30 and 12 lbs.; Desk or Wall Telephones, approx. 6 lbs.

Prices upon request.

(*) Quantity sufficient for connection between Basic Unit and Room Telephones.

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NEW YORK CITY 7, NEW YORK

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

MASTER RADIO OR TV ANTENNA SYSTEM

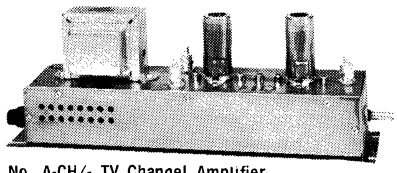
Installation requirements for an **AMERICAN COMMUNICATIONS** Master Antenna System, whether for Radio or TV — or both — mainly depend upon field signal strength and local interference. A field-strength survey must be made to determine whether the received signals are sufficiently strong and reasonably "clean".

If TV signal strength in the area is low, a No. A-BA weatherproof Broadband Booster Amplifier (shown mounted on mast) located at the antenna may be used, for an additional 25 db gain on all VHF channels; power supply and Off-On control are a separate, remote unit, No. A-BAP (not shown), which may be up to 500 ft. distant. Input 300 or 75 ohms, output also 300 or 75 ohms. Terminals permit use as Broadband, High-band, or Low-band Amplifier.

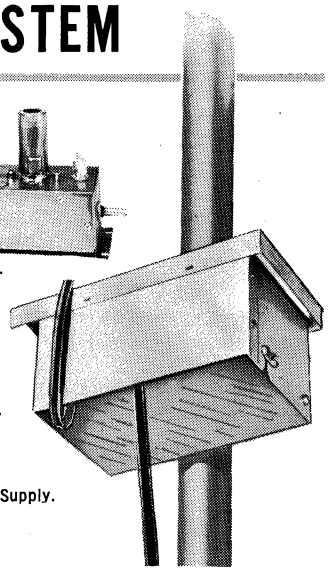
The Radio signals are fed to the Centralized Radio System, and the TV signals are distributed to the various TV risers.

TV signals on UHF channels may be converted to unused non-adjacent VHF channels by means of a No. A-U/V-C Converter (not shown); its UHF Mixer head mounts at antenna, and delivers VHF signal to remote oscillator. Specify the UHF and VHF channels. Converters are also available to cover VHF High to VHF Low, No. A-U/V-C1.

To deliver adequate signal strength at each TV outlet, it usually is necessary to use low noise, high gain, head-end amplifiers, one for each channel. A No. A-CH/- is shown here. A group of up to 7 such channel amplifiers can be assembled in one steel cabinet, No. A-C/CH/- (not shown here).



No. A-CH/- TV Channel Amplifier.



No. A-BA TV Booster Amplifier.

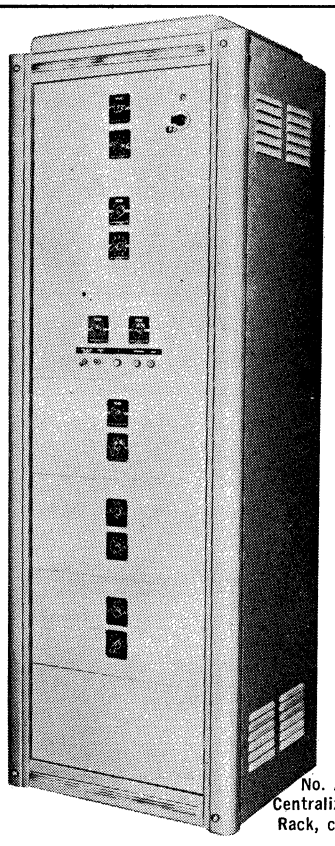
SPECIFICATIONS

No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

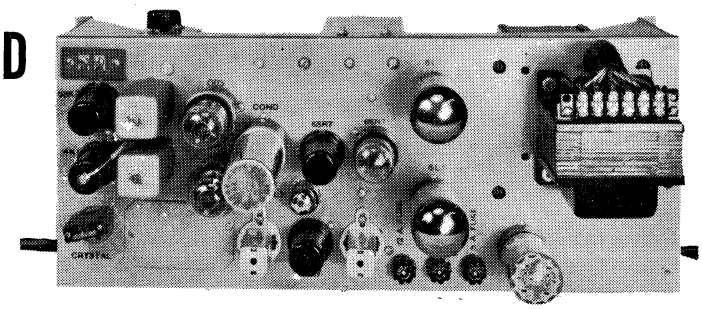
Prices of following items upon request:

No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply.
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels.
No. A-V/V-C Converter, w/Mixer Head, for VHF to VHF. Specify channels.
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13.
No. A-C/CH/- Channel Amplifiers in Metal Cabinet. Specify channels.

CENTRALIZED RADIO SYSTEM



No. A-CR Centralized Radio Rack, complete.



No. A-300C Radio Receiver.

The **control center** of **AMERICAN COMMUNICATIONS'** "Channelized" Radio System is the No. A-CR Rack Unit shown here. In this System, the signals from the Antenna System are fed to the Rack-and-Panel assembly, where they are received, detected, amplified and distributed as audio signals to remote speakers (guest rooms, public areas, etc.) through a system of properly selected cable and matching components as specified by the Supervising Engineer.

No. A-CR Rack can be modified to suit requirements. The standard Rack, however, is comprised of 4 **AMERICAN** No. A-300C AM Crystal-controlled Radio Receivers, 1 No. A-300T AM Tunable Radio Receiver, a panel-controlled No. A-P/M Preamplifier/Mixer (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer (*). The Radio Receivers deliver a minimum of 35 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack.)

If the tunable receiver is a No. A-300F (for FM reception), the house manager may tune it, like the A-300A AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer (*occasionally elsewhere than on Rack)

The Monitor Speaker (optional) has same response as room speakers for true check of programs as received in guest rooms. It is hinged to side of Rack, approx. 50" from floor. Switching permits its use on background-music circuits, P.A., etc.

If Rack is to be used with **AMERICAN'S** Emergency Alert System, the standard model will include 8 hermetically-sealed relays — one each for the 5 radio receivers, one in preamplifier/mixer, one in the automatic timer circuit, and one in a booster amplifier circuit. (The 1-stage booster amplifier is required only for Emergency Alert installations). These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch, or P.A. system.

Rack can include additional facilities, as for example switching into Muzak or other wire line, or use of tape or record player, for background music. For **Stereo FM reception,** using a multiplexed FM station as the source of both stereo channels, a Stereo Multiplex Adaptor is added to the existing FM receiver, and the two resulting audio channels are fed to stereo equipment.

Receivers are high-fidelity type, with push-pull output. The No. A-300C Radio Receiver is shown here; No. A-300T, and -F, have same physical dimensions and general appearance. Several features make these receivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a rugged-ized receiver design.

SPECIFICATIONS

Rack

The No. A-CR Centralized Radio Rack is made of cold-rolled steel 1/16" thick; panels are aluminum, 3/32" thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, 115 V., 60 cy. Supplied completely equipped as described.

Prices upon request.

Radio Receivers

Receivers are separately available. Both are same size. Overall dimen.: approx. 19 (w/flanges) x 11 x 7" deep (plus ¾" for condenser shaft). The No. A-300T Radio Receiver has 3-section variable condenser for manual tuning; No. A-300C crystal-controlled model (illustrated) has 2-section. Condensers, once adjusted, can be locked in position. Crystal frequency must be specified. AMERICAN will supply Crystals in FT-243 holder.

Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 4, 8, 16, 600 ohms, and 70 V. Rated audio output, 35 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone or Phonograph; and, (3) Muzak, or other wire line.

Tube complement, No. A-300T: 1, 6SA7; 2, 6SK7; 2, 0D3/VR150; 1, 6SR7; 1, 6SN7GTB; 1, 5AR4; 2, 6L6GC. No. A-300C has same complement, except 6K8 replaces 6SA7.

Prices upon request.

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
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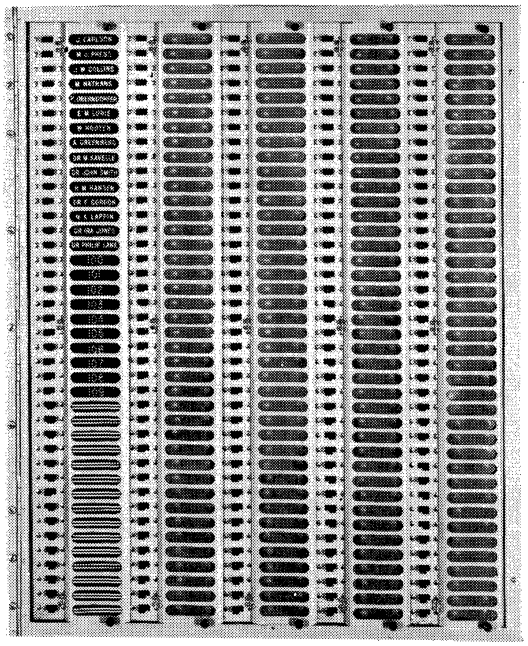
DOCTORS CALL BOARDS



No. A-DCB/200 Doctors Call Board, 200 names. Also available w/Message Signal, Intercom, etc.

Shown here is **AMERICAN'S** Doctors Call Board, flush-mounting type, as built for 200 names. Other sizes and mountings to order. May be used wherever rapid, convenient check-in and check-out are wanted — especially for doctors, and other special personnel.

A column of switches at left of a column of translucent designation strips permits doctors to indicate whether they are on duty. Upon arrival, each moves his respective switch to ON, which illuminates his nameplate; leaving, he moves switch in opposite direction, to OFF. This "IN" Board can be operated by a Receptionist, instead. As doctor may arrive at an Entrance door, and leave by an Exit door, a second or "OUT" Call Board must be provided at this Exit.

Additional Call Boards but without switches can be provided in the offices of, for example, Head Nurse and Superintendent's offices, to constantly show and instantly signal the doctor on-duty status.

Doctors Call Board is also available with Message-at-Desk facility — **without requiring additional wall space!** When giving a "message" signal, in this model, the lamps under a name strip slowly blink off and on until signal is acknowledged.

Another Call Board model provides Intercom facility. This conveniently allows physician upon arrival to receive his message without delay, and upon leaving to give special instructions to the front desk (which may be remote from exit).

Still another is double-sided, so illuminated name can be seen from both Doctor's side of Call Board and from Telephone Operator's side.

SPECIFICATIONS

No. A-DCB/200 Doctors Call Board, 200 names, is on a steel panel approx. 26 x 32" overall; unit is approx. 3" deep. A piano hinge at left permits entire panel to swing outward for servicing. The individual nameplate panels, too, are hinged, and swing outward for easy replacement of names and lamps.

No. A-DCB2/- Doctors Call Board, identical with No. A-DCB/-, except including Message Signal.

No. A-DCBX/- Doctors Call Board, identical with No. A-DCB/-, except without switches, for remote monitoring (only).

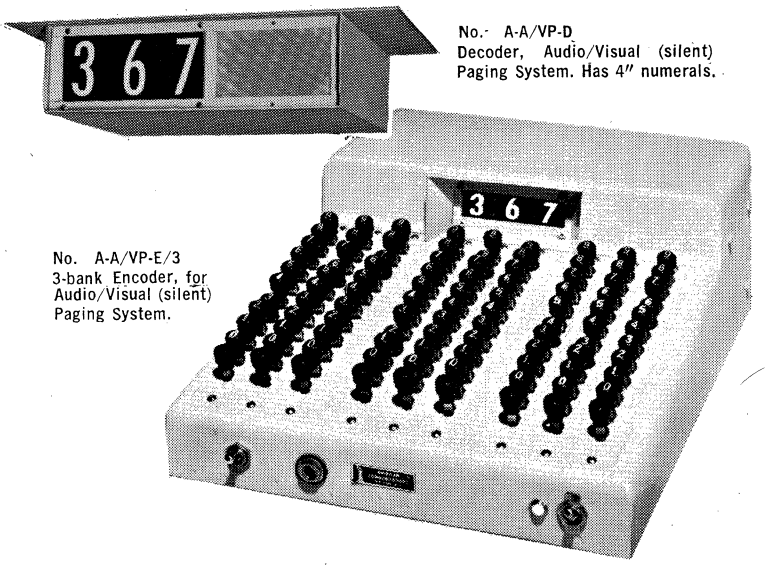
No. A-DCB3/- Doctors Call Board, identical with No. A-DCB/-, except including Intercom.

No. A-DCB4/- Doctors Call Board, equivalent to any of above types, except double-sided, with names readable from both sides (switches on only one side).

Standard finishes, gray crackle or flat polar white enamel. Other finishes to order. Number of names, etc., to suit.

Prices upon request.

AUDIO/VISUAL (SILENT) PAGING SYSTEM



No. A-A/VP-D Decoder, Audio/Visual (silent) Paging System. Has 4" numerals.

No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.

Designed for use with a Call Board, **AMERICAN'S** Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc. (Don't add to room noise — use Silent Paging!)

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of push-buttons. This number then instantly appears in the window of remote readout indicators or Decoders, wherever located. The called person can acknowledge the call in a variety of ways — by house 'phone or Intercom, for instance.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be located in several offices, and Decoders at any number of remote points. The System has many applications, and the number of push-button banks built into the Encoder will depend upon these applications; also, an Intercom facility can be incorporated into the design. Decoders with Intercom, available in either 1-unit or 2-unit construction, permit point-of-signal reply.

SPECIFICATIONS

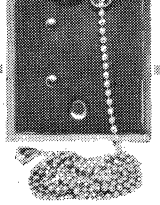
Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimen., approx. 11 x 5¾ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x 5¾ x 15½" deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft.

Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel. Other finishes to order.

Prices upon request.

PATIENT'S RADIO WALL-PLATE



No. A-RW1 Radio Wall-plate.

Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain.

Has stepper switch and a jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.

SPECIFICATIONS

No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, single-pole, 5 positions and "Off". Either single-circuit or seize-type jack can be supplied, for PL-55 plug; specify which desired. Plate is brushed steel, approx. 2¾ x 4½" high; overall depth, from front of plate, 2¼". Fits standard outlet box. Bead chain is steel, 3 ft. long; cut to desired length. Brass plate and chain optional. **Prices upon request.**

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
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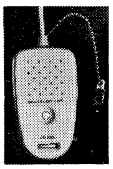
TV AND RADIO/TV PILLOW SPEAKER CONTROLS



No. A-S/C-T
TV Pillow
Speaker/Remote
Control.

The No. A-S/C-T combination TV Pillow Speaker and Remote Control (illustrated) has dynamic earphone w/3.2 ohm voice coil. Unit connects to adaptor in TV set. Pressing button controls set OFF-ON, and selects station; wheel adjusts volume. Ivory plastic case, w/suspension chain and bed-clip. White plastic cord with adaptor plug is approx. 5 ft. long. Approx. 4½ x 2½ x 1⅛" deep overall. Use with GE Hospital-model TV set CBM620 VVY, or specify set model.

The No. A-S/C/N-RT (not illustrated) is a combination Radio and TV Pillow Speaker, Remote Control and Nurse Call. Operates in conjunction with stepper relay unit (supplied).

Prices upon request.

PORTABLE ELECTRONIC LECTERN

AMERICAN'S No. A-203 (A and B) Electronic Lectern is **unified** — nothing else to buy (includes microphone, amplifier, loudspeaker, reading light, and provides for optional equipment). It is efficient and portable. When combined with base (as No. A-203B) it is sometimes referred-to as an Electronic Podium.

High-quality cardioid microphone, w/Off-On switch, is adjustable in height and position; side mounted, for maximum desk room. Amplifier is high-quality, reliable, and high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience. Loudspeaker is in acoustic chamber designed for maximum voice fidelity and minimum feedback. Lumaline fluorescent reading light is shaded, and noise-filtered.

Housing is in two parts, with top or Lectern section lifting off lower or Base section; Lectern section, sold separately, contains apparatus above-mentioned, and is suited to table-top use in hotels, clubs, banquet halls, industrials (sales meetings, etc.). Ample space under sloped reading desk for reference material; a ledge that will conveniently support a dust cover (not supplied) skirts junction of Lectern and its base. Base section, equipped with quiet, ball-bearing casters, is demountable, and folds for convenient storage.

Optional equipment: (1) jack with extra speaker for covering large audiences: (2) tape machine for background music or recording; (3) jack for patching into existing P.A. system; (4) jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light.

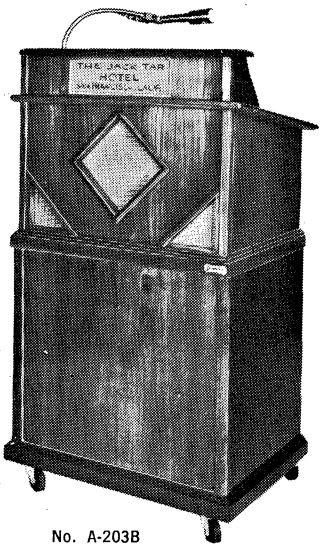
SPECIFICATIONS

No. A-203A Lectern (only), equipped; No. A-203B, Lectern w/Base. Standard cabinet is solid wood, walnut-veneered, in rich furniture finish; other woods and finishes to order.

Overall dimen. (Lectern and Base), approx. 28" x 19" x 50" high. Cardioid-pattern microphone has gooseneck stand. Amplifier audio output, 10 watts. PM type speaker. Junction box for plug and A-C linecord; specify cord length required. Operates on 115 V, 60 cycles.

No. A-203C, is No. A-203B (Lectern and Base) w/jack for second, auxiliary speaker (supplied; specify type and housing).

Prices upon request.



No. A-203B
Portable Electronic Lectern is used in "the world's most electronic hotel."

BACKGROUND MUSIC MAKER

Where recorded tape is to be used for highest fidelity background music, **AMERICAN** manufactures the No. A-BM Background Music Maker. The Dolce model is illustrated. Unit is also available recessed in cabinet and closed-over by a front door.

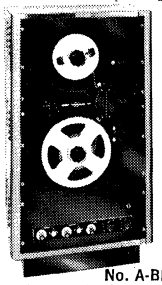
Ideal for hotels, motor-inns, travel terminals, medical centers, bowling alleys, restaurants, shopping centers (one No. A-BM Background Music Maker can supply hi-fi sound to **all** the units in a Center), etc. Will play up to 16 hours of original music; then automatically repeat. Can be supplied for stereo systems. Includes facilities for public address or paging.

Rack includes tape transport with 10½" reels, preamplifier, standard 30 W hi-fi audio amplifier (other power outputs to order), phono and 2 microphone inputs, and controls (separate Bass and Treble tone controls, Phono Gain control, and 2 Microphone Gain controls).

SPECIFICATIONS

No. A-BM Background Music Maker, Dolce model. Cabinet overall dimen. approx. 48 (high, incl. footing) x 22 x 20" deep. Rear (servicing) door has slip-joint hinges. Material is 1/16" steel. Fully louvered for maximum ventilation. Standard finishes: slate gray or black ripple enamel.

No. A-RT/16 Recorded Tape, long-play (16 hr.) Background Music (choice of library). **Prices upon request.**



No. A-BM
continuous Background
Music Maker.

MICROPHONE HOIST

A new development by **AMERICAN**, to meet the need for a less expensive device, usable with almost any microphone, for remote control of microphone height is the No. A-MH ceiling-mount Microphone Hoist (not shown). It is exceptionally quiet in operation.

An UP/DOWN switch remotely controls raising and lowering of microphone, on its cable, by means of a reversible motor and a system of relays. **Prices upon request.**

PORTABLE MICROPHONE MIXERS

The No. A-6M 6-channel Portable Microphone Mixer has mixers for 6 low-impedance microphones, master gain control, Cue jack for headphone monitoring of broadcast-quality program material, pilot light and Off-On switches for each of two power supplies (one service and one standby).

Six mixers work from preamplifiers into master gain control, overcoming losses to provide gain required for remote operation. Output is + 15 dbm. Frequency range, 30-15,000 cy/sec ± 1 db.

AMERICAN'S No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

No. A-6M
6-channel Portable
Microphone Mixer.

SPECIFICATIONS

Slope-front metal cabinet measures approx. 16" x 7" x 8" high. Carrying handle. Fused Power supplies. Terminations at rear of cabinet. Gray crackle enamel finish.

Prices upon request. Other designs to order.

MUSHROOM PORTABLE SPEAKERLITE
"SONOLUME" MODEL

AMERICAN COMMUNICATIONS originated the combination loudspeaker-and-lamp or "Sonolume", shown here, for use outdoors. This Speakerlite is designed to supply both illumination and music for lawns, patios, walkways, pool-side, and so-on. Power cord connects to nearest A-C outlet, and sound cord connects to music source; as this may be a P.A. system, the Sonolume can be used also for paging.

Weatherproof light-and-sound diffuser assembly includes a loudspeaker, lamp and socket, and a volume control, all atop a pointed ground-stake.

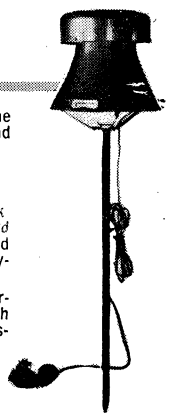
Special to order: No. A-S/L-S Sololume model, w/photocell for automatic light control at dusk; and, No. A-S/L-A Audiolume model, w/Floor stand base to fit pointed end of stake (for porch use).

SPECIFICATIONS

No. A-S/L-M Mushroom-style Portable Speakerlite (Sonolume). Lamp capacity, standard model, 100 W, 115 V. Weatherproof A-C and audio cords are 8 ft. long; A-C cord is heavy-duty Approved type, w/power plug.

Standard color, Garden Green. Dimen., overall, approx. 10½" diam. x 5½ ft. high (steel stake is 4½ ft. long). Aluminum housing.

Prices upon request.



No. A-S/L-M

P.A. AND TV ENGINEERING SERVICE

Our Registered Professional Engineers will assist in the planning and layout of all types of Public Address and Television installations

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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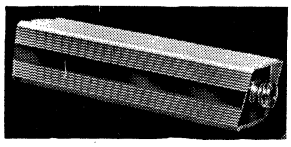
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

CLOSED-CIRCUIT TELEVISION



Modern Closed-circuit Television Camera has remote- control zoom lens, high resolution to 800 lines at 1 ft./candle! Also, remote control of pan, tilt, focus, iris.

AMERICAN COMMUNICATIONS designed and installed the entire Closed-circuit TV System in the new Jack Tar Hotel, San Francisco, Calif., "the world's most electronic hotel", where guests check in and out by TV. We are prepared to assist, with engineering and equipment, others wishing to plan and install private television networks for hotels, hospitals, schools, stores, banks, luxury apartment buildings, traffic terminals, institutions and industry (here, direct television aids in quality control and automatic processing).

AUTOMATIC PRE-SIGNAL FIRE ALARM

The **No. A-309 Automatic Pre-Signal Fire Alarm** (not illustrated) is designed for hotels, schools, hospitals, apartment buildings, etc., as a means of eliminating panic in large buildings due to the sounding of general evacuation bells by the operation of heat detectors or manual break-glass stations.

A control panel assembly connected to heat detectors and break-glass stations in various locations enables attendant to check these locations in an emergency, take any remedial action necessary, and issue only a local alarm in controlled areas when possible. In occupancies where attendant is part time, or not on duty, alarm can be switched to full automatic.

GENERAL SPECIFICATIONS

No. A-309 Pre-Signal Fire Alarm is comprised of a variety of Panels, Alarm Bells, Heat-rise Detectors, Pre-signal Stations, power supplies and wiring, to suit installation.

System quotations and apparatus prices upon request.

EMERGENCY ALERT SYSTEM

The undulating, siren-like tone of **AMERICAN'S** (patented) automatic electronic Emergency Alert System commands instant attention in an emergency.

The control center of the system is a conveniently located Emergency Alert unit resembling a Fire Box. In operation, operator breaks glass covering switch, and moves switch to SIREN or TALK. In either case, remote relays (usually about 7 in number) take over the amplifiers and loudspeakers in the related radio and P.A. systems, and the priority electronic siren or emergency instructions are heard at high level in guest rooms and public areas, regardless of the sound program previously being received, and even if set is off.

Mounted on the front of the steel Emergency Alert box are the SIREN-OFF-TALK switch in a glass-covered recess, a chained hammer, red pilot light, dynamic microphone (for issuing emergency instructions), and an instruction card. Within box are the electronic siren, audio power amplifier, spare tube, power supply, connecting strip, and a relay.

GENERAL SPECIFICATIONS

No. A-EA Emergency Alert unit. Steel signal box, enameled in Chinese Red, measures approx. 15 x 15 x 5" deep; has knockouts for conduit. Supplied equipped as described. Fully fused at 5 A. Operates on 115 V., 60 cy. A-C.

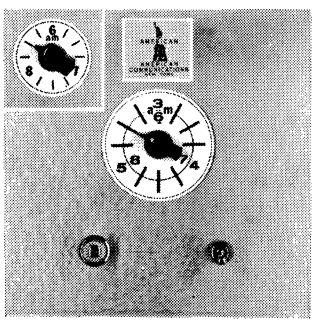
No. A-EAR Relays, for Emergency Alert installations. Multipole, to suit audio circuits into which they connect. Coils operate on 24 V. D-C. Heavy contacts. Hermetically sealed.

Prices upon request.

No. A-EA Emergency Alert signal box has electronic siren with warble sound.

AUTOMATIC WAKE-UP ALARM

This automatic facility, developed by **AMERICAN COMMUNICATIONS'** engineers, is based on the use of an electric clock and a continuous-play tape deck, with provision for operating a call signal at every quarter-hour through either a 3-hour or a 6-hour period — usually 7:00 to 10:00 or 4:00 to 10:00 A.M.



One of the time-set units on the No. A-WA/6 Master Control Panel at Front Office has 6-hr. switch dial, signal lamp, Off-On switch. Inset: dial of 3-hr. time-set switch, for Master Control Panel No. A-WA/3.

This **No. A-WA/-(3 or 6) Wake-up Alarm** ordinarily is operated by Room Clerk or Telephone Operator, who turns a control-panel switch to within a quarter-hour of the time at which guest wishes to be awakened. Operation is now fully automatic — Wake-up Alarm "remembers" calling time and sends a calling message at the proper time to the correct room.

Shown here is a single room unit of the master control panel in Front Office. This panel has on it a similar time-set switch, signal lamp and Off-On switch for every room.

The alarm is both visible and audible. At the designated time a lamp lights in guest room, and a recording advises guest to "shut me off". The call signal is acknowledged when guest turns a switch, which puts out light and ends the call signal.

This completely relieves house personnel of responsibility, since wake-up alarm is repeated until guest acknowledges call.

The guest-room signal lamp blinks in unison with a monitor lamp at Clerk's or Operator's desk until guest cancels signal, both audio and visual, by moving his switch. Even though guest's switch is now in his "off alarm" position it is still electrically in an "on alarm" position when Clerk or Operator again wishes to send a wake-up signal to the same room.

GENERAL SPECIFICATIONS

Installation includes a Front Office Master Control Panel for 3-hr. timing, No. A-WA/3, or 6-hr., No. A-WA/6, a No. A-TD continuous-play tape deck and recorded tape, pre-amplifier, and (if needed) room control panels. (System usually utilizes existing room radio facilities and apparatus — audio amplifier, speakers, room control panels, wiring, and ordinarily, there is space on the existing room control panel for signal light and switch.)

Size of Master Control Panel is determined by the number of rooms to be signaled; construction and finish to order. Equipment operates on 115 V., 60 cy. A-C.

Equipment prices upon request.

APARTMENT BUILDING ALERT SYSTEM

AMERICA'S No. A-EAB automatic and electronic Apartment Building Alert System (not illustrated) is an application of the No. A-EA Emergency Alert unit, and is particularly suited to apartment building complexes.

The **No. A-EA Emergency Alert** unit is connected to control boxes, an amplifier, and one or more weatherproof outdoor speakers. Upon sounding of alarm, distinctive, warbling-tone electronic siren can be heard by patrolman on beat.

GENERAL SPECIFICATIONS

No. A-EAB Apartment Building Alert System includes control boxes, No. A-EA Emergency Alert unit, 100 W, audio amplifier, weatherproof outdoor siren speaker(s), and wiring. Installation can include annunciator panel to show location of actuated alarm box.

System quotation and apparatus prices upon request.

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NEW YORK CITY 7, NEW YORK

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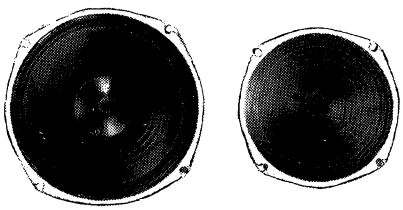
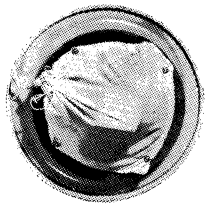
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

LOUDSPEAKERS & ACCESSORIES

Standard Speakers and Accessories for **AMERICAN'S** sound systems are here illustrated. Baffles and cabinets in other constructions available on order. Control panels, shown here on some items, are extra (see listings of the various types elsewhere). **AMERICAN** will install control panels in customer's furniture upon Contractor's order.

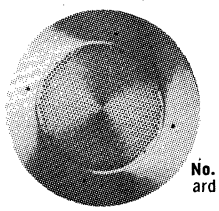


No. A-S1/8 (8″), **No. A-S2/6** (6″) **Speakers.** Hi-fi model (left) has best response.



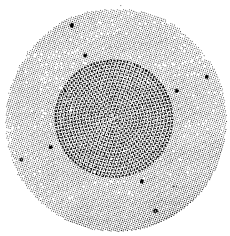
No. A-D Dust Bag. Use on Speakers.

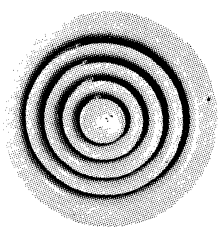
No. A-B3/- Baffle. Sound is diffused.



No. A-B1/- Baffle. New, Sparton model.

No. A-B2/- Baffle. Standard style.





No. A-S1/- High-fidelity Speaker, with dual cones, 6″, List $7.20; 8″, $10.20.

No. A-S2/- Wide-range Speaker, 6″, List $5.20; 8″, $8.20.

No. A-D Speaker Dust Bag, anti-fungus impregnated and verminproof. Sizes: 6″, List $1.80; 8″, $1.90; 12″, $2.00.

No. A-B1/8 Sparton model Baffle, for 8″ speaker (only). Enameled iron; white (standard), or colors to order. List $4.15 (Plastic Ring, for mounting in ceiling, $2.50).

No. A-B2/- Standard Baffle. Available in brushed aluminum. For 6″ speaker, List $4.25 (Plaster Ring, $2.00); 8″, $4.50 (P.R., $2.50).

No. A-B3/- Ceiling Baffle. Popular model of sound diffuser. Color-anodized aluminum. For 6″ speaker, List $7.00 (P.R., $2.00); 8″, $9.00 (P.R., $2.50); 12″, $12.50 (P.R., $3.50).

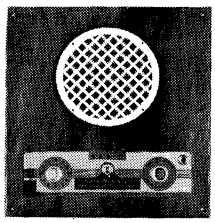
SPEAKER BAFFLES (WOOD)

The following Wood Baffles are available in various finishes. Monogram grilles (for hotel and motel rooms) supplied on order.

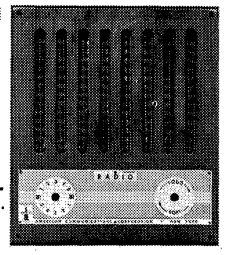
No. A-BW1/- Baffle has waffle-pattern white plastic grille on plywood panel in light mahogany finish. List, for 6″ or 8″ speaker, $18.50.

No. A-BW2/- Baffle is plywood, finished in light mahogany. This vertical-vent baffle is a popular number. List, for 6″ or 8″ speaker, $20.00.

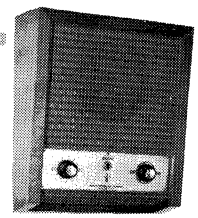
No. A-BW3/- Baffle Cabinet, surface mount, slanting front. Plywood light mahogany finish. Customer choice of grille cloth. List, for 6″ or 8″ speaker, $24.50.



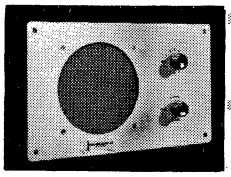
No. A-BW1/- Baffle. Grille is plastic.



No. A-BW2/- Baffle. Wood, vertical vents.



No. A-BW3/- Baffle. Box directs sound

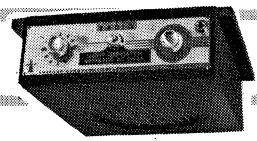


DECORATOR-MODEL SPEAKER PANEL

No. A-B4/- Baffle. Provides for controls.

No. A-B4 Baffle, in Decorator style, is brushed aluminum. Gold anodized available. Space is provided for controls. For 6″ or 8″ speakers. **Prices upon request.**

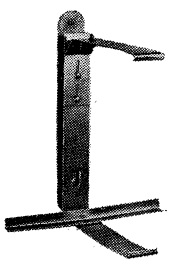
UNDER-TABLE SPEAKER BAFFLE



No. A-BW4 Baffle Cabinet mounts under table, has pressure-release vents on sides, projects sound downward. List, for 6″ or 8″ speakers, $18.60.

No. A-BW4/- Baffle. Mounts under table.

TV MOUNTS



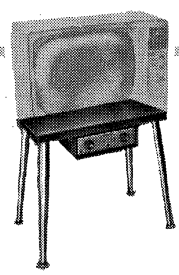
No. A-TVB. Bracket swivels for best TV viewing.

No. A-TVB Bracket. Swivel wall-mounted support for 19″ TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. List $25.80.

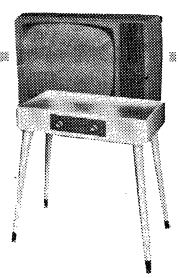
No. A-TVS. Roll-away TV Stand is easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard rubber casters, bolted ⅞-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. **Prices upon request.**

No. A-TVS. Stand holds TV set over bed.

TV TABLES



No. A-TVT-B Table. Speaker cabinet extra.



No. A-TVT-A Table. Provides for controls.

No. A-TVT-A Table. Holds standard Hotel-type TV sets. Control panel can be installed on front skirt, as illustrated. Standard finish is white, or color to order. Wood legs. **Prices on request.**

No. A-TVT-B Table. For TV sets. Control panel and speaker (No. A-BW Baffle Cabinet, equipped) will fit underneath. Black, or other color to suit. Metal legs. **Prices upon request.**

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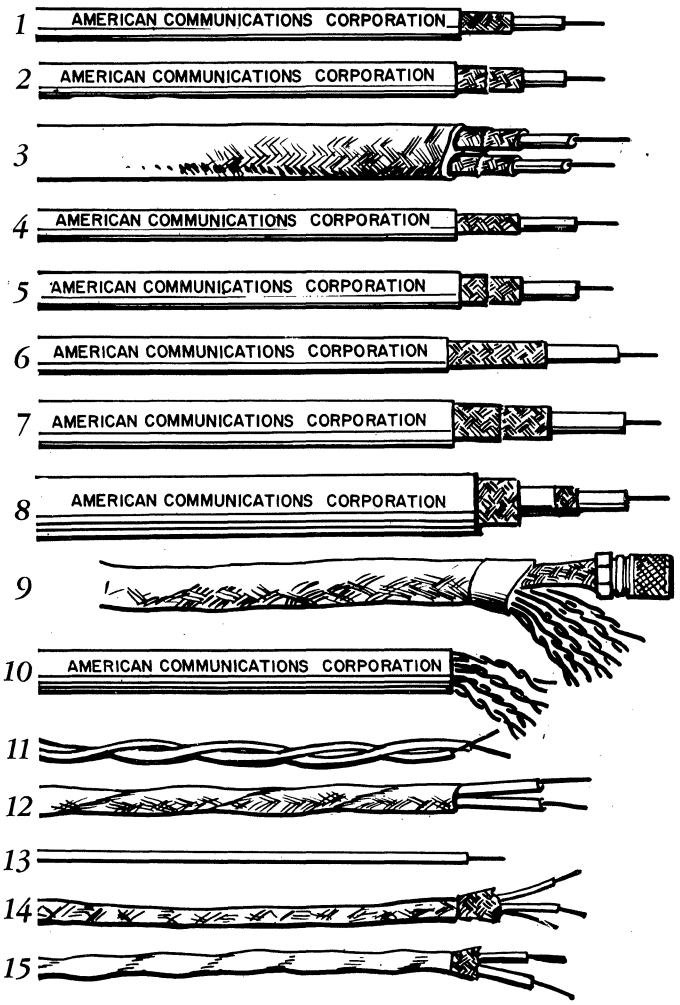
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

CABLE & WIRE



Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making **AMERICAN'S** Systems installations. Specification sheets supplied upon request.

TV COAXIAL CABLE

	Price Per ft.
(1) A-TV91-S (RG-59/U w/1 shield)	$.12
(2) A-TV92-S (RG-59/U w/2 shields)	.145
(3) A-2TV92-S (twin A-TV92-S)	.25
(4) A-TV61-S (RG-6A/U w/1 shield)	.16
(5) A-TV62-S (RG-6A/U w/2 shields)	.22
(6) A-TV11-S (RG-11/U w/1 shield)	.18
(7) A-TV12-S (RG-11/U w/2 shields)	.25
(8) A-TV12-S-2J (A-TV12-S w/shields insulated from each other)	*

TV & RADIO COMBINATION CABLE

(9) A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.).... *

MULTI-CONDUCTOR RADIO CABLE

(10) A-22/2/- (4 to 9 twisted prs. No. 22, for Centralized Radio Systems) ..... *

SPEAKER & SYSTEM WIRING

(11) A-19/2 (No. 19 twisted pr., black & white, no jacket).... *
(12) A-19/2/J (No. 19 twisted pr., black & white, white cotton jacket) ..... *
(13) A-20/1 (No. 20, 1 conductor, red or black) ..... *

MICROPHONE CABLE

(14) A-20/2-G-S (No. 20 2-conductor twisted pr. plus ground wire and shield, woven cotton jacket) ..... $.09
(15) A-20/2-S (No. 20 2-conductor twisted pr. w/shield & plastic sheath) ..... .09

MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr. w/plastic jacket over 27 prs.) ..... †*
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.).... †*

(†) Not illustrated

*** Prices on request.**
Prices subject to change without notice.

CABLE & WIRE CONCEALMENTS

A simple, effective means of concealing television, radio and signal cable and wire, particularly in hotels, is by use of **AMERICAN COMMUNICATIONS CORPORATION'S** line of metal and wood Cable Mouldings pictured here. Finishes as required; wood mouldings, priced unfinished, are of hard, kiln-dried wood. Special mouldings to order.

METAL

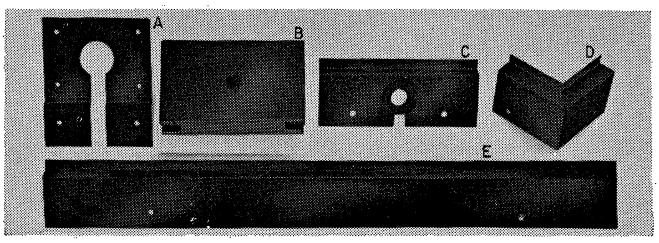
Fig. A. No. A-CM-MP Mounting Plate. Holds a variety of connecting, terminating and matching boxes.

Fig. B. No. A-CM-SB Splice Box. Access openings front, rear, and at two front corners for feedthrough.

Fig. C. No. A-CM-TP Termination Plate, w/rubber grommet for cable.

Fig. D. No. A-CM-CE Corner Elbow. Neatly carries concealed cable around corners.

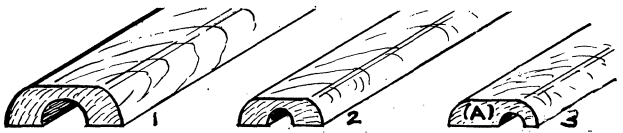
Fig. E. No. A-CM-C. Concealment (moulding) in straight lengths. Standard length, 3 ft.



WOOD

1. No. A-CW1. Wood moulding for concealing large cable. Center channel. List $.30 ft.
2. No. A-CW2. Concealment for small cable. Center channel. List $.26 ft.
3. No. A-CW3. Conceals cable in offside channel, leaving area (A) for mounting brads alongside cable. List $.28 ft.

Quantity Prices on metal and wood Cable Mouldings upon request.



AMERICAN RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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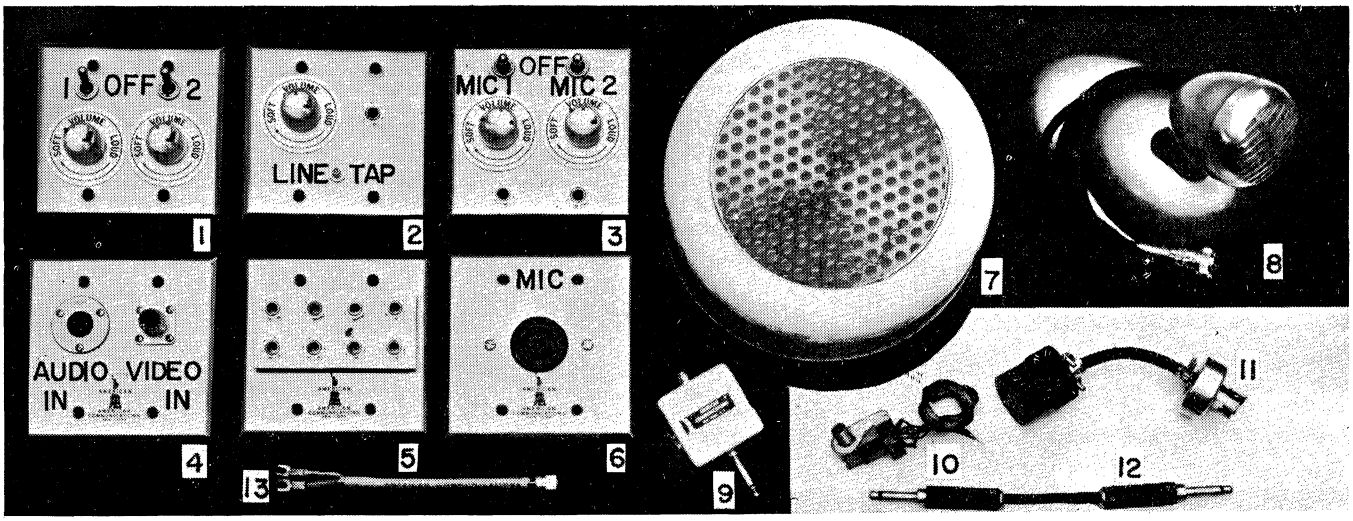
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES



Following is description of the items shown above. Additional specifications will be supplied upon request.

(1) **No. A-SPC Selective Paging Control** on 2-gang plate, w/2 ea. center-off switches and Volume Control. List $36.75.

(2) **No. A-PA/TV-C P.A. and TV Control,** flush type, on 2-gang plate, with 3.3K ohm Volume Control, sieze jack, and No. A-1601 line tap. List $36.75.

(3) **No. A-IC Integrating Control** on 2-gang plate, w/2 ea. center-off switches, Volume Control and sieze jacks. List $36.75.

Items 1, 2 and 3, above, operate on 70-volt lines. Other impedances available.

(4) **No. A-A/V-JP Closed-circuit unit** — Audio/Video Jack Plate — on 2-gang plate, w/Cannon XLR-314 socket for Audio In, and socket for PL-239 for Video In. List $20.00.

(5) **No. A-PP-F Flush Patch Plate,** on 2-gang plate, w/4 circuit jacks. List $5.00 per circuit (4 circuits shown).

(6) **No. A-MOP Microphone Outlet Plate,** flush type, on 2-gang plate, w/Hubbell polarized socket. List $15.00.

(7) **No. A-PAS-I Indoor P.A. Speaker,** surface mount type, 8″ (only). Metal is enamel finished. Supplied less speaker. List $9.75.

No. A-PAS-O Outdoor P.A. Speaker (not illus.), on swivel mount, w/weather-proof housing and output transformer. (**)

(8) **No. A-DS Microphone,** Desk Stand w/press-to-talk switch, Cord, Plug.(**)

Also available (not shown): **No. A-MF Floor-stand Microphone.** List $43.00; and, No. **A-MB Banquet-stand Microphone.** List $20.00.

(9) **No. A-A Adaptor** — PL-55 one end, Amphenol 75-PC1M connector opposite end, to adapt sieze jack to Amphenol adaptor. (**)

(10) **No. A-SJ-1 Sieze Jack,** wired assembly. List $4.50.

*(11) **No. A-MEC Microphone Extension Cord,** SJ cord w/Hubbell 7554 plug one end, 7555 other end. List $11.30.

*(12) **No. A-MCPC Maid Call Patch Cord,** 2-conductor cord w/PL-55 ea. end.

*(13) **No. ATVH TV Hook-up Lead,** A-TV92-S Coax., w/lugs one end, A-C59 other end. List $6.50.

* **Standard length 6 ft., other lengths — and constructions — to order. Quantity prices on request.**

(**) **Price on request.**

LAYOUT AND DRAFTING SERVICE

An added facility, by Registered Professional Engineers, offered by **AMERICAN COMMUNICATIONS CORPORATION** to organizations and individuals wishing to accompany quotations, etc., with technically accurate drawings.

TV COAXIAL CONNECTORS

(A1) **No. A-C59 Solderless TV Connector** for A-TV92-S (RG-59/U) cable. List 45¢, w/A-F59.

(A2) **No. A-F59 Ferrule.** Crimping ring for A-C59. List $2.50/C.

(A3) **No. A-FT81 Feedthrough TV Connector** or TV convenience connector. List 69¢, w/¼″ A-NW-FT81.

(A4) **No. A-NW-FT81 Nut & Washer,** ¼″, for No. A-FT81. List $7.50/C.

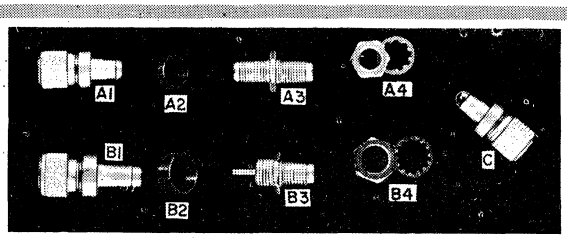
(B1) **No. A-C6 Solderless TV Connector** for A-TV62-S (RG-6A/U). List 55¢.

(B2) **No. A-F6 Ferrule.** Crimping ring for No. A-C6. List $5.00/C.

(B3) **No. A-CH61 Convenience Connector** — chassis mount. List 45¢, w/9/16″ A-NW-CH61.

(B4) **No. A-NW-CH61 Nut & Washer,** 9/16″, for No. A-CH61. List $10.00/C.

(C) **No. A-TR72 Terminator,** 72 ohms. List 68¢.



ANNOUNCEMENT

Now for the first time since 1936, when **AMERICAN COMMUNICATIONS CORPORATION** started to manufacture its own hotel radio equipment, the special products developed for its own use are being made available to the trade. **AMERICAN COMMUNICATIONS** is the pioneer company in hotel master antenna and centralized radio systems. The features for which these systems are famous, as the result of **AMERICAN'S** years of research and development, are incorporated in hotel and motel radio — and TV — installations throughout the country.

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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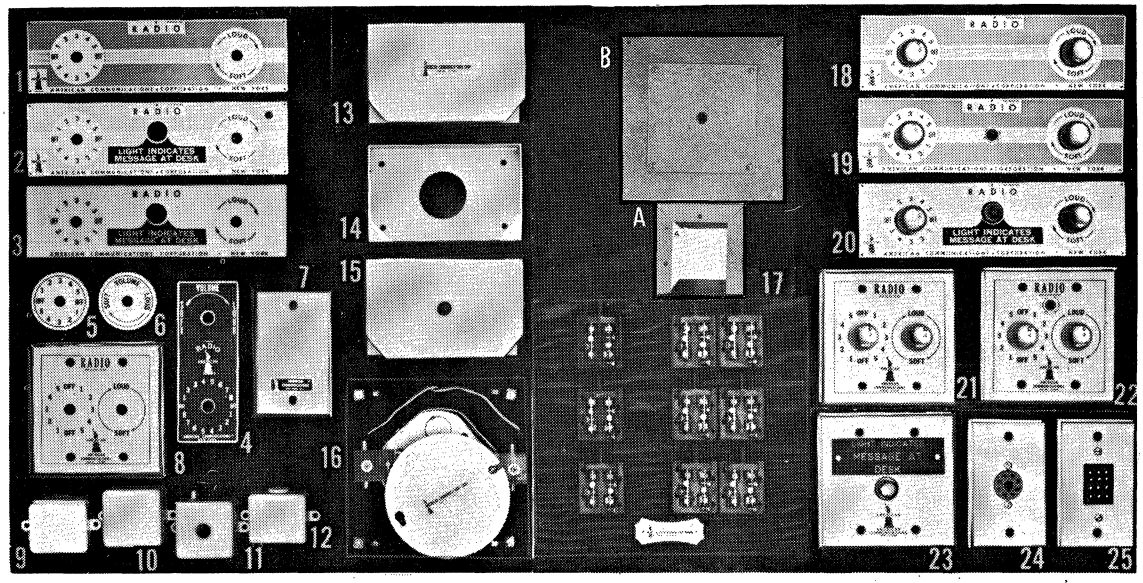
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

RADIO PARTS & ASSEMBLIES



Items in the above illustration are available not only as shown, but also, with modifications to suit customer requirements as to size, material, finish, and construction, where quantity is involved. Prices subject to change without notice. Fabrication to prints.

New Electroluminescent Control Panels are now available to order in all the room styles shown here. They operate on A-C; have soft, night-light glow.

BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1 - No. 3, 9 x 2½″; No. 4, 2⅛″ x 5-9/16″; No. 5, No. 6 (dials), 2″ diam (hole in latter is ⅜″ diam.). No. 7, 2¾″ x 4½″. No. 8, 4 ⅝″ sq.

(1) No. A-P1 Radio Escutcheon. Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off, and Loud-Soft. List $3.60.
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as No. A-P1, except w/hole, centered between controls, for jack. List $3.65.
No. A-P3 Radio/Message Escutcheon (not shown). Same as No. A-P1, except w/added hole in center for lamp socket, and wording: Light Indicates Message at Desk. List $3.75.

(2) No. A-P4 Radio/Message/Maid Call Escutcheon. Same as No. A-P3, except w/added hole at upper-right for jack. List $3.80.
No. A-P5 (Radio/Message/Maid Call/Status Escutcheon (not shown). Same as No. A-P4, except w/added hole, below hole for jack, for Status Keyswitch or Status Maid Button. For room use w/Model 707 Room Status Control. List $4.50.

(3) No. A-P3P Radio Escutcheon, plastic. Same as No. A-P3, except material is translucent plastic. For use with incandescent or luminescent light source. List $3.20.

(4) No. A-P1V Radio Escutcheon, vertical. Brown enameled brass. Lettering same as No. A-P1, except radio numerals to 8. List $2.70.

(5) No. A-D1/5 Selector Plate. Aluminum disc, black lettered Off — 1 (through) 5 — Off. (Specify if different numbering required.) (**)

(6) No. A-D2 Volume Plate. Aluminum disc, black lettered: Loud — Volume — Soft. (**)

(7) No. A-P10 Wall Plate, 1-gang, blank. Available in aluminum, stainless steel, plain steel and brass, in various finishes, to order. Standard finishes are brushed stainless steel or brushed aluminum, as specified. List 95¢.
No. A-P20 Wall Plate, 2-gang, blank (not illus.). Materials and finishes as No. A-P10. List $1.05.

(8) No. A-P20-1 Radio Wall Plate. Uses 2-gang plate No. A-P20. Same lettering as No. A-P1. List $2.85.
No. A-P20-2 Radio/Maid Call Wall Plate (not shown). Same as No. A-P20-1, except w/added hole for Maid Call jack. List $3.00.
No. A-P20-3 Message Wall Plate (not shown). Has hole for lamp socket, but no wording (unless requested; wording and socket are shown in **Item 23**). List $1.20, less wording.

BLANK HOUSINGS

Standard finish of Blank Housings is ecru enamel; material is steel, unless otherwise specified by purchaser.

Measurements: (small housings) No. 9, No. 12, 2″ x 1¾″ x ¾″ deep; No. 10, No. 11, 2″ sq. x 1⅛″ deep; (large housings) No. 13 - No. 15, 5¼″ x 3⅜″ x 1-3/16″ deep. Mounting tabs on No. 9 - No. 12 extend additional ⅜″ ea. side.

(9) No. A-BC1 Accessory Box, small, blank. List 60¢.
(10) No. A-BC2 Accessory Box, large, blank. List 75¢.
(11) No. A-BC2G1C Accessory Box, large, w/metal grommet and TV feedthrough No. A-FT-81. Used as TV Outlet and Cable Accessory Box. List $1.75.
(12) No. A-BC1G2 Accessory Box, small, w/rubber grommet. List 70¢.
(13) No. A-BC10 Termination (Accessory) Box, large, surface mounted. Open at 2 corners for feedthrough; back plate has opening (optional) for cable, and back-to-back mounting. List $1.95.
(14) (Shows opening at back of No. A-BC10 Termination Box.)
(15) No. A-BC11 Radio Outlet Box, surface mounted. Same as No. A-BC10, except w/metal grommet in top. List $2.15.

APPARATUS

The apparatus shown here was developed for use in **AMERICAN'S** Systems installations. Construction of the Riser Switchboard will vary in size as required to suit installation.

(16) No. A-SB-R Radio Splice Box, on wood or masonite board 6″ sq. x ¼″ thick. Suspension wire is shown. Includes outlet box (shown open), 4 insulated cable clamps, and 2 No. A-1601 line taps.(*)
(17) No. A-RS-A Riser Switchboard. Unit shown is comprised of 9 D.P.S.T. knife switches (one switch per riser pair) on wood (or masonite) mounting approx. 9½″ sq. x ½″ thick. List $15.00 per circuit (illus., 3 circuits).

PANEL ASSEMBLIES

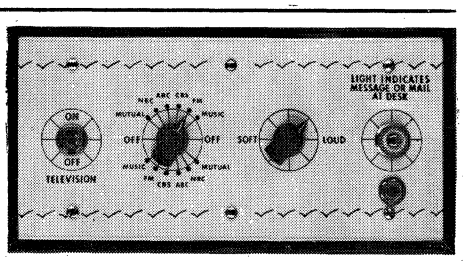
Standard components for these control assemblies are the No. A-CS/5 5-channel Radio Selector Switch and No. A-VC/50 Volume Control (patented).

(18) No. A-P1-A Radio Control Panel. This is No. A-P1 Escutcheon assembled with Radio Selector Switch and Volume Control. List $25.00.
(19) No. A-P2-A Radio/Maid Call Panel. Same assembly as No. A-P1-A, except w/No. A-MJ Maid Call jack added, on No. A-P2 Escutcheon. List $25.75.
(20) No. A-P3-A Radio/Message Panel. Switch, Control, and Message light, on No. A-P3 Escutcheon. List $26.25.
No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on No. A-P3-A panel, plus Maid Call jack, all on No. A-P4 Escutcheon. List $31.00.
(21) No. A-P20-1-A Radio Wall Plate assembly, w/Switch and Volume Control. On aluminum 2-gang plate. List $25.00.
(22) No. A-P20-2-A Radio/Maid Call assembly. Same as No. A-P20-1-A, but w/Maid Call jack added. On aluminum 2-gang plate. List $25.75.
(23) No. A-P20-3-A Message-at-Desk Wall Plate assembly, w/instructions and lamp. On aluminum 2-gang plate. List $4.90.
(24) No. A-P10-TV-A TV Remote Plate assembly. On aluminum 1-gang plate, w/octal socket. List $1.75.
(25) No. A-P10-C-A Connector Plate assembly. On aluminum 1-gang plate. Has Jones connector; specify number of connections. List $2.62 (12-pin, illus.).
(A) No. A-CB-S Connection Box, surface mounting. Accessible from rear. Used for mounting control plates. Bushing on one side. Hammertone-enamel steel(*)
(B) No. A-CB-F Connection Box, flush mounting. Shown with bushed plate, for cable. Steel, Hammertone enameled.(*)

(*) **Price upon request.**
(**) **Supplied in quantity. Prices upon request. Shown above are unit prices.**

No. A-ELP1 Electroluminous Panel. Operates on A-C. Diffuses a night-light glow in room. Assembly shown here includes TV On-Off switch, Channel Selector (radio channels, FM, Music), Volume Control, Message/Mail-at-Desk lamp, Maid Call jack. Mounts on standard outlet box with conduit knockouts. Approx. 14¼″ x 3¾″ x 3⅜″ deep (incl. deep-drawn box cover).

These new **Electroluminescent Panels** are now available in all the room control panel styles shown on this page. Other combinations also to order, in quantity.



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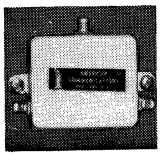
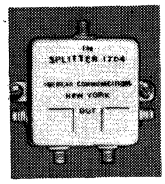
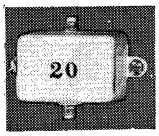
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

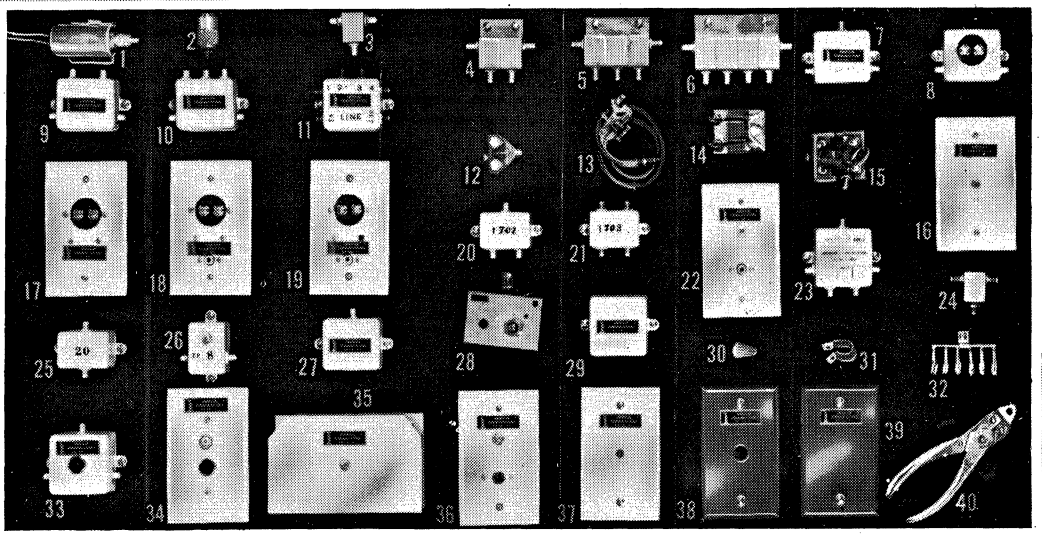
TELEVISION & RADIO PARTS

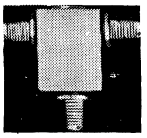

(7) Indoor Line Tap.

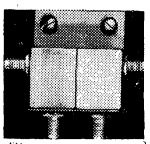

(23) 4-way Splitter.

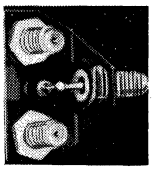


(25) 20 db Pad.




(3) Outdoor Tap.


(4) Bracket mounted.


(12) Flush mount.

First Row†

(1) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U; connector for RG-11/U available. Up to 6 db voltage step-up.(*)
(2) No. A-PL259 Connector.(*) List $3.53.
(3) No. A-1601-1 Isolation Unit. A single-unit TV line tap. Attenuation color codes per Note 1. List $4.40. Outdoor housing; 75 ohms.
(4) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Note 2) List $6.22.
(5) No. A-1603-1 Triple-unit Line Tap. List $8.04.
(6) No. A-1604-1 Quad.-unit Line Tap. List $9.85.
(7) No. A-1601-2 Single-unit Line Tap, 75 ohms, surface mount, in No. A-BC1 Accessory Box (Notes 1, 3). List $4.15. Indoor housing.
(8) No. A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3). List $4.40.

Second Row†

(9) No. A-1602-2 Double-unit Line Tap, same as No. 1601-2. Has 2 set taps, 75 ohms. (Note 3).(*) List $5.98.
(10) No. A-1603-2 Triple-unit Line Tap. Same as No. 9, except has 3 set taps.(*) List $7.81.
(11) No. A-1604-2 Quad.-unit Line Tap. Same as No. 9, except has 4 set taps.(*) List $9.60.
(12) No. A-1601-G Single-unit Line Tap, Gem flush-mount, 75 ohms. (Note 1) List $4.40.
(13) No. A-1602-G Double-unit Line Tap. Same as No. 12, except has 2 set taps.(*) List $6.22.
(14) A-1603-G Triple-unit Line Tap. Same as No. 12, except has 3 set taps.(*) List $8.04.
(15) No. 1604-G Quad.-unit Line Tap. Same as No. 12, except has 4 set taps.(*) List $9.85.
(16) No. A-1601-4 Single-unit Line Tap. TV outlet. (Note 4).(*) List $4.40.

Third Row†

(17) No. A-1601-5 TV Outlet, 300 ohms. (Note 4) List $5.40.
(18) No. A-1601-6 TV Outlet, 75 ohms, screw terminals, FM outlet. (Note 4) List $5.40.
(19) No. A-1601-8. Same as No. 18, except TV outlet 300 ohms. (Note 4) List $5.40.
(20) No. A-1702 Line Splitter — 2-way. Has 6 db forward attenuation. (Note 5) List $4.75.
(21) No. A-1703 Line Splitter — 3-way. Has 10 db forward attenuation. (Note 5) List $6.60.
(22) No. A-1601-7 Outlet — 75-ohm tap, w/FM outlet. (Note 4) List $5.40.
(23) No. A-1704 Line Splitter — 4-way. Has 6 db forward attenuation. (Note 3) List $7.60.
(24) No. A-1600 Feedthrough Tap. No isolation. List $4.40.

Fourth Row†

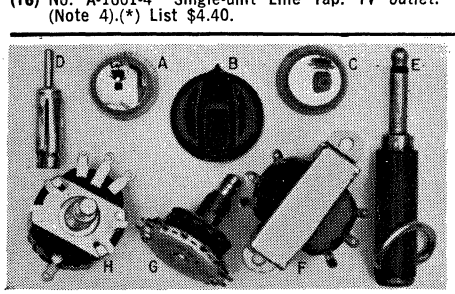
(25) No. A-DBLA DB Line Attenuator Pad, 3-6-10-20-30. (Note 5) List $3.40.
(26) No. A-T/R-T Trunk/Riser Tap. Various values, 6-8-20. Creates Risers from Trunk Line. (Note 5) List $3.40.
(27) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) List $1.20.
(28) No. A-VLC Volume Limiter Control. Mounted on plate w/access hole for TV cable. List $5.97.
(29) No. A-CTVB/MJ Convenience TV Box, w/No. A-MJ jack. (Note 3) List $1.20.
(30) No. A-WN Porcelain Wire Nut.(**)
(31) No. A-CC Cable Clamp. Size as required.(**)
(32) No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes.(**)

Fifth Row†

(33) No. A-1601/R-FT 1601 & Radio Feedthrough — combination. Surface mount in grommeted Accessory Box No. A-BC2G. List $5.30.
(34) No. A-1601/R 1601 & Radio Plate. Wall plate grommeted for cable. List $5.30.
(35) No. A-TV/R-SB TV/Radio Splice Box, surface mount, w/1601. In No. A-BC10 Termination Box. List $5.55.
(36) No. A-TV/75 Tap, 75 ohms, w/No. A-MJ jack. (Note 4) List $5.40.
(37) No. A-P10-P —punched Plate. (Note 6) List 95¢.
(38) No. A-R-BP Radio — bushed Plate. (Note 6) List $1.20.
(39) No. A-TV/R-P TV or Radio Plate, blank. (Note 6) List 95¢.
(40) No. A-CT-1 No. 1 Crimping Tool, light duty. For F-59 ferrules. List $7.47.
No. A-CT-2 Crimping Tool, heavy duty (not shown). For F59 and F6 ferrules. List $9.39.

(Note 1) Attenuation color-coded red, yellow, green, blue.
(Note 2) On mounting bracket.
(Note 3) Surface mount, in No. A-BC1 Accessory Box.
(Note 4) Flush mount, on single-gang wall plate No. A-P10. Available in various colors.
(Note 5) Surface mount.
(Note 6) Single/double gang, flush mount.

(†) **All necessary hardware packaged individually with each unit.**
(*) **Price on request.**
Supplied in quantity. Price on request.



AMERICAN'S patented, 360° Volume Control, that solved the hotel problem of damage to radio volume controls in guest rooms, is shown, Item H, in the accompanying illustration. Also shown, Item G, is the 360° Channel Selector switch which, like the Volume Control, is continuously rotating type.

(A) No. A-K1 Knob, clear plastic. Gold insert, short pointer, 1 screw. List 25¢.
(B) No. A-K3 Pointer Knob, black plastic. Has 1 screw. List 30¢.
(C) No. A-K2 Knob, biege plastic. Gold insert, short pointer, 1 screw. List 25¢.
(D) No. A-MP Plug, quick-disconnect type. List 18¢.
No. A-MJ Jack (not shown), quick-disconnect type.(*)
(E) No. A-MSP Maid Call Plug, w/belt ring. List $2.50.
(F) No. A-T3 Transformer, 70 ohms to 3.2 ohms.(*)
(G) No. A-CS Radio Selector Switch. Ceramic wafer, dual wiper, 5 positions (other positions to order), center off, 360° continuous rotation. List $4.75.
(H) No. A-VC/50 Volume Control. A patented potentiometer with 360° continuous rotation. Standard resistance 50 ohms, other values to order. List $4.50.

(*) **Price on request.**

TELEVISION & RADIO PARTS

It should be noted that the parts here shown represent only a portion of the products manufactured by **AMERICAN COMMUNICATIONS CORPORATION**, and that many of the items were selected only as representative designs or constructions which are available in some variety as to size, shape, color, finish or other characteristic.

Prices are subject to change without notice, and quantity discounts apply on most items.

THE AMERICAN MARK OF RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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BOGEN
the sound way

AWARD-WINNING M SERIES FLEX-PAK® PUBLIC ADDRESS AMPLIFIERS AND PREAMPLIFIERS

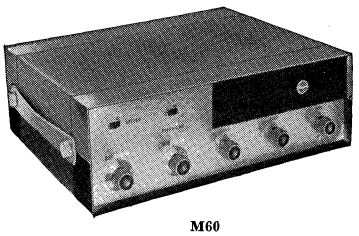
Presenting Bogen's exciting new "M" series PA amplifiers, the deluxe MX60 and MX30, and the superb M60 and M330. Features of the deluxe "MX" models: master gain control.—Built-in Remote Gain-Control Circuit allows changes in gain from distances up to 2,000 feet.—Plus all the other features listed below. **Features of the superb "M" models:** Constant voltage output taps simplify calculations for speaker matching transformers—Power stage screen regulation for higher output, greater efficiency.—Special filters to improve speech clarity.—Equalized phono input for all cartridges.—Separate bass and treble controls.—Plug-in sockets for low impedance transformers.—Quick maintenance; four thumbscrews remove cage, no tools needed.—Broadcast-type (Cannon XL Series) microphone connectors. Pencil-in, erase-out identification strips for all channels. Sturdy leather carrying handles.—Variable level markers permit resetting of controls to previously determined levels.—A host of accessories for completely flexible operation.—Handsome, compact design, finished in silver, gray and black.

MX30-MX60

MX60, DELUXE 60-WATT PA AMPLIFIER

With master gain control . . . built-in remote gain-control circuit . . . four microphone channels (one converts to phono) . . . exclusive variable level markers.. **Power output:** 60 watts at less than 1% distortion. **Power consumption:** 270 watts. **Frequency response:** ± 2 db, 35 to 20,000 cycles. **Gain:** microphone: 125 db; tuner: 85 db; magnetic phono: 115 db. **Hum:** (below rated output): microphone: —60 db. **Output impedance:** 4, 8, 16 and 83 ohms, balanced 25-volt line, 70-volt line. **Tubes:** total of ten. 3-GZ34, 2-7027A, 4-12AX7, 1-7247. **Tone controls:** treble (10 kc): + 10 db to —10 db; bass (50c): + 10 db to —10 db. **Overall dimensions:** 16¼" wide, 13" deep, 5⅜" high. **Shipping weight:** 37 lbs.

List Price ..... $290.00 (Zone 2: $293.75)

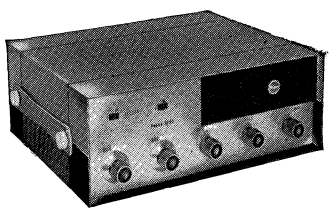


M60

MX30, DELUXE 30-WATT PA AMPLIFIER

With master gain control . . . built-in remote gain control circuit . . . four microphone channels (one converts to phono) . . . exclusive variable level markers. **Power output:** 30 watts at less than 2% distortion. **Power consumption:** 150 watts. **Frequency response:** ± 2 db, 35 to 20,000 cycles. **Gain:** microphone: 120 db; tuner: 80 db; crystal phono: 80 db; magnetic phono: 115 db. **Hum:** (below rated output): microphone: —60 db. **Output impedance:** 4, 8, 16 and 163 ohms, balanced 25-volt line 70-volt line. **Tubes:** total of eight, 1-GZ34, 2-6L6GC, 4-12AX7, 1-7247. **Tone controls:** treble (10 kc): + 10 db to —10 db; bass (60c): + 10 db to —10 db. **Overall dimensions:** 16¼" wide, 13" deep, 5⅜" high. **Shipping weight:** 31 lbs.

List Price ..... $225.00 (Zone 2: $228.08)



M330

M60, SUPERB 60-WATT PA AMPLIFIER

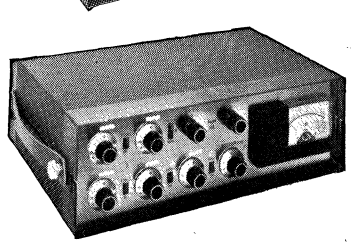
With exclusive variable level markers . . . three microphone channels (one converts to phone) . . . speech filters. **Power output:** 60 watts at less than 1% distortion. **Power consumption:** 270 watts. **Frequency response:** ± 2 db, 35 to 20,000 cycles. **Gain microphone:** 125 db; tuner: 80 db; crystal phono: 80 db; magnetic phono: 115 db. **Hum:** (below rated output): microphone: —50 db. **Output impedance:** 4, 8, 16 and 83 ohms, balanced 25-volt line, 70-volt line. **Tubes:** total of nine. 3-GZ34, 2-7027A, 3-12AX7, 1-7247. **Overall dimensions:** 16¼" wide, 13" deep, 5⅜" high. **Shipping weight:** 37 lbs.

List Price ..... $231.25 (Zone 2: $235.00)

M330, SUPERB 30-WATT PA AMPLIFIER

With exclusive variable level markers . . . three microphone channels (one converts to phone) . . . speech filters. **Power output:** 30 watts at less than 2% distortion. **Power consumption:** 150 watts. **Frequency response:** ± 2 db, 35 to 20,000 cycles. **Gain:** microphone: 120 db; tuner: 80 db; crystal phono: 80 db; magnetic phono: 115 db. **Hum:** (below rated output): microphone: —60 db. **Output impedance:** 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line. **Tubes:** total of seven. 1-GZ34, 2-6L6GC, 3-12AX7, 1-7247. **Overall dimensions:** 14½" wide, 13" deep, 5⅜" high. **Shipping weight:** 29 lbs.

List Price ..... $187.50 (Zone 2: $190.42)



VERSATILE BOGEN PREAMPLIFIERS

RP-2 . . . LOW-NOISE PROGRAM PREAMPLIFIER

Designed for use at remote pickup points. Contains separate input channels for one microphone and one phonograph. Separate volume controls for each channel permit mixing of inputs. The output is designed to feed either a booster amplifier or a low impedance line separately or simultaneously. A bass cut-off switch provides speech clarity. Enclosure with VU meter (as illustrated) is available—see below. **Power consumption:** 20 watts, 117 volts ac, 60 cycles. **Gain: microphone:** 76 db, phono: 35 db. **Sensitivity: microphone:** 3.5 mv., phono: 0.4 v. **Bass cut:** 20 db. **Output impedance:** high impedance: cathode follower driven; minimum recommended lead resistance—10,000 ohms. Low impedance: 600 ohms (50 and 200 ohms). **Input impedance:** high impedance ½ megohm, convertible to low impedance by use of plug-in transformers for 50, 150-250 or 600 ohms. **Pilot light:** #47. **Tubes:** total 4—2-6SF5, 1-6J5, 1-6X5GT. **Dimensions:** 11" w. x 5¼" h. x 7⅜" d. (excluding knobs). With cage,, height is 6½"

RP-2 (cage optional extra) List Price ..... $90.00 (Zone 2: $91.95)

CAGVU2 cage with meter. List Price ..... $31.25 (Zone 2: $32.00)

MXM MIXER-PREAMPLIFIER

Higher gain—outstanding sensitivity—excellent signal-to-noise ratio—high output at low distortion—extremely low hum level. The MXM is self-powered , accommodates five microphones, or four microphones and a tuner or phonograph. Each channel is regulated by a separate gain control (a master gain control is also provided). Features: individual speech filters for each channel, output level meter, sockets for plug-in, low impedance transformers, feedback-type, distortion-free tone controls, and new variable level markers which permit instant resetting of controls to previously determined levels. May be remote controlled with SR2 and SR4 remote controllers . . . **Output:** + 18 dbm @ less than 1% dist. **Power consumption:** 27 watts. **Frequency response:** ± 2 db, 20 to 20,000 cycles. **Input sensitivity:** high imp.: 4 mv. Low imp.: 0.4 mv. MAG: 4 mv; XTAL: 0.2v; AUX: O.5v. **Hum:** (below rated output): microphone: —60 db. **Output impedance:** high imp.: (cathode follower): —600 ohms with T161 or T165B (broadcast quality) accessory plug-in transformers. **Tubes** total 9. 4-EF86, 2-12AX7, 1-6CG7, 1-6BF6, 1-6X4. **Tone controls:** treble (10 kc): + 12 db to —12 db; bass (60c); + 12 db to —12 db. **Overall dimensions:** 16¼" wide, 13" deep, 5⅜ high. **Shipping wt.:** 21 lbs.

List Price ..... $237.50 (Zone 2: $239.58)

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BOGEN
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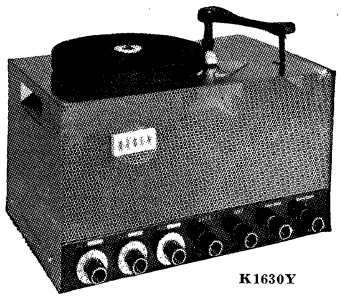
AMPLIFIERS - BOOSTER AMPLIFIERS AND NEW POWERFUL MOBILE 25-WATT TRANSISTOR AMPLIFIER

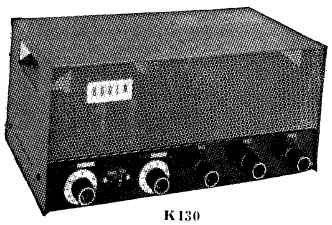


K1630Y

K1630Y PHONO-TOP 30-WATT AMPLIFIER

Features a three-speed manual phono-top complete with tone arm and Ronette turn-over cartridge. Other features include: Controlled positive feedback; universal operation from 6- or 12-volt DC or 117-volt AC; one phono and two microphone channels. **Power Output:** 30 watts at less than 2% distortion. **Peak Power:** 45 watts. **Frequency Response:** ± 2 db, 20 to 20,000 cps. **Gain:** Microphone, 125 db; Crystal Phono, 85 db. **Hum:** (below rated output) Microphone, —60 db; Phono, —70 db. **Output Impedance:** 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line. **Tubes:** (8) 2-6AV5GA; 2—6AX5GT; 1-12AX7; 1—6AV6; 1-6CG7; 1-6U8. **Overall Dimensions:** 15¼" wide, 10" deep, 10¾" high. **Shipping Weight:** 35 lbs.

Bogen Model K1630Y Phono-Top Amplifier—List Price.....**$279.85** (Zone 2: **$286.10**)
Bogen Model K1630 Amplifier—Amplifier only, less phono-top. **Overall Dimensions:** 15¼" wide, 10" deep, 8¾" high. **Shipping Weight:** 30 lbs. List Price.....**$254.90** (Zone 2: **$259.95**)

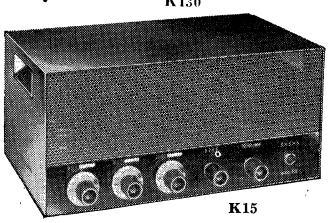


K130

K130 ECONOMICAL 30-WATT AMPLIFIER

With separate bass and treble controls, constant voltage output taps and socket for plug-in, low-impedance transformers. Erasable identification strips. One microphone input. **Power Output:** 30 watts at less than 2% distortion. **Peak Power:** 45 watts **Frequency Response:** ± 2 db, 20 to 20,000 cps. **Gain:** Microphone, 120 db; Phono 80 db. **Hum:** (below rated output) Microphone, —60 db; Phono, —70 db. **Output Impedances:** 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line. **Tubes:** (8) 2-6AV5GA, 2-5Y3GT; 1-6CG7; 1-6U8; 1-12AX7; 1-6AV6. **Overall Dimensions:** 14¼" wide, 8¾" deep, 6¾" high (K130Y: 10¾" high). **Shipping Weight:** K130, 30 lbs.; K130Y, 35 lbs.

Bogen Model K130 Amplifier—List Price.....**$135.00** (Zone 2: **$139.95**)
Bogen Model K130Y Phono-Top Amplifier—Model K130 Amplifier with three-speed manual phono top, tone arm and Ronette turnover cartridge. List Price.....**$161.50** (Zone 2: **$167.60**)

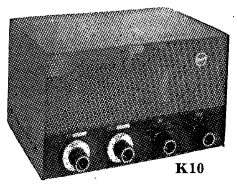


K15

K15 ECONOMICAL 15-WATT AMPLIFIER

With separate bass and treble controls, constant voltage output taps, sockets for plug-in, low impedance transformers. Two microphone channels. **Power Output:** 15 watts at less than 3% distortion. **Peak Power:** 25 watts. **Frequency Response:** ± 2 db. 20 to 20,000 cps. **Gain:** Microphone, 125 db; Phono, 82 db. **Hum:** (below rated output) Microphone, —55 db; Phono, —70 db. **Output Impedance:** 4, 8, 16, 42 and 326 ohms, balanced 25-volt line, 70-volt line. **Tubes:** (6) 2-12AX7; 1-6AV6;2-6L6GB; 1-6BW4/EZ80. **Overall dimensions:** 14¼" wide, 8¾" deep, 6¾" high (K15Y: 10¾" high). **Shipping Weight:** K15, 21 lbs.; K15Y, 26 lbs.

Bogen Model K15 Amplifier—List Price.....**$115.00** (Zone 2: **$118.45**)
Bogen Model K15Y Phono-Top Amplifier—Model K15 Amplifier with three-speed manual phono top, tone arm and Ronette turnover cartridge. List Price.....**$146.50** (Zone 2: **$151.10**)



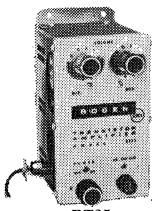
K10

K10 ECONOMICAL 10-WATT AMPLIFIER

With six-position SelecTone tone control, constant voltage output taps, socket for plug-in, low impedance transformers. One microphone input. **Power Output:** 10 watts at less than 3% distortion. **Peak Power:** 15 watts. **Frequency Response:** ± 2 db, 20 to 20,000 cps. **Gain:** Microphone, 110 db; Phono, 72 db. **Hum:** (below rated output) Microphone, —55 db; Phono, —65 db. **Tone Control:** SelecTone—Natural, Mellow, Bass, Deep Bass, Brilliant, Crisp. **Output Impedances:** 4, 8, 16 and 500 ohms, 70-volt line. **Tubes:** (5) 2-6AQ5; 1-6BW4/EZ80; 1-12AX7; 1-6AU6. **Overall Dimensions:** 11" wide, 7½" deep, 6⅛" high. **Shipping Weight:** 15 lbs.

Bogen Model K10 Amplifier—List Price.....**$82.50** (Zone 2: **$84.95**)

BT 25 MOBILE P.A. AMPLIFIER



BT25

A product of Bogen research . . . the BT25 is the first commercially available fully transistorized public address amplifier offering 25 watts of power from a 12-volt battery. So versatile it will serve scores of P.A. applications, the amplifier is so small it will fit in the glove compartment of your car.

The BT25 is perfect for use in cars, trucks and busses for regular public address or emergency use. Its hefty 25 watts of power make it ideal for fire department or police use, for disaster work and civil disturbances. It is also recommended for ships, carnivals, electioneering . . . wherever a small, high-powered, reliable P.A. amplifier is needed. Bogen's unique fully transistorized circuitry provides maximum power with minimum battery drain. When operated from a 12-volt battery, the drain is approximately 3 amperes at full output—85% lower than comparable vacuum tube amplifiers. When operated from a 6-volt battery, current drain is only 1.4 amperes at full output. The inputs of the BT25 are individually controllable, permitting mixing. A transistorized circuit insures ruggedness and long, trouble-free service not possible with conventional amplifiers (Bogen guarantees the BT25 for a full year). There are no tubes to burn out, no vibrators to replace. It is completely hum-free.

BT25 Mobile P.A. Amplifier
List: **$120.00** (Zone 2: **$120.90**)

POWER PACKED BOOSTER AMPLIFIERS

MO100, MO60, MO30

MO SERIES BOOSTER AMPLIFIERS

Bogen's new MO series booster amplifiers embody the most advanced developments in design and techniques of construction. They are ideal for sound systems in industrial plants, airports, stadia, shipyards . . . wherever undistorted high power is required. Note their exceptionally wide-range response characteristics. An input signal of just 2 volts or less will drive any of the boosters to rated output. The MXM and RP-2, described on another page, are ideal preamplifiers for these boosters. Built-in provision for paralleling several MO series power amplifiers to multiply power output.

MO100, 100-WATT BOOSTER AMPLIFIER

Provision for balanced low impedance line input . . . provision for remote control of standby operation. INDUSTRIAL RATING can be used as 100-watt source of continuous power between 50 and 20 KC (with distortion below 2%). **Power output:** 100 watts at less than 1% distortion. **Power consumption:** 300 watts. **Frequency response:** ± 2 db, 35 to 70,000 cycles. **Input:** (1) high impedance: .1 megohm. With low impedance transformer (T161): 500 ohms. **Sensitivity:** high impedance: 2 volt; low impedance (with T161 transformer): 0.5 volts. **Hum:** (below rated output): —80 db. **Output impedance:** 1.6, 6.25 and 49 ohms, balanced 25-volt line, 70-volt-115-volt. **Tubes:** Total 6. 2-GZ34, 1-EZ81, 2-6550, 1-6C4. **Overall dimensions:** 17¼" wide, 9" deep, 7¾" high. **Shipping weight:** 35 lbs List Price .....**$215.75** (Zone 2: **$218.83**)

MO60, 60 WATT BOOSTER AMPLIFIER

Provision for balanced low impedance line input . . . provision for remote control of standby operation. **Power output:** 60 watts at less than 1% distortion. **Power consumption:** 260 watts. **Frequency response:** ± 2 db, 35 to 20,000 cycles. **Input:** high impedance .1 megohm. With low impedance transformer (T161): 500 ohms. **Sensitivity:** high impedance: 2 volts; low impedance (with T161 transformer): 0.5 volts. **Hum:** (below rated output): —80 db. **Output impedance:** 4, 8, 16, and 82 ohms, balanced 25-volt line, 70-volt line. **Tubes:** total 7. 3-GZ34, 2-7027A, 1-12AX7, 1-6C4. **Overall dimensions:** 17¼" wide, 6½" deep, 7¾" high. **Shipping weight:** 23 lbs. List Price .....**$167.50** (Zone 2: **$169.83**)

MO30, 30-WATT BOOSTER AMPLIFIER

Provision for balanced low impedance line input. **Power Output:** 30 watts at less than 2% distortion. **Power Consumption:** 150 watts. **Frequency Response:** ± 2 db, 35 to 20,000 cycles. **Input:** (1) high impedance: .1 megohm. With low impedance transformer (T161): 500 ohms. **Sensitivity:** high impedance: 2.0 volt, low impedance (with T161 transformer): 0.5 volts. **hum:** (below rated output): —80 db. **Output Impedance:** 4, 8, 16 and 163 ohms, balanced 25-volt line, 70-volt line. **Tubes:** total 5. 1-GZ34, 2-6L6GC, 1-12AX7, 1-6C4. **Overall dimensions:** 17¼" wide, 6½" deep, 7¾" high. **Shipping weight:** 21 lbs. List..**$119.88** (Zone 2: **$121.97**)

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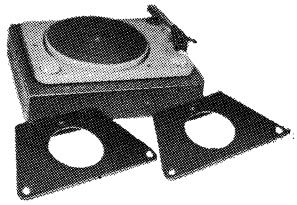
BOGEN
the sound way

FLEX-PAK® ACCESSORIES FOR BOGEN P. A. AMPLIFIERS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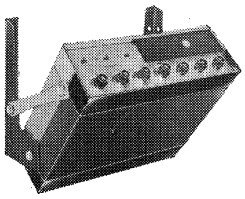
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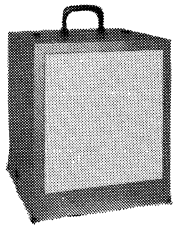
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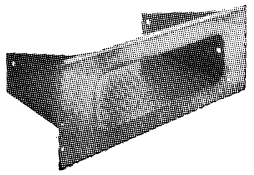
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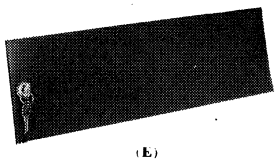
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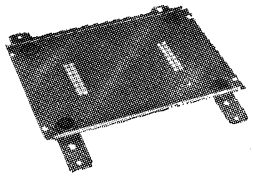
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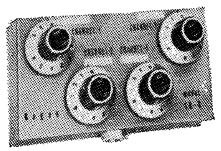
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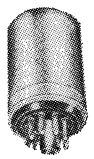
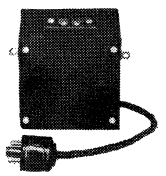

(H)


(J)

(A) M AND MX SERIES PHONO TOPS come in kits consisting of phono top, mounting brackets and all necessary hardware. Two types are available. Both are easily installed without tools and can be ordered with the amplifier or at any subsequent time. **Standard Kits** include 3-speed manual phono tops complete with tone arm and Ronette turnover cartridge. Model LPA-3, for M330 . . . List Price: **$42.25** (Zone 2: **$43.00**). Model LPB-3 for MX60, M60 and MXM same price as LPA3. **DeLuxe Kits** include 4-speed vibration-isolated, manual phono top with variable speed control, tone arm and Ronette turnover cartridge. Model LPA-4, for M330 . . . List Price: **$69.00** (Zone 2: **$69.75**). Model LPB-4, for MX60, MX30, M60 and MXM: same price as LPA-4. For K series phono tops, see page 65.

(B) WALL-MOUNTING KITS. Keep your equipment ready when you need it, yet safely, neatly out of the way when not in use. Bogen wall-mounting kits can be used with M and MX amplifiers and the MXM. You can set your equipment flat against the wall when idle or at any angle for operation. Model LWM wall-mounting kit, complete with all hardware, mounting template and instructions . . . List Price: **$15.00** (Zone 2: **$15.45**).

(C) CARRYING CASES AND SPEAKERS. Carrying cases for portable systems are available with or without speakers. With speakers installed, each half of the split case acts as a baffle. Cases with speakers include 25′ cables with plugs. **For M330, K130 and K15:** Model LK12S, with two Bogen L123 speakers . . . List Price: **$77.50** (Zone 2: **$81.65**) and model LK12, case only . . . List Price: **$41.25** (Zone 2: **$41.55**). **For M330Y, K130Y and K15Y:** Model LKP12S, with two Bogen L123 speakers . . . List Price: **$84.00** (Zone 2: **$88.50**) and Model LKP12 case only . . . List Price: **$46.75** (Zone 2: **$50.40**). **For K10:** Model CK10S, with two Bogen L121 speakers . . . List Price: **$75.90** (Zone 2: **$78.75**) and Model CK10 case only . . . List Price: **$45.40** (Zone 2: **$45.90**). Sizes: LK12, 16½″ x 19½″ x 15½″; LKP12, 16½″ x 21¾″ x 15½″.

(D) RACK PANEL MOUNTING KITS. Choose either factory mounting or kits for rack installations. **For factory mounting** (on 19″ x 7″ panels for M, MX and K models, 19″ x 8¾″ panels for MO models) add suffix "-R" to amplifier model number, and add $25.00 to list price of M and MX amplifiers and $24.25 to list price of K amplifiers. **Kits contain** precut and pre-drilled panel, hardware and mounting brackets . . . List Price for M and MX amplifiers **$19.75** (Zone 2: **$22.95**). List price for K amplifiers: **$14.90** (Zone 2: **$16.25**). **Note: When ordering kits specify the model number of the amplifier that is to be mounted.**

(E) CONTROL GUARD LOCKING PLATE. Tampering fingers will never disturb your advance settings when you protect them with the Control-Guard Locking Plate. Set them and forget them. Model LK-1, for M330 . . . List Price: **$7.75** (Zone 2: **$8.05**). Model LK-2, for MX60, MX30, M60 and L0M . . . List Price: **$8.00** (Zone 2: **$8.30**). Model LK-3, for M330 when used on LWM wall mounting . . . List Price: **$10.50** (Zone 2: **$10.95**). Model LK-4, for MX60, MX30, M60 and MXM when used on LWM all mounting . . . List Price: **$11.00** (Zone 2: **$11.45**).

(F) MOBILE AMPLIFIER SHOCK BASE. Model SV3, a spring-loaded shock-isolating base for operating K1630 and K1630Y amplifiers in a car or truck . . . List price: **$13.75** (Zone 2: **$14.45**).

(G) REMOTE CONTROLLERS Two and four channel remote control units broaden the flexibility of the deluxe amplifiers, allow you to mix and fade channels, and make frequent changes in gain, even from distances up to 2,000 feet, without sacrificing power or signal quality. List Prices: two channel SR2 **$11.25** (Zone 2: **$11.55**), four channel SR4 **$16.50** (Zone 2: **$16.95**).

(H) PLUG-IN TRANSFORMERS. Bogen microphone and line transformers have been especially designed for plug-in use with Bogen amplifiers. List Prices for microphone input transformers: Model T155 (200 ohms) **$15.65** (Zone 2: **$17.35**), Model T156 (500 ohms) **$21.25** (Zone 2: **$21.40**) Model T157 (50 ohms) **$18.75** (Zone 2: **$18.90**). List Prices for line transformers: Model T161 (500 ohms) **$16.25** (Zone 2: **$16.40**). Model T165B broadcast-type (500 ohms) **$20.00** (Zone 2: **$20.15**).

(J) STANDBY CONTROLLER, Model KR6, plugs into MO100 and MO60, lengthens amplifier life, reduces high voltage power consumption . . . List Price: **$30.00** (Zone 2: **$30.45**).

MICROPHONE CONNECTOR — Model CON-1, for all Bogen amplifiers . . . List Price: **$1.98.**

COMPLETE INDOOR, OUTDOOR AND PORTABLE PA SYSTEMS

OUTDOOR SYSTEMS

Bogen System Number	Amplifier	Mikes ‡	Speakers	List Price Zone 1	List Price Zone 2
MX60X	**MX60**	F	3-Bogen-University LH trumpets w/3-SAHF	$615.44	$636.04
MX30X	**MX30**	F	2-Bogen-Univ. LH trumpets w/2-SAHF drivers	467.11	483.61
M60X	**M60**	F	3-Bogen-Univ. PH trumpets w/3-MA25 drivers	496.79	515.29
M330X	**M330**	C	2-Bogen-Univ. PH trumpets w/2-MA25 drivers	355.76	367.61
M330YX	**M330†**	C	Same as M330X	398.26	410.11
K130X	**K130**	C	1-Bogen-Univ. PH trumpet w/1-MA25 driver	241.03	252.93
K130YX	**K130Y**	C	Same as K130X	267.28	277.53
K15X	**K15**	C	1-Bogen-Univ. MLC	216.25	226.15
K10X	**K10**	E	1-Bogen-Univ. MLC	175.00	181.45
K1630YX	**K1630Y**	E	1-Bogen-Univ. PH trumpet w/1-MA25 driver	377.15	388.05

PORTABLE SYSTEMS

M330C	**M330**	C	2-Bogen L123**	$308.75	$319.40
M330YC	**M330†**	C	2-Bogen L123††	351.90	363.25
K130C	**K130**	C	2-Bogen L123††	256.25	266.90
K130YC	**K130Y**	C	2-Bogen L123††	289.40	300.90
K15C	**K15**	C	2-Bogen L123**	236.25	246.25
K15YC	**K15Y**	C	2-Bogen L123**	274.40	285.25
K10C	**K10**	D	2-Bogen L121# #	185.75	192.20

INDOOR SYSTEMS

Bogen System Number	Amplifier	Mikes ‡	Speakers	List Price Zone 1	List Price Zone 2
MX60F	**MX60**	A	6-Bogen WS12-T16*	$593.65	$615.35
MX30F	**MX30**	A	3-Bogen WS12-T16*	421.00	434.35
M60F	**M60**	A	6-Bogen WS12-T16*	534.90	554.95
M330F	**M330**	B	3-Bogen WS12-T16*	353.00	363.65
M330YF	**M330†**	B	3-Bogen WS12-T16*	392.50	403.85
K130F	**K130**	C	3-Bogen WS12-T16*	286.50	297.15
K130YF	**K130Y**	C	3-Bogen WS12-T16*	313.00	323.65
K15F	**K15**	C	2-Bogen L123 12″ #	215.65	225.65
K15YF	**K15Y**	C	2-Bogen L123 12″ #	247.15	257.15
K10F	**K10**	D	2-Bogen L121 10″§	154.15	160.65
K1630YF	**K1630Y**	E	3-Bogen WS12-T16*	419.85	431.50

‡See Mike Table below. *Includes Bogen L123 12″ speaker. T16 matching transformer, WA12 baffle. †Plus LPA-3 3-speed manual phono top. #With 2-WA12 baffles. §With 2-BA12 baffles. **In LK12 carrying case with 2-25′ cables, plugs. ††In LKP12 carrying case with 2-25′ cables, plugs. # #In CK10 carrying case with 2-25′ cables, plugs.

‡MICROPHONES

A: Bogen-Shure 55S with 18′ cable, XL3-11 connector. **B:** Bogen-EV630 with 18′ cable, XL3-11 connector. **C:** Bogen-Shure 430 with 15′ cable XL3-11 connector. **D:** Bogen-EV927 with 10′ cable, stand, XL3-11 connector. **E:** Bogen-Shure 420 with 20′ cable, CON-1 connector. **F:** Bogen-Shure 535 with 18′ cable, XL3-11 connector.

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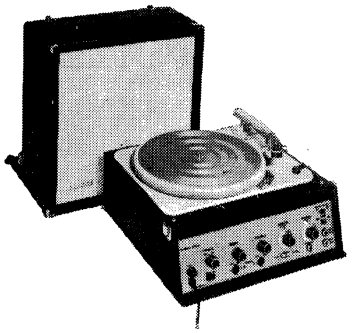
PORTABLE TRANSCRIPTION AND RECORD PLAYERS HIGH POWER INTERCOM-PAGING SYSTEM



Three New Portable Phonoplayer-P.A. Combinations Feature Variable Record Speed Control plus 10, 20 and 40 watt Peak Power Amplifiers

Models VP20 and VP40. These outstanding new portable phonoplayer—P.A. combinations are complete, self-contained, high fidelity phonographs with several important functional features. Especially suitable for square dancing, swimming instruction, calisthenics, and other group and school activities, continuously-variable-record-speed-control permits the record tempo to be adjusted to suit the tempo of any activity. The range is from 29 to 86rpm. And there are 'click' positions for normal playing of 16, 33⅓, 45 and 78rpm records. This variable speed adjustment also permits the pitch of any selection to be tuned to the pitch of any musical selection. Another unique feature is the automatic cueing device which automatically raises and lowers the tone arm at any desired position on the record, insuring the gentlest possible contact between stylus and record groove. The turntables are driven by heavy-duty 4-pole induction motors to insure constant speed, once selected, with no detectable rumble, wow or flutter. Turntables will handle discs up to 16 inches in diameter and are supplied with adapters for 'large-hole' 45rpm records. Both models feature inputs for two microphones and tuner to permit use as P.A. and radio amplifiers, also scratch filters, individual bass and treble controls, convenience outlets for auxiliary equipment, and special outputs for use with new speaker-amplifier monitoring package designed for square-dance callers. The VP20 and VP40 are as distinctive for their attractive, modern styling as they are for their versatile utility.

Model VP20 (illustrated) delivers 20 watts of peak power, and is housed in a single portable case with removable cover which serves as the speaker baffle. A heavy-duty 12-inch P.M. loudspeaker is supplied, and 25 feet of speaker cable.

Model VP40 (not shown) with 40 watts peak power is supplied with two heavy-duty 12-inch loudspeakers, and is housed in two matched cases. One contains the phonoplayer and electronic equipment, and the other—a split case—has one loudspeaker in each separable section, and is provided with 25 feet of cable for each speaker.

Model VP20 with G.E. dual-sapphire variable reluctance cartridge ---------- List Price: **$184.20** (Zone 2: **$190.95**)
Model VP40 with G.E. dual-sapphire variable reluctance cartridge ---------- List Price: **$269.50** (Zone 2: **$276.60**)

Model VP10. Here is a complete 10-watt portable phonograph perfect for schoolroom, dance class and many other applications.

This sturdy mechanism boasts a conspicuous absence of audible rumble, and flutter or wow cannot be detected. As for convenience—there is an Automatic Motor Start: move tone arm to outer perimeter of turntable, hear it click, and it's rolling.

The VP10 will play all size records up to 12"—at all four standard speeds (16, 33, 45 and 78 rpm). **And** each of these speeds is adjustable for perfect pitch over a range of ±5% around the nominal speed. Optional lectern accessory (LEC-1) ideal for speeches or lectures.

Model VP10 ---------- List Price: **$129.20**

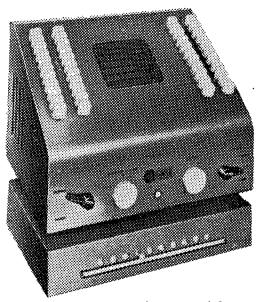
Model 1004

1004 PLUG-IN RECORD PLAYER

Model 1004 portable transcription player. Deluxe 4-speed record and transcription player in a sturdy, easy-to-carry, leatherette-covered wood carrying case. Uses same 4-speed record player as VP 17 above, 95-125 volts, 60 cps, AC. Dimensions: 15¾" x 13¾" x 7". Carrying weight: 21 lbs. Ready to plug into amplifier, or radio or television set with phono plug.

1004 Transcription Player
List price: **$97.50*** (Zone 2: **$101.40***)

HIGH POWER INTERCOM-PAGING SYSTEM



SA40 shown with **IA10** annunciator pedestal

SPECIFICATIONS—MODELS SA10-40

POWER OUTPUT: 10 watts

TUBES: Total 4: 2—6SJ7, 1—6L6GA, 1—5Y3GT.

POWER CONSUMPTION: 70 watts, 117 volts, 50-60 cycles AC.

DIMENSIONS: 13¼" wide, 9" high, 10¼" deep.

SHIPPING WEIGHT: SA10: 31 lbs., SA20: 33 lbs., SA30: 35 lbs., SA40: 37 lbs.

SPECIFICATIONS—MODELS IA10-40

DIMENSIONS: IA10, IA20: 13¼" wide, 2½" high, 10¼" deep.
IA30, IA40: 13¼" wide, 5" high, 10¼" deep.

SHIPPING WEIGHT: 1A10: 10 lbs., IA20: 12 lbs., IA30: 23 lbs., IA40: 25 lbs.

SA Series—In daily use in thousands of industrial plants, schools, automotive dealer and service shops; hospitals and department stores, the SA series is an ideal combination of selective paging and high power intercommunication. The ten-watt amplifier, incorporated in the SA master station, has provision for connection of an external phonograph and radio tuner, effecting a most economical overall sound consolette. There is also provision for adding an external booster amplifier.

Upon installation, the SA master station may be set permanently for privacy or non-privacy operation. In privacy operation, no remote may be listened into unless desired.

	List Price
SA10 — Capacity up to 10 remotes, with tubes	$194.88 (Zone 2: $200.05)
SA20 — Capacity up to 20 remotes, with tubes	228.00 (Zone 2: 233.50)
SA30 — Capacity up to 30 remotes, with tubes	257.25 (Zone 2: 263.10)
SA40 — Capacity up to 40 remotes, with tubes	287.25 (Zone 2: 293.45)
IA10 — Annunciator Pedestal Base for SA10	81.65 (Zone 2: 83.30)
IA20 — Annunciator Pedestal Base for SA20	123.40 (Zone 2: 125.35)
IA30 — Annunciator Pedestal Base for SA30	179.00 (Zone 2: 182.75)
IA40 — Annunciator Pedestal Base for SA40	220.75 (Zone 2: 224.85)
JU — Junction box (use 1 for each 10 remotes)	8.36 (Zone 2: 8.66)
1401S — Two-conductor twisted #20 stranded speaker cable (per 100′)	5.25 (Zone 2: 5.63)
1102P — Two-conductor SHIELDED #20 twisted and overall plastic-insulated speaker cable (per 100′)	7.50 (Zone 2: 7.95)
132PW — Same as 1102P with weatherproof covering for use where cable is partially exposed to weather (not waterproof) (per 100′)	10.25 (Zone 2: 10.70)

INSTALLATION: NORMAL OPERATION (NON-PRIVACY): One SHIELDED twisted pair to each remote. FOR VERBAL CALL INITIATION OR PRIVACY OPERATION: One UNSHIELDED twisted pair to each remote plus one SHIELDED twisted pair common to all remotes. FOR ANNUNCIATORS: One additional twisted UNSHIELDED pair to each remote. As alternate annunciator wiring a single wire may be run to each remote using the shield of either the program pair or the privacy pair for the return.

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Challenger BY BOGEN
P. A. AMPLIFIERS AND MIXER

CHA75A

CHA75A 75-WATT AMPLIFIER

A high-power public address amplifier that gives astonishing value. Features wide-range response; one phono and two mike inputs; individual controls for each microphone and for treble, bass and phono; advanced push-pull output circuit; exclusive Controlled Positive Feedback circuit; power stage screen voltage regulation for increased power output; fixed bias on power stage control grids; plug-in connector for speaker line; decorator styling. **Power Output:** 75 watts. **Response:** ± 2 db, 20-20,000 cps. **Inputs:** Two microphone, one phono. **Gain:** Microphone, 120 db; **Phono,** 85 db. **Hum and Noise:** Fundamental, —70 db below rated output. Microphone —55 db and Phono —70 db below rated output. Tone Controls: Bass: ±13 db to —10 db at 60 cps; Treble +5 db to —12 db at 10,000 cps. **Output Impedances:** 4, 8, 16 and 65 ohms: 70-volt and balanced 25-volt line. **Tubes:** (9) 2-7027A, 2-12AX7, 1-7247, 1-6AV6, 3-GZ34. **Power:** 117 volts, 60 cps. **Power Consumption:** 270 watts at full signal. **Dimensions:** 17¼" wide, 12" deep, 6½" high. **Shipping Weight:** 34 lbs. **Challenger Model CHA75A Amplifier**—With tubes and cage. List Price---------- $175.00 (Zone 2: **$179.73**)

CHA33

CHA33 33-WATT AMPLIFIER

Features wide-range response; two microphone inputs; individual controls for each microphone and for treble, bass and phono; separate boost/cut bass and treble tone controls; advanced design push-pull output circuit with negative feedback; rugged construction; plug-in connectors for speaker line; 70-volt line; decorator styling. **Power Output:** 33 watts. **Response:** ± 2 db. 30-15,000 cps. **Inputs:** Two microphone, one phono. **Gain:** Microphone, 120 db; Phono, 83 db. **Hum and Noise:** Fundamental, —75 db below rated output; Microphone —55 db and Phono —75 db below rated output. **Tone Controls:** Bass + 12 db to —12 db at 60 cps; **Treble** +5 db to —17 db at 10,000 cps. **Output Impedances:** 4, 8, 16 and 150 ohms; 70-volt line. **Tubes:** (7) 2-6L6GB; 2-5Y3GT; 2-12AX7; 1-6AV6. **Power:** 117 volts, 60 cps. **Power Consumption:** 135 watts at full signal. **Dimensions:** CHA33 14⅛" wide, 8½" deep, 6½" high; CHA33Y, 14⅛" wide, 8½" deep, 10¾" high. **Shipping Weight:** CHA33, 22 lbs.; CHA33Y, 25 lbs.
Challenger Model CHA33 Amplifier—With tubes and cage. List Price---------- $115.00 (Zone 2: **$117.97**)
Challenger Model CHA33Y Phono-Top Amplifier—With built-in three-speed phono top, Ronette turnover cartridge, tubes and cage. List Price---------- $146.50 (Zone 2: **$149.80**)

CHA620Y

CHA620Y 20-WATT UNIVERSAL MOBILE AMPLIFIER

Operates on 117 volts AC, 12 or 6 volts DC. Wide-range response, individual controls for microphone, treble, bass and phono. Separate boost/cut bass and treble controls; advanced design push-pull output circuit with negative feedback; built-in inverter provides 117 volts AC, 60 cps power to built-in or external phono for battery operation; rugged construction; plug-in connectors for speaker line; 70-volt line; decorator styling. **Power Output:** 20 watts. **Response:** ±2 db, 30 to 15,000 cps. **Inputs:** One microphone, one phono. **Gain:** Microphone, 120 db; Phono, 76 db. **Hum and Noise:** Fundamental —75 db below rated output; Microphone —55 db and Phono —75 db below rated output. **Tone Controls:** Bass +12 db to —12 db at 60 cps; Treble, +8 db to —12 db at 10,000 cps. **Output Impedance,** 4, 8, 16 and 245 ohms; 70-volt line. **Tubes:** (5) 2-6V6GT; 1-6AX5GT; 2-12AX7. **Power:** 117 volts 60 cps, 6 or 12 volts DC. **Power Consumption:** (at full signal), 80 watts at 117 volts; 88 watts with phono at 6 or 12 volts DC. **Dimensions:** CHA620, 15¼" wide, 10" deep, 8½" high; CHA620Y, 15¼" wide, 10" deep, 10¾" high. **Shipping Weight:** CHA620, 25 lbs.; CHA620Y, 30 lbs. AC and DC cable supplied.
Challenger Model CHA620 Amplifier—With tubes and cage. List Price---------- $175.00 (Zone 2: **$177.97**)
Challenger Model CHA620Y Amplifier With Phono Top—With tubes, cage, AC and DC cable, built-in three-speed phono top, Ronette turnover cartridge---------- List $200.00 (Zone 2: **$203.30**)

CHA20

CHA20 20-WATT AMPLIFIER

Wide-range response; individual controls for microphone, treble, bass and phono; separate boost/cut bass and treble controls; advanced design push-pull output circuit with negative feedback; rugged construction; plug-in connectors for speaker line; 70 volt line; decorator styling. **Power Output:** 20 watts. **Response:** ±2 db. 30 to 15,000 cps. **Inputs:** One microphone, one phono. **Gain:** Microphone, 120 db; Phono, 76 db. **Hum and Noise:** Fundamental, —75 db below rated output; Microphone, —55 db and Phono, —75 db below rated output. **Output Impedance:** 4, 8, 16 and 245 ohms; 70-volt line. **Tone Controls:** Bass, +12 db to —12 db at 60 cps; Treble, +8 db to —12 db at 10,000 cps. **Tubes:** (5) 2-6V6GT; 1-6AX5GT; 2-12AX7. **Power:** 117 v., 60 cps. Power Consumption: 80 watts at full signal. **Dimensions:** CHA20, 14⅛" wide, 8½" deep, 6½" high; CHA20Y, 14⅛" wide, 8½" deep 10¾" high. **Shipping Weight:** CHA20, 20 lbs.; CHA20Y, 23 lbs.
Challenger Model CHA20 Amplifier—With tubes and cage. List Price---------- $91.00 (Zone 2: **$93.20**)
Challenger Model CHA20Y Amplifier with Phono Top—With tubes, cage, built-in three-speed phono top, Ronette turnover cartridge. List Price---------- $122.50 (Zone 2: **$125.03**)

CHA10

CHA10 10-WATT AMPLIFIER

A champion for low-power applications. Wide-range response; SELECTONE for quick, easy tonal adjustment; individual controls for microphone, phono and tone; advanced negative feedback circuit; rugged construction; plug-in connectors, decorator styling. **Power Output:** 10 watts. **Response:** ±2 db, 30 to 15,000 cps.**Inputs:** One microphone, one phono. **Gain:** Microphone, 115 db; **Phono,** 76 db. **Hum and Noise:** Fundamental, —70 db, and Phono, —70 db below rated output. **Output Impedances:** 4, 8 and 16 ohms; **Tone Control:** SelecTone—Deep Bass, Mellow, Crisp, Brilliant. **Tubes:** (4) 1-6L6GB; 1-6AU6; 1-6AV6; 1-6AX5GT. **Power:** 117 volts, 60 cps. **Power Consumption:** 70 watts at full signal. **Dimensions:** 11" wide, 7½" deep, 5¾" high; with cage, 6⅛" high. **Shipping Weight:** 10 lbs.; with cage, 12½ lbs.
Challenger Model CHA10 Amplifier—With tubes, less cage. List Price---------- $61.50 (Zone 2: **$62.60**)
Challenger Model CAG10—Cage for CHA10 Amplifier. List Price---------- $6.50 (**Zone 2: $7.05**)

ACCESSORIES

RACK PANEL MOUNTING KITS

For CHA75A Amplifier—19" x 8¾". With all hardware. Gray metallustre finish.
List Price:------$14.90 Zone 2:------$16.25

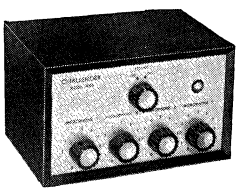
For CHA33, CHA20 and CHA10 Amplifiers—19" x 7". With all hardware. Gray metallustre finish.
List Price------$14.90 Zone 2:------$16.25

PHONO TOPS

Phonograph tops are available with Models CHA33, CHA620 and CHA20 amplifiers as described on facing page. They must be ordered at the same time as the amplifier (add "Y" to Model No.). The phono top consists of a high quality three-speed phono with a Ronette turnover cartridge installed.

SHOCK-MOUNTING BASE

A spring-loaded, shock isolating base for operating Models CHA620 and CHA620Y amplifiers in a car or truck.
Bogen Model SV-3—List Price ---------- $13.75
Zone 2: 14.45


MX6

MIXER-PRE-AMP-LIFIER

Self-powered, provides four microphone and two radio-phono inputs; any four can be used at once for noiseless mixing and fading. **Output:** 6 volts. **Response:** 50-15,000 cps, ±2 db. **Gain:** Mike, 59 db; Phono, 30 db. **Hum Level:** —70 db below 6 volt input. **Output Impedance:** Less than 1000 ohms (cathode follower). **Controls:** Two mike volume, two mike or phono volume, On-Off. **Tubes:** 2-12AX7; 1-12AT7. **Size:** 8" x 4¾" x 6"½. **Power:** 10 w, 117 v, 60 cps. Shipping Weight, 6 lbs.

Bogen Model MX6—List Price--- ---$65.00
Zone 2:------ 65.33

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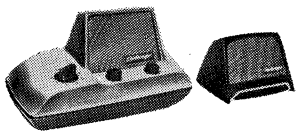
Challenger BY BOGEN

SOUND SYSTEMS — INTERCOMS

COMPLETE INDOOR, OUTDOOR AND PORTABLE PUBLIC ADDRESS SYSTEMS

Challenger System No.	Type of System	Uses Amplifier Model	Uses Microphone Model	Uses Speakers, Baffles, Horns, Drivers	List Price Zone 1	List Price Zone 2
CHA75AB	75-watt Indoor	CHA75A	Bogen—E-V Model 927 crystal microphone, stand, 10′ cable, MC1F connector.	Four 12″ Alnico V PM speakers, each with 25′ cable and plug mounted in 12″ hand-finished walnut wall baffles.	$321.40	$336.40
CHA75AT	75-watt Outdoor	CHA75A	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	Three University PH trumpets with MA25 driver units. (Additional trumpets and driver, **List $58.50. Zone 2: $61.20).**	390.87	401.87
CHA33P	33-watt Portable	CHA33	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	Two 12″ Alnico V PM speakers, each with 25′ cable and plug mounted in split, portable baffle which also carries the amplifier.	218.15	227.50
CHA33YP	Phono	CHA33Y	Same as CHA33P.	Same as CHA33P, except larger carrying case.	256.15	266.00
CHA33B	33-watt Indoor	CHA33	Bogen—E-V Model 927 crystal microphone, stand, 10″ cable, MC1F connector.	Two 12″ Alnico V PM speakers, each with 25′ cable and plug, mounted in 12″ hand-finished walnut wall baffles.	201.63	207.57
CHA33YB	Phono	CHA33Y	Same as CHA33B.	Same as CHA33B.	230.93	237.00
CHA33T	33-watt Outdoor	CHA33	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable, MC1F connector.	One University PH trumpet with MA25 driver unit. (Additional trumpets with driver. List Price **$58.50. Zone 2: $61.20).**	208.61	213.78
CHA33YT	Phono	CHA33Y	Same as CHA33T.	Same as CHA33T.	234.78	243.13
CHA620T	20-watt Universal	CHA620	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	One University PH trumpet with MA25 driver unit. (Additional trumpets with driver. List Price **$58.50. Zone 2: $61.20).**	263.28	271.13
CHA620YT	Phono	CHA620Y	Same as CHA620T.	Same as CHA620T.	288.28	296.63
CHA20P	20-watt Portable	CHA20	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	Two 12″ Alnico V PM speakers, each with 25′ cable and plug, mounted in split portable baffle which also carries amplifier.	194.15	202.50
CHA20YP	Phono	CHA20Y	Same as CHA20P.	Same as CHA20P except larger carrying case.	232.15	241.00
CHA20B	20-watt Indoor	CHA20	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	Two 12″ Alnico V PM speakers, each with 25′ cable and plug, mounted in hand-finished walnut wall baffles.	172.78	177.62
CHA20YB	Phono	CHA20Y	Same as CHA20B.	Same as CHA20B.	210.15	218.00
CHA10S	10-watt 1-spkr. Portable	CHA10	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	One 8″ Alnico PM speaker mounted in portable carrying case.	150.65	155.35
CHA10P	10-watt 2-spkr. Portable	CHA10	Bogen—E-V Model 927 crystal microphone with stand, 10′ cable and MC1F connector.	Two 10″ Alnico PM speakers, each with 25′ cable and plug, mounted in split portable carrying case.	163.00	169.00

Bogen Challenger Series Intercoms Now Feature Multiple-Master/Multiple-Remote Intermix Systems



The new Challenger Intercom line brings a versatility never before available at such moderate cost. With the addition of two new intermix units to the line, it is now possible to plan a system that will meet virtually any set of requirements, in offices, plants, stockrooms, and even in the home, whether they be single-master/multiple-remote systems, multiple-master systems, or multiple-master/multiple-remote systems. And you can now also use a remote capable of selecting and initiating calls to any one of six masters. Bogen Challenger intercom units are as distinguished for their trim, modern styling as they are for their functional versatility. Ruggedly built, they have already proved their reliability in providing trouble-free, day-in-day-out performance.

Model CHX12 Intermix Master Station is equipped with a 12-position selector switch, and can be used with up to twelve other stations consisting of CHX12 masters and CHXR or CHR remotes in any combination desired.

Model CHXR Intermix Remote Station is equipped with a 6-position selector switch and can select and initiate calls to anyone of six CHX12 masters. It is designed for use in multiple-master/multiple-remote systems in conjunction with CHX12 masters.

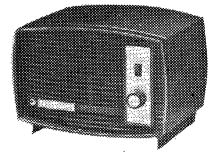
Model CHM12A Master Station is equipped with an 11-position station selector switch and can be used with up to eleven other CHM12A masters or eleven CHR remotes.

Model CHM6A Master Station is identical to the CHM12A, but designed for use in 6-station systems with up to five other CHM6A masters or five CHR remotes.

Model CHR Remote Station is designed to receive and respond to calls from CHM6A, CHM12A and CHX12 masters, and can initiate calls to any one master.

	List Prices
CHX12	$64.75 (zone 2: $65.25)
CHXR	28.70 (zone 2: 28.90)
CHM6A	53.75 (zone 2: 54.25)
CHM12A	56.35 (zone 2: 56.85)
CHR	13.95 (zone 2: 14.10)

CHALLENGER TWOSOME SPECIAL LOW-COST 2-STATION SYSTEM FOR HOME OR OFFICE



Easy to install, easy to operate, the Challenger Twosome brings effective intercom service into homes and small offices at a cost that is well-nigh irresistible. Master unit has two controls: 'talk-to-listen' and 'volume'. Remote also has two controls: 'talk-to-listen' and 'privacy'. With 'privacy' control in 'off' position, remote can initiate calls to master without operating 'talk-to-listen' switch—ideal for nursery and other surveillance requirements. Master and Remote are sold as a pair, supplied with 50 feet of interconnecting cable.

Model CHS2 Twosome ---------- (complete) list price **$50.10** (zone 2: **$50.70**)

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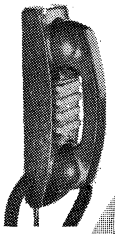
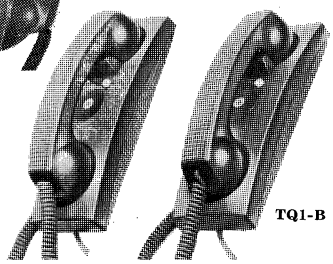
INTERCOMS AND TELEPHONES

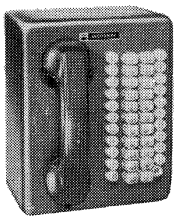
NEW BOGEN — PHONE SYSTEMS



TSD-20



TQ1-B



TQA-21

SERIES TSD is a completely new internal telephone system that provides private, multi-conversation in office or plant without a central exchange. Only Bogen provides complete privacy, selective ring, selective talk, 100% trunkage, without costly central switching.

Extremely reliable, simple, and highly flexible, Series TSD Bogen-Phones are available in three models: TSD20 twenty station master, TSD10 ten station master, and TSD1 single station (for secretary). All models are designed for wall or desk mounting and are supplied with a junction box. Finish is a rich dark grey that harmonizes with any commercial, professional, or industrial interior. A single, centrally located power supply (PRS-10) serves the complete system.

TSD20 ---------- List price: **$53.25** (Zone 2: **$53.60**)
TSD10 ---------- List price: **$45.65** (Zone 2: **$45.95**)
TSD1 ---------- List price: **$33.25** (Zone 2: **$33.55**)
PRS-10 ---------- List price: **$44.35**

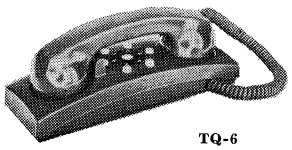
TQ1-B TWIN-PHONE is the ideal two station system for residential, professional, and commercial use. The Twin-Phone features battery operation, quick installation, low cost, handsome styling, and wall or desk mounting. Recommended wherever privacy is desired and AC power unavailable, the Twin-Phone will operate for months on only four standard flashlight batteries.

TQ1-B ---------- List price: **$63.20** (Zone 2: **$63.90**)

TQA ATTEND-A-PHONE is designed as a service phone system between a central location and multiple remote points. Typical applications include bowling alleys, motels, hospitals, offices, schools, and factories. When a remote station handset is lifted, a buzzer sounds at the central switchboard and a light indicates which remote is calling. When the switchboard calls a remote, a buzzer sounds quietly. Remote stations can also call each other through the switchboard.

The **TQA-21** central switchboard has facilities for twenty-one remote stations. The Attend-a-Phone system can be easily expanded at any time by the addition of any number of XQA-21 expansion boards, each with facilities for twenty-one additional remote stations. The TQX remote station phone is designed for desk or wall mounting.

SERIES TQ is a selective ringing—common talk, low cost system for office, plant, store, or home. Choice of models includes TQ-1 (pair of phones for a two-station system), TQ-6 (phone with six pushbuttons for use in seven-station system), and TQ-12 (phone with twelve pushbuttons for use in thirteen-station system). TQ systems permit conference calls. A Bogen TRA Phone-Page Adapter may be added to the system to permit paging through your P.A. loudspeaker system from a TQ phone. Or, the Bogen PRS-5 Multi-Mix Power Adapter may be used, with an amplifier and up to five loudspeakers, to provide intercommunication between any TQ phone and any loudspeaker, as well as simultaneous paging from any TQ phone to all of the loudspeakers.



TQ-6

TQ-12 ---------- List price: **$ 34.25** (Zone 2: **$ 34.85**)
TQ-6 ---------- List price: **$ 27.95** (Zone 2: **$ 28.35**)
TQ-1 (pair) ---------- List price: **$ 51.45** (Zone 2: **$ 52.05**)
PRS-1 Power Supply for TQ Systems ---- List price: **$ 30.00** (Zone 2: **$ 30.30**)
PRS-5 ---------- List price: **$147.37** (Zone 2: **$148.25**)
TRA ---------- List price: **$ 42.20** (Zone 2: **$ 42.50**)
RY-1 Plug-in Relay -- List price: **$ 17.75** (Zone 2: **$ 17.91**)

NEW DELUXE ALL-TRANSISTOR BOGEN INTERCOM SERIES

The BOGEN all-transistor design obsoletes intercoms employing electronic tubes . . . gives you instant communication the moment the system is turned on. No warm-up time, no costly tube replacement.

The new TIX Series is a result of exhaustive BOGEN research combined with thirty years of design and production experience. Here, truly, are instruments of superb performance and flexibility.

Models TIX-24 and TIX-11 are housed in "Seville" textured, semi-gloss mocha cabinets that match the decor of the finest offices. Finish is durable, attractive and easy to clean. TIX models are AC operated thoughout, and provide plenty of power to over-ride noisy locations.

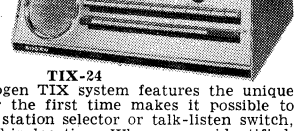
The versatility of these intercoms is without parallel. Whether your requirement is for a single master and a number of remote stations, for a system exclusively of master stations, or for a combination of master and remote stations, the TIX Series, is the perfect solution. Additional stations may be added at any time. The TIX system may also be connected to your paging system permitting plant-wide paging and announcing.

Operation is simplicity itself. Model TIX-11 has 10 station selectors. Model TIX-24 has twenty-three. To initiate a call, merely push the appropriately marked piano key station selector, depress the talk-listen lever and speak. To receive a reply, remove your finger from the lever, which automatically returns to the listen position. You control the incoming volume, adjusting it to your personal satisfaction.

It is impossible for a TIX master to be eavesdropped upon by any other station in the system, unless desired. TIX instruments reproduce the spoken word with sparkling clarity.

Two types of remote stations are available. RIX-1 can initiate a call to one master station; the RIX-6 can initiate a call selectively to any one of six masters. Any remote can be called by any master. In non-private installations replies can be made without operating any control. The remote stations are so sensitive that replies can be made from distances up to twenty feet.

CHIME CALL-INITIATION — In TIX systems, master stations are freed of the disconcerting interruption of incoming voice calls. Call-initiation is effected by a chime signal which repeats automatically, at short intervals, until the called station replies (a concealed switch permits conventional voice call-initiation where this is required).



TIX-24

AUTO-RESPOND SWITCH — The new Bogen TIX system features the unique Bogen AUTO-RESPOND switch, which for the first time makes it possible to reply when called without operating either station selector or talk-listen switch, and even without the caller identifying his location. When an unidentified master station calls another TIX master station, the latter need only actuate his AUTO-RESPOND switch and talk. No further hand operations are necessary during the entire conversation. When an unidentified remote station calls a TIX master station, the latter actuates his AUTO-RESPOND switch and then operates his talk-listen switch (the RECORD-A-CALL light indicates whether the unidentified station is a master or remote). Since a master station with AUTO-RESPOND switch in the activated position can be listened to by other masters, a light reminds the user that his station is in non-private mode.

RECORD-A-CALL FEATURE—When a master initiates a call, the called station's chime sounds and its RECORD-A-CALL light goes on. The called party may reply when ready; if absent from his desk when initially called, he notes the recorded light indication on his return.

PRIVACY—The TIX master is designed so that remote stations can be assured of privacy (no eavesdropping possible), and the master can hear the remote only when the remote is in the non-private position. Remotes have a three-position mode switch: private position, non-private position, call position. A TIX system may be arranged to include both private and non-private remotes.

CALLED STATION AVAILABILITY LIGHT—A time-saving feature consisting of a light which indicates that the master station you desire to call is not in conversation with another station. Press the station selector; if the light goes on, call the station.

SPECIAL ACCESSORIES FOR TIX SERIES:

PRS-11 and PRS-24 Power Supplies for up to 11 and 24 station systems respectively.
ACP-1 All-Call Adapter which permits any master to page all master and remote stations simultaneously.
JB2 Junction Box for easy installation.
FIX-1 Outdoor Remote Station weather-proof design—flush mount panel.

TIX Prices on Request.

TIB-2 TWIN-COM is a brand-new, two-station, battery-operated intercom system featuring an all-transistor design that provides crystal-clear intercommunication with low initial cost, freedom from maintenance and tube replacement. Batteries last practically their shelf-life. Remote station has lock-on for monitoring or baby sitting, yet master can talk to remote at all times. (Remote can also initiate calls whenever desired.)

TIB-2

TWIN-COM is powered by eight inexpensive penlite battery cells, and operates efficiently on cables considerably longer than the 50 feet supplied.

TWIN-COM is supplied complete with master, remote, 50 feet of cable and battery box. List Price: (Less Batteries) **$49.95** (Zone 2: **$50.80**).

AC Powered Transistorized TIA-2 Twin-Com. The same quality system as the battery operated TIB-2 except that it plugs into an AC outlet. Supplied with master, remote, 50 feet of cable, built-in AC power supply and plug. Operates on 117V. List price: **$54.95** (Zone 2: **$55.85**).

BOGEN-PRESTO PARAMUS, N.J. A DIVISION OF THE SIEGLER CORP.

ALL prices and specifications subject to change without notice

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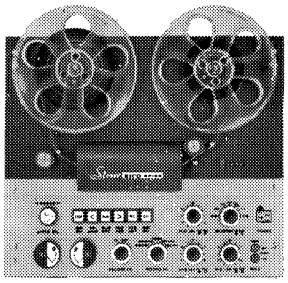
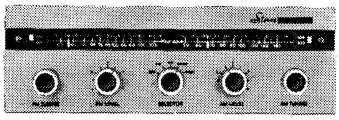
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR

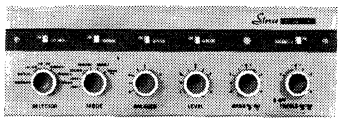


Engineering Excellence can be Economical and Beautiful

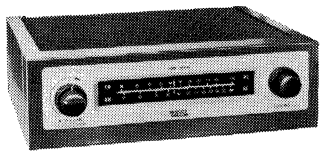
RP100



ST96



ST40, 70



HFT90, 92, 94

TRANSISTORIZED STEREO/MONO 4-TRACK TAPE DECK

Semikit Model RP100K

Tape transport assembled and tested; electronics in kit form **$299.95**

Wired Model RP100W

Handwired throughout by skilled American craftsmen **$399.95**

(An original, exclusive EICO product designed and manufactured in the U.S.A. Patents Pending)

Provides stereo/mono ¼ track erase, record, and playback; also ½ track stereo/mono playback. Separate record and playback heads and independent record electronics and playback electronics to permit simultaneous stereo playback from tape while recording (monitor). Dual meters for stereo recording. Sound-on-sound recording without changing connections. Separate line and mic (dynamic) mixing level controls in each channel. Tape transport is trouble-free, precision constructed, and supremely rugged (only 3 moving links.) Employs heavy-duty hysteresis synchronous capstan motor with heavy precision fly-wheel essential for unvaryingly accurate speed regardless of normal line and load variation. Also, two 4-pole reel motors with positive electro-dynamic braking. Completely electrical push-button control of the transport; solenoid operated pinch roller and tape lifters to provide feather-touch pushbutton control. Tape lifters remove tape from heads during fast winding to minimize head wear. Precision tape guides eliminate tape weave. Electro-dynamic hold back tension on supply reel, plus mechanical filter for minimum flutter and wow. Transport will handle the thinnest tape without stretching. Convenient sweep loading, top-of-deck speed shift control, and digital counter. No rubber idlers to develop "flats" or mechanical brakes to wear out or go out of adjustment. Deck can be mounted horizontally or vertically.

Speeds: 7½ and 3¾ ips. **Maximum Reel Size:** 7 inches. **Rewind and Fast Forward Time:** 1200 ft. in less than 1 minute. **Flutter and Wow:** 0.2% at 7½ ips, 0.25% at 3¾ ips. **Frequency Response:** 30 to 17,000 cps at 7½ ips, 40 to 15,000 cps at 3¾ ips. **Signal-to-Noise Ratio:** 53 db or better with signal recorded 12 db below saturation at 7½ ips. **Timing Accuracy:** 0.3%. **Dimensions:** 15¼" wide x 13⅜" front-to-back x 7" deep. **Power:** 117 VAC, 60 cps, 100 W.

70-WATT INTEGRATED STEREO AMPLIFIER ST70

Kit $94.95 **Wired $149.95**

Includes Metal Cover

Deluxe, all-out engineering and brilliant new decorator styling at extremely reasonable cost. Consists of two 35-watt amplifiers and a complete stereophonic high fidelity control center on one chassis. Switched sets of stereo inputs include two mag. phono (one for turntable and one for changer), tape head, preamplified tape, FM-AM stereo tuners, FM-FM Multiplex, and Auxiliary. Clutch concentric level controls with balance check switch and loudness/level switch. Concentric bass and treble tone controls. Other controls are six-position stereo-mono mode selector, separate level and balance, tape speed, tape monitor, scratch, and rumble. 4, 8, and 16 ohm speaker connections, third channel speaker connection.

IM Distortion: 2% at 40 watts. **Harmonic Distortion:** ½% at 70 watts. **Frequency Response:** ±½ db 10-50,000 cps.

40-WATT INTEGRATED STEREO AMPLIFIER ST40

Kit $79.95 **Wired $129.95**

Includes Metal Cover

"Exhibits all the well-known Eico knowhow . . . a lot of amplifier for the money . . . an easy building kit of handsome appearance with excellent specifications for its category — an excellent buy for those with a modest budget."—AUDIO

Superb, quality-first engineering and brilliant, new decorator styling at moderate cost makes this unit a truly outstanding value. Consists of two 20-watt amplifiers and a complete stereophonic high fidelity control center on one chassis. Switched sets of stereo inputs include two mag. phono (one for turntable and one for changer), tape head, preamplified tape, FM-AM stereo tuners, FM-FM Multiplex, and Auxiliary. Separate level and balance controls with balance check switch and loudness/level switch. Concentric bass and treble tone controls. Other controls are six-position stereo/mono mode selector, tape monitor, scratch and rumble. 4, 8, and 16 ohm speaker output, third channel speaker connection.

IM Distortion: 2% at 40 watts. **Harmonic Distortion:** ½% at 40 watts. **Frequency Response:** ±½ db at 12-25,000 cps.

FM-AM STEREO TUNER ST96

Kit $89.95 **Wired $129.95**

Superb, advanced design tuner equipped for FM-Multiplex stereo reception with adaptor, as well as for FM-AM stereo. Prewired, pre-aligned FM front end completely shielded in a die-cast housing, and prewired and pre-aligned FM and AM IF strips. Exclusive precision **"eye-tronic"® traveling** tuning indicators contract into an "exclamation point" at the exact center of each broadcast channel. FM section features include switched AFC, AGC, stabilized low limiting threshold for excellent performance from weaker signals, and broadband ratio detector for improved capture ratio and easier tuning. AM section features include tuned RF stage, switched "broad" and "narrow" band-pass, high Q 10kc whistle filter, and built-in ferrite loop antenna. Both sections have slide-rule dials with effortless fly-wheel tuning, very low inter-station noise, high output at low impedance.

FM Section: Sensitivity: 1.5μv for 20 db quieting; Selectivity: 250kc IF bandwidth (6db down). Frequency Response: 20-15,000 cps ±1 db. Image Rejection: 40 db. Hum Level: 60 db down. Drift: less than 2 parts in 10,000 from cold start. Tuning Range: 87.5-108.5 mc. Output Level: 2.5v for 100% mod. **AM Section:** Sensitivity: 3μv for 1.0v average output at 20db S/N ratio. Selectivity: overall IF bandwidth of 18 kc at "broad bandwidth," 9 kc at "narrow bandwidth", 6db down. Frequency Response: 20-9,000 cps on "wide bandwidth", 20-4500 cps on "narrow bandwidth". Image Rejection: 60 db. Hum Level: 60 db down. Drift: negligible. Tuning Range: 540 to 1650kc. Output level: 1.0v average. Size 15⅞" wide x 5" high by 14" deep.

FM TUNER HFT90

Kit $39.95 **Wired $65.95**

Metal Cover E3: $3.95 Includes FET

"Drift absolutely absent; audio quality excellent; novel tuning quite effective."—ELECTRONICS ILLUSTRATED. "One of the best buys you can get in high fidelity kits."—AUDIOCRAFT Kit Report. Extremely sensitive, low-noise "front-end", completely pre-wired, pre-aligned. Employs temperature-compensated components and advanced circuitry to completely eliminate need for AFC. Drift less than 2 parts in 10,000 from cold start. Radiation suppressed far below FCC standards. Also features exclusive pre-wired precision **eye-tronic®** traveling tuning eye. Equipped for FM Stereo reception (with adaptor). Sensitivity, unapproached among FM tuner kits, of 1.5 uv for 20 db quieting. Input 300 ohms, IF bandwidth 260 kc. Detector: Peak separation of 600 kc. Freq. resp. 20-20,000 cps ±1db. Audio output 1 V for 10 uv input with 75 kc deviation. Hum 60 db below 1 V. Cathode follower and multiplex outputs. Flywheel slide-rule tuning, AGC, stabilized low limiting threshold for excellent performance from weaker signals, broad-band ratio detector for improved capture ratio and easier tuning, full-wave rectifier and heavy filtering, very low distortion. Uses 1-ECC85/6AQ8, 3-6AU6, 1-6AL5, 1-6C4, 1-DM70, 1-6X4. Flexible "low silhouette" design adaptable to any panel thickness for console installation; optional cabinet. HWD: 3⅝" x 12" x 8¼". Operates from 110-125 VAC, 60 cps line.

AM TUNER HFT94

Kit $39.95 **Wired $65.95**

Includes Cover and FET

A basic high fidelity AM tuner that affords matchless stereo reproduction when used with the widely acclaimed HFT-90 FM tuner. It features a choice of "hi-fi" wide bandpass to 14 kc or narrow bandpass to 7 kc for weaker, distant stations. Excellent signal to noise ratio with very little signal. High selectivity and sensitivity attained with the aid of tuned RF stage and built-in ferrite loop antenna. High output with low distortion and low output impedance. Very little inter-station noise. No alignment of test instruments required as RF and IF coils are carefully pre-aligned. Features include precision **eye-tronic®** tuning with the DM-70 traveling eye indicator, slide-rule dial, fly-wheel tuning. Auxiliary recording output and volume controls.

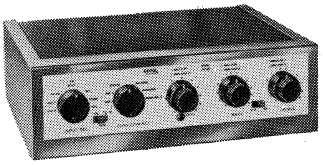
FM/AM TUNER HFT92

Kit $59.95 **Wired $94.95**

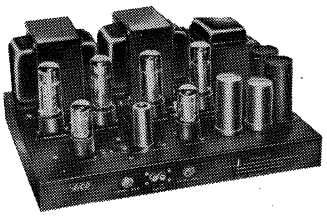
Includes Cover and FET

Combines the renowned HFT90 High Fidelity FM Tuner with excellent AM tuning facilities. (The HFT92 is not a stereo FM-AM tuner, since it does not receive FM and AM simultaneously). Exclusive precision **eye-tronic®** tuning is achieved for both FM and AM sections. The HFT92 also features an FM-Multiplex output for FM stereo reception with adapter.

MX-99



HF85



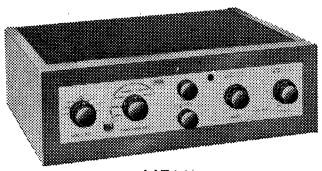
HF89-87

FM MULTIPLEX ADAPTOR MX-99

Kit $39.95 **Wired $64.95**

An original EICO contribution to the art of FM Multiplex reception.

The new EICO MX-99 Multiplex Adaptor incorporates the best features of both the matrixing and sampling techniques. It is free of phase-distorting filters and provides the required, or better-than-required, suppression of all spurious signals including SCA (67kc) background music carrier, re-inserted 38kc sub-carrier, 19kc pilot carrier and all harmonics thereof. This is very important for high quality tape recording, where spurious signals can beat against the tape recorder bias oscillator and result in audible spurious tones in a recording. This adaptor will synchronize with any usable output from the FM tuner and will demodulate, without significant distortion, tuner outputs as high as 10 volts peak-to-peak (3½ volts RMS). The MX-99 is self-powered and provides entirely automatic stereo/mono operation. A separation of 35 db between channels is typical across the entire audio spectrum. Low impedance cathode follower outputs permit long lines. The MX-99 is designed for all EICO FM equipment (HFT-90, HFT-92, ST-96), and component quality, ratio detector FM equipment provided with a multiplex output.



HF81

STEREO DUAL AMP-PREAMP HF81

Kit $69.95 **Wired $109.95**

Selects, amplifies and controls any stereo source — tape, discs, broadcasts — and feeds it thru self-contained dual 14W amplifiers to a pair of speakers. Monophonically: 28 watts for your speakers; complete stereo preamplifier. "Service Selector" switch permits you to drive both internal power amplifiers of the HF81 from one of the preamp-control sections while the other preamp-control section is left free to drive an existing external amplifier. Ganged level controls, separate focus (balance) control, independent full-range bass and treble controls for each channel. Identical Williamson type, push-pull EL84 power amplifiers with high quality output transformers. Attractive "low silhouette" construction permits you to dispense with cabinetry if desired.

Output Power: 28 watts (two 14 watt channels) continuous; 56 watts peak. **IM Distortion (60 & 6000 cps at 4:1):** 2% at 28 watts (14 watts each channel); 0.5% at 10 watts (5 watts each channel). **Frequency Response:** 2W (1W each channel) ±0.5 db 10 cps to 100 kc. **Harmonic Distortion:** 16W (8W each channel) less than 1% from 30 cps to 10 kc; 20W (10W each channel) less than 1% from 40 cps to 10 kc; 28W (14W each channel) less than 1% from 50 cps to 5 kc. **Sensitivity (input for 14W):** mag. phono — 4 mv; tape head — 2 mv; mic. — 6 mv; tuners, auxiliaries — 0.5V. **Hum & Noise Level (below 14W):** mag. phono — 60 db; tape head — 51 db; mic — 57 db; tuners, auxiliaries — 75 db. **Tone Control Range:** ±15 db at 50 c and 10 kc. **Speaker Connections:** 4, 8, and 16 ohms. **Tubes:** 4-ECC83/12AX7, 2-ECC82/12AU7, 4-EL84, 2-EZ81. **Size** 15″ wide, 4¾″ high, 10½″ deep. **Weight:** 24 lbs.

STEREO DUAL AMP-PREAMP AF4

Kit $38.95 **Wired $64.95**

Provides clean 4W per channel or 8W total output. Inputs for ceramic/crystal stereo pick-ups, AM-FM stereo, FM-multi stereo. 6-position stereo/mono selector. Clutch-concentric level & tone controls. Use with a pair of HFS-5 Speaker Systems for good quality, low-cost stereo.

(not illustrated)

STEREO DUAL PREAMP HF85

Kit $39.95 **Wired $64.95**

Offers practically every control and switching facility anyone could want in a physical design adaptable to any type of installation. With it, you can select, preamplify and control accurately, any stereophonic source—tape, discs or broadcasts. Extremely low distortion, bordering on the unmeasurable (even at high output levels), precludes any degradation of quality from the best modern program sources. Self-powered, utilizing a full-wave rectifier tube power supply. Works in conjunction with any two high quality power amplifiers, such as the EICO HF14, HF22, HF30, HF35, HF50 and HF60. Separate low level input in each channel for mag. phono, tape head, and microphone. Separate high level inputs for AM tuner, FM tuner, and FM Multiplex. Also two auxiliary A inputs (one in each channel) and two auxiliary B inputs (one in each channel). Independent level controls that may be operated together with built-in clutch. Independent full-range bass and treble tone controls in each channel, may be operated together with built-in clutch.

Switch permits hearing each stereo channel individually, also use of unit for stereo or monophonic play. Stereo channels may be reversed. On monophonic record playback, channels are mixed for rumble cancellation. 30 db feedback amplifier pair reduces tone control distortion to unmeasurable levels in each section. Low impedance output to tape recorder, useful on all inputs. New "low-silhouette" construction matches EICO tuner. Very attractive when placed on a shelf or out in the open, yet permits easy console installation with full shielding and adaptability to any panel thickness. **Frequency Response:** ±0.3 db 5-200,000 cps at any level up to 3V RMS out. **Sensitivity (input for 2V RMS output at 1000 cps):** Mag. Phono—1 mv; Microphone—1 mv; Tape-head—0.5 mv; High Level Inputs—0.17V. **Hum Noise:** Mag. Phono—60 db; Microphone—60 db; Tape Head—50 db; High level inputs—75 db. **IM Distortion (60 and 7000 cps at 4:1):** 0.04% at 2 V out. **Harmonic Distortion (20-20,000 cps):** 0.1% at 3V RMS out; 0.15% at 5V RMS out. **Tone Control Range:** At 10kc: 15 db boost, 15 db cut; At 50 cps: 15 db boost, 15 db cut. **Equalization:** Phono-RIAA; Tape Head-NARTB for 15 ips, 7½ ips, 3¾ ips. **Tape Output Impedance:** 1400 ohms. **Tube Complement:** 5—12AX7/ECC83, 1-6X4. **Size:** 3⅝″ high, 12″ wide, 8¼″ deep.

100-WATT STEREO DUAL POWER AMPLIFIER HF89

Kit $99.50 **Wired $139.50**

Represents the utmost in audio quality. Each power amplifier is conservatively rated at 50 watts and employs the thoroughly proven cathode-coupled phase inverter-driven circuit, preceded by a direct coupled voltage amplifier. Fixed-biased, push-pull EL34's are used in the output stage and provision Is made for both bias and dc balance adjustments. The very low impedance characteristics of silicon diode rectifiers gives the common power supply for the two amplifiers very good regulation. As a result, signal conditions in one amplifier have negligible effects on the operating conditions of the other amplifier. Surgistor limits starting surge currents, insuring long life for the silicon diode rectifiers, electrolytics, and tubes. High circuit and component quality result in less feedback required to achieve the very low distortion figures, so that the HF89 has excellent stability margin.

Output Power: 100 watts (two 50-watt amplifiers) continuous, 200 watts peak. **IM Distortion:** (60 & 7000 cps at 4:1): 0.5% at 100 watts. **Harmonic Distortion:** Less than 0.25% from 30 to 15,000 cps and less than 1% from 20 to 20,000 cps within 1 db of 100 watts. **Frequency Response:** ±0.5 db 5 cps — 100 Kc. **Rise Time:** 2.5 μsec. **Square-wave Response:** Essentially undistorted to 20,000 cps. **Inverse Feedback:** 18 db. **Stability Margin:** 13 db. **Damping Factor:** above 12, 20 cps to 20 kc. **Channel separation:** 60 db. **Sensitivity:** 0.55V for full output. **Hum:** Better than 90 db below full output. **Controls:** Level Ch. 1, Level Ch. 2, "Service Selector" switch, ON-OFF switch. **Speaker Connections:** 4, 8, and 16 ohms. **Tubes:** 1—ECC83/12AX7, 2—6SN7GTB, 4—EL34, 2—silicon diode rectifiers (power), 1—selenium rectifier (bias); surgister protected for long life. **Power Source:** 117V, 60 cps. **Power Consumption:** 215 watts at no signal, 270 watts at 100 watts out. **Size:** (HWD) 6″ x 15″ x 11″. **Weight:** 40 lbs. Matching cover E-8: $3.95.

HIGH FIDELITY STEREOPHONIC 70-WATT DUAL POWER AMPLIFIER HF87

Kit $74.95 **Wired $114.95**

An unsurpassed high fidelity stereophonic 70-watt dual power amplifier providing superb stereo reproduction. Design determined by quality consideration only, without compromise. Highest quality circuit design utilizing the EICO proven cathode-coupled phase inverter-driven circuit with preceding direct-coupled voltage amplifier and an output stage of self-biased, push-pull EL-34's. Output transformers are the finest and costliest in the field. A low impedance silicon diode power supply exhibits very good regulation minimizing the effect of signal conditions in one amplifier on the operating conditions of the other amplifier. Stability margins as great as the feedback employed. Service selector switching determines the choice of operating the unit as either a stereophonic dual amplifier providing 35 watts a channel or a monophonic 70-watt amplifier. Level controls are provided in each channel.

Output Power: 70 watts (two 35 watt amplifiers) continuous. 140 watts peak. **IM Distortion:** (60 & 7000 cps at 4:1) 1% at 70 watts. **Harmonic Distortion:** Less than 1% from 20 to 20,000 cps within 1 db of 70 watts. **Frequency Response:** ±0.5 db 5 cps—100 kc. **Rise time:** 3 microseconds. **Square-wave response:** Essentially undistorted to 20,000 cps. **Inverse Feedback:** 17 db. **Stability Margin:** 17 db. **Damping Factor:** above 11, 20 cps to 20 kc. **Channel Separation:** 55 db. **Sensitivity:** 0.38V. for full output. **Hum:** Better than 90 db below full output. **Speaker Connections:** 4, 8, 16 and 32 ohms. **Tubes:** 1-ECC83/12AX7, 2-6SN7GTB, 4-EL34, 2 silicon diode rectifiers protected by surgistor. **Size:** 15″ x 11″ x 6″. **Shipping weight:** 32 lbs. Matching cover E-8: $3.95.

EICO ELECTRONIC INSTRUMENT CO., Inc. • Long Island City, N. Y.

ALL PRICES 5% HIGHER IN THE WEST

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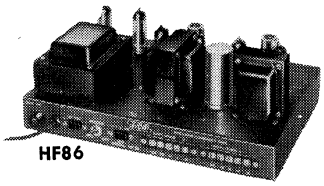
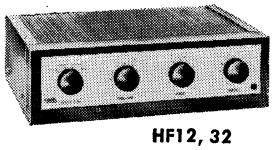
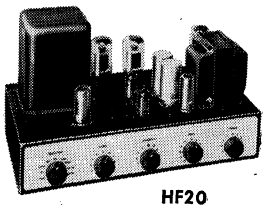
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR



HF86



HF12, 32



HF20

HIGH FIDELITY STEREOPHONIC 28-WATT DUAL POWER AMPLIFIER HF86

Kit $43.95 **Wired $47.95**

Attains flawless stereo performance at medium power levels. For use with the top quality HF-85 stereo preamplifier or other self-powered stereo preamplifier. Excellent stability and transient response. Each of the two amplifiers is rated at 14 watts and employs Williamson-type circuitry with self-biased, push-pull EL84s. The amplifier utilizes for the first time the new 12DW7 developed exclusively to meet EICO's exacting "hi-fi" design requirements. The 12DW7 provides significantly better performance characteristics in the Williamson type circuit. The amplifiers may also be operated in parallel to deliver 28 watts for monophonic use. Features include switching to provide a common input to both amplifiers and level control of each input.

Output Power: 28 watts (two 14 watt amplifiers) continuous, 56 watts peak. **IM Disortion** (60 & 7000 cps at 4:1): 1.5% at 28 watts (14 w. each) 0.5% at 10 watts (5 w. each), 0.3% at 4 watts (2 w. each). **Harmonic Distortion:** 16 watts (8 w. each) less than 1% from 30c to 15 kc; 28 watts (14 w. each) less than 2% from 40 c to 15 KC and 1% from 50 c to 7 kc. **Frequency response:** 2 watts (1 w. each) ±0.5 db 10 c to 100 kc. **Transient Response:** Excellent square wave reproduction (4 usec rise time); negligible ringing, rapid settling on 10 kc square wave. **Inverse Feedback:** 20 db. **Stability Margin:** 15 db. **Speaker Connections:** 4, 8, 16 and 32 ohms. **Sensitivity:** 1.15 V for 14 w. output. **Hum:** 90 db below rated output. **Tubes:** 2-12DW7, 4-EL84, 2-EZ81. **Size:** HWD — 5″ x 13½″ x 9″. **Shipping Weight:** 16 lbs. Matching cover E-7: $3.95.

20-WATT WILLIAMSON-TYPE INTEGRATED AMPLIFIER HF20

COMPLETE with Preamplifier, Equalizer & Control Section

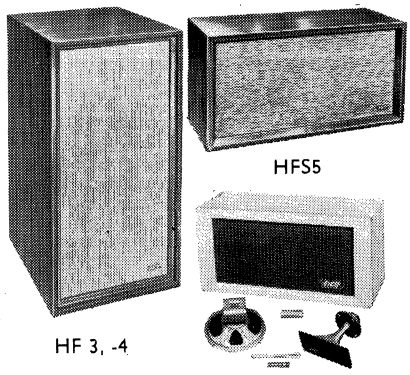
Kit $49.95 **Wired $79.95**

A low-cost complete-facility amplifier of the highest quality. **Rated Power Output:** 20 w (34 w peak). **IM Distortion (60 & 6000 cps at 4:1) at rated power:** 1.3%. **Frequency Response (20W):** ±0.5 db 20-20,000 cps; ±1.5 db 10-40,000 cps. 8½″ x 15″ x 10″. 24 lbs. Matching cover **Model E-1, $4.50.**

30-WATT INTEGRATED AMPLIFIER HF32

Kit $57.95 **Wired $89.95**

Complete with preamplifier, equalizer and control section, the HF32 is an excellent complete-facility amplifier in the attractive "low silhouette" design. **Output Power:** 30W continuous, 47W peak. **IM Distortion** (60 cps & 7 kc @ 4:1): 2% @ 30W; 1% @ 20W; 0.5% @ 10W. **Total Harmonic Distortion:** below 1% 20-20,000 cps within 1 db of 30W. **Frequency Response:** 30W: ±0.5 db 15 cps — 50 kc; ±1.5 db 15 cps — 100 kc; ±0.1 db 15-30,000 cps at any level from 1 mw to 30W; no peaking or raggedness outside audio range. Size: 15″ wide, 4¾″ high, 10½″ deep.



HFS5

HF 3, -4

HFS1

12-WATT WILLIAMSON TYPE INTEGRATED AMPLIFIER HF12

with Preamplifier, Equalizer & Control Section

Kit $34.95 **Wired $57.95**

Complete with Metal Cover

Compact, beautifully packaged & styled. Provides complete "front-end" facilities and true high fidelity performance. **Output Power:** 12 w cont., 25 w pk. **IM Dist.** (60 & 6000 cps @ 4:1): 1.3% @ 12 w; 0.55% @ 6 w; 0.3% @ 4 w. **Freq. Resp.:** 1 w: ±0.5 db 12 cps — 75 kc; 12 w: ±0.5 db 25 cps — 20 kc. **Harmonic Dist. 20 cps:** 2% @ 4.5 w; ½% @ 2.5 w; **30 cps:** 2% @ 11 w; ½% @ 6 w; **40 cps:** 1% @ 12 w; ½% @ 9 w; **2000 cps:** ½% @ 12 w; **10 kc:** 1% @ 10 w; ½% @ 4 w.

MONAURAL PREAMPLIFIERS

(stack 2 for STEREO)

HF65A: Kit $29.95 **Wired $44.95**

with Power Supply

HF65: Kit $33.95 **Wired $49.95**

MONAURAL POWER AMPLIFIERS

(use 2 for STEREO)

35-Watt Power Amplifier HF35

Kit $47.95 **Wired $72.95**

(Matching cover E2: $4.50)

30-Watt Power Amplifier HF30

Kit $39.95 **Wired $62.95**

22-Watt Power Amplifier HF22

Kit $38.95 **Wired $61.95**

14-Watt Power Amplifier HF14

Kit $23.50 **Wired $41.50**

2-WAY SPEAKER SYSTEM HFS5

Complete with factory-constructed enclosure. Easy to assemble — no gluing necessary.

	Semkit	Wired
In unfinished birch	$47.50	$56.50
In walnut or mahogany	$59.50	$69.50

New techniques in loudspeaker engineering developed by EICO enable this bookshelf-size, 1¼ cubic foot ducted-port enclosure to provide remarkably clean, deep, smooth bass with good efficiency. The HFS5 includes a specially-designed, bellows-suspension ⅝″ excursion Jensen 8″ woofer (45 cps res.) and a Jensen 3½″ closed back tweeter of exceptional quality. The Q of the HFS5 system is ½ so that the speaker is critically damped when used with any modern amplifier of normal damping factor (7-20). Critical damping gives the smoothest possible frequency response and the best transient response. Frequency response is essentially uniform (±0.5 db) from 52 to 14,000 cps. 16 ohm impedance. HWD: 24″ x 12½″ x 10″.

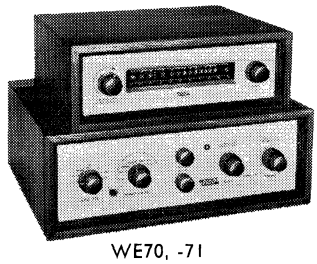
2-WAY SPEAKER SYSTEM HFS1

Complete with factory-constructed enclosure. Easy to assemble — no gluing necessary.

Semkit $39.95 **Wired $47.95**

Cabinet expertly constructed, furniture-quality, tuned-bass-reflex, acoustically engineered by Jensen for the woofer supplied. All visible surfaces smooth-sanded, clear-grained birch hardwood. Heavy-duty 8″ Jensen woofer: High energy ½-lb. Alnico 5 DP magnet. Response engineered for smooth cross-over to tweeter at 1800 cps. Jensen tweeter: Compression-driver loaded by cast aluminum Hypex* horn. Small, precisely controlled and loaded diaphragm is free of "breakup" and the accompanying excessive peaks and dips in the frequency response.

*T.M. reg. Jensen Mfg. Co.



WE70, -71

3-WAY SPEAKER SYSTEMS HFS3 AND HFS4

Each complete with factory-constructed enclosure. Easy to assemble — no gluing necessary.

	Semkit	Wired
HFS3 (includes cone tweeter):		
In unfinished birch	$72.50	$84.50
In walnut or mahogany	$87.50	$99.50
HFS4 (includes horn tweeter):		
In unfinished birch,	$83.50	$96.50
In walnut or mahogany	$98.50	$112.50

Another EICO first in high fidelity — unusually pure and full reproduction of very deep bass frequencies with normal efficiency in a ducted-port enclosure of only 2¼ cubic feet! Both the HFS3 and HFS4 include a specially designed, bellows-suspension, full-inch excursion Jensen 12″ woofer (22 cps res.) and a Jensen 8″ mid-range speaker with high internal damping cone for smooth response. A Jensen 3½″ cone tweeter is supplied in the HFS3 for those who prefer a softer, more delicate quality in the highs; a Jensen compression-driver horn tweeter is supplied in the HFS4 for those who want more brilliance and greater projection in the highs. (In all other respects, the HFS3 and HFS4 are identical.) Both speaker systems have a system Q of ½ for flattest frequency and best transient responses. Frequency response is essentially uniform (±5 db) 45-14,000. cps 16 ohms impedance. HWD: 26⅜″ x 13⅞″ x 14⅝″.

FURNITURE WOOD CABINETS WE70, WE71 FOR YOUR EICO HI-FI COMPONENTS

Adds the rich, warm beauty of fine furniture wood to your decor. Slips right over the metal cabinets of your EICO components in seconds. **WE70** (for HF85, HF65, HF12, HFT90, HFT92, HFT94, AF-4) In unfinished birch, **$8.95.** In walnut or mahogany, **$12.50**

WE70 (for HF81, HF32) In unfinished birch, **$9.95.** In walnut or mahogany, **$13.95.**

6-TRANSISTOR PORTABLE RADIO RA6

Kit $29.95*
Wired $49.95*

"This new portable . . . is among the finest we have seen to date."— ELECTRONICS WORLD LAB TESTED.

Even a novice can build this modern American all-transistor superheterodyne portable receiver and be sure of a handsome professional assembly, and outstanding performance. The utilization of transistor circuitry and finest quality parts throughout assures you that your set will not only perform magnificently, but will take the kind of punishment that a portable radio **should** take.

Modern transistor superheterodyne portable receiver with unusual selectivity and sensitivity. Big set tone quality in handy carrying size; simulated leather case. Pre-aligned RF and IF coils; 4″ x 6″ PM speaker driven by 250 mw push-pull output stage; 1:6 vernier tuning; high impedance earphone jack (eliminates drain on output stage); built-in rod-type antenna for good reception in all locations. No printed wiring boards. Plug-in sockets for all transistors. 8½″ long, 4½″ high, 2½″ deep. Requires 9 volt battery N.E.D.A. type 1602. Shipping weight — 3 lbs.

*Less 9V battery, F.T.C. included.

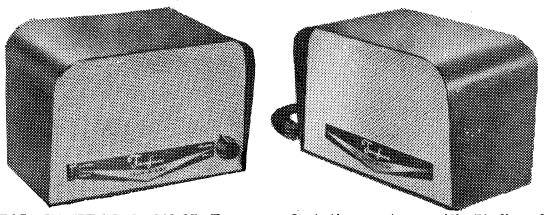
EICO ELECTRONIC INSTRUMENT CO., Inc. • Long Island City, N. Y.

ALL PRICES 5% HIGHER IN THE WEST

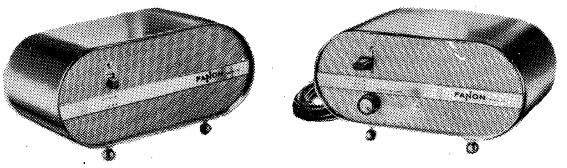
FANON INTERCOMS

The complete intercom line styled for the modern office and home at economy prices.

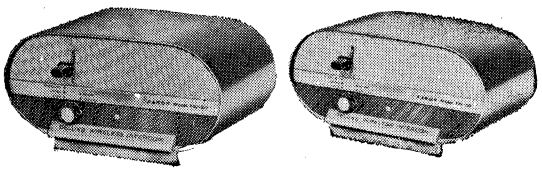
The complete line uses the same proven circuit and components: Three tubes —12AU6, 50C5 and 35W4. • 3½" Alnico V speaker • Neon pilot light • Press-to-talk switch with long lasting "Coil-Spring" return • AC or DC • Remotes may be private or non-private • 2½ watt output • 20 watt power consumption • Dimensions: 8" x 4" x 4" • Decorator colors in Grey and Tan.



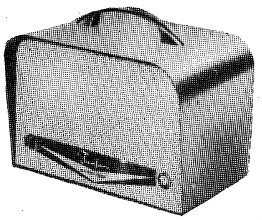
TAL, INTERCOM—$19.95. Economy, 2 station system, with 50 ft. cable. Remote is always open — no switch to operate. Smartly styled, metal cabinets—ideal for baby sitting and the home. Ready to operate—nothing more to buy. Gray only. Two Tubes. Weight: 6 lbs. Extra remote TR may be added: $7.95.



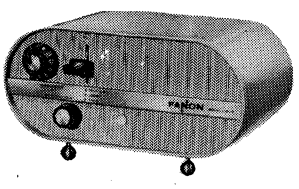
FX-2, TWIN — $27.95. Ultra-sensitive 2-station system with 50 ft. cable. Powerful amplifier picks up slightest noise. Three way Dictate-Talk-Listen switch. Remote has TALK-LISTEN switch to permit originating calls to master: Use it anywhere — home or business. Extra remote, FS, may be added: $9.95. Weight: 6 lbs.

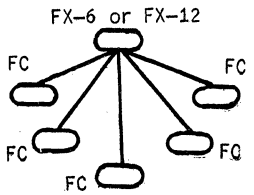


FW-50, Deluxe WIRELESS—$74.95. A complete 2 station system ready to operate. No wires—no installation—just plug into any AC or DC outlet. Four tubes plus silicon rectifier amplifier. Three way Talk-Listen Dictate switch. In brushed brass cabinets. Weight: 9 lbs. Model FW-51. additional single station for above, may be added, $37.95.

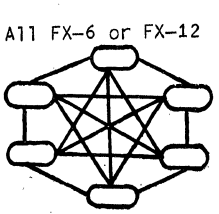


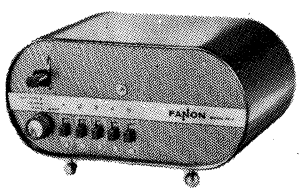
RB-1, BABY-COM—$18.60. A one-station, wire-less radio intercom. No installation, no wires required—merely plugs in to any AC or DC outlet and voice is heard through any radio (even car or battery radios). Ideally suited as a portable baby-sitter. Extremely sensitive, can be heard 300 ft. away. Blue or pink cabinets. Weight: 4 lbs.



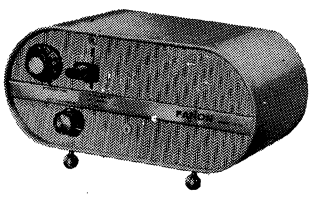


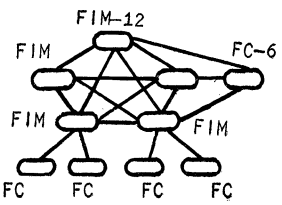
FX-12, MANAGER — $37.50. A dual purpose master for use with up to ten FC remotes, in a MASTER-TO-REMOTE system, or up to eleven masters in ALL MASTER system. Twelve position rotary selector switch with "All-Call" and "Standby". Dictate-Talk-Listen switch. Five private conversations may be held in an all master system. New: Masters can be non-private "hands free" operation. Weight: 4 lbs.



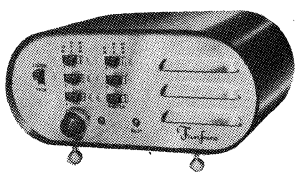


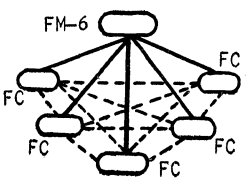
FX-6, EXECUTIVE—$34.95. A dual purpose master, for use with up to five FC remotes in a MASTER-TO-REMOTE system, or up to six masters in an ALL MASTER system. Five individual station selector switches. Dictate-Talk-Listen switch. In all master systems, 3 private conversations or conference of all stations may be held. Weight: 4 lbs.



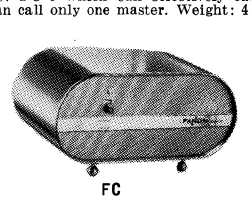


FIM-12, INTERMIX — $44.95. A deluxe twelve station intermix master which can be used in any combination of masters and/or remotes. Master has 3 position Talk-Listen-Dictate switch. Use in conjunction with two types of remotes: FC-6 which can selectively call any one of six masters, and FC which can call only one master. Weight: 4 lbs.





FM-6, MONITOR — $37.50. A master used with up to five FC remotes in a MASTER-TO-REMOTE system. "Switch-board" feature provides direct remote-to-remote conversations. Master can monitor any or all remotes. Master can "set-up" remotes to monitor other remotes. Remotes can originate calls to master and to other remotes. Busy-light flashes during conversations. Weight: 4 lbs.



FC

FC, REMOTE — $13.25. Used in conjunction with FX-6, FX-12, FM-6, FIM-12.

FC-6, REMOTE — $19.95. Six station selective remote used with FIM-12 only.

All prices shown are list and are subject to change without notice. Add 5% west of the Rockies.

For detailed information, on any model, write to the factory for free catalogs.

For cable requirements, write to the factory.

ACCESSORIES

YT—Wall bracket for any master $1.50

YF—Wall bracket for any remote $1.50

FA-30—Isolation transformer $12.50

PH-5—Paging horn $27.00

TB-9—Nine terminal junction box $5.95

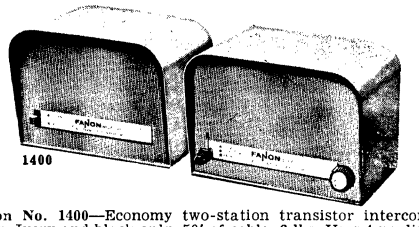
TB-18—Eighteen terminal junction box $7.50

FANON ELECTRONIC INDUSTRIES, INC NEWARK NEW JERSEY
Warehouses in Los Angeles, San Francisco, Seattle and Toronto

 Trade Discount Applies to List Prices Only © U.C.P., Inc.

FANON ALL TRANSISTOR INTERCOMS

Handsome new line of transistorized Fanon intercoms that need no AC current and are battery operated. Special "battery saver" switch prolongs life for months. Batteries used only when talking. Features 4 transistors with push-pull output stage. Instantaneous operation—no warm up. Heavy-duty "talk-listen-standby" switch. Uses 4 Eveready #276 batteries.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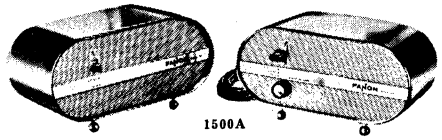
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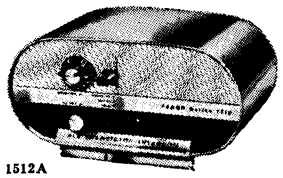

1512A

Fanon No. 1400—Economy two-station transistor intercom system. Ideal baby-sitter. Ivory and black only. 50′ of cable. 6 lbs. Uses 4 penlite batteries. List: **$34.95**

Fanon No. 140—Additional remotes for 1400. 50′ of cable. 2 lbs. List: **$8.95.**

Fanon No. 1500A—Deluxe two station transistor intercom in decorator style cabinets. Same features as 1400. 50′ of cable. 8 lbs. Uses 4 penlite batteries. List: **$39.95**

Fanon No. 152—Additional remote for deluxe 1500A system. Complete with 50′ cable. Grey or tan. 2 lbs. List: **$9.95**

Fanon No. 1506A—(Not shown)—Six station master for use in All-Master, Master-to-Remote or Intermixed installations. Grey or tan. 4 lbs. List: **$49.95**

Fanon No. 1512A—Twelve station master for use in All-master, Master-to-Remote or Intermixed installations. Grey or tan. 4 lbs. List: **$54.95**

REMOTES FOR 1506A-1512A MASTERS

Fanon No. 156—Remote with six station selector switch. 2 lbs. List: **$22.75**

Fanon No. 150—Remote with call switch for private or non-private operation. List: **$15.95**

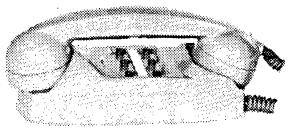
Fanon No. 151—Remote for non-private operation only. 2 lbs. List: **$13.45**

FANON FONE

COMMON TALKING—SELECTIVE RINGING

TELEPHONE SYSTEMS

A complete line of telephone intercommunication equipment, designed to meet the needs of any home, office, factory and institution.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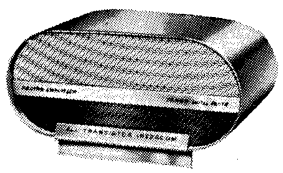

PA-TR

Modern styling in high impact plastic in grey and ivory. AC or battery powered. Suitable for desk or wall mounting. Coiled cord. Common talk-line.

8520—Complete 2 station system consisting of 2 telephones (8501). 50 ft. four conductor cable and battery wall bracket. **$72.50.**

8501—Single button phone used in conjunction with any multi-station phone. **$34.95.**

8503—A four-station capacity phone with 3 buzzer buttons. **$36.25.**

8506—A seven-station capacity phone with 6 buzzer buttons. **$38.75.**

8510—An eleven-station capacity phone with 10 buzzer buttons. **$42.50.**

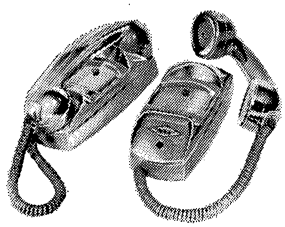
PSA—115v. AC power supply. Only one required per system. **$29.95.**

Paging Amplifiers for use with "85" telephones:

PA-RC—A 3 tube paging amplifier used with any of above phones. Single volume control. Relay operated. On only when talking. Can answer calls without using a switch. Plugs into 115v. source. **$64.95**

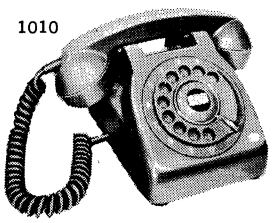
PA-TR—A 4 transistor paging amplifier used with any of above phones. Separate controls for incoming and outgoing volumes. Phono jack to connect paging horn. Relay operated. On only when talking. Can answer calls without using a switch. **$89.95.**

8520



SELECTIVE TALKING—SELECTIVE RINGING

1010

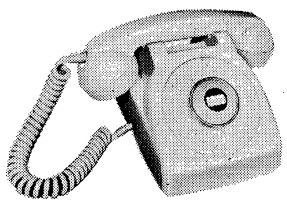


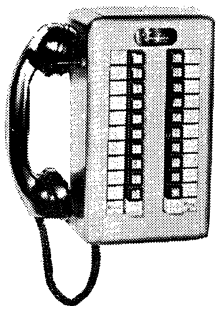
Deluxe, precision-made telephones that permit as many separate simultaneous conversations as there are pairs of telephones in an all-master system. Conference calls possible. Up to 11 master phones or 1 master with 10 subs per installation. Masters and remotes may be intermixed. Supplied with junction cable and terminal box. Available only in grey.

1010—Master dial telephone **$74.95.**

101—Sub station telephone **$47.50.**

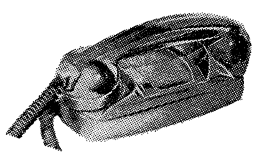
PSA—115v. AC power supply for above phone. Only one required per system. **$29.95.**


101


FTS-20

20 STATION SYSTEM, WITH SWITCHBOARD — IDEAL FOR BOWLING ALLEYS, MOTELS, HOSPITALS, AND SCHOOLS

FTS-20—A 20 line manual exchange which features selective ringing and a selective talking circuit—assures complete privacy. Each of the twenty push-buttons on the switchboard have busy-lamps as well as a buzzer (which may be shut-off). Stations call switchboard by lifting receiver. The switchboard may arrange for conferences between two or more substations, although only one private conversation may take place at a time. Size of FTS-20: 10½ x 9½ x 3¾″ deep. Simple installation requires only 2 wires from each phone to switchboard. For more extensive installations, one FTS-20 switchboard may be ganged with one or two XT-22 extension boards to provide for a total of 42 stations or 64 stations.



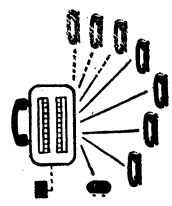
FTS-20.....List Price **$299.95**

XT-22.....List Price **$274.95**

PS-20—Transformer operated power supply. One required per installation. List Price **$124.95.**

8500—Extension phone for desk or wall use, molded in high impact polystyrene, with convenient coiled cord. List Price **$39.95.**

SW-85—Selector switch used with each 8500 telephone when two FTS-20's are used. **$6.25**



System can be expanded to 42 or 64 intercom stations.

List Prices subject to change without notice. Add 5% west of Rockies.

FANON ELECTRONIC INDUSTRIES, INC NEWARK NEW JERSEY

Warehouses in Los Angeles, San Francisco, Seattle and Toronto

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FANON Masco — FLUSH-WALL INTERCOMS

AM/FM, MUSIC AND INTERCOM SYSTEM FOR HOME

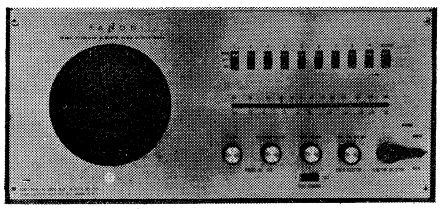
FANON 5509-MASCO 9909—Master provides up to nine remotes for AM or FM reception plus phono music or voice. Input accommodates record player or tape recorder and has output for FM/FM multiplex. Highly sensitive and selective AM and FM tuners and wide band noise free amplifier rated at 2 watts. AFC on tuner with AFC-OFF switch for tuning weak stations. Master and remote can call each other at any time. Remotes can call each other by switching at master. Master may monitor all remotes. Each remote has volume control. Satin chrome or copper front panel: 15¼" x 7" x 1". Rough-in dimensions: 13⅞" x 5⅞". Ship wt.: 12½ lbs. List price: **$119.95.**

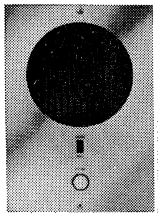
MODEL 56 INDOOR REMOTE—High styled indoor remote with talk-listen switch and volume control. Five inch speaker. Satin chrome or copper finish. 6" x 8½". Rough-in dimensions: 4⅞" x 8". Ship wt.: 2½ lbs. List price: **$10.95.**

MODEL BD OUTDOOR REMOTE—Weatherproof gasket sealed Weatherized speaker. Remote can originate call to master. Durable copper enamel finish. 4¾" x 6¾". Rough-in dimension: 3⅞" x 5¼". Ship wt.: 2 lbs. List price: **$5.95.** BDR REMOTE same as above with pushbutton. List price: **$7.95.**

PB56 PLASTER RING FOR 56 ----------List Price: **$1.50**

PB PLASTER RING FOR BD-BDR ----------List Price **1.00**



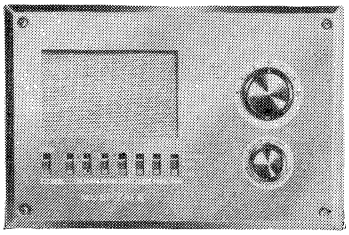


COMPLETE SYSTEM CONSISTS OF:

FANON 55EK-MASCO 99EK . . . 1 master, 3 Model 56 indoor remotes, 1 Model BD outdoor remote, hardware. Ship wt.: 24 lbs. List: **$123.95.**

FANON 55IK-MASCO 99IK . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable for 55EK. Ship wt.: 8 lbs. List: **$36.00.**

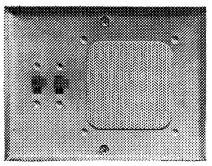
MUSI-TALK AM RADIO AND INTERCOM SYSTEM



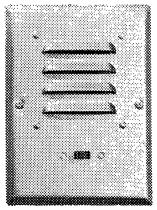
MC — MASTER CONTROL

FANON MC, MASTER CONTROL - MASCO 7706R MASTER CONTROL—A six tube, six-station master from which you may converse with any or all remotes. The master can "set-up" two or more remotes for **direct communication** with one another. "Monitor" feature enables master and remotes to eavesdrop any other locations. Powerful printed circuit radio can be "piped" to as many rooms as desired. Simultaneous radio and intercom operation is featured. Stylish satin copper panel is 11" x 7¾". List: **$59.95.** Rough-in dimensions: 5½" x 10¼" x 3½".

FANON MCL, MASTER CONTROL-MASCO 7706 MASTER CONTROL—Has all the intercom features listed above, less the radio. A phono input jack enables you to plug in any external music source for complete muisc distribution. List: **$39.95.**



BC — REMOTE



BD — REMOTE

BC, INDOOR REMOTE—Four indoor remotes provide instant 2-way conversation among themselves and the master, as well as radio-music throughout the home. Remotes can originate calls to the master, or to other remotes. Remotes may also "monitor" any other locations. Talk-Listen switch and Privacy switch. Satin copper panel is 6¼" x 4¾". List. **$5.95.**

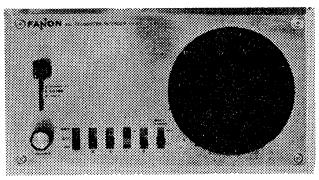
BD, DOOR REMOTE—Has weatherproof rubber gasket and "weatherized" speaker to withstand all types of weather. Door remote can originate calls to the master and any indoor remote. Enables you to answer the door from within the house and to "pipe" music to the porch or patio. Copper finish panel 6¾" x 4¾". List: **$5.95.** BDR outdoor remote w/pushbutton List: **$7.95.**

FANON EK-MASCO 77R-EK (Electronic Kit) — Consists of 1 MC Master Control, (with radio), 4 BC Indoor Remotes, 1 BD Door Remote and hardware. List: **$79.95**

FANON EKL-MASCO 77EK (Electronic Kit) — Consists of 1 MCL Master Control, (less radio), 4 BC Indoor Remotes, 1 BD Door Remote and hardware. List: **$59.95**

FANON IK-MASCO 77IK (Installation Kit) — Consists of 1 master plaster box, 5 remote plaster boxes, 200 ft. of wire and hardware. This installation kit is used in conjunction with either the EK or EKL electronic kits. List: **$15.95**

PB Plaster Ring for BD-BDR Remotes ----------List: **$1.00**



COMPLETE SYSTEM CONSISTS OF:

FANON 44EK-MASCO 66EK . . . One master, 3 model BC indoor remotes, 1 model BD outdoor remote, hardware. Ship wt.: 13 lbs. List: **$54.95.**

FANON 44IK-MASCO 66IK . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable. Ship. wt.: 5 lbs. List: **$15.00.**

TRANSISTORIZED SIX STATION INTERCOM SYSTEM

FANON 4405-MASCO 6605—Built-in and battery operated the master provides for up to five remotes. Complete two-way communication from master to all remotes or master can set up remote to remote. Long battery life when master is in "standby" since no battery drain occurs until signalled with "beep" tone from remote. "Battery saver" switch limits drain when in monitor or baby-sitting position. Music can be added to system, by plugging radio or phono into jack on BJ remote. Satin chrome or copper front panel: 10½" x 5¾". Rough-in dimensions: 9⅝" x 4½" x 3½". Ship wt.: 5 lbs. List price: **$39.95.**

MODEL BC INDOOR REMOTE—Remotes may originate calls to master or monitor other remotes. Talk-listen switch and "privacy" switch. Satin chrome or copper finish panel: 6¼" x 4¾". Rough-in dimensions: 5¼" x 3⅞" x 2". Ship wt.: 2 lbs. List: **$5.95.**

MODEL BJ REMOTE same as above with phono jack to add music source. List: **$9.95.**

MODEL BD OUTDOOR REMOTE—Weatherized speaker in gasket sealed cover. Remote can call master. Baked copper enamel finish. 4¾" x 6¾". Rough-in dimensions: 3⅞" x 5½". Ship wt.: 2 lbs. List: **$5.95. BDR** same w/pushbutton. List: **$7.95.**

CENTRAL AMPLIFIER INTERCOM SYSTEM

Economical system requires only one central amplifier for all masters and remotes installed. Each master can accommodate 9 remotes and any combination of up to 6 masters and 24 remotes can be used in system. Masters can contact any station in the system with private conversation between masters. Simple two wire installation.

FANON MODEL 1109-MASCO MODEL CMC9—master accommodates up to five masters and four remotes. Selective switch, volume control and talk-listen-"pickup" lever. Gold baked enamel panel: 10½" x 9¼". Rough-in dimensions: 8⅝" x 7⅞". Ship wt.: 4½ lbs. List price: **$37.50.**

FANON MODEL 11A-MASCO MODEL CA-2 CENTRAL AMPLIFIER for all masters and remotes in system. Can be installed in closet or out of the way. ON-OFF switch and volume control for all stations. Gold enamel finish panel: 10½" x 9¼". Rough-in dimensions same as 1109 master. Ship wt.: 8½ lbs. List price: **$59.95.**

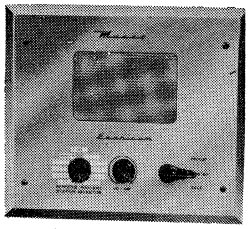
MODEL BCL INDOOR REMOTE, less talk-listen switch. Specs same as BC remote. List: **$5.50.**

MODEL BDL OUTDOOR REMOTE, L/talk-listen switch. Specs same as BD remote. List: **$5.50.**

MODEL BDLR OUTDOOR REMOTE WITH BELL BUTTON 1/talk-listen switch. Specs same as BDR. List: **$7.50.**

MODEL K-5 CEILING REMOTE with 5" speaker. List: **$9.95**

MODEL K-8 CEILING REMOTE with 8" speaker. List: **$14.95**



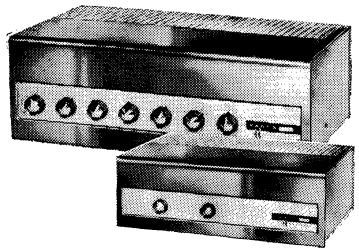
Trade Discount Applies to List Prices Only

© U.C.P., Inc.

FANON Masco — PA AMPLIFIERS AND SYSTEMS

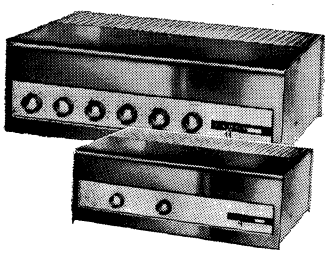
Featuring a wide-range of low distortion amplifiers for continuous-duty operation. All units incorporate point-to-point wired circuits and concealed tamperproof output and input connectors. Booster amp. output jack. All amplifiers and boosters suitable for rack mounting.

FANON MODEL 3370 — 70 WATT AMPLIFIER — MASCO MODEL A-70



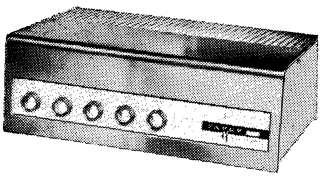
A dramatic new concept in high-power amplifier design that defies comparison in its class. Push-pull output circuit with negative feed-back and fixed bias circuit on the power output stage.
Power Output, (Rated): 70 watts at less than 4% distortion. **Peak Power Output** (Music Wave-Form Rating): 100 watts. **Frequency:** 20 to 20,000 cps. ±1 db. **Regulation:** 70 volt line, no load-full load, 3 db at 1 kc. **Inputs: 4 microphone,** 2 phono (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 130 db microphone, 95 db phono. **Input Sensitivity:** Microphone 4 millivolts (magnetic low impedance 0.5 millivolts), phono 0.3 volts. **Hum and Noise:** Fundamental —75db, microphone —58db, phono —70db. **Tone Control: Bass:** 17 db boost at 50 cps, 14 db cut at 50 cps. Treble: 14 db boost at 15 kc. 15 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (7) 4 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 2 hum-buck. adj., 1 bias adj., 1 slide switch for magnetic cartridge input. **Power Consumption:** 200 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—6AV6, 1—7199, 1—5AR4/GZ34, 2—6CA7/EL34, 1—6CA4/EZ81, and 1 silicon rectifier. **Shipping Weight:** 32 lbs. **Dimensions:** 18⅝", 11⅛", 6¾" H. List: **$174.95.**
MODEL 3070-MASCO AB-70 70 watt BOOSTER AMPLIFIER: similar to above less microphone and tone controls; single high impedance input (sensitivity ½ volt input at full output). Volume and on-off controls. List: **$149.95.**

FANON MODEL 3345 — 45 WATT AMPLIFIER — MASCO MODEL A-45



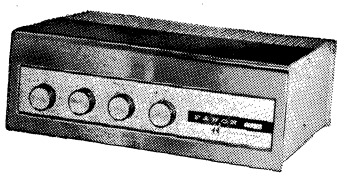
Here's a high powered audio amplifier that meets the most exacting standards. This compact, quality-engineered unit has the advanced push-pull circuit with negative feed-back and fixed bias circuit on the power output stage. **Power Output:** (Rated): 45 watts at less than 3.5 distortion. **Peak Power Output** (Music Wave-Form Rating): 52 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 70 volt line, no load-full load, 3 db at 1 kc. **Inputs:** 3 microphone, 2 phono (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 127 db microphone, 92 db phono. **Input Sensitivity: Microphone** 4 millivolts (magnetic low impedance 0.5 millivolts), phono 0.3 volts. **Hum and noise:** Fundamental —75 db, microphone —58 db, phono —69 db. **Tone Control:** Bass: 17 db boost at 50 cps, 14 db cut at 50 cps. Treble: 14 db boost at 15 kc, 15 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced and 200Ω balanced. **Controls:** (6): 3 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 1 slide switch for magnetic cartridge input, 2 hum-buck. adj., 1 bias adj. **Power Consumption:** 130 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—7199, 2—6L6-GC, 1—5AR4/GZ34 and 1 silicon rectifier. **Shipping Weight:** 26 lbs. **Dimensions:** 17⅛" W, 11⅛" D, 6¼" H. List: **$139.95.**
MODEL 3045-MASCO AB45—45 watt BOOSTER AMPLIFIER: similar to above less microphone and tone controls: single high impedance input (sensitivity ½ volt input at full output). Volume and on-off controls. List **$117.50.**

FANON MODEL 3335 — 35 WATT AMPLIFIER — MASCO MODEL A-35



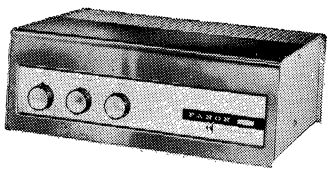
Dynamically styled medium-high power unit featuring the same advanced circuitry found in the 70 and 45 watt amplifiers. Push-pull output with negative feed-back for improved stability.
Power Output (Rated): 35 watts at less than 4% distortion. **Peak Power Output** (Music Wave-Form Rating): 40 watts. **Frequency Response:** 30 to 20,000 cps. ±1 db. **Regulation:** 70 volt line, no load-full load, 4 db at 1 kc. **Inputs:** 2 microphone, 2 phon (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 125 db microphone, 90 db phono. **Input Sensitivity:** Microphone 3 millivolts (magnetic low impedance 0.5 millivolts), phono 0.25 volts. **Hum and Noise:** Fundamental —78 db, microphone —58 db, phono —70 db. **Tone Control:** Bass: 17 db boost at 50 cps, 16 db cut at 50 cps. Treble: 13.5 db boost at 15 kc, 12.3 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls** (5): 2 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 1 slide switch for magnetic cartridge input, 1 hum-buck. adj., 1 bias adj. **Power Consumption:** 115 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—6AV6, 1—5AR4/GZ34, 2—6L6-GC, 1 selenium rectifier. **Shipping Weight:** 24 lbs. **Dimensions:** 17⅛" W, 11⅛" D, 6¼" H. List: **$114.95.**

FANON MODEL 3320 — 20 WATT AMPLIFIER — MASCO MODEL A-20



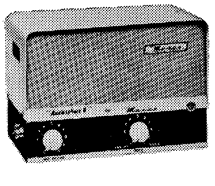
Ruggedly constructed advanced design amplifier ideally suited for medium power applications. Same push-pull negative feedback circuit found in higher power FANON amplifiers .Continuous heavy-duty performance dependability.
Power Output (Rated): 20 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 25 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 70 volt line; no load-full load, 3 db at 1 kc. **Inputs:** 2 microphone, 2 phono (fader control). **Gain:** 123 db microphone, 88 db phono. **Input Sensitivity:** Microphone 3 millivolts, phono 0.32 volts. **Hum and Noise:** Fundamental —78 db, microphone —57 db, phono —72 db. **Tone Control:** Treble cut: 2,500 cps. at 3 db; 10,000 cps. at 12 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (4) Two microphone volume, one phono-radio fader, One tone with AC switch, one bias adjustment. **Power Consumption:** 70 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one selenium rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. List: **$92.50.**

FANON MODEL 3310 — 10 WATT AMPLIFIER — MASCO MODEL A-10



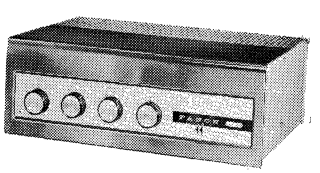
A new concept in engineering design for limited power output amplifiers. Economically priced high gain unit for continuous service in music, PA, or paging. Compactly constructed.
Power Output (Rated): 10 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 14 watts **Frequency Response:** 30 to 20,000 cps. ±2 db. **Regulation:** 70 volt line, no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 2 phono (fader control). **Gain:** 120 db microphone, 85 db phono. **Input Sensitivity:** Microphone 4 millivolts, phono 0.3 volts. **Hum and Noise:** Fundamental —75 db, microphone —56 db, phono —70 db. **Tone Control:** Treble cut: 2,500 cps. at 3 db; 10,000 cps. at 13 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50 ohms unbalanced or 200 ohms balanced. **Controls:** (3) One microphone volume, one phono-radio fader, One tone with AC switch. **Power Consumption:** 60 watts at 117 volts, 60 cps. **Tubes:** 1—12AX7/ECC8x, 1—6V4/EZ80, 1—6L6-GC. **Shipping Weight:** 13½ lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. List **$69.95.**

FANON MODEL 3308 — 8 WATT AMPLIFIER — MASCO MODEL A-8



Dependable, economy model amplifier for limited power output applications. Made available less case, (cage optional). **Power Output** (Rated): 8 watts at less than 5% distortion. **Peak Power Output:** (Music wave form): 12 watts. **Frequency Response:** 100 to 15kc cps ±2 db. **Regulation:** 70 volt line, no load to full load, 3 db at 1,000 cps. **Inputs:** 1 microphone, 1 phono. **Gain:** 120 db mic., 85 db phono. **Input Sensitivity:** Microphone —4 millovolts, phono —0.3 volts. **Hum and Noise:** Fundamental —70 db, Microphone —52 db, Phono —65 db. **Tone Control:** Treble cut is 3 db at 3,000 cps and 12 db at 10,000 cps. **Output Impedance:** 4 ohms, 8 ohms and 70 volt line. **Input Impedance:** High impedance 0.5 megohms. **Controls:** One mic., one phono volume, one tone control with "on-off" switch, one hum adjust (factory adjusted). **Power Consumption:** 60 watts at 117 volt AC. **Tubes:** 1—12AX7, 1—6V4/EZ80, 1—6L6-GC. **Shipping Weight:** 13½ lbs. **Dimensions:** 10¾" x 6¾" 6". List: **$57.50.**
MODEL CG-8—Cage only for above amplifier. (shown in illustration). List: **$8.95.**

FANON MODEL 3320 SPECIAL BACKGROUND MUSIC AMPLIFIER—20 WATTS MASCO MODEL ABM-20



Especially designed 20 watt amplifier with a 600 ohm balanced input for background music operation with a high impedance, single-ended microphone input. Each channel is regulated by separate volume controls. Engineered for dependable service where music is desired in commercial and industrial establishments, the Model 3220 fills every medium power need. The same push-pull negative feed circuit used in higher power Fanon P.A. amplifiers is employed. **Power Output:** (Rated): 20 watts at less than 5% distortion. **Peak Power Output:** (Music wave form rating): 25 watts. **Frequency Response:** 20 to 20,000 cps, ±1 db. **Regulation:** 70 volt line; no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 background music. **Gain:** 123 db microphone, 52 db for background music. **Input Sensitivity:** Microphone 5 millivolts, 0.3 volts music. **Hum and Noise:** Fundamental —78 db, microphone —57, music —58. **Tone Control:** Bass is 16 db boost at 50 cps, 14 db cut at 50 cps. Treble is 17 db boost at 15 kc, 17 db cut at 15 kc. **Output Impedance:** 4, 8, 16, 70 volt line (245 ohm). **Input Impedance:** Mic impedance 0.5 megohms convertible to low impedance with screw-on transformer for 50 ohm unbalanced or 200 ohm balanced. Background music is 600 ohms balanced. **Controls:** 1 microphone volume, 1 music volume, 1 bass, 1 treble with AC switch. **Power Consumption:** 70 watts at 117 volts, 60 cycles AC. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one silicon rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½" W x 10¼" D x 5¼" H. **Fuse:** 1 amp. List **$92.50.**

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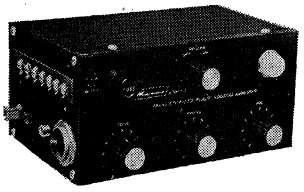
FANON Masco — PA AMPLIFIERS AND SYSTEMS

TRANSISTORIZED MOBILE AMPLIFIERS

Versatile, fully-transistorized mobile amplifiers ideally suited for continuous duty by Civil Defense, police, fire and other civic organizations where compact quality audio power is required. Their design and performance is unexcelled for every portable PA operation for carnivals, sporting events, yachting, buses and general mobile application.

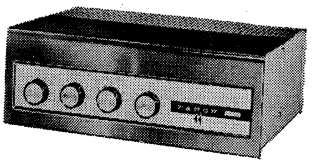
FANON MODEL 3512 — 12 WATT MOBILE AMPLIFIER — MASCO MODEL AM-12



Exceptionally compact transistorized mobile amplifier for dash mounting where limited audio power is required. Operates on 12 volts D.C. with very low current drain in standby. Can be used with 110 volt AC power supply.

Power Output (Rated): 12 watts at 5% distortion. **Frequency Response:** 150 to 10,000 cps. ± 1 db. **Inputs:** 1 microphone, 1 phono, 1 radio. **Outputs:** Terminal strip with facility for selecting 4, 8, or 16 ohms. **Gain:** 110 db microphone, 72 db phono, 75 db radio. **Input Sensitivity:** Microphone: 0.8 m.v. at full output; Phono: .1 volts for full output; Radio: 10 m.v. for full output. **Hum and Noise:** 60 db below rated output. **Output Impedance:** 4, 8, 16 ohms. **Input Impedance:** Microphone: 3,000 ohms; Phono: 0.1 meg; Radio: 3.2 ohms. **Tone Control:** 10 db cut at 10 kc. **Controls:** Microphone volume, phono volume, power on-off switch, tone control, radio-aux. selector switch. **Transistors:** Total of 5: 2—CTS1349, 1—CTS1309, 2—2N408. **Power Consumption:** No signal input: 4 watts. Full signal input: 24 watts. **Power Source:** 12 volts DC. **Shipping Weight:** 6 lbs. **Dimensions:** 6½" W, 3⅛" H, 4⅛" D. List: **$79.95.**

FANON MODEL 3525 — 25 WATT MOBILE AMPLIFIER — MASCO MODEL AM-25



A medium-high power transistorized amplifier designed to give maximum efficiency and dependable mobile service. Compactly styled with tamper-proof input and output connectors, the 3525 utilizes conservatively-rated transistors that operate at low temperature under continuous duty.

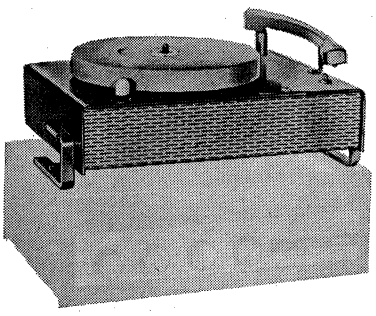
Power Output (Rated): 25 watts at 5% distortion. **Frequency Response:** 80 to 15,000 cps. ± 1 db. **Inputs:** 1 microphone, 1 phono. **Outputs:** 2 speaker jacks with means for selecting different impedance outputs. **Gain:** 100 db. microphone, 80 db phono. **Input Sensitivity:** Microphone 0.5 millivolts at impedance of 1500Ω, phono 0.5 volts at impedance of 0.5 meg. **Hum and Noise:** Fundamental —65 db, microphone —55 db, phono —65 db. **Tone Control:** Treble cut: 3,000 cps. 3 db. down. 15,000 cps. 15 db. down. **Output Impedance:** 4, 8, 16Ω. **Input Impedance:** Microphone 1,500Ω, phono 0.5 meg. **Controls:** 1 microphone volume, 1 phono volume, 1 tone, 1 power "on-off" switch. **Transistors:** 2—2N669, 1—3577, 2—2N406, 1—2N408. **Power Consumption:** 10 W. standby—40 W. peak power. **Power Source:** 12.6 V.D.C. **Shipping Weight:** 12 lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. **List: $119.95.**

FANON 3525AD (MASCO AM-25AD)—25 watt MOBILE AMPLIFIER: for use on either 117v AC or 12v DC. List: **$162.95.**

MODEL CS-33 — "CIRCUIT-SENTRY" OVERLOAD PROTECTION CIRCUIT

Optional "electronic fuse" circuit that protects the output tubes, against possible shorts in the speaker line. This exclusive FANON assembly consists of tubes 6FM8, 6AU6 and assosciated circuitry—merely plugs into socket provided on chassis. In case of intermittent short, "fuse circuit" will lock into protective condition. After fault is cleared, normal condition is restored without any adjustments being required. Patents applied For. Used with 3335, 3455 and 3370 Amplifiers. List: **$29.95.**

FANON-MASCO P. A. SYSTEM ACCESSORIES & MEGAPHONES



Model 3600 PHONO TURNTABLE

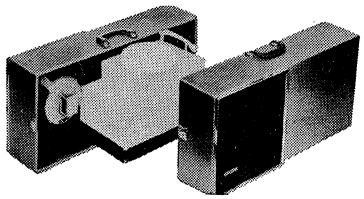
Phonograph attachment that may be used with all "33" series AC amplifiers. Easily mounts on top of amplifiers with 2 thumb screws or can be used separately. Four speed motor. Quality ceramic cartridge with dual stylus. 12" x 9¼" x 4½". Ship wt.: 10 lbs. $44.95.

Model 3612 PHONO TURNTABLE (12 volt)

Same as above but with four speed 12 volt motor for use with 3508 and 3525. $57.50.

Model 3604 AUTOMATIC 4 SPEED CHANGER

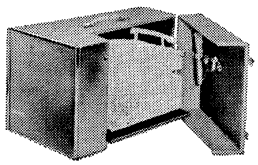
VM changer with base for use with "33" series PA amplifiers. $62.50.



Model S2

PORTABLE PA SYSTEM CASE (Dual speakers)

Handsome split carrying case with two 12" speakers, each with 25' connecting cable. Quality microphone and cable included. Accommodates FANON amplifier models 3320, 3335, 3345 plus the model 3600 turntable. Durable fashion fabric covering. Size: 31" x 15" x 15". $84.95.



Model S1

PORTABLE PA SYSTEM CASE (Single speaker)

Durable, compact carrying case with one 12" speaker and 25' connecting cable. Quality microphone and cable included. Accommodates FANON model 3310 or 3320 amplifiers and 3600 turntable. Durable fabric. 23" x 15" x 15". $49.95.

FANON MEGAVOX MODEL MV-8
Transistorized Megaphone

Fully portable lightweight megaphone with 600 yard range. Indispensable for police, fire, CD, industry communication. Lightweight aluminum, baked enamel finish, waterproof microphone, carrying strap. No connecting cables or power supply required. Pistol grip trigger and volume control.

Power Output: 5 watts-10 watts peak. **Amplifier:** 1-0C72, 2-2N242 transistors in push-pull class B. **Current:** Eight 1½V flashlight batteries "C" size with life of 10 hours continuous average. **Weight:** 4.6 lbs. **Size:** 9" x 14". $99.95.

MEGAVOX MODEL MV-1

Popular and compact, this megaphone has range of approx. 300 yds. Powered by 4 "D" size flashlight cells. Separate "low" and "high" volume switches. Over 6 hours continuous operation. **Weight:** 3¼ lbs. **Size:** 6½" x 12½". $39.95.

All prices shown are list. Add 5% West of the Rockies. For complete details on speakers, microphones, stands, drivers, baffles, etc., write to the factory.

The complete lines of University Horns, Sound Columns, trumpets and drivers; Lowell baffles; Shure and Electro-Voice microphones; Atlas stands are available from *Fanon-Masco*.

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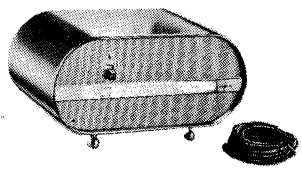
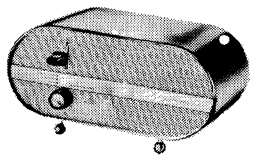
Masco INTERCOM SYSTEMS

FOR USE IN EVERY HOME OR COMMERCIAL APPLICATION

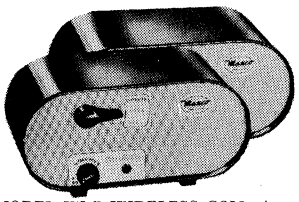


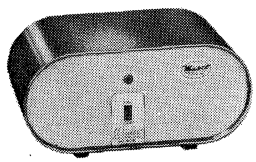


MODEL ST-2 SMALL TALK — Efficient, extra-sensitive 2 station system complete with 50′ of cable. Powerful three tube amplifier. Master has 3-way Dictate-Talk-Listen switch. Remote has Talk-Listen switch and can originate calls to the master. Each unit is 4″ x 4″ x 8″ in size. An extra RSW-1 remote may be added. System shipping wt.: 6 lbs. List price: **$27.95.** Extra remote RSW-1: **$9.95.**

MODEL EZT E-Z TALK—Economy 2-tube two station system similar to above. List Price: **$21.80**

WIRELESS!



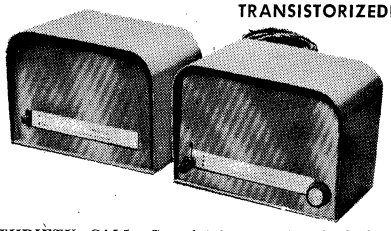


WEN

MODEL WLC WIRELESS-COM—An expandable 2-station wireless system ready to operate. No wiring required—just plug in any AC/DC outlet and talk. Four tubes plus silicon rectifier amplifier. Three way talk-listen-dictate switch on both units. Weight: 9 lbs. List price: **$59.95.** Additional SLC remotes may be added to the system. List price: **$29.90.**

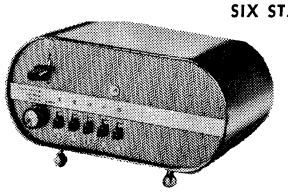
MODEL WEN WIRELESS ELECTRONIC NURSE—A single station wireless radio intercom that requires no installation. Plugs into AC or DC and can be heard through any radio (home, car or transistor). Ideal as baby-sitter or from sick room. Operates up to 300 feet. Weight: 4 lbs. List price: **$19.80.**

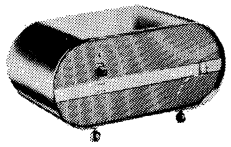
TRANSISTORIZED!



MODEL 1400 THRIFTY CALL—Completely transistorized 2-station intercom system that is battery operated and needs no AC current. Special battery saver switch prolongs penlight cells for months. Four transistors with push-pull output stage. Special "beep" tone signal from remote to alert master. No warm-up required. Batteries are used only when talking. Weight of system complete with 50′ of interconnecting cable: 6 lbs. List price: **$34.95.** Additional model 140 remotes may be added to the system. Weight: 2 lbs. List price: **$8.95.**

SIX STATION MASTER



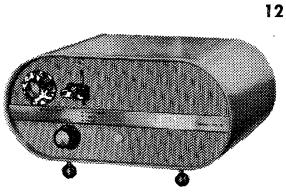


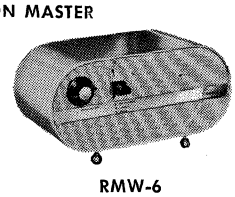
RMW-1

MODEL ST-6 ECONOFONE—A dual purpose master for use with up to five RMW-1 remotes in a master-to-remote system or with up to five other masters in a master-to-master system. Dictate-Talk-Listen switch with five individual station selector switches. Up to three separate conversations can be held in all master system. Unit weight: 4 lbs. List price: **$34.95. RMW-1 REMOTE** for use with above Econofone model ST-6. Weight: 2 lbs. List price: **$13.25.**

MODEL AAC ADD-A-CALL—Similar to above. Can be used with 5 remotes and provides "switchboard" feature to set up conversations between remotes. Master can monitor any remote. Remotes can originate calls to master. Busy light flashes during conversation. Uses RMW-1 remotes. Weight: 4 lbs. List price: **$37.50.**

12 STATION MASTER

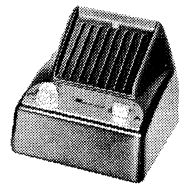


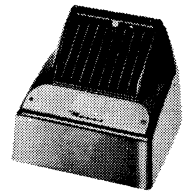


RMW-6

MODEL MAP-12 MIX-A-PHONE—12 station master for intermixed intercom system of up to twelve stations. This deluxe installation can be used with any combination of masters or remotes. The model RMW-6 selective remote can be used with the Mix-a-phone 12 station masters and can select any particular master in the system. Standard RMW-1 remotes can only call their respective master. MIX-A-PHONE master weight: 4 lbs. List price: **$44.95.**

RMW-6—Six station selective remote. Weight: 2 lbs. List price: **$19.95.**

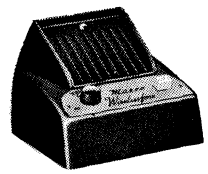




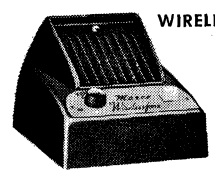
DELUXE JMR—Highly sensitive two-station intercom system in heavy duty die-cast metal cabinets with mahogany enamel finish. Rugged pushbar talk-listen switch on both master and remote. Remote can answer "hands free", or be completely private. Volume control and pilot light on master. 7½″ x 6¾″ x 5½″ high. Weight of 2 station system with 50′ of cable: 10 lbs. List price: **$68.75**

MODEL JR—Additional remote station for above. Weight: 5 lbs. List price: **$18.90.**

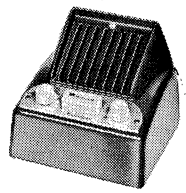
MODEL MTR MIDGETALK—Economy 2-station system similar to JMR in smaller die-cast cabinets. Complete with 50′ of wire. Additional MRL remote unit can be added to the two-station system. Weight of system: 8 lbs. List price: **$58.75.** Additional MRL remote weight: 3 lbs. List price: **$18.90.**

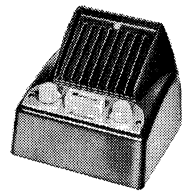


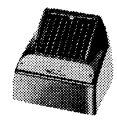
WIRELESS!

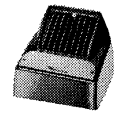


MODEL WF2 WIRELESSFONE—Two-station wireless intercom system ready for use. No installation—no wiring. Just plug in and talk. Extremely sensitive. Push-bar talk-listen switch with lock position for "dictate". System can be expanded by adding additional single stations to the system. Special noise silencing control. Units can be used on grounded or ungrounded electrical systems. Handsome heavy-duty die cast zinc cabinets in mahogany enamel finish. Weight of two units: 12 lbs. List price: **$118.95.** Additional Model SSW station. Weight: 7 lbs. List price: **$59.40.**









JL **JR**

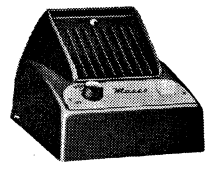
SIX AND ELEVEN STATION MASTERS—IJM-5 and IJM-10. These famous dual-purpose masters are designed for both master-to-remote and master-to-master operation. No modification is required as units have built-in switch for immediate conversion. Heavy duty die-cast cabinets in mahogany enamel finish. IJM-5 can be used with up to 5 other masters or remotes. IJM-10 for use with up to 10 other masters or remotes. IJM-10 all-master system can carry on up to 5 separate conversations at the same time. Any master can be called even if its power is off. All have station selector switch, volume control and pushbar "talk-listen-lock" position. A paging horn can be added. Size each: 7½″ x 6¾″ x 5½″.

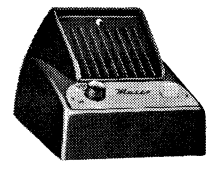
IJM-5 six station master list price: **$55.00.**

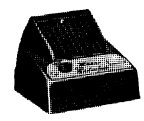
IJM-10 eleven station master list price: **$63.75.**

REMOTES FOR USE WITH ABOVE IJM-5 and IJM-10

JL remote, less talk-listen switch. Weight: 3½ lbs. List price: **$17.75.**
JR remote, with talk-listen switch. Weight: 3½ lbs. List price: **$18.90.**







MULTIFONE INTERMIXED SYSTEM MASTERS **BALANCED LINE**

MODEL MF-5 six station master and MF-10 eleven station master units for use in combination with other remotes or other masters. Heavy duty, "big job" masters of die-cast metal in mahogany finish. Each has station selector switch, volume control and push-bar "talk-listen" switch. In an eleven station all-master system up to five separate conversation lines are available. A master may be called even though it is turned off. Cabinet size: 7½″ x 6¾″ x 5½″. Weight per unit: 7 lbs. MF-5 six station master list price: **$68.75.** MF-10 eleven station master list price: **$78.00.**

DELUXE MASCOFONE INTERMIXED SYSTEM MASTERS
AC POWER TRANSFORMER **BALANCED LINE**

MODEL CAM-5 six station master and CAM-10 eleven station master similar to above but with higher audio power output and AC power transformer.
CAM-5 six station master weight: 7 lbs. List price: **$86.25.**
CAM-10 eleven station master weight: 7 lbs. List price: **$96.25.**

REMOTES FOR MULTIPHONE AND MASCOPHONE MASTERS

MODEL JL remote, less talk-listen switch. Weight: 3½ lbs. List price: **$17.75.**
MODEL JS remote, with talk-listen switch. Weight: 3½ lbs. List price: **$22.93.**
MODEL JS-6 six-station selective remote to call up to six masters in system. Talk-listen switch. Weight: 3½ lbs. List price: **$37.80.**

List Prices subject to change without notice. Add 5% west of Rockies.

Masco MARK SIMPSON MANUFACTURING CO., INC.
Newark New Jersey
Warehouses in Los Angeles, San Francisco, Dallas and Seattle

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Masco INDUSTRIAL INTERCOMS

HIGH POWER, BALANCED LINE MASTERS FOR SIX TO 156 STATION SYSTEMS FOR MASTER-TO-MASTER, MASTER-TO-REMOTE OR FULLY INTERMIXED

CON-FER-PHONE

7 and 13 Station Masters

JMP-6B and JMP-12B

A completely flexible system designed for most comprehensive installations. The Model JMP-6B accommodates up to six master or remote stations and the Model JMP-12B can handle up to twelve additional masters or remotes. The masters can call any of the remotes in the system at the same time and can also page and receive replies from paging horns. Conferences can be arranged between masters and up to 6 separate conversation lines are available in a 13 station master-to-master system. Busy signal light flashes when station called is occupied. Cabinet is heavy-duty die-cast metal with mahogany bronze enamel finish. Size overall: 13" x 8½" x 5⅛" high.

JMP-6B Seven station master. Weight: 10½ lbs. List price: **$100.25.**

JMP-12B Thirteen station master. Weight: 10½ lbs. List price: **$119.50.**

AC POWER TRANSFORMER BALANCED LINE ELECTRONIC DIRECTOR INTERMIX SYSTEMS

MODEL AC-12B 13 Station Master.

MODEL AC-24B 25 Station Master.

The Electronic Master stations can be used in all three types of installation. Up to 25 masters can be used in an all-master system and up to 156 stations when combining masters and remotes. Rugged pushbutton selector switches provide conference facilities and there can be as many separate conversations as there are masters in the system. Has all the flexibility and features of the Con-Fer-Phone plus a higher audio output and AC powered circuit.

MODEL AC-12B Thirteen station. Weight: 12½ lbs. List price: **$181.00.**

MODEL AC-24B Twenty-five station. Weight: 12½ lbs. List price: **$211.25.**

FULL TEN WATTS AUDIO OUTPUT — AC POWER TRANSFORMER — BALANCED LINE MASTERS

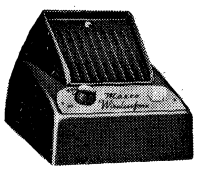
"CUSTOM TEN" THIRTEEN AND TWENTY-FIVE STATION MASTERS AC-1013 & AC-1025

Truly a high powered comprehensive intercommunication network that can contain up to 156 masters and remotes in the system. An optional "all call feature in Master-to-remote systems and incoming and outgoing volume controls. These powerful 10 watt masters have all the features of the Con-Fer-Phone and Electronic Director systems. Handsome die-cast metal cbainets with mahogany bronze enamel finish in convenient desk size. Up to 12 separate conversations on the AC-1025 master.

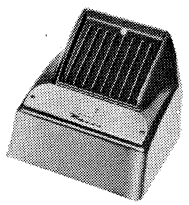
MODEL AC-1013 Thirteen station. Weight: 14 lbs. List price: **$200.00.**

MODEL AC-1025 Twenty-five station. Weight: 15 lbs. List price: **$230.00.**

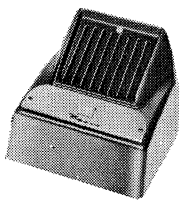
REMOTES FOR ABOVE BALANCED LINE MASTER INTERCOM SYSTEMS



MODEL JL — Rugged die-cast metal cabinet, mahogany bronze enamel finish. 7½" x 6¾" x 5½". Less talk-listen switch. List price: **$17.75.**



MODEL JS—Handsome die-cast metal cabinet. Mahogany bronze finish. Complete with talk-listen switch. Size: 7½" x 6¾" x 5½". List price: **$22.93.**



MODEL JS-6 — Selective remote with a six position master selector switch. Die-cast cabinet, mahogany bronze. 7½" x 6¾" x 5½". List price: **$37.80.**

List Prices and Specifications subject to change without notice. Add 5% west of Rockies.

Masco MARK SIMPSON MANUFACTURING CO., INC.
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FISHER

High Fidelity Components For Every Industrial and Home Installation

THE FISHER 500-B

65-Watt FM-Multiplex Receiver With Exclusive Stereo Beam

The finest FM stereo receiver with advanced Multiplex—exclusive Stereo Beam. **$359.50**

THE FISHER FM-200-B

FM-Multiplex Wide-Band Tuner With Exclusive Stereo Beacon

"The best that this reviewer has yet heard." ELECTRONICS WORLD. **$289.50**

FISHER FM-100-B

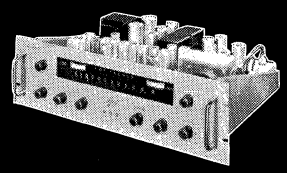
FM-Multiplex Wide-Band Tuner with Stereo Beam. **$229.50**

FISHER X-101-B

56-Watt Stereo Master Control-Amplifier. **$189.50**

FISHER X-202-B

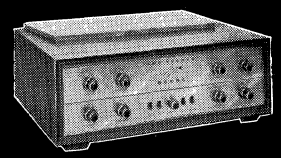
75-Watt Stereo Master Control-Amplifier. **$249.50**



THE FISHER FMR-1

FM-Multiplex Wide-Band Tuner With Exclusive Stereo Beacon

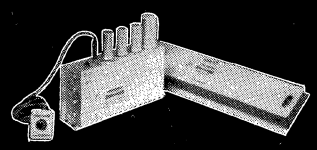
A tuner designed for broadcasting stations and the audio connoisseur. **$369.50**



THE FISHER X-1000

Stereo Master Audio Control With 110-Watt Stereo Amplifier

Most powerful and most flexible control amplifier made. Indisputably the finest. **$369.50**



THE FISHER K-10

Dynamic Spacexpander

Added to any sound source, the K-10 supplies concert hall reverberation realism. **$69.50**

THE FISHER FM-50-B

FM-Multiplex Wide-Band Tuner With Exclusive Stereo Beam

Most sensitive and selective tuner in its class. Not three, but FOUR I.F. stages. **$189.50**

THE FISHER 800-B

65-Watt AM-FM-Multiplex Receiver With Exclusive Stereo Beam

First of its kind. Simply connect a record player and two speakers. **$429.50**

WRITE TODAY FOR COMPLETE TECHNICAL SPECIFICATIONS

FISHER RADIO CORPORATION • LONG ISLAND CITY N. Y.

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COMMERCIAL SOUND DIVISION

harman kardon

THE COMMANDER SERIES

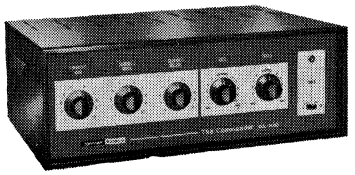
DELUXE FEATURES -- POPULAR PRICES

The Commander Series achieves the ultimate in modern design for popular priced equipment, suiting both conventional applications and those requiring a wide choice of installation and operating facilities. These new models represent a desirable departure from the limitations and restrictions commonly associated with other than "deluxe" amplifiers; in fact, they incorporate features entirely exclusive with Harman-Kardon. Ruggedly constructed for day in and day out continuous duty, The Commander Series is capable of performance and dependability well beyond that expected of such moderately priced equipment.

Some features found in Harman-Kardon amplifiers: Built for Continuous Duty. Anti-Feedback Filter. Master Volume Control. Fader/Mixer Controls. Multiple Inputs—All at Rear. Magnetic Cartridge Input. Individual Bass and Treble Controls. Tape/Booster Output. Low Noise and Low Hum. High Input Sensitivity. DC on Filaments of High Gain Stages. Independent Power Switch. 25 and 70 Volt Outputs. Plug-in Speaker Sockets. Locking Panel Cover and Phono Top for All Models. Prices Include Cage.

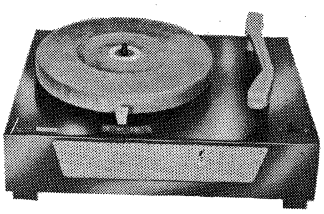
THE COMMANDER DA-12, 12 Watt PA Amplifier

Designed to accommodate a wide variety of applications, this versatile moderate-power amplifier has a high gain channel for direct use with any crystal, ceramic, reluctance or dynamic high impedance microphone. Sufficient gain is available to operate any low impedance microphone, using any of the popular cable type matching transformers. Two "aux." channels are provided for connection to a crystal or ceramic phono, tuner or tape recorder output. These channels employ a single "fader" type gain control, so that two such program sources may be connected and controlled with a single knob, thereby achieving smooth, electronic change-over between the two programs. A master volume control is also included, enabling the total amplifier power output to be varied without disturbing other control settings. A 4-position filter adjusts the system for best music response, reduction of turntable rumble or record scratch, and protection of outdoor trumpet speakers against low frequency overload. An exclusive "anti-feedback" position equalizes frequencies most sensitive to the generation of feedback "howl" without reducing articulation, thus achieving maximum power output under difficult acoustical conditions. A separate output is available to drive a booster amplifier or tape recorder. Separate on-off switch permits the entire system to be turned off without changing any control settings. Plug-in speaker socket and aux. AC power receptacle are also included. **$75.00 List**



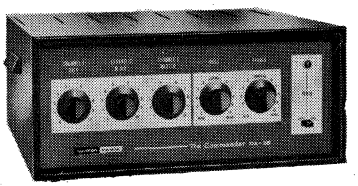
THE COMMANDER DA-100, 100 Watt PA Amplifier

Here is truly the powerhouse of PA amplifiers—the new DA-100. 100 watts of distortion-free power at a price you'd expect to pay for 70 watts! A magnificent continuous duty amplifier, the DA-100 incorporates all of the unique facilities and operational advantages of the DA-35. DC on all low level stages virtually eliminates hum. Use of hermetically-sealed 800 P.I.V. silicon power rectifiers insures low heat and a highly regulated, efficient power supply. The extra reserve power of the DA-100 insures cool-running, trouble-free performance under any load condition. It permits future expansion of a system without need to resort to additional booster amplifiers. The DA-100 represents exceptional value. Compare its specifications with units which compete in price—yet have a much lower output and few of its features. You'll discover the unique value, the handsome design, the flexibility, versatility and dependability of the DA-100 deserve your consideration when you're looking for reliable, trouble-free power. **$187.50 List**



THE COMMANDER PT-1, Phonograph Top

This excellent unit, designed for rugged duty, mounts directly to the top of models DA-12, DA-35, DA-100 (as shown at left). A heavy-duty motor provides all four recording speeds; idler has disengage position when player is not in use, to prevent "flat spots." The turntable is made of heavy gauge metal, flocked to protect record surfaces, and has a built-in center hole adapter for 45 RPM 7" records. Hum induction is prevented by the shielding effect of the ferrous metal turntable and the location of the tonearm. Quality turnover-type cartridge is included, for use with all size and speed records; standard replacement stylii are employed. A separate power switch is used to turn the player on and off. For use with 105-125v, 60 cycle AC. The Commander PT-1—**$37.50 List.**

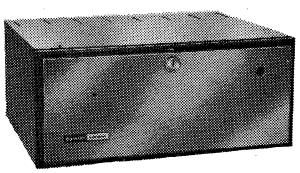


THE COMMANDER DA-35, 35 Watt PA Amplifier

If you're looking for an exceptional PA workhorse, the new Commander 35 watt amplifier is for you. This remarkable unit incorporates design features not found on any other amplifier. The unique input and control arrangements permit an unusual degree of installation and operational flexibility. There are four channels: two low level, high gain and two high level. Multiple inputs result in further versatility. Channel 1 offers a choice of either a microphone or switched input for magnetic phono cartridge. A choice of two inputs is also provided for Channel 2; one for a microphone and the other for use with any high level, high impedance program source regardless of sensitivity requirement. Channel 3 is also for high level auxiliary equipment, such as tuners, tape recorders, telephone lines, crystal or ceramic phono players. A fourth ("mixer") channel is incorporated which, when used, will feed any high level, high impedance program into Channel 2 through a tandem control so that both signals can be completely faded **or blended** in any desired amount—using **only** the Channel 2 control knob for especially convenient one-hand control. Ideal for square dances, demonstrations, lectures, etc. When not otherwise used, Channel 3 is **convertible** to a Master Volume Control for the entire system—thus preserving program balance and gain settings when adjusting total amplifier output. The DA-35 also includes separate bass and treble boost/cut tone controls; two plug-in speaker sockets in addition to the usual output terminal strip; separate On/Off Power Switch; aux. AC power receptacle. Output to a tape recorder is provided, independent of tone and master volume controls. Filtered DC on the filaments of high gain stages keeps hum to a negligible level. This is an amplifier you need never hesitate to use with the finest quality speakers, and it is rock stable, regardless of load conditions. **$119.95 List**

THE MODEL DPR-7, Combination Mixer/Preamplifier

An unusual **combination** unit professionally designed for use with any sound system. No matter how high the quality requirement, the DPR-7 fulfills the need for additional channels and is a practical way to expand a sound or recording installation. It is unlike any other popular-priced mixer in many respects: The self-contained power supply applies DC on all tube filaments. Frequency response and sensitivity are exceptional; hum and noise virtually non-existent. Seven inputs are provided, five low level, high gain and two high level. Channel 1 offers a choice of microphone or magnetic cartridge input; Channels 2 and 3 **each** provide a choice of microphone or input from tuner or tape recorder and crystal or ceramic phono player. All are switchable from the front panel, thereby making it possible to use these inputs at will without having to rearrange input connections. Channel 4 is another microphone channel which, however, is convertible to a master volume control for the entire mixer by a front panel switch. The DPR-7 is thus not only a highly versatile mixer but a superb, completely self-contained preamplifier which can **remotely** control multiple program sources. Adjustable re-set indicators are provided for all controls; no need to log or remember previous settings. Low impedance cathode-follower output permits long line runs to the main amplifier or to simply a basic power amplifier, and delivers sufficient voltage to drive several amplifiers simultaneously. Output to a tape recorder is also available, and an aux. AC power receptacle is included. The DPR-7 is self-supporting or may be front-mounted into a wall, cabinet, etc. **$75.00 List**



MODELS LC-1 AND LC-2, Locking Panel Covers

The Commander's special locking covers prevent tampering or accidental change to the precise control settings of your equipment. The amplifier pilot light is visible at all times through the aperture in the cover. The LC-1 fits models DA-12 and DA-35; the LC-2 fits the DA-100. No tools are needed for installation; the covers take only seconds to insert or remove from cage. Two keys provided. Model LC-1—**$8.50**; Model LC-2—**$9.00 List.**

Write for literature on the MODULINE Series custom-engineered amplifiers and TROUBADOUR Series transistor mobile and portable units.

Complete Technical Specifications are Available on Request

Trade Discount Applies To List Prices Only

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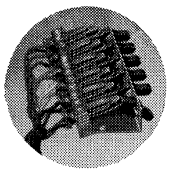
LOGE ELECTRONICS, INC. • KWIK-KALL® INTERCOMS

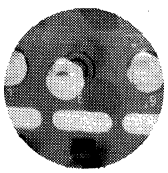
THESE EXCLUSIVE FEATURES ASSURE LOGE QUALITY

PATENTED SELECTOR SWITCH ASSEMBLY
Feather-touch keys provide maximum ease of operation. Patented construction permits instant access for adjustment or minor part replacement.

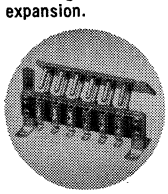


MASTER CHASSIS
Removable in one minute for service (no extension wires required)...all units AC only (no AC-DC circuits are used).

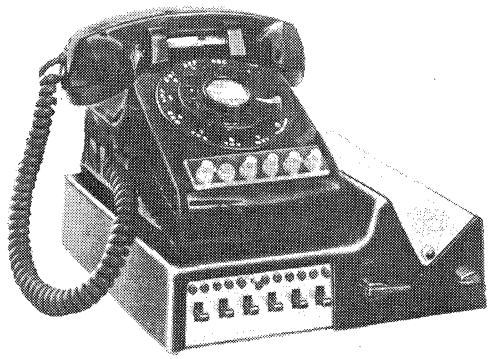
VISUAL ANNUNCIATORS
On all models. Plunger is activated into position by in-coming call... acts as memo message if call is not answered.



JUNCTION-TYPE TERMINAL CONNECTIONS
Permits quick installation and interconnection between masters and remotes. Plug-in male and female terminals allow rapid removal for servicing or future expansion.



KWIK-KALL EXECUTIVE



Model L-512-AB

The Kwik-Kall Executive is designed for the executive . . . to keep his desk neat and efficient and occupies a little more space than the telephone itself. Its compactness permits not only two-way conversation with as many as a total of 12 stations, but serves as a telephone stand as well.

Choice of 5 colors to match your telephone — Black, green, beige, white and gray — L-506 (black) **$147.50** — other colors **$15.00** extra

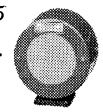
KWIK-KALL JUNIOR INTERCOMS

$79.50
List Price

MODEL L-100-P System including L-100 Junior Master, one JR-3-45 remote speaker, and 50 ft of cable.

PR-50 Paging Speaker
$16.50
List Price

JR-3-45 Remote Speaker
$10.50
List Price



Low cost versatile intercoms for smaller installations

- **2, 4, 6 AND 12-STATION UNITS** ideal for smaller offices and plants, or for interconnection with Loge Kwik-Kall Senior Masters. Compatible with all Loge remote station speakers and paging speakers.
- **STURDY METAL CASE** with hammertone finish assures rugged construction. Patented switch assembly and other Loge, exclusive features. Small, compact, powerful.
- **AVAILABLE IN DESK OR WALL MODELS.** Junior master units can be ordered singly or in the L-100-P complete master-and-remote packaged system.
- **NOT** an AC-DC Circuit

Revolutionary 1-pair wire system for secret 2-way intercom

KWIK-KALL "NOR" INTERCOMS

$229.50
List Price

MODEL L-406A-NOR 6-station master with annunciators, telephone, handset, and chime signal.

- **SECRET INTERCOM** with absolute privacy between any two master stations, yet but a single pair of wires is needed. Conference calls are possible with only desired stations connected. Equipped with telephone handset as well as talk-back.
- **AUDIBLE AND VISIBLE ANNUNCIATORS.** Each call announced by chime or buzzer, and also by plunger signal which acts as memo message until answered.
- **PAGING KEY AVAILABLE** at small additional cost. Power is automatically quadrupled with use of paging key.
- **UNLIMITED INTERCONNECTIONS.** Standard master units available with 6, 12, 18, 24, and 36 stations. Larger units available on special order. In solid walnut cabinet with exclusive Loge construction features. 4-station Junior "NOR" master available in metal cabinet. All units can be interconnected with Loge remote stations and paging speakers. Installations of NOR units can be made up to 10,000 feet with No. 22 wire.
- **ZERO LEVEL** with dual amplification. Can be installed within telephone cable pairs on private or government-owned telephone systems.

LOGE ELECTRONICS, INC. — **Los Angeles, California**

Successor to J. M. Loge Sound Engineers

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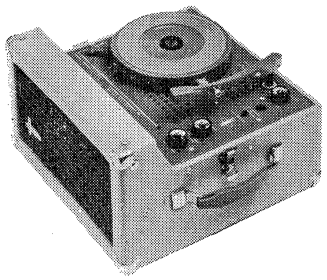
NEWCOMB

PORTABLE PHONOGRAPHS AND RADIOS

NEW MODEL R-124V



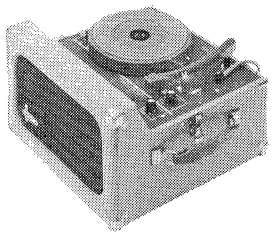
4 SPEED, VARIABLE SPEED, HI-FIDELITY PHONOGRAPH

A rare combination of ruggedness and high fidelity sound, the Newcomb R-124V is built with a host of features that make it the outstanding value among portable phonographs: New four speed, variable speed motor; big two-way, 9" oval, dual cone speaker; new Bi-Coupled ® 10 watt peak output system; pilot light; "Power Point" type plug-in ceramic high fidelity cartridge; rubber record mat and "Twist-up" 45 center spindle; jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory; idler release interlocked with separate motor switch; spring-suspension feet, Hideaway cord compartment; new ultra wide range tone control; compensated volume control; Tempo Control that smoothly varies speed as much as 20%. Crackproof plywood case, glue-block reinforced, covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 8¼" x 14¾" x 14¾"; weight 20 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles A.C. LIST: **$129.50.** Plus excise tax.

MODEL R-124 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-124V. LIST: **$104.35.**

Plus excise tax.

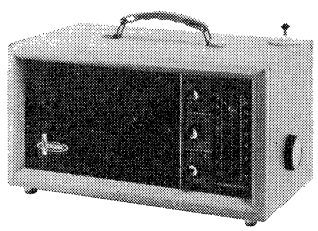
NEW MODEL R12-C4



4 SPEED, FIXED SPEED HI-FIDELITY PHONOGRAPH

The Newcomb Model R12-C4 is a transformer powered, 8 watts peak utility model that offers safety, dependability, and high performance at low cost. New enhanced tone and volume range improves realism. It has an 8 watt inverse feedback controlled output system teamed up with a two-way 9" oval, dual cone speaker. The R12-C4 has a "Power Point" type plug-in ceramic high fidelity cartridge, idler release position, rubber record mat and "Twist-up" 45 center spindle, pilot light, spring suspension feet, crackproof plywood case covered in washable gray fabrikoid. U.L. approved. DIMENSIONS: 8¼" x 14⅛" x 14⅛"; weight 19 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles a.c. LIST: **$93.75.**

Plus excise tax.



NEW MODEL AFM-1500 FM & AM HI-FI A.C. RADIO

Never before has such all-around excellence, high power, superb sound been built into a table model radio. The Newcomb AFM-1500 has a tuning section with the sensitivity, selectivity, and stability heretofore reserved for high fidelity tuner components costing more than this complete radio set. It has a.f.c., a 15 watt peak push-pull amplifier coupled with a 20 watt 9" oval, dual cone speaker capable of making full use of amplifier power. The Newcomb AFM-1500 has a pull-up, telescoping rotating FM antenna, built in "Hi-Q" ferrite rod AM antenna, tuning eye, lighted lucite sliderule type dial with reference scale and Conelrad markings, reference AM and FM pilot lights, wide ranging tone control of new design, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory, jack for external amplifier, public address system, or tape recorder. Neat power cord stowage on back. U.L. approved. DIMENSIONS: 16¾" x 9¾" x 8⅝"; weight 20¼ pounds: POWER CONSUMPTION: 70 watts, 117 volts, 60 cycles a.c. LIST: **$199.50.**

Plus excise tax.

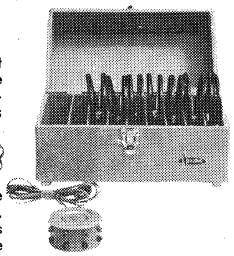
NEW MODEL R-164V

4 SPEED, VARIABLE SPEED HI-FI, MEDIUM POWER, PORTABLE COMBINATION TRANSCRIPTION PLAYER-P.A. SYSTEM

This is a versatile, portable sound system of advanced design that will play any record size up to 17¼ masters. It has the new four speed, variable speed Newcomb motor. The R-164V has a big 12" round, dual cone high fidelity loudspeaker with 25 foot cord and the new Bi-Coupled ® 10 watt peak output system. Speaker enclosure forms case lid. Jeweled pilot light and lighted operating panel, "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat and "Twist-up" 45 center spindle. Microphone input jack. Mixing volume controls. Bass tone control does not affect voice. Separate treble control. Output jack for speaker, headphones or Newcomb Headphone Listening Center Accessory. The R-164V has a long tone arm of cast metal, protective drop pad, Hideaway power cord, 4 speed settings — 78, 45, 33⅓, and 16⅔ r.p.m.; tempo control which smoothly varies speed as much as 20%; pickup stop post; pick up lock screw; separate motor power switch that automatically retracts idler. Crackproof plywood case covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 11" x 15½" x 15½"; weight 25 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles a.c. LIST: **$159.95.**

MODEL R-164 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-164V. LIST: **$139.95.**

NEW HEADPHONE LISTENING CENTER

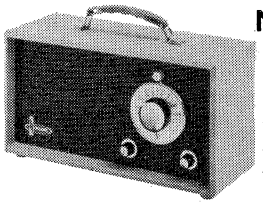


New Headphone Listening Center Kit is designed for library use, language study, group-within-a-group listening. The 8A Adapter simply plugs in the speaker outlet jack on any Newcomb Phonograph, Radio or Transcription Player (except the R12-C4) shown in this catalog. From one to eight pairs of phones can then be connected to the adapter.

MODEL LC8A Complete Listening Center Kit includes Adapter, 8 pairs of headphones, plywood compartmented case covered with gray fabrikoid to match Newcomb equipment. LIST: **$89.60.**

MODEL 8A Listening Center Adapter only, provides outlets for 8 pairs of headphones. LIST: **$22.50.**

MODEL HDP sturdy, sensitive, double headphones with 6' cord, pin jacks, give excellent reproduction. Colored bright red and black to identify them as public property. LIST EACH: **$5.95.**



NEW MODEL AM-500 AM ONLY

HI-FIDELITY A.C. RADIO

A high performance, handsome, safe, rugged, economical continuous duty table model AM radio, the Newcomb AM-500 has a powerful 5 watt peak inverse feedback amplifier and big 8" oval cone loudspeaker with special tweeter cone for improved distribution and high frequency response. It has a built in "Hi-Q" antenna and terminals for external antenna. A lighted index illuminates the dial and serves as a pilot light. Dial of satin finished aluminum has large numerals and Conelrad markings. Large tuning knob drives the dial directly through planetary vernier — no strings. Jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory. Jack for external amplifier, public address system, or tape recorder. When latter is used, the amplifier-speaker system of the AM-500 becomes a fully controllable power monitor. Neat power cord storage. Crackproof plywood case covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 6½" x 8" x 15½"; weight 10 pounds. POWER CONSUMPTION: 40 watts, 117 volts, 60 cycles a.c. LIST: **$73.50.** Plus excise tax.

Specifications and Prices subject to change without notice. All parts used in Newcomb Equipment are made in U.S.A. All Newcomb Equipment Approved by Underwriters Laboratories.

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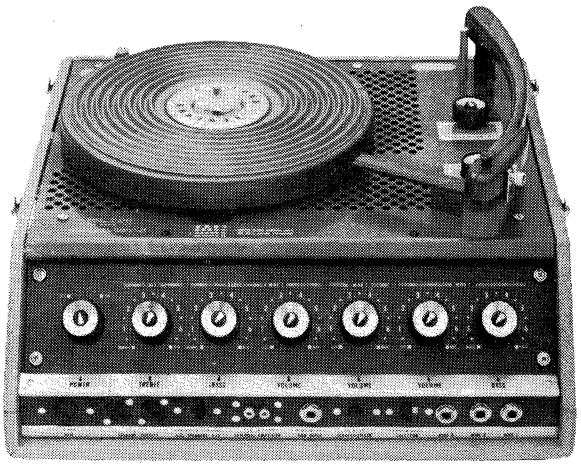
NEWCOMB

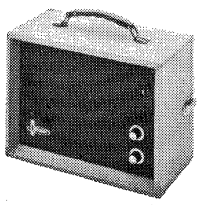
TR SERIES HIGH POWER PORTABLE COMBINATION TRANSCRIPTION PLAYER/P.A. SYSTEMS

NEW DESIGNS! NEW MOTORS! NEW OUTPUT SYSTEMS! NEW REPRODUCERS!



New, American-Made 4 Speed Variable Speed Motor delivers full starting torque at any speed setting; no warm-up required. The motor is remarkably stable under all conditions of use, and requires no more attention than conventional fixed speed motors. No flutter producing friction discs or cone drives used.
Plays All Sizes of records up to 17¼" masters.
New Amplifiers are engineered for optimum performance with the particular types of speakers used with the different models to greatly improve acoustic output.
Sturdy Crackproof Plywood Case is glue-blocked for additional strength, covered with washable scratch-resistant fabrikoid in a very pleasing shade of warm gray.
Metal Corners greatly extend life of case. Non-scratch feet are spring-floated to prevent needle skip from bumps and jars.
Loudspeakers Are Protected by a kickproof, perforated metal grill.
Straps for Hanging speakers from wall provided with all standard split-case speakers. Back of speaker in most models is protected by an armored basket. 25 foot cord is provided with all speakers.
New Hideaway Cord Compartment. Power cord is coiled and tucked into compartment built into side of the case.
Readily Accessible. The top deck lifts for instant access to tubes and motor. **Bottom Plate Removes** for complete access to wiring.
Clear Plastic Card Holder for name of owner, room, instructor, building, or "home base".
New Sta-Kleen ® Rubber Mat has deep grooves that swallow up dust and grime, protects records, is clamped on. Easily cleaned.
Heavy Turntable — 10", 2 pounds — for flywheel stability, minimum wow.
Unbreakable Pop-Up 45 Spindle of nylon.
Dual-Lighted Neon Speed-O-Scope ® permits precise speed setting.
Sturdy, Full-Size Carrying Handle and handhold for assistant.
New Ceramic Cartridge on TR-1625 and TR-1640 series models is dual sapphire styli, high fidelity, plug-in, "power point" type, thoroughly proven for durability, dependability, fidelity.
GE Magnetic Cartridge, twist needle type with individually replaceable microgroove and standard sapphire styli; necessary preamplifier built in.
Drop Pad, rubber covered, protects stylus and cartridge.
Long, One Piece, Cast Metal Pick-up Arm lifts to vertical position for inspection.
Rugged Stop Post prevents putting arm in wrong position.
Stylus Pressure Adjustment for 78's or LP's.
Separate Motor Power Switch automatically retracts idler.
Tempo Control varies speed from + 5% to — 15% of any standard setting.
Positive Lock Screw holds arm securely during transportation.
Two Jeweled Pilot Lights.
Dual Lighted Panel angled for most convenient operation.
Full Through Ventilation, louvers in bottom plate, holes in deck.
"All" Channel Output Jack to external amplifier permits monitoring entire output with M-9 Monitor.
Speaker Impedance Selector matches amplifier impedance to number of speakers being used.
Auxiliary Input Jack for signal from radio, tape machine, or stereo channel.
"Phono" Output Jack delivers only phono signal to external amplifier or Newcomb Model M-9 Amplified Music Monitor.
Transformer Powered, Safe, completely isolated from the power mains. All units have UL approval.
Positive Humidity Protection is given output transformers by cellulose acetate or mylar insulation.

AMPLIFIED MONITOR & ACCESSORY SPEAKERS



New Model M-12 Amplified Music Monitor includes 10 watt amplifier & 12" full-range speaker. Has its own tone and volume controls. Connected to "Phono" output jack of any Newcomb transcription player, you monitor recorded music without feedback squeal or confusion with own voice. Plug into "All" and use as remote speaker. Plywood case covered with gray fabrikoid. 17⅞" x 13⅜" x 7½", 17¼ lbs. **LIST: $119.50**
Model M-9 is a 10 watt monitor with 9" oval speaker 13¼" x 10⅛" x 7". **LIST: $104.50**

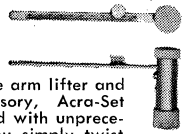
SINGLE SPEAKERS IN CASE
16¾" x 16¼" x 13¼"
Model S-112 Extended range, 12", 30 watt, dual cone speaker. Additional speaker for TR-1625 or TR-1625M. 25' cable. 8 ohms. 14½ pounds. LIST **$65.85.**
Model S-112H Heavy Duty, extended range, 12", 50 watt speaker. Additional speaker for TR-1640. 25' cable. 8 ohms. 14¾ pounds. LIST **$75.00.**
Model S-112HF Two-way, 50 watt, reproducer, 12" woofer, crossover filter, 3½" tweeter. Additional speaker for TR-1640M-HF. 25' cable. 8 ohms. 15 pounds. LIST **$89.25.**

PORTABLE REFLEX REPRODUCERS
18½" x 24" x 12½"
Model R-112 Reflex enclosure with 12" extended range, 30 watt, dual cone speaker. Additional speaker for TR-1625MR. 25' cable. 8 ohms. 23 pounds. LIST **$96.75.**
Model R-112HF Reflex enclosure with two-way, 50 watt speaker system — 12" woofer, crossover filter, 3½" tweeter. Additional reproducer for TR-1640M-HFR or wherever high efficiency, high fidelity, and high power handling capacity are desired. 25' cable. 8 ohms. 23¼ pounds. LIST **$133.00.**

2 SPEAKERS IN SPLIT CASE
16¾" x 16¼" x 13⅛"
Model S-212E Two 12" extended range, 30 watt, 8 ohm, dual cone speakers, each with 25' cord. 21 pounds. LIST **$96.75.**
Model S-212HE Two 12" extended range, 50 watt, 8 ohm speakers (as used in TR-1640 models), each with 25' cord. 21½ pounds. LIST **$116.50.**
Model S-212HFE Two, two-way, 50 watt, 8 ohm speaker systems — 12" woofer, crossover filter, 3½" tweeter (as used in TR-1640MHF models) in each half case — each with 25' cord. 23 pounds. LIST **$133.00.**
Model S-212XE Split case assembly containing two super efficiency, 60 watt, 8 ohm speakers with large, aluminum-domed, 2" voice coils and integral tweeter cones, each with 25' cord, especially for use with the TR-1656M-X2. 25 pounds. All above are wired with sockets as extension speakers. LIST **$166.00.**

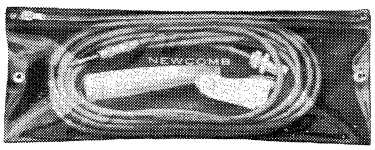
DIMENSIONS OF NEWCOMB TR PLAYERS:
Single speaker TR players form a single case with the speaker case used as the lid. They measure 16¾" x 16¼" x 13¼". Multiple speaker models snap together to form two or three cases — audio unit with lid and speakers in split cases back to back. Audio units, closed, measure 16¾" x 16¼" x 8½". Dimensions of speaker assemblies are given above.

NEWCOMB ACRA-SET Model A-1



A precision-made tone arm lifter and record cueing accessory, Acra-Set lowers stylus to record with unprecedented gentleness. You simply twist the knob. Lifting arm has 100-division scale and traveling stop with pointer. Template and cue sheets supplied. Specify Newcomb model. LIST **$18.75.**

MICROPHONES AND ASSOCIATED EQUIPMENT



Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case. LIST (bag only) **$2.95.**
Model N-30 Crystal Microphone with lavalier cord, stand adapter, switch, and shielded plug. LIST **$19.95.**
Model N-30D Desk Mounting for N-30 only. LIST **$2.65.**
Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M and TR-1656M series models. Supplied with shielded cord and plug and on-off switch. LIST **$75.00.**
Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems. LIST **$59.50.**
Model N-3766 Stand, a professional class, extremely stable, collapsible stand, beautifully finished in brushed chrome, extending from 37" to 66" for use with any standard microphone. LIST **$30.00.**
Model PP-61 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge. LIST: **$6.95.**
Model WC-64 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo. LIST: **$6.95.**

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NEWCOMB

TR SERIES HIGH POWER PORTABLE COMBINATION TRANSCRIPTION PLAYER/P.A. SYSTEMS

CERAMIC MODELS

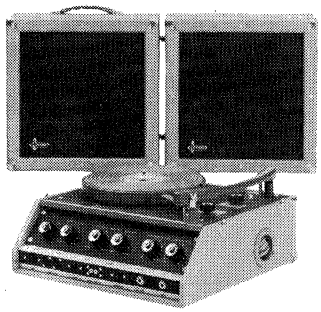
TR-1625 SERIES

25 WATTS PEAK

Successor to the widely used TR16, the Newcomb TR-1625 is capable of doing more jobs better. Four speed, variable speed model with "Power Point" type, dual sapphire styli, high fidelity pick-up. It has a treble tone control, a bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch, dual pilot lights and lighted control panel, lift-up motor board access to tubes and motor. Pick-up lock nut, stop post, drop pad. Hideaway cord compartment. Crackproof plywood case, glue blocked, covered with gray washable fabrikoid. **Output** jacks for stereo, for 2 speakers, and for monitoring "Phono" only or "All" using Newcomb M-9.

MODEL TR-1625 is in a single, split case with one 12" dual cone, 30 watt speaker. Weight 35 lbs. LIST **$209.00.**

MODEL TR-1625-2 is in two cases with two 12" dual cone, 30 watt speakers. Weight 50 lbs. LIST: **$259.00.**



TR-1640 SERIES

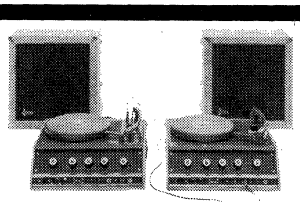
40 WATTS PEAK

A completely new system with plenty of power to drive four loudspeakers, TR-1640 models are excellent choices for gyms, athletic fields, auditoriums. Start with a single speaker, or two speaker model; add additional speakers at any time. Provided with a treble tone control for all channels, separate bass for phono, separate bass for mike, phono volume mixer, mike volume mixer, scratch filter switch. Two pilot lights. Lighted operating panel. Crackproof plywood case, fabrikoid covered. Easy access to tubes and wiring. Spring suspension feet. Hideaway cord compartment.

MODEL TR-1640 is in a single split case with one 12", 50 watt loudspeaker. Weight 36 lbs. LIST **$254.95.**

MODEL TR-1640-2 is in two cases with two 12", 50 watt speakers. Weight 51½ lbs. LIST **$314.50.**

MODEL TR-1640-4 is in three cases with two 12", 50 watt speakers and two 12", 30 watt extension speakers. Weight 72½ lbs. LIST **$394.00.**



USE TWO CERAMIC MODELS FOR STEREO

Ceramic models have stereo jacks. The standard monophonic ceramic cartridge is replaced with a stereo cartridge. A patch cord is run from the stereo jack on the first player to the "Auxiliary" input jack on the second. Thus, while having a perfectly balanced, fully controllable stereo reproducer, you still have two complete, individual players for other assignments.

And if you wish to use stereophonic tape, connect the two outputs of the Newcomb Model SM-310 professional stereo tape machine to the auxiliary inputs of any two Newcomb TR Series players to provide two powerful, matched reproduction channels complete with tone controls.

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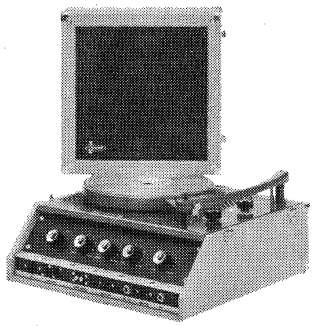
MAGNETIC MODELS



TR-1625M SERIES

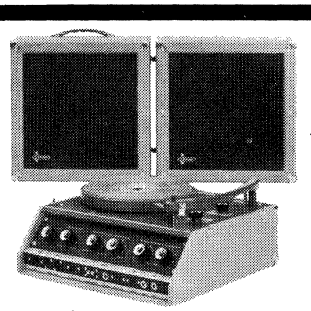
25 WATTS PEAK

When music reproduction is a major consideration, a Newcomb TR player equipped with a magnetic cartridge is the answer. The TR-1625M is furnished with a GE variable reluctance, twist needle cartridge with sapphire styli and necessary preamplifier built in. The 4 speed, variable speed motor is a new 4 pole, deluxe unit for minimum rumble. Pilot lights; lighted panel, crackproof plywood case. 2 speaker output jacks; "Phono" and "All" jacks to external amplifier or Newcomb M-9 Monitor. Input jacks for auxiliary equipment and microphone.

MODEL TR-1625M is in a single, split case with one 12" dual cone, 30 watt speaker. Weight 36 lbs. LIST **$231.95.**

MODEL TR-1625MR is in two cases with a single 12" dual cone, 30 watt speaker in a portable bass reflex enclosure. Weight 53 lbs. LIST **$281.50.**

MODEL TR-1625M-2 is in two cases with two 12" dual cone, 30 watt speakers. Weight 51 lbs. LIST **$281.50.**



TR-1640M SERIES

40 WATTS PEAK

A more powerful music model with ultra-linear amplifier output system, the TR-1640M systems have the GE cartridge with built in preamp. The phono circuit is convertible to a second mike channel by merely flipping the selector switch. New 4 speed motor is the deluxe, 4 pole unit. As on all TR models a dual lighted neon strobe permits precise speed setting for accurate pitch reproduction. Same output jacks as TR-1625M.

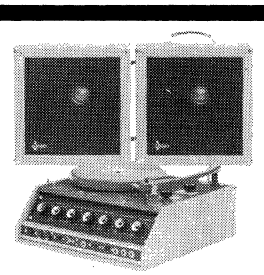
MODEL TR-1640M-HF is a single case model with a two-way speaker system including a 12", 50 watt woofer, crossover, and separate 3½" tweeter. Weight 36½ lbs. LIST **$307.50.**

MODEL TR-1640M-HF2 is a two case system with two, two-way, 50 watt speaker systems. Weight 54 lbs. LIST **$366.00.**

MODEL TR-1640M-HF4 is a three case system with two, two-way 50 watt speaker system and two 12" dual cone, 30 watt extension speakers. Weight 75½ lbs. LIST **$464.50.**

MODEL TR-1640M-HFR is in two cases with one two-way 50 watt speaker system in a bass reflex enclosure. Weight 54 lbs. LIST $366.00.

MODEL TR-1640M-HFR2 is in three cases with two, two-way 40 watt speaker systems in reflex enclosures. Weight 77 lbs. LIST **$499.00.**



TR-1656M SERIES

56 WATTS PEAK

Phenomenal output is achieved in these fully integrated systems. Phono channel converts to third microphone channel. First mike channel has separate bass attenuating control for voice clarity. Second mike channel is flat. The phono tone controls affect the third mike channel.

MODEL TR-1656M-HF2 is in two cases with two, two-way 50 watt speaker systems including a 12", 50 watt woofer, crossover, separate 3½" tweeter. Weight 57 lbs. LIST **$432.00.**

MODEL TR-1656M-HF4 is in three cases with four, two-way 50 watt speaker systems. Weight 80 lbs. LIST **$565.00.**

MODEL TR-1656M-X2 is in two cases with two 12", 60 watt, super-efficient, dual cone speaker. Weight 59 lbs. LIST **$467.00.**

MODEL TR-1656M-X4 is in three cases with four 12", 60 watt speakers. Weight 84 lbs. LIST **$632.00.**

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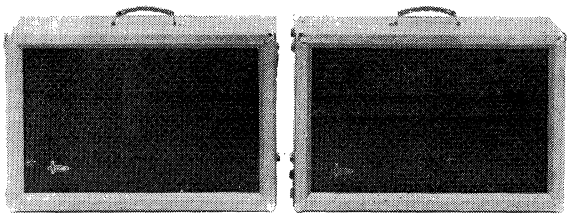
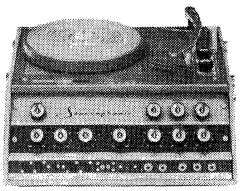
STEREOPHONIC Transcription Players and Phonographs



80 WATTS PEAK



Shown with Acra-Set, tone arm lifter accessory available at additional cost.

TRS-1680 SERIES STEREO / MONO

PORTABLE COMBINATION TRANSCRIPTION PLAYERS / P.A. SYSTEMS

Built with a great reserve of power for most uses—40 watts peak per channel—the Newcomb TRS-1680 is probably the most complete and flexible portable sound unit ever built. It is stereo or mono at the flick of a switch. In addition, you are offered a wide choice of reproducers to fit specific assignments with extraordinary efficiency. The big 10", 2 lb. turntable is covered with a deep-grooved rubber mat and is driven by a 4-speed, variable-speed, cool-running American-made motor of advanced design. Hi-fidelity ceramic cartridge with turnover, jeweled styli. Dual neon Sped-O-Scope is located out where it can be seen. Unit has 3 mike channels, inputs for L & R radio, tape, & aux. Lighted panel has separate mixers for each mike and phono. Separate tone controls for each channel, also "Blend" control. Outputs for 2 or 4 speakers with impedance-matching switch. Safe, transformer-powered, UL approved. Turntable-amplifier unit DIMENSIONS: 9¼" x 17⅞" x 18⅝"; 43 pounds. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c.

MODEL TRS-1680-L2 is a three-case model with two extended frequency L-300 two-way, three-driver, full crossover network reproducers. Weight 101 lbs. ..... LIST **$807.75**

MODEL TRS-1680-L4 is a five-case model with four L-300 reproducers. Weight 159 lbs. ..... LIST **$1,166.25**

MODEL TRS-1680-NF2 is a two-case model with audio unit in one case and two speakers in split case. Each NF high efficiency reproducer has 12" woofer, 3½" tweeter, cross-over network. Weight 70 lbs. ..... LIST **$643.50**

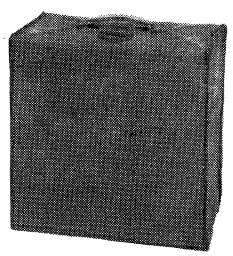
MODEL TRS-1680-NF4 is a three-case model with four NF reproducers. Weight 97 lbs. ..... LIST **$837.75**

MODEL TRS-1680-KN2 is a three-case model with two KN-200 reproducers each of which contains 1 12" woofer with horn, tweeter and control, fully enclosed with ducted port. Weight 113 lbs. ..... LIST **$847.50**

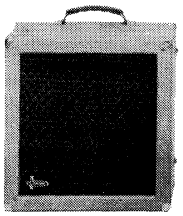
MODEL TRS-1680-KN4 is a five-case model with four KN-200 reproducers. Weight 183 lbs. ..... LIST **$1,245.75**

CANVAS COVERS

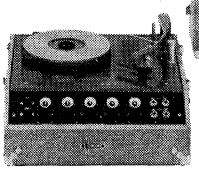
to protect most popular Newcomb TR players and reproducers from dust, mud, and moisture are now available. They are made of tightly-woven, rubberized mackintosh, fleece-lined, closed with stout zippers. Protective flap tucks under handle. Plastic slot for identification.

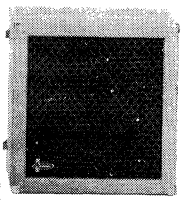


Catalog No.	for Use with:	List
CA-102	Newcomb TR-1625, TR-1640, TR-1640M, TR-1656M amplifier sections only	$8.95
CA-103	Newcomb S-212 type split case speaker assemblies and all TR Series systems with single speaker in case lid	$8.95
CA-104	Newcomb TRS-1680 amplifier section only	$8.95
CA-110	Newcomb K-200 or K-400 reproducers	$9.95
CA-111	Newcomb C-100 or J-200 reproducers	$8.95



20 WATTS PEAK





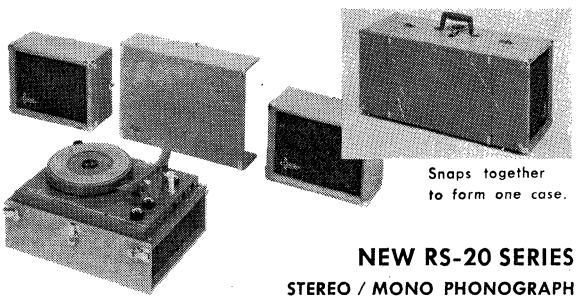
Shown with Acra-Set, tone arm lifter accessory available at additional cost.

NEW RS-1620V SERIES STEREO / MONO

PORTABLE COMBINATION TRANSCRIPTION PLAYERS / P.A. SYSTEMS

These are simple to operate, durable economical systems that will grow in usefulness as stereo becomes more widespread. The RS-1620V player provides true stereo or monophonic high fidelity at the flip of a switch. The Bi-Coupled output system delivers 10 watts peak per channel. Choice of 3 speaker systems which have been carefully matched to the amplifier. A turnover ceramic stereo cartridge with jeweled styli is plugged into the one-piece cast-metal tone arm which is mounted on an acoustical filter. Turntable has rubber mat and twist-up 45 spindle. Any size record up to 17¼" masters can be played at any speed. Tempo control varies speed from +5% to −15% without the use of any rumble or flutter-producing device. Neon strobe is built in. There are two mike inputs and input jacks, left & right, for radio or tape machine. On the illuminated, slanted operating panel are separate mixers for each mike and phono. Separate voice filters. Separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Safe, transformer-powered, UL approved. Player unit DIMENSIONS: 8" x 15½" x 16½", 26½ lbs. For use with 117 volts, 60 cycles a.c. Fixed speed models, identical to variable speed but without strobe or tempo control, are available.

	Variable Speed Model Number	List Price	Fixed Speed Model Number	List Price
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16¾" x 16¼" x 13⅛", 21 lbs.	RS-1620V-2	$322.50	RS-1620-2	$307.50
With S-212HF split case containing two 2-way systems—12" woofers, 3½" tweeters. Closed: 16¾" x 16¼" x 13⅛", 23 lbs.	RS-1620V-HF2	$385.75	RS-1620-HF2	$343.75
With 2 C-100 2-way reproducers each in separate enclosure. Each measures 10¼" x 14¾" x 20", 19½ lbs.	RS-1624V-C2	$464.75	RS-1620-C2	$449.75



Snaps together to form one case.

NEW RS-20 SERIES

STEREO / MONO PHONOGRAPH

The highly portable and compact Newcomb RS-20 has two full-range 9" oval, dual-cone speakers that can be extended to create a realistic illusion of dimensional sound. Machine is stereo or mono at the flip of a switch. It plays any record size, up to 12", at any standard speed. Rubber-matted turntable has twist-up 45 spindle. Separate turntable on-off switch retracts idler. Dual-acting bass-treble tone control, volume control, jeweled pilot light, Hideaway cord compartment. DIMENSIONS: 8½" x 11⅛" x 24¾", 28 lbs. For use on 117 volts, 60 cycles a.c. LIST: **$224.25.**

PLAYER UNIT OFFERED WITH OTHER SPEAKERS:

MODEL RS-20-2 in 2 cases with 2 S-212 speakers, LIST: **$276.00**

MODEL RS-20-C2 in 3 cases with 2 C-100 speakers, LIST: **$417.75**

MODEL RS-20-KN2 in 3 cases with 2 KN-200 speakers, LIST: **$577.50**

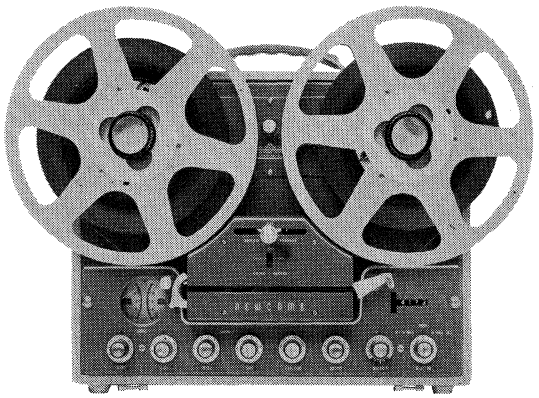
All specifications and prices are subject to change without notice.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB

STEREO TAPE RECORDERS AND PORTABLE
STEREO AMPLIFIER—REPRODUCER SYSTEMS

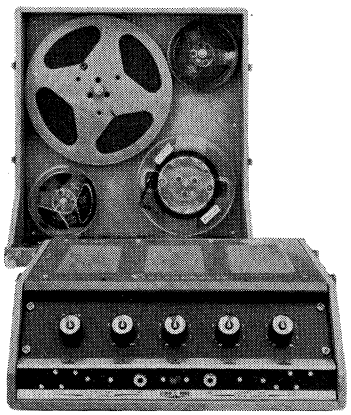
Cybernetically Engineered STEREO TAPE RECORDERS



MODEL SM-310-4 QUARTER-TRACK

MODEL SM-310 HALF-TRACK

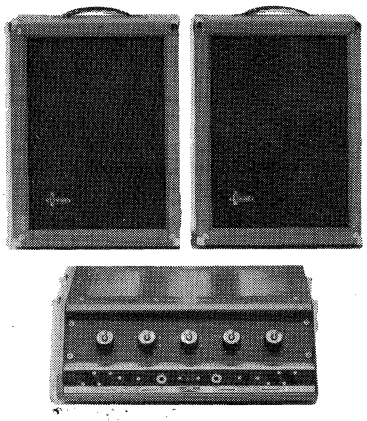
With tape transport control centered in a joy stick, operation of the Newcomb Stereo Tape Recorder is intuitive . . . the natural thing to do is the right thing to do. Handling is fluid-smooth, effortless, positive . . . tape is treated with extraordinary gentleness, stretching obviated. The SM-310-4 records quarter track and will play back either quarter track or half track. The SM-310 records and plays back half track. Both record live, broadcast, or recorded stereo program material. Monophonically, you may record on either one or two channels in the same direction. The Newcomb Stereo Tape Recorder is virtually a studio in a suitcase. It operates vertically or horizontally, takes from 3" to 10½" reels, has two tape speeds—7½ or 3¾ inches per second with automatic compensation for 3¾" speed, separate mixing controls—mike and line—for each channel, two lighted recording level meters arranged pointer-to-pointer for easy comparison of channel levels, straight line tape loading, dual acting tape tensioning device keeps tape always under control even with the larger reels, automatic shut-off switch, four digit counter pinpoints desired position, without repeating, on any size reel, all pre-amplification needed for recording and playback, balance control, microphone input sockets take Cannon XLR-3-12C male connectors. 12¾" x 16¾" x 9½"; 34 pounds. POWER REQUIREMENTS: 90 watts, 117 volts, 60 cycles a.c. PROFESSIONAL USERS NET (BOTH MODELS): $499.50.



MODEL SA-80

2 CHANNEL POWER AMPLIFIER WITH TONE, VOLUME, AND BALANCE CONTROLS

The Newcomb SA-80 is a two channel, stereo/monaural, portable, power amplifier designed especially for use with either the Newcomb SM-310-4 or Newcomb SM-310 Tape Recorder. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monaural selector switch, output impedance selectors, and two-speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½". A plastic zippered bag for miscellaneous cords is included. Frequency response—20-20,000 cycles ± 1 db. Distortion per channel at 20 watts r.m.s.—less than 1%. Hum below —65 db. Output impedances per channel—16, 8, 4 ohms. 8½" x 16¾" x 16⅜"; 32 pounds. PROFESSIONAL USERS NET: $199.50.



PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

MODEL SA-80-J2 consists of one SA-80 and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-range coverage in music rooms and small audltoriums. Each measures 14¾" x 20" x 10¼". Three-case system weighs 71 pounds. PROFESSIONAL NET: $368.40.

MODEL SA-80-L2 consists of one SA-80 and two Model L-300 Reproducers. Latter are two-way, three-driver loudspeaker systems in open-back cases designed to cover large audiences with outstanding quality and yet retain reasonable portability. Each measures 17⅛" x 26⅛" x 9¼". Three-case system weighs 90 pounds. PROFESSIONAL NET: $448.40.

MODEL SA-80-C2 consists of one SA-80 and two Model C-100 Reproducers. Latter are designed with high efficiency combined with compactness and light weight as leading objectives. Each measures 14¾" x 20" x 10¼". Three-case system weighs 71 pounds. PROFESSIONAL NET: $368.40.

MODEL SA-80-K2 consists of one SA-80 and two Model K-400 Reproducers. Latter are three-way loudspeaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form, and yet who do not need the tremendous conversion efficiency of the L-300. Each measures 16⅞" x 23½" x 10¼". Three-case system weighs 102 pounds. PROFESSIONAL NET: $468.40.

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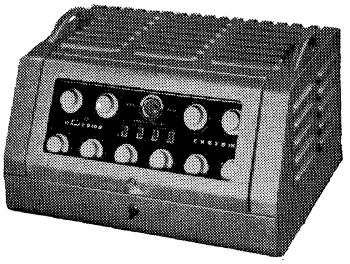
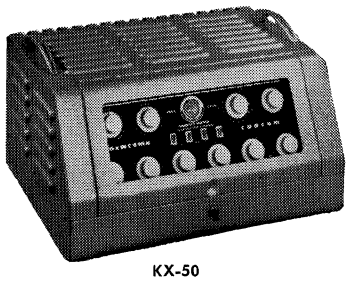
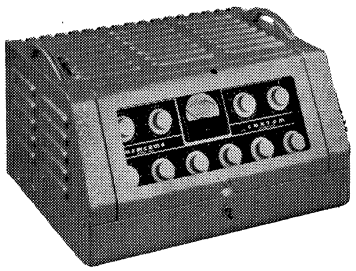
AMPLIFIERS • CUSTOM SERIES



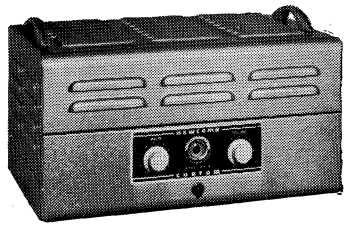
KX-25



KX-50



KX-6A



K-50B

Without equal at any price. The best examples why the name Newcomb is so revered by Engineers and Owners alike. Will improve any system. A must when using the new 2-way wide range speakers. Check these important features and specifications.

- 20-20,000 cycles ± 1 db
- Less than 3% distortion
- 90% of rating at less than 1%
- Full power any output tap
- Audio bandwidth selectors
- Hum and noise level — 80 db.
- Remote control provision — all inputs
- U/L Approved
- Continuous duty — longer life parts
- Key locked control cover
- Sensitive volume and overload indicators
- Wired for plug-in input transformers

Full audio power, 50 to 5000 cycles (region of all major power requirements) within ± ¼ db. less than 5% distortion. Separate tone controls for Bass and Treble Boost or Attenuation of advanced design for better curve shape, greater range. Feedback controlled, 2 stage mike pre-amplifiers. Hum balancing control, all models but booster. Linear mixer frequency response. All but Pre-Amplifier have output impedance of 4, 8, 16, 250, 500 ohms, PLUS a 70 volt "constant voltage" tap, with convenient, simple, impedance selector. Multistage inverse feedback. Large, heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installation. A. C. convenience outlet in rear, all models except booster. CABINETS: Heavy gauge welded steel beautifully styled. FINISH: Silver Grey Hammertone Baked Enamel. PANELS: Etched metal, illuminated. KNOBS: Round, large, skirted type, for easy operation. Additional specifications given under specific model numbers.

KX-25: 25 watts power output design center, rating, 30 watts max. at less than 3% distortion any output tap. PEAK POWER: 40 watts design center, 48 watts max. INPUTS (6): 5 mike (2 meg.), gain 123 db; 1 phono either Magnetic input gain 99 db based on 27000 ohm input, bass equalization +10 db or Crystal input ½ meg. gain 90 db. REMOTE CONTROL: Use RC-6 remote control unit. BASS TONE CONTROL: Range — 16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —75 db crystal phono. —65 db mike and magnetic pickup inputs (Referred to rated output). CONTROLS (15): 5 mike, 1 phono, 1 bass, 1 treble, 4 bandwidth, 1 master, 1 volume indicator (all under keylocked control cover) A.C. power switch. TUBES (15): 6-6SC7, 2-6J5, 1-6J7, 1-6SQ7, 1-6SN7, 2-6L6G, 1-6AF6G, 1-5U4G. POWER CONSUMPTION: 135 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾" WEIGHT: 38½ lbs. LIST: (with tubes) **$456.92.** Use Cannon XL3-11 type microphone connectors.

KX-50: 50 watts power output design center rating, 60 watts max. at less than 3% distortion any output tap. PEAK POWER: 80 watts design center, 90 watts, max. BOOSTER COUPLING JACK for connecting K50B Boosters for 100 watts or more. All other characteristics identical with KX-25 except gains, which are all 3 db higher than KX-25. TUBES (18): 6-6SC7, 2-6J5, 1-6SQ7, 1-6J7, 1-6SN7, 4-6L6G, 1-6AF6G, 2-5U4G. POWER CONSUMPTION: 235 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾", WEIGHT: 46 lbs. **LIST:** (with tubes) **$532.03.** Use Cannon XL3-11 type microphone connectors.

KX-6A: A 6 channel mixer pre-amplifier designed to feed broadcast lines or boosters for finest quality. OUTPUT: +31 VU, less than 3% distortion, +30 VU at less than 1%. Has built in power supply and genuine VU meter with meter range extension switch. INPUTS: for 5 mikes (2 meg.) gain 97 db and 1 phono either crystal (½ meg.) gain 64 db or magnetic (27,000 ohms) gain 73 db. Use RC-6 Unit for remote control. Includes Master Volume Control and same fine Dual Tone Controls and Audio Bandwidth Selectors as in KX-25 and KX-50. BASS TONE CONTROL: Range —16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —80 db crystal —75 db mike and magnetic. CONTROLS (12): 5 mike, 1 phono, 1 bass, 1 treble, 1 master, 1 four position bandwidth (all under key locked cover), 1 A.C. power switch, 1 VU meter range switch (in rear). TUBES (12): 6-6SC7, 4-6J5, 1-6J7, 1-6X5. POWER CONSUMPTION 35 WATTS, 117 volts 60 cycles A.C. MAX. Input 129 volts. DIMENSIONS: 9⅜" x 17¾" x 14¾". WEIGHT: 30 lbs. LIST: (with tubes) **$400.29.** Use Cannon XL3-11 type microphone connectors.

K50B: Booster Amplifier. Performance, power and output impedance same as KX-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Built for continuous duty with long life parts, separate plate, and filament power transformers, individually fused, permits dependable plate power switching. Includes volume and overload indicators as in KX-50. Ample multistage feedback to minimize effects of speaker load variations. Etched metal panel. TUBES (10): 1-6SJ7, 1-6SN7, 1-6SQ7, 5-6L6G, 1-6AF6G, 2-5U4G, POWER CONSUMPTION: 230 watts 117 volts 60 cycles. 129 volts max. DIMENSIONS: 9⅜" x 17¾" x 12¼". WEIGHT: 41 lbs. LIST: (with tubes) **$225.00.** PLUG KIT: **$2.50.**

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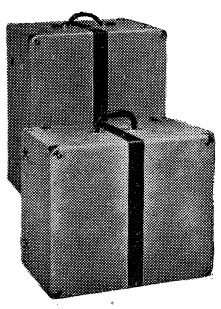
PORTABLE SYSTEMS • CUSTOM SERIES



KX-2512X: Portable system with KX-25 amplifier and two heavy duty, extremely efficient speakers, each with 50′ cable. System is carried in two cases: Model KA for the amplifier, size 19" x 11¾" x 16⅞"; Model K-212X for two speakers, size 18½" x 12½" x 22½". Speakers face inside for maximum protection when split case is closed. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$645.57.**

KA: Amplifier case fits all model K amplifiers. LIST: **$35.00.**

KX-25R12X: Portable system identical to KX-2512X but with each speaker mounted in an individual portable reflex baffle. Model KR-112X, for utmost tone quality. Speaker cases size, 18½" x 12½" x 24½". Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$716.82.**

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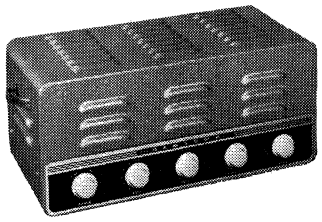
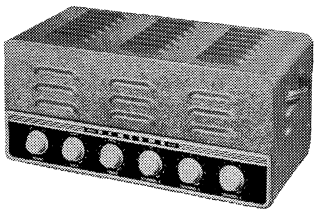
AMPLIFIERS • DELUXE SERIES
PORTABLE SYSTEMS

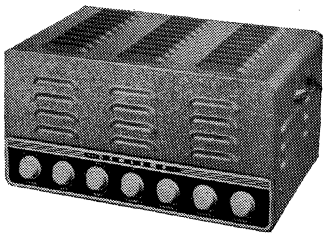
H



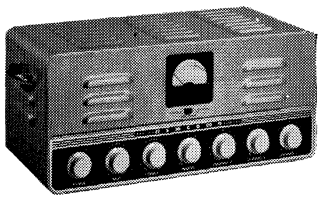
H-15



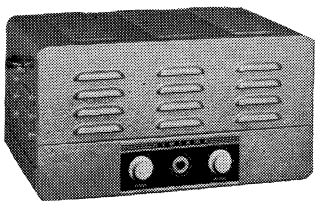
H-25



H-50



H-4VU



H-25B

For Performance, Dependability and Value check these features and specifications:

- 20-20,000 cycles ± 2 db
- Full Power any output top
- Less than 5% distortion
- 90% of rated power at less than 2%
- Remote Control provision — all mikes
- U/L Approved
- Continuous duty—longer life parts
- Wired for plug-in input transformers

Full Audio Power, 50 to 5000 cycles (region of all major power requirements) within ± ½ db. less than 5% distortion. Individual boost and attenuate type bass and treble tone control in new distortion free circuit. Linear mixer frequency response. All models but pre-amplifier have output impedances of 4, 8, 16, 250, and 500 ohms PLUS a 70 volt "constant voltage" tap, with easily-operated impedance selector. Multi-stage inverse feedback. Large heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installations. A. C. convenience outlet in rear, all models except boosters. CABINETS: Heavy gauge welded steel beautifully styled in modern functional simplicity that endures. FINISH: Silver Grey Hammertone Baked Enamel. PANEL: Etched metal, illuminated. KNOBS: Large, round, skirted type, for ease of operation. Additional specifications under specific model numbers.

H-15: 17 watts power output design center rating, 20 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 26 watts design center, 31 watts max. INPUTS (3): 2 mike (2 meg.), gain 120 db; 1 phonograph (½ meg.), gain 80 db. BASE TONE CONTROL: Range —16 to +14 db. TREBLE TONE CONTROL: —34 to +13 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (5): 1 mike-phono, 1 mike, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-2 remote control unit. TUBES (7): 2-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5Z4. POWER CONSUMPTION: 85 watts, 117 volts 60 cycles. A.C. Max. input 129 volts. DIMENSIONS: 8¼" x 19" x 10⅛". WEIGHT: 20 lbs. LIST: (with tubes) **$183.59.** Use Cannon XL3-11 type microphone connectors.

H-25: 25 watts power output design rating, 30 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 40 watts design center, 48 watts maximum. INPUTS (4): 3 mike (2 meg.), gain 124 db; 1 phonograph (½ meg.), gain 80 db. BASS TONE CONTROL: —18 to +15 db. TREBLE TONE CONTROL: Range —27 to +10 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (6): 2 mike, 1-mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-3 remote control unit. TUBES (8): 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5U6G. POWER CONSUMPTION: 125 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8½" x 19" x 10¼". WEIGHT: 24 lbs. **LIST:** (with tubes) **$215.03.** Use Cannon XL3-11 type microphone.

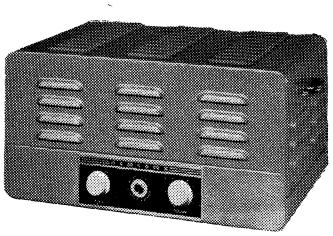
H-50: 50 watts power output design center rating, 60 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 80 watts design center, 90 watts max. INPUTS (5): 4 mike (2 meg.), gain 124 db. 1 phono (½ meg.), gain 81 db. BOOSTER COUPLING JACK for connecting H-25B or H-50B Boosters for 75 to 100 watts or more. BASS TONE CONTROL: Range —21 to +16 db. TREBLE-TONE CONTROL: Range —27 to +10 db. HUM: —72 db phono input, —62 db mike inputs (referred to rated output). CONTROLS (7): 3 mike, 1 mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-4 remote control. TUBES (12): 4-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 225 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 9¼" x 19" x 12½". WEIGHT: 37 lbs. **LIST:** (with tubes) **$285.60.** Use Cannon XL3-11 type

H-4VU: Mixer Pre-Amp. with built-in power supply. Extremely low hum. Suitable for feeding telephone lines or booster amplifiers such as the H-25B or H-50B. Output +22 db at less than 5% distortion. +21 db at less than 2%. INPUTS for three mikes (2 meg.), gain 90 db, 1 phono (½ meg.), gain 51 db. HUM: Better than, —80 db from phono input or —75 db, mike inputs. Use RC-3 Unit for remote control. Includes master control and genuine VU meter with meter range extension switch. BASS TONE CONTROL: Range —16 to +14 db. TREBLE TONE CONTROL: Range —27 to +13 db. TUBES (7): 3-6SF5, 1-6SJ7, 1-6SN7, 1-6J5, 1-6X5, POWER CONSUMPTION: 30 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 8½" x 19" x 10⅛". WEIGHT: 17½ lbs. **LIST:** (with tubes) **$228.44.** Without UV meter **$182.94.** Use Cannon XL3-11 type microphone connectors.

H-25B: Booster Amplifier — Performance Power and Output Impedances same as H-25 with but one input of ½ meg. impedance, gain 68 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. power switch and volume control. Ideal for use with H-4 Pre-amplifier. Built for long life. TUBES (5): 1-6SJ7, 1-6J5, 2-6L6G, 1-5U4G POWER CONSUMPTION: 120 watts, 117 volts. 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8⅛" x 19" x 10⅛". WEIGHT: 22 lbs. LIST: (with tubes) **$149.50.** PLUG KIT: **$1.69.**

H-50B: Booster Amplifier — Performance, Power and Output Impedances are same as H-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. switch and volume control. Built for long life. Ideal for use with H-4 Pre-Amp. TUBES (8): 1-6SJ7, 1-6J5, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 220 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9¼" x 19" x 12½". WEIGHT: 33½ lbs. LIST: (with tubes) **$189.50.** PLUG KIT: **$1.69.**

NEWCOMB DELUXE PORTABLE SYSTEMS



H-50B

H-1512R: Portable system with H-15 amp. and two 12" speakers, each with 25' cable, in split case Model EH-212R, size 11⅛" x 20½" x 21", covered in washable fabricoid. Kickproof metal grills protect speakers. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$283.09.**

H-2512R: Portable system with H-25 amp. and two 12" speakers, each with 25' cable in split case, Model EH-212R. Size, 20½" x 11⅛" x 21". Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$314.53.**

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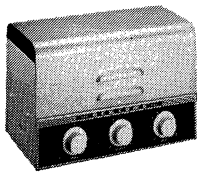
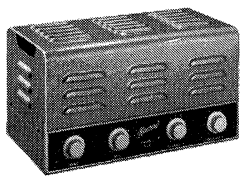
NEWCOMB

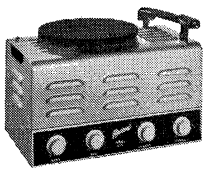
AMPLIFIERS • SPECIAL SERIES

The same fine workmanship and materials as the incomparable KX- and H-Series. Designed to lead the low-price field. For performance, dependability and economy the E-Series is today's best combination of high quality and low cost. All models U/L Approved.



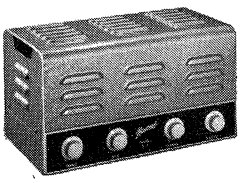
E-10A: Delivers 10 watts from push-pull 6V6 tubes. Separate mike and phono controls. Multistage inverse feedback circuit. POWER OUTPUT: 10 watts at less than 5%. FREQUENCY RESPONSE: 40 to 15,000 cycles ± 2 db. INPUTS: (2) 1 mike (2 meg.) gain 116 db. Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. TONE CONTROL: Range 0 to —24 db. OUTPUT IMPEDANCES: 4, 8, 16 and 500 (70 Volt Tap) ohms to octal socket. TUBES: (5) 1-6SC7, 1-6SJ7, 2-6V6GT, 1-6X5GT. FINISH: Silvergrey hammertone baked enamel. PANEL: Genuine etched enamel. POWER CONSUMPTION: 60 watts at 117 volts, 60 cycles A.C. SIZE: 5¾" x 10⅜" x 6¾". WEIGHT: 9½ lbs. Less cover, 7½ lbs. LIST: (with tubes, without cover) **$69.50.** Cover **$7.21.** PLUG KIT: **$1.71.**

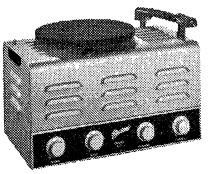




E-17P3: A conservative 17 watt model with 3 speed phono. Separate bass and treble controls, phono bass boost, multi-stage inverse feed-back circuit. Input controls for mike and phono. POWER OUTPUT: 17 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 40 to 15,000 cycles. INPUTS: 1 mike (2 meg.) gain 115 db, Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. OUTPUT IMPEDANCES: 4, 8, 16, 290 (70 Volt Tap) and 500 ohms. TUBES: (5) 1-12AX7, 1-6SJ7, 2-6L6G, 1-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, lighted. POWER CONSUMPTION: 75 watts at 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 15½ lbs. LIST: (with tubes) **$149.87.** PLUG KIT: **$2.28.**

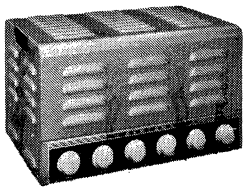
E-17: A 17 watt amplifier without 3 speed phono. Otherwise identical to model E-17P3. LIST: (with tubes and cover) **$107.50.** PLUG KIT: **$2.28.**

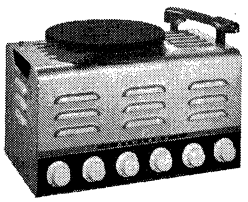




E-25: A dependable, full 25 watts with inputs for 2 mikes and 1 phono, separate bass and treble controls, phono bass boost, multi-stage inverse feedback circuit. POWER OUTPUT: 25 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 40 to 15,000 cycles. INPUTS: (3) 2 mike (2 meg.) gain 117 db, Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. OUTPUT IMPEDANCES: 4, 8, 16, 196 (70 Volt Tap) and 500 ohms. TUBES: (6) 1-12AX7, 1-6SC7, 1-6J5, 2-6L6G, 1-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, lighted. POWER CONSUMPTION: 90 watts, 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 18¼ lbs. LIST: (with tubes and cover) **$139.50.** PLUG KIT: **$3.24.**

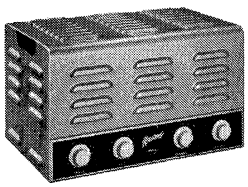
E-25P3: A 25 watt amplifier with 3 speed phono. Otherwise identical to model E-25. LIST: (with tubes) **$181.50.** PLUG KIT: **$3.24.**



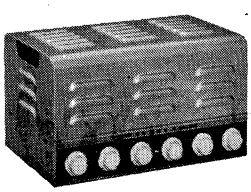


E-254P3: A highly versatile, yet economical 4 channel, 25 watt amplifier with 3 speed phono. FEATURES: High gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback circuit. Pickup is high-grade turnover crystal. POWER OUTPUT: 25 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. 3 MIKE INPUTS: 2 meg., gain 123 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 83 db. OUTPUT IMPEDANCES: 4, 8, 16, 196 (70 Volt Tap) and 500 ohms. TUBES: (8) 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5V4G, FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 105 watts at 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 18¼ lbs. LIST: (with tubes) **$211.50.** PLUG KIT: **$3.90.**

E-254: A 25 watt amplifier without 3 speed phono. Otherwise identical to model E-254P3. LIST: (with tubes and cover) **$169.50.** PLUG KIT: **$3.90.**



E-50: A distortion-free, conservatively rated 50 watts using push-pull parallel 6L6 tubes and multi-stage inverse feedback circuit. Has inputs for 2 mikes, 1 phono, separate bass and treble controls, phono bass boost. Same as E-25 except as follows: POWER OUTPUT: 50 watts at less than 5%. Mike gain 120 db, Wired for plug-in input transformer Phono gain 79 db. OUTPUT IMPEDANCES: 4, 8, 16, 98 (70 Volt Tap) and 250 ohms. TUBES: (9) 1-6SJ7, 1-12AX7, 1-6J5, 4-6L6G, 2-5V4G. POWER CONSUMPTION: 170 watts at 117 volts, 60 cycles A.C. SIZE: 11¼" x 14¾" x 8½". WEIGHT: 29 lbs. LIST: (with tubes and cover) **$196.50.** PLUG KIT: **$3.24.**



E-504: A 4 channel 50 watt amplifier featuring; high gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback, push pull parallel output system for lowest distortion at all power levels. POWER OUTPUT: 50 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. THREE MIKE INPUTS: 2 meg., gain 126 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 86 db. OUTPUT IMPEDANCES: 4, 8, 16, 98 (70 Volt Tap) and 250 ohms. TUBES: (11) 3-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles A.C. SIZE 11¼" x 14¾" x 8½". WEIGHT: 30 lbs. LIST: (with tubes and cover) **$239.50.** PLUG KIT: **$3.90.**

All prices and specifications subject to change without notice.

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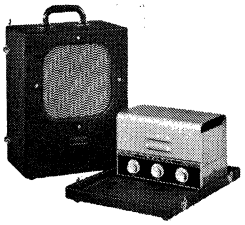
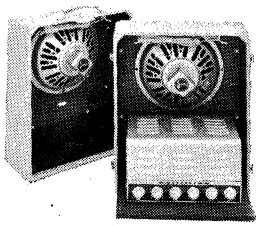
NEWCOMB — PORTABLE AMPLIFIERS (E) SERIES



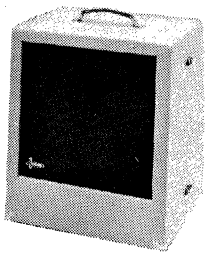
E-1010S: A 10 watt basic portable consisting of one E-10 amplifier with plugs and one E-110S case assembly with efficient 10" P.M. speaker protected by a kick-proof metal grill. Speaker cable 25'. Overall size: 12¼x 15¾x8¾". Weight: 19 lbs. LIST: (less mike and stand) **$126.82.**



E-1712R: A 17 watt dual speaker portable system consisting of one E-212R split speaker and amplifier case assembly with two 12" high quality P.M. speakers, each with 25' cable, protected by kick-proof grills, and one E-17 amplifier with plugs. Size: 11⅛ x 20½ x 21". Weight: 40 lbs. LIST: (less mike and stand) **$209.28.**

E-2512R: A 25 watt dual speaker portable system with model E-25 amplifier. Weight 42½ lbs. LIST: (less mikes and stands) **$242.24.**

E-25412R: A 25 watt dual speaker portable system consisting of one E-212R split case assembly with two 12" P.M. speakers each with 25' cable, and model E-254 four channel amplifier. LIST: (less mikes and stands) **$272.90.**



E-17P312R: A 17 watt dual speaker portable system with 3 speed phono. Consists of model E-17P3 amplifier in E-212R split case assembly. LIST: (less mike and stand) **$246.95.**

E-25P312R: A 25 watt dual speaker portable system with 3 speed phono. Model E-25P3 amplifier in E-212R split case assembly. LIST: (less mikes and stands) **$279.65.**

E-254P312R: A 25 watt dual speaker portable system with 3 speed phono. Same as E-25412R but with 3 speed phono top amplifier model E-254P3. LIST: (less mikes and stands) **$306.00.**

ALL NEWCOMB
tuners, amplifiers, phonographs
and sound systems are
U/L APPROVED

NEWCOMB — MOBILE AMPLIFIERS (E) SERIES

E-10M: A 10 watt mobile amplifier. For use on 6 V.D.C. or 117 V.60 cycles A.C. Features push-pull beam power output tubes with inverse feedback for low distortion, standby, battery saver switch, new freedom from vibrator hash, special mounting for easy removal of chassis, inputs for mike and phono, sturdy Jones connectors for battery and A.C. cables. POWER OUTPUT: 10 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 50 to 15,000 cycles. INPUTS: Mike (2 meg.) gain 115 db. phono (1½ meg.) gain 75 db. OUTPUT IMPEDANCES: 4, 8, 16 ohms. TUBES: (5) 1-6SC7, 1-6SF5, 2-6V6GT, 1-6X5GT, POWER CONSUMPTION: 60 watts. 117 volts, 8 amps. at 6 V.D.C. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal with pilot lamy. SIZE 6⅛x6⅜x8¼". WEIGHT: 9¾ lbs. LIST: (with tubes) **$99.75.** Plug Kit **$1.39.**

All Newcomb equipment U/L approved. Prices and specifications subject to change without notice.

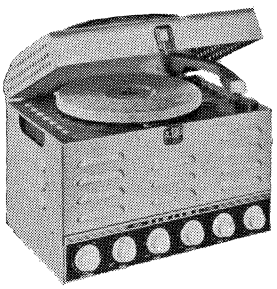
No matter what price level . . .

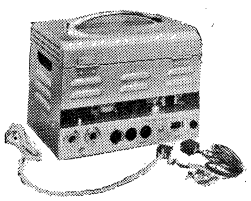
if it's a NEWCOMB,

it's DEPENDABLE!

Sound installations vary greatly in their needs of complexity as well as requirements of cost. Yet, one important feature is required of all —dependability. No matter how complex, or how simple and inexpensive your needs may be . . . you can enjoy utmost dependability by insisting on a Newcomb amplifier for your sound system. No product bears the name Newcomb unless it is inherently dependable, no matter on what price level you find it. Under the Newcomb name there is only one standard for quality . . . *the best!* Newcomb amplifiers vary in their complexity, but never in dependability. Quality of parts, materials or workmanship are never sacrificed here to gain lower price. Lower cost of one Newcomb model as compared to another is always entirely the result of greater simplicity.

12-VOLT





Newly developed E-253M Series Newcomb Amplifier designed for use anywhere. Ultra modern 25 watt unit available in several styles with and without turntable (see below). May be used on either 12-volt storage battery or 117 volt 60 cycle AC power source with equal effectiveness. Consumes as much as 20% less battery current, weighs up to 30% less. Separate bass and treble tone controls; two microphone channels each with the new standard broadcast type connectors and convertible to low impedance with Newcomb humless plug-in input transformers; high gain separate phono channel for ceramic pickups; extra input for tape; standby switch to reduce idle battery consumption more than 70%; new freedom from vibrator hash; heat resistant ceramic pickup and turret type motor in 3-speed phono top; completely U/L Approved.

POWER OUTPUT: 25 watts at less than 3% total harmonic distortion, peak power 40 watts. FREQUENCY RESPONSE: 30 — 20,000 cycles ± 2 db. HUM LEVEL: 70 db below 25 watts. INPUTS: Two mike (2 meg.) gain 122 db; one phono (2 meg.) gain 90 db; and one tape (2 meg.) gain 90 db. Mike inputs convertible to low impedance using Newcomb plug-in transformers. CONTROLS: One stand-by switch, one power switch and treble tone control, one bass tone, one phono, two microphone, one phono motor control (on phono top models), and one hum balance control. OUTPUT IMPEDANCE: 4, 8, 16, and 500 ohms and a 70 volt tap to impedance selector and two output sockets. POWER CONSUMPTION: On 117 volts 60 cycles AC, 100 watts. On 12 volts DC, 8.85 amps (with phono top, 10.3 amps.). Stand-by current less than 3 amps. SIZE: 14⅛x9½x8" high (with cover (height 10¼"). TUBES: 1-12AX7, 1-12AU6, 2-6L6G, 2-6X5GT, 1-12AV7, E-253M — plain top model, list price **$214.50.** (Weight, 24 lbs.). E-253M3 — 3-speed phono-top model, list price **$248.10.** (Weight, 28¼ lbs.). PC — Protective turntable cover with "king-sized" handle for use on Model E-253M3 only, list price **$15.00.** (Weight, 2¾ lbs.). Above prices include both battery and AC power cables.

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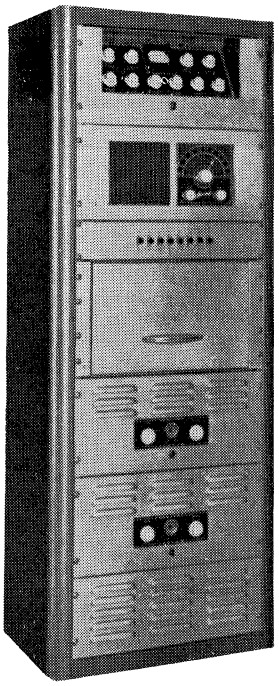
NEWCOMB — RACK AND PANEL ASSEMBLIES



Any standard Newcomb amplifier may be obtained panel mounted on special order in 19" x 8¾" panels, thus giving the custom designer a wide choice of equipment to meet any need.

MODEL 595-19 CABINET: (illustrated) Supplies a demand for a beautifully finished housing that is fully in keeping with the Newcomb tradition and reputation for quality. Panel space is 56". Design accepts standard 19" wide panels. Mounting holes are RMA standard 1¼" and ½" spacings. Panel mounting holes are tapped in ⅛" stock. Fully ventilated rear door provides easy accessibility. Entire cabinet is a complete welded assembly ready for use as you receive it. Finish is dark grey hammertone. Provision is made in the rear for nine ½" conduits. Included is a removable terminal strip mounting plate located near conduit inlets. OVERALL DIMENSIONS: 59½" x 23" wide x 16" deep. SHIPPING WEIGHT: 92 lbs. LIST: **$189.50.**

MODEL 385-19 CABINET: Provides 35" of panel space for standard 19" panels. OVERALL DIMENSIONS: 38½" x 23" wide x 16" deep. SHIPPING WEIGHT: 72 lbs. LIST: **$149.50.**

In addition to the panel mounted amplifiers Newcomb also provides a wide selection of other equipment designed for custom rack installations.

MODEL 1050-C PHONOGRAPH CHANGER PANEL is a practical solution to mounting a phono changer in cabinet 595-19. Ball bearing drawer with wood motor board is adaptable for mounting most popular changers. Panel size 19" x 10½". All panels are finished in silver-grey hammertone baked enamel. MODEL E2-525 PRE-AMPLIFIER answers the need for a simple, dependable but economical pre-amp for rack use. MODEL TB2-525 INTERCOM AMPLIFIER has built-in power supply, speaker, talk-listen switch and separate talk and listen volume controls.

MODEL B-100-875 AM RADIO is the Newcomb B-100 radio mounted on an 8¾" panel. (See listing page B-7.) MODEL 700-MP MONITOR is available for installation of any 6" speaker. LEVER KEY PANELS are provided for use with CRL keys, 3½" deep with slots for 6, 8, 10 or 12 keys. LOUVERED PANELS for additional ventilation and BLANK PANELS are made in assorted sizes.

SPECIAL PANELS are made to order to fit special equipment. Templates or suitable drawings must accompany order for any special sheet metal work. Full details of Newcomb rack and panel equipment available on request.

NEWCOMB — ACCESSORIES FOR (H) AND (K) SERIES

REMOTE CONTROLS

For mixing and fading all H Series mike inputs. With K Series amplifiers all mikes and phono may be controlled. Up to 2000 feet of cable may be used. No inductive pickup.

RC-2 for H-15 amp. Requires ordinary 3 wire cable, 2¾" x 6" x 2⅛". WEIGHT: 1 lb. LIST: (less cable) **$10.50.**

RC-3 for H-25 or H-4 amps. Requires ordinary 4 wire cable. 2¾" x 6" x 2⅛". WEIGHT: 1 lb. LIST: (less cable) **$15.50.**

RC-4 for H-50 amp. Requires ordinary 5 wire cable. 2¾" x 7⅝" x 2⅛". WEIGHT: 1¼ lbs. LIST: (less cable) **$19.50.**

RC-6 for KX-25, KX-50, KX-6 amps. Requires ordinary 7 wire cable. 2¾" x 11¼" x 2⅛". WEIGHT: 2 lbs. LIST: (less cable) **$27.50.**

PLUG-IN TRANSFORMERS

TR-91: Features sextuple alloy and copper shielding for quiet operation right in amp. proper. Alloy core and specially designed windings for extended frequency response from 20 to 20,000 cycles. Plug base for easy installation. For use between 30-50 or 200-250 ohm mikes and grid. WEIGHT: 1¼ lbs. LIST: **$32.50.**

TR-92: Input impedance 5,000 ohms to grid for bridging a 500-600 ohm line. When plugged into sockets on K50B, H50B, H25B it converts for use as bridging amps. WEIGHT: 1¼ lbs. LIST: **$29.50.**

TR-100: Identical to TR-91 but for use between 125-150 or 500-600 ohm mikes and grid. LIST: **$32.50.**

All prices and specifications subject to change without notice.

COMPLETE BID SPECIFICATIONS AVAILABLE

Available from Newcomb are complete bid specifications for public address amplifiers, phonographs, transcription players, and radios. A must for schools, states, or federal governments as well as commercial institutions requiring specifications to be shown. These Newcomb bid specifications spell out the proper details and may be included directly on prints or purchase orders.

All Newcomb equipment approved by Underwriters Laboratory.

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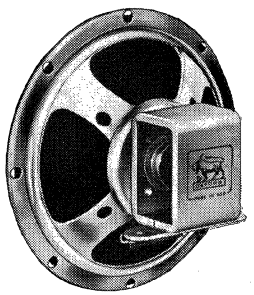
OXFORD Speakers—

PERMANENT MAGNET LOUDSPEAKERS

(Sq. Square-Rd. Round-P.C. Pin Cushion)

Standard Replacement Line — 3.2 ohm Voice Coil Impedance

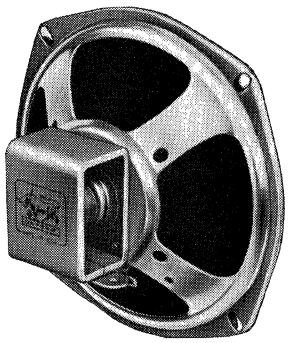
MODEL NO.	SIZE	MAGNET WEIGHT	SUGG. LIST
2CMS	2" Square	1.47 oz.	$ 4.75
3AMS	3" Sq.	.68 oz.	3.75
4AMS	4" Sq.	.68 oz.	4.00
5CMS	5" Rd.	1.47 oz.	4.85
6AMS	6" P.C.	.68 oz.	4.85
7CVS	7" P.C.	1.47 oz.	6.50
8EVS	8" Rd.	2.15 oz.	7.35
8JBS	8" Rd.	6.80 oz.	14.10
10EVS	10" Rd.	2.15 oz.	9.50
12JBS	12" Rd.	6.80 oz.	17.00
15JBS	15" Rd.	6.80 oz.	26.20



PUBLIC ADDRESS — 8 OHM

8FOS-7	8" Rd.	3.16 oz.	9.00
8JBS-7	8" Rd.	6.80 oz.	14.60
TC8HB*	8" P.C.	4.64 oz.	14.25
10JBS-7	10" Rd.	6.80 oz.	16.10
12JBS-7	12" Rd.	6.80 oz.	17.50
8HB-15A**	8" Rd.	4.64 oz.	12.25

*Twin Cone **Weatherproof

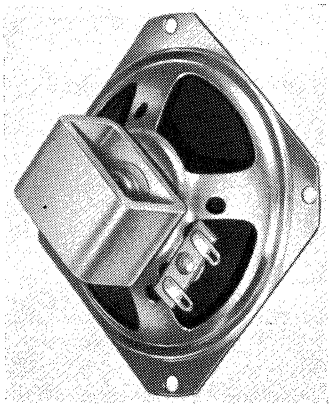


INTER COM SPEAKERS — 45 OHM

2AMS-45	2" Sq.	.68 oz.	4.25
3AMS-45	3" Sq.	.68 oz.	3.90
4BMS-45W	4" Sq.	1.00 oz.	5.20
5BMS-45	5" Rd.	1.00 oz.	5.25
8EVS-45	8" P.C.	2.15 oz.	8.35

AUTO REPLACEMENT — 3.2 OHM

2510CMS	2" x 10"	1.47 oz.	6.50
46AMS	4" x 6"	.68 oz.	4.50
48CMS	4" x 8"	1.47 oz.	6.30
5PCM-20	5" x P.C.	1.47 oz.	5.35
57AMS	5" x 7"	.68 oz.	5.40
69CMS	6" x 9"	1.47 oz.	7.00



Each and every OXFORD Speaker is backed by over thirty years of manufacturing experience, and production and engineering facilities which are unequalled anywhere in the world. Now, seven separate and complete factories produce Oxford Speakers for original equipment and replacement applications for hundreds and hundreds of leading manufacturers and electronics parts distributors.

All Oxford Speakers are made to meet the most rigid specifications and include only Alnico V Permanent Magnets.

This is but a partial listing.

OXFORD COMPONENTS division of OXFORD ELECTRIC CORPORATION

OXFORD COMPONENTS, division of Oxford Electric Corp., Chicago, Illinois

EXPORT: ROBURN AGENCIES, NEW YORK/IN CANADA, ATLAS RADIO CORP., LTD., TORONTO.

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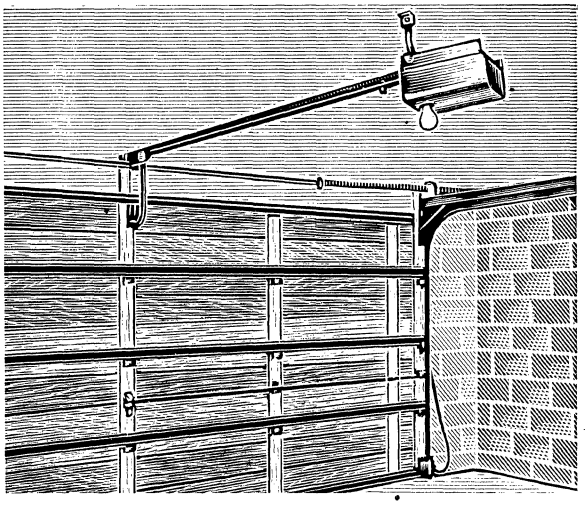
Perma-Power® Electronic Equipment

PERMA-POWER RADIO CONTROLLED GARAGE DOOR OPENER

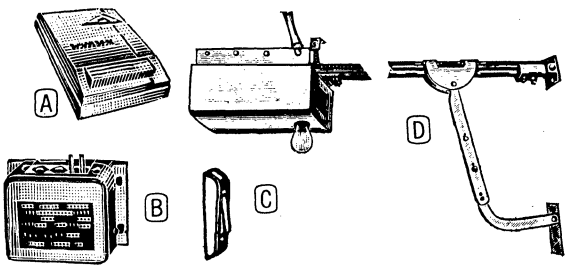


ALL-TRANSISTOR, PRINTED WIRING DESIGN ASSURES MAXIMUM RELIABILITY AND LONG LIFE WITH LOWEST OPERATING COSTS.

DOOR REQUIREMENTS—The Perma-Power Garage Door Opener will operate all one-piece tilt-up or sectional roll-up residential doors that travel on horizontal or curved roller tracks. Doors may be up to 18′ wide and 8′ high and of metal or wood construction. As little as 1¾″ of headroom (space between high-arc of door and ceiling) in garage is adequate for installation.

INSTALLATION—Entire system was designed to make installation an easy one-man job. Simplified step-by-step instruction manual assures fast, professional results using common hand tools. Every part required is supplied, including mounting materials.

SYSTEM COMPONENTS



OPERATIONAL FEATURES

- Powerful three-transistor transmitter outperforms tube type units. Operating distance is more than 50 ft. with the portable transmitter; more than 100 ft. with the installed transmitter.
- Sensitive six-transistor receiver turns on the motor mechanism when it gets a signal from the transmitter in the car. The receiver is completely pre-installed in operator housing.
- When button is pressed, door automatically opens and turns on fixture light, illuminating garage. When button is pressed again, door automatically closes and locks securely. No conventional key lock required.
- New, exclusive, safety feature—light remains on for two minutes after door is closed to permit safe exit.
- Automatic shut-off gives extra protection. If door hits an obstacle, power shuts off instantly. When started again, door reverses, pulling away.
- Sensitive safety clutch is easily adjusted by a screw to exert just enough force to move door reliably. This vital safeguard makes door travel gentle and, consequently, easy to arrest.
- A detachable door arm permits unlatching for manual operation of the door in case of power failure.
- A push button is supplied for wall mounting in garage or other location to operate door from inside. Additional buttons may be easily installed at auxiliary points. A key-operated switch is available for outside mounting.
- The radio control is certified for operation without license under FCC rules.
- An exclusive, coded signal for each radio control allows operation free from interference with and from neighboring installations and other electrical devices.
- Concealed motor is a ¼ HP, 117 volt, capacitor-start type with ample power to operate the largest of modern, residential, garage doors. Also in the fixture is the radio receiver which turns on the motor when it gets a signal from the transmitter in the car.

Ⓐ Portable Radio Control is a completely self-contained, three-transistor transmitter. Clips to sun visor; carry in pocket or purse; or, store in glove compartment or under seat. Complete with battery.

Ⓑ Installed Radio Control is a three-transistor transmitter for permanent installation under the car dash. Push button installs on the dashboard. Uses car radio antenna. With all hardware and wiring. For use in 12-volt cars only.

Ⓒ Push button Electric Control can be located wherever desired. More than one may be used. For outside control or from driveway post, use key switch listed below. (Uses 24-volt wiring.)

Ⓓ Complete Motor Mechanism comes fully assembled with all mounting hardware and wiring.

Perma-Power No. G653 System—Complete Portable Radio Control Door Operator; Components A, C and D. Shipping Weight, 65 lbs. Net Each..... **$149.50**

Perma-Power No. G654 System—Complete Installed Radio Control Door Operator; Components B, C and D. Shipping Weight, 70 lbs. Net Each..... **$149.50**

Perma-Power No. G340 Transmitter—Portable transmitter for use in second car. Shpg. Wt., 1 lb. Net Each. **$19.50**

Perma-Power No. G350 Transmitter—Installed transmitter for use in second car. Shpg. Wt., 7 lbs. Net Each. **$19.50**

Perma-Power No. G550 System—Electric Control Door Operator; Components C and D. Shipping Weight, 65 lbs. Net Each..... **$99.95**

Perma-Power No. G512 Wall Switch—Extra button switch for electric operation from a second location. Net Each..... **36c**

Perma-Power No. G511 Key Switch—For electric operation from outdoor jamb or driveway post. Net Each..... **$4.20**

RADIO REMOTE CONTROLS ONLY

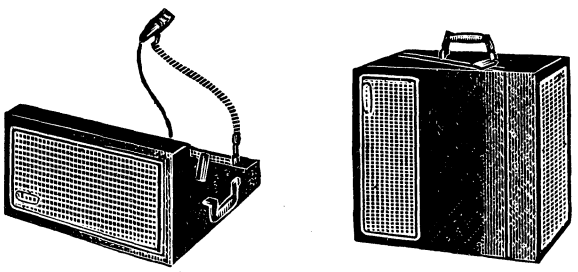
Perma-Power No. G450—All-transistor receiver (not illus.) and permanently-installed type transmitter. Receiver for 117 v. AC; transmitter for 12 v., neg. ground, auto systems. Uses car radio antenna. Shipping Weight, 10 lbs. Net Each.. **$56.00**

Perma-Power No. G451—Same as above, but with portable transmitter with self-contained battery. Shipping Weight, 7 lbs. Net Each..... **$56.00**

For Extra Transmitters, Order Nos. G340 or G350 Above. Note: Portable and Installed type transmitters may be interchanged.

NEW PERMA-POWER ROVING ROSTRUM

- **Completely Portable, High Volume Sound System In A Single Case—Battery Powered**
- **All-transistor Design For Maximum Reliability, Dependability And Economy**



Fully self-contained sound system as easy to use as a transistor radio: Simply plug in the microphone and turn it on; no warmup time or waiting. Powered by two, standard, low cost lantern batteries, no power outlet is needed; no line cords to pull out. Batteries last for more than a year of normal use. Complete in a single case, the Roving Rostrum includes a 10-watt all-transistor amplifier, a quality microphone with gooseneck stand and lavalier cord, and two wide-range speakers. A convenient reading table is built in as an integral part of the cabinet for maximum convenience in combining a lectern and a sound system. **Speakers:** The lectern half of the case is provided with one 6″ x 9″ speaker with 10 oz. ceramic magnet. Another identical speaker is built into the case top for use as an optional extension to give greater sound coverage in large or noisy locations. Each speaker is rated 10 watts; seamless cone construction. Lectern speaker baffle is acoustically lined to assure clear, distortion-free sound; permits high volume without "howls". **Microphone:** Astatic Series 3-30, dynamic; response, 60–12,000 cps; shockproof and weatherproof. Very low impedance minimizes hum and noise; permits use with long cable extensions. Fits adjustable gooseneck stand or lavalier cord, supplied; or, may be hand held. Comes with 10 ft. plug-in cable. **Amplifier:** All-transistor design for 10 watts undistorted output. Accommodates phono input or radio tuner at phono jack. Printed circuit wiring for highest reliability. Draws only 30 ma at idle; two 6-volt lantern batteries last over 400 operating hours at full output. Extension speaker socket may also be used with any 8-ohm auxiliary or tape recorder. **Case:** Distincitve, heavy-duty luggage type is extra durable; all plywood, covered with DuPont scuff-proof Texol in black ostrich grain. Lectern surfaced with Mylar. Grille cloth is black, gray and white, with white piping. Nickel-plated, non-tarnish hardware; matching handle. **Size:** 9¼″ x 16¾″ x 18″. **One Year Warranty.** Weight, less than 30 lbs., including batteries.

Perma-Power No. S-100 Roving Rostrum—Less batteries. User Net..... **$124.50**

Perma-Power Co. CHICAGO, ILLINOIS

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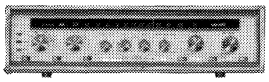
SHERWOOD TUNERS · AMPLIFIERS

MOST HONORED OF THEM ALL



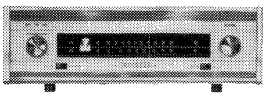
S-8000

32+32 WATT FM/MX STEREO RECEIVER. A triumph in engineering, combining in one unit the famed performance of Sherwood's FM tuner circuitry along with an FM stereo adapter, two 32 watt amplifiers two complete phono preamplifiers and stereo control amplifiers. In spite of the compact size, 16¼ x 14 x 4½ inches high, the S-8000 features "acro-beam" tuning eye, balanced flywheel tuning knob, friction-locked stereo bass and treble controls, ganged loudness control, phono level control, stereo balance control, stereo function and input-selector switch. Six slide switches control scratch and rumble filters, FM AFC, FM Inter-Channel Hush, phase reverse, and tape monitor. Inputs are provided for tape playback, tape monitor, phono, and two auxiliary. Outputs are for recording and 4, 8, 16 ohm speakers.

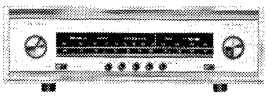
General Specifications—Power Output: Stereo 32 – 32 watts (64 watts mono) at 1½% IM distortion. Frequency Response: 20-20,000 cps. ± 1 db @ 32 watts. Hum and Noise: phono input, 60 db below 32 watts. DC filament supply. Phono sensitivity 1½ mv. Typical Sensitivity: FM: 0.95μv for 20 db quieting; IHFM Sensitivity: 1.8 μv for –30 db noise and distortion below 100% FM; AM: Typical Selectivity: 195 kc @ –3 db; FM discriminator; 950 kc peak-to-peak. 21 tubes plus 4 rectifiers and 2 diodes. Power Consumption: 150 watts. Shipping Weight: 32 lbs. (with case).

S-8000S (less case) Fair Trade Net.....**$299.50**
S-8000D brown leatherette case: Fair Trade Net.....**$307.00**

S-3000 IV, S-3000 III



S-2000 II



S-2200

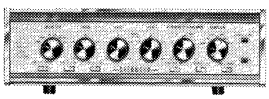
Sherwood is best known for its outstanding FM tuners, the first ever to achieve 0.95μv sensitivity. All four models. **S-3000 IV, S-3000 III FM/MX STEREO, S-2000 II FM/AM,** and **S-2200 FM/AM/MX STEREO** feature:

FM Interchannel Hush, a new noise-muting system which automatically eliminates noisy "hash" between FM channels to make FM tuning easier than ever, **FM Automatic Frequency Control** (AFC), which corrects electronically by 90% any mistuning of an FM station thereby simplifying accurate tuning of FM stations, velvet flywheel tuning, and single or dual tuning eyes. The built-in FM MX Stereo circuitry of model S-3000 IV is same as described in adapter at bottom of page. Adapters may be used with models **S-3000 III, S-2000 II** and **S-2200.**

In addition, Models S-2200 and S-3000 III also feature self-contained provision for FM multiplex adapters complete with all necessary stereo controls. S-3000 III specifications same as S-2200 FM specifications.

General Specifications—Typical Sensitivity: FM: 0.95 μv for 20 db quieting; 1.8 μv for 30 db quieting; IHFM Sensitivity: 1.8 μv for –30 db noise and distortion below 100% FM; AM –2 μv @ 60% mod. for 0.5v output, 6 db S/N; Typical Selectivity: FM—195 kc @ –6 db; AM—(wide) 15 kc @ –6 db, (narrow) 5 kc @ –6 db; FM Discriminator: 600 kc peak-to-peak; Frequency Response: FM 20-20,000 cps ± ½ db, AM—(wide) 20-7,500 cps @ –6 db; Distortion: FM—less than 1/3% IM @ 100% mod. Hum and Noise Level: FM –60 db below 100% mod., AM –55 db below 100% mod.; FM Drift: ± 2 kc w/AFC; AFC Correction: 20 db; Audio Output: 2.0 volts output @ 100% FM; Tuning indicators: 2 EM84 light-bar tuning eyes; Tube Complement: 14 plus rectifier. Power Consumption: 65 watts, 110-120v, 50-60 cps; Dimensions 14" x 12½" x 4" high. Shipping Weight: 20 lbs.

S-3000 IV Fair Trade Price—chassis less case*.....**$160.00**
S-2200 Fair Trade Price—chassis less case*.....**$179.50**
S-3000 III (same as **S-3000 IV** without stereo adapter installed). Fair Trade Price—chassis less case*.....**$105.50**
S-2000 II Specifications same as S-2200 without simulcast FM-AM Stereo reception feature. Fair Trade Price—chassis less case*.....**$145.50**



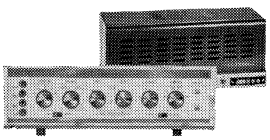
S-5000 II, S-5500 II

The Sherwood "Top Rated" **S-5000 II STEREO DUAL AMPLIFIER-PREAMPLIFIER** offers the maximum flexibility in stereo and monophonic operation.

General Specifications—Base and treble controls have friction type dual knobs to adjust one channel separately from the other or together. Power Output: Stereo, 40 + 40 watts music power (80 watts mono) (80 watts IHFM music power). Frequency Response: 20-20,000 cps ± db at 36 watts. IM Distortion: 1½% at rated output. Hum and Noise: phono input, 60 db below rated output. DC filament supply. Sensitivity: Radio, 0.25 volt; phono, 1½ mv. Inputs: Phono (RIAA); tapehead (NAB) and 6 high-level. 2 cathode follower recording outputs. Controls include: 12 db./octave scratch and rumble filters and presence rise switch. Tubes: 4—7591, 6—12AX7/ECC83, 2 silicon and 1 selenium rectifier. Power Required: 110 watts, fused. Size: 14" x 14" x 4". Shipping Weight: 29 lbs.

S-5000 II Fair Trade Price—chassis less case*.....**$199.50**
S-5500 II Same as S-5000 II except 32 + 32 watts, no presence rise feature.....**$164.50**

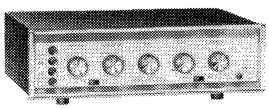
S-360



S-4400

The Model **S-4400** is designed for conversion of monophonic hi-fi to stereo and use with Model **S-360,** basic 40 watt music power amplifier to provide 40 + 40 watt stereo where installation space is limited by a narrow bookshelf, since only the 10½-inch S-4400 need be accessible for operation. The Model S-4400 features the identical controls, front panel, and dual preamplifiers offered in the S-5000 II described above. However, a single 40 watt basic power amplifier is offered instead of the two 40 watt amplifiers included in the S-5000 II. Connection of the S-4400 with any monophonic basic amplifier (such as the S-360) or monophonic amplifier preamplifier (such as the Sherwood S-1000 II) completes a stereophonic dual preamplifier-amplifier featuring one unified control panel. Specifications same as S-5000 II. Size: 14" x 10½" x 4". Shipping Weight 24 lbs.

S-4400—Fair Trade Price—chassis less case*.....**$159.50**
S-360—Fair Trade Price—(case $6.00 additional).....**$ 59.50**



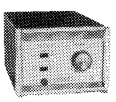
S-1000 II

The famous Sherwood "Music Center" monophonic amplifier-preamplifier offers music power output of 40 watts. This amplifier design is recognized for providing the many features and flexibility appreciated by the high-fidelity expert, yet offering the utmost in simplicity of operation. It can be converted at any time to a stereo system by the addition of the companion Model S-4400.

General Specifications, S-1000 II—same as one channel of S-5000 II. Six tubes. Size: 14" x 10½" x 4" high. Shipping Weight: 24 lbs.

S-1000 II Fair Trade Price—chassis less case*.....**$109.50**
*Add $3.00 West of Rockies—see below for case prices.

ONE-YEAR WARRANTY—Every Sherwood product is covered by a full one-year warranty against defects in material and workmanship. Tubes carry the standard EIA 90-day warranty.
CASES are available in two colors of Flextone.
"A"—Brown Flextone or **"B"**—Black Flextone case.....**$5.00**



Model **S3MX** and **A3MX Stereo FM-MX** adapters converts FM tuners to receive FM stereocasts; has 19 KC filter, hiss filter switch, 38 KC sub-carrier eliminated for tape recording. Four tubes plus rectifier. 4" x 5¾" x 10½"—8 lbs.

S6MX-S (self-powered) without case.....**$69.50**
A3MX same as **S3MX** but plug in type without power supply for use in S-2200 or S-3000 III tuner.....**$49.50**
Units supplied with brown or black Flextone case at $4.00 additional. West of Rockies, add $1.00 to all prices.

Request technical data sheet showing other models.

Sherwood Electronic Laboratories, Inc.
Chicago, Illinois

CROSSOVER NETWORKS—The Sherwood line of crossover networks features performance precise enough for the finest 2, 3 or 4-way high-fidelity speaker system at a cost within the reach of the budget-wary experimenter. All networks feature 12 db/octave attenuation.

Model	Crossover Frequency	Speaker Application	Dimensions	Shipping Weight	Net Price
SFX35	300, 5000 cps	3-way	4½x10x4½	5 lbs.	**$19.50**
SX36	3500 cps	2-way	4x5x3	1¼ lbs.	**6.50**
SX8	800 cps	2-way	4x7½x3	2 lbs.	**15.50**
SX55	500, 5000 cps	3-way	4½x10x4½	4 lbs.	**18.50**

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SECTION 1300

STROMBERG-CARLSON®

SOUND EQUIPMENT

SIGNET SOUND

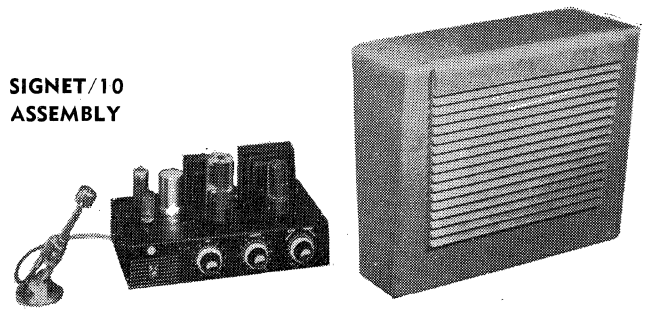
NEW, LOW-COST, COMPLETE . . . THE MOST FLEXIBLE

Signet Sound Equipment is designed and engineered to provide economical sound reinforcement for many simplified applications in business and industry. These systems are complete, ready-to-use packages that offer tremendous flexibility, easy installation, and excellent fidelity.

SIGNET COMPONENT ASSEMBLIES

A FEW OF THE MANY POSSIBLE SYSTEMS:

SIGNET/10 ASSEMBLY



Budget-priced package for many applications. A few examples: restaurants, stores, meeting rooms, taverns, offices, warehouses. Unbeatable in its price range.

Typical Indoor System:

- Signet/10 Ten-Watt Amplifier. **LIST PRICE: $61.50** without top cover
- SMCX-55 Crystal Microphone **LIST PRICE: $15.95**
- MS-42 Microphone Stand. **LIST PRICE: $6.50**
- RH-28D Speaker Housing. **LIST PRICE: $10.00**
- RC-27* 8" Speaker. **LIST PRICE: $8.00**

* Four speakers may be used without line-matching transformers; up to 20 speakers with line-matching transformers.

SIGNET/22 ASSEMBLY

A perfect matching of high-quality components for any number of applications. A few of many possibilities include: freight docks, amusement parks, parking lots, gymnasiums, garages, bus terminals, railroad stations.

Typical Outdoor System:

- Signet/22 Twenty-two Watt Amplifier. **LIST PRICE: $90.00**
- SMCX-55 Crystal Microphone. **LIST PRICE: $15.95**
- MS-42 Microphone Stand. **LIST PRICE: $6.50**
- RPD-14* Re-entrant Speakers with built-in driver units **LIST PRICE: $34.50**

* Four speakers may be used without line-matching transformers; up to 40 speakers with line-matching transformers.

GENERAL DYNAMICS | ELECTRONICS

COMMERCIAL PRODUCTS DIVISION ROCHESTER 1, N. Y.

S-C® STROMBERG-CARLSON

In modern package sound . . . THERE IS NOTHING FINER THAN A STROMBERG-CARLSON®

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

STROMBERG-CARLSON®

SOUND EQUIPMENT

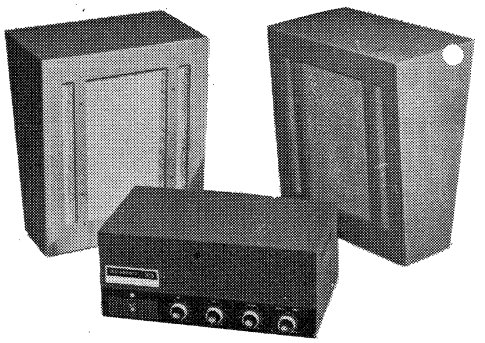
SIGNET/33 ASSEMBLY

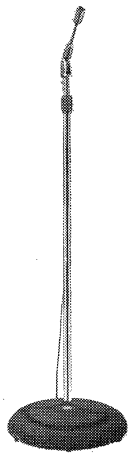
Full fidelity performance, with superior audio reproduction. A few of many applications: industrial plants, hotels, motels, hospitals, auditoriums, Field Houses, Churches.

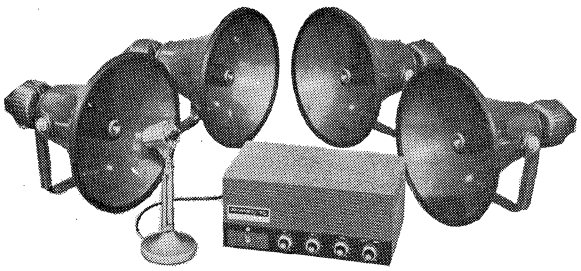
Typical Indoor System:

- Signet/33 Thirty-three Watt Amplifier. **LIST PRICE: $110.00**
- SMD-56CS Dynamic Microphone. **LIST PRICE: $41.00**
- MS-12 Floor Stand. **LIST PRICE: $13.50**
- RH-54 Speaker Housings. **LIST PRICE: $19.50**
- RC-58* 12" Speakers. **LIST PRICE: $14.00**

* Four speakers may be used without line-matching transformers; up to 60 speakers with line-matching transformers.







SIGNET/70 ASSEMBLY

Practically unlimited applications, with power to spare for all situations. A few examples: stadiums, playgrounds, race tracks, athletic fields, schools, auditoriums, factories, airports.

Typical Outdoor System:

- Signet/70 Seventy-Watt Amplifier.* **LIST PRICE: $170.00**
- MD-30C Dynamic Microphone. **LIST PRICE: $60.00**
- RP-27 Re-entrant Horn with RD-24 Driver Units. **LIST PRICE: $28.88 (RP-27) $28.50 (RD-24)**

* Handles up to 25 horns with RD-21 Driver Units with built-in line-matching transformers.

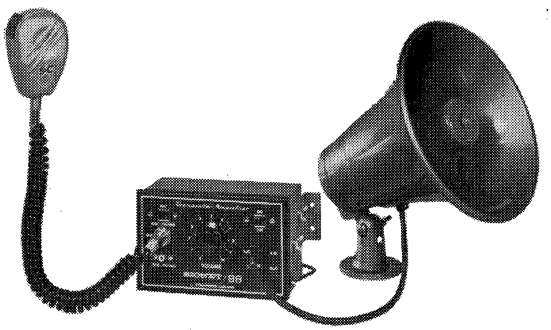
SIGNET/88 MOBILE ASSEMBLY

Truly mobile-portable package which provides superb coverage over a wide area in countless applications. For example: police, civil defense, sports events, tour guides, field days, etc.

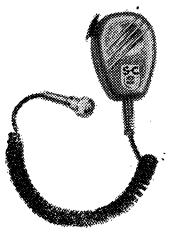
System Features:

- Transistorized SAM 88 8-Watt Amplifier. **LIST PRICE: $112.00**
- SMD-61 Dynamic Microphone. **LIST PRICE: $34.00**
- RPD-14* Re-entrant Speaker with built-in driver unit. **LIST PRICE: $34.50**

* Additional RPD-14 Speakers may be used.

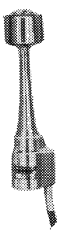


MICROPHONES



MODEL SMD-61 DYNAMIC

Close-talking, medium impedance, hand-held type. Designed for clear, natural voice reproduction. Ideal for mobile or portable use. Complete with coiled cord and connector. **LIST PRICE: $34.00**



MODEL SMCX-55 CRYSTAL

Small and inconspicuous, only 4¼" high. Rugged high-impedance crystal element. Mounts on standard floor, banquet or desk stand. **LIST PRICE: $15.95**

MODEL SMD-56CS DYNAMIC

Ideal for sound reinforcement and public address applications. The positive-action on-off switch is of the shorting type. Omni-directional pick-up characteristic at low frequencies; directional at high frequencies. **LIST PRICE: $41.00**

GENERAL DYNAMICS | ELECTRONICS

COMMERCIAL PRODUCTS DIVISION ROCHESTER 1, N. Y.

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STROMBERG-CARLSON®

SOUND EQUIPMENT

SIGNET AMPLIFIERS

Audio perfection depends on careful selection of the right amplifier for the specific job. The wide selection, plus unsurpassed flexibility, quality, dependability and economy of Signet Amplifiers, assures the finest in audio.

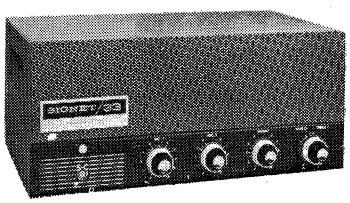
SIGNET/10

(illustrated with optional SAC-10 top cover)

POWER OUTPUT: Rated 10 watts. RESPONSE: 30 to 20,000 cps ±2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 1 microphone, 1 phono-radio. GAIN: 115 db microphone, 77 db phono-radio. INPUT SENSITIVITY: Microphone 8 millivolts for rated output. Phono-radio 0.4 volts for rated output. HUM AND NOISE: Fundamental — 75 db, microphone — 50 db, phono-radio — 75 db. TONE CONTROL: Continuously variable, provides 18 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8 ohms, 25 volt line. POWER CONSUMPTION: 60 watts at 120 volts, 60 cps. TUBES: 1-6AV6, 1-6AU6, 1-6L6GB, 1-5Y3GT. SHIPPING WEIGHT: 12 lbs. 8 oz. DIMENSIONS: 11¼"W, 8"D, 6"H.

LIST PRICE: $61.50

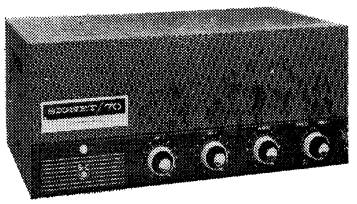
SAC-10 top cover for Signet/10 (without top cover)
LIST PRICE: $6.50



SIGNET/33

POWER OUTPUT: Rated 33 watts. RESPONSE: 30 to 20,000 cps ±2 db. REGULATION: 2.5 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance); 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output; Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental — 75 db, microphone — 55 db, phono-radio — 70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass control — 13 db boost at 50 cps; 15 db cut at 50 cps. Treble control — 13 db boost at 10 kc; 18 db cut at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 120 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6L6GB, 1-5U4GB. SHIPPING WEIGHT: 24 lbs. DIMENSIONS: 16½"W, 10"D, 8"H.

LIST PRICE: $110.00



SIGNET/70

POWER OUTPUT: Rated 70 watts. RESPONSE: 20 to 20,000 cps ±2 db. REGULATION: 3 db at 1 kc. INPUTS: 2 microphones (2 meg. input impedance); 1 phono-radio (0.5 meg. input impedance). GAIN: 127.6 db microphone, 85.9 db phono-radio. INPUT SENSITIVITY: Microphone 6 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental —75 db, microphone —55 db, phono-radio —70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass Control — 15 db boost at 50 cps; 14 db cut at 50 cps. Treble Control — 13 db boost at 10 kc; 16 db cut at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 180 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6550, 1-5U4GB, 1-5Y3GT. SHIPPING WEIGHT: 31 lbs. DIMENSIONS: 16½"W, 10"D, 8"H.

LIST PRICE: $170.00

SIGNET/88 TRANSISTOR MOBILE

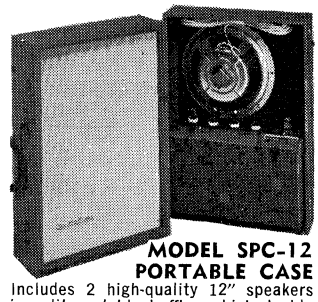
POWER OUTPUT: 8 watts, less than 5% distortion. RESPONSE: 100 to 10,000 cps ±3 db. INPUTS: 1 microphone, medium impedance (150-600 ohms); 1 phono, high impedance (500,000 ohms). GAIN: 97 db. NOISE LEVEL: 65 db below rated output. CONTROLS: On-off Switch, microphone-phono selector switch, gain control. OUTPUT IMPEDANCES: 4, 8, 16 ohms. POWER SUPPLY: 12 volts car battery or dry battery pack, current drain 0.15 amperes standby. 0.3 amperes speech, 0.5 amperes music. Power leads, 3 feet, identified for polarity; positive lead has in-line fuse. TRANSISTORS: 1-2N214, 2-2N226, 2-2N257. MOUNTING: "L" brackets furnished for fastening to bulkheads. WEIGHT: 3 lbs. DIMENSIONS: 6⅝"W, 4⅛"H, 3⅛"D.

LIST PRICE: $112.00

SIGNET/22

POWER OUTPUT: Rated 22 watts. RESPONSE: 30 to 20,000 cps ±2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance), 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental —75 db, microphone —55 db, phono-radio —70 db. TONE CONTROL: Continuously variable, provides 15 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 75 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7/ECC83, 2-6BQ5/EL84, 1-5Y3GT. SHIPPING WEIGHT: 13 lbs. 8 oz. DIMENSIONS: 11¼"W, 8"D, 6"H.

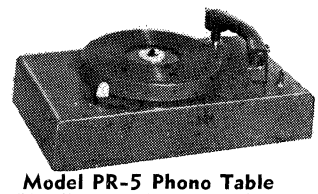
LIST PRICE: $90.00



MODEL SPC-12 PORTABLE CASE

Includes 2 high-quality 12" speakers in split portable baffles which double as a carrying case for amplifier. Mounts Signet 22 or 33. Includes 25 feet of cable for each speaker. 18"W x 24½"H x 11½"D.

LIST PRICE: $84.00



Model PR-5 Phono Table

This three-speed record player is available for the Signet 10, 22, Signet 33 and Signet 70 Amplifiers.

LIST PRICE: $35.00

GENERAL DYNAMICS | ELECTRONICS

COMMERCIAL PRODUCTS DIVISION ROCHESTER 1, N. Y.

S-C STROMBERG-CARLSON®

In modern package sound . . . THERE IS NOTHING FINER THAN A STROMBERG-CARLSON®

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

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RE Tandberg HIGH QUALITY GRAMPIAN DISC CUTTERHEADS & DP4 MICROPHONE

Grampian Feedback Cutterhead — Type B 1/D

Technical Data

Frequency Response—30 cycles to 15,000 ±2 db. Down no more than 4 db at 20 cycles and 20,000 cycles.

Total RMS Harmonic Distortion—Below 1% at 1000 cycles measured at 7 cm/sec. peak recorded velocity (NARTB standard level).

Matching Impedance—16 ohms.

D.C. Resistance — Main winding 3.7 ohms. Feedback winding 23 ohms.

Inductance—Main winding 1.65 MH.

Turns Ratio—Main winding to Feedback winding 2:5 to 1.

*Audio Power Required — At 1000 cycles to record 7 cm/per sec. (2⅝ inches/sec.) peak recorded velocity (NARTB Standard Level) —1.26 watts or ±31 dbm.

Stability—Change in level less than 1 db from 60°F. to 110°F.

Stylus—Standard short shank ⅝ inches long.

Damping—Dow-Corning Silicone Fluid.

Mounting—Universal mounting for all lathes. Cover Plate tapped for mounting Fairchild Hot Thermo-Stylus.

*Frequency response measured with PFB-150WA Amplifier, balanced FM Modulator, and Buckman-Meyer Light Pattern.

LIST PRICE of Type B 1/D Feedback Cutterhead **$350.00**

Grampian Feedback Cutter System

The Grampian cutterhead is incorporated in the Grampian Feedback Recording System which produces the highest quality disc recordings known to date. Complete in every detail of equalization, pre-emphasis, and level correction for all three speeds, this unique system comes ready for instant mounting, turn-on, and operation without the necessity of recalibration, experimentation, etc. To operate the system requires only the sound source on one end and the lathe on the other.

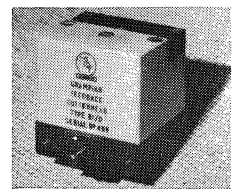
Write for more information.

LIST PRICE Complete System..... **$1,265.00**

Grampian DP4 Dynamic Microphone

LIST PRICE **$49.50**

Grampian Magnetic Cutterhead — Type C (Non-feedback)



Grampian Type C cutterheads are a development from our feedback cutterhead and have similar mechanical and electrical constants but are operated from a single winding. They may be used in conjunction with any high grade power amplifier.

Technical Data

SENSITIVITY—3 volts input for 1 cm/sec. at 78 R.P.M.

IMPEDANCE—15 ohms at 1000 c/s.

FREQUENCY RESPONSE — ±3 db — 50 c/s to 10 Kc. — 6 db at 20 Kc.

DISTORTION—2% at 1000 c/s.

WEIGHT—6½ ozs.

STYLUS HOLE—0.064" or 0.625" as required.

LIST PRICE **$225.00**

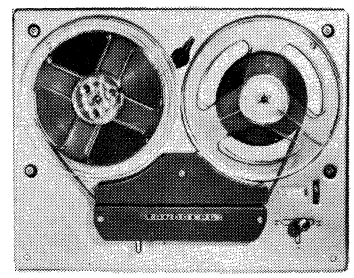
RE Tandberg MODEL "65" STEREO PLAYBACK TAPE DECK

3 SPEED • 4 TRACK

A proud new addition to the Tandberg family of precision crafted tape recording equipment! This unusual playback deck offers superb frequency response and is designed exclusively for installation into new or existing high fidelity systems with their own electronics. Features include: playback head for 2 & 4 track stereo and monaural tapes; start-stop button; 2 outputs for plug-in preamplifiers; facilities for adding erase and record heads. Adaptable for language laboratory and industrial use. Up to 18 hours of listening pleasure.

SPECIFICATIONS: 3 speeds; Frequency response — 7½ ips — 30-20,000 c. (±2 db., 30-16,000 c.) — 3¾ ips — 30-15,000 c. (±2 db., 40-11,000 c.) — 1⅞ ips — 50-7,000 c. (±2 db., 50-5,500 c.); **Power** — 110V, AC, 60 c., Hysteresis synchronous motor; **Operating lever knob** for playback, fast forward and fast reverse; **4 digit revolving counter; Complete mechanical drive;** 16 lbs.; 16" l. x 12" w. x 6" h. with mounting brackets.

MODEL 65 — **$199.50**



RE Tandberg SERIES 6 STEREO TAPE DECK

3 SPEED • 4 TRACK

The Tandberg 6 Stereophonic Recorder/Reproducer provides full facilities for home, education, business, broadcast and professional tape recording use. Plays back 2 and 4 track stereo and monaural tapes. Exhibiting a wide range of frequency response with high and low input, it incorporates 3 separate heads, each precisely gapped for record, playback and erase. 4 separate pre-amplifiers are built-in; 2 each for record and playback. Also features military type print circuitry, D.C. tube heating, low noise precision resistors, and a Hysteresis "Pabst" motor. May be incorporated into present hi-fi systems or is a complete portable stereo recorder. Operates via 5 push-button controls with remote control circuitry built-in and accessory foot pedal optional. The unique pause control permits no slur, no click start or stop pick-up for record or playback. Also provides Sound-on-Sound Simultaneous record or playback, direct monitor, echo effects and full 4 track stereo and monaural record or playback. Available in a hand rubbed cabinet with gun metal gray top panel and chrome trimmed black knobs. Measures 16" L x 12" W x 6" H. Total weight, 25 lbs.; with luggage carry case, 31 lbs.

BASIC SPECIFICATIONS — Playback Outputs 1.5V. cathode follower output.

FREQUENCY RESPONSE — 7½ ips ±2 db, 30 to 16000 c. 3¾ ips ±2 db, 40 to 11000 c., 1⅞ ips ±2 db, 50 to 5500 c.

WOW & FLUTTER—.1% RMS 7½ ips, .2% RMS 3¾ ips, .25% RMS 1⅞ ips.

FOUR TRACK STACKED PLAYBACK HEAD — Gap Width . . . .00012"

FOUR TRACK STACKED RECORD HEAD — Gap Width . . . .0003"

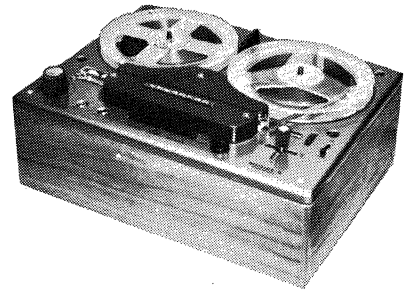
CROSS TALK REJECTION — 60 db

POWER REQUIREMENTS—110 to 245 V., 60 c, 65 w. Substitute 60 c. pulley with 50 c. pulley for 50 c. operation.

LIST PRICE **$498.00**

Foot Pedal ..... **$ 18.00**

Carry Case ..... **$ 24.00**



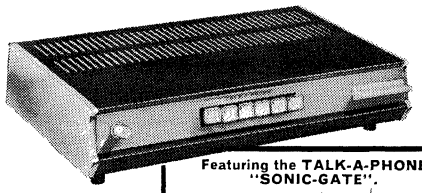
 © U.C.P., Inc.

NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

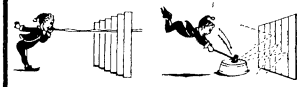
TWO NEW WIRELESS SYSTEMS

Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the **same electric company service transformer.** Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

NEW TALK-A-PHONE 6-STATION SELECTIVE WIRELESS* SYSTEM



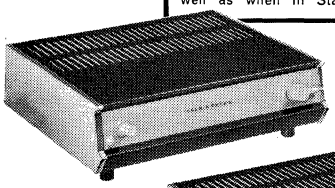
Featuring the TALK-A-PHONE "SONIC-GATE".

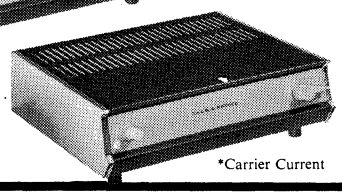


Your Voice Goes Through . . . Noise and Hum are Screened Out . . .

The Sonic Gate circuit effectively suppresses line noises and hum by 30 db while system is in actual operation, as well as when in Stand-By position.

- No Installation
- No Wiring
- No Cables
- Just Plug-in and Talk





*Carrier Current

• 3 Separate 2-Way Conversations Simultaneously with 6 Master Stations

• Selective Paging with Reply

Provides selective communication. Each Master is equipped with a 6-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 3 separate conversations may be held simultaneously, with 6 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system . . . use as many Wireless Staffs as needed (all Staffs must operate on same channel for this purpose). Two or more Wireless Staffs on the same channel will function as a 2-Station System (without Master); they can originate calls and reply to each other.

Start a system with any number of Masters and Staffs. Where up to 6 stations are used, each on a separate channel, Master can converse selectively with any channel. If more than 6 stations are used, channels must be *shared*; stations on same channel will receive all calls to that channel. To change location, merely pick up unit and move . . . no rewiring or new installation is necessary. All stations are equipped with the original TALK-A-PHONE UNI-TRANS feature, which permits continuous one-way transmission for periods when you wish to dictate or "listen-in."

T-LCM-8806. 6-Station Selective Wireless Master. Complete, with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14"wx8¾"dx3⅛"h. Shipping weight, 12½ lbs.
List Price Per Station $136.00 ..... Net **79.50**

Wireless Staff Stations. Receive and reply on a single channel only.

T-LCS-801 Channel 1	T-LCS-803 Channel 3	T-LCS-805 Channel 5
T-LCS-802 Channel 2	T-LCS-804 Channel 4	T-LCS-806 Channel 6

Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10½"wx8¾"dx3⅛"h. Shipping weight, 7 lbs.
List Price Per Station $77.00 ..... Net **45.00**

NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM

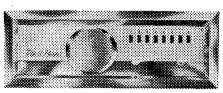
A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere, plug into electrical outlet and use—no re-wiring or new installation necessary. The original TALK-A-PHONE UNI-TRANS is built in—provides continuous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10½"wx8¾"dx3⅛"h.

T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System $138.00 . . . Net **79.90**

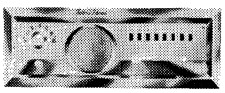
T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each $69.00 ..... Net **39.95**

CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
List Price per Station add $59.95 ..... Net add **$35.00**

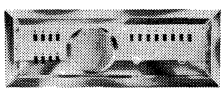
NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS



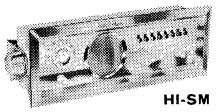
HI-9 or HI-8



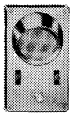
HI-9R or HI-29R



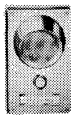
HI-16 or HI-17



HI-SM
Housing Assembly shown on Unit



HI-2



HI-1

T-LR-2R

This new TALK-A-PHONE Intercom System saves the housewife and homeowner miles of tiresome steps, hours of time . . . Makes home life easier, more comfortable and more enjoyable . . .

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM . . . from any room in the house, day or night • ANSWER OUTSIDE DOORS FROM ANY ROOM . . . in any part of the house—without opening doors to strangers • TALK FROM ROOM TO ROOM . . . back and forth, upstairs or downstairs, any time, day or night • YOUR FAVORITE RADIO PROGRAMS . . . follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly HI-SM, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 14⅛"w, 4⅜"h, 3½"d wall opening. Master front panel size: 15¼"w, 5¼"h. Sub-Stations are designed for flush mounting only, do not need Plaster Ring. Requires 2" square wall opening, 2" deep. Front Panel size: 3⅜"w, 5⅜"h. Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: 8 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private". If system has Model HI-9R Central Master (built-in radio), the Master, Staff and any Indoor Sub can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery.
List Price, Each, $99.50 ..... Net Each **58.00**

HI-9R Central Master Station. With built-in radio. Less battery.
List Price, Each, $154.00 ..... Net Each **89.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio.
List Price Each $146.00 ..... Net Each **85.50**

HI-29R Additional Master Station. With built-in radio. Less battery.
List Price, Each, $154.00 ..... Net Each **89.50**

STAFF STATIONS. 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-8 and HI-16 staff, as well as HI-2 indoor subs can listen to radio of HI-9R).

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private", as in baby or sick room use, another Staff or Master can listen in. Staff can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $54.00 ..... Net Each **31.50**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity.
List Price Each $99.95 ..... Net Each **58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any Master or Staff Station, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
List Price Each $19.00 ..... Net Each **11.00**

HI-2 INDOOR SUB-STATION. Use as many as needed, within system's capacity. Can receive and reply to calls from any Master or Staff. Can be switched from "private" to "non-private" operation to permit any Master or Staff to listen-in . . . Ideal for baby or sick room. Can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $27.50 ..... Net Each **15.95**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
List Price Each $27.50 ..... Net Each **15.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4⅛" square. Stainless steel front panel measures 4 13/16" square. Complete with plaster ring. Without push button or illuminated nameplate.
List Price Each $21.00 ..... Net Each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
List Price Each $6.80 ..... Net each **4.00**

HI-JB8 JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
List Price Each $7.00 ..... Net Each **4.00**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations.
List Price Each $9.95 ..... Net Each **5.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Note: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
List Price Each $27.50 ..... Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then total. Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total.
Indoor and Outdoor Sub-Stations: Connect to nearest Master or Staff only. Use #6206 cable for Indoor Sub; #6202 cable for Outdoor Sub.
Battery or Power Supply Unit: Connect with #6202 cable to Master Station s only.

CABLE. For indoor or outdoor use.

Type No.	No. Pairs	Approx. O.D.	LIST, Per Ft.	NET, Per Ft.
6226	13	½"	.47¢	28¢
6206	3	¼"	.14¢	8½¢
6202	1	⅛"	.06¢	3½¢

ARCHITECTS AND CONTRACTORS—HI-PR Plaster Rings. For Masters and Staffs, also available separately. (Sub-Stations do not use Plaster Ring). Approx. Size: 14-1/16" W x 4⅜" H x 3½" D. List Price Each $2.50 ..... Net Each **1.45**

All Prices Slightly Higher West of Rockies All Prices and Specifications Subject to Change Without Notice.
Manufactured under exclusive TALK-A-PHONE Patents

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

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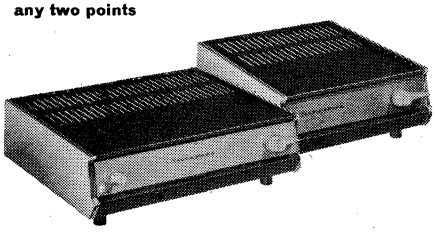
NEW TALK-A-PHONE Deluxe Intercom Systems

Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points—anywhere. Masters have translucent indicator which illuminates when system is "on." In cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheres. Size: Masters, 10½"w x 8¾"d x 3¼"h.; Subs, 7½"w x 8¾"d x 2⅛"h. U.L. Approved.

2-way voice communication between any two points



TALK-A-PHONE 2-STATION SYSTEM

T-LC-2 A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Stations can be used "privately" or "non-privately". When "private", Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private", persons at Sub-Station can answer calls at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulb, to show when system is "on". Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same style and color, but is in grained, baked enamel finish. U.L Approved.

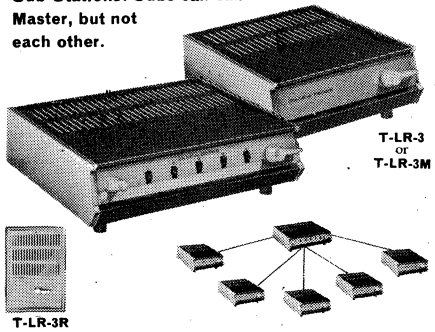
Model T-LC-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable. Wt. 13 lbs.
List Price complete $62.00.....Net complete **36.00**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station.
List Price per foot 6¾c.....Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c.....Net per foot **.03**

Optional Wall Mounting Brackets for Model T-LC-2 Sub-Station are available. See description below.

A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.



TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station plugs into an electrical outlet. You may start with only one Master and one or two Sub-Stations and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in each System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95.....Net each **34.95**

Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

Model T-AC-5406 Master Station. 5 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

Model T-AC-5411 Master Station. 10 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $89.95.....Net each **52.50**

Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50.....Net each **15.95**

Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00.....Net each **11.95**

Model T-LR-3R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4 13/16" W. x 7 3/16" H. Complete with plaster ring.
List Price each $21.00.....Net each **11.95**

Model T-SM-L Optional accessory for surface mounting T-LR-3R on wall.
List Price each $7.80.....Net each **4.60**

Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs.
List Price each $28.00.....Net each **16.50**

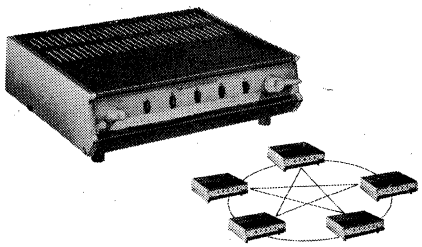
Model T-C-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs.
List Price each $44.95.....Net each **26.50**

T-S-100 Wall Switch for origination of call through T-C-20 or T-HP-3.
List Price each $6.00.....Net each **3.50**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master.
List Price per foot 6¾c.....Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c.....Net per foot **.03**

A system of up to ten Master Stations. Each station can call and communicate with any other.



TALK-A-PHONE SUPER SELECTIVE SYSTEMS

T-LS A new system of all Master Stations. Any Station can call any other Station in system. Several completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, offices, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your mind is at ease that no one can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-505 and T-AC-510 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95.....Net each **34.95**

Model T-LS-10 Super Selective Station for ten Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00.....Net each **44.00**

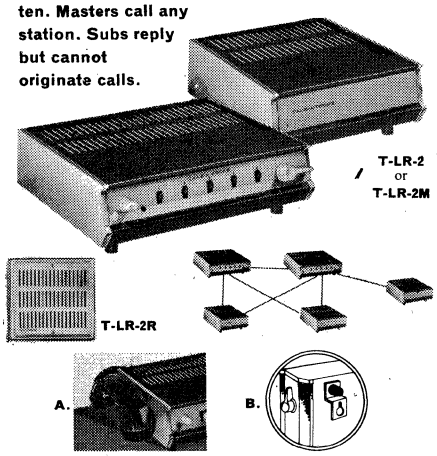
Model T-AC-505 Super-Selective Station for 5 Masters. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price $75.00.....Net each **44.00**

Model T-AC-510 Same as T-AC-505 except for 10 Masters.
List Price each $89.95.....Net each **52.50**

No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-AC-505 Masters.
List Price per foot 13c.....Net per foot **.07½**

No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters.
List Price per foot 24c.....Net per foot **.14**

A system combining one or more Master Stations with one or More Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.



TALK-A-PHONE COMBINATION SYSTEMS

T-CL For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram at left). Master Stations have the option of making themselves "private" or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total inter-connecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten stations. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts, AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions, Wt. 8 lbs. List Price each $72.00.....Net each **42.00**

Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $87.00.....Net each **51.00**

T-AC-605 Combination Master for 5-Station use. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price each $87.00.....Net each **51.00**

T-AC-610 Same as T-AC-605 except for 10-Station use.
List Price each $102.00.....Net each **59.95**

Model T-LR-2 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50.....Net each **15.95**

Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00.....Net each **11.95**

Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" square. Stainless steel front panel measures 4 13/16" square. Complete with plaster ring.
List Price each $21.00.....Net each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall. List price each $6.80....Net each **4.00**

Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price each $28.00.....Net each **16.50**

Model T-C-20 Nine-inch weather proof re-entrant horn. Charcoal gray color. List Price each $44.95....Net each **26.50**

No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters.
List Price per foot 24c.....Net per foot **.14**

No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters.
List Price per foot 47c.....Net per foot **.28**

No. 6902 (2-conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610.
List Price per foot 3½c.....Net per foot **.02**

A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-C-20, T-HP-3, T-LR-3R and T-LR-2R.) Add "H" to Model No. when ordering.
List Price Per Station, add $59.95.....Net, add **35.00**

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-C-41, T-C-41M, T-C-42, T-C-42M, and T-LC-2 Sub Station to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-W1 Mounting Brackets, per pair. List Price $1.25. Net **.75**

HOW TO DETERMINE CABLE REQUIREMENTS

For **Master Selective Systems** measure from each Sub-Station to the Master and order total. For **Super Selective Systems**—measure from first Master to second Master only, from second Master to third Master only, etc., and total. Cable between first and last Master not necessary. For **Combination Systems**—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc., and total; Sub-Station cable; measure from each Sub-Station to nearest Master only.

TALK-A-PHONE CO., CHICAGO 25, ILLINOIS

All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

Net

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THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS

One Model Meets Every Requirement

Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30, 40 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

- **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
- **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (so no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
- **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
- **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
- **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
- **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
- **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
- **UNI-TRANS DICTATION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
- **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
- **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
- **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
- **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
- **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
- **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
- **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
- **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more RW-10's. Connects to one Master, other Masters also utilize facilities.
- **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button. 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.

All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6' flexible cable. Master size: 14"w, 3⅛"h, 8¼"d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.
List Price Per Station $136.00.....Net **79.50**

T-C-4912 Master 12 station capacity. Wt. 14 lbs.
List Price Per Station $154.00.....Net **89.80**

T-C-4920 Master 20 station capacity. Wt. 17 lbs.
List Price Per Station $184.00.....Net **107.40**

T-C-4930 Master 30 station capacity. Wt. 20 lbs.
List Price Per Station $214.00.....Net **125.00**

T-C-4940 Master 40 station capacity. Wt. 23 lbs.
List Price Per Station $244.00.....Net **142.60**

T-C-4950 Master 50 station capacity. Wt. 26 lbs.
List Price Per Station $274.00.....Net **160.20**

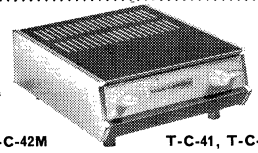
How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, etc., until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; and for T-C-4930 use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-20, T-C-42 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff originates calls (for each T-C-41 or T-C-42, follow same procedure).

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whether you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs.
List Price Per Station $235.00.....Net **138.00**

T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.
List Price Per Station $265.00.....Net **155.00**

T-C-42, T-C-42M


T-C-41, T-C-41M

T-C-41R

TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with any "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately", and can originate calls. When "non-private", calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7½"w x 8¾"d x 2⅞"h.

T-C-41. Staff Station for origination-of-call to one Master. Wt. 8 lbs.
List Price, Each $36.50.....Net **21.50**

T-C-41M. Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $29.95.....Net **17.50**

T-C-42. Staff Station for origination-of-call to two Masters. Wt. 8 lbs.
List Price, Each $45.00.....Net **26.50**

T-C-42M. Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $38.50.....Net **22.50**

T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4 13/16" W. x 7 5/16" H. Complete with plaster ring. List Price Each $29.95.....Net each **17.50**

T-SM-L Optional accessory for surface mounting T-C-41R on wall.
List price each $7.80.....Net each **4.60**

T-HP-3. Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price, Each $28.00.....Net **16.50**

T-C-20. Nine-inch weatherproof re-entrant horn. List Price, Each $44.95..Net **26.50**

Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering. List Price, Each—add $59.95.....Net add **35.00**

LD—Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add $20.00.....Net add **11.75**

T-S-101 Wall Switch For origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each $11.95.....Net **6.95**

T-S-102 Wall Switch For origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each $19.95.....Net **11.70**

T-RW-10 Right-of-Way Relay. List Price, Each $63.00.....Net **37.00**

T-HP-30 Power Booster. List Price, Each $138.00.....Net **81.00**

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call. List Price per Ft. 14c.....Net per Ft. **8½c**

6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 24c. Net per Ft. **14c**

6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 47c.....Net per Ft. **28c**

6902 Cable for connecting T-HP-3, T-C-20 without origination of call.
List Price per Ft. 3½c.....Net per Ft. **2c**

All Prices Slightly Higher West of Rockies-All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

New **"Built-in Business Intercom"** for offices, stores, medical centers, etc. can be supplied on request. Write today for details.

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

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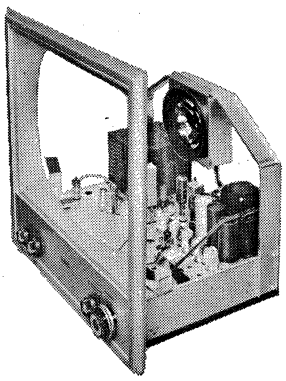
Net

TECH-MASTER CUSTOM-QUALITY TELEVISION

Model 2430 B-Gold Medal Video Master—The World Famous Unexcelled 630 Circuit That Ushered In TV—Now At Its Up-to-the-Minute Best

TECH-MASTER presents a custom quality, consistently dependable receiver combining time-proven circuitry with advanced engineering. This 28 tube chassis delivers flawless video response, crisp clear pictures with full tonal gradations, synchronized tuning of audio and video signals, efficient amplifications offers full-bodied sound.

FEATURES: Full power transformer, completely hand wired. High-gain tuner; exclusive synchro-lock circuit employs 4 tube AFC system with 3 stage noise clipping sync amplifier circuit unsurpassed for stability and drift free operation; 5 microvolt sensitivity; excellent interlace characteristics; 4 Mc Band Width; adjacent channel traps; 2 stage audio amplifier; direct coupled keyed automatic gain control; 3 stage sync chain incorporating high transconductance noise-limiting sync amplifier; synchronized audio and video circuit; 4 stage video I.F.; anti-blooming circuit; phono input with front panel switch; complete front panel controls for individual adjustments of brightness, horizontal and vertical hold, volume, contrast, channel selector, fine tuning, AC on-off control switch; easily accessible controls on rear of chassis for permanent adjustment during installation; latest model tuner . . . easily adapted to UHF without tools; hi-sweep auto transformer system for outstanding picture brilliance; time-honored basic 630 circuit with a 28 tube complement.



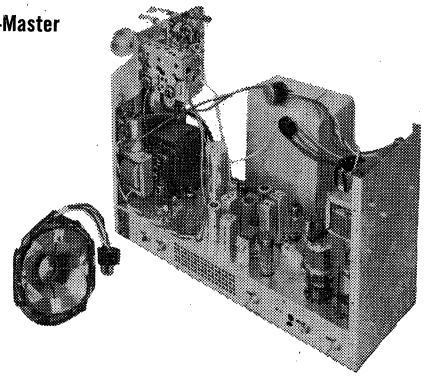
TECHNICAL DATA			
Video IF carrier Freq.	45.75 Mc	Video IF Amplifier	4 Stage
Band Width of Video IF	4Mc	Video Amplifier	2 Stage
Sound IF Carrier	41.25Mc	Overall gain of Video Amplifier	40 Times
Band Width of Sound Detector	350KC	Sound IF Amplifier	2 Stage
Adjacent Channel Trap (sound)	47.25	Audio Amplifier	2 Stage
Beat-suppressor trap	4.5Mc	Audio Output	5 Watts
Video Sensitivity (for 20 Volts peak to Peak at Kinescope Grid)	5 Microvolts	Power Consumption	330 Watts
		Tuner Input Impedance	300 Ohms

TUBE COMPLEMENT							
6BN4	R.F. Amp.	6AQ5	Audio Output	6AQ5	2nd Video	6AC7	Hor. Osc. Control
6CG8	Mixer Osc.	6CB6	1st Pix IF	6C4	Sync. Ampl., Hor.	6K6	Hor. Osc.
6AU6	AGC Control	6CB6	2nd Pix IF	6C4	Sync. Ampl., Vert.	6J5	Hor. Discharge
6AU6	1st Sound IF	6CB6	3rd Pix IF	6BF6	2nd Sync. Ampl. & AGC Clamp	6CD6	Hor. Output
6AU6	2nd Sound IF	6CB6	4th Pix IF			1B3	H.V. Rectifier
6AL5	Ratio Detector	6AL5	Pix 2nd Detector & D.C. Restorer	6DE7	Vert. Output.,Vert. Osc. & Discharge	6W4	Reaction Scanning
6AT6	1st Audio	6AU6	1st Video	6AL5	Hor. Sync. Disc.	2-5U4	Low Voltage Rectifiers

Model 2430B—for 90° tubes, with knobs; 12" speaker; mtg. brackets and hardware.....Net Price **$219.50**
Model 2430-10—for 110° Pix tubes with accessories as above. .....Net Price **$229.50**
P-21—21" Panel Assembly with glass & mask .....**$ 27.50**
P24—24" Panel Assembly with glass & mask .....**$ 32.50**

Constellation "61" Chassis . . . Model 6115 Built by Tech-Master

A star performer for conventional cabinet or built-in installation. AC transformer powered model, not commercially mass-produced, but hand crafted with the same care as our higher priced receivers. Super sensitive for fringe or troublesome areas, this Tv receiver operates efficiently with any standard indoor antenna in normal signal area. 15 tubes, 2 silicons, 3 diodes, power-packed circuit delivers bright, sharp, rock steady picture and clean, undistorted static-free sound.



FEATURES:

• 117V 60 cycles 170 watts input • Keyed automatic gain control • 3 stage—staggered—tuned IF • Auto-transformer high voltage system • 18 to 20 KV anode voltage • High Wattage audio output stage • Easily adaptable to top, side, or front tuning and adjustment of controls • Horizontal oscillator and locking controls • 130Vpp video output fully compensated stage for crisp, clear picture • Bright spot eliminator circuit—removes bright spot when set is turned off • Chassis measures only 6" x 17" x 1¾" for compact cabinetry • Wired for low-voltage electrostatic focus kinescopes • For 110° to 114° deflection picture tubes from 17" to 27". Can be used with 90° deflection tubes with minor changes • Adjustable noise cancellation circuit • Fully D.C. coupled video amplifier stage • Weight—21 lbs. • Complete with mtg. hardware, knobs and speaker, with all tubes but less PIX tube.

MODEL 6115 .....**$144.50**

TUBE COMPLEMENT:

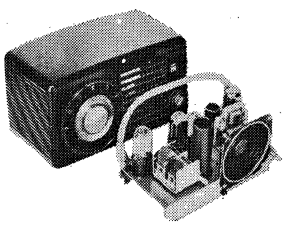
6CY5 RF Amplifier
6AT8 RF Oscillator and converter
2—6BZ6 1st, 2nd, IF Amplifier
6CB6 3rd IF Amplifier
12BY7 Video Amplifier
6U8 4.5 mc Amplifier, Sync splitter
6DT6 Sound detector
6BQ5 Audio output
6BU8 noise cancellation, sync separator, keyed AGC
6DE7 Vertical oscillator, vertical output
6CG7 Horizontal oscillator
6DQ6 Horizontal output
6AX4 Damper
1K3 H. V. Rectifier
2 Silicon rectifiers for low voltage supply
2 Diodes horizontal phase detector
1 Diode Video detector

MODEL 23A—TECH-MASTER'S DUO MASTER TV PLUG-IN TUNER. A Super Sensitive Black & White or Color TV Remote Control System

An ideal self-contained remote-control system for all TV sets. Just plug a single, thin coaxial lead into your TV receiver and you can select your station, fine-tune both picture and sound, and adjust picture intensity . . . right from your armchair, from up to 50 feet from the set. There is a separate loudspeaker in the handsomely styled DUO-MASTER cabinet . . . or you can use the speaker in your TV set or hi-fi system . . . or any extension speaker . . . or plug headphones right into the DUO-MASTER for private listening.

FEATURES: 3 IF stages; 2 audio stages; jacks with low impedance connections for external amplifier or tape recorder take-off; a complete television sound receiver.
Positive or negative going video signal output.
TUBES: 9 plus rectifier; separate audio detector; improved color response thru isolation circuit design.
SIZE: 12½" x 8" x 6"; **WGT.:** 15 lbs. Net Price.....**$79.50**

DELUXE AC-DC SUPERHET RADIO KIT



MODEL 3B5-K—Complete with modern, handsome Bakelite cabinet (10" x 5½" x 5½"), station selector and control knobs. Tunes AM broadcasts from 550-1720 KC. Super-sensitive, high gain circuit for best reception. Built-in loop antenna. Automatic volume control circuit eliminates blasting or fading.

TUBES: 12SA7, 12SK7, 12SQ7, 50L6 and 25Z5 rectifier. Schematic and pictorial diagram with clear assembly instructions supplied for simple assembly.
POWER: 115-125 V, 50/60 cy. or D.C. Wgt.: 6 lbs.
NET PRICE (less wire & solder) **$19.95**

TECH-MASTER corporation—Brooklyn, New York

Net

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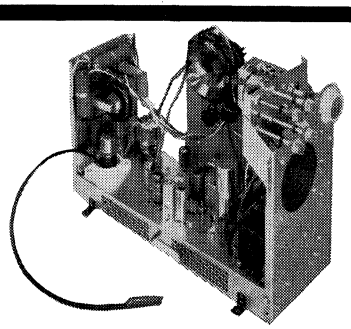
TECH-MASTER QUALITY KITS AND COMPONENTS

VIDEOLA TV Craft Kit By Tech-Master



The most up-to-date TV kit, with the latest improvements in tubes and circuitry. Ideal for student work or home project. This kit not only provides excellent training in television, but builds into a first-class, top quality modern receiver that anyone would be proud to own. Coils are preadjusted and tuned at the factory. Quality components, carefully selected and packed by personnel experienced in the TV-kit field insure satisfaction. Step-by-step instructions with pictorial and schematic diagrams are easy to follow—leave nothing to the imagination. Sockets, terminal strips and connectors riveted on chassis.

FEATURES:

• Advanced and improved, super-selective, 12-channel tuner • Full power transformer for **safe** cold chassis operation • Operates new low-voltage electrostatic-focus kinescope (17" to 27"—including 19" and 23" sizes)—110° to 114° deflection • 18 to 20 KV anode voltage • High-efficiency circuit-sensitivity of 9uv at 20V peak-to-peak • High power audio output • Three-stage stagger-tuned IF using high-gain bi-filar coils. • Keyed Automatic gain control • Adjustable noise cancellation circuit • Bright spot eliminator circuit—removes bright spot when set is turned off • Ceramic core horizontal output transformer with beam power amplifier • 6 x 17 x 1¾ chassis size • Weight 21 lbs.

MODEL 1561 .....**PRICE $99.95**

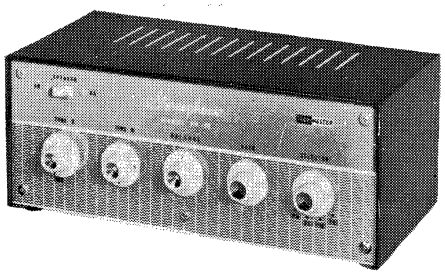
TUBE COMPLEMENT:

6CY5 RF Amplifier; 6AT8 RF Oscillator and converter; 2—6BZ6 1st, 2nd IF Amplifier; 6CB6 3rd IF Amplifier; 12BY7 Video Amplifier; 6U8 4.5 mc Amplifier, Sync Splitter; 6DT6 Sound detector; 6BQ5 Audio output; 6BU8 Noise cancellation, sync separator, keyed AGC; 6DE7 Vertical oscillator, vertical output; 6CG7 Horizontal oscillator; 6DQ6 Horizontal output; 6AX4 Damper; 1K3 H.V. rectifier; 2 Silicon rectifiers for low voltage supply; 2 Diodes horizontal phase detector; 1 Diode Video detector.

QUANTITY PURCHASES — TV kits and wired chassis available for schools, export (in all voltages) and other special applications. Quotations and specifications supplied on request.

PA 39—A Most Versatile 14 Watt Stereo Amplifier and Preamplifier.

Ideal for 90% of All Hi-Fi Stereo Layouts



This highly adaptable system is as elegant to the eye as the ear . . . beautiful blue and white front panel with blue-gray case (also in gold and sun tan panel with walnut case.) Two channels of faithful audio faultlessly designed, skillfully produced. TECH-MASTER'S diversified background and experience make the low price possible. Servicemen recommend it for its ease of installation. The simple sandwich type panel-mount eliminates unnecessary fuss and cost.

FEATURES:
Completely hand wired, dual channel, crystal or ceramic phono and tuner inputs; ganged gain control; balance control, two separate tone controls; monaural-stereo switch; speaker reversing switch; transformer power supply for complete line isolation.

TUBES: 2-EL 84, 12AX7, EZ80 **DIM:** 10⅝" W x 5⅜" D x 4⅝" H

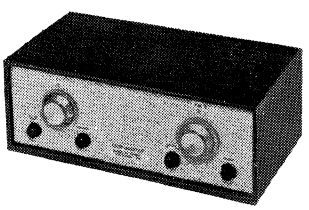
PA 39 Blue & White .....**NET PRICE $49.50**

PA 39G Two Tone Gold .....**NET PRICE $49.50**

PA 39 + For Magnetic Cartridge—Uses Hum Free 2 Transistor Preamplifier .....**NET PRICE $69.50**

P3 39G + For Magnetic Cartridge—Uses Hum Free 2 Transistor Preamplifier .....**NET PRICE $69.50**

Model 42 Plug-In Duo Master Combination High Fidelity FM Tuner & TV Remote Control System. The Only Instrument of Its Type and Only Tech-Master Makes It!



This unique self-contained unit needs only a thin coaxial plug-in lead to bring you the ultimate In TV picture and sound for every purpose . . . tape recording, monitoring, etc. Attached to your TV set, it allows you armchair selection of stations (up to 50 feet from set), fine tuning of pictures and sound, and adjustment of picture intensity. Cabinet contains separate loud speaker or you may use the speaker in your TV set or hi-fi system . . . or any extension speaker . . . or play headphones right into the DUO MASTER for private listening.

The FM tuner covers the full FM band (88-108 Mc.) . . . Limiter and AFC circuit for easy pin-point tuning . . . Manually controlled AFC cutoff to pick up weak signal stations adjacent to strong signal stations . . . Sensitivity is 4 microvolts for 20 db quieting . . . Uses balanced ratio detector . . . Full power transformer operation for line isolation . . . Standard de-emphasis network automatically regulates high-frequency response . . . Micro-Vernier tuning.

FEATURES: 2 high gain television I.F. stages—2 high gain FM I.F. stages—2 audio stages with output transformer and speaker—Contrast; TV-FM-FM AFC; and volume controls—full power transformer—Silicon rectifier power supply—Multiplex; FM-TV audio; video; and external speaker outputs.

TUBE COMPLEMENT-TV:
6CY5 R.F. Amplifier
6AT8 OSC., Mixer
6GM6 1st. I.F.
6EW6 2nd. I.F.
1N295 Diode Detector
6U8 Cathode Follower, Sound I.F. Amp.

FM TUBES:
6AQ8 R.F. Amp., Osc., Mixer
6BA6 1st I.F.
6BA6 2nd I.F., Limiter
2 Diodes Detector
1 Diode AFC

AUDIO:
6T8 TV sound detector, amplifier
6AS5 Audio output

117 V 60 cycles 50 watts
SIZE: 14½ x 7¼ x 5½
WEIGHT: 18 lbs.

NET PRICE **$129.50**

TECH-MASTER corporation—Brooklyn, New York

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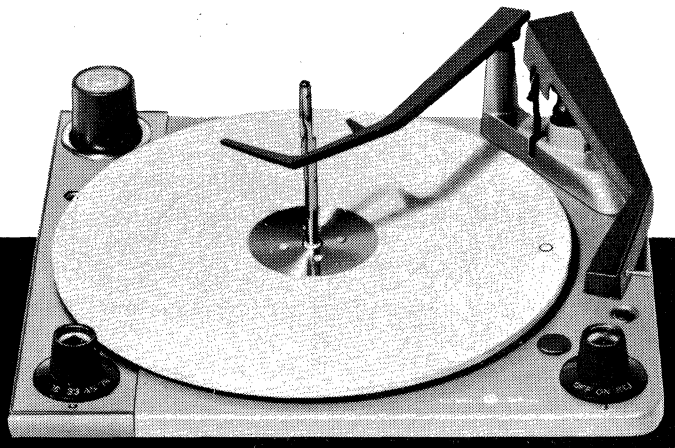
HIGH-QUALITY...HIGH-FIDELITY

V-M COMPONENTS



V-M Deluxe 'Stere-O-Matic'® 4-Speed Automatic Record Changer MODEL 1571

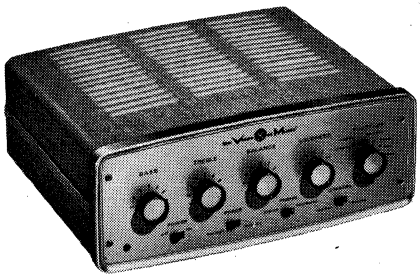
Shown with accessory 45 rpm spindle adaptor in handy baseplate spindle well.

transcription-turntable performance... automatic changer convenience!

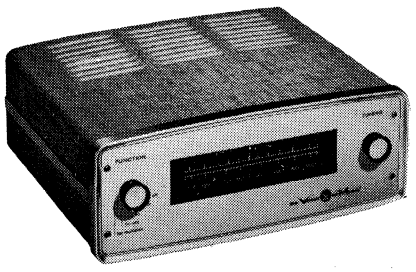
The V-M Deluxe 'Stere-O-Matic' offers many functional, selling features. As a V-M dealer, you enjoy greater profits. Your customers benefit by listening to many hours of flawless musical pleasure. The precision internal mechanism and professional styling are evidence of the inherent Quality of all V-M products.

- Ideal for any custom Hi-Fi installation!
- **Diamond Needle** assures hundreds of hours of lasting pleasure.
- **Extra-Long, Dynamically-Balanced, Non-resonant Tone Arm With Finger-Lift** reduces the possibility of uneven needle pressure on the walls of the record groove; affords easy, precise placement of tone arm.
- **Professionally Massive 11″ Transcription-Type Turntable** affords perfect balance, practically eliminates microphonic tendencies!
- **Automatic Manual-Play** feature returns tone arm to rest post automatically after single record play!
- **Micro-Precision Turntable Bearing System** for closer running clearance of oilite bearings plus an almost frictionless TEFLON thrust bearing.
- **V-M Styling** pleases everyone with its sparkling, functional appeal.
- **V-M Model 1571** ..... **$50.00*** List

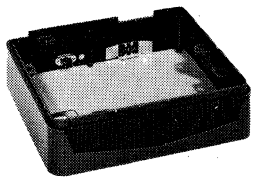
Available with 4-pole motor and plug-in tone arm head for individual cartridge selection as **Model 1572** ..... **$50.00*** List



V-M Stereophonic High-Fidelity Accessory Amplifier—Model 1428 • Precision-built AC operated audio amplifier • Built-in pre-amplifier • Integral controls • Dual-Channel, push-pull output of 30 watts (peak), 15 watts (peak) per channel • Five stereo inputs • .. **$129.95** List



V-M High-Fidelity FM-AM Component Radio Tuner—Model 1416 • FM-AM with AFC • Provision for FM multiplex stereo reception • Armstrong FM circuit with limiter • Foster-Seeley discriminator • Superheterodyne AM circuit with 3-gang condenser • ..... **$119.95** List



High-Impact Plastic Base affords complete ease of mounting installation. Fits V-M Deluxe 'Stere-O-Matic' Record Changer models 1571, 1572, standard 'Stere-O-Matic' model 1551, and V-M Custom turntable model 1580.
V-M Model 1438 ..... **$5.95** List

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SELL THESE V-M PRESTIGE PRODUCTS OF 'SOUND' QUALITY FOR SOUND PROFITS!

the Voice of Music®

V-M CORPORATION • BENTON HARBOR, MICHIGAN

KNOWN FOR THE FINEST IN RECORD CHANGERS, PHONOGRAPHS AND TAPE RECORDERS

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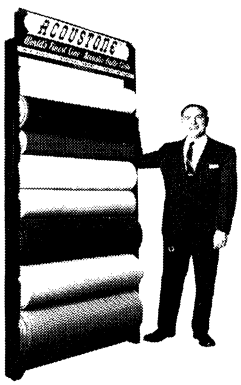

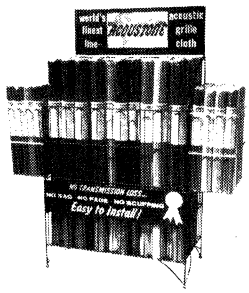

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- SPARKLING NEW DECORATOR DESIGNS
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- WALL PANELS, FURNITURE PANELS
- WILL NOT SAG, SCUFF OR FADE
- EASILY INSTALLED

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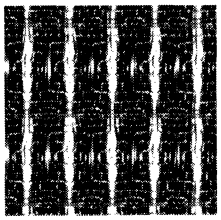
Carefully chosen each year from 5,000 designs for decorator needs

Pattern No.	Description	Net Sq. Yd.	Pattern No.	Description	Net Sq. Yd.
211	Mahogany with Ivory Threads	$3.50	1214M	Brn/Bge & Met Gold Thrds	$4.25
212	Mahogany with Beige Threads	3.50	103	Silver/Black & Wht Cobweb	5.00
213	Mahog with Gold Rayon Thrds	3.50	3240	Mahogany/Tan & Met Gold	5.00
214	Mahog with Copper Ray Thrds	3.50	253	Tan/Brown & Silver Met Thrds	5.00
321	Walnut/Gold & White Thrds	3.50	290B	Mah/Brown & Wht Uphol Yarn	5.00
450	Solid Black	3.50	300	Mahog & Gold Metal Cobweb	5.00
452B	Black with Gold Threads	3.50	453	Black with Gold Metal Cobweb	5.00
511	Blonde with Brown Threads	3.50	454	Charcoal & Silver Met Cobweb	5.00
611	Solid White	3.50	560B	Blonde/Brn & Wht Uphol Yarn	5.00
625	Grey with Black Threads	3.50	618	White with Gold Met Cobweb	5.00
811	Tan with Bronze Threads	3.50	619	Wht/Blk & Gold Met Cobweb	5.00
812	Tan with White Threads	3.50	805	Beige/Wht & Brown Pagoda	5.00
1216A	Beige/Gold with Black Thrds	3.50	814BM	Beige/Wht & Met Gold Thrds	5.00
5112	Tan/Brown with Maroon Thrds	3.50	1011	Solid Gold	5.00
215M	Mah/Beige & Met Gold Thrds	4.25	1012	Solid Silver	5.00
412M	Wht/Black & Met Silver Thrds	4.25	1802	Woven Cane-Brown/Tan	5.00
413M	Wht/Black & Met Gold Thrds	4.25	1803	Woven Cane-Walnut/Tan/Gold	5.00
512M	Beige/Bronze & Met Gold Thrds	4.25	1804	Woven Cane-Brown/Tan/Cocoa	5.00
515M	Blonde/Blk & Met Gold Thrds	4.25	1809	Woven Cane-Walnut/Tan	5.00
616M	White/Blk & Met Gold Thrds	4.25	1824	Tan/Black Bamboo Weave	5.00
617M	Solid White/Met Gold Thrds	4.25	1826A	Woven Cane-Brown/Tan/Wht	5.00
711M	Bge/Bronze & Wht Uphol Yarn	4.25	2016	Tan/Brown Gold Metal Box	5.00
804BM	Bge Straw & Met Gold Thrds	4.25	2025	Tan/Brown Cane with Metal	5.00
813	Beige with Beige Straw	4.25	3881	Tan/Brown Novelty Cane	5.00
857	Beige with Beige Straw	4.25	7104	Tan/Varied White & Metal	5.00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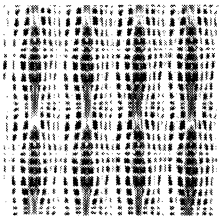
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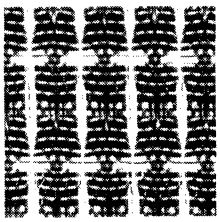
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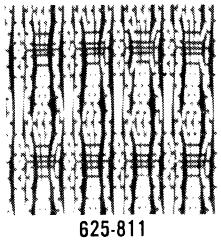
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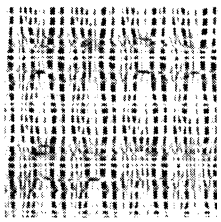
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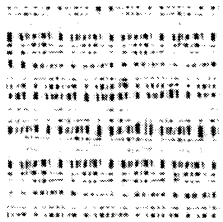
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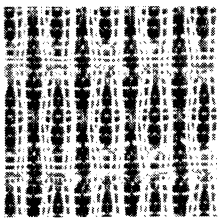
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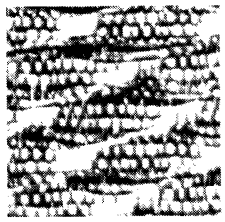
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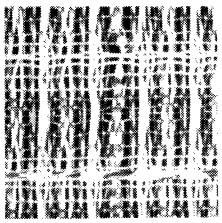
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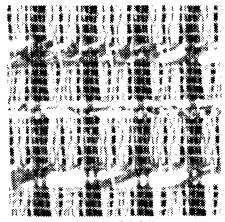
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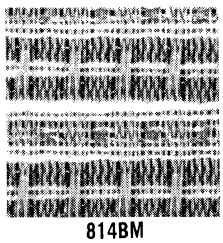
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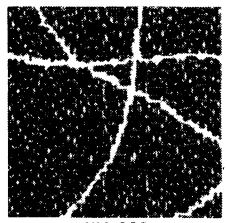
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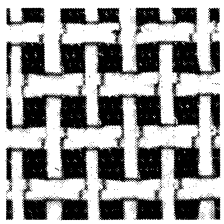
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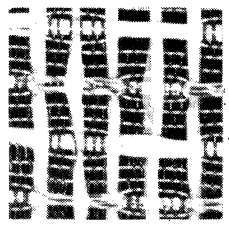
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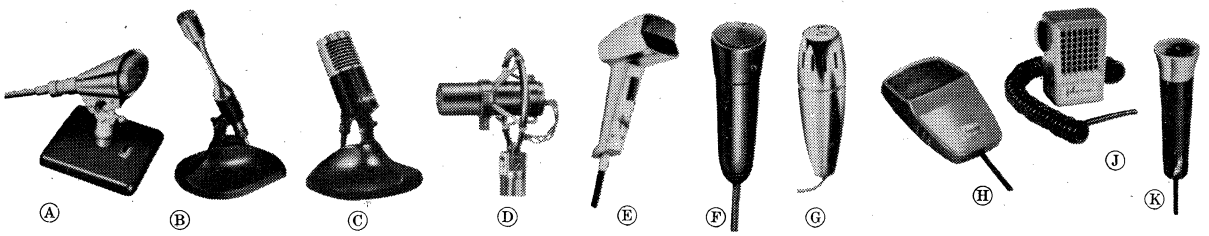
*Engineered for Sound–Designed for Beauty

ACOUSTONE

A DIVISION OF NEWCASTLE FABRICS CORP.

AMERICAN MICROPHONES AND ACCESSORIES



(A) MODEL D 10 PA-GENERAL PURPOSE OMNI DIRECTIONAL MICROPHONE—Frequency response is 50 to 15,000 cps. Impedance low 150 ohms and high 40,000 ohms. Mylar diaphragm. "Slide lock mount" for quick removal from stand.
Net Price **$17.70**

(B) MODEL D 22 DYNAMIC OMNI-DIRECTIONAL—Variable impedance — low and high. Frequency response from 50-12,000 cps. Impedance from 50 to 40,000 ohms.
Net Price **$59.70**

MODEL D 33 VARIABLE IMPEDANCE—LOW AND MEDIUM—Impedance from 50 to 250 ohms.
Net Price **$78.00**

(C) DR 330 DYNAMIC AND RIBBON CARIOID—Variable low-medium impedance—variable polar pattern. Frequency response 40 to 15,000 cps.
Net Price **$150.00**

R 331 RIBBON—BI-DIRECTIONAL.
Net Price **$84.00**

DR 332 DYNAMIC AND RIBBON CARDIOID.
Net Price **$97.50**

(D) D 44 DYNAMIC—OMNI-DIRECTIONAL — Low 50 ohm impedance. Frequency response from 50-15,000 cps.
Net Price **$141.00**
With wind screen, D44/WS2 **163.50**

(E) MODEL D 11 HAND HELD OMNI-DIRECTIONAL DYNAMIC—Frequency response 50 to 12,000 cps. Impedance 150 and 40,000 ohms.
Net Price **$21.60**

(F) LAVALIER MICROPHONE D 12 OMNI-DIRECTIONAL—Frequency response 70 to 12,000 cps. Impedance — low 150 ohms, high 40,000 ohms.
Net Price **$35.70**

(G) 204 SERIES PUBLIC ADDRESS AND GENERAL PURPOSE MICROPHONES—Low or high impedance.

D204 DYNAMIC TYPES	Net **$10.20—$14.58**
B204 CERAMIC TYPES	Net **$ 9.60—$10.38**
X204 CRYSTAL TYPES	Net **$ 9.60—$10.98**

(H) TAPE RECORDER MICROPHONES

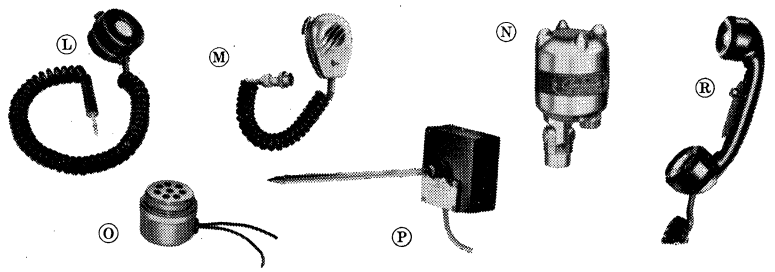
X203 CRYSTAL TYPES	Net **$5.01—$5.79**
B203 CERAMIC TYPES	Net **$6.90—$7.68**

(J) CITIZENS BAND TRANSCEIVER MICROPHONE—Frequency response 40 to 8,000 cps. Exclusive "Slide-Lock" switch.

208 CERAMIC SERIES	Net **$6.30—$8.37**
208 CRYSTAL SERIES	Net **$6.30—$8.37**

(K) X 206 SERIES PORTABLE CRYSTAL — ALL-PURPOSE MICROPHONE—Frequency response 40 to 12,000 cps. High impedance.
Net **$4.77—$5 55**

B206 (Ceramic)
Net **$4.77—$5.55**



(L) 504 SERIES MOBILE MICROPHONES — Frequency response 300-3,000 cps. Impedance 40 ohms.
Net **$18.60—$20.40**

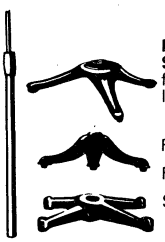
(M) 501 SERIES MOBILE DYNAMIC MICROPHONES—Frequency response 300 to 3000 cps.
D 501 — Low Impedance
Net **$15.30—$20.40**
D 501 — High Impedance
Net **$17.70—$20.40**
CARBON MICROPHONE—501 A—Low Impedance
Net **$14.70—$19.80**

(N) D4 SERIES OMNI-DIRECTIONAL DYNAMIC MICROPHONES—Frequency response 50 to 8,000 cps.
D4 low impedance.
Net **$16.80—$18.60**
D4T high impedance.
Net **$18.60—$21.30**

(O) D801 MINIATURE DYNAMIC MICROPHONE—Frequency response 250 to 6,000 cps. Low impedance.
Net **$8.55**

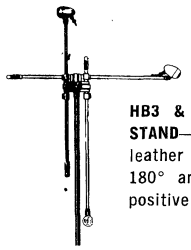
(P) VP-1 CRYSTAL VIBRATION PICK-UP—High impedance. A sensitive probe type pickup used to "listen" to mechanical vibrations.
Net **$23.97**

(R) H602 SERIES DYNAMIC HAND SETS—Impedance 35 ohms.
Net **$15.48—$19.05**



FL3, FH3 and SS-1-M FLOOR STANDS — Extends to six feet. Positive-lock control, leather cushioned.

FL3	Net **$17.10**
FH3	Net **$17.10**
SS-1-M	Net **$23.70**



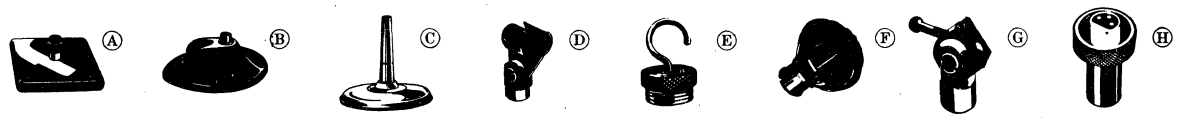
HB3 & BH-1-M STUDIO BOOM STAND—Extends to 6 feet. Dual leather positive-lock controls. 180° angle adjustment. Silent, positive fingertip control.

HB-3	Net **$22.80**
BH-1-M	Net **$29.70**

COIL CORDS — Replacement cords for C501, D501, C504 and H600 series microphones.
Net **$3.90—$7.08**

B3-M BOOM ASSEMBLY—For mounting on any floor stand equipped with standard 5/8"-27 thread mounting.
Net **$13.80**

SEND FOR American Microphone's complete new illustrated Catalog FR-004-P. Free!



(A) S905 DESK STAND—Die-cast zinc, with non-scratch anti-rumble feet. Microphone mounting — standard 5/8"-27 thread.
Net **$3.30**

(B) ND-1-M DESK STAND — Exclusive American "cut-away" design permits use of microphone in vertical position.
Microphone mounting—standard 5/8"-27 thread.
Net **$7.68**

(C) DD-1-M DESK STAND—Microphone mounting — standard 5/8"-27 thread.
Net **$4.56**

(D) S-902 STAND ADAPTER—Floor stand type. 5/8"-27 thread for use with 204 microphone series.
Net **$2.70**

(E) SE-1 SUSPENSION EYE—Swivel eye, for suspending microphone. Microphone mounting — standard 5/8"-27 thread.
Net **$1.44**

(F) WS2 WIND SCREEN—Exclusive American design offers efficiency in winds up to 35 miles per hour. For D33, D22 and D44.
Net **$24.90**

(G) M904 "SLIDE-LOCK" STAND FITTING — For quickly and easily removing microphone from stand 5/8"-27 thread on swivel and slide locking assembly.
Net **$4.56**

(H) AP-1-F STAND FITTING FOR D44 MICROPHONE—Female connector to macth male termination of microphone. Supplied with ring-lock ferrule.
Net **$6.90**

Net
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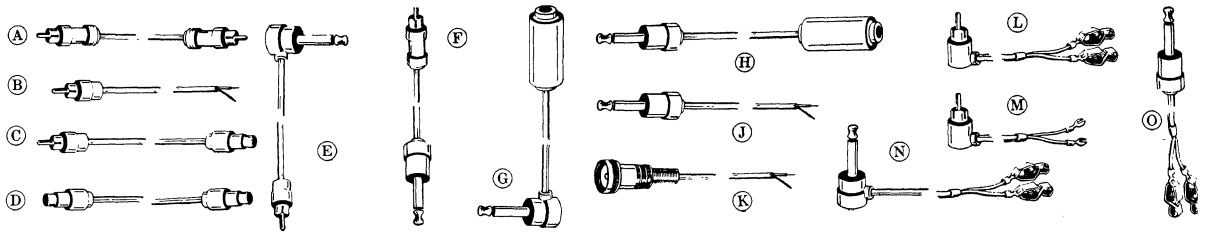
AMERICAN MICROPHONE ACCESSORIES



(A) SHIELDED CABLE, PHONO PIN PLUGS ON BOTH ENDS

37-400	Length 18″	Net $ .60
37-402	Length 36″	Net $ .75
37-404	Length 72″	Net $ .90
37-406	Length 144″	Net $1.20

(B) SHIELDED CABLE, PHONO PIN PLUG ON ONE END, OTHER END STRIPPED AND TINNED

37-412	Length 18″	Net $ .54
37-414	Length 36″	Net $ .60
37-416	Length 72″	Net $ .75
37-418	Length 144″	Net $1.05

(C) SHIELDED CABLE, PHONO PIN PLUG ON ONE END, AND PHONO PIN JACK ON OTHER END

37-424	Length 18″	Net $ .75
37-426	Length 36″	Net $ .81
37-428	Length 72″	Net $1.05
37-430	Length 144″	Net $1.35

(D) SHIELDED CABLE, PHONO PIN JACKS ON BOTH ENDS

37-434	Length 18″	Net $ .93
37-436	Length 36″	Net $1.08
37-438	Length 72″	Net $1.35

(E) SHIELDED CABLE, 72″ LONG, PHONO PIN PLUG ON ONE END, 90° PHONE PLUG ON OTHER
37-442 Net $1.20

(F) SHIELDED CABLE, 72″ LONG, PHONO PIN PLUG ON ONE END, STANDARD PHONE PLUG ON OTHER
37-444 Net $1.20

(G) SHIELDED CABLE, 10′ LONG 90° PHONE PLUG ON ONE END, PHONE JACK ON OTHER
37-446 Net $3.00

(H) SHIELDED CABLE, 10′ LONG, STANDARD PHONE PLUG ON ONE END, PHONE JACK ON OTHER END
37-448 Net $3.00

(J) SHIELDED CABLE, 72″ LONG, PHONE PLUG ON ONE END, OTHER END STRIPPED AND TINNED
37-450 Net $1.14

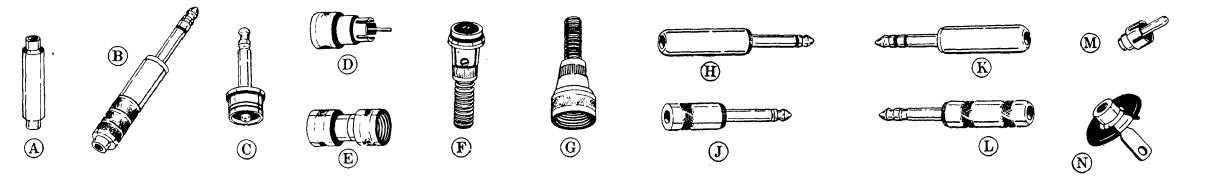
(K) SHIELDED CABLE, 10′ LONG, MIKE CONNECTOR ON ONE END, OTHER END STRIPPED AND TINNED
37-452 Net $1.62

(L) TWO CONDUCTOR CABLE, 10′ LONG, WITH ALLIGATOR CLIPS ON ONE END AND 90° PHONO PIN PLUG ON OTHER END
37-456 Net $1.35

(M) TWO CONDUCTOR CABLE, 10′ LONG, WITH SPADE LUGS ON ONE END AND 90° PHONO PIN PLUG ON OTHER END
37-458 Net $1.11

(N) TWO CONDUCTOR CABLE, 10′ LONG, WITH ALLIGATOR CLIPS ON ONE END AND 90° PHONE PLUG ON OTHER END
37-460 Net $1.44

(O) TWO CONDUCTOR CABLE, 10′ LONG, WITH STANDARD PHONE PLUG ON ONE END AND ALLIGATOR CLIPS ON OTHER END
37-462 Net $1.44



(A) ADAPTER, PHONO PIN JACK, FOR CONNECTING TWO PHONO PIN PLUGS TOGETHER.
37-470 Net $ .60

(B) ADAPTER, PHONO PIN PLUG TO STANDARD PHONE PLUG
37-472 Net $1.17

(C) ADAPTER, FEMALE MIKE CONNECTOR TO STANDARD PHONE PLUG
37-474 Net $ .27

(D) ADAPTER, MIKE CONNECTOR TO PHONO PIN PLUG
37-476 Net $ .60

(E) CONNECTOR FOR TWO MALE MIKE CONNECTORS
37-478 Net $ .60

(F) MIKE CONNECTOR, SINGLE CONTACT, MALE
37-480 Net $ .30

(G) MIKE CONNECTOR, SINGLE CONTACT, FEMALE
37-482 Net $ .42

(H) STANDARD PHONE PLUG, 2 CONTACT, PLASTIC HANDLE
37-484 Net $ .48

(J) STANDARD PHONE PLUG, 2 CONTACT, "STUB-BY" METAL HANDLE (SHIELDED)
37-486 Net $ .60

(K) PHONE PLUG, 3 CONTACT, PLASTIC HANDLE
37-488 Net $ .90

(L) PHONE PLUG, 3 CONTACT, METAL HANDLE (SHIELDED)
37-490 Net $ .90

(M) PHONO PIN PLUGS, PACKAGE OF 4
37-492 Net $ .33

(N) PHONO PIN JACKS, PACKAGE OF 3
37-494 Net $ .33

PHONO CARTRIDGES

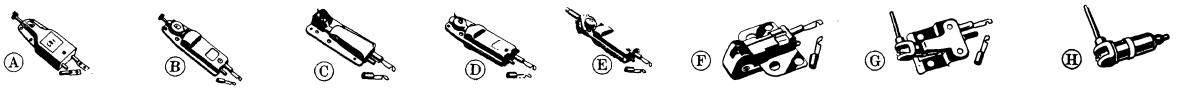


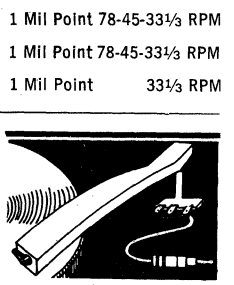
Illustration	Osmium Needle Model No.	Dealer Net	Sapphire Needle Model No.	Dealer Net	Output Level Std.	Output Level Mg.	Response To	Needle Pressure	Needle Data Std.	Needle Data Mg.	Speed Application
					SINGLE NEEDLE CRYSTAL CARTRDIGES						
A	CR1(1)	2.34			3.0 Volts		8,000 cps	1¼ oz.	None Supplied(1)		78 RPM
A	CR2(1)	2.34	X105C	4.20	1.5 Volts		7,000 cps	1⅛ oz.	None Supplied(1)		78 RPM
B	CR3(1)	2.34			3.0 Volts		8,000 cps	1¼ oz.	None Supplied(1)		78 RPM
C	X105B	3.90				1.0 Volt	15,000 cps	6 Grams	1 Mil Point		45-33⅓ RPM
C	X106B	3.90			1.2 Volts		7,000 cps	8 Grams	3 Mil Point		78 RPM
C	X107B	3.90		4.20	1.2 Volts	1.0 Volt	15,000 cps	8 Grams	2 Mil Point		78-45-33⅓ RPM
B	X108(2)	3.30			6.0 Volts	4.0 Volts	8,000 cps	12 Grams	None Supplied(2)		78-45-33⅓ RPM
A	X109(2)	2.97			4.0 Volts	3.0 Volts	5,000 cps	12 Grams	None Supplied(2)		78-45-33⅓ RPM
D	X111B	3.90	X111C	4.20		4.0 Volts	6,000 cps	10 Grams	1 Mil Point		45-33⅓ RPM
D	X112B	3.90	X112C	4.20	6.0 Volts	4.0 Volts	6,000 cps	10 Grams	2 Mil Point		78-45-33⅓ RPM
D	X113B	3.90			6.0 Volts		5,000 cps	10 Grams	3 Mil Point		78 RPM
					TURNOVER CRYSTAL CARTRIDGES						
E	X101B	4.80	X101BC(3)	5.10	6.0 Volts	4.0 Volts	7,000 cps	10 Grams	3 Mil Point	1 Mil Point	78-45-33⅓ RPM
					SINGLE NEEDLE CERAMIC CARTRIDGES						
F	B101B	3.90	B101C	4.20		1.0 Volt	12,000 cps	8 Grams	1 Mil Point		45-33⅓ RPM
F	B102B	3.90	B102C	4.20	1.2 Volts	1.0 Volt	12,000 cps	8 Grams	2 Mil Point		78-45-33⅓ RPM
F	B103B	3.90			1.2 Volts		7,000 cps	8 Grams	3 Mil Point		78 RPM
					TURNOVER CERAMIC CARTRIDGES						
G			B110C(4)	4.20	1.2 Volts	1.0 Volt	12,000 cps	8 Grams	3 Mil Point	1 Mil Point	78-45-33⅓ RPM
H			B810C(5)	3.60	1.2 Volts	1.0 Volt	12,000 cps	8 Grams	3 Mil Point	1 Mil Point	78-45-33⅓ RPM
H			B811C(5)	3.60	1.2 Volts	1.0 Volt	12,000 cps	8 Grams	1 Mil Point	1 Mil Point	33⅓ RPM

NOTES:
(1) No needle supplied. Best operation is obtained with offset type needle.
(2) No needle supplied. Permo #B310, Jensen #J752 or Equal recommended.
(3) Sapphire needle supplied on LP side only. Osmium needle supplied on 78 RPM side.
(4) Includes mounting bracket.
(5) Replacement "throwaway" element for B110C cartridge.

STEREO TONE ARM ADAPTER

Merely add to present tone arm wires. Connect old output wire to one amplifier and connect new output wire to second amplifier. Ultra Flexible wires used in tone arm leads to insure no difficulty in tracking records. Wires shielded and insulated to prevent "Hum-Loops" and shock.

37-396	Adapter with 36″ Output Cable	Net $1.29
37-398	Adapter with 72″ Output Cable	Net $1.50



ASTATIC MICROPHONES

THE ASTATIC CORPORATION CONNEAUT, OHIO

PROFESSIONAL PRECISION DYNAMIC MICROPHONES FOR SOUND STAGE—TAPE RECORDING—TV AND BROADCAST (FIGURE B.)

Strikingly styled, superior performance. Omnidirectional, widest range, pop and blast proof Mylar diaphragm. Pressure cast body. Complete with lavalier assembly, swivel adaptor and 20 feet of two-conductor shielded cable.

MODEL 788: Excellent for tape recording, orchestras and PA. Dual impedance 150 ohms and high. High output —55 db. Frequency Response 60-13,000 cps. Built in on-off switch. Finish—satin black body, satin gold trim. List Price—$79.50. Shipping weight—12 oz.

MODEL 888: Designed for wide applications; sound stage, tape recording, TV and broadcast. High output —56 db. Frequency Response 50-15,000 cps, multi-impedance selection. Finish—black body with chrome trim. List Price—$110.00. Shipping weight—1½ lbs.

MODEL 988: Extended range (40-20,000 cps) professional microphone for TV broadcast, group pickup. High output —57 db, Frequency Response 40-20,000 cps, multi-impedance selection 50-150-250 ohms. Finish—satin black body with satin gold trim. List Price—$150.00.

CARDIOID DYNAMIC MICROPHONES FOR PUBLIC ADDRESS AND INDUSTRIAL APPLICATIONS, RECORDING, TV AND BROADCAST (FIGURE A.)

MODEL 77: THE MOST POSITIVE ANTI-FEEDBACK MICROPHONE EVER BUILT. A high fidelity unidirectional dynamic cardioid microphone. New advanced styling. Front to back pickup, differential of 18 db. Cartridge is suspended in rubber-like material, no need for external shock mount. Built-in impedance selector switch. Low impedance 30 to 50 ohms, Medium 150 to 250 ohms, High 40,000 ohms. Output —52 db. Frequency Response 30-15,000 cps all models. Satin chrome or gold finish.

MODEL 77—Complete with on-off switch, with provision for locking in on position. List—$82.50. Shipping weight 2 lbs. 14 oz.

MODEL 77L—Head only for mounting on Astatic G Stand. List—$72.50. Shipping weight 1 lb. 14 oz.

MODEL G77—Includes Astatic G Stand. List—$97.45. Shipping weight 3 lbs. 10 oz.

MODEL 77 (Gold)—List Price $92.50.

MODEL 77L (Gold)—List Price $82.50.

MINIATURIZED PROFESSIONAL QUALITY MICROPHONES FOR PUBLIC ADDRESS, COMMUNICATIONS, RECORDING, STUDIO AND INDUSTRIAL APPLICATIONS (FIGURE C.)

DYNAMIC MODELS 335H AND 335L: Exceptionally uniform response from 60-12,000 cps, both models. High Impedance (335H) and Low Impedance (335L)—30-50 ohms. Output 335H, —56 db; 335L, —57 db. Die-cast housing in TV grey finish, with chrome cap and grille. 8 feet single-conductor cable. Complete with lavalier and stand adaptor with ⅜"-27 thread. Shipping wt. 1¼ lbs. List Prices $22.50 (335L) and $26.50 (335H).

CERAMIC MODEL 333: Exceptionally uniform response from 30-10,000 cps, High Impedance. Output —58 db. Die-cast housing in black finish with black grille and chrome cap.

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ASTATIC MICROPHONES

8 feet single-conductor cable. Complete with lavalier and stand adaptor with ⅜"-27 thread. Shipping wt. 1¼ lbs. List Price $17.90.

CRYSTAL MODEL 332: Exceptionally uniform response from 30-15,000 cps. High Impedance. Output —54 db. Die-cast housing in satin chrome with chrome cap and black grille. 8 feet single-conductor cable. Complete with lavalier and stand adaptor with ⅜"-27 thread. Shipping wt. 1¼ lbs. List Price $17.90.

CERAMIC MODEL 331: A voice range unit for communications applications, paging and 27 megacycle citizens' band use. Has built-in momentary-on, spring-return switch. Die-cast black housing and grille with chrome cap. Complete with hang-up bracket. Output —56 db. Frequency range 300-5,000 cps. High Impedance. Cable provides for audio and relay connections. Shipping wt. 1 lb. List Price $17.90.

FOR SSB—AMATEUR—AM—PAGING AND INDUSTRIAL USE

FIG. L—Model D-104, D-104C: "The Premier"—The Radio Amateur's first choice. Balanced performance for maximum intelligibility throughout the voice range. Machine brass parts. Bright chrome finish. 5 feet of single-conductor cable.

MODEL D-104—High output crystal —46 db. Frequency Range 30-7500 cps. List Price—$31.00. Shipping weight—1¾ lbs. MODEL D-104C—with ceramic element. Output —51 db. Frequency Range 30-7500 cps. List Price—$31.00. Shipping weight 1¾ lbs.

MODEL GD-104—Complete with Astatic G Stand. List Price—$51.20. Shipping weight 3¾ lbs. MODEL GD-104C—Complete with Astatic G Stand. List Price—$51.20. Shipping weight 3¾ lbs.

FIG. K—MODEL 10C, 10D: The tailored response, the higher talk power makes these microphones ideal for SSB and AM transmitter use. Also ideal for industrial paging, semi-directional. Pressure-cast body. MODEL 10C—contains ceramic element which is immune to temperature and humidity. Finish Opalescent Grey. Output —52 db, Frequency Range 300-3000 cps. MODEL 10D—contains dynamic unit. Finish Bright Chrome. Output —52 db. Frequency Range 300-3000 cps. MODELS G10C and G10D same as above except complete with G Stand.

List Prices 10C $29.70. Shipping weight 1 lb. 4 oz.; 10D $39.70. Shipping weight 1 lb. 10 oz.; G10C $49.90. Shipping weight 2 lbs. 12 oz.; G10D $59.90. Shipping weight 3 lbs. 2 oz.

MODEL 331—FIG. C (See description under heading "MINIATURIZED PROFESSIONAL QUALITY MICROPHONES . . .")

MOBILE AND COMMUNICATIONS MICROPHONES

FIG. M—MODEL 10M5A: "The Communicator"—Popular rugged carbon microphone, light weight, high sensitivity. Built-in RF filter. Ideal for portable or mobile communication such as police, fire department, taxi. Heavy-duty thumb switch. Pressure-cast housing. Finish opalescent grey. 5 feet of self-coiling cable, includes anti-rattle hang-up bracket. Power level 2 db above 6 MW. List Price—$29.50. Shipping weight 1 lb. 3 oz.

TAPE RECORDING MICROPHONES

FIG. H—MODELS 301 AND 302: "The Gold Standard"—Unique modern styling, superior performance, wide range, high output makes this microphone ideal for tape recording use. Pressure-cast housing, finish in metallic gold. Hinge in back recesses in and out making it a versatile microphone for hand or desk.

MODEL 301—Ceramic, Output —53 db. Frequency Range 30-10,000. List Price—$11.50. Shipping weight 1 lb.

MODEL 302—Crystal, Output —48 db, Frequency Range 30-10,000. List Price—$12.50. Shipping weight 1 lb.

FIG. G—Low cost, high output, wide range, superior performance. MODEL 150—(Crystal) Grey plastic body, aluminum anodized grille. Output level —44 db. (1 volt/dyne/cm²). Output impedance high (1-5 megohms). Frequency response range 30-10,000 cps. 5-ft. extra flexible single-conductor shielded cable. List Price—$6.50.

MODEL 151—(Ceramic) Plastic grey body, black metal grille. Output level —48 db (1 volt/dyne/cm²). Output impedance high (1-5 megohms). Frequency response range 50-8,000 cps. 5-ft. extra flexible single-conductor shielded cable.

DIMENSIONS: 2-3/16" square x 1-1/4" deep.

NET WEIGHT: 3 ounces. List Price—$6.50.

NOTE: PROFESSIONAL RECORDISTS WILL BE INTERESTED IN ASTATIC MODELS SUCH AS THE 330 SERIES, 77 AND 788.

ALL-PURPOSE CRYSTAL MICROPHONES

FIG. F—MODEL 200: "Velvet Voice"—All-purpose, low-cost, hand-held, desk-floor stand. Crystal high impedance microphone. Pressure-cast gold finish housing, chrome grille. Complete with 8 feet of cable. MODEL 200—wide range, Output —50 db, Frequency Range 30-10,000 cps. MODEL 200-S—wide range with switch. MODEL 241-S rising characteristics with switch, Output —50 db, Frequency Range—rising characteristics, from 1500 to 5500 cps.

MODEL 200—List Price—$19.50, Shipping weight 2 lbs.

MODEL 200S AND 241S—List Price—$21.50, Shipping weight 2 lbs.

FIG. J—MODEL T-3: "The Pioneer"—Industry Standard. High output —52 db. Frequency Range 30-10,000 cps. Tilting head provides for semi or nondirectional pickup. Pressure-cast housing. Finish bright chrome body and grille. 10 feet of single-conductor cable. MODEL GT-3 includes Astatic G Stand.

MODEL T-3—List Price—$29.30, Shipping weight 2 lbs.

MODEL GT-3—List Price—$49.50.

FIG. E—JT-30 Crystal, JT-30C Ceramic: "The Spokesman"—High quality, low cost, specially designed for PA recording and communications. Pressure-cast body and base. Finish—opalescent grey, chrome grille. MODEL JT-30—Crystal, 8 feet of cable. Output —49 db. Frequency Range 30-10,000. MODEL JT-30C—Ceramic, 5 feet of cable. Output —54 db, Frequency Range 30-10,000 cps.

MODEL JT-30—List Price—$18.40. Shipping weight 1 lb.

MODEL JT-30C—List Price—$18.90. Shipping weight 2½ lbs.

MODEL JT-30F (Same as JT-30 except head only, without handle and base.) List Price $15.90, Shipping weight 1-1/5 lbs.

MODEL JT-30CF (Same as JT-30C except head only, without handle and base.) List Price—$16.40, Shipping weight 1-1/5 lbs.

FIG. I—MODEL L-1—"The Lecturer"—Small and efficient — High-Quality — Inconspicuous crystal microphone. Spring clip for attachment to speaker's coat lapel or other garment. Precision-built, wide-range performance. Wire mesh front and rear grilles. Black melamine finish. 15-ft. small-diameter single-conductor shielded cable. High impedance. Output —62 db. Range 30-10,000 cps. List Price—$27.35.

ALL DIRECTIONAL DYNAMICS

FIG. D—MODEL DN-50, DN-HZ: "The Commentator"
Famous Astatic dynamic microphones for communication and general purpose use. Rugged construction, tilting head. Pressure-cast body. Opalescent grey finish with bright chrome grille. MODEL DN-50—Low impedance. Output —51 db. Frequency Range 50-10,000. 10 feet of two-conductor shielded cable. MODEL DN-HZ—High impedance. Output —52 db, Frequency Range 50-10,000 cps. 10 feet of single-conductor shielded cable.

MODEL DN-50—List Price—$33.50, Shipping weight 2 lbs.

MODEL DN-HZ—List Price—$39.70, Shipping weight 2½ lbs.

MODEL GDN-50—Low impedance with Astatic G Stand. List Price—$52.70, Shipping weight 3 lbs.

MODEL GDN-HZ—High impedance with Astatic G Stand. List Price—$59.90, Shipping weight 3 lbs. 8 oz.

MODEL UGDN-50—Low impedance with Astatic UG Stand (balanced line). List Price—$56.00, Shipping weight 3 lbs. 8 oz.

COMPLETE LINE OF STANDS AND REPLACEMENT CARTRIDGES AVAILABLE

ASTATIC PHONO CARTRIDGES

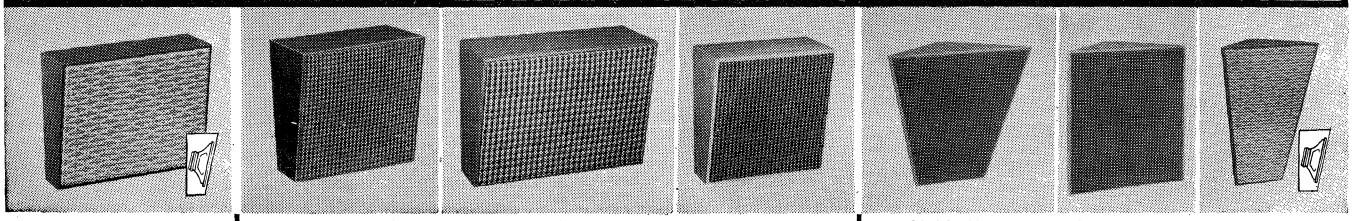
Astatic manufactures THE WORLD'S MOST COMPLETE LINE OF PHONOGRAPH PICKUP CARTRIDGES FOR BOTH ORIGINAL EQUIPMENT MANUFACTURERS AND DISTRIBUTORS. Astatic is the pioneer of the pickup cartridge industry, and has maintained its number one position for OVER A QUARTER OF A CENTURY through constant research and product development for business and industry.

ASTATIC PHONO NEEDLES

The Astatic Phonograph Needle Line, in addition to unsurpassed quality, is more complete in variety of types than all other lines combined.

Argos PRODUCTS COMPANY — *Craftsmanship in Cabinets*

WALL AND CORNER BAFFLES
HI-FI CABINETS, TUBE CADDY



THINLINE | REGULAR | PRESTIGE | DELUXE | SLANTING | REGULAR | THINLINE

THINLINE WALL BAFFLES

⅓ Thinner with same Heavy Duty PA Quality . . . Jensen Profile Speakers

New, thinner, wider, better looking. Heavy duty ceramic magnet speakers give space-saving thinness. Available with L Pad and/or Transformer, installed and wired. 8-ohm screw terminals. Argos Speedy Mounting clip for fast installation. Heavy wood-grained pyroxylin covering—blond or walnut.

Baffles with 8" Jensen Spkr. 6 oz. mag., 15 watts. 12 x 9½ x 4¼ in.

WB-208S—Baffle, spkr. Wt. 4½ lbs. ..... **List $16.90**
WB-208SL—Baffle, spkr. L pad. 4½ lbs. **$21.00**
WB-208ST—Baffle, spkr. trans. 4¾ lbs. **$21.00**
WB-208SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 4¾ lbs. ..... **List $25.15**

Baffles with 12" Jensen Speaker, 10-oz. magnet, 18 watts. 16 x 13¾ x 6¼ in.

WB-212S—Baffle, spkr. Wt. 8 lbs. .....**List $24.60**
WB-212SL—Baffle, spkr. L. pad. 8 lbs.....**$28.75**
WB-212ST—Baffle, spkr. trans. 8 lbs. **$28.75**
WB-212SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 8¼ lbs. .....**List $32.90**
WB-208—8" Baffle only. Wt. 2 lbs. .....**List $7.15**
WB-212—12" Baffle only. Wt. 4 lbs. .....**List $9.75**
New EFFICIENCY Baffle. Same Thinline cabinet with lightweight speaker for lower sound levels or where cost is important. 8" Jensen Spkr. 1-oz. mag., 6 w.
WB-108AS—Ship. wt. 3½ lbs. .....**List $11.90**

REGULAR, PRESTIGE, & DELUXE BAFFLES

Regular Wall Baffles—WB-4/5C, etc. Standard of industry for quality. Wood-grained pyroxylin, blond or walnut. Argos Speedy Mounting Clip.
Prestige Wall Baffles—PB-8A, etc. Wider shape for better appearance, more volume. Same pyroxylin covering and Mounting Clip as WBs.
DeLuxe Wall Baffles—DWB-8A, etc. Beautiful natural hardwood, American Walnut or Whited Birch finish. Satin-smooth appearance. Mounting Clip.

Model	Spkr. Size	Width, Height Depth, In.	Cubic In.	Ship. Wt. Lbs.	List Each
WB-4/5C	4/5	6¼x 6⅛x 4	100	2 *	4.95
WB-6C	6	7⅞x 8½x 5	210	3 *	6.00
WB-6/9C	6x9	9⅜x10½x 6½	400	5 *	7.15
WB-8C	8	9⅜x10½x 6½	400	5 *	7.15
WB-10C	10	11⅞x12⅜x 7¾	800	6½*	8.50
WB-12C	12	13⅝x14 x 9⅛	1180	8½*	9.75
PB-8A	8	14 x10⅜x 7	690	4¾	9.75
PB-12A	12	18¼x13¾x 9	1580	6½	13.75
DWB-8A	8	9⅜x10½x 6½	400	5½*	10.00
DWB-12A	12	13¼x14¼x 9	1180	9 *	14.00

* Shipping wt. of 2 in carton

NEW CORNER BAFFLES

New Design Hangs as Easily as a Wall Baffle . . . "Clip-In" Front Comes Off in 9 Seconds . . . Exterior Screw Terminals

The best looking, easiest-to-install corner baffles we've ever seen. No more unsightly screws through the grille! Two automatic clips at top and one screw through bottom hold front panel tightly in place. New slots on back of baffle permit hanging on two Argos Speedy Mounting clips . . . as easily as a wall baffle. Screw terminals (with lead wires inside for speaker) Bass reflex, acoustic padding. Wood-grained pyroxylin, walnut or blond, same price.

Slanting Corner Baffles. Aim sound down for best performance.

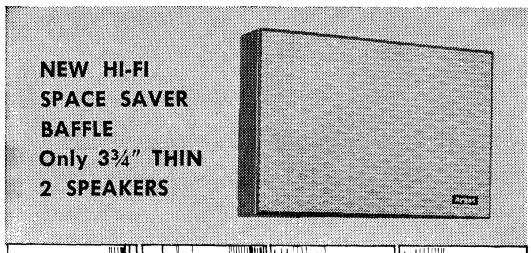
SCB-8D—For 8" spkr. Vol. 680 cy. in Size 17¾ x 15 x 9 in. deep. Ship. wt. 6 lbs. .....**List $13.90**
SCB-12D—For 12" spkr. Vol. 1240 cu. in. Size 20¾ x 20 x 10½ in. deep. Ship. wt. 8 lbs.....**List $18.75**

Regular Corner Baffles Long a favorite of Sound contractors

CB-8D—For 8" spkr. Vol. 525 cu. in. Size 12¼ x 14 x 6½ in. deep. Ship. wt. 4½ lbs. ..... **List $12.50**
CB-12D—For 12" spkr. Vol. 1520 cu. in. Size 17¾ x 20 x 9 in. deep. Ship. wt. 8½ lbs. .....**List $18.00**

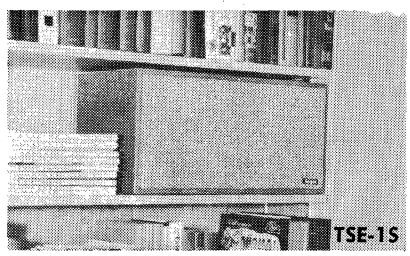
Thinline Corner Baffle

New space-saving thinness, with 8" Jensen Profile Speaker, installed and wired. 6-oz. ceramic magnet, 15 watts, 8 ohms. Size 12½ x 18 x 6¾ in.
SCB-208S—Ship. wt. 5½ lbs. .....**List $22.75**



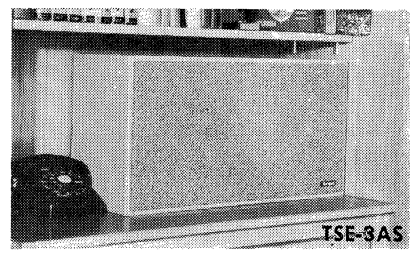
Hotels **Kitchen** **Dining Room** **Family Room**

Also for Schools, Auditoriums, Restaurants, Stores, Club Lounges
The ideal extension speaker for music. Actually has sound of hi-fi . . . almost as good as bookshelf enclosure, far superior to regular PA wall baffle. 8" Jensen Profile woofer and 3½" tweeter wired in crossover network to 8-ohm screw terminals. 6-oz. ceramic magnet. Beautiful natural hardwood, American Walnut or Whited Birch finish. Size 18 x 12 x 3¾ in. thin.
HFWB-8S — Ship. wt. 6½ lbs. .....**List $29.95**



The 8" Catalina Hi-Fi Speaker

For bookshelf or floor . . . one of the most efficient, economical small speaker systems ever built. 8" Jensen woofer and 3½" tweeter in crossover network, 8-ohm terminals. Overall response 50-17,000 cycles. Legs for floor use. Wood-grained pyroxylin, Walnut or Blond. Size 24 x 11 x 10½ In. deep. Ship. wt. 19 lbs.
TSE-1S—With 2 speakers. ....Audiofile **Net $24.95**
TSE-1 — Cabinet only. Wt. 17 lbs. **Net $16.50**
DeLuxe Catalina (not shown). Similar to above but built of ¾-Inch hand-rubbed, oiled Walnut. Ship. wt. 20 lbs.



TSE-2AS—With 2 speakers. Audiofile ..**Net $39.95**
TSE-2A—Cabinet only. Wt. 18 lbs.
Net $26.50

The 12" Eldorado Hi-Fi Speaker

Exceptionally fine hi-fi response in a bookshelf or table enclosure. 12" Jensen tweeter and **two** 3½" Jensen tweeters in crossover network, 8-ohm terminals. Overall response 40-17,000 cycles. Wood-grained pyroxylin, Walnut or Blond. Size 27½ x 14¼ x 10 in. deep. Ship. wt. 23 lbs.
TSE-3AS—With 3 speakers. Audiofile ..**Net $39.95**
TSE1-3A—Cabinet only. Wt. 21 lbs. ..**Net $22.50**

CARRY-ALL TUBE CADDY*
"Break-away" design gives gives quick access. Holds up to 262 tubes, plus tools, meter. 21" w. x 15" h. x 8" d. Ship. Wt. 12 lbs.
TC-4—Net Each.....**$15.95**

NEW PACEMAKER CADDY*
TC-100. Similar to above, priced for economical buyer. Same size, wt. Net. **$12.35**

TUBE CADDY* JUNIOR
TC-2A. Like TC-4, smaller. 143 tubes, tools. 15¾" w. x 12½" h. x 8" d. Wt. 9 lbs. Net **$10.50**

NEW SUPER TUBE CADDY*
Carries ⅓ more, gets more jobs done on the spot. Separate tool tray. 3300 cu. in. vol. Size 24" w. x 16½" h. x 8½" d. Ship. Wt. 19 lbs.
TC-5—Net Each **$21.95**

DELUXE TUBE CADDY*
Convenient tool tray (2⅛" deep). Holds up to 225 tubes. Slip-out hinges. 18" w. x 14½" h. x 9¼" d. Ship. Wt. 14½ lbs.
TC-3—Net Each **$16.95**

NEW PACEMAKER JR.
Small size, folding model, economical. Holds up to 143 tubes, tools. Size 15¾" w. x 12½" h. x 8" d. Ship. Wt. 9½ lbs.
TC-200—Net Each **$8.95**

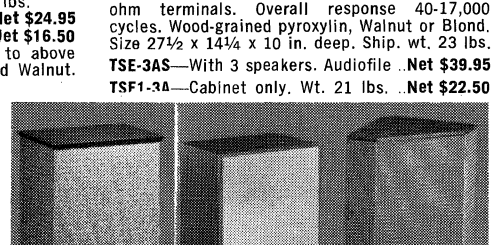
SOUND CADDY® WITH TWO SPEAKERS

Sturdily built for long service. Has 2 12-in., heavy-duty, 18-watt PA speakers (6.8 oz. mag.). Accommodates most amplifiers with turntable up to 30 w.

Size: 17¾" w. x 13⅛" d. x 22" h. Shipping Wt. 29 lbs.

SC-2CS — Net **$36.00**

SC-2C — Same less speakers. Ship. wt. 20 lbs. Net **$21.55**



DSE-2K — Californian Hi-Fi Jr. Kit. All parts prefabricated and ready for assembly. Panelyte top. Takes 12" or 8" speaker and tweeter. Internal cap. 4800 cu. in. Blond or walnut. Size 19½ x 23⅜ x 13½ in deep. Ship wt. 28 lbs. Net $29.95

AD-1 — Apartment Size Hi-Fi Cabinet. Takes 12" or 8" speaker and tweeter. Argos Tuning Tube for matching cabinet. Internal cap. 4800 cu. in. Wood grained pyroxylin covering, Walnut or Blond. Size 19¼ x 23⅜ x 13½" deep. Ship. wt. 30 lbs. Net $24.95

DCB-12 — Hi-Fi Auditorium Baffle. Use on floor (with base supplied) or on wall. Takes 12" woofer or coax plus tweeter. Internal cap. 4320 cu. in. Wood grained pyroxylin covering, Walnut or Blond. Size 22½ x 25 x 14⅜ in deep. Ship. wt. 23 lbs. Net $22.50

***Registered TM of Argos Co. All prices slightly higher West of Rockies.**

Net

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ATLAS SOUND CORP.

ATLAS "FULL GRIP—VELVET ACTION" MICROPHONE STANDS

NO SLIPPING — NO RATTLE — NO NOISE — NO SCRATCHING — NO WEAR

The "Full Grip" clutch is standard on all models—it offers an extended length clutch body, permitting a secure, full hand grip. The clutch mechanism of all "Velvet Action" stands is inner-lined with a wear-proof bakelite locking collet which grips without jamming, slipping or sudden dropping. All chrome plated surfaces are carefully polished prior to plating to assure a uniform "Super-Chrome" wear resistant, lifetime finish. All threads on tube assemblies are individually inspected to assure a perfect fit when assembled to the base castings. All bases are functionally designed to offer maximum stability for a given base weight. The maximum base mass is located at the outer periphery of the casting where the concentrated weight is most effective. All bases include self leveling, shock absorbing base pads, plus three additional "anti-tip" points located between the base pads. All models terminate with a 5/8"-27 thread at the microphone end.

MS-10C Economy model suitable for most applications where a low cost stand is required. Offers adequate base stability for average weight microphone.

MS-12C Similar to above but increased base weight offers an added advantage. Flat design of base is modern in appearance and is finished in a dark gun metal shrivel finish. Equipped with base pads to absorb shock.

MS-11C Full chrome design. Entire stand base and upright tube assembly completely finished in "Super-Chrome." Excellent for use where fine appearance is a requirement. An excellent choice for use with full chrome plated microphones. Equipped with base pads.

MS-4 Three section telescoping microphone stand permitting a wide variation of adjustment. Can be adjusted from 26 inches to 61 inches in height. Excellent for use in schools, etc. where it is necessary to adjust the stand over a wide range of height adjustment. Minimum collapsed length offers convenience in transportation.

MS-20 DeLuxe model. Maximum stability suitable for use with heavy, expensive microphones. Large oversize tube assembly, 7/8" diameter telescoping tube, 1 1/8" diameter base tube, base diameter 12 inches. Oversize clutch assembly assures secure locking adjustment. Top adaptor included for 5/8"-27 microphones.

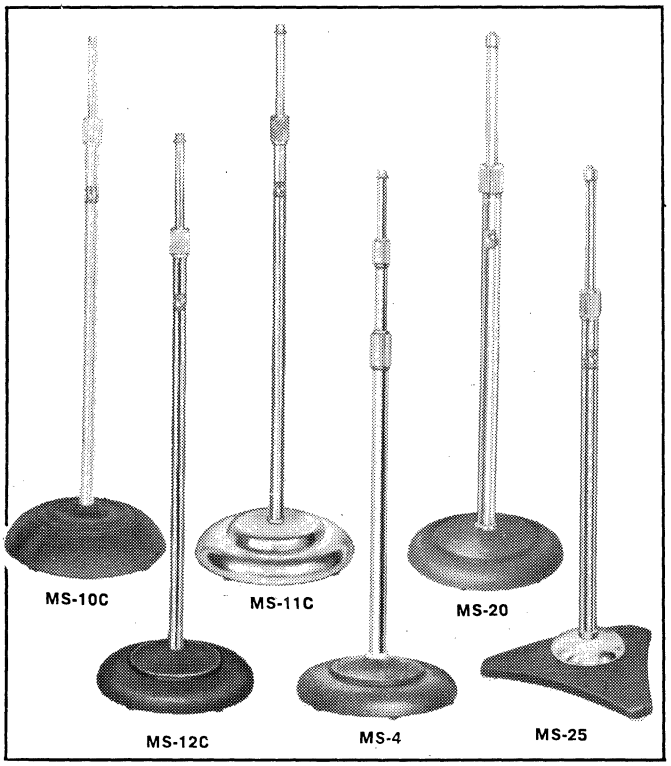
MS-25 Professional Microphone Stand. The ultimate in microphone stands. Features the "Safety Air Lock Cushion." This sensational feature prevents any accidental or sudden slippage of the telescoping section. If the clutch mechanism is accidently released the stand cannot suddenly crash down—thus prevents damage to the microphone from severe mechanical shock. The telescoping section is at all times "cushioned on air" and the controlled escapement of air will only permit a slow smooth and quiet collapse of the stand. Base finished in a combination of chrome and shrivel. Heavy duty tube assembly, 1 1/8" and 7/8" combination—5/8"-27 top adaptor.

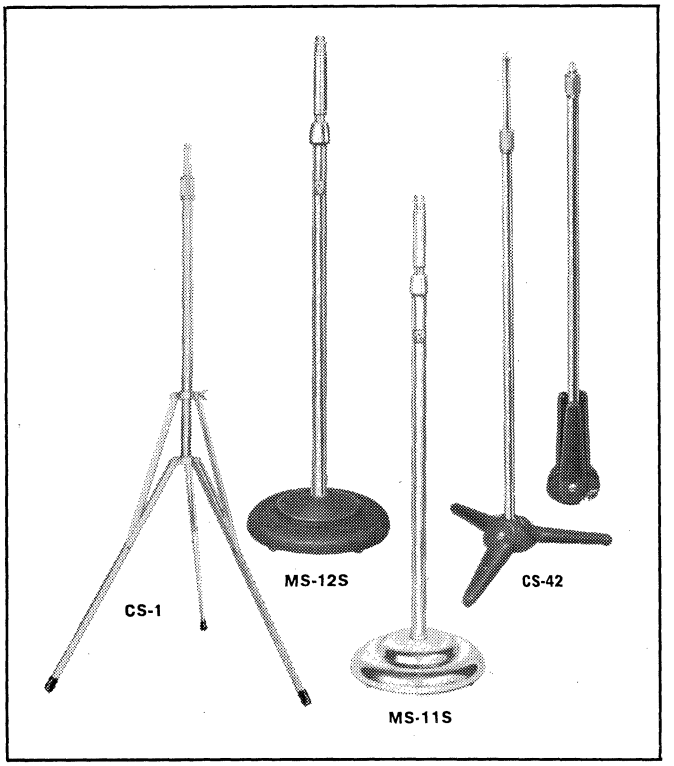
MS-11S - MS-12S Automatic "Sleeve Action" models. A fully automatic means of adjusting the height of the stand. A slight downward pressure on the "Sleeve Action" control permits the telescoping section to be lowered—cannot change its position without a deliberate pressure on the actuating sleeve control. Two models full chrome base or shrivel finish.

CS-1 Fully collapsible, portable stand quick and simple to set up. Collapsible to a minimum overall length of 23 inches.

CS-42 Collapsible base stand. All the advantages of portable type stand without the loss of stability inherent in cast iron base types. When legs are extened they are securely locked in position. Upright tube assembly full chrome, base finished in grey shrivel, base pads provided. **Packed: One complete stand to a single shipping carton.**

Model	Weight	Base Finish	Tube Finish	Height Adj.	Base Dia.	List Price
MS-10C	10 lbs.	Grey Shrivel	Full Chrome	35" to 64"	10 inches	$ 9.75
MS-12C	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$10.50
MS-11C	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$13.00
MS-4	11 lbs.	Grey Shrivel	Full Chrome	26" to 61"	10 inches	$14.75
MS-20	15 lbs.	Grey Shrivel	Full Chrome	37" to 66"	12 inches	$16.00
MS-25	22 lbs.	Chrome & Grey	Full Chrome	37" to 66"	17 inches	$26.00
MS-11S	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$23.50
MS-12S	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$21.00
CS-1	5 lbs.	Chrome & Cad	Full Chrome	23" to 62"	collapsible	$18.00
CS-42	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	16 inches	$12.50





ATLAS SOUND CORP.

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Offers a "New Look" in microphone desk stand design. Highly polished molded phenolic base is light beige in color which harmonizes with the superchrome upright tube. The smooth base will not scratch or mar table tops. An excellent accessory for use with tape recorders. Its smooth contours and light weight permits it to be stored within the carrying case without fear of damage to other accessories. Upright tube can be easily removed from base. Base diameter 4″, height of tube 4″, thread size 5/8″-27, Shipping Weight ½ lb. **List Price $2.50**

DS-5 General Purpose Non Adjustable Desk Stand. Base is of cast iron finished in gun metal shrivel finish. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6″, tube height 4″ chrome finish. Shipping Weight 2 lbs. **List Price $3.00**

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread size at microphone end 5/8″-27. Shipping Weight 3 lbs. **List Price $5.00**

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit." For use with all types of microphones. Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Unnecessary to unsolder any cable plugs or connectors. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. 5/8″-27 thread. Shipping Weight 1½ lbs. **List Price $5.00**

TS-6 Adjustable Banquet Stand with "Velvet Action" adjustment from 14½ to 26 inches. All parts including base finished in full super-chrome, base diameter 8 inches. Shipping Weight 6 lbs. **List Price $9.00**

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position by a turn of the locking knob. Can be attached to any floor or desk stand. All parts die cast finished in chrome, length 4½ in. 5/8″-27 male and female threads **List Price $4.50**

SO-1 "Snap On" Microphone Attachment. A quick, simple and safe means of attaching any microphone to any floor stand. Eliminates the need of threading the microphone on and off the stand. A two-section "Snap On" ball bearing spring sleeve attachment permits the microphone to be attached or removed instantaneously. One section is attached to the microphone and one section permanently fastened to the stand. An excellent device for use where the microphone must be occasionally removed from the stand as often occurs in sports announcing, floor show use, etc. All parts are of brass, carefully machined, and finished in "super-chrome" plating **List Price $2.75**

SB-1 Dispatcher and Switchboard Mike Support. Designed for use in supporting a microphone over conventional types of telephone switch boards. However, there are many other useful applications for a stand of this type, such as a desk support, dispatcher's office, dais, banquet table, etc.

The 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel so that the microphone can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. The cable enters under the base at the rear end of the "goose neck" resulting in a neat and workmanlike installation.

The heavy, functionally designed, base casting is rear loaded so that the base will not tip forward. The base weight is 13 lbs. and measures 9″ x 6½″. The finish is grey shrivel. Rubber bumpers fastened to the base prevents "skidding" and protects against damage to fine furniture finishes. Shipping Weight 13 lbs. "goose neck" threaded 5/8″-27. **List Price $14.00**

GN "Goose Necks" Can be attached to any microphone stand or fixture; ends have 5/8″-27 male and female threads—all finished in bright chrome, model numeral indicates over all length of "goose neck" in inches. **List Price GN-6 $2.00, GN-13 $2.75, GN-19 $4.00**

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc.... Chrome tube 6″ long. Clamp can be removed and top flange screwed or bolted in position. 5/8″-27 thread. **List Price $3.50**

CH-1 Cable Hanger. An extremely handy device that should be part of every microphone stand. Fits all tubes from 7/8″ to 1¼″ diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Can be attaced or removed from the stand in a moment by removing one screw. A proven necessity on all stands as indicated by its use in all broadcast and recording studios. All parts finished in polished chromium **List Price $2.50**

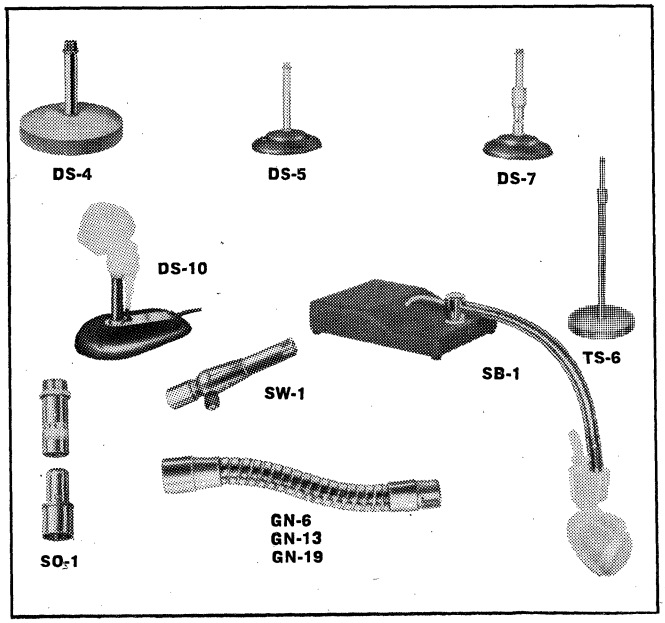
NS-1 "The Chesty" Neck Supported Mike Holder—fulfills every practical requirement for a microphone chest support. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems caused by excessive spacing between mike and speaker's mouth. Wide comfortable chest support prevents rolling due to sudden movement. Flexible goose neck quickly removed if desired for use as hand held mike. Entire assembly can be placed on table top and used as conventional desk stand. Cool and lightweight weighing only 6 oz. **List Price $5.00**

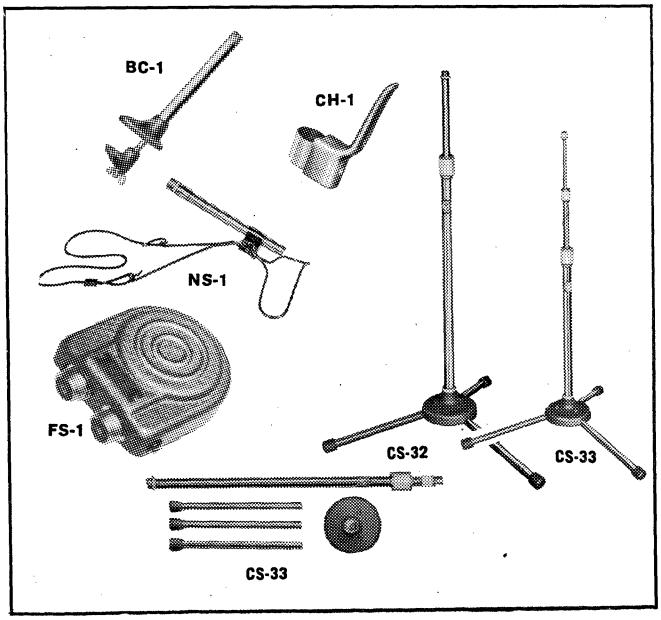
FS-1 Microphone Foot Switch—for use with all high or low impedance mikes having single ended inputs. Shielded, grounded, noise free. Designed primarily for foot operation—its small size and neat appearance also permits it to be used as a hand operated switch on top of a table or switch board. Switch is a long life shielded micro-switch of a "press to open" circuit type. When switch is depressed the short is removed from the mike circuit and the mike becomes operative. Male type screw connector permits single insertion between the mike and amplifier input. Switch can be easily rewired internally for "press to close" circuit application. Measures 2½″ x 3″ **List Price $12.00**

CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity ... protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	List Price
CS-32	Full Chrome	36″ to 64″	5 lbs.	$11.50
CS-33	Full Chrome	26″ to 64″	4 lbs.	$13.50

Each stand is individually packed complete in a single carton.
Model CS33 can be collapsed to a total length of only 22½″.





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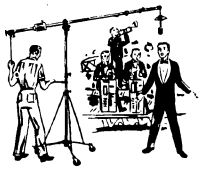
ATLAS SOUND CORP.

ATLAS BOOM STANDS — ADAPTORS

Atlas Booms have a wide variety of applications, and models are available to meet every possible need. The BS-37 "Porto-Boom" is generally used with film or television cameras. The BS-36 and BS-36W "Professional" are designed for use in recording and radio-broadcast studios—and for special application on band stands, etc. The BB-1 "Baby Boom" is used where only a small amount of overhang is required—over desks and musical instruments, for example.
All models are carefully designed and constructed for noise-free, smooth, "Velvet-Action" adjustment. They can be permanently locked into position at the most suitable mike location.
Atlas Sound Booms clearly reveal engineering know-how based on a thorough knowledge of industry's requirements.



BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. All moving parts are "Velvet Smooth" in operation. The "Safety Air Lock Cushion" built into the vertical section prevents any accidental or sudden slippage of the upright section. The vertical section cannot suddenly crash down for it is "Cushioned on Air" and the controlled escapement of air will permit only a slow smooth and quiet collapse of the upright section. A gyromatic swivel joint is provided at the microphone end of the boom, so that the mike will always hang in proper position. The base casting is equipped with shock absorbent, chrome plated, "domes of silence." These base pads permit the base to glide over floor surfaces with a minimum of friction—also absorb floor vibrations that might otherwise be transmitted to the microphone.

Specifications: Boom length 62″ (an additional 31″ extension may be added if a light weight mike is used). Adjustable vertical extension from 48″ to 72″. Base diameter at floor contact points 17″. All tubular sections super-chrome plated. Modernistic base finished in polished chrome and gun metal. Snap on hangers furnished for holding mike cable to boom. Shipping weight 36 lbs. ..... **List Price $63.00**

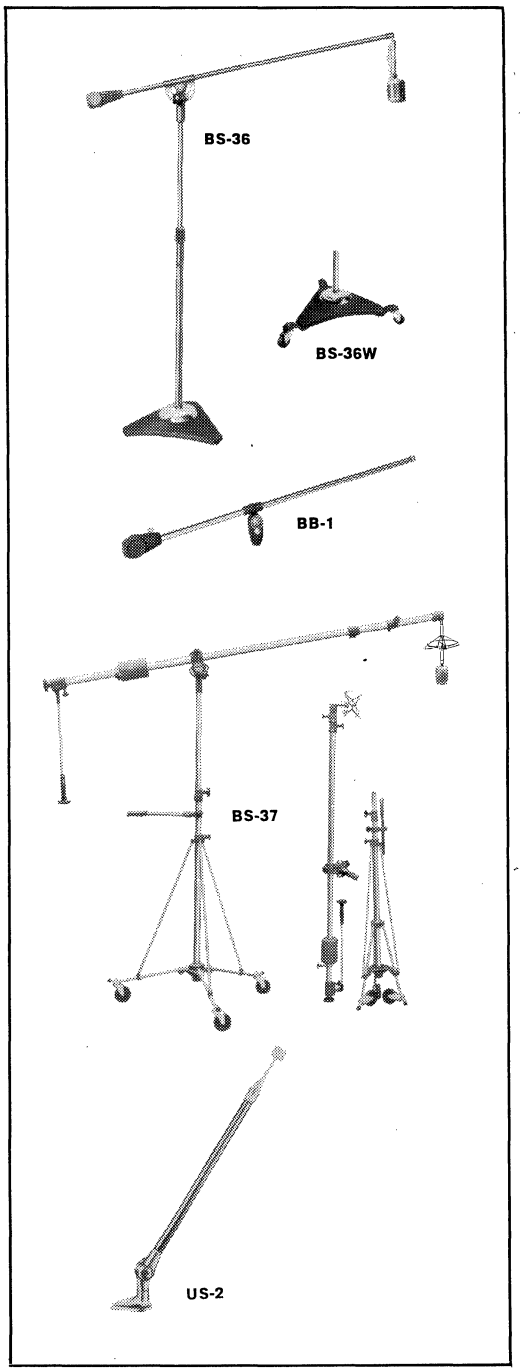
BS-36W Mobile Model. This model is identical to the BS-36 except for the base. This mobile model is supplied with a DeLuxe base having ball bearing swivel casters of hard rubber composition. These large size casters permit the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs. ..... **List Price $73.00**

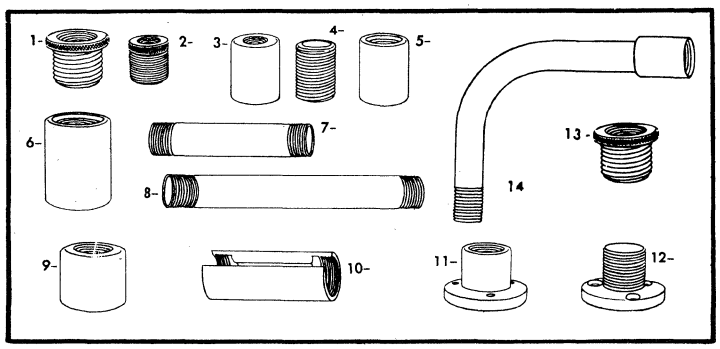
BB-1 Baby Boom Attachment. An extremely versatile device that can be attached to any type of floor stand as well as with various accessories. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31″—Chrome plated 5/8″-27 thread. Shipping weight 3½ lbs. ..... **List Price $7.50**

BS-37 Porto Boom. "Quiet as a Cat on Velvet" designed for most exacting studio application, TV studio, sound motion picture application, etc., ideal for portable "on location" service. All controls are noise free velvet smooth in action—balanced for finger tip operation. Fully collapsible down to dimensions permitting its transportation in all automobiles. Can be knocked down and reassembled in a few moments—without tools. The telescopic upright is securely locked in position with a large brake shoe type clutch assembly. A piston type air check prevents any accidental collapse of the upright. Dual control microphone "gunning device" is supplied for rotating the mike through a 360° arc. Noise free universal mike suspension can be adjusted for various weight mikes. Automatically positions mike regardless of boom angle. Many extra features too numerous for individual description. Detailed description sheet available.

Specifications: Upright retracted 5¼′ extended 9′. Boom retracted 7′ extended 18′. All castings aircraft aluminum. All tubular sections aluminum processed in "alumilite" to prevent corrosion. Counter weight cast iron with bronze locking mechanism. Base casters 4″ swivel type. Base spread 42″ on radius. Mike end terminated 5/8″-27. Other size adaptors available. Shipping weight 73 lbs. ..... **List Price $625.00**

US-2 Multi-Purpose microphone support with "Floating Action." Ideal for language labs, switchboards, dispatcher desks and many other uses. All moving parts and boom arm spring friction loaded to "float" in any position desired, without locking adjustment. Base swivel may be rotated 360°. Cable may be concealed in the boom and swivel for a neat, tamper-proof assembly. A "Super Chrome" high lustre wear resistant plating is applied to all external surfaces. Boom arm 13 inches long. Shipping weight 2 lbs.
List Price $9.50





MICROPHONE ADAPTOR AND FITTINGS

Model	Description	List
AD- 1	5/8″-27 female to ½″ pipe thread male (RCA Adaptor)	$ .85
AD- 2	⅛″ pipe female to 5/8″-27 male	.60
AD- 3	⅛″ pipe female to 5/8″-27 female	.60
AD- 4	¾″ long, 5/8″-27 male running thread	.30
AD- 5	5/8″-27 female to 5/8″-27 female, coupling	.60
AD- 6	7/8″-27 female to 7/8″-27 female, coupling	1.00
AD- 7	3″ long tube 5/8″-27 male each end	.65
AD- 8	6″ long tube 5/8″-27 male each end	.75
AD- 9	7/8″-27 female to 5/8″-27 female	.70
AD-10	5/8″-24 female to 5/8″-27 female (W. E. Adaptor)	1.20
AD-11	Flange, 5/8″-27 female. Base Diameter 1¼″	.70
AD-12	Flange, 5/8″-27 male. Base holes on 7/8″ mounting centers	.70
AD-13	7/8″-27 male to 5/8″-27 female	.85
AD-14	Right angle bent tube: 5/8″-27 male and female each end	1.50

Note: Thread sizes specified as ⅛″ pipe is I.P.S.
(Electrical fitting) Measures Approx. 3/8″ dia.
All adaptors chrome plated.

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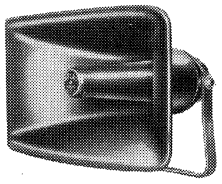
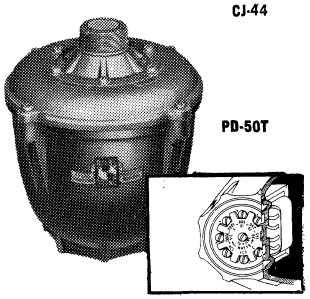
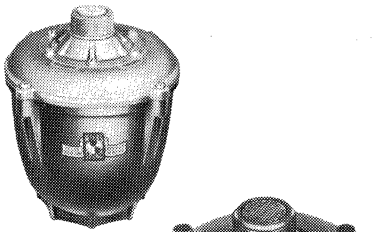
ATLAS SOUND CORP.



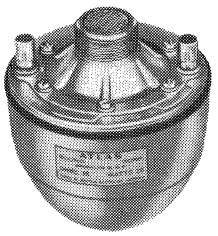
CJ-44



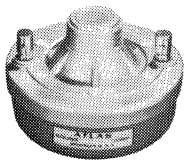
PD-50T



PD-5VT



PD-5VH



PD-4V

ATLAS SUPER POWER DRIVERS—COBRA JECTOR

MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR—COMPLETE WITH SUPER POWER DRIVER—POLYESTER FIBRE GLASS CONSTRUCTION.

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output). The CJ-44 controlled response has been carefully restricted within frequency limits most useful in P.A. and high level music reproduction. As a result, speaker output energy is not wasted in the reproduction of frequencies that do not contribute to efficient performance ..... **List Price $72.50**

Input Power (cont.)	30 watts
Power Equalized Response*	60 watts
Input Impedance	16 ohms
Response	150-10,000 cps
Dispersion	120° x 60°
Dimensions—Bell	23″ x 13″
Overall length	19″
Weight	16 lbs. net 19 lbs. shipping

*Input range limited to frequencies above horn cut off.

SUPER POWER—SUPER EFFICIENT—DRIVER UNITS

The new PD series driver units are the result of years of constant research and development. They can be expected to offer a "lifetime" of satisfaction under full power application and where the ultimate in frequency response, conversion efficiency and trouble-free reliable service is demanded. Specify the PD-50T for the "tough spots."

PD-50T The last word in advanced design. Offers an absolute maximum of efficiency at super power inputs. The only driver to use where a maximum of dependable sound energy is required. Equipped with a large multi-match, built in, line matching transformer.

PD-50 Same as above but less line matching transformer.

PD-5VT An oversized driver unit complete with universal line matching transformer. Primary calibrated for variable impedance circuits as well as for constant voltage systems. Convenient terminals for input connections located at base of rear housing.

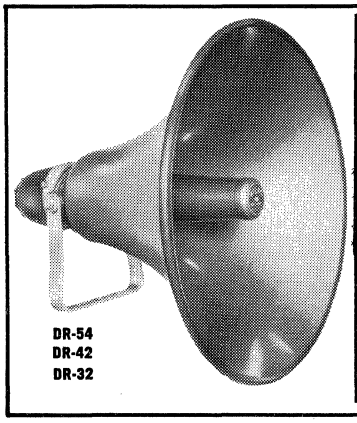
PD-5VH The standard of the industry. Offers that extra margin of efficiency due to the oversized magnetic circuit—double sealed against all weather conditions. One piece full phenolic diaphragm, self aligning—easily serviced in the field.

PD-4V For all applications—low in cost, high in performance. Highly efficient "Alnico V Plus" magnetic structure, reliable, tailored response.

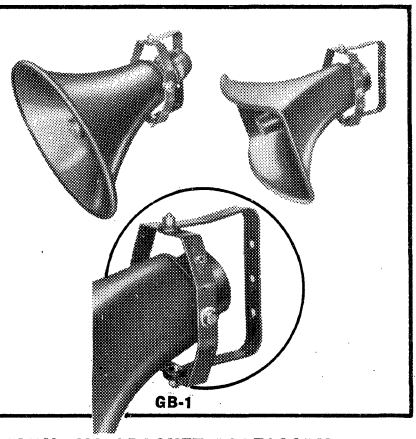
SPECIFICATIONS	PD-50T	PD-5VT	PD-5VH	PD-4V
Power (continuous)*	50 watts	30 watts	30 watts	25 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms
Sound Intensity#	135 db	130 db	130 db	127 db
Frequency Response (cps)	70-10,000	80-10,000	80-10,000	75-7,000
Transformer Imp. Ohms	100, 165, 250 500, 1000, 2000	165, 250, 500 1000, 2000	———	———
Trans. Power Taps, Watts 70 Volt Line	50, 30, 20, 10 5, 2.5	30, 20, 10 5, 2.5	———	———
Shipping Weight	8 lbs.	7 lbs.	5 lbs.	4 lbs.
List Price	$57.50	$47.50	$35.00	$27.50

PD-50 Same as PD-50T Less Transformer $47.50

* Integrated speech and music full range. † Input range limited to frequencies above horn cut off. # Measured 4 ft. on axis, 6 ft. air column with integrated full power input.



DR-54
DR-42
DR-32



GB-1

DR PROJECTORS—NONRESONANT STURDY WEATHER-PROOF

Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4½ ft.	3½ ft.	2½ ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches	15 inches
Length (less driver)	19 inches	16 inches	14 inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
List Price	$46.50	$34.00	$28.75

UNIVERSAL MOUNTING BRACKET ACCESSORY FOR CJ-44 AND ALL MODELS OF DR PROJECTORS

MODEL GB-1 This useful accessory is easily and quickly attached to all Atlas projectors using "U" type bracket mounting. It permits the speaker to be quickly adjusted in both a horizontal and vertical plane and securely locked in position for the most effective sound coverage. Average adjustment limits 160° on the horizontal and 65° on a vertical direction. Constructed of bonderized steel, finished in baked enamel, all hardware supplied. Shipping weight 3 lbs. ..... **List Price $5.00**

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ATLAS SOUND CORP.

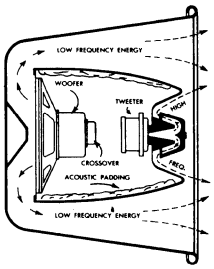
ATLAS "COAX-PROJECTOR" — SUPPORT STANDS

Now . . . Hi-Fi P.A. for voice and music — all-weather — compact — high efficiency — rugged — portable — fine appearance. For industrials: wired music systems, paging, amusement parks. For the home: on the patio, in the garden or playroom. Excellent for use with outdoor stereo systems.

MODEL WT-6 "Two Way" system, not a compromise. Two individual drivers, two individual horns with built in electronic crossover filter. All weather high efficiency—indoor and outdoor use. Perfect for all applications where Hi Fi is a must. A weatherproof cone type driver having a six inch throat reproduces the low frequencies. An individual pressure type driver reproduces the High frequencies. Both drivers are loaded with separate horns which minimize acoustic phase distortion and intermodulation effects. The rugged steel "U" type bracket is fully adjustable for all applications. All metal parts are finished in a new modern shade of beige which harmonizes with most interiors as well as with outdoor surroundings. The leading edge of the main flare is mechanically protected and acoustically damped with a light brown plastic beading which offers a fine and attractive contrast to the overall finish of the speaker. All finishes are high temperature baked enamel. All metal parts chemically processed prior to finishing.
List Price $57.50

WT-6 SPECIFICATIONS	
Power	15 Watts (cont.)
Frequency	100-15,000 cps
Impedance	8 ohms
Dispersion	120° average
Sound Level *	118 db
Crossover	1,000 cps prox.
Bell opening	15 inches
Overall depth	12 inches
Ship weight	16 lbs.

*Measured at 4 ft., 800 to 1300 cps sweep at rated power.



MODEL W-6 Single driver unit, economy model, for speech and music, identical in size, general appearance and construction to the WT-6 Coax-Projector. However, the W-6 is not equipped with an individual high frequency driver unit and horn. The response range of the W-6 is adequate for applications where good musical reproduction is desired but where the ultimate in high frequency response is not required. The W-6 is excellent for a wide variety of applications such as juke box extension speakers, industrial music systems and outdoor installations of all types ..... **List Price $42.50**

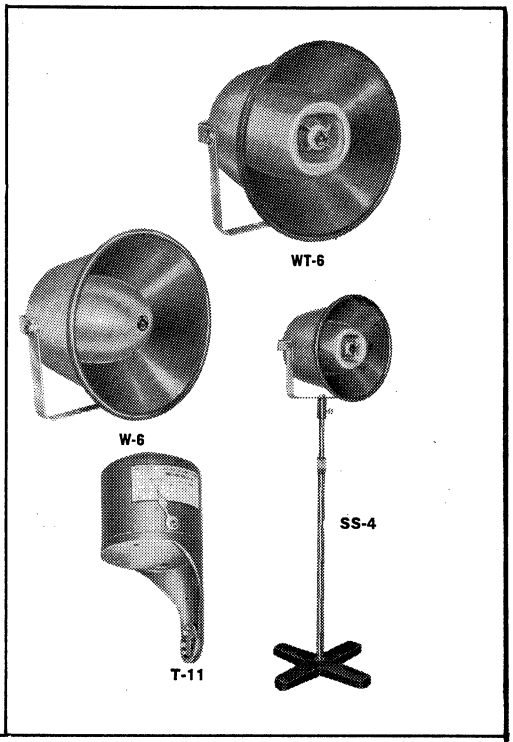
W-6 SPECIFICATIONS	
Power	15 Watts (cont.)
Frequency	100-8,000 cps
Impedance	8 ohms
Dispersion	120° prox.
Dimensions	Same as WT-6
Shipping weight	14 lbs.

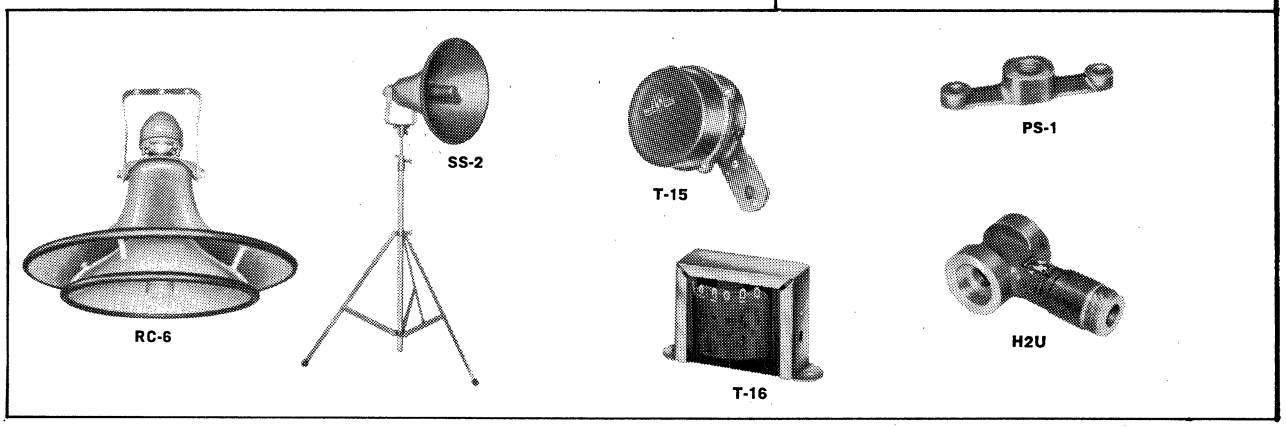
MODEL T-11 All purpose line matching transformer. Wide range of impedance taps also calibrated in power steps. Easily attached to WT-6 or W-6. Full description in another section of catalog ..... **List Price $9.25**

MODEL SS-4 An extremely useful loudspeaker stand for permanent and rental installations. Can be used with all types of speakers of medium weight and size such as WT-6, W-6, etc. An "Easy Off" top fitting is supplied so that the speaker can be attached or removed instantly. Cast iron base offers adequate stability and requires a minimum of floor space. The upright is full chrome steel tubing and in contrast to the beige shrivel base finish results in a stand of fine appearance. The stand extends over 6 ft. in height, which is suitable for most applications. Shipping weight 20 lbs. ..... **List Price $19.50**

MODEL RC-6 Radial driver unit projector. The advantage of 360° coverage often permits the use of one speaker where a number of directional speakers would be required to obtain smooth and uniform sound coverage. The nonresonant construction with dual rubber dampening rings assures clean reproduction even at high power. The RC-6 has an acoustic lenght of four ft., low frequency cut off 150 cycles, diameter 25 inches, over all height 22 inches (including bracket). Finished in gun metal grey. Shipping weight 22 lbs. Supplied less driver unit. See individual description of various model driver units that are available ..... **List Price $50.00**

MODEL SS-2 Heavy duty all purpose speaker support stand. The base stability due to the wide surface spread offers adequate support for heavy speakers and under adverse wind conditions. All parts are of steel properly plated and paint finished. The vertical adjustment includes a "double lock" device providing an extra margin of safety against accidental release. The SS-2 is rugged and will support several hundred pounds. Equipped with an "Easy Off" top adaptor to facilitate removal or attachment of speaker. Height extension 5 to 10 feet. Shipping weight 29 lbs. ..... **List Price $40.00**





MODEL T-15 50 watt transformer with weatherproof housing. For use with CJ-44 and all high power driver units. Universal mounting strap permitting various types of mounting to all kinds of speakers. Specifications: Primary: 100, 165, 200, 250, 500, 1000 and 2000 ohms or based on a 70 volt line the equivalent power in watts of 50, 30, 25, 20, 10, 5 and 2.5. Secondary: 4, 8, and 16 ohms. Shipping weight 3 lbs. ..... **List Price $16.50**

MODEL T-16 50 watt transformer only as supplied with T-15. **List Price $8.50**

MODEL PS-1 Pipe stanchion fitting for all speakers using "U" type mounting brackets. Adapts all brackets to standard ¾" pipe fitting. Holes located to match holes in "U" brackets. All mounting bolts supplied ..... **List Price $2.00**

MODEL H2U Two unit one projector adaptor is recommended when it is found necessary to obtain the greatest possible power output from a single projector. This device permits the use of two driver units with any type or size projector, either radial or straight directional. Construction: Accurately machined aluminum casting. All threads 1⅜"-18 ..... **List Price $11.00**

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ATLAS SOUND CORP.

ATLAS PAGING AND TALK BACK SPEAKERS

All New Designs of HU and CJ type speakers are now equipped with the versatile "Versalock" mounting bracket. This new rigid, rugged and reliable bracket is completely adjustable on both a horizontal and vertical plane: Efficient: these speakers are especially efficient in the voice frequency range and provide the extra "punch" that overrides high level background noise. Talk Back: designed to offer a maximum of efficiency in talk back application. The peaked characteristics within the voice frequencies further add to the sensitivity of the speaker as a pickup device. All HU type speakers are constructed of aluminum. All parts are chemically processed prior to final finish in gun metal grey, high gloss, high temperature baked enamel. The CJ type speaker horns are constructed of nonresonant indestructible fiber glass. All models are 100% weatherproof under all climatic conditions.

HU-12N Small in size and low in cost. Excellent for low power paging and talk back systems where limited coverage is required. Ideal as a cone speaker replacement for many inadequate low power inter-com systems. Offers three times the sound level of a small cone type speaker at a given power input. Equipped with the versatile "Versalock" mounting bracket permiting "pin point" directivity adjustment.

HU-15N The "work horse" of paging speakers. By far, the most popular all purpose trouble free speaker of its type and size. Double sealed against weather conditions existing in all climates. Its response is excellent for voice frequencies and offers natural voice reproduction free from peaks that often cause acoustic feed back and poor intelligibility. "Versalock" bracket standard equipment.

HU-24N Very similar to the model HU-15N except that the air column is extended to improve the low frequency response and overall efficiency. Excellent for paging and talk back system that are also required to reproduce music in industrial and amusement locations. Equipped with "Versalock" bracket.

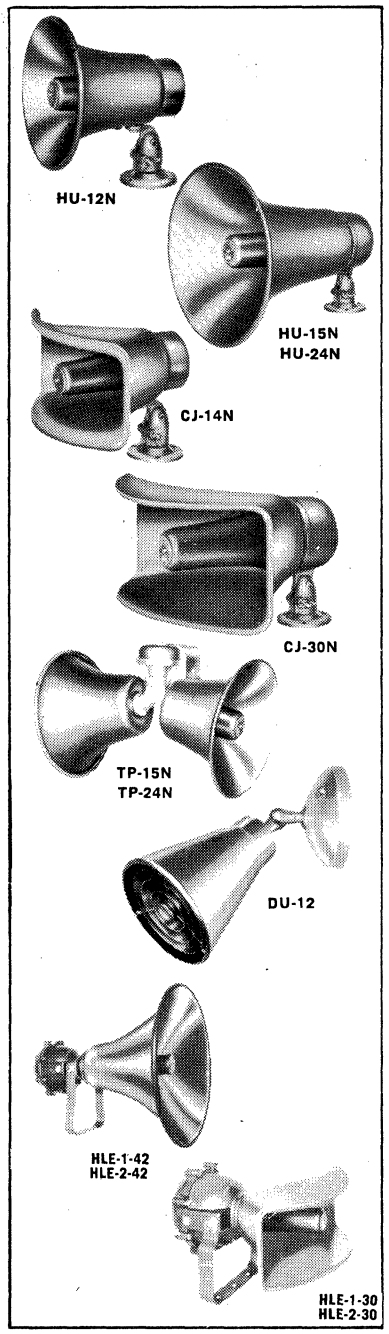
CJ-14N High efficiency speaker having a one piece outer horn constructed of fiber glass. The rectangular design of the horn opening results in a sound dispersion pattern having a wide horizontal beam, 100% weatherproof. Equipped with "Versalock."

CJ-30N A wide angle speaker of fiber glass construction that confines maximum power to a horizontal plane. The one piece horn completely covers all working parts of the driver unit assuring trouble free servjce in all climates. The exclusive "Versalock" bracket offers mounting facilities never before available on any speaker.

TP-15N Two way paging speaker offers economical bi-directional sound coverage. Universal mounting permits dual horns to be faced downwards or outwards from a wall surface at a 10° angle. A good choice for long corridors where one driver can do the work of two. Saves on installation costs.

TP-24N Same as above but equipped with over-sized horns offering lower frequency response and added efficiency. 100% weatherproof.

DU-12 The new DéCor Projector combines the intelligibility, directivity and high efficiency of a driver type projector with modern high styling that will harmonize with the most ultra modern décor. Finished in natural brushed satin aluminum. Two way adjustable bracket has a feed thru for connections. All wiring and line matching transformer concealed under canopy. All mounting hardware included for new and existing type installations.



EXPLOSION-PROOF HIGH-EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST.

Highly efficient due to exclusive design of explosion barrier.

Class 1 speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzine, butane, acetone, lacquer, natural gas, etc.

Class 2 can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

HLE-30 type speaker preferred where space limitations exist; excellent for paging and talk back applications.

HLE-42 type somewhat more efficient due to larger horn size—where maximum coverage is required.

SPECIFICATIONS	HLE (1 or 2) 30		HLE (1 or 2) 42	
POWER INPUT	30 watts		30 watts	
VOICE COIL IMPEDANCE	16 ohms*		16 ohms*	
FREQ. RESPONSE	300 to 10,000 cps		150 to 10,000 cps	
OVERALL LENGTH	17½ inches		25 inches	
BELL OPENING	14 in. x 6 in.		21 inch diameter	
CABLE ENTRANCE	½" conduit		½" conduit	
SHIPPING WEIGHT	22 lbs.		29 lbs.	
LIST PRICE	HLE-1-30 HLE-2-30	$115.00 $142.50	HLE-1-42 HLE-2-42	$130.00 $157.50

*Also available with 45 ohm V.C. add $1.50 to list price.

T-16 line matching transformer—space and mounting facilities available within explosion-proof housing for transformer. For details see description of T-16 in another section of catalog.

Model	HU-12N	HU-15N	HU-24N	CJ-14N	CJ-30N	TP-15N	TP-24N	DU-12
POWER*	7.5 w	25 w	25 w	7.5 w	25 w	25 w	25 w	7.5 w
IMPEDANCE†	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm
FREQUENCY C.P.S.	350-10,000	250-10,000	200-10,000	400-10,000	250-10,000	250-10,000	200-10,000	400-10,000
LENGTH OVERALL	7¼ in.	8¾ in.	12 in.	8 in.	11¼ in.	16½ in.	23 in.	14 in.
BELL DIAMETER	7½ in.	9¾ in.	11¼ in.	9½" x 5½"	14" x 6"	9¾ in.	11¼ in.	7 in.
SOUND LEVEL#	115 db	123 db	124 db	115 db	120 db	120 db each horn	121 db each horn	114 db
DISPERSION	120°	100°	95°	120° x 60°	120° x 60°	100° each horn	95° each horn	110°
SHIP. WEIGHT	3½ lbs.	6 lbs.	6 lbs.	3½ lbs.	7 lbs.	7½ lbs.	8 lbs.	4 lbs.
LIST PRICE	$27.00	$33.50	$37.25	$30.00	$41.00	$52.00	$57.50	$33.00

Note: Add $1.00 to list of all models if 45 ohm impedance is required

#Measured at 4 ft. on axis rated power

*Input range limited to frequencies above horn cut off

†All models available in 45 ohms—add 45 ohms after model No. (Example: HU-15N-45)

Trade Discount Applies To List Prices Only

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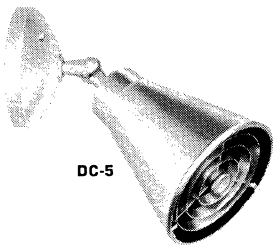
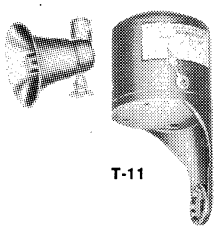
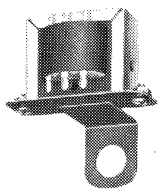
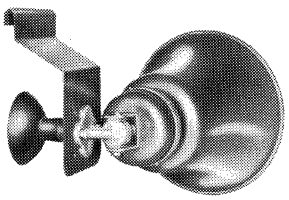
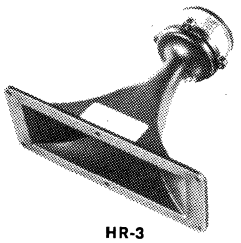
ATLAS SOUND CORP.


DC-5


T-11


T-5


WM-1


HR-3

ATLAS TRANSFORMERS—BAFFLES—ACCESSORIES

NEW MODEL DC-5 CONE SPEAKER TYPE "DECOR" PROJECTOR

The new DC-5 fills the long-felt need for a speaker with two desirable features: The small size and fine appearance necessary for the most discriminating applications; and pleasing low level reproduction of both voice and music.

Both of these features, along with many others, are incorporated in the design of the DC-5. The modern, straight-line, lighting fixture contours and the brushed natural aluminum finish are acceptable anywhere. The DC-5 is not obviously a loudspeaker; it does not offend or clash with surroundings, but blends into the background styling in an unobtrusive manner.

The DC-5 is designed around a high quality five-inch cone speaker, and is enclosed in a semi-directional housing. The effective low frequency response, as a result of the cone type reproducer, adds naturalness to voice frequencies and a pleasant timbre to low level musical reproduction.

The semidirectional horn and complete directional control of the mounting bracket permits the sound coverage to be confined to the required service area. It is therefore an excellent speaker for use in churches, funeral homes, hotel lobbies, restaurants and all reasonably quiet areas where appearance and ease of installation must be carefully considered. The DC-5 is semiweatherproof, and will resist dampness and humidity, but is not recommended for completely unsheltered outdoor application.

The "positive lock" bracket permits the speaker to be easily directed either horizontally or vertically. Connections feed thru the bracket, and all wiring, transformers, etc., are concealed behind the canopy. The canopy is equipped with an adaptor strap for an electrical outlet box or for direct mounting on a wall or ceiling surface. All parts are finished in brushed, natural aluminum, followed with a clear lacquer protective coating.

DC-5 SPECIFICATIONS	
Power (cont.)	6 watts
Impedance	8 ohms
Response	120-7000 cps
Overall length	14 inches
Bell Dia.	7 inches
Shipping Weight	3 lbs.
List Price	$22.00

MODEL T-11 Transformer housing and bracket is completely weatherproof and may be easily attached to any model HU, CJ or TP type speaker. The transformer accordingly becomes part of the speaker assembly. It can be pre-wired to the speaker with the entire speaker and transformer assembly installed in position as a single pre-wired unit. **Power reminder:** The T-11 is equipped with a novel power input scale and pointer. The pointer is set in accordance with the power input connections to the transformer primary. A ready reference for any speaker power changes that may be required in final, overall system adjustments. Transformer is varnish impregnated and equipped with properly marked soldering lugs. **Specifications:** Primary: 45, 325, 500, 1000, 2000, 4000 and 8000 ohms—or based on 70 volt line: 15, 10, 7½, 5, 2.5, 1.25, .65 watts. Secondary 4, 8 and 16 ohms ..... **List Price $9.25**

MODEL T-5 Transformer is especially designed for use with the DU-12 and DC-5 DéCor speakers. The transformer is equipped with a bracket so that it may be easily mounted under the speaker mounting canopy without difficulty. The T-5 is a small but high efficiency transformer that will not introduce a serious insertion loss. **Specifications:** Primary: 670, 1000, 2000, 4000, 8000 and 16,000 ohms—or based on a 70 volt line: 7.5, 5, 2.5, 1.25, .62 and .31 watts. Secondary 8 ohms ..... **List Price $5.00**

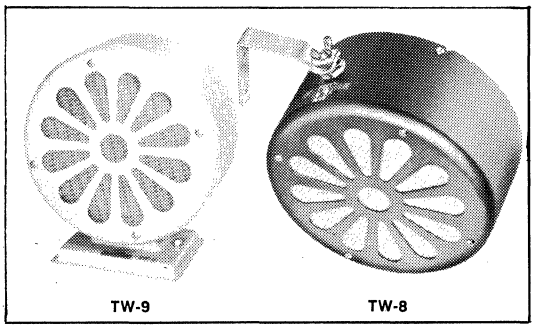
MODEL WM-1 Car Window Speaker Support. This bracket can be quickly and safely attached to practically any car or truck window without the use of tools. It will not cause damage to the paint finish, window glass or adjustment mechanism.

The WM-1 bracket will adequately support speaker models such as the HU-15N, HU-12N and CJ-14N. The bracket does not rely on the rubber suction cup for secure attachment. The bracket has a rubberized cork lined channel that slips over the top of the window glass. Raising the window locks it tightly against the top window slot.

Neat in appearance and quickly converts any car into a mobile sound vehicle. All hardware supplied for attaching speaker to the WM-1, constructed for sheet steel, finished in grey enamel ..... **List Price $5.00**

MODEL HR-3 The new Atlas Super-Tweeter is the latest development in a versatile high frequency reproducer. A super efficient tweeter which now goes "over the top" in response—with a silky smoothness, a wide angle distribution pattern and a complete freedom from distortion. All parts comprising acoustic path constructed of "precision controlled" die castings. Each diaphragm checked for weight and compliance in order to assure functional uniformity in production.

HR-3 SPECIFICATIONS	
Response	2000-17,500 cps
Impedance	12-16 ohms
Power	35 watts (prox.) program capacity
Width (front)	7½ inches
Height (front)	3 inches
Depth overall	6½ inches
Cabinet opening	6″ x 2″
Shipping Weight	3 lbs.
List Price	$27.50

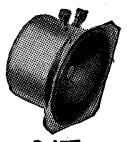

TW-9 TW-8

MODEL TW-9 "Armor Plate" construction truly describes the material used in the fabrication of the new Atlas speaker enclosure. The resultant strength and weight plus internal acoustic treatment, provides an enclosure free from resonance and mechanical vibration. Every consideration has been given to the design to make for ease of installation under the wide variety of mounting conditions occurring in both new and existing construction. The TW-9 is a "two way" baffle especially suited for use in corridors and other locations where sound is to be distributed bi-directionally—can be mounted on either wall or ceiling surfaces. A universal mounting plate is furnished to facilitate mounting on plain flat wall surfaces or on various types of standard electrical outlet boxes—chemically treated against corrosion prior to a final finish in a new modern shade of beige enamel. This neutral color harmonizes with most interior locations. The grill openings are protected and decorated with a plastic woven cloth. All speaker mounting hardware and wall fastenings are included. Overall size: diameter of housing 9 inches, depth 5 inches, base measures 6 in. x 5 in.—will accommodate any type of 8″ cone. Shipping weight 4 lbs. ..... **List Price $13.00**

MODEL TW-8 "Two way" is a very popular 8″ cone speaker enclosure having a wide range of applications—will accommodate any type of 8″ cone. Baffle utilizes front and back wave of cone speaker for coverage in long corridors or central locations. Constructed of steel, phosphate treated prior to a finish in neutral grey enamel. Grill openings protected with grey flock coated screens. A universal "quick mount" bracket is included which permits orientation to almost any angle. All speaker mounting hardware included. Overall diameter 9 inches, depth 5 inches. Shipping weight 3½ lbs. ..... **List Price $10.00**

Cletron Hi-Fi Speakers

CATHEDRAL SERIES HIGH-FIDELITY SPEAKERS


C-4FT

TWEETERS

MODEL C-46CT (1500-20,000 CPS)

New high register adder — Highest Quality. Ideal for use with any high fidelity system to assure pure high frequency tones with accurate reproduction of 1000 to 20,000 cps. Axial sensitivity is 98 db ± 3 db. Matched to 8 ohms.
Cletron Model C-46CT Tweeter—Audiophile Net **$8.50**

MODEL C-4FT (1800-18,500 CPS)

An excellent 4" tweeter with a range of 1,800-18,500 cps, ± 5 db. May be used with capacitive or inductive crossover. Heavy 3.16 oz. Alnico V magnet; 5/16" voice coil. Power handling, 10 watts. Impedance, 8 ohms.
Cletron Model C-4FT Tweeter—Audiophile Net **$6.50**

MODEL C-4CT (1800-12,500 CPS)

Identical to Model C-4FT except: Has 1.47 oz. Alnico V magnet; power handling, 8 watts.
Cletron Model C-4CT Tweeter—Audiophile Net **$4.75**

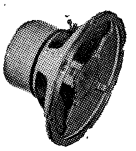
C-3CT

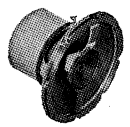
MODEL C-3CT (1800-18,500 CPS)

A 3" tweeter for multiple speaker installations with series-parallel voice coil connections and where two tweeters are used. May also be used as a single tweeter. Range, 1,800-18,500 cps. ± 5 db. Has 1.47 oz. Alnico V magnet; 5/16" aluminum form voice coil. Power handling, 10 watts. Impedance, 8 ohms.

MODEL C-3CT4 (1800-12,500 CPS)

For use where two tweeters are used in series and connected to 8-ohm network. Same as C-3CT except: Range, 1,800-12,500 cps, ± 5db; 4 ohm voice coil; power handling, 4 watts.
Cletron Model C-3CT4 Tweeter—Audiophile Net **$5.30**


C-12PC


C-8JC

FULL SCALE-WIDE RANGES WITH HIGH FREQUENCY DIFFUSERS

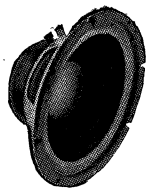
MODEL C-12NR (45-16,000 CPS)

Ideal for use in back-loaded enclosure with or without tweeter unit. Finest double cone 12" speaker with a range of 45-16,000 cps. Air resonance, 30 cps. Has 16 oz. Alnico V magnet (12,500 gauss) ; 2" aluminum form voice coil. Power handling, 25 watts. Impedance, 8 ohms. Overall depth, 7".
Cletron Model C-12NR—With high frequency diffuser. Audiophile Net **$33.50**

C-12NR

MODEL C-8NR (60-12,500 CPS)

Mid-range double cone 8" speaker for use in multiple speaker systems with high power requirements or as a single speaker where excellent mid-range reproduction is required. Range, 60-12,500 cps, ± 5 db. Air resonance, 65 cps. Has 16 oz. Alnico V magnet (12,500 gauss) ; 2" aluminum form voice coil. Power handling. 16 watts. Impedance, 8 ohms. Overall depth, 5".
Cletron Model C-8NR—With high frequency diffuser. Audiophile Net **$27.00**


C-12RW

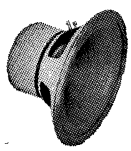
MODEL C-8FR (65-16,000 CPS)

Popular in high fidelity applications of moderate power or as a perfect speaker for excellent public address applications. A double cone 8" speaker with a range of 65-16,000 cps. ± 5 db. Air resonance, 70 cps. 3.16 oz. Alnico V magnet (9,500 gauss); 3/4" aluminum form voice coil. Power handling, 8 watts. Impedance, 8 ohms. Overall depth. 3 3/4".
Cletron Model C-8FR—With frequency diffuser. Audiophile Net **$15.00**

C-8FR

MODEL C-8MFR (1000-6000 CPS)

New solid basket mid-range has high compliance characteristics. Mates with any system. Solid basket eliminates interaction when mounted in same cavity as woofer. Axial sensitivity of 95 db (±5 db). Aluminum voice coil form handles power up to 12 watts. Impedance, 8 ohms. **Cletron Model C-8MFR Midrange**—Audiophile Net **$13.20**


CM12PW

COAXIAL HIGH-LOW DUETS WITH BUILT-IN CROSSOVERS

MODEL C-12PC (35-18,500 CPS)

A 12" coaxial speaker with a range of 35-18,500 cps, ± 5 db. Woofer has extra heavy 21 oz. Alnico V magnet around 2" aluminum form voice coil; 25 watts power handling. Tweeter is C-4CT. Air resonance, 35 cps. Impedance, 8 ohms. Overall depth, 7".
Cletron Model C-12PC—With built-in crossover. Audiophile Net **$53.50**

MODEL C-8JC (60-12,500 CPS)

Frequency range, 60-12,500 cps, ± 5 db. The 8" woofer has a 6.8 oz. Alnico V magnet, 1" aluminum form voice coil. The C-3AT, 3" tweeter, has a 5/16" voice coil and a .68 oz. Alnico V magnet. Air resonance, 65 cps. Power handling, 8 watts. Impedance, 8 ohms. Overall depth, 5". **Cletron Model C-8JC**—With built-in crossover. Audiophile Net **$18.00**

C-8NR

WOOFERS

MODEL C-12RW (16-4000 CPS)

Most efficient 12" bass speaker available. Flex-Edge cone permits full 1" excursion at 16 cps with only 4 watts input. A 6½ lb. ceramic Indox magnet structure for over one million Maxwell lines. High compliance for organ or drum tonal response. Aluminum voice coil operates efficiently at 5 watts; peaks at 35 watts, 25 watts continuous program. Efficiency cuts out before 4000 cps. Ideal for folded horn or infinite baffles. Matched to 16 ohms.
Cletron Model C-12RW Flex-Edge Woofer—Audiophile Net **$59.00**

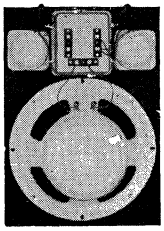
MODEL C-12RDW DUAL WOOFER FOR STEREO

Same features as C-12RW above, but has bifilar winding on voice coil for dual channel use. Assures in-phase balance from both amplifiers. Permits smaller second baffle without loss of bass response on second channel.
Cletron Model C-12RDW Flex-Edge Dual Woofer—Audiophile Net **$64.00**

MODEL C-12PW (30-5000 CPS)

A 12" speaker with a range of 30-5,000 cps, ± 5 db. Has 21 oz. Alnico V magnet. 2" aluminum form voice coil. Air resonance, 35 cps. Power handling, 25 watts. Impedance, 8 ohms. Overall depth, 7". **Cletron Model C-12PW Woofer**—Audiophile Net **$50.50**

C-18N3W


C-1233

NEW, 18-INCH WOOFER (20-4000 cps)
MODEL C-18N3W

The absolute ultimate in a quality woofer. Complete Cletron attention to every aspect of engineering detail assures the richest true-bass possible.

This speaker is specifically designed to handle those difficult sound applications such as large, open areas where tremendous volume and high power is required.

An extra-long voice coil is built within an extra large 6-inch spider to assure complete freedom of linear cone movement without loading. Heavy cast aluminum construction eliminates basket resonance. 11-lb. 'Alnico V' magnetic structure. Free air resonance is 20 cps. Matching impedance is 8 ohms. Handles 75 watts. Has the necessary, accurately controlled distortion required to reproduce the deepest of chords . . . a unique engineering achievement that further enhances the listenable richness of this new Cletron masterpiece.

Cletron Model C-18N3W Woofer—Audiophile Net **$180**

CLETRON SPECIAL SERIES SPEAKERS

Catalog No.	Size in.	Basket Type	Magnet Ounces	Impedance and Voice Coil Size	Watts	Mtg. Holes Ctrs-Ins.	Depth In.	Dealer Net
‡SS69JW8	6x9	Oval	6.8 ALNICO V	8 Ohm 1"	6-12	4⅝ x6⅞	4⅛	$ 8.00
‡SS69JW4	6x9	Oval	6.8 ALNICO V	3.2 Ohm 1"	6-12	4⅝ x6⅞	4⅛	8.00
‡SS69JCFE	6x9	Oval	8 oz. Ceramic	8 Ohm 1"	6-12	4⅝ x6⅞	2 15/16	8.25
SS8EC	8	Round	2.15 ALNICO V	8 Ohm ¾"	4- 9	5⅞ x5⅞	4½	7.50
‡SS8JW	8	Round	6.8 ALNICO V	8 Ohm 1"	6-12	5⅞ x5⅞	4⅞	8.25
‡SS8FCR	8	Round	4 oz. Ceramic	8 Ohm ¾"	8- 9	5⅞ x5⅞	2 23/32	7.00
*SS8FCRT	8	Round	4 oz. Ceramic	8 Ohm ¾"	8- 9	5⅞ x5⅞	2 23/32	10.35
SS8JCM	8	Round	8 oz. Ceramic	8 Ohm 1"	6-12	5⅞ x5⅞	2 15/16	7.65
*†SS8JCMT	8	Round	8 oz. Ceramic	8 Ohm 1"	6-12	5⅞ x5⅞	2 15/16	11.00 11.80
‡SS8JFE	8	Round	6.8 ALNICO V	8 Ohm 1"	6-12	5⅞ x5⅞	4⅜	8.35
SS10PFE	10	Round	21.5 ALNICO V	8 Ohm 1½"	12-20	6 13/16x6 13/16	5 3/16	27.60
SS12JW	12	Round	6.8 ALNICO V	8 Ohm 1"	6-12	8¼ x8¼	6 3/16	10.95
SS12JC	12	Round	8 oz. Ceramic	8 Ohm 1"	6-12	8¼ x8¼	4¼	10.35
†SS12JCT	12	Round	8 oz. Ceramic	8 Ohm 1"	6-12	8¼ x8¼	4¼	14.50
SS12PFE	12	Round	21.5 ALNICO V	8 Ohm 1½"	12-20	8¼ x8¼	5 29/32	31.44

Key: SS - special series W - wide range C - ceramic FE - flex edge T - transformer
* 70 volt transformer—¼ to 4 watts
† 70 volt transformer—½ to 8 watts
‡ has Hi-Fi Diffuser—type dual-cone

Net
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Cletron Stereo Kits, Speakers

CATHEDRAL HIGH FIDELITY KITS
MODEL C-33812 MATCHED SET

Features the Cletron 12" Flex-Edge woofer with ceramic Indox magnet for over one million Maxwell lines. May be used in either stereophonic or monophonic sound systems. The new development Flex-Edge cone is specifically designed for easier linear movement and has an unusually heavy body to prevent break-up of bass mid-tones common to other woofers. High compliance, 16 cps to 4000 cps. Full one-inch excursion of cone, with aluminum voice coil form, at 16 cps with only four watts input. Handles 25 watts continuously and 35 watts peak power. Operates efficiently at only five watts. Efficiently cuts out before 4000 cps. Kit includes Model C-8MFR mid-range speaker for 1000-6000 cps, with an axial sensitivity of 95 db (± 5 db). Has aluminum form voice coil. Features solid basket construction, eliminating the interaction effect when used in the same cavity as the woofer. Upper range is accommodated by the use of two Model C-3CT quality three-inch tweeters with a range of 1800-18,500 cps, completing the audio spectrum. Tweeters are designed primarily for multiple speaker systems where two tweeters are used. L-C network Model C-1220 matched for perfect operation has remote control for fine-tuning the mid-range output to suit individual tastes.

Cletron Model C-33812 Matched Set—Audiophile Net **$98.00**

Rugged, modern, lightweight cast aluminum models with or without hanger. Volume control, 2-conductor cable and all weather 4-inch speaker. Complete Model 21D (4⅞" x 7⅜" x 3½") designed for wall mounting. Available as 13 ohm or 45 ohm for receive and/or transmit. Either cabinet model includes Cletron famous 4" all weather speaker. Cast aluminum housing.

L-C NETWORKS
MODEL C-800 HIGH PASS FILTER

Designed to divide audio between woofer and tweeter in two-speaker system. Matches 8, 16 ohms. Capacity, 30 watts. Frequency range, 2000-20,000 cps for tweeter. Self-contained. Protects tweeter from damage. **Size:** 4¾" x 2½" x 1¼"d.

Cletron Model C-800 High-Pass Filter—Audiophile Net **$7.50**

MODEL C-1200 TWO-WAY L-C NETWORK

Designed for two-speaker system and matches 8 and 16 ohms. Eight ohms crossover is 2000 cps; 16 ohms crossover is 1500 cps. Has 12 db. per octave attenuation. Handles up to 50 watts. Gold anodized case, 5" x 5½" x 2¾".

Cletron Model C-1200 Two-Way L-C Network—Audiophile Net..... **$17.00**

MODEL C-1220 THREE-WAY NETWORK

Matching 8 and 16 ohm impedance with "L" pad remote control for fine tuning of mid-range output. **Crossover:** Bass, 15-1500 cps; mid-range, 500-5000 cps; tweeter, 2000 cps (12 db per octave). Insertion loss is less than 1 db. Power handling up to 50 watts. Gold anodized case, 5" x 5½" x 2¾".

Cletron Model C-1220 Three-Way Network—Audiophile Net..... **$21.50**

DRIVE-IN SPEAKERS

Rugged, modern, lightweight cast aluminum models with or without hanger. Volume control, 2-conductor cable and all weather 4-inch speaker. Complete units or cones only. Quantity prices available at your request.

HEAVY DUTY INTERCOM SPEAKERS

Cast aluminum Model 21 (4" x 6" x 2½") available with or without hanger. Model 21D (4⅞" x 7⅜" x 3½") designed for wall mounting. Available as 13 ohm or 45 ohm for receive and/or transmit. Either cabinet model includes Cletron famous 4" all weather speaker. Cast aluminum housing.

$9.30 Dealer Net

WOOFER-TWEETER COMBINATION WITH SOUNDING BOARD AND CROSSOVER NETWORK
MODEL C-1233 (30-18,500 CPS)

The crossover in C-1233 functions at 1,800 cps and "crosses over" at the rate of 12 db per octave. Designed for either wall installation on 16" joist centers, installation in a back-loaded enclosure or for conversion of an older console to high fidelity sound. Consists of one 12" woofer with a 21 oz. Alnico V magnet and 2" voice coil, two 3" tweeters with 1.47 oz. Alnico V magnets and 5/16" voice coils, and a completely shielded L-C crossover network, all mounted on a plywood mounting board 16" x 20" with a depth of 7" from the front of the baffle to the back of the speakers. Frequency range, 30-18,500 cps. Air resonance, 35 cps. Power rating, 35 watts. Impedance, 16 ohms.

Cletron Model C-1233—Audiophile Net **$60.00**

Model	Description	Dealer
	No. 1 Ceiling Baffle.	
56	8" with 4 oz. Ceramic & 70 V.T.	$12.96
57	8" with 4 oz. Ceramic & 25 V.T.	12.96
58	8" with 8 oz. Ceramic & 70 V.T.	15.80
59	8" with 8 oz. Ceramic & 25 V.T.	15.80
	No. 2 Ceiling Baffles.	
60	8" with 4 oz. Ceramic & 70 V.T.	13.53
61	8" with 4 oz. Ceramic & 25 V.T.	13.53
62	8" with 8 oz. Ceramic & 70 V.T.	17.04
63	8" with 8 oz. Ceramic & 25 V.T.	17.04
	All output transformers—½ x ½.	
64	8" with 4 oz. Ceramic & 70 V.T.	$13.86
65	8" with 4 oz. Ceramic & 25 V.T.	13.86
66	8" with 8 oz. Ceramic & 70 V.T.	16.65
67	8" with 8 oz. Ceramic & 25 V.T.	16.65
	All output transformers—½ x ½.	

Cleveland Electronics Inc., 1974 East 61st Street, Cleveland 3, Ohio

AUTOMOBILE REAR SEAT SPEAKER KIT

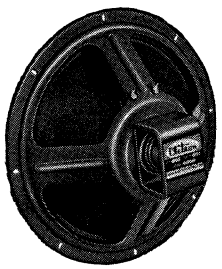
Stereo effect in your car! Popular, universal designs. Complete for quick and easy trouble-free installation. Fit almost every car. Now, you can please both front seat and rear seat passengers. Full power 'Alnico V' magnetic structure. Handsome, high lustre protective grille incorporates a new baffle principle for improved dispersion of sound. Complete kit includes mounting template and easy to follow instructions.

6" x 9" speaker; **Model 24 Kit** ..... Dealer's Net **$5.10**

6" x 9" dual-cone, heavier magnet Hi-Fi Speaker; **Model 34** Dealer's Net **$6.50**

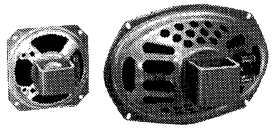
(5" x 7" speaker kits also available and priced proportionately lower.)

REPLACEMENT AND AUTO SPEAKERS



12" (PM-12LR)

5" (PM-5A)



PM OVAL SPEAKERS

Size In.	Cletron No.	Magnet Wt. Oz.	V.C. Size	Watts	Mtg. Hole C't'rs In.	Depth In.	Dealer Net
3 x 5	PM-3x5C	1.47	5/16"	2-4	2 5/16 x 3 5/16	2 7/32	$3.06
2 x 10	PM-210*	1.47	5/16"	2-4	7 41/64 x 2 7/32	2 23/32	4.14
4 x 10	PM-410	1.47	¾"	6-8	3¼ x 6 7/8	3	4.05
4 x 6	●PM-46A	.68	5/16"	2-4	3 5/8 x 4 5/8	2	2.97
4 x 6	●PM-46B	1.00	5/16"	2-4	3 5/8 x 4 5/8	2 1/8	3.06
4 x 6	●PM-46C	1.47	5/16"	2-4	3 5/8 x 4 5/8	2 7/32	3.27
5 x 7	PM-57	.68	5/16"	2-4	4 11/32 x 4 11/32	2 23/32	3.09
5 x 9	PM-57A	.68	5/16"	2-4	4 11/32 x 4 11/32	2 23/32	3.36
4 x 8	□PM-48C	1.47	5/16"	2-4	5 39/64 x 3 7/64	2 17/32	3.54
5 x 7	●PM-57B	1.00	5/16"	2-4	4 11/32 x 4 11/32	2 23/32	3.54
5 x 7	●PM-57C	1.47	5/16"	2-4	4 11/32 x 4 11/32	2 15/16	3.75
5 x 7	PM-57E	2.15	¾"	4-9	4 11/32 x 4 11/32	3 1/8	4.47
5 x 7	PM-57FC	3.16	¾"	4-9	4 11/32 x 4 11/32	3¼	5.19
6 x 9	‡PM-6920	1.73	1"	4-9	4 5/8 x 6 5/16	3	5.26
6 x 9	‡PM-6921	1.73	1"	4-9	4 5/8 x 6 5/16	3	5.78
6 x 9	*PM-6922	2.15	1"	4-9	4 5/8 x 6 5/16	2¼	6.80
6 x 9	PM-6923	1.73	1"	4-9	4 5/8 x 6 5/16	3	5.04
6 x 9	PM-69DC	1.47	5/16"	4-9	4 5/8 x 6 5/16	3 3/32	4.15
6 x 9	PM-69D	1.47	¾"	4-9	4 5/8 x 6 5/16	3¼	4.05
6 x 9	PM-69D8	1.47	¾"	4-9	4 5/8 x 6 5/16	3¼	4.05
6 x 9	PM-69E	2.15	¾"	4-9	4 5/8 x 6 5/16	3 1/16	4.62
6 x 9	PM-69FC	3.16	¾"	4-9	4 5/8 x 6 5/16	3 1/16	5.37
6 x 9	PM-69EI	2.15	1"	4-9	4 5/8 x 6 5/16	2 1/8	5.70
6 x 9	PM-6912	1.73	1"	4-9	4 5/8 x 6 5/16	3	5.01
6 x 9	PM-6914	1.73	1"	4-9	4 5/8 x 6 5/16	3	5.01
6 x 9	PM-69	1.00	5/16"	4-9	4 5/8 x 6 5/16	3 3/32	3.42

‡Replacement for Am Motors.
*Motor Structure inverted.
□Replacement for Lark.
● Includes bracket and tapped holes for mounting.

STANDARD PM SPEAKERS

Size In.	Cletron No.	Magnet Wt. Oz.	V.C. Size	Watts	Mtg. Hole C't'rs In.	Depth In.	Dealer Net
2¾	PM-2P2*	.65	5/16"	250 mv	.....	1⅛	$2.88
3½	●PM-3A	.68	5/16"	2-4	2 13/16 x 2 13/16	1¾	2.37
4	●PM-4A	.68	5/16"	2-4	3 5/16 x 3 5/16	1⅞	2.34
4	PM-4P2	.73	5/16"	2-4	3 5/16 x 3 5/16	1⅝	2.37
4	PM-4	.53	5/16"	2-4	3 5/16 x 3 5/16	1 9/16	1.86
4	●PM-4B	1.00	5/16"	2-4	3 5/16 x 3 5/16	2 1/16	2.49
4	●PM-4C	1.47	5/16"	2-4	3 5/16 x 3 5/16	2⅛	2.70
4	●PM-5A	.68	5/16"	2-4	3 5/16 x 3 5/16	2 5/32	2.52
5	●PM-5B	1.00	5/16"	2-4	3 5/16 x 3 5/16	2 7/32	2.73
5	●PM-5C	1.47	5/16"	2-4	3 5/16 x 3 5/16	2 11/32	2.94
5	PM-5	.68	5/16"	2-4	3 5/16 x 3 5/16	2 5/32	2.19
5¼	PM-5CA	1.47	5/16"	2-4	4 x 4	2 15/32	3.06
6	PM-6	.68	5/16"	2-4	4 3/8 x 4 3/8	2 9/16	2.64
6	PM-6B	1.00	5/16"	2-4	4 3/8 x 4 3/8	2 9/16	3.09
6	●PM-6C	1.47	5/16"	2-4	4 3/8 x 4 3/8	2 23/32	3.27
6	PM-6E	2.15	¾"	4-9	4 3/8 x 4 3/8	2 13/16	3.54
6	PM-6F	3.16	¾"	4-9	4 3/8 x 4 3/8	3	4.14
7	PM-7EA	2.15	¾"	4-9	4¼ x 5¾	3¼	4.80
7	PM-7FA	3.16	1"	4-9	4¼ x 5¾	3 5/16	5.04
8	PM-8	.68	5/16"	2-4	5 1/16 x 5 1/16	3	3.21
8	PM-8D	1.47	¾"	4-9	5 1/16 x 5 1/16	2 13/16	4.29
8	PM-8E	2.15	¾"	4-9	5 1/16 x 5 1/16	3 3/32	4.71
8	PM-8E1	2.15	1"	4-9	5 1/16 x 5 1/16	2 1/16	5.70
8	PM-8EA	2.15	¾"	4-9	5 1/16 x 5 1/16	3 3/8	4.71
10	PM-10E	2.15	¾"	4-9	6 13/16 x 6 13/16	4	5.70
10	PM-10G	3.16	1"	6-12	6 13/16 x 6 13/16	4 1/8	6.33
10	PM-10	1.00	¾"	4-9	6 13/16 x 6 13/16	3¾	4.29
12	PM-12	1.47	¾"	5-10	8¼ x 8¼	4 5/8	6.60
12	PM-12G	3.16	1"	6-12	8¼ x 8¼	4 7/8	8.70
12	PM-12H	4.64	1"	6-12	8¼ x 8¼	5⅛	9.60

NOTE: Voice coil impedance, 3.2 ohms. *Or, 9 46/64" x 2 23/32". PM-57FC and PM-69FC have Hi-Fi diffuser type dual cones. PM-6914 is a replacement for Ford. PM-6912 is a replacement for Delco. PM-69EI and PM-8EI have an inverted motor structure to reduce its depth. ‡20 ohm center tapped voice coil.

8	PM-8H8	4.68	1"	6-12	5 1/16 x 5 1/16	3 1/16	$ 5.97
8	PM-8FRC	3.16	¾"	4-9	5 1/16 x 5 1/16	3½	5.46
8	PM-8JM	6.80	1"	6-12	5 1/16 x 5 1/16	4	8.01
10	PM-10JR	6.80	1"	6-12	6 13/16 x 6 13/16	4¾	9.00
12	PM-12JR	6.80	1"	6-12	8¼ x 8¼	5 5/16	10.20
12	PM-12LR	10.00	1¼"	12-20	8¼ x 8¼	5 7/16	11.88
12	PM-12CR	6.80	1"	6-12	8¼ x 8¼	7	16.62
15	PM-15CR	6.80	1"	6-12	10¼ x 10¼	8	21.60

Note. Voice coil impedance, 8 ohms. PM-12CR is a coaxial with separate 4-inch tweeter and crossover network built in. PM-15CR is a coaxial with separate 5-incn tweeter and crossover network built in.

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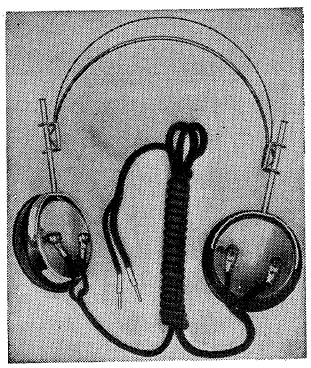
Net

HEADPHONES By C. F. CANNON CO.

THE "CHIEF"
Cannon-Ball Bakelite Headset

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2 1/16". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C..... **List $4.15 Net $2.49**
CC-3—3000 ohms D.C..... **List 4.40 Net 2.64**
CC-5—5000 ohms D.C..... **List 5.75 Net 3.45**
CC-11—11 ohms D.C..... **List 4.15 Net 2.49**



BRANDES "SUPERIOR"
Matched Tone Headset

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2⅛" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjusment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C. **List $4.30 Net $2.58**

BRANDES "ADMIRAL"
Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C. **List $4.30 Net $2.58**
BA-3—3000 ohms D.C. **List 4.80 Net 2.88**
BA-5—5000 ohms D.C. **List 6.00 Net 3.60**

CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

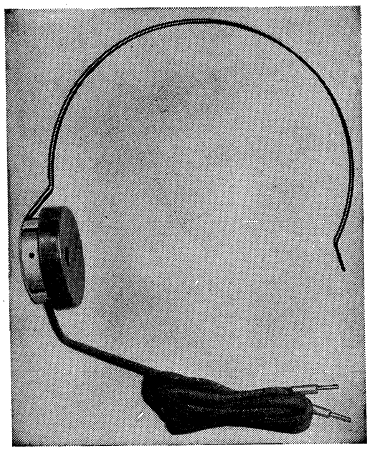
The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2⅛". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2 ..... **List $6.50 Net $3.90**
AM-25-3 ..... **List 7.00 Net 4.20**
AM-25-5 ..... **List 8.50 Net 5.10**

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1⅞". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

AM-15-2 ..... **List $3.65 Net $2.19**
AM-15-3 ..... **List 3.90 Net 2.34**



CANNON-BALL "ALNICO"
Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1⅞". Bakelite case and caps. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C..... **List $2.00 Net $1.20**

THE "MASTER"
Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2 1/16" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C... **List $4.30 Net $2.58**
MC-3—3000 ohms D.C... **List 4.65 Net 2.79**
MC-5—5000 ohms D.C... **List 5.75 Net 3.45**

CANNON-BALL "EMPIRE"
Lightweight Headset

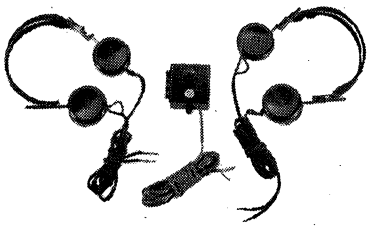
A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1⅞". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C... **List $3.80 Net $2.28**
EC-3—3000 ohms D.C... **List 4.05 Net 2.43**

THE "DIXIE"
Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C... **List $3.90 Net $2.34**
CD-3—3000 ohms D.C... **List 4.15 Net 2.49**

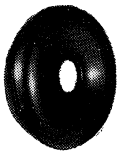


CANNON-BALL HEARING AID FOR TELEVISION

Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION
Kit complete with 15 foot cord, phone volume control and two sets of phones
List $16.50 Net $9.90
With one headset .. **List 12.50 Net 7.50**

MOLDED RUBBER CUSHIONS



Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

per pair ..... **List $1.00 Net $ .60**

Phones can be supplied with any resistance required or with variations to meet special requirements.

Sanitary plastic covered cords available for institutional use. Write for special quotation.

Trade Discount Applies to List Prices Only
© U.C.P., Inc.

Clevite-Brush Headphones

The Standard of Fidelity

HIGH FIDELITY—The completely redesigned model BA-220 headphone comes complete with ear cushions for improved frequency response and greater listening comfort. The BA-220 has exceptionally flat response out to 10,000 cycles. It combines the quality performance of the model BA-206 with the convenience and flexibility required of a high fidelity instrument. A simple plug change permits stereophonic or monophonic listening.

BA-220 . . . . . Double . . . . . $44.95 List
Net Wt. 8 oz. Shipping Wt. 2 lbs.

. . . for commercial and amateur listening

Clevite-Brush crystal phones possess wider range response with more uniform output. They furnish smooth, air-tight fit for excellent bass response. The Bimorph® crystal drive element is of such high impedance that line or circuit characteristics are not affected when monitored by Clevite-Brush phones. Light-weight, rugged, shock-proof construction is standard. All models are available with special cords for binaural listening.

Model BA-206 headphones are designed for listening to stereophonic or monophonic phonograph records, tape recordings or FM broadcasts. Their high impedance and negligible power requirements allow monitoring without any effects on associated equipment. The special "Metalseal" crystal elements provide maximum protection against excessive humidity.

BA-206 . . . . . Double . . . . . $37.25 List
Net Wt. 8 oz. Shipping Wt. 2 lbs.

BRUSH BINAURAL HEADPHONES

All Brush headphones are available with special cords for binaural applications. These feature the same high quality performance provided by all Brush headphones.

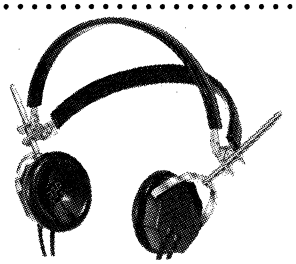
1. BA-206 B $39.25
2. BA-205 B $35.75
3. BA-200 B $24.50

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

EXTENDED RANGE

For use where extended frequency response is of paramount importance. (100 to 8,000 cps.) Especially suited to monitoring, sound measurement, audiometry, and similar applications. Impedance over 75,000 ohms at any frequency within audio range. Headset complete with 5′ cord and headband.

BA-205 . . . . . : $33.75 List
Net Wt. 6 oz. Shipping Wt. 2 lbs.



GENERAL PURPOSE

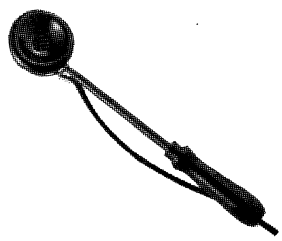
For laboratory, studio and skilled amateur home use. Wide range response (100 to 5,000 cps.) High impedance; high sensitivity, ideal for multiple installations. Headset complete with 5′ cord and adjustable headband.

BA-200 . . . . . $22.50 List
Net Wt. 6 oz. Shipping Wt. 2 lbs.

SINGLE PHONE

Particularly adapted to individual or group hearing aid and radio applications. Light-weight, good ear seal, and comfortable to wear. Spring steel headband with soft rubber cushion to eliminate slipping. Single phone complete with 5′ cord and headband.

BA-201 . . . . . $14.95 List
Net Wt. 3 oz. Shipping Wt. 1 lb.



LORGNETTE PHONE

Designed for use in group hearing aid sound systems installed in churches, concert halls, theatres and auditoriums. Attractively finished in satin black. Light-weight easy to handle, and complete with 5′ cord and lorgnette handle.

BA-202 . . . . . $18.75 List
Net Wt. 5 oz. Shipping Wt. 1 lb.

CLEVITE BRUSH

CLEVITE ELECTRONIC COMPONENTS
Cleveland 14, Ohio

DIVISION OF
CLEVITE CORPORATION

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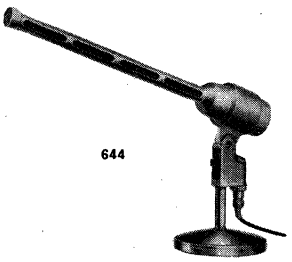
Electro-Voice GENERAL PURPOSE MICROPHONES

UNIDIRECTIONAL LINE MICROPHONE


644

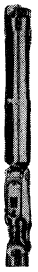
Model 644 Sound Spot—Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening, making it the most directional microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.

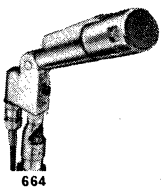
Cancellation from the rear and sides exceeds 20 db giving practically complete rejection of unwanted sound. This feature gives the most rejection of random noise in any microphone commercially available. Reverberation and feedback are vastly lower than any other microphone, allowing much greater leeway in loudspeaker placement.

The effective front acceptance angle is 45° each side of center giving best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than all other microphones.

Frequency response is smooth from 40 to 12,000 cps. High output: −53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure diecast zinc with ¾" aluminum tube. Rear diameter 2¹⁄₁₆", length 16". Cable is 18'. Weight, 2 lbs. 9 oz. List Price.....**$110.00**

CARDIOID UNIDIRECTIONAL MICROPHONES

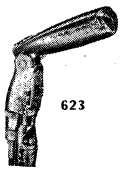

636


664

Model 664 Cardioid Dynamic—Similar to Model 666 in function, but designed specifically for PA. Cardioid pattern at all frequencies. Permits close talking without "booming" or bass accentuation. Provides better discrimination against unwanted sound. Less feedback than any cardioid PA microphone built. Blast filter minimizes wind effect. Acoustalloy diaphragm shielded from dust and magnetic particles. Response 40-15,000 cps. Output −55 db, On-Off switch. 150-ohm and high impedance. Impedance changed by moving one wire in MC4 cable connector. Pressure-cast case. Chrome finish. 18' cable. Size 7¹⁄₁₆" long, less stand coupler, 1⅛" diameter. Net Weight, 1 lb. 10 oz. List Price.....**$85.00**

Model 664G—Gold finish. List Price.....**$90.00**

OMNIDIRECTIONAL MICROPHONES


623

630

Model 636 "Slimair" Dynamic—Exceptionally fine for PA, recording and general use. Response 60-13,000 cps, output −58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tiltable head. Built-in MC-4 connector. ⅝"-27 thread. Hi-Z or Lo-Z by changing one wire in connector. 18' cable. 10¼" long including stud, 1⅛" max. diameter. List Price.....**$72.50**

Model 636G—Gold finish. List Price.....**$77.50**

647

Model 630 High Fidelity, High-Output Dynamic—Famous for quality at low cost. Response 60-11,000 cps; output level −55 db. Unaffected by heat or humidity. Acoustalloy diaphragm. Tiltable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250 ohms). Lo-Z balanced to ground. Size: 2" x 6¼". 18' cable. Net Weight, 1 lb. List Price.....**$52.50**

Model 647 PA Lavalier Dynamic—Small, rugged; for chest, desk or hand use. With neck cord, support clips and 18' cable. Response: 60-10,000 cps. Output level: −55 db. Impedance Hi-Z or Lo-Z easily changed at internal terminal board. Acoustalloy diaphragm. Built-in connector. Gray enamel finish. 5" long, 1" dia. Net Weight, less cable, 6 oz. List Price.....**$82.50**

624

615

Model 623 Slim Dynamic—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 cps; output level −56 db. Hi- or Lo-Z by changing one wire in connector. Pressure cast; satin chrome finish. Tiltable head. On-Off switch. Built-in MC-4 connector. ⅝"-27 thread. 7¹⁄₁₆" x 1¹⁄₁₆". 18' cable. Net Weight, 15 oz. List Price.....**$57.00**

611

Model 611 "Mercury" Dynamic—Traditional styling, fine performance for general sound pickup. Response 50-9000 cps; output level −55 db. Nondirectional. Acoustalloy diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. ⅝"-27 thread. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250 ohms). Lo-Z balanced to ground. 2⅜" x 3⅛" x 6¼" inc. stud. 18' cable. Net Weight 1¼ lbs. List Price.....**$45.00**

Model 624 Dynamic Lavalier—Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18' cable. Satin chrome finish. Wire mesh head acoustically treated for wind and moisture protection. Output −56 db, response 100-7,000 cps. Hi-Z or 150 ohm, not balanced to ground. 3¹⁄₁₆" x 1⅞". Cable has integral strain relief. Net Weight, 14 oz. List Price.....**$42.50**

615 on 415

Model 615 "Century" Dynamic—Incomparable for paging, home recording, amateur, or any low-cost applications. Can be used in hand, on table, on stand, or overhead. Nondirectional. Acoustalloy diaphragm. Withstands extreme temperature, humidity, corrosion and shock. Response: 80-8000 cps. Output: −55 db. Lo-Z (matches 50-250 ohms) or Hi-Z. Lo-Z not balanced to ground. 5' cable. Pressure cast case, Metalustre gray. Rugged, lightweight. Size 3" x 2¼" x 1". With ⅝"-27 thread stand adapter. AC-DC insulated. List Price.....**$22.50**

All E-V microphones except crystals are eligible for FCDA purchases.

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Electro-Voice MICROPHONES

CRYSTAL AND CERAMIC MICROPHONES

Model 951 Cardioid Crystal—Uses same new Variable D principle as E-V's BC-TV cardioids to obtain uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 cps. Output −60 db. Hi-Z. On-Off switch. Pressure-cast case. Metalustre gray finish. 18′ cable. MC-1 connector. 5⅜″ l. (excluding stud), 1¾″ dia. overall. Net wt., less cable, 1¼ lbs. List. **$54.50**

Model 911 "Mercury" Crystal—Same smart design and fine performance as Model 611. Response 50-9000 cps. Output −50 db. Metal Seal Crystal. MC-1 connector Hi-Z. 18′ cable. Net Weight 1½ lbs. List Price..... **$32.50**

Model 926 Slim Crystal—Level and response ideal for general purpose use. Response 60-8000 cps; output level −60 db. Hi-Z. Pressure cast case, satin chrome finish. Tiltable head. ⅝″-27 thread. 6¾″ x 1¹⁄₁₆″. 18′ cable with integral strain relief. Net Weight 11 oz. List Price..... **$29.50**

Model 920 "Spherex" Crystal—All-direction pick-up. Response 60-7000 cps; output level −50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝″-27 thread. Diam. 2¼″. 18′ cable. Net Weight 8 oz. List... **$27.50**

Model 924 Lavalier Crystal—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clips and 18′ cable. Satin chrome finish. Wire mesh head acoustically treated for wind and moisture protection. Output −60 db. Response 60-8000 cps. Hi-Z. 3¹⁄₁₆″ x 1¹⁄₁₆″. Cable has integral strain relief. Net Weight 8 oz. List Price... **$20.00**

Model 729 Ceramic Cardioid—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discriminating against sound from the rear makes the 729 excellent for amateur radio VOX operation. Tailored for single sideband. Output: −60 db. Response: 60 to 8,000 cps. High impedance only. Available with or without "on-off" switch. Metalustre gray front with medium gray back. Attractive desk stand and floor stand supplied. Net weight, less cable and stand, 9 oz. List Price..... **$24.50**

Model 729S—With switch. List Price..... **$26.50**

Model 727 Slim Ceramic—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8000 cps. Output −55 db. High impedance only. 5′ cable. Available with or without "on-off" switch. Metalustre gray front with medium gray back. Size: 7¾″ x 1⅜″ x 1½″. Supplied with attractive desk stand and floor stand coupler. Net Weight less cable, stand, 9 oz. List Price.. **$18.00**

Model 727S—With switch. List Price..... **$20.00**

Model 715 "Century" Ceramic—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7000 cps; output −55 db. Hi-Z. 5′ cable. Non-directional. Metalustre gray finish. Rugged, lightweight. 3″ x 2¹⁄₁₆″ x 1″. With ⅝″-27 adapter. AC-DC insulated. 6 oz. List Price..... **$13.00**

Model 715S—With switch. List Price..... **$15.00**

Model 718 Ceramic—An improved replacement for home recording microphones. 5′ cable includes a molded-on phono plug, with adapter, to match all late model home recorders. Improved high-level (−55 db) ceramic element resists damage from temperature, humidity extremes. Response: 60 to 6000 cps. 3¹⁄₁₆″ x 1¾″ x 1¹³⁄₁₆″. Net Weight 8 oz. List Price..... **$12.00**

Model 712 Ceramic—Low cost ceramic microphone. Fits need of low cost PA, home recording, paging and general use. Handheld. Moisture sealed ceramic. Response 70-7000 cps. High output −55 db. Hi-Z. Attractive gray Styron case. Size 3″ x 2¼″ x 1⅝″. 5′ cable. Net Weight 4 oz. List Price..... **$7.50**

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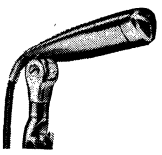
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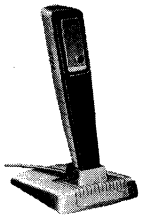
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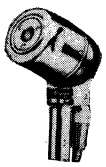
DIFFERENTIAL AND SPECIAL PURPOSE MICROPHONES

622SKK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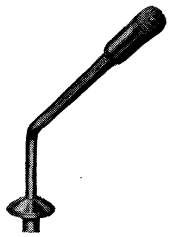

648 on 448

600D

Model 622SKK Dynamic Handset—For paging, intercom and communications. Sturdy bakelite, 150-ohm magnetic receiver with response 200-4000 cps. Switch closes mike and relay circuit. Response: 100-5000 cps. Output level: −55 db. Impedance: 250 ohms. 6′ 5-conductor coiled cord. List Price. **$78.00**
Model 622TRSKK—With 2-stage transistor amplifier. List Price.... **$94.50**

Model 625SKK Dynamic Differential Handset Microphone—Noise-cancelling microphone designed for use where background noise is at high level. Similar to Model 622SKK. Supplied with five-conductor, unshielded cable. DPST switch will handle relay or remote control and turn on mike. Press button to talk. Size: 8½″ x 3″ x 2⅝″. Net Weight, 1¼ lbs. List Price..... **$85.00**
Model 625TRSKK—With 2-stage transistor amplifier. FAA type certificate 3R42-2. List Price..... **$122.50**

Model 606 Differential Dynamic—Close talking, noise cancelling. Accepts sounds of close origin (¼″) and rejects sounds of distant origin. Response: 100 to 5,000 cps. Output at ¼″: −55 db. Acoustalloy diaphragm. ⅝″-27 thread. Built-in MC-1 connector. Satin Chrome. 2″ x 3¼″ x 2½″ including stud. LoZ (matches 50-250 ohms) or Hi-Z. Low impedance not balanced to ground. 18′ cable. List Price..... **$52.50**

Model 600D Dynamic Mobile-Mike—Lightweight, hand-held, extra-rugged. Output −55 db. Press-to-talk switch. Acoustalloy diaphragm. 2⅜″ x 2″ x 4″. 50-250 ohms or Hi-Z. 1′ retracted coiled cord. 6′ extended. Net Weight less cable 8 oz. List Price..... **$47.50**

Model 210KK Carbon—Similar to Model 600D but single-button carbon. Output −50 db. Press-to-talk switch. 6′ coiled cord. List Price..... **$35.00**

Model 602—A noise-cancelling dynamic microphone for use in areas of heavy background noise. It accepts sounds of close origin (¼″) and rejects sounds of a distant origin. Output level: −55 db, 100-7,000 cps. Press-to-talk switch, Acoustalloy diaphragm, 1′ retracted coiled cord, 6′ extended. Available in Hi-Z or balanced line, 50 or 250 ohm. Weight, less cable, 8 oz. List Price..... **$57.50**

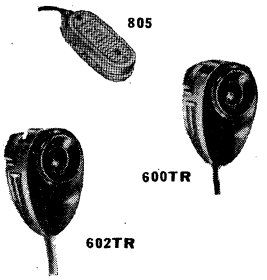
Model 205KK Differential Carbon—Close-talking, noise-cancelling, single button carbon. For private aircraft and emergency communications. Blastproof, waterproof, shock resistant. Output at ¼″: −50 db. Black phenolic case. Press-to talk switch. Mounting bracket. 6′ coiled cord. Size: 2¼″ x 2¼″ x 4″. Net weight less cable, 8 oz. List... **$45.00**
Model 205KKP—Same, with PJ-068 plug. List Price..... **$49.75**

Model 205STCKK—FAA Type approved certificate No. 1040 with coiled cord. Designed for commercial aircraft. List Price..... **$56.50**
Model 205STCKKP—Same as above with PJ-068 plug. List Price.. **$61.25**

Model 648 Intercom Microphone—Extremely versatile paging, intercom, or PA mike. Response: 50-10,000 cps. Output −58 db. Choice of Lo-Z (matches 50-250 ohms) or high impedance. Omnidirectional. Acoustalloy diaphragm. Non-reflecting gray. Less Cable. Size: 6⅛″ x 1″ (including ⅝″-27 thread adapter). Net Weight (with adapter), 8½ oz. List Price..... **$56.00**

All E-V microphones except crystals are eligible for FCDA purchases.

Electro-Voice MICROPHONES AND ACCESSORIES



SPECIAL PURPOSE AND DIFFERENTIAL MICROPHONES

Model 805 Contact—For guitar, banjo, other stringed instruments. Hi-Z. Sealed crystal. Chrome finish. 15′ cable. List Price.....**$20.00**

Model 600TR Microphone—Has compact, two-stage transistor amplifier built into case. Complete circuit including transistor, transformers, and associated equipment. Coiled cord, four-wire lead, press-to-talk switch may also actuate relay to control transmitter. Same sensitivity as carbon mike without change in auxiliary equipment. Output: −23 db. Amplifier power gain approximately 34 db. Size: 2¼″ x 2″ x 4″. Black phenolic case with mounting bracket, 6′ cable. Net Weight less cable, 13 oz. FAA type certificate 3R42-1. List Price.....**$82.50**

Model 602TR Microphone—Similar in type and appearance to Model 600TR, but designed for close-talking, noise-cancelling work. Speech is clear, crisp, distinct. May be used to replace carbon microphone with no change in auxiliary equipment. Net Weight less cable 13 oz. FAA type certificate 3R42-1. List Price.....**$93.00**

MICROPHONE ACCESSORIES

Model 356 Suspension Shock Mount—For use with Model 642 on boom or floor stand. Excellent isolation. List.**$50.00**

Model 366 Suspension Shock Mount—Extremely light. Designed for use with 666 microphone. Installs without tools. Pigtail cable connection with UA-3 connectors provides cable loop isolating boom shock noises. For any microphone with 1″ diameter. List.....**$40.00**

Model 345 Shock Mount—Dual-type external shock mount prevents reproduction of external shocks and stand vibrations. Permits tilting microphone head. ⅝″-27 thread. Easily attached or removed. Satin chrome. 1½″ x 3⅛″. Net Weight, 10 oz. List Price.....**$15.00**

Model 346 Shock Mount—Designed specifically for use with Model 666 microphone. Similar in every feature to Model 345, but constructed for 11 oz. microphone. List Price.....**$15.00**

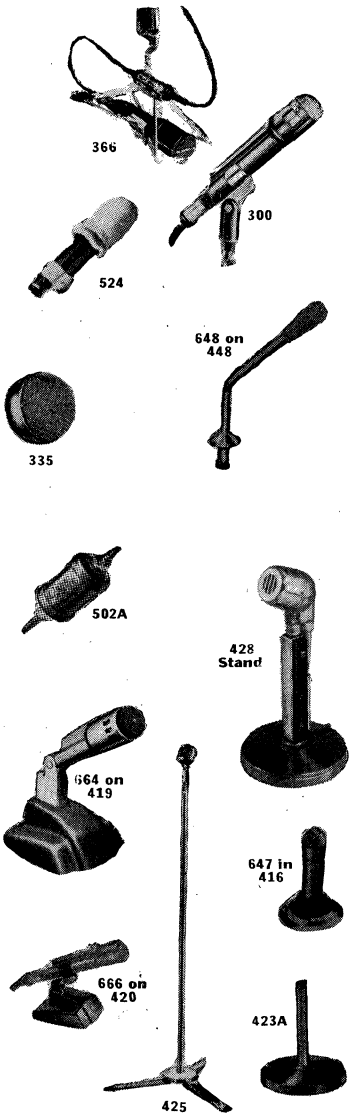
Model 300 Detachable Microphone Clamp—Light weight adapter fits any 1″ cylindrical microphone. Positive stand mounting. Installs easily with finger-operated clamp. Rubber insert prevents slippage. ½″ pipe thread adapter for ⅝″-27. List Price.....**$10.00**

Model 524 Wind Screen—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam rubber. Net Weight, 2 oz. List Price.....**$8.00**

Model 335 Blast Filter—Acoustically treated, scientifically curved grille stops wind and breath blasts. Does not affect frequency response. Easily fits over head of E-V Models 630, 635, and 605 mikes. Satin chrome finish. List Price..**$5.50**

Model 448 Swivel Boom Mount—Designed specifically for use with Model 648 microphone. Holds mike 11⅞″ off mounting surface. 62° elbow bend. MC-2M connector. Satin chrome finish. Extends 4″ below mounting surface, 2½″ diam. mounting base. Net Weight, 1 lb. 5 oz. List Price.....**$24.00**

Model 502A Matching Transformer—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity response 40-20,000 cps ±1 db. MC-4 input connector. 2⅞″ x $1^{15}/_{16}$″ diameter. List Price....**$17.50**



MICROPHONE STANDS

Model 415 Reclining Desk Stand—Mounts 615, 715, 715-S at 15° tilt. Satin chrome. Size: 2⅜″ x 2¾″ x 1″. Net Weight, 4 oz. List Price.....**$1.75**

Model 416 Stand—For semipermanent mounting of 646, 647 microphones. Black rubber. Size 3⅛″ diameter, 1″ high. Net Weight, 2 oz. List Price.....**$5.00**

Model 418 Desk Stand—Use with microphones using small-type stud such as Models 611, 623, 630, 635, 636, 911, and 951. Die cast base. Gray finish.
List Price.....**$10.00**
Model 418-S—With switch...**$15.00**

Model 419 Desk Stand—Similar to Model 418 but for use with microphones using large-type stud such as Models 644, 654, 664 and 665.
List Price.....**$10.00**
Model 419-S—With switch...**$15.00**

Model 420 Desk Stand—Heavy cast iron stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 646 or microphones with 1″ diameter. Clamp attachment for mounting 1″ cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs.
List Price.....**$20.00**

Model 423-A Desk Stand—Sturdy smartly styled, round die-cast base, 5⅛″ diameter. Rests firmly on rubber base buttons. Rich satin chrome. ⅝″-27 thread. Choice of 3″ or 5″ matching stem riser. Net Wt. 1 lb. List...**$5.00**

Model 428 Touch-To-Talk Stand—Fits standard ⅝″-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7″ x 5⅛″ base diameter. Net Weight, 1¾ lbs.
List Price.....**$17.50**

Model 425 Deluxe Floor Stand—Button at top gives one-hand height control from 37″ to 66″. Locks automatically on release. Shaft can be rotated without any adjustment device. Locking-type adjustable legs permit stand to be placed flush against wall. Modern, die-cast base. Three-leg spread 17″. Net Weight, 7½ lbs. List Price.....**$30.00**

All E-V microphones except crystals are eligible for FCDA purchases.

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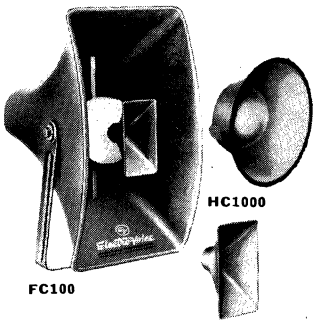
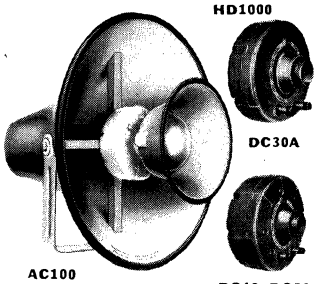
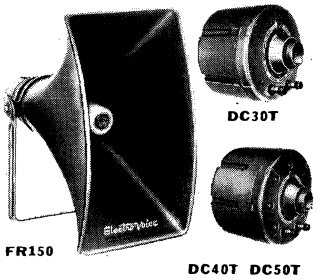
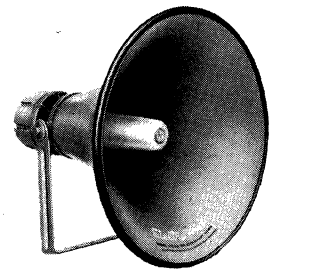
Electro-Voice PUBLIC ADDRESS HORNS AND DRIVERS









COMPOUND DIFFRACTION PROJECTOR

Model 848—Combines FC100 Compound Diffraction Horn plus DC30 Compound Driver for finest wide-angle sound, lowest distortion, highest sound quality of any projector. Specifications: Frequency response, 150-10,000 cps; impedance, 16 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½″ x 20½″ x 20″; Net Weight, 13½ lbs.; Shpg. Wt., 15 lbs. Complete—List Price..**$82.50**
Model 848-45—With 45-ohm voice coil. List Price..**$84.00**

PROJECTOR HORNS

Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose . . . compound and reentrant.

Exclusive compound horns permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area for uniform coverage. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.

Model FC100—Similar to the famous CDP, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn, or concentrating high-frequency horn (HC1000) can be substituted for small diffraction horn. Large horn is of fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58″; sound distribution, 90° x 120°. High frequency sound distribution, 90° x 120°; crossover, 1,000 cps. Mouth size, 10½″ x 20½″, depth (less driver), 20″. Net Wt. (less driver), 10¾ lbs. Shpg. Wt., 12¼ lbs. List..**$50.00**

Model AC100—Concentrating version of CDP. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Diffraction high-frequency horn (HD1000) can be substituted for concentrating horn for flexible coverage control. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58″; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 cps. Diameter, 21″; depth (less driver), 21″; Net Wt. (less driver), 11 lbs. 6 oz. Shpg. Wt., 13½ lbs. List Price..**$47.00**

Model HD1000—Diffraction horn for converting AC100 to wide-angle (60° x 120°) coverage above 1,000 cps. Shipping Weight, 1½ lbs. List Price..**$6.00**

Model HC1000—Concentrating horn for converting FC100 to concentrated (30°) coverage above 1,000 cps. Shipping Weight, 4 lbs. List Price..**$10.00**

New reentrant horns provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die cast mounting plate plus precision die cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1⅜″-18 threads.

Model FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency cut-off, 150 cps; taper, 150 cps; air column length, 45″; sound distribution, 70° x 100°; mouth size, 10½″ x 20½″; depth (less driver), 21″; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. List..**$39.00**

Model AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency horn—cut-off, 150 cps; taper, 150 cps; air column length, 41″; sound distribution, 85°; diameter, 21″; depth (less driver), 17″. Net Weight (less driver), 6½ lbs. Shipping Weight, 8 lbs. List Price..**$34.00**

VERSATILE CONVERTIBLE DRIVERS

Now, for the first time, here are drivers that can be used interchangeably in compound or reentrant horns. Used on either type of horn, the new Electro-Voice Convertible Drivers feature highest efficiency available. Increased power handling plus extra increased efficiency make the 40 and 50-watt drivers uniquely useful where high power at minimum cost is essential. The high efficiency of all E-V Convertible Drivers is achieved without resorting to "peaked" response which may increase loudness, but does reduce intelligibility. The smooth response of these drivers insures most natural reproduction of voice and music for more satisfying quality with vastly reduced feedback problems and greatly increased tonal range. Double flux ceramic magnets provide long-lasting high efficiency in entirely new low-loss magnetic circuits. Edgewise-wound ribbon voice coils give 18% more energy.

The drivers are rugged and weatherproof; conversion to either reentrant or compound use can be made instantly in the field. Voice coils are also field replaceable, thus reducing repair costs to a minimum. E-V Convertible Drivers are available with 16 or 45-ohm voice coils or with built-in 70.7-volt line constant voltage transformers. This entirely new design concept gives better performance at minimum cost, making E-V Drivers your best buy.

		DC30A	DC30T	DC40	DC40T	DC50	DC50T
Frequency Response††		150-10,000	150-10,000	140-11,000	140-11,000	140-11,000	140-11,000
Program Power Capacity		30	30	40	40	50	50
Sound Pressure Level†	FC100 Compound Horn	117 db	117 db	120 db	120 db	124 db	124 db
	AR150 Reentrant Horn	126 db	126 db	129 db	129 db	133 db	133 db
Voice Coil Impedance		16**	16	16**	16	16**	16
Transformer Impedances, Ohms		.....	167, 333, 1000, 2000	.....	125, 250, 500, 1000	.....	100, 143, 200, 500
Transformer Power Taps, Watts		.....	30, 15, 5, 2.5	.....	40, 20, 10, 5	.....	50, 35, 25, 10
Dimensions (overall)		5½″ dia. 3″ l.	5½″dia.5½″l.	6¼″dia.4¼″l.	6¼″ dia. 6″ l.	6¼″dia.4¼″l.	6¼″ dia. 6″ l.
List Price		**$31.00**	**$41.00**	**$40.00**	**$52.50**	**$52.50**	**$63.50**

†Measured at 4′ on-axis with full rated power from 750–1250 cps. ††Measured on-axis with FC100 horn.
**Available with 45-ohm voice coil at 90c net additional.

All E-V public address speakers are eligible for FCDA purchases.

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Electro-Voice PUBLIC ADDRESS HORNS AND DRIVERS

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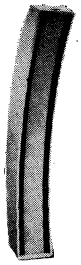
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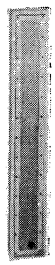
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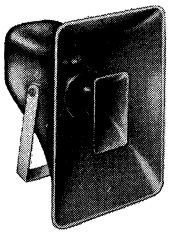
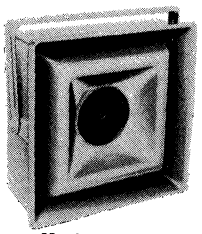

847

PA15


Musicaster

NEW LINE RADIATOR SPEAKERS

Two new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

Model LR4—Curved design overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains twelve 4″ cone speakers, 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–10,000 cps. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size: 49″ h. x 7″ w. x 13″ d. Mesa tan finished wooden enclosure. List Price **$115.00**

Model LR4S—Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Specifications like LR4, except that dispersion is 160°, horizontal; 30°, vertical. All-metal, weatherproof enclosure with mesa tan finish. Size: 52″ h. x 7 9/16″ w. x 4 3/8″ d. List Price..... **$125.00**

PAGING SPEAKERS

Model PA15—A compact speaker of rugged, die-cast construction finished in mesa tan. Smooth, rising response provides high intelligibility and efficiency. Field-replaceable driver. Universal swivel mount. Frequency response: 350–13,000 cps. Power handling capacity: 15 watts program. Nominal impedance: 8 ohms. Dispersion: 120°. Size: 9″ h. x 6″ w. x 9 1/2″ d. Weight, 4 1/4 lbs. net. List Price..... **$30.00**

Model PA15T—Same, but with matching transformer for 70.7-volt lines. Transformer taps: 1.5, 2.5, 5, 10, 15 watts; 3300, 2000, 1000, 500, 350 ohms. Weight, 4 1/2 lbs. List Price..... **$36.00**

Model PA15-45—Same, but with 45-ohm impedance. List Price..... **$31.25**

Model 844—For medium-angle sound distribution. Features smoothest response in its class with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged diecast horn plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250–13,000 cps; power handling capacity, 30 watts; nominal impedance, 8 ohms; dispersion, 90°; EIA sensitivity rating, 51 db; sound pressure level, 120 db; dimensions, 9 7/8″ diameter x 8 3/16″ deep; Net Weight, 5 lbs. 10 oz.; Shipping Weight, 8 1/2 lbs. List Price..... **$36.50**

Model 844-45—Same as standard 844, but with 45-ohm voice coil for simple installation in intercom systems. List Price..... **$38.00**

Model 847—Utilizing the famous CDP Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250–10,000 cps; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120°; impedance, 16 ohms; dimensions, 11 3/4″ x 7 3/4″ x 10 7/16″; Net Weight, 8 lbs.; Shipping Weight, 10 lbs. List Price..... **$51.00**

Model 847-45—Same as standard 847, but with 45-ohm voice coil for simple installation in intercom systems. List Price..... **$52.50**

E-V MUSICASTER HI-FI OUTDOOR WEATHERPROOF SPEAKER SYSTEMS

Musicaster—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 cps; nominal impedance, 8 ohms; dispersion, 120°; power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21 1/2″ x 21 1/2″ x 8 1/2″; Net Weight, 31 lbs.; Shipping Weight, 34 lbs. List Price..... **$90.00**

Musicaster II—Same fine performance as the Musicaster except has added brilliance and wider coverage from RE36 Very-High-Frequency Range Extender. Smooth response to 18,000 cps. Complete with crossover. Net Weight, 33 lbs. Shipping Weight, 36 lbs. List Price..... **$125.00**

Model MB-1—Surface mounting bracket allows mounting of any Musicaster flat against wall for neat unobtrusive installation. Replace standard "U" bracket. Shipping Weight, 1 lb. List Price..... **$4.50**

PA TRANSFORMERS AND ACCESSORIES

Model TH—Transformer Housing. Provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Exclusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: 4″ h., 5″ w., 3 1/2″ d. Net Weight, 1 lb. 11 oz. Shipping Weight, 2 1/2 lbs. List Price..... **$8.50**

Model TR5—5-watt 70.7-volt line transformer. Primary impedance taps 1000, 2000, 4000, 8000 ohms; 5, 2.5, 1.25 and .675-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ±2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions 2″ x 1 11/16″ x 1 3/8″. Mounting hole centers, 1 3/4″. Shipping Weight, 1 lb. List Price..... **$5.00**

Model TR15—Same as TR5 except 15-watt capacity with primary impedances of 333, 500, 1000, 2000 ohms and 15, 10, 5, 2.5-watt line power taps. Overall dimensions 1 3/4″ h., 2 7/8″ w., 2 5/16″ d. Mounting hole centers 2 3/8″. Shipping Weight, 1 1/2 lbs. List Price..... **$6.00**

Model TR30—Same as TR5 except 30-watt capacity with primary impedances of 167, 250, 500, 1000 ohms and 30, 20, 10 and 5-watt line power taps. Overall dimensions 1 3/4″ h., 2 7/8″ w., 2 5/16″ d. Mounting hole centers, 2 3/4″. Shpg. Wt., 1 1/2 lbs. List Price **$7.00**

Model TR50—Same as TR5 except 50-watt capacity with primary impedances of 100, 125, 200, 333 ohms and 50, 40, 25 and 15-watt line power taps. Overall dimensions 2 1/4″ h., 2 5/16″ w., 2 1/4″ d. Mounting hole centers, 2 3/8″. Shpg. Wt., 2 lbs. List Price **$9.00**

Model AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard 1/2″ pipe. Shipping Weight, 1 lb. List Price..... **$2.50**

Model AD-1—Driver adapter allows use of E-V Convertible Driver on horns with 1 7/16″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. List Price..... **$3.00**

Model AD-2—Horn adapter allows use of E-V reentrant horns with drivers having 1 7/16″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. List Price..... **$3.00**

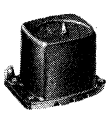
Model RA-1—Radial Adapter instantly converts FC100 horn or 848 projector to "radial" applications. Superior to typical "360°" projectors. Diffraction horns give better spread and adapter reflects sound off-axis, to eliminate hot spot. No tools required. Extends 2 1/2″ in front of FC100 horn with DC30A. Shipping Weight, 1 lb. List Price..... **$6.00**

Model RE36—Range Extender Kit. Converts Musicaster to Musicaster II. Includes driver, bezel, crossover and wiring harness. Shipping Weight, 4 1/2 lbs. List Price..... **$37.50**

Model 879—Joining Kit for two or more 848, FR150 or FC100 horns in multiple array. One kit required for each junction of two horns. Shipping Weight, 1 lb. List Price..... **$2.75**

Diaphragm Replacement Kits allow easy field maintenance or conversion of E-V Drivers.

DRIVER	8 Ohm	16 Ohm	45 Ohm
828 or DC30	.....	8923	8427
844 (DS30)	8410	.....	8421
DC30A/DC30T	.....	8577	8617
DC40/DC40T	.....	8573	8618
DC50/DC50T	.....	8574	8619
List Price	$10.50	$10.50	$12.00


TH

AP-1

RA-1

Note: Sound Pressure Level is measured at 4′ on-axis with full rated power from 750 to 1250 cps.

All E-V public address speakers are eligible for FCDA purchases.

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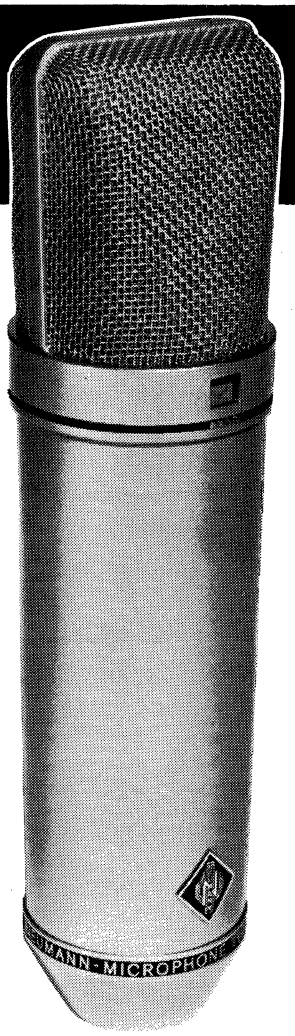
NEUMANN MICROPHONES



NEW! U-67 CONDENSER MICROPHONE

CULMINATION OF OVER 30 YEARS OF ELECTRONIC LEADERSHIP!

Contains the following advanced features:

1. Electronically switched directional characteristics: Cardioid, Omni-directional, Figure-8.
2. Frequency response with virtually no peak at the high end.
3. Separate "Voice-Music" switch raises the roll-off starting point from 40 cps to 100 cps.
4. Sensitivity switch on microphone prevents overload of amplifier from close placement to sound source.
5. "Calibrating input" permits direct testing of microphone preamplifier with oscillator.
6. Uses regular EF-86 tube, readily replaceable.

Complete system includes: Microphone, Power supply, Interconnect cable and stand mount.

NEUMANN M-49B CONTINUOUSLY ELECTRONICALLY VARIABLE DIRECTIONAL PATTERN MICROPHONE SYSTEM

This microphone permits remote control of the directional characteristic. A smooth, continuous fader-control selects any of the basic directional patterns (non-directional, bi-directional, and cardioid) and any intermediate pattern. Wide frequency response with extremely low distortion—0.6% 40-15 kc up to 110 db absolute.

Complete microphone system consists of microphone, power supply and MZ-49 Swivel mounting harness.

NEUMANN KM-54A/KM-53A

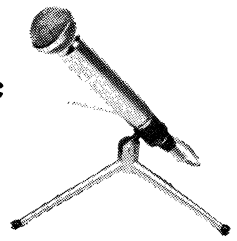
The KM-54a is a super cardioid miniature microphone that has been designed with tv and film in mind. This ⅞" diameter by 5" long, 3½ ounce marvel, when mounted in the Z-38 full elastic suspension, can be aimed at the sound and provide more than 25db rejection of extraneous sounds in the studio.

Complete microphone system consists of microphone, power supply, inter-connect cable full elastic suspension, connector.

NEUMANN KM-56 MINIATURE CONDENSER MICROPHONE SYSTEM

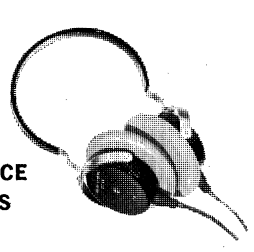
The KM-56 satisfies a great demand for a microphone of modern, miniature styling of unexcelled reliability and performance. It is a true self-contained condenser microphone incorporating electronic switching of the directional characteristic (U.S. Pat. No. 2.678,967) to all three patterns: omni-directional, bi-directional, and cardioid. It uses a pure nickel double diaphragm capsule offering high resistance to temperature and humidity effects.

Complete microphone system consists of microphone, power supply, interconnect cable, full elastic suspension, connector.



BEYER M-160 DYNAMIC RIBBON MICROPHONE (ULTRA-DIRECTIONAL)

An ultra-directional characteristic has now become possible in a ribbon microphone. The warm, transparent classical ribbon quality—in a miniaturized form, with response approaching near theoretical limits through miniaturization of the vibrating system. Close tolerances in manufacture assure uniformity of characteristic between microphones, permitting paired use for Stereo. Overall response: 20-20,000 cps. Impedance: 50/200 ohms. Dimensions: 1½" x 6". Weight: 6 ozs.



BEYER DT-48 DYNAMIC PEAK-PERFORMANCE HEADPHONES

A hand-built, high-fidelity transducer used in critical evaluation of recorded and transmitted sound, yet in a reasonable price class. Frequency range: 30-15.000 cycles, down no more than 7 db at 15 kc, and perfectly flat at 30 cycles. Comfortable exchangeable foam rubber pads and separate cords for each ear for stereo application. Impedance: 5 ohms each side; input voltage required: 0.1 volt; peak power demand: 0.4 watt; weight 12½ ozs.

COMPLETE TECHNICAL SPECIFICATIONS WILL BE PROMPTLY FURNISHED UPON PROFESSIONAL REQUEST.

GOTHAM AUDIO CORPORATION

NEW YORK, N.Y. • HOLLYWOOD, CALIF.

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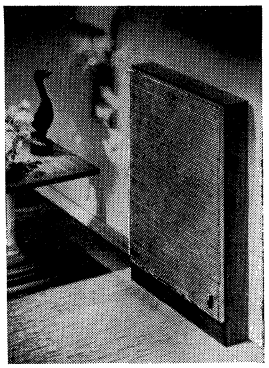
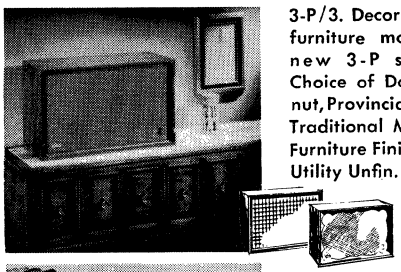
What's New?

FROM Jensen

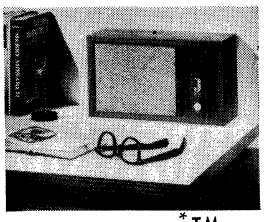
Jensen proudly presents this year's new line of exciting loudspeaker systems. There's the remarkable 3-P systems with the new 3-P POLYTEC* woofer . . . making possible a new slim cabinetry never before achieved. For **high fidelity** sound in an ultra-compact unit, Jensen offers the X-10. New 2-way and 3-way systems in full-size shelf enclosures offer superb sound and choice of styling.



3-P/2. "Superslim" Panel 5-speaker 4-way system. Only 3⅝" deep. Has new 3-P system components for full dimension performance. Place on floor, hang on wall. Measures 28⅝" H., 21¼" W., 3⅝" D. Oiled Walnut.
Net. $139.50

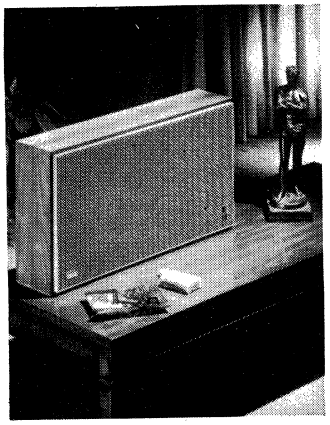


3-P/3. Decorator styled furniture models with new 3-P speakers. Choice of Danish Walnut, Provincial Cherry or Traditional Mahogany Furniture Finish **$159.50**
Utility Unfin. . **$129.50**

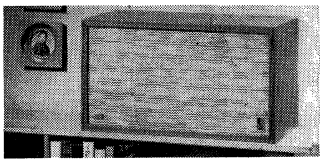


X-10. Ultra-Compact 2-speaker 2-way system. Measures only 7¼" H., 13" W., 4⅝" D. Volume control on front. Perfect for low cost stereo, extension speaker, stereo add-on, F-M Multiplex. Oiled Walnut. . .**$29.75**

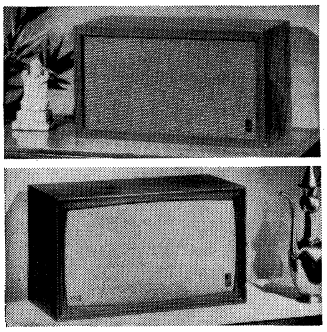
*TM



3-P/1. "Slim-Shelf" 5-speaker 4-way system . . . only 5½" deep. Has new 3-P flat piston woofer for extra smoothness, lower distortion, better space utilization. Oiled Walnut. Net Each **$119.50**



TF-2. Economical 3-way system in full size shelf enclosure. Special 10" FLEXAIR* woofer for full, low-distortion bass. Two tweeters for extended highs.
Oiled Wal. **$79.50** Unfin. **$64.50**



TF-3. Outstanding 3-Way System in choice of plain or Decorator cabinetry styles. Tests prove TF-3 outperforms systems costing much more. Covers full frequency range with FLEXAIR woofer, two special mid-range units, and the sensational SONO-DOME* Ultra-Tweeter.
TF-3 Oiled Walnut. Net. .**$ 99.50**
TF-3U Utility Unfin. Net. . .**$ 79.50**
TF-3D Wal. or Cherry. Net **$109.50**

WRITE FOR FREE CATALOG 165-G

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MANUFACTURING COMPANY
DIVISION OF THE MUTER COMPANY
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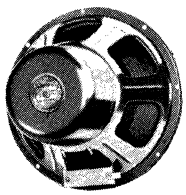
Jensen Concert & Viking Speakers

P314-T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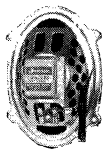
C10-S

P69-V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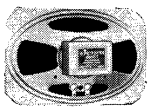
P275-Y

P4-W


P46-W

JENSEN CONCERT SERIES SPEAKERS

CONCERT SERIES PM SPEAKERS

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts	Voice Coil Dia., In.	Dimensions, Inches H. & W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Price
2¾	P275-Y	0.65	16	0.15	5/16	2¾	1.1	2⅜	$ 2.85
3	P3-W	1.00	3.2	3.5	5/16	3	1 15/16	2⅝	2.85
3½	P35-W	1.00	3.2	4.0	5/16	3½	2	3⅛	2.61
4	P4-W	1.00	3.2	4.5	5/16	4 3/16	2¼	3½	2.61
4	P4-WV	1.00	45	4.5	5/16	4 3/16	2¼	3½	2.70
4	P4-V	1.47	3.2	5.0	5/16	4 3/16	2¼	3½	2.82
4 x 6	P46-W	1.00	3.2	4.5	5/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	3.09
4 x 6	P46-V	1.47	3.2	5.0	5/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	3.30
5	P5-W	1.00	3.2	5.0	5/16	4 3/4	2 5/16	4	2.67
5	P5-WV	1.00	45	5.0	5/16	4 3/4	2 5/16	4	2.79
5	P5-V	1.47	3.2	5.5	5/16	4 3/4	2 5/16	4	2.91
5	P5-T	3.16	3.2	6.0	¾	4 3/4	2 11/16	4	4.32
5¼	P525-W	1.00	3.2	5.5	5/16	5¼	2 9/16	4½	2.85
5¼	P525-V	1.47	3.2	6.0	5/16	5¼	2 9/16	4½	3.03
5 x 7	P57-W	1.0	3.2	5.5	5/16	5 x 7¼	2 13/16	4¼ x 6½	3.24
5 x 7	P57-V	1.47	3.2	6.0	5/16	5 x 7¼	2 7/8	4¼ x 6½	3.48
6	P6-W	1.0	3.2	6.0	5/16	6⅛	2¾	5¼	2.94
6	P6-V	1.47	3.2	6.5	5/16	6⅛	2¾	5¼	3.27
6	P6-T	3.16	3.2	7.5	¾	6⅛	3 5/16	5¼	4.68
6 x 9	P69-W	1.0	3.2	7.0	5/16	6⅜ x 9⅛	3 5/16	5¼ x 8⅛	3.84
6 x 9	P69-V	1.47	3.2	7.5	5/16	6⅜ x 9⅛	3 5/16	5¼ x 8⅛	4.35
7	P7-V	1.47	3.2	7.0	¾	7	3 5/8	6⅜	4.20
8	P8-U	1.73†	3.2	9.0	1	7 11/16	3	6¾	4.32
8	P8-UV	1.73†	45	8.5	1	7 11/16	3	6¾	4.50
8	P8-T	2.5‡	3.2	10.0	1	7 11/16	3 5/16	6¾	5.04
8	C8-S	6.0*	8	11.0	1	7 11/16	2 13/16	6¾	6.21
8	C8-R	10.0*	8	12.0	1	7 11/16	3	6¾	7.50
10	P10-T	2.5‡	3.2	11.0	1	10⅛	5¼	8¾	6.45
10	C10-S	6.0*	8	12.0	1	10⅛	5¼	8¾	8.10
12	P12-T	2.5‡	3.2	12.0	1	12⅛	6 1/16	10½	6.90
12	C12-S	6.0*	8	13.0	1	12⅛	6 1/16	10½	8.85
12	C12-R	10.0*	8	14.0	1	12⅛	6 1/16	10½	9.60
12	P12-P	14.6	8	18.0	1½	12⅛	6 1/16	10½	20.16
12	P12-N	27.0	8	20.0	1½	12 1/16	7	10½	31.50
14 x 3	P314-T	3.16	3.2	7.5	¾	3½ x 14 3/16	3⅛	2¾ x 13 3/16	9.57
15	P15-RJ	6.8	8	17.0	1½	15⅛	7⅛	13¼	19.20
15	P15-P	14.6	8	20.0	1½	15⅛	8	13¼	27.15
15	P15-N	27.0	8	25.0	1½	15⅛	8	13¼	36.90

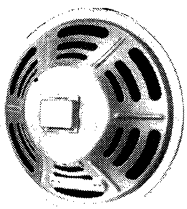
*Ceramic magnets. All others DP Alnico 5. All 10", 12" and 15" speakers equipped with magnet covers. ‡Performance equivalent to EIA 3.16 oz. †Performance equivalent to EIA 2.15 oz.

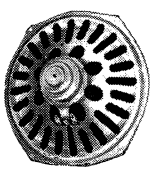
CONCERT SERIES SPECIAL OVAL GROUP FOR AUTO USE

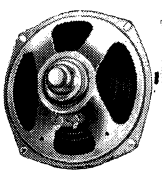
Nom. Size, Inches	Jensen No.	Mag. Wt.,* Oz.	Voice Coil Imp., Ohms	Voice Coil Power Watts	Voice Coil Dia., In.	Dimensions, Inches H. & W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
5 x 7	P57-U	1.73†	3.2	8.0	1	5 x 7¼	2½	4¼ x 6½	$4.05
5 x 7	P57-TX§	2.5‡	3.2	9.0	1	5 x 7¼	2 15/16	4¼ x 6½	5.01
6 x 9	P69-U	1.73†	3.2	9.0	1	6⅜ x 9⅛	3⅛	5¼ x 8⅛	4.74
6 x 9	P69-TX§	2.5‡	3.2	10.0	1	6⅜ x 9⅛	3 5/16	5¼ x 8⅛	5.40

§High Fidelity Model. *All Magnets DP Alnico 5. †Performance Equivalent to EIA 2.15 oz. ‡Performance Equivalent to EIA 3.16 oz.

JENSEN VIKING SERIES REPLACEMENT SPEAKERS


12J10, 10J10


7J9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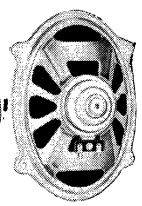
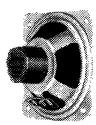

57J9

525K7

46K7

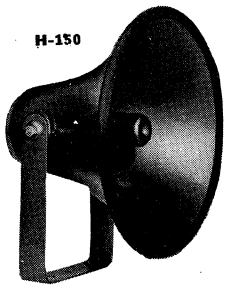

35K7

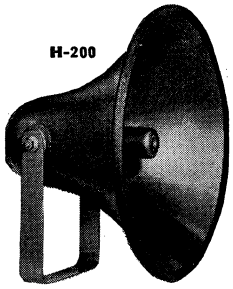
Nom. Size, In.	Jensen No.	Mag. Wt., Oz.†	Pwr., Watts	V.C. Dia. In.#	Dimensions, Inches H. & W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
3	3K7	.68	3.5	5/16	3	1½	2⅝	$2.28
3½	35K7	.68	4.0	5/16	3½	1¾	3⅛	2.10
4	4K7	.68	4.5	5/16	4 15/16	1 13/16	3½	2.10
4 x 6	46K7	.68	4.5	5/16	4⅛ x 6⅛	1⅞	3 11/16 x 5 11/16	2.73
5	5K7	.68	5.0	5/16	4 11/16	1 13/16	4	2.40
5¼	525K7	.68	5.0	5/16	6 1/16	2⅛	4¼	2.46
5 x 7	57J9	1.47	6.0	¾	5 x 7¼	2 9/16	4¼ x 6¼	3.24

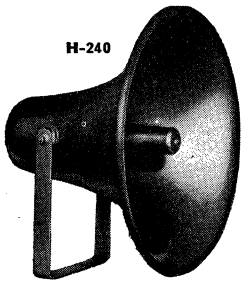
Nom. Size, In.	Jensen No.	Mag. Wt., Oz.†	Pwr., Watts	V.C. Dia. In.#	Dimensions, Inches H. & W.	Dimensions, Inches Depth	Dimensions, Inches Baffle Opening	Net Each
6	6K7	.68	6.0	5/16	6 1/16	2⅝	5¼	$2.61
6 x 9	69J9	1.47	7.5	¾	6⅜ x 9⅛	2 15/16	5¼ x 8⅛	3.84
7	7J9	1.47	7.0	¾	7	2 15/16	6⅜	3.84
8	8J9	1.47	8.0	¾	7 11/16	2 15/16	6¾	3.84
10	10J10	1.73	10.0	1	10⅛	3⅞	8¾	5.40
12	12J10	1.73	11.0	1	12⅛	4½	10½	6.30

#3.2 ohm voice coils. †Alnico 5 magnets. ©1960 JENSEN MFG. CO.

Jensen Professional Series


H-150


H-200


H-240

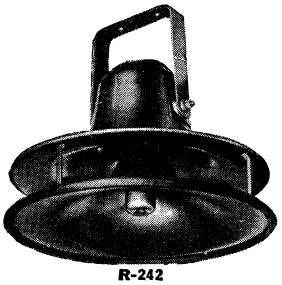
JENSEN HYPEX* PROJECTOR HORNS

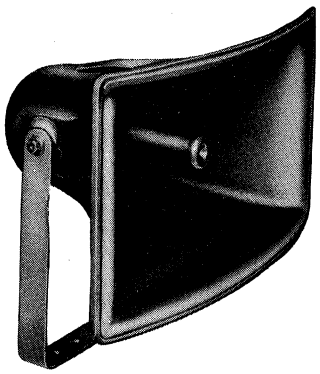
These projector horns are acoustically coordinated in design for best performance with Hypex* Driver Units D-30, D-40 and DD-100, any one of which may be used on any of the horns. The horn expansion formula is the hyperbolic exponential (U. S. Patent 2,338,262) providing low frequency reproduction superior to that obtained with conventional horns of the same mouth size. Horns (with the exception of RT-20) are spun aluminum with weather-resistant bake d tan enamel finish. Horns are threaded 1⅝"-18 and may be used with any driver units with this thr ad. Sturdy steel mounting "U" brackets allow horn to point in any desired direction; horn locks in desired position by means of new positive action trunnion clutches.

(See separate description and specifications on RT-20 Rectangular Horn).

Specifications	H-150 (15")	H-200 (20")	H-240 (24")	R-242 (20" Radial)
Mouth diameter, over all	15¾"	20¾"	25¼"	20½"
Length, over all (less driver)	12"	15½"	20⅜"	14⅜"
Air column length	31"	41"	59"	40"
Low frequency cutoff	200 cycles	150 cycles	120 cycles	140 cycles
Rated coverage angle	95°	85°	75°	360°
Net weight (less driver)	6 lbs.	8½ lbs.	12¾ lbs.	10½ lbs.
Shipping weight	7¾ lbs.	12¾ lbs.	19¾ lbs.	14½ lbs.
List Price	**$29.00**	**$34.50**	**$46.75**	**$47.00**
Net Each	**17.40**	**20.70**	**28.05**	**28.20**

*T.M. Reg. Jensen Mfg. Co.


R-242

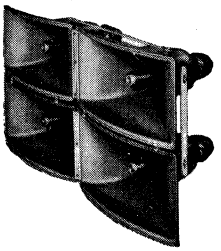


MODEL RT-20 RECTANGULAR HORN

These versatile horns may be used in a variety of ways to provide projector systems of almost any desired directional characteristics and total power rating. They may be used singly just as round horns are used and in such cases, the rectangular shape is frequently an advantage in appearance, minimizing obstruction to vision, and facilitating mounting.

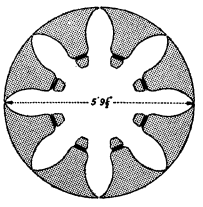
RT-20 Horns are designed so that they may be stacked in plane or circular arrays. Eight units, each with a geometric sector angle of 45 degrees, form a complete circle with a diameter of 5' 9½", giving 360° horizontal coverage. Fewer units are used where less than 360° coverage is required as indicated below:

Number of Units	Horizontal Coverage Angle
1	80°
2	125°
3	170°
4	215°
5	260°
6	305°
8	360°



Horns may be "double decked," which will concentrate the sound in a narrower angle in the vertical plane. A stack two units high will give a vertical coverage angle of approximately 30 degrees; at the same time, there is a gain in sound pressure on the axis of 2.5 db, due to the restricted angle of radiation.

The horn is molded of high impact strength glass fibre reinforced polyester. Natural molded finish in Modern Tan color.



SPECIFICATIONS—RT-20

Mouth Size: 26" wide by 13½" high.
Horn Length, overall, less driver: 16⅛".
Air Column length: 41".
Low Frequency cutoff: 140 cycles.
Rated Coverage angle: 80° horizontal. (See data for arrays).
Net Weight, less driver unit: 10¾ lbs.
Shipping Weight: 15 lbs.
RT-20—Horn only. List Price.....$46.50
Net Each.....**$27.90**

ACCESSORIES

MA-1 PIPE ADAPTER

A sturdy malleable iron casting which bolts to the "U" bracket of Hypex* Projector Horns and provides ¾" pipe thread for pipe mast mounting. Baked tan enamel finish.
Net weight: ¾ lb.
Shipping Weight: 1 lb.
MA-1—List Price **$2.30.**
Net Each.....**$1.38**

MA-3 STACKING HARDWARE

Complete set of hardware for joining two RT-20 horns side by side.
Net weight: 2¼ lbs.
Shipping Weight: 2¾ lbs.
MA-3—List Price **$5.30.**
Net Each.....**$3.18**

MA-4 STACKING HARDWARE

Complete set of hardware for joining two RT-20 horns double decked.
Net weight: 1½ lbs.
Shipping Weight: 2 lbs.
MA-4—List Price **$4.60.**
Net Each.....**$2.76**
*T. M. Reg. Jensen Mfg. Co.

Net
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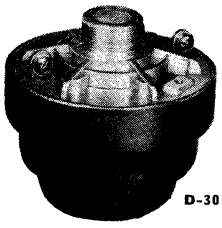
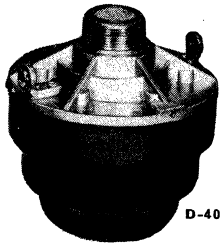
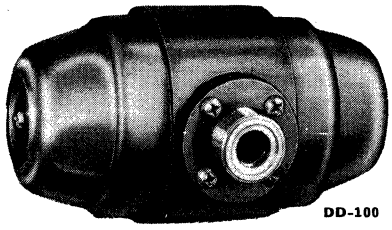
Jensen Professional Series


D-30


D-40


DD-100

HYPEX* LIFETIME DRIVER UNITS

Jensen Hypex* Lifetime Driver Units have many outstanding features which contribute to increased performance and reliability. Frequency range is based on achieving substantially higher conversion efficiency, higher power ratings and improved reliability over comparable units previously available, while affording good fidelity in the reproduction of speech and music. Lower cutoff frequency is somewhat below those of the horns with which they will be used; the specifications show the maximum upper limiting frequencies, but response has been shaped to give emphasis to the 3-5 kc region, which is extremely important in high efficiency sound projection. As a result of these design choices and special research on ruggedization, the D-30 can be rated at 30 watts speech and music, D-40 at 40 watts, and a **Lifetime Guarantee extended against failure under normal conditions of use!**

The DD-100 100-watt Superpower Driver Unit, similarly guaranteed, is the first double acting integrated sound chamber driver unit ever to be offered; it is also the first 100 watt unit available, achieving a higher power input rating to a single projector or an array, than has ever been possible before.

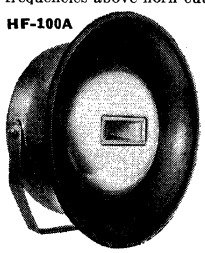
Magnetic structures are the most efficient that research has been able to develop, yielding the highest magnetic energy from the generous sized Alnico V magnets which scientific proportioning of magnet material and soft iron structure can provide. Specially shaped reinforced plastic diaphragms combine ruggedness with excellent acoustic properties and freedom from "breakup". Voice Coils are varnish wound, baked and aged on treated, heat and moisture resistant bobbins, resulting in a rigid assembly that is indestructible in normal service. Beryllium copper leads are indefinitely fatigue-resistant. Models D-40 and DD-100 have precision self-centering moving system assemblies which are added insurance for dependability under severe operating conditions. External leads connect to heavy binder screw terminals; added reliability for wiring is provided by strain reliefs on all units. All units are threaded 1⅛"-18.

SPECIFICATIONS

Model	Power Rating†	Impedance	Frequency Range	Length	Diameter	Weight, lbs. Net	Weight, lbs. Shpg.	List Price	Net Price
D-30	30 w.	16 ohms	75-7,000 cps	4 1/16"	4½"	3¼	3½	$27.50	$16.50
D-40	40 w.	16 ohms	75-10,000 cps	4½"	4½"	4	4¼	36.00	21.60
DD-100	100 w.	8/32 ohms	75-10,000 cps	6 1/16"	4⅜"	7½	8	96.50	57.90

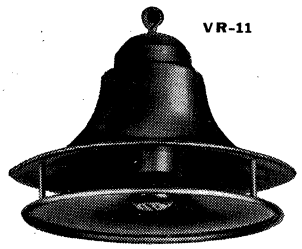
†Integrated speech and music program material. For sine wave or siren signal input, reduce ratings one-half. Ratings apply only for frequencies above horn cutoff.

HF-100A



VH-91A

VR-11



JENSEN COMPLETE HYPEX* PROJECTORS

HF-100A WEATHERPROOF TWO-WAY HIGH FIDELITY PROJECTOR

Here is a real high fidelity projector for use indoors or out, under all weather conditions. Consists of a heavy duty 8" "woofer" feeding a folded horn plus a horn-loaded compression driver "tweeter". Low frequency unit feeds horn by a combination of direct radiation and phase-inversion bass reflex ports for superior efficiency in the low frequency region. The high frequency horn has a 90° fold and is mounted so that the driver unit is at the top, thus providing self-draining and making it impossible for rain, sleet or snow to reach the driver unit.

Horn outer section is spun aluminum with baked enamel finish. Central enclosure is glass fibre reinforced polyester in matching natural molded Modern Tan finish. Sturdy "U" mounting bracket is fully adjustable and positive locking.

SPECIFICATIONS: HF-100A PROJECTOR

Type: Coaxial assembly of separate low and high frequency units.
Frequency Range: 60 to 15,000 cycles.
Power Rating: 25 watts.
Impedance: 16 ohms.
Rated Coverage Angle: 120°.
Overall Diameter: 24⅜".
Overall Depth: 11⅜".
Net Weight: 23 lbs.
Shipping Weight: 30 lbs.
HF-100A—List Price **$129.50.** Net Each **$77.70**

Jensen VH-91A and VR-11 Hypex* projectors are the most compact in the line and their use is indicated where speech reproduction is the only important consideration and where size or cost are controlling factors. Designed for maximum efficiency in the upper frequency range, these units provide excellent penetration of noise. Small in size, they can also be located near areas of extreme noise. Magnetic structures are highly efficient, using Alnico V magnets in ample soft iron structures. Corrosion-resisting finishes and materials such as plastic cloth base diaphragms insure long life under outdoor and industrial atmospheric conditions. For further protection driver units are completely enclosed inside the rigid outer shell.

MODEL VH-91A HYPEX* PROJECTOR

Equipped with new universal mounting bracket for adjustment in any direction and secure locking with a single wing nut. Extremely rigid vibration-proof clamping allows three hole flange mounting on flat surface, single hole mounting with ¼" lag or machine screw through center, or mounting on top of standard ½" pipe

MODEL VR-11 HYPEX* RADIAL PROJECTOR

For application requiring 360° coverage in horizontal plane, such as low ceiling industrial areas. Equipped with sturdy eye-bolt for clamping or suspension from above.

SPECIFICATIONS

Model	Power Rating Watts	Impedance Ohms	L-F Range	Mouth Dia. Over All	Over All Lgth.	Air Column Path Lgth.	Rated Coverage Angle	Net Wt. Lbs.	Shpg. Wt. Lbs.	List Price	Net Each
VH-91A	15	8	300	8⅞"	7⅝"	16"	100°	3¼	4¼	$35.80	$21.48
VR-11	15	8	280	11"	10⅛"	18"	360°	4	5	49.00	29.40

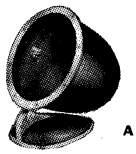
BV-1 BLAST VALVE

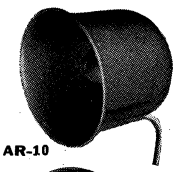
The BV-1 Blast Valve is an accessory device for protecting the driver unit from high pressures due to explosive forces. Valve is the same as used in Jensen military blastproof loudspeakers. Under the positive blast pressure phase, the valve moves inward to seal off the driver unit from the horn throat. On the negative phase the valve moves outward, again effecting a seal. With the valve in neutral position, attenuation of sound is negligible. Screws between horn and driver unit. Overall diameter 3". Fits all Jensen driver units and horns.

Net weight, ¼ lb. Shipping Weight, ¾ lb.
BV-1—List Price **$15.00.** Net Each **$9.00**

*T. M. Reg. Jensen Mfg. Co.

Jensen Professional Series


AP-10


AR-10

RK-61

P5-VC

JENSEN SPEECH MASTER LOUDSPEAKERS

JENSEN Speech Master loudspeakers are specialized units designed for applications where highly intelligible speech reproduction is a prime requisite. Good basic design and sturdiness of construction as well as pleasing appearance and functional styling are outstanding features of these units. All loudspeakers in this group use high efficiency direct radiator driver units of the permanent magnet type.

MODEL AP-10 SPEECH MASTER

Attractively styled desk type unit. Heavy cast base with felt pad. Specially designed for superior intelligibility in the presence of static and acoustic background noise. Excellent "talk-back" characteristics. Driver Unit, a sturdy 5" speaker, fully enclosed with protective front screen. Mounting facility for ½" x ½" transformer (inside, cover) locking tilt adjustment. Power rating, 5 watts maximum speech signal. 36" rubber cable. 6¾" H.; 5⅛" D.; 5" W. Modern Tan finish. Shipping Weight 5¼ lbs.

ST-590. 3-4 ohms. List Price **$22.00.** Net.. **$13.20**
ST-591. 45-50 ohms. List Price **$23.00.** Net. **13.80**

MODEL AR-10 SPEECH MASTER PROJECTOR

Specially designed for intercom and paging systems. Reentrant horn directs sound and adds speech range efficiency. Used in factories, warehouses, garages, etc. Sturdy P5-VC driver shielded from direct exposure. ⅛" x ½" transformer fits in cover. Power rating 6 watts. 22" rubber cord. 10" dia. Gray hammer finish. Shipping Weight 6½ lbs.

ST-643. 3-4 ohms. List Price **$25.50.** Net.. **$15.30**
ST-644. 45-50 ohms. List Price **$26.50.** Net **15.90**

MODEL RK-61 "CORRIDOR" SPEECH MASTER

Designed for two-direction sound in corridor or office. Heavy steel case perforated on both sides for high quality speech coverage in both directions protected heavy duty 6" loudspeaker driver unit. Sturdy mounting bracket welded to case provides flexibility in installation. Standard ¾" conduit (not supplied) can be used. 24" heavy SJ cable for connections. Transformers up to ⅝" x ⅜" mount on speaker frame inside case. Excellent "talk-back" characteristics. Quality on music is also acceptable for many areas. Power rating 8 watts. Case diameter 8"; thickness 3¼"; overall distance from wall 9¼". Modern Tan finish.

ST-850. 3-4 ohms. List Price **$15.00.** Net.... **$9.00**

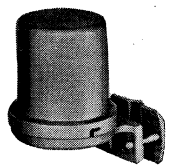
MODEL P5-VC SPEAKER

This loudspeaker is offered for installation in radio communications, intercom and paging equipment. May be panel mounted, wall mounted or installed in a small case as required with excellent results. Provides the performance of the AP-10 Speech Master in your equipment. Power rating, 5 watts. Depth, 2 1/16"; OD. 5"; baffle opening 4"; Shipping Weight 1 lb.

ST-916. 3-4 ohms. List Price **$5.30.** Net..... **$3.18**

JENSEN PROFESSIONAL SERIES TRANSFORMERS

MODEL W-1 WEATHERPROOF TRANSFORMER CASE



Thoroughly weatherproof for permanent outdoor installations for maximum protection to transformers. Designed for upright mounting on U-bracket of Jensen Types H, RT and R Hypex* horns or on pipe by means of clamp. Also suitable for screw mounting to side wall or other flat surface. Accommodates transformers of standard nominal core sizes of 1 x 1, ⅞ x ⅞, ¾ x ¾ and ⅝ x ⅝ with maximum transformer height of 4". Cable entry holes provide for up to four Type SJ cables. Cast aluminum base and spun aluminum cover with bayonet locking. Rich tan baked enamel finish. Complete with transformer mounting and clamp hardware. Net weight 1 lb., shipping weight 1¼ lbs. List **$10.50.** Net Each..... **$6.30**
*T.M. Reg. Jensen Mfg. Co.

TYPE ZC "CONSTANT VOLTAGE" TYPE TRANSFORMERS

These transformers are designs especially for the distribution systems commonly referred to as 70-volt constant voltage systems. They are designed to draw a predetermined amount of power from a 70-volt line as indicated in the tables. All are mountable in W-1 Weatherproof Transformer Case except ZC-3514, as noted.

Models ZC-100, ZC-200, ZC-300, and ZC-400 are equipped with adjustable terminal board with handy pin jack adjustment for the desired input power. Heavy duty screw terminals are provided for speaker and line connection. Completely impregnated and dip processed for operation in outdoor and industrial atmospheres.

Models ZC-3514 and ZC-3515 are similar except color coded pigtail leads replace the terminal board. Non-weatherproof, recommended for indoor and less severe locations.

Model No.	Nominal Core Size	Input Watts‡	Input Imped., Ohms	Sec. Imped., Ohms	Mtg. Ctrs.	Net Each
ZC-100	1" x 1"	30	167	4/8/16	3⅛"	$6.90
		15	333			
		7½	667			
ZC-200	1" x 1"	25	200	4/8/16	3⅛"	7.80
		10	500			
		5	1000			
ZC-300	⅞" x ⅞"	20	250	4/8/16	3⅛"	5.79
		10	500			
		5	1000			
ZC-400	⅝" x ⅝"	5	1000	4/8/16	2⅜"	4.20
		2½	2000			
		1¼	4000			

Response characteristics:
Type ZC-200: plus or minus 1 db, 30-15,000 cycles.
Type ZC-100, ZC-300, ZC-400:
plus or minus 2 db, 70-10,000 cycles

Model No.	Nominal Core Size	Input Watts‡	Input Imped., Ohms	Sec. Imped., Ohms	Mtg. Ctrs.	Net Each
ZC-3514*	1" x 1¼"	16	313	8/16	2"x2⅛"	$7.80
		8	625			
		4	1,250			
		2	2,500			
ZC-3515	⅝" x ⅝"	4	1,250	8	2⅜"	2.85
		2	2,500			
		1	5,000			
		½	10,000			
		¼	20,000			
		⅛	40,000			

Response Characteristics: plus or minus 1 db 30-15,000 cycles.
*Not mountable in W-1 Case.
‡Marked VA (volt-amperes) on terminals.

ADJUSTABLE IMPEDANCE TRANSFORMERS

The Type ZY adjustable impedance transformers have long been popular for use on 500-ohm line systems. Equipped with sturdy terminal board with pin jack adjustment of impedance. Type ZL transformers are similar except for solder lug terminals for impedance adjustment and pig-tail secondary leads. Vacuum wax impregnated for general purpose applications. Can be installed in Model W-1 Weatherproof Transformer Case.

Model No.	Nom. Core Size, In.	Power Rating, Watts	Input Imped., Ohms	Sec. Imped., Ohms	Mtg. Ctrs.	Net Each
ZY-2005	1x1	25		8	3⅛"	$7.11
ZY-2003	⅞x⅞	16		8	3⅛"	5.95
ZY-2002	¾x¾	10		8	2 1/16"	4.95
ZY-4004	¾x¾	10	500/1000/1500/2000	4	2 1/16"	4.95
ZY-4005	⅝x⅝	6½		8	2¾"	3.69
ZY-4002	⅝x⅝	6½		4	2¾"	3.69

Response characteristics:
Plus or minus 2 db, 70-10,000 cycles.

TYPE "Z" TRANSFORMERS

Model Z-3422 is a high fidelity autotransformer for interconnecting 4, 8 or 16 ohm circuits. Model Z-3345 is particularly designed to properly match 8 ohm loudspeakers and projectors to 45-50 ohm intercommunication systems. Vacuum wax impregnated and mountable in Model W-1 Weatherproof Transformer Case.

Model No.	Nom. Core Size, In.	Power Rating, Watts	Input Imped., Ohms	Sec. Imped., Ohms	Mtg. Ctrs.	Net Each
ZL-2022	⅝x⅝	6½	500/1000/1500/2000	8	2¾"	$2.79
ZL-2021	½x½	3½		4	2"	2.25
Z-3422	1x1	25	4/8/16	.....	3½"	5.15
Z-3345	⅝x⅝	6½	45-50	8	2⅜"	1.95

Response characteristics:
Types ZL-2021, ZL-2022 and Z-3345:
Plus or minus 2 db, 70-10,000 cycles.
Type Z-3422: plus or minus 1 db, 30-15,000 cycles.

Net
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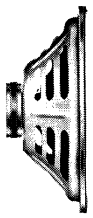
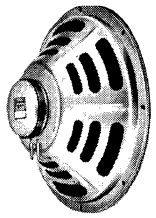
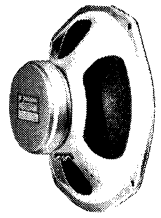
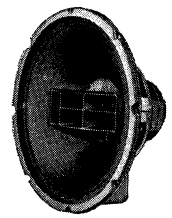
Jensen Professional Series


C12RC


C12-SC

C8-RC


C8-SC


H-255C

ST-411

PROFILE* SERIES COMMERCIAL SOUND SPEAKERS

These 8- and 12-inch ruggedly dependable speakers are especially designed for all PA and sound reinforcement applications, yet are economically priced. Ideal choices for schoolroom, office, store, restaurant, supermarket and all similar applications. Extended high frequency range, smooth response and wide angular coverage for excellent music reproduction as well as voice. The new Jensen Syntox-6* ceramic magnets give ½ to 1 lb. more acoustic output than speakers employing 4.64 and 6 8 oz. Alnico V magnets. Extremely shallow 8-inch units permit in-the-wall mounting. Moisture-proofed cone and voice coil, plus corrosion resistant treatment of metal parts for maximum reliability. One-inch, 8-ohm voice coils. Transformer mounting facility.

Nominal Size	Model No.	Power Rating, Watts	Magnet Wt., Oz. Syntox-6	Magnet Wt., Oz. Equiv. Al.5	Relative Loudness Efficiency	V.C. Dia., Inches	Baffle Cutout Dia. In.	Overall Dia. Inches	Depth Inches	Net Wt. Lbs.	Net Each
12″	C12-RC	14	10	6.8	+4 db	3 7/16″	10½″	12⅛″	4½″	3	$9.60
12″	C12-SC	13	6	4.64	+2 db	3¼″	10½″	12⅛″	4 7/16″	2¾	8.85
8″	C8-RC	12	10	6.8	+2 db	3 7/16″	6¾″	8⅛″	3″	2¼	7.77
8″	C8-SC	11	6	4.64	0 db	3¼″	6¾″	8⅛″	2 13/16″	2	6.57

*T.M.

COAXIAL TWO-WAY UNITARY SPEAKER

Outstanding unitary two-way loudspeaker especially designed for institutional, industrial, and commercial sound systems where high fidelity music and realistic voice reproduction are essential. Markedly superior to projector type speakers in wide angle coverage of entire frequency range and in sound quality. Moving systems and other parts have been moisture-proofed so that they are highly satisfactory for protected outdoor service where not directly exposed to rain, sleet or snow. Durable finishes and materials are used throughout. Rugged construction insures trouble-free performance indefinitely. Terminals provided for insertion of fixed or adjustable pads if desired (not furnished—see control listings) in the tweeter circuits. Full dividing networks mounted on housing. Screwdriver type input terminals. Housing finish, baked tan enamel, front of the unit is finished in black enamel for minimum visibility through grille cloth. Thoroughly dustproofed. Power rating, 25 watts. Impedance, 16 ohms. Recommended baffle opening, 10½; O.D., 12⅛″; depth, 7⅜″. Net weight, 10½ lbs.; shipping weight, 16 lbs.

Model No. H-225C—List Price **$81.50**; Net Each **$48.90**

LEVEL CONTROLS

These level controls are of the two-section L-pad type with practically constant input impedance for any knob position. Designed for use in voice coil or line circuits of similar nominal impedance. Provide continuously adjustable level without disturbance of other circuit levels or total impedance. Rugged construction with special alloy windings and solder lug terminals. Single-hole panel mounting. Complete with lock nut, small bakelite pointer knob and flat metal escutcheon plate.

Model No.	Impedance, Ohms	Power, Watts	Shipping Wt., Lbs.	Net Each
ST-760	4	15	1	$2.91
ST-276	8	15	1	1.95
ST-411	8	35	1	4.17
ST-837	16	35	1	3.45
ST-761	500	35	1	4.35

P-4VC

P-5TC

P-8PC

P-8RC

P-12RC

P-12-NC

EXTENDED RANGE HIGH FIDELITY LOUDSPEAKERS

Here is a complete line of loudspeakers of latest designs especially for commercial and general purpose applications, all field tested for the exacting and rigorous requirements of professional service. There is a loudspeaker for every need—ruggedly dependable units which have enjoyed the position of "world's quality standard" for many years in the professional field.

These heavy duty loudspeakers are of the extended range high fidelity type with performance suitable for applications where two-way and three-way speakers are not needed. High efficiency is assured with carefully designed magnetic structures using Alnico 5 magnets and ample soft iron circuits. Moisture-resistant cones and other materials contribute to long life expectancy. The units are especially suitable for protected outdoor locations not directly exposed to rain, sleet and snow, as well as for indoor use.

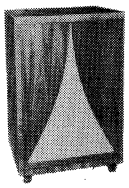
Extended h-f range insures excellent music reproduction. The l-f range will depend on the enclosure size and design. Commonly used in small enclosures or ceiling baffles. Models P8-SC and P12-SC are practically standard in the industry for interior low level music distribution systems.

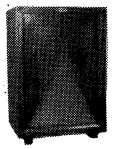
Sizes from 4″ to 12″ offer the best performance possible in each size and cost class. Choices as to efficiency and power ratings are available in some sizes. Relative loudness efficiency is shown in the table referred to the P4-VC. A speaker with relative loudness efficiency of +3 db will be noticeably louder than the P4-VC for the same power; only one-half the power will be required to be equally as loud as the P4-VC.

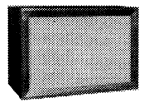
Nominal Size	Model No.	Power Rating Watts	Magnet Wt., Oz., Alnico 5	Relative Loudness Efficiency	Imped., Ohms	V. C. Dia. Inches	Baffle Cutout Dia., In.	Overall Dia. Inches	Depth Inches	Ship. Wt., Lbs.	List Price	Net Each
12″	P12-NC	20	27	+7 db	8	1½	10½	12 1/16	6	8¼	51.00	$30.60
12″	P12-RC	14	6.8	+4½ db	8	1	10½	12⅛	5 9/16	6	16.65	9.99
12″	P12-SC	13	4.64	+3½ db	8	1	10½	12⅛	5¼	6	15.20	9.12
10″	P10-SC	12	4.64	+3½ db	8	1	8¾	10⅛	4⅝	4	13.75	8.25
8″	P8-PC	15	14.6	+5 db	8	1½	6¾	8⅛	4	5½	31.80	19.08
8″	P8-RC	12	6.8	+2½ db	8	1	6¾	8⅛	4	3	14.80	8.88
8″	P8-SC	11	4.64	+1½ db	8	1	6¾	8⅛	3⅞	3	12.70	7.62
6″	P6-TC	7½	3.16	+1½ db	4	¾	5¼	6 1/16	3 5/16	2	8.50	5.10
5″	P5-TC	6	3.16	+1½ db	4	¾	4	5	2 11/16	2	8.15	4.89
4″	P4-VC	5	1.47	0 db	4	9/16	3½	5	2 5/16	1½	5.25	3.15

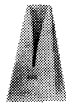
Karlson Stereosonic SPEAKER ENCLOSURES, SYSTEMS & KITS

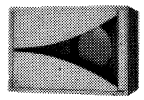
NONE BETTER

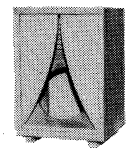

15-WX
Karlson
Front

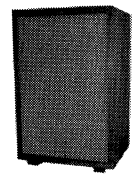

12-MX
Mahogany


8-WX
Walnut


KR-5
Rocket
Speaker


8-BSC-K
Basic
Unfinished


12-U
Unfinished
Deluxe


15WXG
Full
Grille

GENERAL DESCRIPTION

The Karlson enclosures are designed and perfected to meet the requirements for the latest and most advanced stereosonic techniques. They provide highly effective acoustic transformers improving the bass, transient response, dispersion, dynamic range, and definition far beyond the ordinary capacities of your speaker. They have consistently outclassed all other approaches in their ability to satisfy the most discriminating. As a result they are without a doubt the most highly recommended loudspeaker enclosures available at any price. Unexcelled for stereo use. Will outperform systems many times their size.

RELATIVE SIZES AND APPLICATIONS

KARLSON '15'—Enclosures for 15" Speakers

33" high, 22½" wide, 18" deep, wt. 80 lbs.
This is the outstanding choice of the real experts. Better bass than even a horn 30 feet long with a 12½ foot mouth diameter—PLUS—unexcelled tonal definition and wide area presentation makes this the finest enclosure available at any price. Use for finest home and professional stereo and monophonic high fidelity systems. Excellent for electronic organs, musical instruments, theatres, studio monitors, music festivals and wherever the very best is required.

KARLSON '12'—Enclosures for 12" Speakers

24¾" high, 16¾" wide, 13¾" deep, wt. 44 lbs.
This enclosure is ideal for those who want the biggest and best stereo sound available in a compact system. Its dynamic range in bass is only slightly less than the Karlson '15' and certainly much greater than mammoth systems costing many times more. Very efficient, doesn't need super power amplifiers for good bass. Suitable for almost all types of installation, including built-ins due to their small size.

KARLSON '8'—Enclosures for 8" Speakers

17¼", wide 11¾", high 10" deep, wt. 14 lbs.
These very small enclosures will actually fit in the average bookshelf, and will give a quality of reproduction and extended bass totally beyond the normal capabilities of a one cubic foot enclosure. Especially good for the small apartment, den or playroom or as an addition to your larger system. May be built into other cabinetry or used as a portable system as well. Provides professional quality at competitive prices.

SPECIFICATIONS AND FEATURES

All Karlson enclosures employ the basically new Karlson acoustic transducer (Pat. nos. 2,816,619 and 2,896,736) for greatly extended bass, ultra-uniform wide angle dispersion for all speakers in excess of 120°, and highly improved transient response, efficiency, dynamic range and signal definition. Cone break up and distortion is practically eliminated. Amplifier loading is resistive giving excellent control. Dynamic range in bass varies with size, with the larger units quite capable of filling the largest auditoriums with sound. High frequency response only limited by tweeter used. No tuning required with any speaker.

All enclosures may be mounted either vertically or on side with suitable loose footing provided for the Karlson '15' and '12' enclosures.

SELECTING A SPEAKER

The Karlson enclosures are designed for use with the finest extended range, coaxial, and triaxial speakers. Works best with high compliance speakers having a good linear suspension, strong magnets and smooth very extended tweeters. Separate tweeters may be mounted in the larger enclosures. Mechanical resonance not critical, no tuning is required.

MODELS AVAILABLE

FINISHED ASSEMBLED: Select wood veeners in mahogany (MX), walnut (WX), and blonde oak (BX). Standard taper front for 15" and 12" models, full grille on special order at 5% additional charge. Full grille only on 8" models.

15-MX, 15-BX, 15-WX	ea.	$129.00
12-MX, 12-BX, 12-WX	ea.	99.60
8-MX, 8-BX, 8-WX	ea.	42.60

DELUXE UNFINISHED ASSEMBLED: Birch veneer exteriors footings and front mouldings included.

15-U Karlson "15" Unfinished	ea.	$87.00
12-U Karlson "12" Unfinished	ea.	66.00
8-U Karlson "8" Unfinished	ea.	26.70

BASIC UNFINISHED ASSEMBLED: Finest quality, high density particle board, no footing or moulding, finishable.

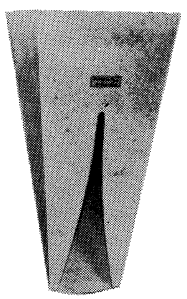
15-BSC-U Basic Karlson '15'	ea.	$66.00
12-BSC-U Basic Karlson '12'	ea.	49.50
8-BSC-U Basic Karlson '8'	ea.	21.00

DELUXE KITS: Birch veneer exteriors, footing and mouldings included.

15-K Karlson '15' Kit	ea.	$57.00
12-K Karlson '12' Kit	ea.	42.00
8-K Karlson '8' Kit	ea.	18.60

BASIC KITS: Finest quality, high density particle board, no footing or front mouldings.

15-BSC-K Karlson '15' Basic Kit	ea.	$45.00
12-BSC-K Karlson '12' Basic Kit	ea.	33.00
8-BSC-K Karlson '8' Basic Kit	ea.	15.00



IDEAL FOR PUBLIC ADDRESS AND MUSIC SYSTEMS

THE KARLSON ROCKET SPEAKER SYSTEM

This miniature speaker system can fill a large room with its clean powerful sound or whisper soft background music with perfect fidelity. The patented wide angle sound is ideal for stereo and all applications where the same quality of sound is desired in all parts of the listening area. Unique and decorative styling permits mounting anywhere; upright on furniture and inverted on walls, pillars, and ceilings.

SPECIFICATIONS: Freq. response 80 to 15,000 cps, cap. 4 watts, eff. 20%, imp. 8 ohms, dispersion 140° hor. 80° vert., spec. 5" speaker, size—15½" high, 7" sq. at base, wt. 3 lbs., finish-chameleon ivory for all decors. Directions included.

Karlson Rocket speaker system
Mod. No. KR-5 ..... $19.50

KARLSON ASSOCIATES INC. • West Hempstead, New York

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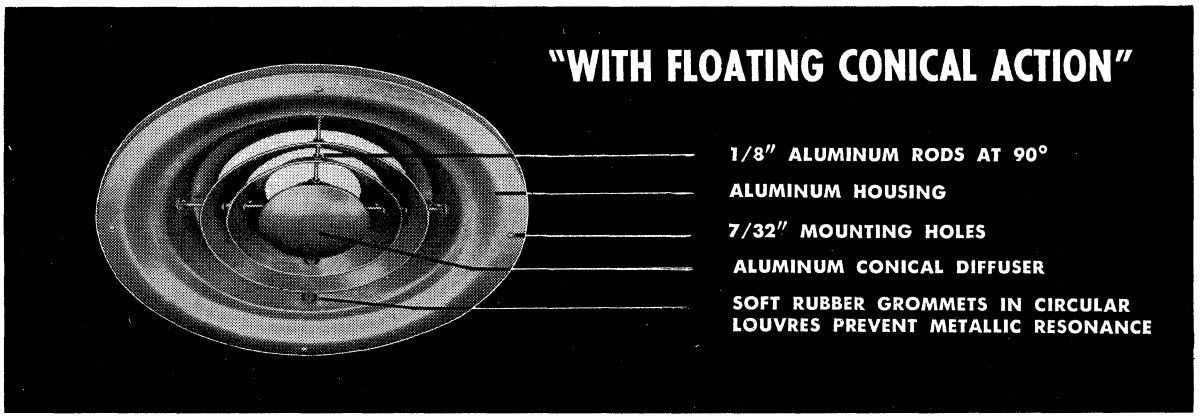
LOWELL STL SERIES

New Low Ceiling Type Baffles



Patented in U.S.A. and Canada

Model No.	Speaker Size	Will Mount to
STL-6	6"	CP8, XCP8, PR8
STL-7	7"	STP8, XSTP8, XSTPR8
STL-8	8"	STP8, XSTP8, XSTPR8
STL-10	10"	STP1012, XSTP1012, XSTPR12
STL-12	12"	STP1012, XSTP1012, XSTPR12

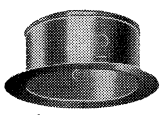
These new, unusual additions to the Lowell line of speaker baffles are top quality heavy 18 gauge spun aluminum in a buffed satin finish. Designing assures controlled 360° dispersion of undistorted sound. Echo and feedback are at the minimum. Louvres and conical diffuser "float" on very small soft rubber grommets. Baffles are coated with clear lacquer which also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request.

Shipped complete with hardware and instructions for mounting to Lowell Protective Speaker Enclosures illustrated.

From architecture to acoustics, Lowell STL series meets every requirement — in ultra-modern design . . . for even, undistorted low-level sound distribution throughout 360°. Recommended baffle placement is usually 25' from center to axis. Where straight line placement is impossible, triangulating the baffles in the ceiling is highly effective.

STP SERIES

XSTP SERIES



XSTPR SERIES

HEARD EVERYWHERE Lowell MANUFACTURING COMPANY

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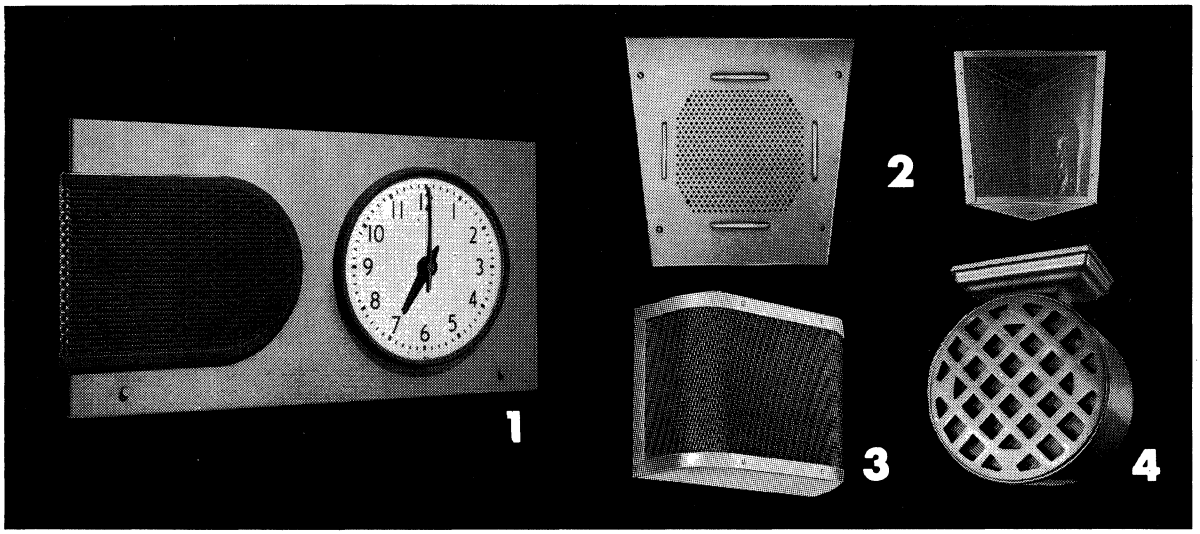
LOWELL SPECIAL APPLICATIONS



1. LOWELL SC SERIES

Designed as a single unit clock and speaker system, the LOWELL Model SC-100 simplifies installation and maintenance. Fire alarm and civil defense warning equipment may also be incorporated in this unit.
Both the clock and speaker are mounted to the front panel. The front panel is hinged at the top, providing quick access to the interior of the unit without disassembling.
LOWELL model SC-100 will mount a variety of standard classroom clocks smaller than 12 inch sizes. Please order 12 inch size special.
Shipped complete with all mounting hardware. Colors are contrasting light and dark grey.

2. MODEL RJA

is ideal for classrooms, restaurants, offices and as an extension speaker for juke box installations. The standard finish is satin aluminum with a clear lacquer coating. The 18 gauge steel protective enclosure is heavily undercoated and affords ample space for transformers and controls.

3. THE 'DRAMATONE' BASS REFLEX WALL BAFFLE

Especially designed for installations where a modern trend is desired. Beautiful plastic grille cloth mounted directly in back to conceal the loudspeaker. Baffle operates with a bass reflex principle. Interior completely lined with jute to prevent metallic resonance.

4. HEAVY-DUTY PENAL INSTITUTIONAL BAFFLE

Bi-directional type mounts to any standard single or double electrical outlet box. Tamper-proof machine screws, which fasten the baffle together, cannot be removed without a special screwdriver. Rugged construction withstands severe punishment. Both speaker face plates are covered from behind with perforated metal to prevent sharp objects from piercing the speaker cone.
The entire baffle is prime coated and finished in silver grey hammertone.

Order screwdriver with 6-32 and 8-32 tip.

SPECIFICATIONS

Model SC-100 front panel is 25¾" x 13" x 1", made of 18 gauge steel painted light gray. The speaker grille is made of 22 gauge steel painted dark gray. The protective enclosure is 24" x 12" x 3", made of 18 gauge steel painted with zinc chromate to prevent rust and undercoated to prevent resonance. It contains twelve ½", ¾", 1" and 1½" conduit knockouts.

MODEL RJA

The grille is .040 satin aluminum with clear lacquer coating; measures 12$\frac{13}{16}$" across top-edge, 9⅜" across bottom edge. When grille is mounted to enclosure the entire assembly has approx. 10° forward slant. Specify speaker size when ordering (RJA-6, RJA-7, RJA-8).

'DRAMATONE' BASS REFLEX WALL BAFFLE

DIMENSIONS: 13¾" x 5⅝" depth x 9¾" height.

MODELS: DD6-A
DD7-A
DD8-A

PENAL INSTITUTIONAL BAFFLE

MODELS	SPEAKER SIZE
BRLK-5	5"
BRLK-6	6"
BRLK-7	7"
BRLK-8	8"

Model RLK series is very similar to Model BRLK with the exception that these models do not have a cradle base. Mount to ceiling or wall or standard electrical outlet boxes.

MODELS	SPEAKER SIZE
RLK-5	5"
RLK-6	6"
RLK-7	7"
RLK-8	8"

NOTE: Order only by model numbers.

HEARD EVERYWHERE Lowell® MANUFACTURING COMPANY

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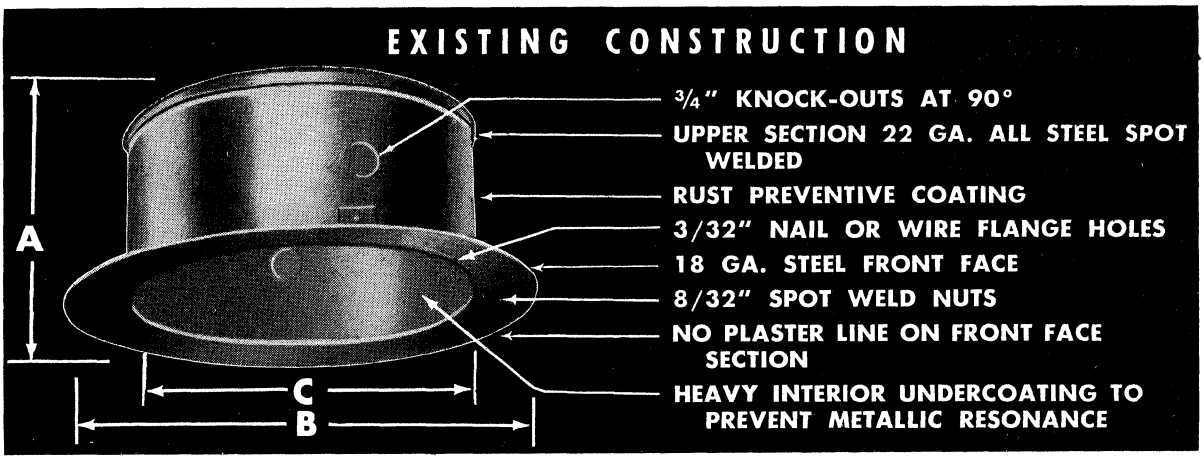
LOWELL XCP SERIES

Back Cover Protective Speaker Enclosure



Model	A	B	C	Speaker Size Accommodation
XCP6	4"	10¼"	7⅜"	6"
XCP8	2½"	11¾"	8½"	8"
XCP8	4¼"	11¾"	8½"	8"
XCP8	7"	11¾"	8½"	8"
XCP8	10"	11¾"	8½"	8"
XCP1012	7"	16"	12⅜"	10" & 12"
XCP15	10¾"	21¼"	14⅝"	15"
XSTP8	7"	13¾"	12½"	8"
XSTP1012	10"	17½"	14½"	10" & 12"

USES: Designed for quick labor-saving wall or ceiling installation of sound systems in EXISTING CONSTRUCTION, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ½" and ¾" knockouts at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete mounting hardware and mounting instructions furnished to meet problems of various types of installations.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loading" may be ordered at slightly higher price.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath:

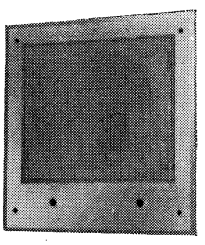
Model XCP6—7¼" dia.
Model XCP8—8⅝" dia.
Model XCP1012—12⅝" dia.
Model XCP15—14¾" dia.
Model XSTP8—12⅝" dia.
Model XSTP1012—14⅝" dia.

FOR SUSPENDED CEILINGS:
Mount XCP Series back enclosures to Model SS24 or 48 Steel Support Channels for positive strength.

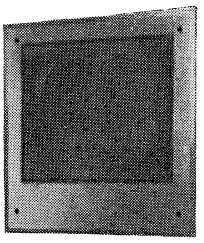
FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Installation time reduced.

Speaker Baffles That Will Mount to XCP Series Protective Speaker Enclosures:

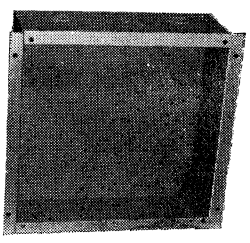
Enclosure Model No.	Speaker Baffle Model No.
XCP6	AL6-A, RS5-A, RS6-A,
XCP8	AL7-A, AL8-A, RS7-A, RS8-A, CE, JG8, M-8 PS8, STL6
XSTP1012	AL10-A, AL12-A, RS10-A, RS812-M, AL812-M, RS12-A, JG12
XCP15	AL15, RS15-A
XSTP8	STL8
XCP1012	STL10 STL12



MODEL MTH-8



MODEL MT-8



MODEL P104X

NEW HOTEL/MOTEL SPEAKER GRILLES

Designed for wall mounting, these distinctive grills are ideal for motel and hotel installations. Constructed of 18 gauge steel, they will accommodate 8" speakers. They will mount easily to Lowell enclosure P104X.

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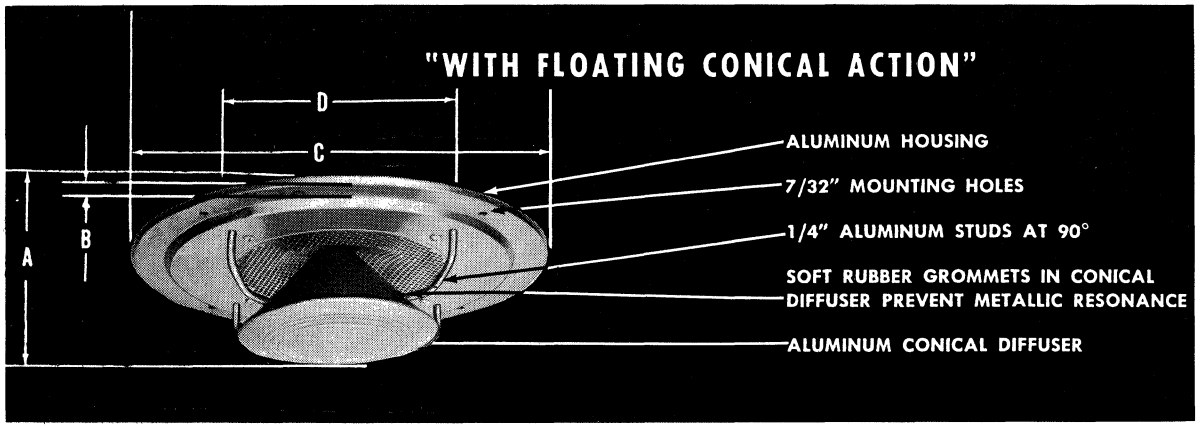
LOWELL AL SERIES

Flush Mounting Low Ceiling Baffles



Patented in U.S.A. and Canada

Speaker Baffle Model	Size Speaker Accommodated	Mount to Speaker Enclosure Models	Dimensions A	B	C	D	Baffle Flange	No. of Flange Mtg. Holes	Dia. of Required Hole in Ceiling	Weight (lbs.) Net	Shpg.	No. per Shipping Carton
AL6-A	6"	CP6, XCP6, PR6 PS	2½"	½"	10¾"	5¼"	1"	4	7"	½	¾	12
AL7-A	7"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	5¼"	1"	4	8½"	¾	1	15
AL8-A	8"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	6⅜"	1"	4	8½"	¾	1	15
AL10-A	10"	CP1012, XCP1012 PR10	3"	½"	16⅞"	8½"	1"	4	13"	1	1½	6
AL12-A	12"	PR12, CP1012, XCP1012	3"	½"	16⅞"	10⅜"	1"	4	13"	1	1½	6
AL15-A	15"	PR15, XCP15 CP15	5"	2"	21¾"	13"	1¾"	8	15½"	3	3½	1
AL812-M	8"	PR12, CP1012 XCP1012	2½"	½"	16⅞"	6¼"	2"	4	8½"	¾	1	6

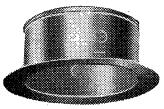
Top quality, heavy gauge satin finished spun aluminum. Assures controlled 360° diffusion of undistorted "ear-level" sound with minimum of echo and feedback. Conical diffuser "floats" on soft rubber grommets forming a press fit to aluminum support studs which thread to speaker housing ring. Clear lacquer coating also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request. Shipped complete with hardware for mounting to Lowell Protective Speaker Enclosures illustrated.

360° Coverage Low "Ear-Level" Sound

Even undistorted sound. Recommended baffle placement 25′ from center of axis. Where straight line placement is impossible, triangulating baffle in ceiling is highly effective.

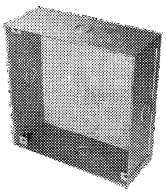
CP SERIES

XCP SERIES



PR SERIES

P875X ENCLOSURE



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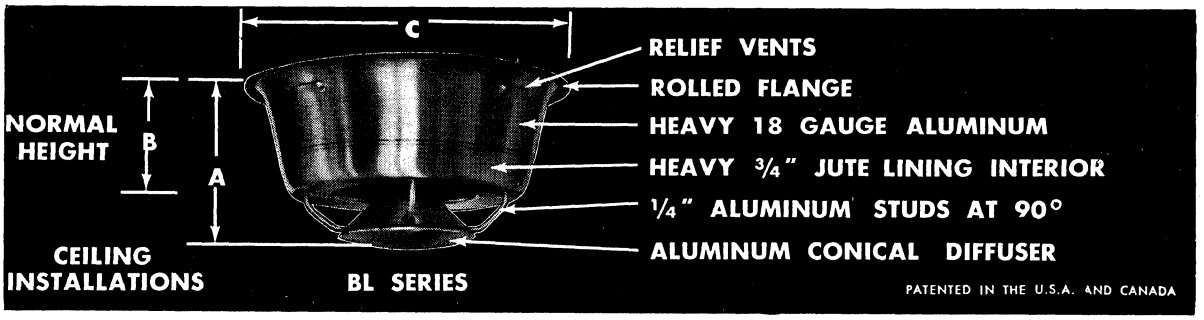
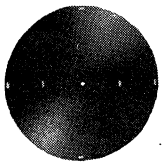
SURFACE MOUNTING CEILING BAFFLES

"WITH FLOATING CONICAL ACTION"



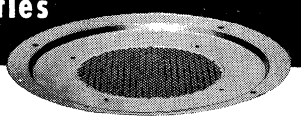
Model No.	Speaker Size	A	B	C	Will Mount To
BL6-A	6"	7 1/4"	4 1/4"	12 9/16"	PL6
BL7-A	7"	8 1/8"	5"	14 3/4"	PL7
BL8-A	8"	8 1/8"	5"	14 3/4"	PL8
BL10-A	10"	9 1/4"	6 3/4"	18 5/8"	PL10
BL12-A	12"	9 1/4"	6 3/4"	18 5/8"	PL12



PL Series Steel Discs for mounting BL Series to concrete ceilings. Heavy 18 gauge steel. All holes punched for standard electrical outlet boxes.

GENERAL INFORMATION: Designed for surface mounting constructed of heavy gauge aluminum. Accurately engineered for normal ceiling sound reinforcement. Perfect speaker cone loading holds feed-back to minimum. Exclusive "Floating Conical Action" assures controlled 360° sound coverage. High frequency diffuser supported to housing by four 1/4" aluminum studs and threaded on one end mounted to housing. Press fit to diffuser through soft rubber grommets prevents metallic resonance. Recommended placement of baffles under normal ceiling heights is 25' off center of axis in straight line placement. All models finished in brushed satin and coated with colorless lacquer. Acts as excellent base coat or primer for on-the-job painting. All models available in colored lacquers at slightly higher price. Complete information on request.

TYPE RS recessed wall type directional speaker baffles



TYPE RS RECESSED WALL TYPE DIRECTIONAL SPEAKER BAFFLES:

Excellent speaker trim for modern installations. .Especially recommended for Dress Shops, Department Stores, Night Clubs. Provides concealment of speaker. Easily installed.

DESCRIPTION: Made of aluminum with 1/2" mounting flange. Standard finish — satin-aluminum. Improved one-piece construction. Four screws are supplied to mount speaker. Mounts to LOWELL TYPE CP or XCP enclosures where speakers must be protected. The RS7-a, RS8-a, RS10-a and RS12-a are now one-piece construction.

Model No.	Speaker Size	Dimensions	Wall Hole Size
RS4-A	4"	7 1/2" dia. x 7/16" depth	5" dia.
RS5-A	5"	10 3/4" dia. x 7/16" depth	7" dia.
RS6-A	6"	10 3/4" dia. x 7/16" depth	7" dia.
*RS7-A	7"	12 5/8" dia. x 7/16" depth	8 1/2" dia.
RS812-M	8"	16 7/8" dia. x 1/2" depth	8 1/2" dia.
RS8-A	8"	12 5/8" dia. x 1/2" depth	8 1/2" dia.
RS8-A (1 1/2" deep)	8"	12 5/8" dia. x 1 1/2" depth	8 1/2" dia.
RS10-A	10"	16 7/8" dia. x 1/2" depth	12 1/2" dia.
RS12-A	12"	16 7/8" dia. x 1/2" depth	12 1/2" dia.
RS15-A	15"	21 3/4" dia. x 3" depth	17" dia.

* For RCA 7" Accordian Speaker. Information on colored lacquer furnished on request for both models.

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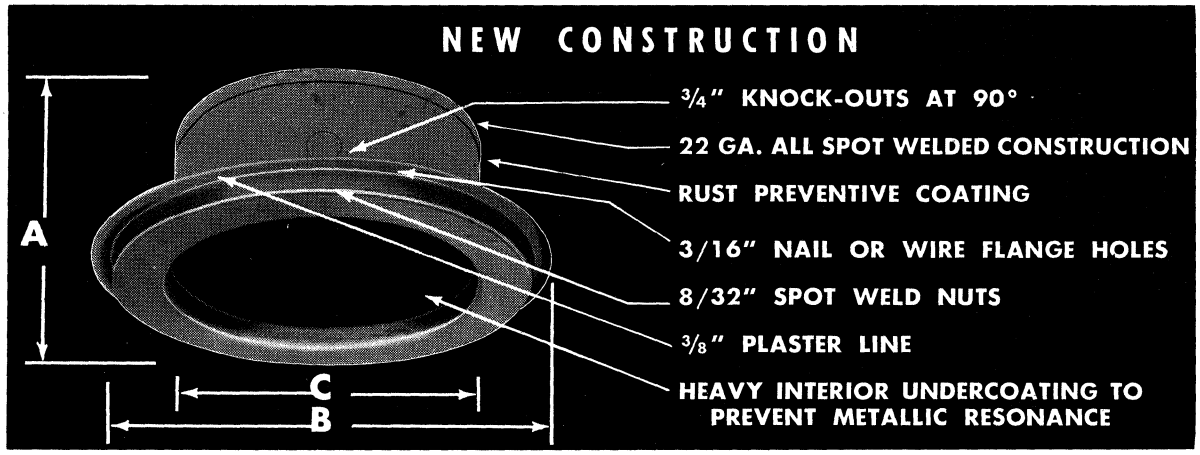
LOWELL CP SERIES

Back Cover Protective Speaker Enclosure



Model	A	B	C	Speaker Size Accommodation
CP6	4"	11¼"	7"	6"
CP8	2½"	13⅛"	8½"	8"
CP8	4½"	13⅛"	8½"	8"
CP8	7"	13⅛"	8½"	8"
CP8	10"	13⅛"	8½"	8"
CP8	12"	13⅛"	8½"	8"
CP1012	7"	17⅛"	12½"	10" & 12"
CP15	11"	21½"	14⅝"	15"
STP8	7"	14⅞"	12⅜"	8"
STP1012	10"	18⅞"	14¾"	10" x 12"

USES: Designed for quick, labor-saving wall or ceiling installation of sound systems in NEW CONSTRUCTIONS, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ¾" and ½" knock-outs at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete with mounting hardware and mounting instructions to meet problems of various types of installation.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loadings" may be ordered at slightly higher price. Available with removable cylinder and stationary front plaster ring in adjustable face models—DCP series.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath.

Model CP6—7" dia.
Model CP8—8½" dia.
Model CP1012—12½" dia.
Model CP15—14¾" dia.
Model STP8—12½" dia.
Model STP1012—14½" dia.

FOR SUSPENDED CEILINGS:

Mount CP Series back enclosures to Model SS 24 or 48 Steel Support Channels for positive strength.

FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Reduces installation time.

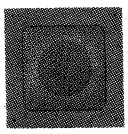
Speaker Baffles That Will Mount to CP Series Protective Speaker Enclosures:

Enclosure Model No.	Speaker Baffle Model No.
CP6	AL6-A, RS5-A, RS6-A
CP8	AL7-A, AL8-A, RS7-A, RS8-A, JG8, M-8, PS8, STL6
CP1012	AL10-A, AL12-A, RS10-A, RS12-A, JG12, RS812-M, AM812-M
CP15	AL15, RS15-A
CTP8	STL8
STP1012	STL10, STL12

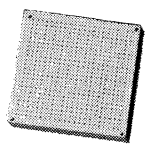
AL SERIES

RS SERIES

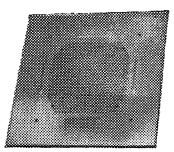
JG SERIES



M SERIES



YM8-A CEILING BAFFLE
(for Acoustic Tile Ceilings)



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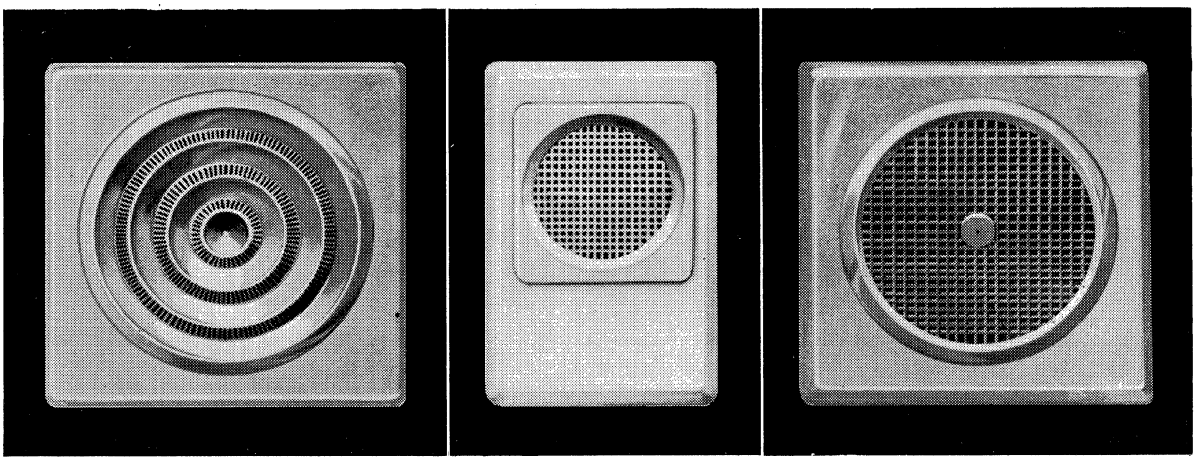
LOWELL 'COLORAMIC' PLASTIC BAFFLES

NEW IN-CEILING AND IN-WALL INTER-COM BAFFLES



MODEL ADS80-P **MODEL L35-P** **MODEL CR80-P**

Acclaimed for New Sound Fashion . . . New Sound Fidelity!

Here is the complete merger of beauty and unique design! Lowell "Coloramic" Baffles are new, lightweight, precision-designed, acoustically-perfect, sound projecting baffles deftly molded of amazingly effective HT-88 High-Impact Styrene*

FOR EFFECTIVE USE *EVERYWHERE!*
HOSPITALS • SCHOOLS • PUBLIC BUILDINGS
HOMES • SHIPS • PLANES

'Coloramic' Baffles by Lowell offer complete ease of installation . . . respond to any good Latex spray or paint treatment . . . fit flush in ceilings or walls. Their practical, pleasant room-filling qualities make them the ultimate for low-level, ear-level sound. Inter-Com applications are equally as distinct!

'COLORAMIC' IN-WALL INTER-COM BAFFLE — MODEL L35-P

Highest grade Styrene will not chip or warp. Sound installers never worry about holes lining up . . . mounting holes are always true! Color runs completely through the material and may be painted with any good Latex paint. Available in rich looking neutral colors of White or Beige. Accommodates a 3½" speaker.

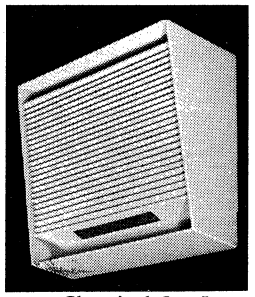
'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL ADS80-P

Ruggedly constructed of High-Impact Styrene material for strength and durability. By means of unique slots located in the circular deflectors in the grille, complete 360° sound dispersion is attained. Thus the best possible sound reproduction is accomplished! This dramatic model gives long, long years of dependable service! White or Beige.

'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL CR80-P

New and different! The 60% greater opening in the grille affords the best possible sound reproduction. May be sprayed or painted with any good Latex paint. Its beautiful sound qualities equal the beauty of its outward appearance. White or Beige.

'COLORAMIC' ON-WALL BASS REFLEX BAFFLE— MODEL EHF 80-P
Unique speaker-mounting facilities accommodate a 6", 7" or 8" speaker. Special bracket included permits mounting baffle directly to single or two-gang electrical outlets. Made of HT-88 High Impact Styrene.



*Research & Development by Monsanto Chemical Co., Inc.

SPECIFICATIONS

MODEL ADS80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.

MODEL L35-P—
Inter-Com Baffle
DIMENSIONS: 7" x 4½"
WEIGHT: 1¾ oz.
COLOR: White or Beige
Mounts to durable speaker box. Model P22X.

MODEL CR80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.

MODEL EHF80-P—
Wall Baffle
DIMENSIONS: 13" w. x 11½" h. x 6¼" d.
COLOR: Beige

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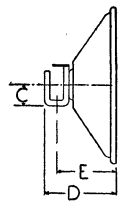
QUAM *Adjust-a-Cone*® SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked aluminum enamel finish. EIA service guarantee. QUAM UNIVERSAL MOUNTING BRACKET comes with all 3½" to 6½" speakers and may be attached to any two of the FOUR threaded mounting holes in the U-shaped pot. Any Quam speaker can be supplied with voice coil impedances other than those listed for an additional $1.00 list.



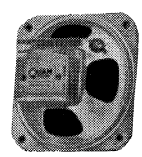


Fig. A

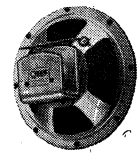


Fig. B

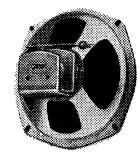


Fig. C

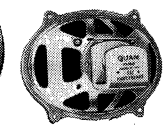


Fig. D

QUAM ADJUST-A-CONE® SUSPENSION

This patented QUAM feature is your added assurance of trouble-free operation. In other speakers the spider is cemented in place with no means of accurate adjustment. The Adjust-a-Cone suspension permits precision centering of the voice coil as a final production operation.

QUAM U-SHAPED COIL POT

Another QUAM exclusive, this patented U-shaped coil pot construction, used throughout the QUAM replacement line, provides an unbroken flux path of sufficient cross-section to carry the full energy of the magnetic field.

REPLACEMENT SPEAKERS

ED — *Electro Dynamic Speakers* | **PM** — *Permanent Magnet Speakers* | **BF** — *Ceramic Magnet Speakers*

Voice coil impedance 3.2 ohms ± 10%

TYPE	MODEL No.	SIZE	FIGURE	FIELD	POWER HANDLING WATTS	DIMENSIONS IN INCHES C	D	E	SHIP WT., LBS.	PRICE LIST
PM	22A06Z8**•	2¼"	J	.45 oz. Alnico V	.25	19/32	1	—	1/4	$ 4.75
	22A06Z100**•	2¼"	J	.45 oz. Alnico V	.25	19/32	1	—	1/4	5.25
PM	25A07•	2½"	A	.65 oz. Alnico V	1.5	11/16	1-1/4	7/8	1/4	4.00
PM	27A06Z12**•	2¾"	J	.55 oz. Alnico V	.25	19/32	1	—	1/4	4.70
PM	3A05*•§	3½"	I	.55 oz. Alnico V	2	7/16	1-13/32	—	1/4	3.15
	3A07*•	3½"	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-7/64	1/2	4.00
	35A05•*§	3"x5"	L	.55 oz. Alnico V	2	7/16	1-21/32	—	1/2	4.20
ED	4E45	4"	A	450 Ohms	3	1-1/4	2	1-7/16	1	6.25
	4E62	4"	A	55-65 Ohms	3	1-1/4	2-5/16	1-5/8	1	6.25
PM	4A05*•§	4"	I	.55 oz. Alnico V	2.5	7/16	1-1/2	—	1/4	3.25
	4A07*	4"	A	.65 oz. Alnico V	3	3/4	1-23/32	1-5/16	1/2	4.30
	4A07R*★	4"	B	.65 oz. Alnico V	3	3/4	1-23/32	1-5/16	1/2	4.30
	4A1	4"	A	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.60
	4A1R★	4"	B	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.60
	4A15	4"	A	1.47 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	5.05
PM	46A07*	4"x6"	E	.65 oz. Alnico V	3.5	3/4	1-15/16	1-27/64	3/4	4.75
	46A1	4"x6"	E	1.0 oz. Alnico V	3.5	1	2-1/4	1-9/16	1	5.10
	46A15	4"x6"	E	1.47 oz. Alnico V	3.5	1	2-1/4	1-9/16	1	5.50
PM	48A2*•	4"x8"	K	1.4 oz. Alnico V	4.5	7/8	2-3/16	—	1	7.95
	410A2*•	4" x 10"	M	1.4 oz. Alnico V	6	—	2-11/16	—	1-1/4	8.95
ED	5E45	5"	C	450 Ohms	3.5	1-1/4	2-1/8	1-19/32	1	6.50
	5E10	5"	C	1000 Ohms	3.5	1-1/4	2-1/8	1-19/32	1	6.50
	5E62	5"	C	55-65 Ohms	3.5	1-1/4	2-7/16	1-19/32	1-1/4	6.50
	5E90	5"	C	85-95 Ohms	3.5	1-1/4	2-7/16	1-19/32	1-1/4	6.50
PM	5A05*•§	5"	I	.55 oz. Alnico V	3	7/16	1-11/16	—	1/2	3.50
	5A07*	5"	C	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.50
	5A07R*★	5"	B	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.50
	5A1	5"	C	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	4.85
	5A1R★	5"	B	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	4.85
	5A15	5"	C	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.25
	5A15R★	5"	B	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.25
ED	52E50	5¼"	C	45-55 Ohms	4	1-1/4	2-17/32	1-27/32	1-1/2	7.00
	52E90	5¼"	C	85-95 Ohms	4	1-1/4	2-17/32	1-27/32	1-1/4	7.00
PM	52A1	5¼"	C	1.0 oz. Alnico V	4	1	2-25/64	1-25/32	1	4.95
	52A1SQ¶	5¼"	A	1.0 oz. Alnico V	4	1	2-25/64	1-25/32	1	4.95
	52A21	5¼"	C	2.15 oz. Alnico V	4	1-1/8	2-21/32	1-25/32	1-1/4	6.05
BF	52A21SQ¶	5¼"	A	2.15 oz. Alnico V	4	1-1/8	2-21/32	1-25/32	1-1/4	6.05
	52C10	5¼"	N	10.0 oz. ceramic	10	—	2-1/4	—	2-1/8	9.95
PM	57A1	5"x7"	D	1.0 oz. Alnico V	5	1	2-11/16	2-5/64	1	5.75
	57A15	5"x7"	D	1.47 oz. Alnico V	5	1	2-11/16	2-5/64	1	6.10
	57A21	5"x7"	D	2.15 oz. Alnico V	5	1-1/8	2-61/64	2-13/64	1-1/4	6.75
ED	d6E45	6½"	C	450 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	$ 7.50
	6E10	6½"	C	1000 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
	6E62	6½"	C	55-65 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
	6E90	6½"	C	85-95 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
PM	6A1	6½"	C	1.0 oz. Alnico V	5	1	2-5/8	2	1	5.30
	6A1R★	6½"	B	1.0 oz. Alnico V	5	1	2-5/8	2	1	5.30
	6A15	6½"	C	1.47 oz. Alnico V	5	1	2-5/8	2	1	5.75
	6A15R★	6½"	B	1.47 oz. Alnico V	5	1	2-5/8	2	1	5.75
	6A21	6½"	C	2.15 oz. Alnico V	5	1-1/8	2-7/8	2-1/8	1-1/4	6.45
	6A31	6½"	C	3.16 oz. Alnico V	6	1-3/8	3-11/64	2-9/32	1-3/4	7.60
PM	69A1*•	6"x9"	D	1.2 oz. Alnico V	6	7/8	2-3/4	—	1-1/4	6.40
	69A2*	6"x9"	D	1.4 oz. Alnico V	8	7/8	2-15/16	—	1-1/2	7.50
	69A3	6"x9"	D	3.2 oz. Alnico V	10	1-1/4	3-5/16	—	2	9.20

* Very shallow unit. ★ Round basket. † Rotated pot. ¶ Square basket. • No Adjust-a-Cone suspension. § No mtg. bracket or threaded holes in pot. ** Impedance of 22A0628 is 8 ohms, 22A06Z100 is 100 ohms, 27A06Z12 is 12 ohms. d Will be discontinued when current stocks are depleted

Trade Discount Applies to List Prices Only

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QUAM *Adjust-a-Cone*® SPEAKERS

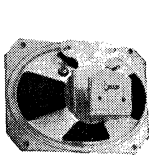
Fig. E

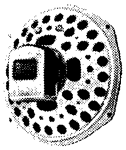
Fig. F

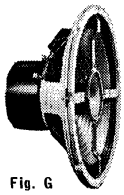
Fig. G

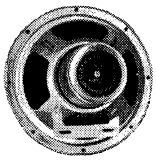
Fig. H

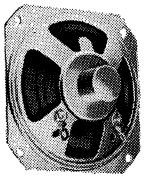
Fig. I

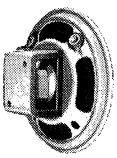
Fig. J

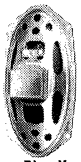
Fig. K

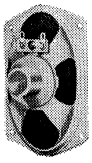
Fig. L

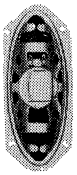
Fig. M

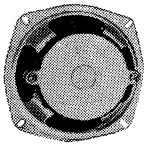
Fig. N

Fig. O

Replacement Speakers *(Cont'd)* Voice coil impedance 3.2 ohms ± 10%

TYPE	MODEL No.	SIZE	FIGURE	FIELD	POWER HANDLING WATTS	DIMENSIONS IN INCHES C	D	E	SHIP WT., LBS.	LIST PRICE
PM	7A21*	7″	F	1.4 oz. Alnico V	6	7/8	2-31/32	—	1	7.25
	7A31	7″	F	3.16 oz. Alnico V	9	1-1/4	3-1/32	—	2	8.75
ED	8E10	8″	C	1000 Ohms	7	1-1/4	3-9/32	—	1-1/2	8.50
	d8E18	8″	C	1800 Ohms	7	1-1/4	3-9/32	—	1-3/4	8.50
	d8E50	8″	C	45-55 Ohms	7	1-1/4	3-9/32	—	1-3/4	8.50
	8E90	8″	C	85-95 Ohms	7	1-1/4	3-9/32	—	1-1/2	8.50
PM	8A21	8″	C	2.15 oz. Alnico V	7	1-1/8	3-13/32	—	1-1/2	7.75
	8A31	8″	C	3.16 oz. Alnico V	9	1-3/8	3-21/32	—	2	9.00
ED	d10E60	10″	B	600 Ohms	10	1-3/4	5-1/16	—	4	14.00
	d10E10	10″	B	1000 Ohms	10	1-3/4	5-1/16	—	4	14.00
	d10E65	10″	B	60-70 Ohms	10	1-3/4	5-1/16	—	4	14.00
	d10E90	10″	B	85-95 Ohms	10	1-3/4	5-1/16	—	4	14.00
PM	10A31	10″	B	3.16 oz. Alnico V	9	1-3/8	4-1/2	—	2-3/4	11.50
	10A4A	10″	B	4.64 oz. Alnico V	10	1-3/8	4-1/2	—	3-1/4	12.95
	10A6A	10″	B	6.8 oz. Alnico V	12	1-7/16	4-5/8	—	3-1/2	14.50
ED	d12E60	12″	B	600 Ohms	12	1-3/4	5-5/8	—	5	16.00
	12E10	12″	B	1000 Ohms	12	1-3/4	5-5/8	—	5	16.00
PM	12A31	12″	B	3.16 oz. Alnico V	10	1-1/4	4-19/32	—	3-3/4	11.95
	12A4A	12″	B	4.64 oz. Alnico V	12	1-3/8	5-1/8	—	3-3/4	14.25
	12A6A	12″	B	6.8 oz. Alnico V	14	1-7/16	5-1/4	—	4-1/2	15.95

OUTDOOR SPEAKERS Voice coil impedance 3.2 ohms ± 10%

These Quam speakers have the new exclusive Humi-Gard Cone of plastic impregnated natural fiber fabric that outlasts ordinary moisture-proofed cones 3 to 1, yet has the response of an untreated paper cone. Resists sand and dirt abrasion. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

All Quam speakers are available weather-proofed for an additional 70c list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½″, 4″, 5″, and 6½″ speakers.)

PM	3A07 OT*•§	3½″	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-3/16	1/2	$ 4.00
	4A1 OT§	4″	A	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.65
	5A15 OT§	5″	C	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.35
	6A15 OT§	6½″	C	1.47 oz. Alnico V	5	1	2-5/8	2	1	6.00

PUBLIC ADDRESS SPEAKERS Voice coil impedance 8 ohms

PM	★8A21PA	8″	C	2.15 oz. Alnico V	8	1-3/8	3-9/16	—	2	$ 8.20
	★8A31PA	8″	C	3.16 oz. Alnico V	10	1-3/8	3-9/16	—	2	9.50
	8A4PA	8″	B	4.64 oz. Alnico V	12	1-3/8	3-3/4	—	2-3/4	11.00
BF	8A6PA	8″	B	6.8 oz. Alnico V	12	1-7/16	3-7/8	—	3-1/4	13.00
	8C10PA	8″	O	10.0 oz. ceramic	12	—	3-1/8	—	3	13.00
PM	10A31PA	10″	B	3.16 oz. Alnico V	12	1-3/8	4-13/32	—	2-3/4	11.50
	10A4PA	10″	B	4.64 oz. Alnico V	14	1-3/8	4-1/2	—	3-1/4	12.95
	10A6PA	10″	B	6.8 oz. Alnico V	14	1-7/16	4-5/8	—	3-1/2	14.50
	10A10PA	10″	B	10 oz. Alnico V	20	1-3/8	4-21/64	—	3-3/4	18.00
PM	12A31PA	12″	B	3.16 oz. Alnico V	12	1-3/8	5	—	3-1/4	11.95
	12A4PA	12″	B	4.64 oz. Alnico V	15	1-3/8	5-1/8	—	3-3/4	14.25
	12A6PA	12″	B	6.8 oz. Alnico V	15	1-7/16	5-1/4	—	4	15.95
BF	12A10PA	12″	B	10 oz. Alnico V	25	1-3/8	4-15/16	—	4	19.95
	12C10PA	12″	O	10.0 oz. ceramic	15	—	4-3/8	—	4	15.95

HIGH IMPEDANCE SPEAKERS Voice coil impedance 45 ohms ± 10%

Speakers with voice coil impedances other than those listed are supplied at an increase of $1.00 list. Those catalogued are most frequently used but any other model can be supplied with special voice coil impedance.

PM	3A07Z45*•	3½″	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-3/16	1/2	$ 4.25
	4A07Z45*	4″	A	.65 oz. Alnico V	3.0	3/4	1-23/32	1-5/16	1/2	4.55
	4A1Z45	4″	A	1.0 oz. Alnico V	3.0	1	2-3/16	1-9/16	3/4	4.85
	5A07Z45*	5″	C	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.75
	5A1Z45	5″	C	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.10

HIGH FIDELITY SPEAKERS

TYPE	MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shippg Wt. Lbs.	LIST PRICE
PM	15A10CO	15″	G	Coaxial, 2000cps. Xover	25-15,000	20	8	8	$52.50
	12A6CO	12″	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	34.50
	8A4CO	8″	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	22.95
	12A10X	12″	H	Extended range	50-12,000	15	8	4-3/4	26.00
	10A10X	10″	H	Extended range	50-12,000	12	8	4-1/8	24.00
	8A10X	8″	H	Extended range	50-12,000	10	8	3-1/4	20.00
	15A10L	15″	H	Low frequency woofer	30-5,000	10	8	7	35.00
	12A10L	12″	H	Low frequency woofer	40-5,000	10	8	4-3/4	26.00
	5A15T	3″	B	High frequency tweeter	2,000-15,000	10	14	1	6.50
	3A15T	3″	A	High frequency tweeter	2,000-15,000	10	14	3/4	5.75
	CO2-50			Crossover Unit for use with 5A15T, 3A15T				1/2	2.00

* Very shallow construction. ★ Pin-cushion basket. ¶ Square basket. † Rotated pot.
d Will be discontinued when current stocks are depleted • without Adjust-a-Cone suspension. § No mounting bracket or threaded holes in pot.

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RL SERIES / Medium Power Public Address Loudspeaker for Paging, Talk-back and Speech Reproduction

Exclusive RACON *Features*

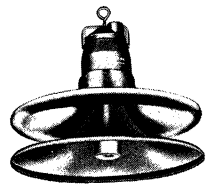
• Built-in terminal blocks • Fideliflare ® trumpet design • Unibody Construction • Universal mounting bracket

RL-10

Medium power speaker, (10 watts continuous duty), for paging and public address speech reproduction. High conversation efficiency. See fig. 2 p. 2 for frequency response curve.

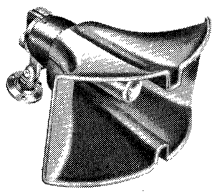
RL-10T

Same as RL-10 but with unique and exclusive built-in multi-match transformer Model TA-20 for use on 70 volt, 25 volt or constant-impedance line. See description of TA-20 transformer for impedance taps and fig. 2 p. 2 for frequency response curve.



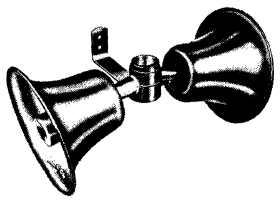
RL-10R

A true 360° radiation pattern. Excellent for indoor installations. An extremely economical solution to the wide-coverage low-power problem of speech reproduction. See fig. 2 p. 2 for frequency response curve and fig. 3 p. 2 for radiation pattern.



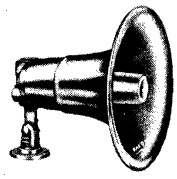
CRL-10

Racon's exclusive (pat. pend.) Cobra-Flare® wide angle design. Dual air column and twin horn design narrow the vertical beam and disperse the sound energy over a wide horizontal area. Medium power, for speech reproduction. See fig. 2 p. 2 for frequency response curve and fig. 4 p. 2 for radiation pattern.



RL-10B

2-way speaker utilizing any Racon driver unit of any power capacity. Provides real "punch" in speech reproduction. Supplied without driver unit. See fig. 5 p. 2 for radiation pattern.



RL-12

Higher power and more directional radiation than the RL-10 for increased speech penetration. Larger horn for extended low frequency response providing more realism in speech and non-critical reproduction of music. See fig. 2 p. 2 for frequency response curve.

MODEL	RL-10	RL-10T	RL-10R	RL-10B	CRL-10	RL-12
POWER, FULL RANGE	10 watts	10 watts	10 watts	depends on driver	10 watts	12 watts
POWER (a) ADJUSTED RANGE	20 watts	20 watts	20 watts		20 watts	24 watts
FREQUENCY RESPONSE	350 to 13,000 cps	350 to 13,000 cps	350 to 13,000 cps		350 to 13,000 cps	250 to 13,000 cps
IMPEDANCE, VOICE COIL	8Ω 4, 45Ω	8Ω	8Ω 4, 45Ω		8Ω 4, 45Ω	8Ω 4, 45Ω
IMPEDANCE, BUILT-IN TRANSFORMER	—	See TA-20 Transf.	—		—	—
DISPERSION, AVERAGE	120°	120°	360°	120° ea. horn	120° x 60°	110°
SOUND LEVEL (b)	116 db	116 db	99 db	depends on driver	116 db	117 db
LENGTH, OVERALL	7½"	10"	7¾"	14½"	8½"	10½"
DIAMETER	8"	8"	10½"	8"	10 x 6"	10½"
SHIPPING WT.	3½ lbs.	4 lbs.	4 lbs.	4 lbs.	4½ lbs.	3¾ lbs.
LIST PRICE (8Ω)	$28.25	$38.75	$40.25	$29.50	$33.50	$31.50
(4Ω or 45Ω) (c)	$29.75		$41.75		$35.00	$33.00

TCA-1

Transformer housing for Racon Model TA-20 multi-match transformer or any other with 2" mounting centers. Use with any Racon speaker or mounted to "U" bracket of any large trumpet or to any wall, ceiling or roof. Also use without transformer as terminal or junction box. Waterproof when used with ¼" service cord. List Price **$5.00**

(a) Input adjusted to eliminate frequencies below cutoff.

(b) Intensity in db relative to $2x10^{-4}$ dyne/cm² measured 4 ft. from mouth of horn, with "Full Range" input. Reduce by 6 db each time distance is doubled, by 3 db each time input is halved.

(c) Specify 4 ohm or 45 ohm impedance by adding 4 or 45 to model number such as RL-10-45.

®Registered Trademark *Prices 2% higher in eleven Western States*

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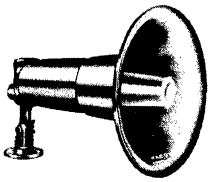
RO SERIES / High Power Public Address Loudspeaker for Speech and Music Reproduction

Exclusive RACON Features

• Built-in terminal blocks • Fideliflare ® trumpet design • Unibody Construction • Universal mounting bracket

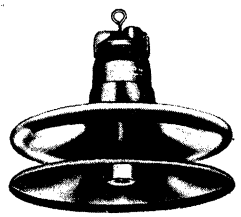
RO-25

High power (25 watt continuous duty) public address speaker for speech and non-critical reproduction of music. High efficiency and smooth response. See fig. 2 p. 2 for frequency response curve.



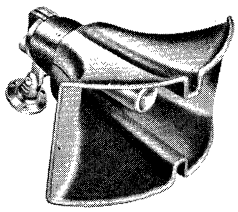
RO-25T

Same as RO-25 but with Racon's built-in multi-match transformer Model TA-20 for use in 70 volt, 25 volt or constant impedance lines. See fig. 2 p. 2 for frequency response curve.



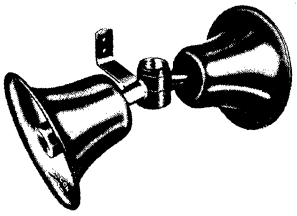
RO-25R

True radial dispersion of sound for widest coverage. Provides medium power over large area for high fidelity speech and non-critical music reproduction. See fig. 2 p. 2 for frequency response curve and fig. 3 p. 2 for radiation pattern.



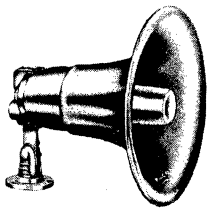
CRO-25

A truly wide angle horn utilizing Racon exclusive Cobra-Flare® (pat. pend.) design. High power sound is radiated in a broad horizontal plane through use of dual air columns and twin horn design. Fine speech and non-critical music reproduction. See fig. 2 p. 2 for frequency response curve and fig. 4 p. 2 for radiation pattern.



RO-25B

The finest and sturdiest 2-way speaker available. Perfect for many installations including those where music of a non-critical nature is to be reproduced. Supplied without driver unit but takes any Racon unit of any power. See fig. 5 p. 2 for radiation pattern.



RO-28

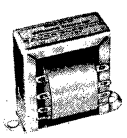
Similar to RO-25 but a larger horn and greatly extended low frequency response render high fidelity speech and better music reproduction and permit this speaker to replace many larger horn and driver unit combinations. More directional than RO-25 for real penetration. See fig. 2 p. 2 for frequency response curve.

MODEL	RO-25	RO-25T	RO-25R	RO-25B	CRO-25	RO-28
POWER, FULL RANGE	25 watts	25 watts	25 watts		25 watts	25 watts
POWER (a) ADJUSTED RANGE	50 watts	50 watts	50 watts		50 watts	50 watts
FREQUENCY RESPONSE	250 to 13,000 cps	250 to 13,000 cps	250 to 13,000 cps	depends on driver	250 to 13,000 cps	200 to 13,000 cps
IMPEDANCE, VOICE COIL	8Ω 4, 45Ω	8Ω	8Ω 4, 45Ω		8Ω 4, 45Ω	8Ω 4, 45Ω
IMPEDANCE, BUILT-IN TRANSFORMER	—	See TA-20 Transf.	—		—	—
DISPERSION, AVERAGE	90°	90°	360°	90° ea. horn	120° x 60°	85°
SOUND LEVEL (b)	124 db	124 db	107 db	depends on driver	124 db	125 db
LENGTH, OVERALL	9½"	12"	9¾"	17"	12"	11½"
DIAMETER	10"	10"	13"	10"	14 x 7"	12½"
SHIPPING WT.	4 lbs.	4½ lbs.	4½ lbs.	4½ lbs.	5½ lbs.	4¼ lbs.
LIST PRICE (8Ω)	$34.50	$45.00	$47.50	$35.50	$46.00	$38.00
(4Ω or 45Ω) (c)	$36.00		$49.00		$47.50	$39.50

constant impedance lines

25 volt lines

70.7 volt lines



TA-20

Racon's unique and exclusive 20 watt multi-match transformer. Designed for use with constant-impedance, 70 volt, or the newer 25 volt installations. Voice coil taps at 4, 8 and 16 ohms, line taps at 45 ohms, 125 ohms, 250 ohms, 500 ohms, 1000 ohms, 2000 ohms and 5000 ohms. 70 volt line taps at 20 watts, 10 watts, 5 watts, 2½ watts and 1 watt. 25 volt line taps at 15 watts, 5 watts, 2½ watts, 1.25 watts and a .625 watt. List Price $7.00

(a) Input adjusted to eliminate frequencies below cutoff.

(b) Intensity in db relative to $2x10^{-4}$ dyne/cm² measured 4 ft. from mouth of horn, with "Full Range" input. Reduce by 6 db each time distance is doubled, by 3 db each time input is halved.

(c) Specify 4 ohm or 45 ohm impedance by adding 4 or 45 to model number such as RL-10-45.

®Registered Trademark *Prices 2% higher in eleven Western States*

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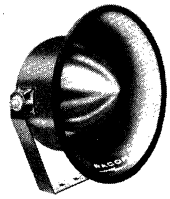
UT SERIES / Weatherproof High Fidelity Speakers for Music and Public Address

Exclusive RACON Features

• Heavy Universal Mounting Bracket • Fideliflare® trumpet design • Built-in Terminal Block

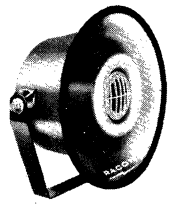
The perfect speakers for true High Fidelity Sound Reproduction wherever high quality music and speech reproduction is required. Ideal for theatres, churches, auditoriums, beach clubs and amusement parks. Unequalled for music systems in factories and permanent outdoor installations near garden or swimming pool.

RACON's now-famous built-in terminal block with Plexiglas shield and 2" solid steel U-bracket render easiest installation ever and guarantee a lifetime of troube-free service. U-bracket accommodates low cost optional TCA-1 or TCA-2 Transformer Housing and any RACON transformer.



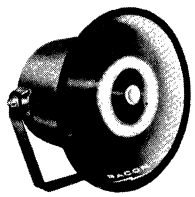
UT-6C

Low in cost, high in efficiency and realism. The single wide range speaker has its output enhanced by the combination of horn and housing.



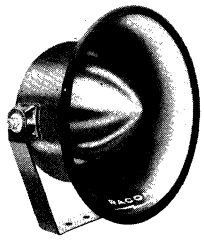
UT-6H

Incorporates two separate coaxial speakers, each with its own magnet structure and voice coil. A woofer handles the low and mid-range frequencies, a 3½" tweeter produces the highs with remarkable clarity. Full-range reproduction.



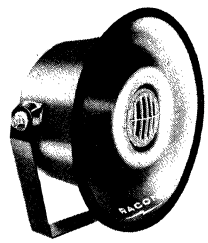
UT-6T

Coaxial combination of woofer and horn-loaded compression-type tweeter. Deep powerful lows; brilliant "concert-quality" high and mid-range tones. Separate reflex tweeter construction renders excellent penetration for speech and general announcing.



UT-8C

Deluxe model incorporates an extended range high fidelity 8", cone type speaker and RACON's exclusive Fideliflare® horn-housing. The UT-8C will bring unbelievable quality to even mediocre associated equipment.

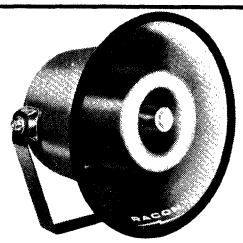


UT-8H

An 8" woofer handles low frequencies down to 60 cycles while a completely separate cone tweeter faithfully reproduces all high frequencies. Reproduction equals in quality that from speakers costing many times more.

MODEL	UT-6C	UT-6H	UT-6T	UT-8C	UT-8H	UT-8T
POWER, FULL RANGE	15 watts	15 watts	15 watts	30 watts	30 watts	30 watts
FREQUENCY RESPONSE	95 to 8000 cps	95 to 11,000 cps	95 to 15,000 cps	60 to 8000 cps	60 to 11,000 cps	60 to 15,000 cps
IMPEDANCE, VOICE COIL	8Ω	8Ω	8Ω	8Ω	8Ω	8Ω
DISPERSION AVERAGE	120°	120°	120°	120°	120°	120°
SOUND LEVEL (a)	118 db	118 db	118 db	120 db	120 db	120 db
LENGTH, OVERALL	8¼"	10¾"	10¾"	10½"	12¾"	12¾"
DIAMETER	16"	16"	16"	21½"	21½"	21½"
SHIPPING WEIGHT	14 lbs.	15 lbs.	16 lbs.	18 lbs.	19½ lbs.	21 lbs.
LIST PRICE	$42.50	$50.00	$57.50	$69.50	$79.50	$89.50
NET PRICE	$25.50	$30.00	$34.50	$41.70	$47.70	$53.70

(a) Intensity in db relative to 2×10^{-4} dyne/cm² measured 4 ft. from mouth of horn, with "Full Range" input. Reduce by 6 db each time distance is doubled, by 3 db each time input is halved.



UT-8T

Where only the best will do. No better music or speech reproduction can be obtained from **any** speaker at **any** price. Components include a compression-type horn-loaded tweeter and mid-range speaker with fully reflexed 13" sound path and a high compliance 8" speaker for low frequencies. The separate coaxial tweeter unit is actually a complete mid-range and high frequency reflex trumpet and renders unusual intelligibility, penetration and quality on public address applications.

®Registered Trademark

Prices 2% higher in eleven Western States

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PT SERIES / WEATHER-PROOF HI-FIDELITY PATIO AND EXTENSION SPEAKERS

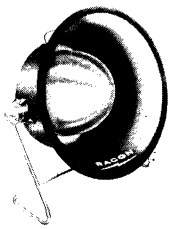
Exclusive RACON Features

• Fully-adjustable patio stand • Fideliflare® trumpet design • Carrying handle • Built-in Terminal Block

RACON Patio Speakers bring true Hi-Fidelity to the mass market. Each speaker in the PT Series is a complete system. There is no furniture to build or buy; no rearrangement of present room or garden decor is required. Speakers are attractively designed and painted in beautiful gold to match any color scheme. Fully-adjustable stand permits placement anywhere . . . on floor, table, or wall. Horn loaded bass reflex woofer combines with various tweeters give body to the low notes and brilliance to the highs. Result — a real "you are there" feeling.

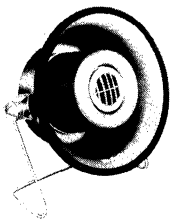
And—RACON Patio Speakers are perfect for outdoor stereo, a real listening thrill!

Weatherproof construction and Plexiglas-shielded built-in terminal block permit these speakers to be connected in seconds, left outdoors even for years.



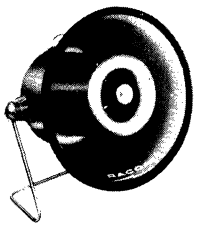
PT-6C

Low in cost, high in efficiency and realism. The single wide range speaker has its output enhanced by the combination of horn and housing.



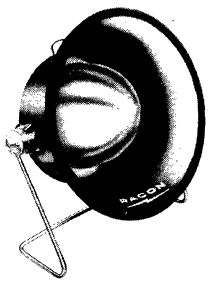
PT-6H

Incorporates two separate coaxial speakers, each with its own magnet structure and voice coil. A woofer handles low and mid-range frequencies, a 3½" tweeter produces the highs with remarkable clarity. Full-range reproduction.



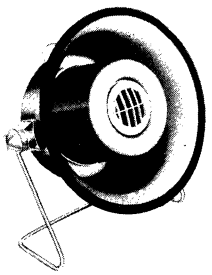
PT-6T

Coaxial combination of woofer and horn-loaded compression-type tweeter. Deep powerful lows, brilliant "concert-quality" high and mid-range tones.



PT-8C

Deluxe model incorporates an extended range high fidelity 8" cone type speaker and RACON's exclusive Fideliflare® horn-housing. The PT-8C will bring unbelievable quality to even mediocre associated equipment.

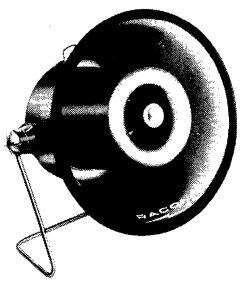


PT-8H

An 8" woofer handles low frequencies down to 60 cycles while a completely separate cone tweeter faithfully reproduces all high frequencies. Reproduction equals in quality that from speakers costing many times more.

MODEL	PT-6C	PT-6H	PT-6T	PT-8C	PT-8H	PT-8T
POWER, FULL RANGE	15 watts	15 watts	15 watts	30 watts	30 watts	30 watts
FREQUENCY RESPONSE	95 to 8000 cps	95 to 11,000 cps	95 to 15,000 cps	60 to 8000 cps	60 to 11,000 cps	60 to 15,000 cps
IMPEDANCE, VOICE COIL	8Ω	8Ω	8Ω	8Ω	8Ω	8Ω
DISPERSION AVERAGE	120°	120°	120°	120°	120°	120°
SOUND LEVEL (a)	118 db	118 db	118 db	120 db	120 db	120 db
LENGTH, OVERALL	8¼"	10¾"	10¾"	10½"	12¾"	12¾"
DIAMETER	16"	16"	16"	21½"	21½"	21½"
SHIPPING WEIGHT	14 lbs.	15 lbs.	16 lbs.	18 lbs.	19½ lbs.	21 lbs.
LIST PRICE	$42.50	$50.00	$57.50	$69.50	$79.50	$89.50
NET PRICE	$25.50	$30.00	$34.50	$41.70	$47.70	$53.70

(a) Intensity in db relative to 2×10^{-4} dyne/cm² measured 4 ft. from mouth of horn, with "Full Range" input. Reduce by 6 db each time distance is doubled, by 3 db each time input is halved.



PT-8T

Where only the best will do. No better music or speech reproduction can be obtained from any speaker at any price. Compression-type horn-loaded tweeter and mid-range speaker with fully reflexed 13" sound path as well as a high compliance 8" woofer for low frequencies.

A COMPLETE LINE OF 9 DRIVER UNITS AND 8 RE-ENTRANT HORNS IS AVAILABLE, ALTHOUGH PHOTOGRAPHS WERE NOT PREPARED FOR PUBLICATION.

®*Registered Trademark*

Prices 2% higher in eleven Western States

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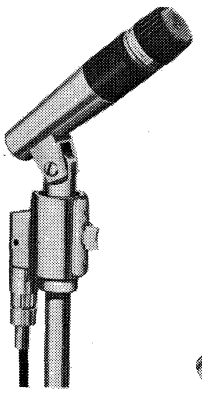
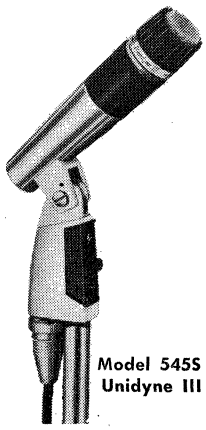
SHURE NEW MICROPHONES



Model 546
Broadcast
Unidyne III



Model 545S
Unidyne III

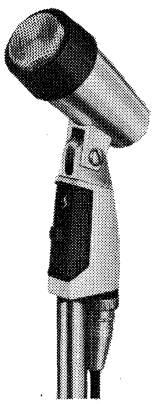
BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weighs only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only $1\frac{15}{64}$" diam., $5\frac{7}{16}$" long. 50-15,000 cps frequency response.

SWITCH VERSION OF UNIDYNE III

MODEL 545S. Same basic specifications as Unidyne III (see page 157) but equipped with reliable on-off switch. Increases the versatility. Improved swivel same as model 546 (above). With 18 ft. 3-conductor shielded cable; equivalent of Amphenol MC4M plug.

MODEL	IMPEDANCE TABLE	OUTPUT LEVEL	LIST PRICE
546	30-100 ohms 100-250 ohms	55db below 1 milliwatt per 10 microbars	$135.00
545S	L-50-250 ohms	57db below 1 milliwatt per 10 microbars	$89.95
	H-High	55db below 1 volt per microbar	



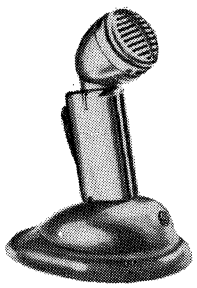
Model 540S

SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features **adjustable frequency response** which allows the user to tailor the microphone to the application—One of the most versatile microphones on the market! High output Dynamic element. Omni-directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL	LIST PRICE
L-50-250 ohm	57db below 1 milliwatt per microbar	$49.95
H-High	52.5db below 1 volt per microbar	

FOR AMATEUR RADIO



MODEL 440 SL

Response characteristic tailored to meet the demands of radio communications. Ideally suited for single-sideband. Rising response characteristic with sharp cutoff below 300 and above 300 cps. eliminates the need for audio filters. Rugged, time-proven controlled magnetic element, with high output equalling that of a crystal unit. Ideal for use with all types of amateur transmitters. Frequency response: 300 to 3000 cps. High impedance, output level 52.5 db below 1 volt per microbar. 7 ft. 2-conductor shielded cable with equivalent to Amphenol MC3M plug, switch and desk stand.

MODEL 440 SL .....LIST PRICE: **$47.50**

MODEL 440

Basic microphone same as above but with 7 ft. single conductor shielded cable. Less switch, stand, connector. Use with S34B or S36A stand.

MODEL 440 .....LIST PRICE: **$25.00**

A87K MODIFICATION KIT. Modifies 440 SL to obtain maximum flexibility between either VOX or push-to-talk operation. List: **$3.25.**

NEW SWITCH VERSIONS OF SHURE MICROPHONES

For greater versatility, Shure has now added reliable On-Off switches to several of their most popular microphones at approximately $2.00 more than the regular price of the microphone. Among these are the UNIDYNE model 55 SW, Bi-Directional Gradient model 315S, and Sonodyne model 51S. These units are described fully in the following 7 pages.

NEW MATCHED STEREO MICROPHONES

Many Shure microphones are now available in matched sets for stereo recording at NO ADDITIONAL COST. Matched or plus or minus 1 db in level and 1½ db in frequency response. You may order these matched sets from among the following Shure microphones: Models 330 and 333 Uni-Rons; Models 525, 530, 535 Slendynes; 300, 315, 315S Gradients; 545, 545S, 546 Unidyne III's; 55S, 55SW, and 556S Unidynes.

See Pages 220-223 for additional Shure Products.

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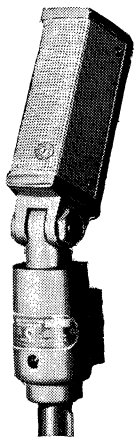
SHURE STUDIO MICROPHONES

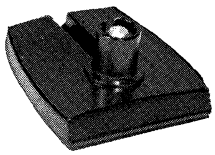
UNI-DIRECTIONAL RIBBON MICROPHONE



Model "333"
Studio Uni-Ron

Here is the dependable "333," a truly fine and rugged microphone created for discriminating users with the most exacting professional requirements. Here, indeed, is a major advance in microphone development and design! This small, ultra-cardioid "333" is highly recommended for motion-picture studios, TV studios, radio stations, professional recording, and all other uses where quality requirements are of the highest. Here is performance never before achieved in such a small and slender microphone! Here is ruggedness and reliability! Here is matchless beauty and striking design to appeal to users who demand the finest! The "333" is ultra-cardioid, uni-directional—reduces the pickup of random noise energy by 73%——prevents the pickup of moving props, scuffling feet and moving "dollies," so common when conventional broadcast microphones are used. Following are the features that make the "333" Studio so outstanding in performance, so dependable in operation: (1) patented, world-famous "Uniphase" system; (2) a true ultra-cardioid pickup pattern; (3) horn-loaded ribbon transducer provides extended smooth response, production uniformity guaranteed to plus or minus 2½ db, 30-15,000 c.p.s.; (4) multi-impedance switch; (5) voice-music switch; (6) anti-"Pff" filter screen; (7) Shure self-adjusting "lifetime" swivel; (8) high output; (9) sturdy, one-piece metal case; (10) vibration-isolation unit mounted in live rubber; (11) Cannon XL connector. All these important features, plus the striking design of the Studio "333," make it ideal for critical studio applications that call for the highest possible broadcast quality, small size and matchless beauty——plus the ability to withstand the rough work-a-day handling by the sound crew. The "333" has two-tone "Baked Bronze" non-reflecting finish. Head dimensions: Width, 1 1/8"; height, 3 9/16"; depth, 1 3/4".

IMPEDANCE TABLE	OUTPUT LEVEL
Low—50 ohms	60 db below 1 Milliwatt per 10 microbar signal
Medium—150 ohms	59 db below 1 Milliwatt per 10 microbar signal
High-Medium—250 ohms	



Model S33
Broadcast
Desk Stand
For use with Models 300, 333, 525, 535 and 556S
List Price $15.00

MODEL	LIST PRICE
"333"	$250.00

OMNI-DIRECTIONAL DYNAMIC MICROPHONE

Model "525"
Studio Slendyne

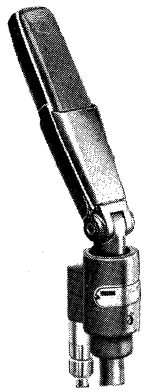
The new Studio "525" is an exceptionally fine probe microphone of broadcast quality. It features: (1) frequency response 40-15,000 c.p.s., production uniformity guaranteed to plus or minus 2½ db; (2) a moving-coil mounted in a highly efficient magnetic structure; "Alnico V" magnet; (3) multi-impedance switch; (4) high output; (5) long life "Duracoustic" diaphragm——specially designed to withstand moisture, heat, cold and physical shock. The "525" is furnished with a 20 ft., two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached; swivel adapter; adjustable lavalier assembly (cord and clip), and a belt clip assembly. The "525" Studio has a non-reflecting "Baked Bronze" finish——which makes it blend into the background, giving the spotlight to the performer. Body diameter, 1"; length, 8 17/32".

IMPEDANCE TABLE	OUTPUT LEVEL
50 ohms 150 ohms 250 ohms	61 db below 1 Milliwatt per 10 microbar signal

Model S33
Broadcast
Desk Stand
List Price: $15.00

MODEL	LIST PRICE
"525"	$200.00

BI-DIRECTIONAL GRADIENT[1] MICROPHONE



Model "300"
Studio Gradient[1]

This rugged, high fidelity, multi-impedance microphone is widely used for television, radio broadcasting, professional recording and high-fidelity uses. The "300" reduces reverberation and the pickup of random noise by 66%. The "300" combines the best features of conventional velocity microphones with advanced acoustic design—including an anti-"PFF" filter screen. Its bi-directional polar pattern is effective over a broad frequency range. It provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. One of the outstanding features of the "300" is the fact that the microphone can be placed at a 73% greater distance from the performer than is possible with omni-directional microphones! The "300" has a non-reflecting "Baked Bronze" finish, so it blends into the background, gives the spotlight to the performer. The "300" has a readily accessible Voice-Music switch, vibration-isolation unit mounted in live rubber, and a multi-impedance switch, providing low medium and high impedance. Extended response, production uniformity guaranteed to plus or minus 2½ db, 40-15,000 c.p.s. Furnished with a 20-foot two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

Model S33
Broadcast
Desk Stand
List Price: $15.00

MODEL	LIST PRICE
"300"	$150.00

See Pages 220-223 for additional Shure Products.

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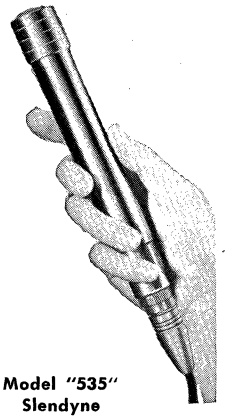
SHURE GENERAL PURPOSE MICROPHONES

OMNI-DIRECTIONAL DYNAMIC MICROPHONES



Model "535" Slendyne

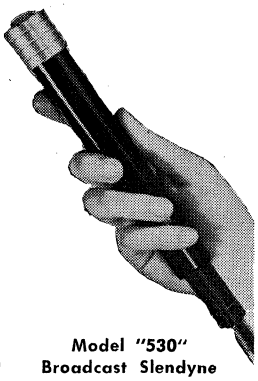
The versatile Slendyne 535 is a moving-coil dynamic microphone built to provide wide range reproduction of music and voice. Actually five microphones in one . . . can be used for indoor or outdoor applications: (1) in the hand, (2) on a floor stand, (3) on a desk stand, (4) hung around the neck on a lavalier cord. Add to this an on-off switch adapter and dual-impedance switch and you have the most completely versatile fine quality probe ever developed. Frequency response is 60 to 13,500 c.p.s. Ideal for high quality public address, theater-type sound systems, and all recording applications where an omni-directional microphone is desired. Ruggedly built to withstand hard usage. Unaffected by temperature and humidity variations. The 18-foot, high quality, shielded, two-conductor cable is supplied with a microphone plug equivalent to the Amphenol 91-MC3M plug. Finished in rich satin chrome. A self-adjusting swivel adapter is supplied with the microphone, and permits it to be tilted from 90° from vertical to horizontal, making it possible to tilt the microphone at the source of sound. Also includes on-off switch adapter.

The Model 530 Slendyne is the deluxe broadcast Slendyne, finished in an attractive black and gold anodized finish. It has a frequency range of 50 to 15,000 c.p.s., and is furnished with a 20-foot, high quality, two-conductor shielded cable with a Cannon XL-3-11 cable connector. Furnished with swivel adaptor, deluxe lavalier cord and belt clip, on-off switch adaptor.

LAVALIER ASSEMBLY Model A28L for use with Slendyne model 535.
MODEL A28L ..... LIST PRICE $4.50

MODEL	IMPEDANCE TABLE	OUTPUT LEVEL
"535"	L—50-250 ohms	61 db below 1 Milliwatt per 10 microbar signal
	H—High	61 db below 1 volt per microbar
"530"	L—50-250 ohms	61 db below 1 Milliwatt per 10 microbar signal
	H—High	61 db below 1 volt per microbar

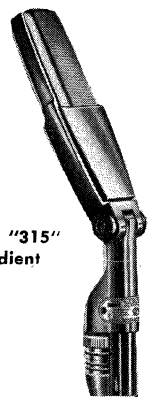
MODEL	LIST PRICE
"535"	$72.50
"530"	$110.00



Model "530" Broadcast Slendyne

BI-DIRECTIONAL GRADIENT' MICROPHONE

This rugged high fidelity multi-impedance microphone features a frequency response of 50 to 12,000 cps — will reproduce voice and music in a clear, natural tonal quality, which makes it ideal for use in auditoriums, night clubs, schools and churches. Provides unusual freedom of motion on the platform — making it possible for the user to stand at a 73% greater distance from the microphone than with omni-directional microphones. Bi-directional "Fig. 8" pickup pattern extends over a broad frequency range — and it permits the sound system to be operated at a level almost 6 db higher than is possible with non-directional (omni-directional) microphones! Picks up voices and music from front to back — is "dead" at the sides, reduces reverberation and the pickup of random noises by 66%. It is "PFF"-proof — filters out the "PFF"-type noises often heard over conventional microphones. Dimensions: height 6"; width 1 7/16"; depth 1 3/32". The "315" is furnished with an 18-foot, high quality, two conductor, shielded cable, supplied with the equivalent of the Amphenol 91-MC3M plug. Model "315S" is same as model "315" but it has On-Off switch.



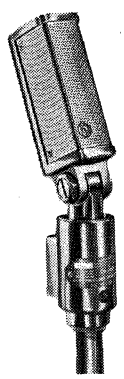
Model "315" Gradient

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

MODEL	LIST PRICE
"315"	$89.50
"315S"	$91.50

UNI-DIRECTIONAL RIBBON MICROPHONE

Similar to "333" studio microphones, the 330 "UNI-RON" Microphone has been designed to meet the exacting requirements of professional tape recording and highest quality indoor public-address systems where highest quality is essential, yet cost is a factor. Supercardioid pickup pattern reduces pickup of undesired random noise energy by 73%! Smooth, peak-free response from 30 to 15,000 cps. The Professional "Uni-Ron" is equipped with multi-impedance (50, 150 and 250 ohms) switch, life-time swivel, and special vibration-isolation shock mount, as well as Cannon XL-3-11 cable connector and 20 ft. 2-conductor shielded broadcast-type cable. Finished in beautiful satin-chrome with natural anodized aluminum grille.



Model "330" "Professional Uni-Ron"

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 ohms	59 db below 1 milliwatt per 10 microbars
M — 150 ohms	57 db below 1 milliwatt per 10 microbars
H — 250 ohms	58 db below 1 milliwatt per 10 microbars

MODEL	List Price
"330"	$120.00

See Pages 220-223 for additional Shure Products.

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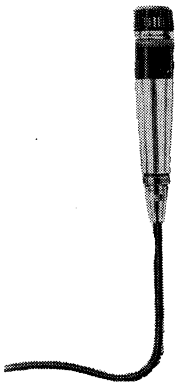
SHURE GENERAL PURPOSE MICROPHONES



Model "545"
Unidyne III

The Shure Model *545* "Unidyne III" is a new addition to the famed family of Unidyne microphones. This striking-looking, compact, slender, uni-directional, moving-coil microphone features wide-range reproduction of voice and music and flexibility of uses as a hand or stand microphone. The *545* is ideal for installations where it is desired to keep microphone size and weight to a minimum and still retain maximum operating efficiency. Recommended for dependable use in fine quality P.A. systems, tape recording, fixed-station communications, etc. Provides highly satisfactory operation under adverse acoustic conditions — reduces or eliminates problems due to feedback and background noise pickup. Permits placement at a distance from the performer 75% greater than possible with omni-directional microphones. The *545* "Unidyne III" is rugged — will operate for years without deviation from its original standards.

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: 5/8" — 27 thread. DIMENSIONS: Length — 5 7/16", Diam. — 1 15/64". NET WEIGHT: 6/10 lb., Shipping Weight 2 7/8 lbs. FURNISHED ACCESSORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stands.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50-250 ohms	LOW: —57 db. (Odb = 1 milliwatt per 10 microbars)
H — High	HIGH: —55 db. (Odb = 1 volt per microbar

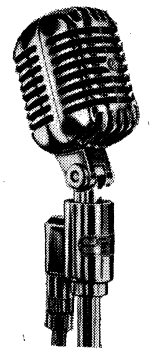
MODEL	LIST PRICE
545	$85.00

Model "55S"
Unidyne

UNI-DIRECTIONAL DYNAMIC MICROPHONES

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model *55S* is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model *55SW* is same as Model *55S* except it has On-Off switch.

Model *556S* is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the *556S* is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the *55S* and the *556S* feature the world-renowned patented "Uniphase" network system.



Model "556S"
Broadcast

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	54 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	55 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

MODEL	LIST PRICE
556S	$135.00
55S	$ 83.00
55SW	$ 85.00

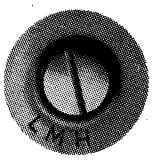
MULTI-IMPEDANCE HIGH OUTPUT DYNAMIC

The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance, — for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has On-Off switch.

Model "51" List Price $49.50
Model "51S" List Price $51.50

Model "51"
"Sonodyne"

Multi-Impedance Switch on Models "55S", "55SW", "556S", "51", "51S", "300", "315", "315S"



IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	53.0 db below 1 Milliwatt for 10 microbar signal
M—150-250 ohms	52.5 db below 1 Milliwatt for 10 microbar signal
H—High	52.0 db below 1 volt per microbar

See Pages 220-223 for additional Shure Products.

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SHURE GENERAL PURPOSE MICROPHONES

"COMMANDO" ALL-PURPOSE MICROPHONES

The new Commando series represents a significant achievement in providing quality performance at nominal cost. These dramatic looking, rugged microphones can be used indoors or outdoors. Models 415 and 430 provide practical versatility of operation. They can be held in the hand, set on a floor stand or on a desk stand — can be inserted or withdrawn from the stand in a second, without the use of any tools. Model 420 is of more compact design and is intended primarily for use as a lavalier microphone. It is readily detachable from its lavalier clip for use as a hand held unit. Coupled with this versatility of usage, the Commandos are ideal for general-purpose applications where both voice and music reproduction are of critical importance. Commandos can be used for tape recording in the home; theater-restaurant public address systems; lecturing; paging and dispatching systems; interview-type shows; outdoor public address systems for carnivals, picnic and special events.

All three units are ruggedly constructed of attractive, non-reflecting gray, impact resistant polystyrene. The lower part of Models 415 and 430 are of die cast zinc with a satin chrome finish.

The Commandos are omni-directional units with a frequency response of 60-10,000 cps. They are controlled magnetic units and are unaffected by extremes of temperature and humidity. Models 420 and 430 are equipped with readily changeable pin jacks for a choice of two impedances (L — 150 to 250 ohms and H — High), without soldering.

Model 430 in the Hand

Model 430 on Floor Stand

Model 430 includes on-off switch, dual-impedance feature and Amphenol MC2M cable conductor. Furnished with 15 Ft. of 2-conductor shielded cable, black Model A25-type swivel adapter and switch locking plate for keeping switch in "on" position. List Price: **$38.50**

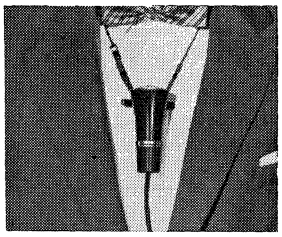
Model 420 includes dual impedance feature and A34L lavalier cord and clip assembly. Furnished with 20 ft. of non-detachable 2-conductor shielded cable. List Price: **$30.00**

Model 415 includes black Model A25-type swivel adapter and 7 ft. of non-detachable single-conductor shielded cable. High impedance only. List Price: **$27.50**

S38B Desk Stand for use with Models 415 and 430. List Price: **$4.50**

A34L Lavalier for use with Models 415, 420, 430. List Price: **$3.50**

IMPEDANCE	OUTPUT LEVEL
150-250	—54 db below 1 volt per microbar
HIGH	—55 db below 1 milliwatt per 10 microbars

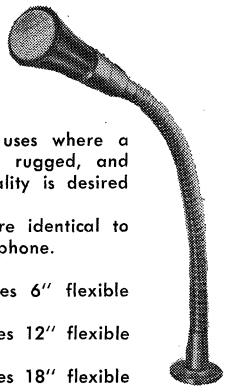


Lavalier Model 420

Model 430 on S38 Desk Stand

Model 415 in the Hand

425 SERIES "COMMANDO"



Model 425 Flexible Gooseneck Mounting

Designed for faithful voice and music reproduction. Ideal for recording on tape, wire or disc, fixed or mobile public address systems, *language laboratory systems,* intercommunications systems, amateur communications and similar uses where a flexible arm is required. The 425 is rugged, and recommended for use where high quality is desired at low cost.

Electrical specifications for the 425 are identical to those for the 420 "Commando" microphone.

LIST PRICE: Model 425 — $30.00

Model 425-G6 — $33.00. Includes 6" flexible gooseneck and mounting flange.

Model 425-G12 — $33.75. Includes 12" flexible gooseneck and mounting flange.

Model 425-G18 — $35.00. Includes 18" flexible gooseneck and mounting flange.

CASE: Impact resistant polystyrene — brass.

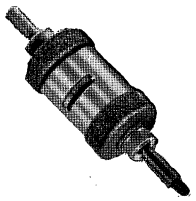
FINISH: Bright Chrome and non-reflecting gray.

CABLE: 7 ft., 2-conductor, non-detachable, shielded.

DIMENSIONS: Length $3\frac{11}{16}$", diameter $1\frac{3}{4}$".

OPTIONAL ACCESSORIES: Model A86A Cable Type Transformer.
Model A25 Swivel Adapter.

CABLE TYPE TRANSFORMER



Model A86A

Model A86A is a high-quality, cable-type transformer which makes it convenient to run a long microphone line from a low impedance microphone to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case. Connection terminals are easily accessible, and compression fittings crimp the microphone and amplifier inputs. The A86A matches 35-50 ohm and 150-250 ohm microphones to high impedance amplifier inputs. This type of system usually solves the problem of excessive high frequency loss and objectionable hum pickup when long lengths of microphone cable are necessary. The A86A offers additional versatility when used in conjunction with Shure Models 51, 51S, 55S, 55SW, 556S, 300, 315, 315S, 330, 333, 525, 530, 535, 540S, 545, 545S and 546 Dynamic and Ribbon Microphones. And in addition to these the Model A86A may be used in specialized applications which require high impedance to low impedance circuit connections. The transformer is finished in an attractive two-tone gray and is furnished with a 2-foot cable. Frequency response: 20 to 20,000 c.p.s., plus or minus 1 db.

Model —A86A List Price: **$17.50**

See Pages 220-223 for additional Shure Products.

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SHURE CRYSTAL MICROPHONES

THE VERSATILE "SLIM-X" ALL-PURPOSE MICROPHONE

FOR:

- **Low Cost P. A. Systems**
- **Home Recording**
- **Hams**
- **General Purpose**

In Cradle On S38 Desk Stand

On S38 Desk Stand (With A25 Swivel)

In Cradle On Floor Stand

In the Hand

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces! They are designed for good-quality voice and music reproduction. Their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; panel and quiz shows; and use with home-recorders. When mounted on either cradle or swivel, the "777" can be removed in a flash (no tools necessary)—simply by lifting it out of the holder. This makes it an ideal "walk-around" hand-held microphone.

TECHNICAL INFORMATION: Smooth frequency response—60 to 10,000 c.p.s.; Moisture-proof "Metal Seal" crystal for long operating life; high impedance; 7 ft. single-conductor cable, disconnect type. Dimensions: (Microphone only) Length, 4½"; Diameter, 1". Finish: Rich satin chrome overall.

Note: All Models are furnished with Lavalier Cord, for suspension of microphone around neck.

"SLIM-X" ASSEMBLIES

MODEL 777A includes 777 Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord.
Model: 777A List Price: **$33.00**

MODEL 777SA includes 777S Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord.
Model: 777SA List Price: **$35.00**

ACCESSORIES FOR "777"

MODEL S-38 STAND is a heavy die-cast base. Includes metal screw machine stud for connecting microphone adaptor to stand base.
Model: S-38 List Price: **$4.50**

MODEL A-25 SWIVEL ADAPTOR features a long-life, high-quality swivel connector. Is lined with a long-life nylon sleeve—for noise-free and scratch-free insertion and removal of microphone.
Model: A-25 List Price: **$5.50**

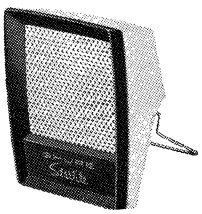
Model	Output	List Price
777*	62 db below 1 volt per microbar	$25.00
777A		$33.00
777S* With Switch		$27.00
777SA With Switch		$35.00

*(Price includes cradle for mounting on stand.)

"MONOPLEX"

The only Super-Cardioid Crystal Microphone made—far superior to conventional Crystal Microphones! Excellent for high-quality public address, communications, recording, and similar applications. The 737A operates under adverse conditions of background noise and reverberation—where a conventional microphone would be practically useless! Reduces pickup of random sound by 73%! Moisture-proof "Metal Seal" crystal for long operating life. Case pivots at rear, can be pointed toward desired sound or upwards for horizontal plane pickup. Has 15 ft. shielded cable. Rich satin chrome finish. High impedance.

MODEL	OUTPUT	LIST PRICE
737A	53 db below 1 volt per microbar	$46.00



Model 215 and 715

"STARLITE"

Beautifully designed. Excellent for voice and music. Extremely low price and good quality make them a "natural" for home recording, intercom systems and inexpensive P.A. systems. Can be held in the hand, or used on a desk by simply releasing a built-in retractable stand. Semi-directional, high impedance; impact resistant polystyrene cases.

Model 215, *a ceramic unit,* has a response from 50-8000 cps; Model 715, *a crystal unit,* has a response range from 50-10,000 cps. Both supplied with 5 ft. fabric covered single conductor shielded cable.

MODEL	OUTPUT	LIST PRICE
215 Ceramic	56.5 db below 1 volt per microbar	$8.00
715 Crystal	50 db below 1 volt per microbar	$8.00

Model 710A and 710S

THE "REX"

Model 707A

A natural for "Hams" and low-cost public address system. A rugged unit designed for high speech intelligibility. Broad "tip-proof" table top base, with floor stand adapter. Die cast case. Frequency response 60 to 9,000 c.p.s. 5 ft. shielded cable. Burgundy-red metallic finish. Only 2⅔" wide, 3¼" high, 1⅛" thick. High impedance.

MODEL	OUTPUT	LIST PRICE
710A	50 db below 1 volt per microbar	$12.00
710S (with switch)	50 db below 1 volt per microbar	$14.00

MODEL 707A

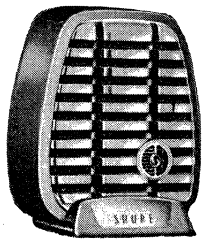
Ideal for low-cost P.A. systems, amateur 'phone transmitters and similar applications. Good quality at low cost. Has typical semi-directional pickup. 7 ft. shielded cable. High impedance. Pearl Gray case, satin chrome finish on front grille. Diam. 2⅜". (Use with Shure Model S34B or S36A Desk Stands.)

MODEL	OUTPUT	LIST PRICE
707A	50 db below 1 volt per microbar	$19.50

See Pages 220-223 for additional Shure Products.

SHURE CONTROLLED MAGNETIC MICROPHONES

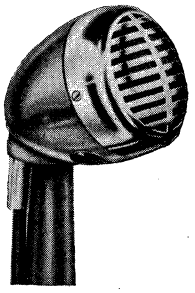
THE "HERCULES"



The "Hercules" is a hand-held unit, ideal for general purpose use in tropical countries and in all coastal areas where heat and humidity are a problem. The "510" provides the ruggedness, clear reproduction and high output for public address, communications and recording where high speech intelligibility is vital. It is recommended for Announcing; Mobile Public Address Systems; Communications; Home Recording, and High Quality Intercommunication. The Hercules can be used either Indoors or Outdoors, fits snugly in the hand, sits firmly on a desk. High impedance. Frequency response 100 to 7000 c.p.s. Furnished with 7 ft. shielded cable. Green metallic finish. Diecast case. Furnished with stand adapter. Dimensions: 2 2/3" wide, 3 1/4" high, 1 1/2" thick. Model 510 Series designed to be used with S34B or S36A Desk Stands. (See page D-7)

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
510C	52.5 db below 1 volt per microbar	HIGH	$17.00
510S (with switch)	52.5 db below 1 volt per microbar	HIGH	$19.00

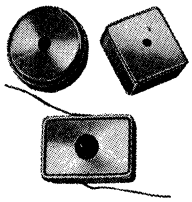
THE "GREEN BULLET"



Designed to provide quality music and speech reproduction at moderate cost. Rugged! Practically immune to the effects of high temperatures and humidity. Features: high output, good response, high impedance without the need of a transformer. Modern metallic green finish with plated grille. Frequency response is 100 to 7000 c.p.s. Furnished with 7 ft. single-conductor shielded cable. High Impedance. Use with Shure Model S34B or S36A Desk Stands.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	52.5 db below 1 volt per microbar	HIGH	$22.50
520B	51 db below 1 milliwatt per 10 microbars	150-250 ohms	$22.50

MINIATURE MICROPHONES



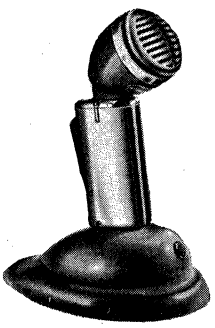
Small microphones specially designed for use in vacuum-tube devices such as small, compact amplifiers, transmitters, dictating equipment—wherever size and weight are important factors. They also are highly recommended for use in small transistor-type devices. They are immune to varying conditions of heat and humidity.

Model MC11
(Circular)
Impedance: 1,000 ohms
Frequency Response: 400 to 3,000 cps
Output Level: —75 db (0 db - 1 volt per microbar)
Dimensions: Dia. 1 1/64", thickness 25/64"
List Price: $12.50

Model MC20
(Rectanglar)
Impedance: 1,100 ohms
Frequency Response: 400 to 4,500 cps
Output Level: —75 db (0 db - 1 volt per microbar)
Dimensions: width 10/16", thickness 5/16", length 15/16"
List Price: $14.00

Model MC30
(Rectangular)
Impedance: 1,850 ohms
Frequency Response: 400 to 3,500 cps
Output Level: —76 db (0 db - 1 volt per microbar)
Dimensions: width .5", length .5", thickness .265"
List Price: $20.00

THE "DISPATCHER"



MODEL 520SL

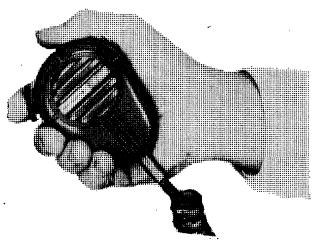
Model 520SL recommended for mobile and fixed station use, also for public address, recording, call systems, radio telephone and amateur use. Model 520SLB recommended where low impedance microphones are used in parallel, balanced-line operation and where long cable lengths are required, or under conditions of severe hum disturbances.

MODEL 520SL equipped with grip-to-talk switch DPST—normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug. MODEL 520SLB has grip-to-talk switch DPST—normally open-normally open, 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520 SL	52.5 db below 1 volt per microbar	High	$45.00
520 SLB	51.0 db below 1 millivolt per 10 microbars	150-250 Ohms	$49.25

THE "TEN-FOUR" WITH HIGH IMPACT "ARMO-DUR" CASE

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE LENGTH, TYPE DESCRIPTION	SWITCH (NORMALLY) MIC CIRC.	SWITCH (NORMALLY) RELAY CIRC.	LIST PRICE
404 B	50 db below 1 milliwatt per 10 microbars	150-250 Ohms	5½ ft. Coiled cord, Copper, 4 conductor (2 shielded)	CLOSED*	OPEN	$33.00
405 B			5 ft. Straight cord, Copper, 4 conductor (2 shielded)	CLOSED	OPEN	$32.00
405 KB			5½ ft. Coiled cord, Tinsel, 3 conductor (1 shielded) Amphenol MC4M plug	OPEN	OPEN	$37.50
404 C	50.5 db below 1 volt per microbar		5½ ft. Coiled cord, Copper, 3 conductor (1 shielded)	CLOSED*	OPEN	$33.00
405 C			5 ft. Straight cord, Copper, 3 conductor (1 shielded)	CLOSED	OPEN	$32.00
405 K **			5½ ft. Coiled cord, Tinsel, 3 conductor (1 shielded) Amphenol MC4M plug	OPEN	OPEN	$37.50



The Shure Controlled Magnetic "Ten-Four" is recommended for those applications where a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "Ten-Four" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Leaf-type switches control the mic. circuit and an external relay or switching circuit. Omni-directional. Freq. response 200 to 8000 cps. Only 3 1/16" high, 2 5/8" wide, 1 49/64" deep. Includes mounting bracket.

* Provision for simple change to normally open.
** Replacement for General Electric EM10A.

See Pages 220-223 for additional Shure Products.

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SHURE COMMUNICATIONS MICROPHONES

MODEL "100" SERIES CARBON MICROPHONES

Used around the world for police, taxi, bus, truck, and commercial applications — *more than all other makes combined!* Rugged unit with clear, crisp voice response and high output. Heavy duty switch for push-to-talk performance. Furnished with bracket for wall mounting, plus coiled-cord cable. Adopted as standard microphone by G.E., Link, Motorola, R.C.A. and others for 2-way radio communications equipment. Output level: 5db below 1 volt for 100 microbar speech signal.

REPLACEMENT CHART

MANUFACTURERS MODELS	REPLACEMENT MODEL
CB10, CB10B, CB10C, CB10D, CB15, CB15D,	**101C**
CB10E	**101E**
CB12, CB12A, CB12C, CB12D	**102C**
CB12E	**102E**
CB15F	**103**

Model	Cable	Switch Arrangement	List Price
101C	Standard Coiled Cord 11" retracted; 5' extended	Two Wire Relay Switch normally open. (No microphone switch)	**$30.00**
101E	Tinsel Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector		**$33.00**
102C	Standard Coiled Cord 11" retracted; 5' extended	Relay normally open. Microphone switch normally open.	**$30.00**
102E	Tinsel Coiled Cord 11" retracted; 5' extended with spade lugs		**$33.00**
103	Standard Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector	Two Wire Relay Switch normally open. (No microphone switch)	**$31.00**

"TEN-FOUR" TRANSISTOR-AMPLIFIER FOR CARBON MICROPHONE REPLACEMENT

Model 405T is the perfect improvement-replacement for carbon microphones. A self-contained transistor amplifier, powered by the carbon microphone circuit, does not require an additional power source. Provides unusual speech clarity and freedom from ageing under severe vibration conditions. Same size and appearance as "100" series microphones. Output level 1 db below 1 millivolt per 100 microbars.

Model 405T — List Price $48.50

MICROPHONE REPLACEMENT CARTRIDGES

CARBON REPLACEMENT CARTRIDGE—MODEL R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Includes mounting hardware, installation instructions. **Model R10** **List Price $8.50**

Model 99A149 replacement cartridge for microphone models: CB20, CB21, CB50 and 115. **Model 99A149** **List Price $8.50**

CRYSTAL CARTRIDGE — MODEL R7

Available as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output — 48 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.
Model R7 **List Price $8.25**

SLIM-X MICROPHONE CARTRIDGE

The Model 99A186 replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection. **Model 99A186** **List Price $10.00**

CONTROLLED MAGNETIC CARTRIDGE — MODEL R5

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 404C, 405C and 405K. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.
Model R5 **List Price $11.00**

LOW IMPEDANCE CARTRIDGE — MODEL R5B

Model R5B is the replacement cartridge for cartridges used in microphone models 505B, 505T, 404B, 405B, 405T, 510SLB, 520SLB, and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.
Model R5B **List Price $11.00**

MODEL R4M FOR SHURE "COMMANDOS"

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the models 430, 425, 420 and 415 Shure "Commando" microphones. **Model R4M** **List Price $15.00**

MODEL R5T CONVERSION KIT

Includes a controlled magnetic cartridge and transistor amplifier to convert carbon microphones into improved controlled magnetic transistorized microphones. Conversion takes only minutes with a screwdriver, long-nose plier, soldering iron.

SPECIFICATIONS: Controlled magnetic with transistor amplifier. 200 to 4,000 cps, semi-directional. Output Level: 1 db loaded with 500 ohms (0 db — 1 milliwatt per 100 microbars). **List Price: $25.00.**

SWITCHES AND ACCESSORIES

COILED CORD SETS

Tinsel Coiled Cord with trimmed and tinned leads and Amphenol MC4M connector attached (3 conductor shielded) for use with General Electric EM10A and 505K microphones.
Model: C10C List Price **$12.00**

Tinsel Coiled Cord with Amphenol MC4M plug for use with General Electric EM10A-2 and Shure 405K and 405 KB Microphones.
Model: C11C List Price **$12.00**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404C microphones. **Model: C12C** **List Price $9.75**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404B microphones. **Model: C14C** List Price **$10.00**

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.
Model: C15C List Price: **$6.25**

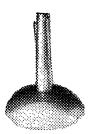
Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment. **Model: C16C** List Price **$9.50**

Tinsel Coiled Cord with spade lugs for use in Motorola equipment. **Model: C17C** List Price **$7.75**

Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment. **Model: C18C** List Price **$9.50**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment. **Model: C19C** List Price **$9.50**

TAKE-APART STAND



Model S34B

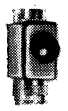
Model S34B. Handy low-cost stand for desk or hand use. One twist of handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base, wood handle.
Model: S34B **List Price: $4.50**

"GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi-Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.

Model: A88A **List Price: $12.50** **Model A88A**

ON-OFF PRESS-TO-TALK SWITCHES



Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone.
Model: A83B List Price: **$11.00**

Model A84B. Momentary Press-to-Talk "On-Off" switch.
Model: A84B List Price: **$11.00**

Model A85C. Momentary Press-to-Talk Relay-Type Switch.
Model: A85C List Price: **$11.50**

MODERN DESK STAND

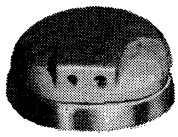
Model S36A

Model S36A. Streamlined Desk Mount fits all Shure connector-type microphones. Adapter provided for mounting other type microphones. Ideal for use with A88A switch.
Model: S36A **List Price: $6.50**

See Pages 220-223 for additional Shure Products.

rye sound / transducers

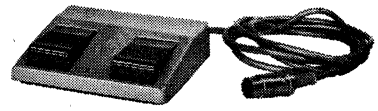
earphones



Superior quality dynamic earphones. Flesh or grey colour (other colours available on special request.) Tailored to fit the application. Standard U. S. Polarized-type cord connection. Impedance from 3.2 to 8000 ohms.

foot switches

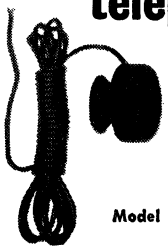
Single Pedal
Double-Action Footswitch



2-Pedal
Footswitch

Designed for applications requiring change of direction or speed, etc. Durable, reliable, efficient.

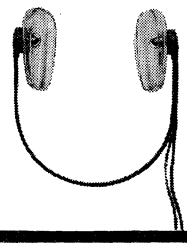
telephone pick-up



Model D-374

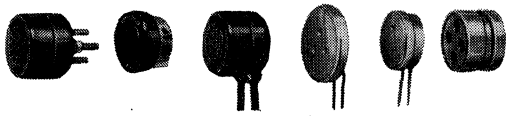
American-made transducer for all audio applications. Highly sensitive hum-free performance. Reproduces both sides of a telephone conversation. Special grip-tight suction cup—no fluid required. Available with various plugs for dictating machines, recorders and audio amplifiers.

stereosound



The ultimate in stereo listening. Provides excellent separation of signal. Complete headset with molded-in earphones, cord and plug assembly for under-the-chin use. Can also be used for monaural listening. Impedances from 15 to 8000 ohms.

microphone insets— general purpose



M1 M2 M3 M4 & 5 M6 2555

Small, lightweight, electro-magnetic, movable iron diaphragm type microphone insets provide excellent speech intelligibility. Impedance characteristics are ideal for use in transistorized amplifiers. Frequency ranges—200 to 3000 c/s.
Typical applications include: recorders and playback systems, dictating machines, walkie-talkies, mobile communications, language labs., aircraft, studio control communication systems. Hardware: boom-mounts, aircrew oxygen mask equipment, respirators, etc.

miniature insets for high speech intelligibility— fully tropicalized

MICROPHONE 13750
can be used in sound fields up to 150 db.
NOISE CANCELLING
Impedance: 300 ohms, (others available).

MICROPHONE 13100
Low Mass, Mask Use
Impedance: 300 ohms, (others available).
When mounted on switch assembly, specify model 13125.

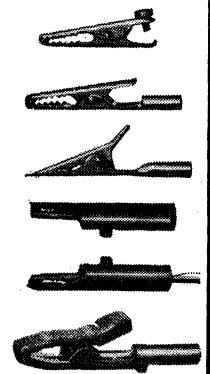
EARPHONE 13150
Mask Use
Impedance: 300 ohms, (others available).
25 milliwatts input produces 124 db sound pressure in a 3cc enclosure and 115 db in 30cc.

light weight headsets for all applications

SPECIAL HEADSETS

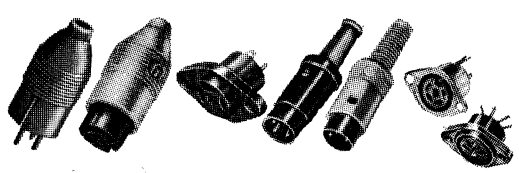
13500 COMMUNICATION HELMET with ear protectors and sound valves for flight deck use.
H-21 AIRCREW HEADSET with magnetic microphone.
L-324 LIGHTWEIGHT HEADSET with noise cancelling microphone, specifically designed for Air Traffic Control use.
L-214 LIGHTWEIGHT HEADSET with carbon microphone.
13600 EAR PROTECTOR HEADSET with liquid-filled ear cushion and differential microphone.
H-23 AIRCREW HEADSET and noise-cancelling microphone with transistor amplifier.
L-12 LIGHTWEIGHT HEADPHONE.
15000 FEATHERWEIGHT HEADPHONES—can be supplied with boom arm and microphone.
15600 NOISE CANCELLING BOOM MICROPHONE and switch for Aircrew Protective Helmets.
2603 LIGHTWEIGHT EAR PROTECTOR HEADPHONES—available with throat microphone.
LIGHTWEIGHT BOOM-ARM MODEL. For language laboratories and other industrial applications.

rye hirschmann · plugs · sockets · terminals

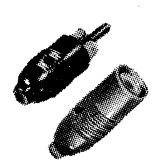


ALLIGATOR CLIPS

6—36 MULTIPLE CONNECTORS

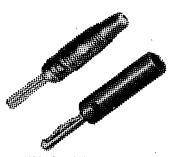


SMALL, MULTI-POLE CONNECTORS

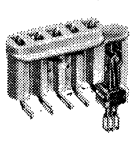


PICK-UP PLUGS AND SOCKETS

THIRD-HAND PROBE CONNECTORS



FULL CONTACT PLUGS



SOCKET WITH SWITCH

BUNCH-PIN PLUGS FLEX-HANDLES

BINDING POSTS & TERMINALS

rye MAMARONECK, N.Y.

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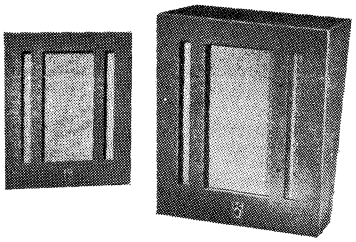
SECTION 1320

STROMBERG-CARLSON®

SOUND EQUIPMENT

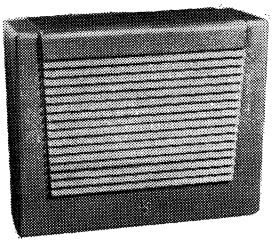
SIGNET SPEAKER HOUSINGS



Models RH-34 and RH-54

Rugged tilt-type wall mounting cabinets in Desert Sand finish. 7½ degree tilt on each side. RH-34 designed for 8" speaker. RH-54 designed for 12" speaker. RH-34 easily converts to two-way use by addition of RA-8 Back Panel

LIST PRICE: RH-34 $12.00
RH-54 $19.50



Model RH-28D

Modern plastic housing for 8" cone speakers. Molded in solid Desert Sand color. Will withstand extreme abuse without breakage. Designed with sloping front and horizontal louvres. Bracket available for wall mounting. **LIST PRICE: $10.00**

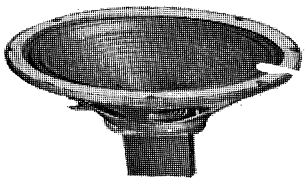
DRIVERS

Model RD-24. INPUT CAPACITY: 25 watts. FREQUENCY RANGE: 85-6,500 cps. VOICE COIL: 16 ohms. **LIST PRICE: $28.50**

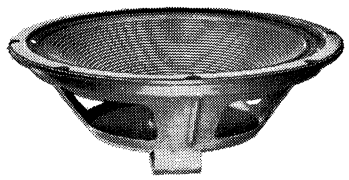
Model RD-21: INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 80-10,000 cps. VOICE COIL: 16 ohms. Built-in transformer. **LIST PRICE: $47.50**

Model RD-23: INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 80-10,000 cps. VOICE COIL: 16 ohms. **LIST PRICE: $36.00**

SIGNET CONE SPEAKERS



MODEL RC-27 8"
PERMANENT MAGNET SPEAKER



MODEL RC-58 12"
PERMANENT MAGNET SPEAKER

Both speakers employ high-efficiency Alnico V magnets, aluminum voice coil forms and one-piece ribbed molded diaphragm cones. **Model RC-27:** FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 10 watts (program); CONE RESONANCE: 105 cps; FLUX DENSITY: 8,000 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 88 db; SIZE: 8⅛"dia., 3½" deep; WEIGHT: 2 lbs. **LIST PRICE: $8.00**

Model RC-58: FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 16 watts (program); CONE RESONANCE: 80 cps; FLUX DENSITY: 8,500 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 85 db; SIZE: 12⅛" dia., 4¾" deep; WEIGHT: 2½ lbs. **LIST PRICE: $14.00**

COMPLETE RE-ENTRANT SPEAKERS

Ideal for paging and intercommunication under adverse weather conditions and in high-noise areas.

Model RPD-14

Re-entrant, with built-in driver. Effective in noisy locations. Suitable also for outdoor installation.

LIST PRICE: $34.50

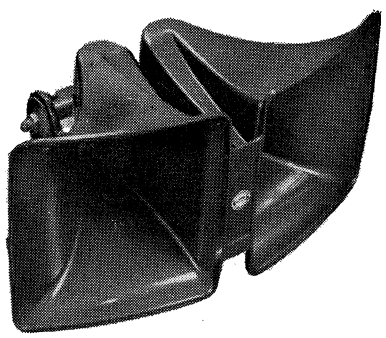
Model RPD-5 & RPD-6

Small re-entrant speakers with built-in driver units. For paging, etc. Ideal for loading platforms and exposed locations.

LIST PRICES: RPD-5 $28.35
RPD-6 $29.66

Model	Size Bell 6"	Air Col. Equiv.	Input Capacity	Voice Coil Impedance	Freq. Distribution Response	Angle	Mounting	Weight	Finish
RPD-5	Length 7"	14"	7½ watts	8 ohms	350-13,000 cps	120°	Ratchet Bracket	3½ lbs.	Gray
RPD-6	Bell 6" Length 7"	14"	7½ watts	45 ohms	350-13,000 cps	120°	Ratchet Bracket	3½ lbs.	Gray
RPD-14	Bell 9" Length 9"	18"	25 watts	8 ohms	250-13,000 cps	90°	Ratchet Bracket	5 lbs.	Glacier Gray

SIGNET RE-ENTRANT HORNS



The Signet Line includes models of various sizes, distribution angles and low-frequency cutoffs.

Model RP-48. 9¼" x 18½" mouth.
LIST PRICE: $40.25

Model RP-27. Bell 15½", Length 12⅛".
LIST PRICE: $28.88

Model RP-34. Bell 20", Length 16¼".
LIST PRICE: $34.13

Model RP-40. Bell 24¾", Length 19½".
LIST PRICE: $47.00

Model RP-44. Bell 25½", Length 19".
LIST PRICE: $46.73

GENERAL DYNAMICS | ELECTRONICS

COMMERCIAL PRODUCTS DIVISION ROCHESTER 1, N. Y.

In modern package sound . . . THERE IS NOTHING FINER THAN A STROMBERG-CARLSON®

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

© U.C.P., Inc.

SECTION 1320

TRIMM

HEADSETS AND ACCESSORIES

*Extended Frequency Range

NEW "L" TYPE WITH *EFR

TRIMM'S most popular headset, with "extended frequency range", for use in communications and language lab systems requiring high quality performance. Embodies electro-magnetic design with floating diaphragm. Lightweight and comfortable. Normally supplied with braided 5 ft. black nylon cord terminated with TRIMM No. 501 plug and black neoprene covered double headband. Vinyl covered double headband arranged with "over-the-head" vinyl cord, optional. Special yoke design permits use of several types of ear cushions. Code numbers and impedances as listed below:

	List
No. 50-08 —8 ohm	**$23.00**
No. 50-2M —2M ohm	**23.00**
No. 50-5M —5M ohm	**23.00**
No. 50-12M—12M ohm	**23.00**

SEE FACING PAGE FOR STEREO TYPES

FEATHERWEIGHT

The original light-weight headset. Used by amateurs, commercial operators, etc. Bakelite shell and cap; 6 ft. braided waterproof cord; concealed terminals. No. 100 series and No. 106 type have adjustable nickel plated steel headband as illustrated at left. No. 104 series and No. 107 type have fabric covered double wire headband with spring clip for adjustment as pictured below. Leather, vinyl, and rubber covered headbands available.

STANDARD TYPES	List
No. 100-03—3.2 ohm	**$11.00**
No. 100-06—600 ohm	**11.00**
No. 100-2K—2K ohm D.C.	**11.00**
No. 100-4K—4K ohm D.C.	**11.00**
No. 104-03—3.2 ohm	**11.00**
No. 104-06—600 ohm	**11.00**
No. 104-8 —3.2 ohm w/plug	**11.80**
No. 104-2K—2K ohm D.C.	**11.00**
No. 104-4K—4K ohm D.C.	**11.00**
SPECIAL AMATEUR TYPES	
No. 106 —24M ohm	**11.00**
No. 107 —24M ohm	**11.00**

SEE FACING PAGE FOR STEREO TYPES

ACME

A superior low-cost, light-weight headset, used on crystal sets, educational electronic kits, Geiger counters, etc. Cap and shell of molded bakelite. Double headsets have 4½ ft. long braided cord; single earphones supplied with 4½ ft. long vinyl cord. Concealed terminals.

DOUBLE HEADSETS		List
No. 24-03—3.2 ohm	Vinyl covered headband	**$3.90**
No. 24-8 —3.2 ohm w/plug	Vinyl covered headband	**4.75**
No. 24-15—1500 ohm	Vinyl covered headband	**3.95**
No. 24-2K—2K ohm D.C.	Vinyl covered headband	**4.05**
No. 24-4K—4K ohm D.C.	Vinyl covered headband	**4.35**
No. 25-03—3.2 ohm	Metal headband	**3.45**
No. 25-15—1500 ohm	Metal headband	**3.55**
No. 25-2K—2K ohm D.C.	Metal headband	**3.60**
No. 25-4K—4K ohm D.C.	Metal headband	**3.90**
SINGLE EARPHONES		
No. 27-03—3.2 ohm	Metal headband	**2.05**
No. 27-8 —3.2 ohm w/plug	Metal headband	**2.90**
No. 27-15—1500 ohm	Metal headband	**2.15**
No. 27-1K—1K ohm D.C.	Metal headband	**2.20**
No. 27-2K—2K ohm D.C.	Metal headband	**2.35**

DEPENDABLE

When a high grade headset is desired, but price must be considered, choose the Dependable. Used by institutions, on general radio applications, etc. Bi-polar construction, bakelite cap and shell. Forged magnet. Tinsel conductor braided cord, 5 ft. long, concealed terminals. Vinyl covered wire headband, adjustable.

DOUBLE HEADSETS	List
No. 70-03 —3.2 ohm	**$5.10**
No. 70-06 —600 ohm	**5.20**
No. 70-8 —3.2 ohm w/plug	**5.90**
No. 70-9-2K—2K ohm D.C. w/plug	**6.20**
No. 70-9-4K—4K ohm D.C. w/plug	**6.80**
No. 70-2K —2K ohm D.C.	**5.40**
No. 70-4K —4K ohm D.C.	**6.00**
SINGLE EARPHONE w/HEADBAND	
No. 72-03 —3.2 ohm	**3.50**
No. 72-1K —1K ohm D.C.	**3.60**
No. 72-2K —2K ohm D.C.	**3.75**

SEE FACING PAGE FOR STEREO TYPES

REX

The lowest cost TRIMM bi-polar headset. Bakelite shell and cap. Double headsets have 4½ ft. braided cord; single earphones have 4½ ft. vinyl covered cord. Concealed terminals. Adjustable headband.

DOUBLE HEADSETS	List
No. 30-03—3.2 ohm	**$4.50**
No. 30-8 —3.2 ohm w/plug	**5.35**
No. 30-2K—2K ohm D.C.	**4.70**
No. 30-3K—3K ohm D.C.	**5.00**
No. 30-9-2K—2K ohm D.C. w/plug	**5.55**
SINGLE HEADSETS	
No. 32-03—3.2 ohm	**2.50**
No. 32-1K—1K ohm D.C.	**2.60**

COMMERCIAL

Originally developed for marine and aircraft service. Recommended for commercial radio, amateur radio, etc. A lightweight, comfortable headset. High-impact bakelite cap and shell. Cord is 6 ft. waterproof mercerized cotton with pin tips except on No. 156 and No. 157 which have TRIMM No. 501 plug attached. No. 151 has adjustable metal headband with over-the-head cord; No. 152 has black fabric covered headband with over-the-head cord. All others supplied with rubber covered headbands.

DOUBLE HEADSETS	List
No. 151-03—3.2 ohm	**$12.10**
No. 151-06—600 ohm	**12.10**
No. 151-2K—2K ohm D.C.	**12.10**
No. 152-03—3.2 ohm	**12.10**
No. 152-06—600 ohm	**12.10**
No. 152-2K—2K ohm D.C.	**12.10**
No. 156 —600 ohm w/plug	**15.00**
No. 157 —17M ohm w/plug	**15.00**
No. 158 —600 ohm	**13.50**
No. 159 —17M ohm	**13.50**

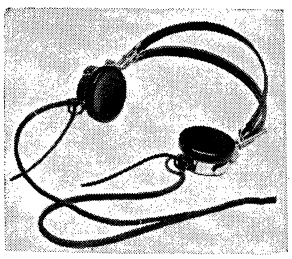
EAR CUSHIONS

Provide the user with maximum comfort when wearing headsets and excludes outside disturbing noises.

	List
No. 654 —Sponge rubber; fits TRIMM Featherweight, Commercial, Acme, Rex, and "L" types	**$1.60**
No. 655 —Solid rubber, military type MC-162A. Fits TRIMM "L", "S", Permoflux headsets and military type ANB-H-1 units	**3.00**
No. 656 —Sponge rubber face, solid rubber back, military type MX-41/AR. Fits same types as No. 655	**4.20**
No. 658 —Chamois donut face, solid rubber back, military type NAF 4849-1. Fits same types as No. 655	**13.35**
No. 658-2—Similar to No. 658. Fits Brush type "A" headset	**16.95**
No. 660 —Sponge rubber. Fits TRIMM Dependable, Army-Navy, Brush type "A" and Brush type "BA" headsets	**2.50**

In code number listing, the impedance at 1000 c.p.s. is indicated unless shown as D.C. resistance.

ARMY-NAVY



Built for severe use. Design has been accepted standard in years past. Bakelite cap, metal shell. Rubber covered headband. Waterproof cord. Available in two impedances.

	List
No. 28—Double, 600 ohm impedance	**$20.00**
No. 29—Double, 20M ohm impedance	**20.00**

See Facing Page for TRIMM Group Hearing Aid Components and other Headsets and Accessories.
See Pages 772, 773 for listing of TRIMM Plugs, Jacks, Patch Cords, and Jack Panels.

Prices and specifications subject to change without notice.

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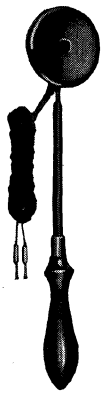
TRIMM

HEADSETS AND ACCESSORIES

GROUP HEARING AID COMPONENTS

Single Earphones



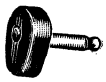
The most widely used single earphones for group hearing aid systems in churches, theatres, mortuaries, etc. are of the TRIMM Featherweight type. Lorgnette handle and single headband types available. Normally used as indicated below. Phone plug such as No. 512 is requred when phones are used with outlet boxes described below.

300 ohm Imped. Low imped. line (up to 50 ohms)
4500 ohm Imped. (1K D.C. ohms) Medium-high imped. line (200-500 ohms)
9000 ohm Imped. (2K D.C. ohms) Large installation on high imped. line.

	List
No. 110-3; -1K; -2K—Headband type w/pin tips	$7.60
No. 113-3; -1K; -2K—Headband type w/4 ft. cord w/512 plug	8.50
No. 114-3; -1K; -2K—Headband type w/6 ft. cord w/512 plug	8.50
No. 120-3; -1K; -2K—Lorgnette type w/pin tips	10.00
No. 124-3; -1K; -2K—Lorgnette type w/512 plug	10.90

Note: -3=300 ohm imped.; -K=1K ohm D.C.; -2K=2K ohm D.C.

FLAT PLUGS



TRIMM No. 512 provides a compact, non-protruding design widely used in group hearing aid installations. Bakelite body practically non-breakable. Fits standard jacks. Cord pin tips held by set screws.

	List
No. 512 —Black	$.87
No. 512-1—Red	.87
No. 512-2—Black with hook for hanging headset	1.32

VOLUME CONTROL — OUTLET BOXES

Control boxes No. 460 and 461 are recommended for the majority of group hearing aid systems, etc. Combine, in a single unit, volume control, phone jack, and terminal strip for incoming line. Box measures 3¾" x 2⅛" x 1¼". All edges and corners rounded. Units available in brown or gray hammertone enamel finish as listed below. Also available in glossy ivory enamel to improve visibility in theatres. Two standard ohmages: 1000 ohms for low impedance lines; 10,000 ohms for high impedance lines. 25,000 and 50,000 ohms used on large installations; also 100,000 and 500,000 ohms used with crystal type phones; these values available at slightly higher cost but not listed below:

VOLUME CONTROL—OUTLET BOXES	List
No. 460-1K —Brown Hammertone	$5.50
No. 460-10K—Brown Hammertone	5.50
No. 461-1K —Glossy Ivory	5.50
No. 461-10K—Glossy Ivory	5.50
No. 462-10K—Gray Hammertone	5.50
DUAL JACK OUTLET BOXES (No Control)	
No. 477—Brown Hammertone	3.85
No. 478—Glossy Ivory	3.85
SINGLE JACK OUTLET BOXES (No Control)	
No. 484—Brown Hammertone	3.30
No. 485—Glossy Ivory	3.30

"S" HEADSET

Originally designed for Air Corps service and other military applications. For commercial, high fidelity, and language laboratories, use the new "L" headset (see preceding page). Shell and cap of molded plastic. Alnico V magnet. Supplied with No. 656 cushion (except 35-5 and 35-6; military types HS-33/A) but other types available. Leather covered headband with mounting for unit providing restricted rotation. Over-the-head cord arrangement with No. 501 plug attached to end of cord.

	List
No. 35-06 —600 ohm impedance	$28.00
No. 35-08 —8 ohm impedance	28.00
No. 35-4M—4M ohm impedance	28.00

STEREO HEADSETS AND CONTROL BOXES

Headsets

A variety of TRIMM stereo headsets are available, depending on quality and response desired. The stereo headsets listed below are the most commonly produced; all are supplied with plug. The "L" type has frequency range up to 10,000 C.P.S.

DEPENDABLE	List
No. 70-14-03 —3.2 ohm Impedance	$7.00
No. 70-14-2K—2K ohm D.C.	7.90
"L"	
No. 50-14-03 —3.2 ohm Impedance	27.00
No. 50-14-3 —300 ohm impedance	27.00
No. 50-14-6M—6M ohm Impedance	27.00
FEATHERWEIGHT	
No. 104-14-08—8 ohm Impedance	13.60
No. 104-14-1K—1K ohm D.C.	13.60
No. 104-14-2K—2K ohm D.C.	13.60

Control Boxes

TRIMM stereo control boxes are similar to other types illustrated on this page, except supplied with two volume controls and one stereo connected jack. Boxes can be supplied with rubber jacketed cord upon request.

	List
No. 464-1C—100 ohm (Brown Hammertone)	$9.40
No. 465-1C—100 ohm (Glossy Ivory)	9.40
No. 465-1C—100 ohm (Gray Hammertone)	9.40

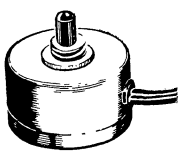
PILLOW-PHONE

Designed for use as a miniature speaker for under-pillow use at home, in hospitals, etc. Very thin, disc-shaped, 2" dia. x 27/64" thick.

Sealed unit is entirely moisture-proof and tamper-proof. Face of stainless steel, back of molded high-impact brown bakelite. Flexible, brown plastic covered cord, 6 ft. long, is anchored to unit under terminal cover that can not be readily removed by user. Normally furnished with TRIMM No. 514 plug. May be cleaned in disinfecting solutions.

	List
No. 85-03 —3.2 ohm impedance	$11.50
No. 85-3 —300 ohm impedance	11.50
No. 85-2M—2M ohm impedance	11.50

CONTACT FACTORY FOR ADDITIONAL INFORMATION ON HEADSETS, ACCESSORIES AND REPLACEMENT PARTS.



"STOP-IT" COMMERCIAL TRIMMER

Permits user to turn off audio signal of TV or radio set without getting up from chair, giving listener freedom to choke off unwanted commercials. Other uses that suggest themselves are to suppress loudspeaker when phone rings, etc.

No. 639—"STOP-IT" (Illustrated at left) consists of housing containing switch to which is attached 20 ft. cord ready to install in accordance with instructions with each unit $3.40

HEADSET KITS FOR TV AND RADIO

Kits described provide simple means of attaching headset or extension speaker to TV or radio sets. Consists of one of several types of headsets, including plug, and a small control-outlet box with attached 15 ft. cord. Box has remote on-off switch for loudspeaker and volume control for headset. Two jacks provided for multiple listening.

	List
CONTROL BOX, only	
No. 631	$7.15
KITS, including control box and headset or earphone, with plug.	
No. 632 —With No. 24-8 double Acme Headset	11.90
No. 632-1—With No. 27-8 single Acme Earphone	10.05
No. 633 —With No. 70-8 double Dependable Headset	13.05
No. 634 —With No. 104-8 double Featherweight Headset	18.95
No. 635 —With No. 160-8 single Commercial Earphone (Recommended for hard of hearing)	15.10
No. 637 —With No. 85-03 Pillow-Phone	17.40

SEE GENERAL CATALOG FOR ADDED INFORMATION ON "STOP-IT" AND HEADSET ATTACHMENT KITS

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TURNER COMMUNICATIONS MICROPHONES

THE TURNER 250 SERIES WITH CONVENIENT, THREE-WAY SWITCHING

These microphones offer you more versatility, convenience and ease of operation than any other microphone of this type. The 250 Series is ideal for dispatch, paging, P.A., control tower and amateur use. (It's the microphone that meets almost any need.) Wired to operate both relay and microphone circuits at a touch, with the 250 "Lift-Switch" you transmit simply by lifting the microphone or depressing the push-to-talk bar. For longer transmissions, simply pull the lever-lock switch forward.
The 250 Series is available in six different models ranging in price from $9.60 to $29.70, net, depending on switching arrangement, finish and interior. Available in satin chrome or gray hammertone die-cast finishes. Response: 60-10,000 cps (dynamic); 60-8,000 cps (crystal). Output level: —52 db (dynamic); —48 db (crystal).

THE TURNER 350 SERIES, A NEW LOW-COST MOBILE MICROPHONE WITH HANDY ON-OFF SWITCH

Here's the perfect microphone for citizen's band, amateur use, mobile rigs and paging. The 350 Series has momentary on-off switch (all models wired for relay operation), hanger button, standard dash bracket for easy mounting, and an extra tough plastic case for extra years of service. All models are equipped with 11″ retracted, five foot extended, coiled cord.

MODEL	350X	350C	350R
TYPE	crystal	ceramic	carbon
RESPONSE	60-8,500	80-7,000	200-4,000
OUTPUT	—48 db	—54 db	—38 db
NET PRICE	$10.08	$10.08	$11.40

For more information on other communications microphones in the complete Turner line, see Turner Catalog No. 1000 at your Electronics Parts Distributor's, or write for a free copy.

Net
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TURNER
GENERAL PUBLIC ADDRESS
MICROPHONES

IF POPULARITY IS INDICATIVE OF QUALITY (AND IT IS), THE TURNER 22D IS TOPS!

This very popular Turner dynamic microphone has had much experience as a P.A. and amateur radio microphone and is excellent for general sound work indoors or out. The 22D features: rugged #6 dynaflex interior; satin chrome finish; 90° swivel coupler; 20 foot cable. Net price: $24.00.

THE TURNER 80—THE MIGHTY MITE OF THE TURNER FAMILY

Only 4¼″ long (6½″ with stand), the little Turner model 80 certainly is not hampered by its diminutive size. It performs more admirably than many of the big boys in amateur, home recording and paging applications. (Fits into the smallest nook or cranny, too.) With its C-4 stand, it makes a graceful addition to any desk. It may also be used as a floor stand microphone. Complete with 7′ cable. Response: 80-7,000 cps. Output: —54 db. Net Price: $9.57.

For more information on other public address microphones in the complete Turner line, see Turner Catalog No. 1000 at your Electronics Parts Distributor's, or write for a free copy.

THE TURNER MICROPHONE COMPANY

Cedar Rapids, Iowa

EXPORT: Ad Auriema, Inc., 85 Broad St., New York 4, N. Y.

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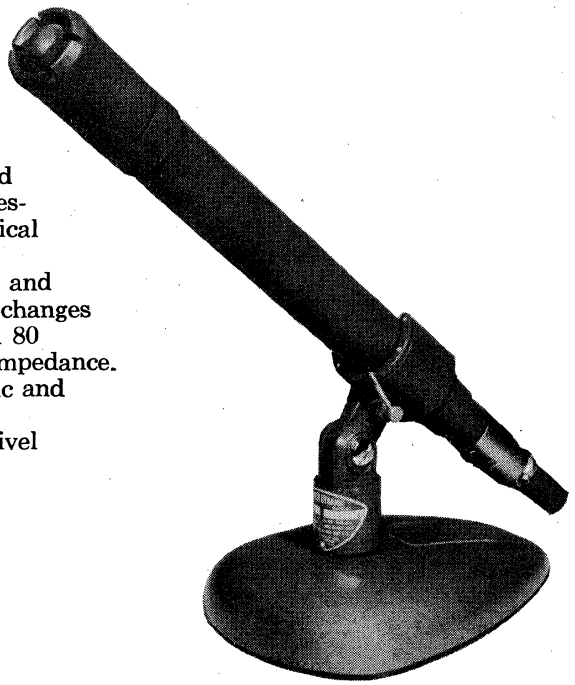
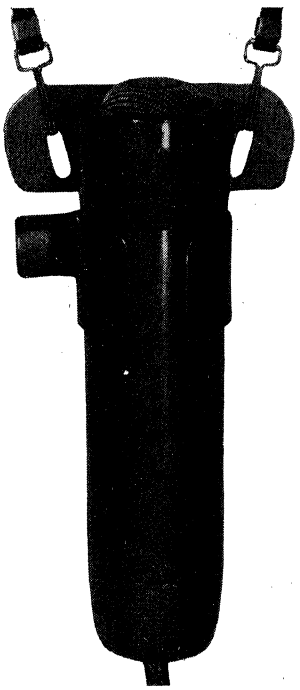
TURNER BROADCAST AND PROFESSIONAL RECORDING MICROPHONES



THE AMAZING NEW TURNER 401

The incomparable appearance of this treated aluminum microphone makes it a proud possession, no matter the application. And its technical excellence makes it ideal for professional applications. It features adjustable response and impedance. A simple screwdriver adjustment changes the basic response — 40-20,000 cps — to an 80 or 160 cps cutoff and regulates the 150 or Hi impedance. It is a pressure operated moving coil dynamic and essentially non-directional. The 401 can be mounted on 5/8"-27 desk or floor stand for swivel operation. The microphone moves smoothly through 180° and a positive grip cam-lock allows instant removal or insertion of the microphone without disconnecting.
Net Price, $75.00.

WHERE MOBILITY IS NEEDED YOU'LL FIND THE TURNER 58 LAVALIER



Designed for TV and broadcast use, the 58 is a natural for any application where freedom and mobility are required: panel shows, interviews, sportscasts. It doubles as a desk microphone when the matching G-4 stand is added.

MICROPHONE	58	58A
TYPE	dynamic	dynamic
RESPONSE	60-13,000 cps	60-18,000 cps
OUTPUT	Hi/150	50/200
IMPEDANCE	—60 db	—60 db
NET PRICE	$34.20	$34.20
G-4 CLIP-ON DESK STAND	$ 3.45	$ 3.45

For more information on other broadcast microphones in the complete Turner line, see Turner Catalog No. 1000 at your Electronics Parts Distributor's, or write for a free copy.

Net
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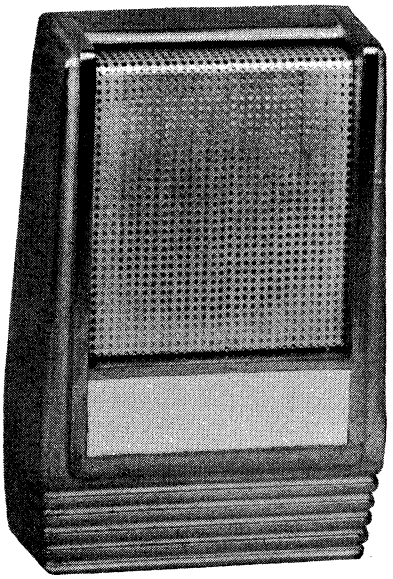
TURNER HOME RECORDING MICROPHONES

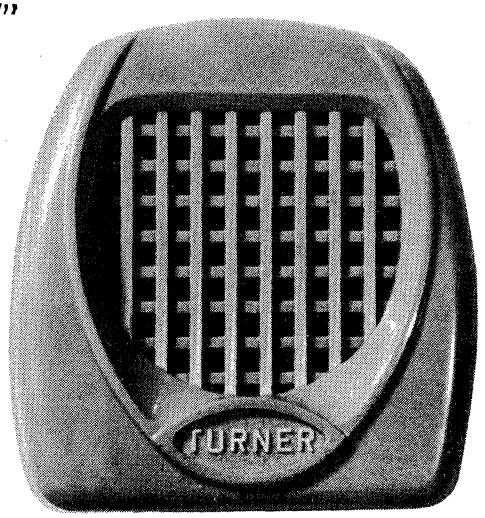
A QUALITY TURNER MICROPHONE FOR HOME USE . . . THE 708

New, small, and attractive model 708 tape recorder microphone in attractive satin chrome finish, with die-cast case and six foot cable. Excellent hand or desk microphone with that solid feel of quality. This crystal microphone's response: 60-10,000 cps; Output: —54 db. Net Price: $7.50.



THE TURNER 908 PROVES THAT "ECONOMY" IS NOT SYNONYMOUS WITH "CHEAPNESS"

The crystal model 908 is a low-cost home recording microphone, yet does not sacrifice Turner's quality reputation for the appeal of a low price. This economical tape recorder microphone is made of handsome, durable polystyrene. Can be used as a hand or desk unit. (An extra, quality touch: the desk version is weighted to avoid tipping.) Response and output: 60-8,500 cps; —45 db, Hi impedance. The only thing better than its low net price ($4.80), is the quality you get for that price.



For more information on other home recording microphones in the complete Turner line, see Turner Catalog No. 1000 at your Electronics Parts Distributor's, or write for a free copy.

THE TURNER MICROPHONE COMPANY

Cedar Rapids, Iowa

EXPORT: Ad Auriema, Inc., 85 Broad St., New York 4, N. Y.

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Net

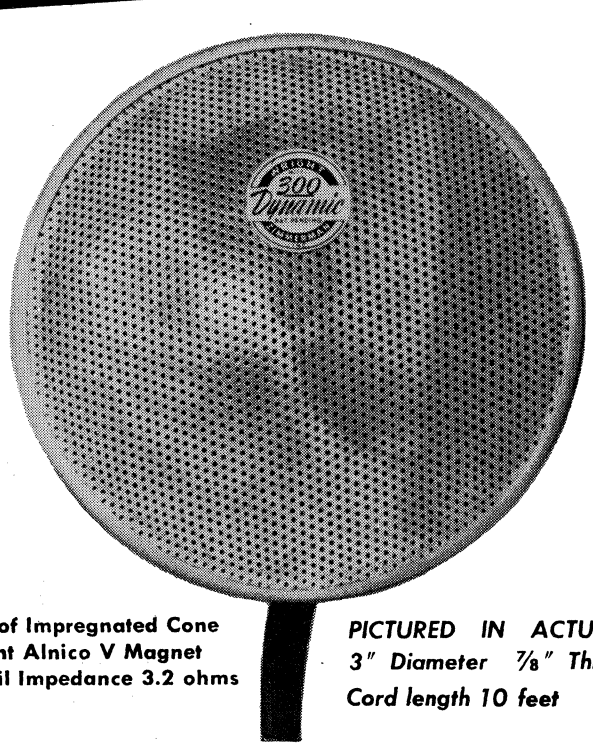
Protected under Patent No. 2523802

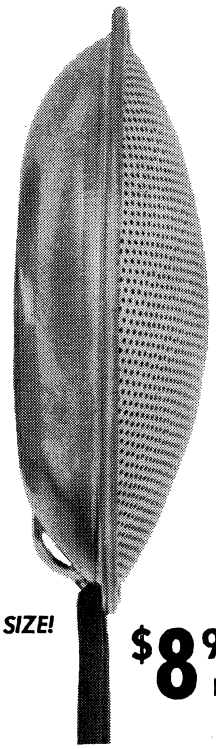
MODEL 300 DYNAMIC
PILLOW SPEAKER
and MICROPHONE

ORIGINATED AND PATENTED BY

Wright-Zimmerman Inc.

NEW BRIGHTON, MINN.





Waterproof Impregnated Cone
Permanent Alnico V Magnet
Voice Coil Impedance 3.2 ohms

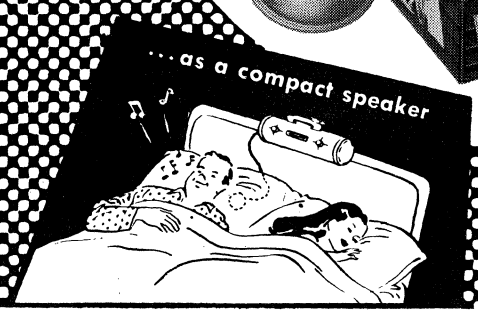
PICTURED IN ACTUAL SIZE!
3" Diameter 7/8" Thick
Cord length 10 feet

$8.95 list

A compact speaker-microphone with a thousand uses.

The Wright-Zimmerman Model 300 Dynamic Reproducer is virtually indestructible, attractively styled and light as a feather. Ideal for personalized pillow speaker use with excellent tone, and as a dynamic microphone requiring only 2 stages of amplification.

ATTRACTIVELY AND INDIVIDUALLY PACKAGED



Trade Discount Applies To List Prices Only
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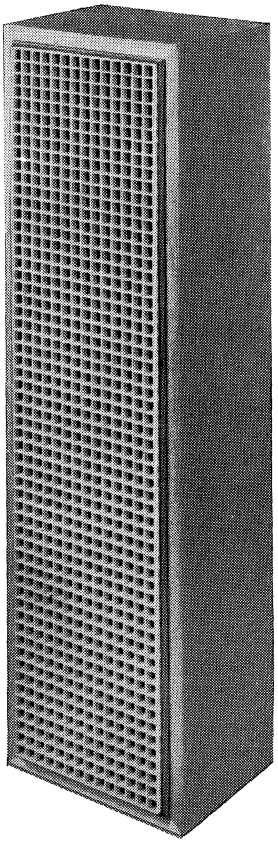
NEW FROM UNIVERSITY IN HI-FI AND PA

UNIVERSITY

from front to rear, everyone hears better with the new University

UNILINE

sound column public address speaker systems



Uniline multiple-speaker sound columns offer the user many advantages. EXTRA POWER: featuring full-range high-power-handling speakers: Only the Unilines can handle power up to 150 watts! PERFECT DISPERSION: with their broad dispersion in the horizontal plane and narrow vertical dispersion, they place the sound exactly where needed—at the listeners, *not* at the ceiling and floor—thereby virtually eliminating reverberation and feedback. UNIFORM SOUND LEVEL: from front to rear, loudness is equal for everyone in the auditorium—the Uniline's "long throw" will not blast even those sitting nearest to it. In addition, their low distortion improves intelligibility and greatly increases listener comfort. Bass response is excellent (down to 35 cps) and over-all performance is "live," smooth and extremely well balanced. And by virtue of its design, the Uniline lends itself to simple, unobtrusive installations.

MODEL CS-4
Music and Speech
40" column (4 extended-range 8" speakers)
Freq.: 45–17,000 cps
Power: 80 watts IPM
Impedance: 8 ohms
Vertical Angle: 22°
Horizontal Angle: 120°
Dimen.: 39¼" x 10" x 7"
$179.95 dealer net.

MODEL UCS-6
Music and Speech
60" Column (6 extended-range 8" speakers)
Freq.: 35–17,000 cps
Power: 150 watts IPM
Impedance: 16 ohms
Vertical Angle: 16°
Horizontal Angle: 120°
Dimen.: 58½" x 10" x 7"
$129.95 dealer net.

MODEL CS-3
Speech
40" column (Special, multi-design speakers for speech applications)
Freq.: 150–10,000 cps
Power: 40 watts
Impedance: 8 ohms
Vertical Angle: 22°
Horizontal Angle: 120°
Dimen: 39" x 8" x 6"

MODEL CSO-6
Same as UCS-6, but completely weather-proof for outdoor installations

In the proud tradition of the Classic I... The NEW

CLASSIC MARK II

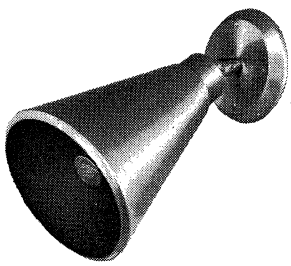
15" high compliance 3-way speaker system

Here's the natural bridge between the massive cabinetry of the past and the compacts of the present. Not since the Classic I has a speaker system been engineered with such impressive components. A heavy duty 15" high compliance woofer with exceptionally rigid diaphragm and extremely compliant soft surround . . . delivering optimum bass response undistorted to below 20 cps. A specially designed high compliance 8" mid-range, crossing over at 150 cps, with virtually linear response to 3000 cps. This speaker features a completely enclosed basket for protection against woofer radiation and a viscous treated cone to roll off unwanted highs and peaks. And the Sphericon super tweeter, widely acknowledged as the world's finest, extends the system's amazingly smooth response to 22,000 cps . . . with extremely wide and uniform dispersion (120° in all planes). All this housed in elegant cabinetry that will enhance the most tastefully appointed home. Dimensions: 35" W., 28¼" H., 17½" D. $295.00 user net.

Looks like a handsome spotlight... performs like the superior paging speaker it actually is!

MODEL LIL

decorator paging speaker



Here are all the performance qualities long associated with University paging speakers—high efficiency, wide frequency range, small size and high power handling capacity. Add to all these, the modern streamlined styling of the Model LIL, and you've got the perfect speaker wherever decor is important—from modern offices to svelte fashion salons.

Frequency response: 400—10,000 cps.
Power handling capacity: 7½ watts.
Impedance: 8 ohms.
Dispersion: 120°
Length: 13"
Bell diameter: 7"
Transformer primary impedances: 1000, 2000, 4000, 8000, 16,000 ohms: 70 volt line powers, 5/2.5/1.25/.62 watts.
List price $40.00

now... the identical mid-range speaker featured in the renowned Medallion XII... available for use in any 3-way system

MODEL C-8M

8" mid-range speaker

Here's a *true* mid-range specialist, with response precisely limited to the important "presence" frequencies of 700 to 5,000 cps. The cone of the C8M has been viscous-treated at the center to roll off unwanted highs and to prevent unnatural tones and harsh peaks. Thus, its upper frequency response is tailored to match such high quality tweeters as the Sphericon. Further, its basket is completely enclosed to protect it from woofer-generated pressures inside the cabinet, eliminating the need for complicated sub-enclosures. Impedance: 8 ohms. 50 watts integrated program rating. Shpg. wt., 3 lbs. $16.95 user net.

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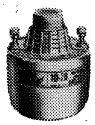
DRIVERS, TRUMPETS AND ACCESSORIES

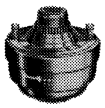
UNIVERSITY

These new deluxe ID drivers incorporate all the latest engineering and design advances that have long been associated with University. They offer a choice of power ratings extending from 20 to 60 watts making it easier than ever to fulfill every requirement of power, performance and price. All offer unusually wide frequency response, all are completely weatherproof, all feature breakdown-proof mechanisms. Their exclusive acrylic-type paint finishes not only give added protection, but will last as long as the metal housing itself, thereby assuring long-life to every driver.

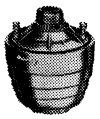
MODEL ID-20
20 WATTS
Ideal for low-cost medium power speech and music systems. Wide range, high efficiency.



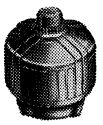
MODEL ID-30
30 WATTS
Recommended for use wherever maximum speech intelligibility is essential; or to preserve "balance" when used with high cut-off frequency trumpets.



MODEL ID-40
40 WATTS
Designed to fulfill critical P. A. and industrial requirements. Provides extra punch needed to cut through heavy noise.



MODEL ID-40T
40 WATTS
Same performance as ID-40, but with built-in matching transformer for connection to high impedance lines or "constant voltage" systems.

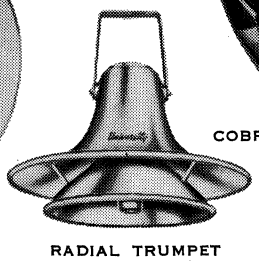


MODEL ID-60
60 WATTS
For applications requiring greater power handling capacity, maximum sensitivity, widest frequency response, plus rugged lifetime construction.

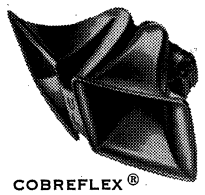
MODEL ID-60T
60 WATTS
"Deluxe" unit with extended high and low frequency ranges. Highest continuous duty conversion efficiency. Built-in multi-match transformer.

TRUMPETS

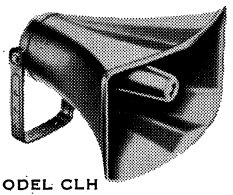
DIRECTIONAL TRUMPET



RADIAL TRUMPET



COBREFLEX®



MODEL CLH

DIRECTIONAL MODELS GH, LH, PH, SMH For maximum penetration of distance and noise. Reflex construction assures maximum conversion efficiency, full weather protection.

RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead sound distribution from a single projector. Fewer speakers needed to cover high-ceiling factories, hangars, church interiors, etc.

WIDE ANGLE COBREFLEX† Outstanding feature is pair of folded exponential horns having twin air columns in a single assembly. "Dual Exponential Flare" design results in very smooth radiation pattern and high efficiency. Rugged construction. Use singly or in clusters.

WIDE ANGLE MODEL CLH† Longest air column length and wide-angle bell designed for maximum low frequency response. Omni-directional mounting bracket permits speaker to be rotated horizontally and vertically for optimum projection . . . tune out reverberation, dead spots. Perfect for multi-speaker cluster arrays. Can be "stacked" in any configuration.

MODEL L30-1 CLH Horn Stacking Kit For clamping bell rims together in any desired configuration. Each kit clamps two horns. Shpg. wt., 6 oz. $1.65 list.

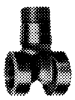
ACCESSORIES

CTR

PB-1

5433

5434



2YC

PMA

RTA

WEA

SPA

ST

SB

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die-cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2⅛" x 2⅛" x 2⅛". Adjustable slotted adapter mounts transformers with centers 1½" to 2⅛". Junction box for speaker lines. Bar. strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 2 lbs. $8.80 list.

MODEL PB-1 TRANSFORMER HOUSING Weatherproof. For MIL-A, CMIL-A, IB-A and CIB-A paging speakers. Use Model 5434 transformer, or other type with 2" mounting center and 1 15/16" h. x 1⅝" w. maximum dimensions. Shpg. wt., 1 lb. $4.13 list.

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30, or to feed a number of smaller paging speakers. Primary impedances: 45/165/200/250/500/1000/2000 ohms. Secondary impedances: 4/8/16 ohms. 70 v. line power taps 30/25/20/10/5/2.5 watts. Dimensions: 1-15/16" x 2-5/16" x 1¾". Mtg. hole centers: 2⅜". Shpg. wt., 1 lb. $7.70 list.

MODEL 5434 TRANSFORMER 15 watt capacity. Primary impedance: 45/325/500/1000/2000/4000/8000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 15/10/5/2.5/1.25/.65 watts. Dimensions: 1⅞" x 1 15/16" x 1⅞". Mtg. hole centers: 2". Fits CTR and PB-1. Shpg. wt., ¾ lb. $6.60 list.

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb. $13.20 list.

PMA ADAPTER Fits ½" IPS threaded pipe to any "U" mtg. bracket. Shpg. wt., ¾ lb. $2.20 list.

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1-7/16-16 threads. Shpg. wt., ½ lb. $3.30 list.

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1-7/16-16 threads. Shpg. wt., ½ lb. $2.75 list.

SPA ADAPTER Replaces standard triangular base used on all University CR and MM-2 paging speakers for mounting to ½" threaded IPS pipe. Shpg. wt., ½ lb. $1.93 list.

MODEL ST Transformer/Junction Box Adapter. Fits MM-2, MM-2L, MM-2L50. Weatherproofed. For bulkhead, wall, ceiling mounting. Houses transformers up to 2¼" x 2¼" x 2¾", with 2" and 2⅜" mounting centers. Used as terminal or junction box. Shpg. wt., 1 lb. $13.75 list.

MODEL SB Bulkhead Mounting Adapter. Fits MM-2, MM-2L, MM-2L50, MM-2F. 3 mounting holes 120° apart on 5 13/16" mounting circle diameter. For flush-fit mounting onto bulkhead, wall, ceiling. Shpg. wt., 1 lb. $3.30 list.

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	HORN LENGTH	BELL DIA.	SHIP. WT.	LIST PRICE
GH	85 cps	65°	6½ ft.	28"	31"	22 lbs.	$75.60
LH	120 cps	75°	4½ ft.	19"	25¾"	16½ lbs.	$46.73
PH	150 cps	85°	3½ ft.	15¾"	20⅜"	11¾ lbs.	$34.13
SMH	200 cps	95°	2½ ft.	12"	16¼"	8 lbs.	$28.88
RLH	120 cps	360°	5 ft.	18½"	28⅛"	25 lbs.	$59.00
RPH	140 cps	360°	4 ft.	13¾"	25⅛"	19 lbs.	$47.00
RSH	180 cps	360°	3 ft.	11"	19"	13 lbs.	$41.00
COBREFLEX†	200 cps	120° x 60°	2½ ft.	18½" x 9¼"	10¼"	10¼ lbs.	$40.25
CLH†	120 cps	120° x 60°	4½ ft.	21½" x 11½"	20"	15 lbs.	$46.50

DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING (Cont. Duty) FULL RANGE	POWER RATING (Cont. Duty) *ADJUSTED RANGE	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.	LIST PRICE
ID-20	120-6500 cps	20 watts	35 watts	16 ohms	4¼" dia. 3" d.	3 lbs.	$25.00
ID-30	85-7500 cps	30 watts	50 watts	16 ohms	4⅛" dia. 3¾" d.	3¾ lbs.	$31.50
ID-40	80-12,000 cps	40 watts	60 watts	16 ohms	4½" dia. 4⅞" d.	4½ lbs.	$39.50
ID-40T	80-12,000 cps	40 watts	60 watts	16 ohms	5" dia. 6¼" d.	5¼ lbs.	$52.75
ID-60	70-12,000 cps	60 watts	100 watts	16 ohms	4 11/16" dia. 5" d.	5¾ lbs.	$52.75
ID-60T	70-12,000 cps	60 watts	100 watts	16 ohms	6¾" dia. 6¾" d.	6¼ lbs.	$63.25

*When input program response limited to above low frequency cut-off of trumpet used.

Transformer Impedances. ID-40T—45/122/250/500/1000/2000 ohms. ID-60T—16/80/165/250/500/1000/2000 ohms. 70 v. line power taps: ID-40T—40/20/10/5/2.5 watts. ID-60T—60/30/20/10/5/2.5 watts.

†*Patented.* **NOTE:** Low frequency limit based on capability of driver unit. If horn cut-off is higher than rated low frequency limit of driver, horn will be determining factor.

Trade Discount Applies to List Prices Only

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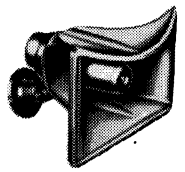
PAGING, TALK-BACK, MULTI-DUTY

UNIVERSITY

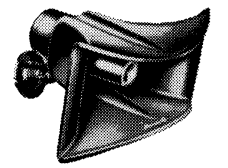
PAGING, TALK-BACK

MODEL MIL-A New version of the MIL, with higher power capacity (7.5 watts continuous duty) and improved lower frequency response. High conversion efficiency for perfect operation in low power systems. OLB*



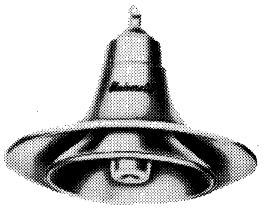
MODEL CMIL-A Similar to CIB-A, but for use in lower power operations where excessive sound would be wasted. Offers high efficiency, maximum intelligibility. OLB*

MODEL IB-A New version of world's most widely used medium power speaker. 25 watts continuous duty power capacity. Lower frequency response improved to 250 cps. High efficiency, special rising frequency characteristic. OLB*

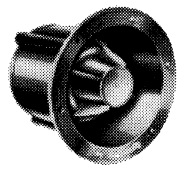


MODEL CIB-A Exclusive University wide-angle horn for uniform sound pattern with optimum vertical dispersion. Ideal for wide area coverage where ambient noise level not excessive. Design minimizes feedback problems. OLB*

PAGING, TALK-BACK

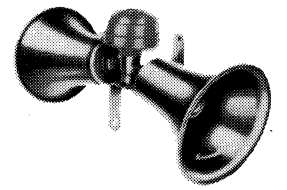


MODEL IBR-A Small radial speaker with built-in driver. Economical solution where total number of speakers must be kept to a minimum but where wide coverage is required.



MODEL MIS† Compact reflex speaker designed for flange or flush mounting in cabinets, walls, etc. Ideal replacement for less efficient cone speakers. Tropicalized and weatherproof.

MODEL CR Big power in a small package. Built-in driver with heavy duty 2" voice coil. High intelligibility in noisy areas. Frequency response ideal for music reproduction.



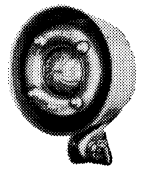
MODEL 2WP Bi-directional paging projector covers two opposite areas effectively, efficiently with one driver. (Takes any University driver except ID-60T). Supplied less driver.

*Exclusive swivel mounting OMNI-LOK BRACKET; also fastens to ½" pipe without additional fixture. Patented

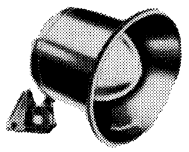
†Patented

MULTI-DUTY

...for completely reliable operation under conditions of steam, dampness, shock, dust, chemicals, etc.

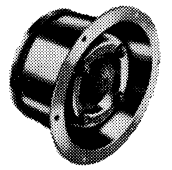


MODEL MM-2 Power capacity and frequency response ideal for clear, noise-cutting reception. Screws permit removal from front to expose diaphragm for cleaning. Serrated swivel mounting bracket.

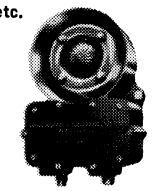


MODEL MM-2L Like MM-2, but with higher power capacity and extended low frequency response. Good for music or speech. Swivel mounting bracket mounts directly on CTR watertight transformer housing.

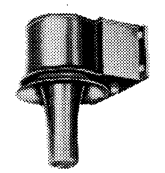
MODEL MM-2L50 Highest power speaker in MM series. Particularly well suited for specialized system use, such as high power electronic sirens and other electronic signalling devices.



MODEL MM-2F Like MM-2, but for flush mounting in walls, ceilings, bulkheads, dashboards, etc. Drains automatically. Weatherproofing gasket. Six mounting holes on 6⅝" circle diameter.



MODEL MM-2TC Complete speaker, using cast aluminum combination bell and weatherproof housing with space for a line matching transformer and /or volume control which can be mounted right into position. For bulkhead, wall, or ceiling mounting. MM-2TC-T comes wired with multi-impedance transformer and pad attenuator.



MODEL MSR All die-cast reflexed air column speaker with radial deflector for 360° horizontal dispersion. Hermetically sealed driver easily removed. Provisions for line matching transformer and volume control. Wall /ceiling bulkhead mounting. MSR-T comes wired with multi-impedance transformer and pad.

MODEL	FREQUENCY RESPONSE	POWER RATING (Cont. Duty) FULL RANGE	POWER RATING (Cont. Duty) *ADJUSTED RANGE	IMPEDANCE	DISPERSION	**SOUND PRESSURE LEVEL	†SENSITIVITY AS MICROPHONE	‡SERIES CAP. FOR ADJUSTED RANGE	DIMENSIONS	SHIPPING WEIGHT	LIST PRICE
IB-A	250-13,000 cps	25 watts	50 watts	4, 8, 45 ohms	90°	123 db	—26 DBM		10¼" dia. 9" deep	4 lbs.	8Ω—$34.50 4,45Ω—$36.00
CIB-A	250-13,000 cps	25 watts	50 watts	4, 8, 45 ohms	120° x 60°	123 db	—22 DBM		7⅜" hi. 14" wide 12" deep	5½ lbs.	8Ω—$46.00 4,45Ω—$47.65
MIL-A	350-13,000 cps	7.5 watts	15 watts	4, 8, 45 ohms	120°	115 db	—23 DBM		7 13/16" dia. 6⅞" deep	3¼ lbs.	8Ω—$28.35 4,45Ω—$29.66
CMIL-A	350-13,000 cps	7.5 watts	15 watts	4, 8, 45 ohms	120° x 60°	115 db	—20 DBM		6¼" hi. 9½" wide 8½" deep	4 lbs.	8Ω—$32.73 4,45Ω—$34.10
MIS	500-13,000 cps	5 watts	10 watts	4, 8, 45 ohms	150°	111 db	—22 DBM		5½" o.d. 4 7/16" deep 6 holes on 4⅞" mtg. dia.	3½ lbs.	8Ω—$29.40 4,45Ω—$30.71
CR	250-8000 cps	20 watts	40 watts	16 ohms	90°	119 db	—22 DBM		11½" dia. 11½" deep	8¾ lbs.	$45.00
IBR-A	300-10,000 cps	25 watts	50 watts	4, 8, 45 ohms	360°	108 db	—32 DBM		13" dia. 10¼" deep	5¼ lbs.	8Ω—$48.83 4,45Ω—$50.40
2WP	350 cps horn cut-off	Depends upon driver used		Depends upon driver used	120° each horn	Depends upon driver used	Depends upon driver used		8½" dia. each bell 20½" long	4 lbs.	$29.40
MM-2	350-10,000 cps	25 watts	50 watts	16 ohms	150°	117 db		11 mfd	6" o.d. 5" deep	5¼ lbs.	$53.35
MM-2L	250-10,000 cps	25 watts	50 watts	16 ohms	120°	120 db		14 mfd	6 13/16" o.d. 6⅞" deep	6¾ lbs.	$59.95
MM-2L50	250-10,000 cps	50 watts	100 watts	16 ohms	120°	123 db		14 mfd	6 13/16" o.d. 6⅞" deep	7¾ lbs.	$74.88
MM-2F	350-10,000 cps	25 watts	50 watts	16 ohms	150°	117 db		11 mfd	7¼" o.d. 3¾" deep	5¼ lbs.	$53.35
MM-2TC	350-10,000 cps	25 watts	50 watts	16 ohms	120°	117 db		11 mfd	10" high 6 7/16" w. 4 7/16" deep	MM-2TC—8½ lbs. MM-2TC-T—10¼ lbs.	MM-2TC—$79.75 MM-2TC-T—$94.60
MSR	250-10,000 cps	25 watts	50 watts	16 ohms	360°	114 db		14 mfd	10¾" hi. 7¾" w. 8¼" deep	MSR—10 lbs. MSR-T—10½ lbs.	MSR—$79.75 MSR-T—$94.60

*Input program response above speaker low frequency cut-off.

**Sound pressure readings taken at 4 ft. with "Full Range" power input. Reduce by 6 db each time distance is doubled. Reduce by 3 db each time power input is halved; increase by 3 db when power input is doubled.

†DBM re 10 dynes/cm²

‡Assumes use of 16 ohm input.

Note: all MM speakers are patented.

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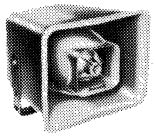
SPECIAL PURPOSE SPEAKERS

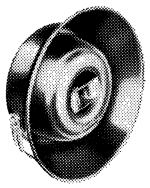
UNIVERSITY

WEATHERPROOF

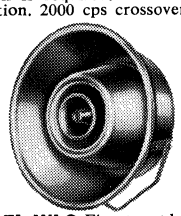
LC SERIES WEATHERPROOF HIGH FIDELITY . . . each is a genuine dual range, with separately driven woofer and tweeter. Exceptionally efficient. Baffled chamber and front loaded folded horn provide optimum loading and clean bass.



MODEL MLC Ideal for coverage of moderate-size areas or crowds—or for sound reinforcement where smooth, clean, wide-range musical reproduction and even distribution are important. Fiberglas reinforced polyester housing. 2000 cps crossover. Patent pending.

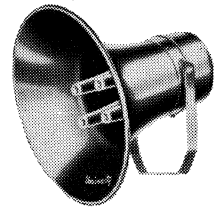


MODEL BLC Sets a new standard for voice and music reproduction. Light in weight, shallow in depth, easy to handle. May be used in place of public address trumpet/driver units except where maximum penetration is required. All metal construction. 2000 cps crossover.

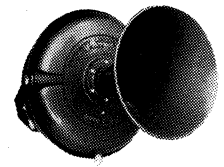


MODEL WLC Finest outdoor system made. For over a decade has brought full range high fidelity sound to auditoriums, concert halls, parades, stadiums, over the world. Achieves full bass response down to 50 cps. All metal construction. 1000 cps crossover.

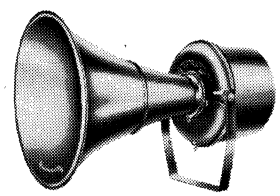
SUPERPOWER



SUPERPOWER MODEL 4A4 Versatile, powerful, compact. Use with any University driver except ID-60T, according to capacity, response and impedance needed. Four individually reflexed center assemblies united in acoustically correct mixing chamber. Single bell combines entire output, assuring maximum penetration and reserve power.



SUPERPOWER MODEL B-6P‡ Takes 6 drivers of the ID-30, ID-40, or ID-60 types. Amazingly compact, high-power counterpart of Model B-12P. Designed for similar installations requiring superpower speakers in smallest size: military, carillons, civil defense, etc. Drivers screw into mixing chamber. Separate bell assembly attaches to mixing chamber.



SUPERPOWER MODEL B-12P‡ Takes 12 drivers of the ID-30, ID-40, or ID-60 types. Fantastic power range and reserve power. Drivers screw into patented mixing chamber of heavy cast aluminum. Separate bell assembly easily attaches to mixing chamber. Spun aluminum coverall protects drivers and connections. Use for military, civil defense, church towers, stadiums, etc.

‡Patented

PORTABLE POWRPAGE®

MODEL PP-1T Fully transistorized 25 watt amplifier. Low distortion, high stability in all operating conditions. Rugged dynamic microphone has controlled response curve. Press-to-talk switch. Auxiliary input jack. Talk/listen switch for highly directional, sensitive listening. Uses lantern batteries. Shpg. wt. (less batteries), 11 lbs. $283.25 list.

MODEL PP-2T Lightweight hand-held package. 3-transistor, temperature stabilized circuit delivers 7 watts (14 watts peak). Adjustable gain. Acoustic feedback suppression system allows indoor use without howling. Low standby current. Uses 6 penlight cells or 10 RM601R mercury cells. Shpg. wt. (less batteries) 5 lbs. $166.58 list.

MODEL PP-1 Non-transistorized version of PP-1T. Similar in operation. Shpg. wt., 8 lbs. $104.50 list.

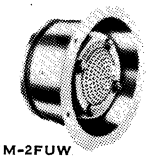
MODEL PP-2 Non-transistorized version of PP-2T. Similar in operation. Shpg. wt., 5⅛ lbs. $82.50 list.

EXPLOSION-PROOF

MODELS 7101, 7102 UL approved for 100% safe systems where flammable liquids, gases, dust, etc., are present. Shipped assembled with built-in line matching transformer to comply with govt. safety regulations. Required conduit entrance provided as part of driver housing casting. 7101 for Class I, Groups C & D; 7102, same plus Class II, Groups E, F, G.

UNDER-WATER

MODELS MM-2UW, MM-2FUW Completely waterproof. Can be left submerged indefinitely. Stainless steel cover for special mylar diaphragm. Silicone treated gaskets. Fully guaranteed for six months. MM-2UW for bracket mounting, MM-2FUW for flush mounting. Shpg. wt., 6¼ lbs. $74.25 list.



MM-2FUW

MODEL		FREQUENCY RESPONSE	POWER RATING (Cont. Duty) FULL RANGE	POWER RATING (Cont. Duty) *ADJUSTED RANGE	DISPERSION	IMPEDANCE	DIMENSIONS DIAMETER (Overall)	DIMENSIONS DEPTH (Overall)	SHIPPING WEIGHT	LIST PRICE
MLC		150-15,000 cps	15 watts		120°	8 ohms	12¾" x 9⅛"	10⅝"	10 lbs.	$57.50
BLC		70-15,000 cps	25 watts		120°	8 ohms	22¾"	9¼"	21 lbs.	$89.50
WLC		50-15,000 cps	30 watts		90°	8 ohms	33½"	20"	72 lbs.	$250.00
7101 and 7102†		200-10,000 cps	30 watts	60 watts	95°	16 ohms	15¾"	19"	23¾ lbs.	7101—$137.50 7102—$165.00
4A4 When Used With 4 Drivers of Types	ID-30	120- 7,500 cps	120 watts	200 watts	80°	4, 16, 64	30¾"	28⅞"	49 lbs. less drivers	$125.00 less drivers
	ID-40	120-12,000 cps	160 watts	240 watts		4, 16, 64				
	ID-40T	120-12,000 cps	160 watts	240 watts		wide variation				
	ID-60	120-12,000 cps	240 watts	400 watts		4, 16, 64				
B-6P When Used With 6 Drivers of Types	ID-30	200- 7,500 cps	180 watts	300 watts	100°	2.7, 10.7, 24, 96 ohms	12½"	21⅜"	55 lbs. less drivers	$321.25 less drivers
	ID-40	200-12,000 cps	240 watts	360 watts						
	ID-60	200-12,000 cps	360 watts	600 watts						
B-12P When Used With 12 Drivers of Types	ID-30	100- 7,500 cps	360 watts	600 watts	80°	1.3, 5.3, 12, 21.3, 48, 192 ohms	31½"	47"	60 lbs. less drivers	$395.00 less drivers
	ID-40	100-12,000 cps	480 watts	720 watts						
	ID-60	100-12,000 cps	720 watts	1200 watts						

*Input program response limited to above 200 cps for 7101, 7102 and B-6P; above 100 cps for B-12P, and above 120 cps for 4A4.

†Transformer impedances, 7101 and 7102: 45/165/200/250/500/1000/2000 ohms. 70 V. line power taps, 7101 and 7102: 30/25/20/10/5/2.5 watts.

Trade Discount Applies to List Prices Only

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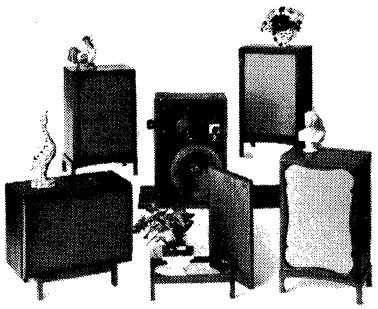
UNIVERSITY

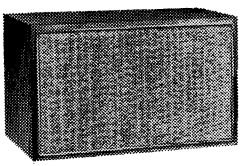
HIGH FIDELITY SPEAKERS AND SYSTEMS

CONDENSED LISTING

SYSTEMS



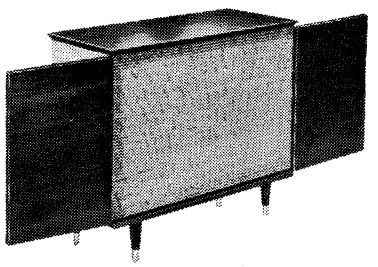
MEDALLION XII 12" 3-WAY SYSTEM First truly different speaker system in years! Magnificent sound and tonal separation for the discriminating listener, *plus* the unique "Select-a-Style" grilles that snap on to convert the Medallion to any of five styles—Contemporary, Swedish Modern, Italian Provincial, French Provincial and Early American. Ideal choice for decorators. High efficiency enclosure design operates with amplifier of 10 clean watts upwards.



RRL-12 12" SYSTEM Ultra-compact high compliance unit features smooth, full-range performance from 35 cps to beyond audibility. Features sensational Sphericon Super Tweeter.

RRL-8 8" SYSTEM (not shown) Amazing performance for its diminutive size. Newly engineered 8" high compliance woofer produces bass down to below 40 cps.

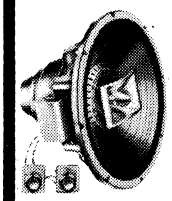
Each finished on all four sides for use as highboy or lowboy. "RRL" is a trademark.



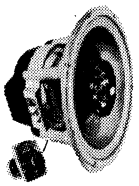
TMS-2 TRIMENSIONAL® STEREO SYSTEM Completely integrated single cabinet stereo system, only 30" wide. "Trimensional" principle of obtaining separation achieves balanced stereo anywhere in the room. Available in Contemporary and Early American models. Patented.

SERIES 200 PREMIER WIDE-RANGE SPEAKERS

Hand-built at every stage, these high compliance speakers offer many outstanding design features that achieve the finest high fidelity sound, even in smallest enclosures.



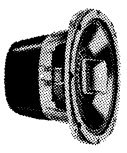
MODEL 315-C SUPER 15" 3-WAY DIFFAXIAL Theatre-type woofer cone features high excursion dual-spider piston and low-resonance bass down to 25 cps. Diffusicone mid-range and heavy duty H-600/T-50 tweeter extend response to inaudibility. 50 watts* rating. Shpg. wt., 34½ lbs. $156.00 net.



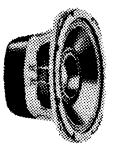
MODEL 312 12" 3-WAY DIFFAXIAL Acclaimed as greatest advance in speaker design for many years. Award-winning diecast basket. Patented Diffusicone mid-range. Coaxially mounted Sphericon Super Tweeter. Built-in network and adjustable brilliance control. Response: 28-40,000 cps. 35 watts* rating. Shpg. wt., 10¼ lbs. $73.00 net.

MODEL 6201 12" COAXIAL New improved version of the most popular top quality speaker ever made. Heavy duty woofer with cloth surround cone for extended bass, and superb, new compression type tweeter. Built-in network with adjustable brilliance control. Response: 28-18,500 cps. 35 watts* rating. Shpg. wt., 9 lbs., 8 oz. $57.75 net.

DIFFUSICONE-12 12" DIFFAXIAL Low-cost 2-way 12" full range speaker with dual horn-loading at cone apex that extends mid-range and treble response to 15,000 cps. Bass response to 28 cps. 35 watts* rating. Shpg. wt., 8 lbs., 10 oz. $39.75 net.



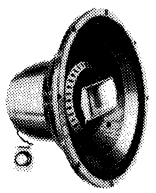
MODEL 308 8" 3-WAY DIFFAXIAL Designed specifically for quality installations where space is restricted. Special 8" woofer has extra-large voice coil for excellent bass response. Response: 30-17,000 cps. 35 watts* rating. Shpg. wt., 7 lbs. $42.00, net.



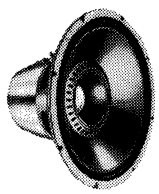
DIFFUSICONE-8 8" EXTENDED RANGE Low-cost 2-way 8" speaker highly suitable for smaller space installations. Dual horn-loaded radial projector similar to Diffusicone-12. Response: 30-15,000 cps. 35 watts* rating. Shpg. wt., 4 lbs. $28.00 net.

SERIES 100 WIDE-RANGE SPEAKERS

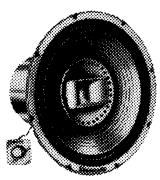
Engineered to the highest specifications from the finest materials available, these moderately priced speakers offer the top values in the high fidelity field.



MODEL UC-153 15" 3-WAY DIFFAXIAL Features high efficiency tweeter and deluxe, multi-element Diffusicone mid-range. Response from below 30 cps to inaudibility. 30 watts* rating. Shpg. wt., 12 lbs. $83.00 net.

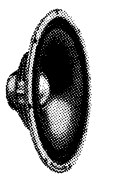


MODEL UC-152 15" 2-WAY DIFFAXIAL Patented Diffusicone element provides dual horn loading at apex of cone to extend mid and high frequency response. Response from below 30 to 14,000 cps. 30 watts* rating. Shpg. wt., 8¼ lbs. $45.00 net.

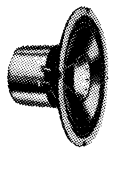


MODEL UC-123 12" 3-WAY DIFFAXIAL Patented Diffusicone element. UXT-5 super-tweeter with "reciprocating flare" horn. Crosses over at 1000 cps mechanically, 5000 cps electrically. Response: below 45 cps to 17,500 cps. 25 watts* rating. Shpg. wt., 9 lbs. $66.50 net.

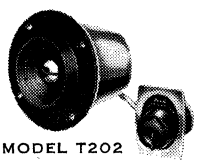
MODEL UC-122 12" 2-WAY DIFFAXIAL Coaxial horn loading at apex of cone extends mid and high frequency response. Uni-sectional Diffusicone element provides 1000 cps mechanical crossover and uniform wide-angle dispersion. Response: 45-13,000 cps. 25 watts* rating. Shpg. wt., 5¼ lbs. $35.50 net.



MODEL UC-121 12" EXTENDED RANGE Only 4" deep, perfect for wall, flush ceiling and other limited space installations. Highly efficient, needs only fraction of power required for ordinary 12" speakers. Response: 45-10,000 cps. 30 watts* rating. Shpg. wt., 5¼ lbs. $28.00 net.

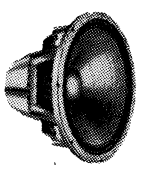


MODEL UC-82 8" WIDE-RANGE Especially designed for small cabinet stereo applications. Ideal for later addition of one University dual voice coil woofer to extend combined bass range of both channels. All-Alnico 5 magnet. Response: 45-14,000 cps. 25 watts* rating. Shpg. wt., 3½ lbs. $16.95 net.

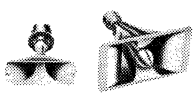


MODEL T202 MODEL T203

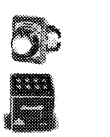
SPHERICON® SUPER TWEETER The "sweet as a bird" tweeter that achieves a frequency response of 3000-40,000 cps (±2 db to 22,000 cps). Matches any system—especially high compliance—without sacrificing bass efficiency. Dispersion: 120° in all planes. Nominal impedance: 8 ohms (use with any 4-16 ohm speaker). The T202 (4⅜" dia., 4" d.) is for use inside speaker cabinets. The T203 (6¾" x 5¼" x 2¾" d.) in a handsome case, can be placed atop or adjacent to the cabinet. Each complete with built-in network and adjustable control. Shpg. wt., 3 lbs. Either model, only $24.95 user net.



WOOFERS



TWEETERS



NETWORKS

WRITE FOR COMPLETE HIGH FIDELITY CATALOG ...containing full information on all University products: systems, enclosures, kits, high compliance and high efficiency woofers, mid-range speakers, horn-loaded tweeters, compression drivers and accessory networks. Desk X-2, University Loudspeakers, Inc., 80 So. Kensico Ave., White Plains, N. Y.

MODEL	WOOFER	MID-RANGE	TWEETER	NETWORK	SIZE: H x W x D	Shpg. Wt.	Mahogany	Blend	Walnut	Limed Oak	Oiled Walnut	Fruitwood	Unfinished
TMS-2	C-12HC	2 spec. 8"	2 compr. wide-angle	Dual 3-Way	Contemp'y: 25 x 30 x 12½	92 lbs.	258.00	263.00	263.00	—	269.00	—	—
					Early Amer.: 24¾ x 30 x 13½		—	—	—	—	—	279.95	—
MEDALLION XII	12" high compliance	Spec. 8" mid-range	Sphericon	3-Way	24 x 17 x 12½	40 lbs.	System, less grille: in walnut, oiled walnut, fruitwood, or mahogany, $139.95. Grilles: contemporary, $9.95; period, $14.95. Base: $14.95.						
RRL-12	12" high compliance	3½" direct radiator	Sphericon	6 db per octave	25 x 15⅝ x 12½	38½ lbs.	119.95	—	123.95	123.95	125.95	—	114.95
RRL-8	8" high compliance	3½" direct radiators (2)		6 db per octave	22¼ x 12¼ x 10⅝	28 lbs.	99.50	—	102.50	102.50	105.50	—	95.50

Note: all prices user net

*Integrated program. All 8-16 ohms. "Diffaxial" is a registered trademark.

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UNIVERSITY †MODULAR MICROPHONES† *for the professional*

WORLD'S ONLY MICROPHONES WITH MODULAR FLEXIBILITY!*

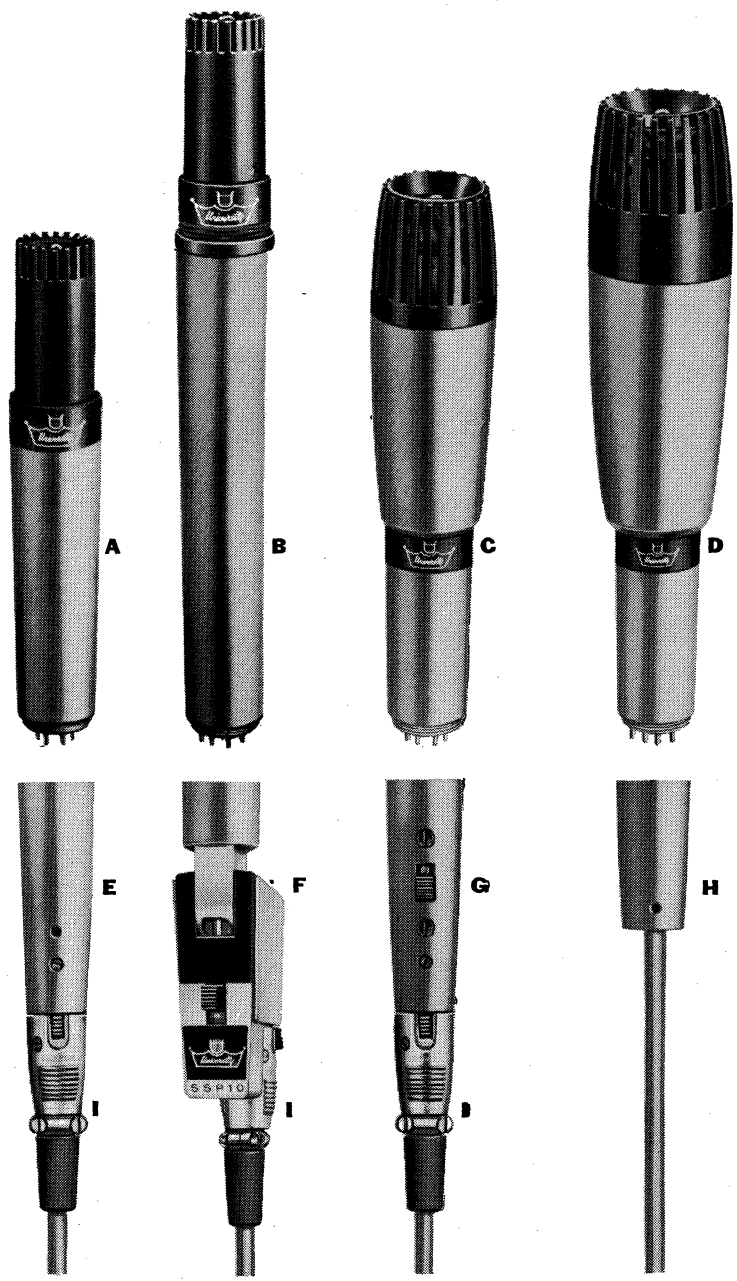
University's professional microphones bring new dimensions in quality and utility for hypercritical applications requiring the ultimate in full-range pick-up. The omni-directional models open new frontiers in over-all uniformity of response and in extension of the bass range. The cardioid models span the complete frequency range, free of peaks and with consistently high front-to-back discrimination. The lavalier models have low frequency characteristics tailored for the most natural response under their special conditions of use. For TV, FM and high fidelity AM—from church to night club—from school to industrial PA—they may well change your way of thinking about the selection, installation and use of high quality professional microphones.

Note these dynamic performance features

- 100% ruggedized dynamic transducer cartridge—with the exclusive "Unilar" diaphragm. Press the diaphragm with your finger, then release it, and watch it spring back to its original shape. And it has amazing immunity to temperature extremes, humidity and corrosive elements.
- Instant impedance change—no tools, rewiring, or soldering. Simply push-on the adaptor connectors to the microphone case pins with the desired impedance. (All connectors and pins are gold-plated for perfect electrical contact.)
- Exceptionally wide frequency response, virtually free of distortion. Undiminished at the high end in some models at 15,000 cps and effective to beyond 20,000 cps. At the low end, uniform to below 35 cps and usable even to the 20 cps region.

*FOR THE FIRST TIME EVER, you can obtain the exact microphone you want without compromising quality to meet a price, without paying for features you don't need. Any of the basic microphone modules (A-D) can be used with any of the interchangeable adapters (E-H) to perform the functions of several conventional microphones. For example, with or without switches, for cables with and without cannon plugs, for screw-on or slide-on stands. This gives long-term savings as well as unmatched versatility, for it permits adding suitable adapters as requirements change—without buying additional microphones or compromising quality to meet a price.

†Trade Mark



A) MODEL 401
Omni-Directional Dynamic Modular

Versatility of application makes this a highly desirable multi-purpose microphone for those who require optimum wide-range reproduction of music and voice. Ideally suited for every sound system application: broadcast, TV, church, school, commercial, industrial PA and the like.

SPECIFICATIONS
Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—55 db/1mw/10 dynes/cm²;
—148db EIA sensitivity rating;
20,000 ohms, into high impedance input:
16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions 1⅛" maximum diameter
6⅜" maximum length without adapter
Shipping weight: 2 lbs.
Finish: acrylic silver-gray and non-reflecting black.
Furnished with cloth carrying bag.
Professional net: $43.50

B) MODEL 402S
Omni-Directional Dynamic Modular Shock Mounted

Offers professional flexibility and styling in broadcasting, telecasting and recordings—group pickup, orchestras, public address, interviews. An all-around microphone with rugged internal shock mounting that makes it exceptionally well-suited to night-club application.

SPECIFICATIONS
Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—55 db/1mw/10 dynes/cm²;
—148 db EIA sensitivity rating;
20,000 ohms, into high impedance input:
16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1⅛" maximum diameter
8¾" maximum length without adapter
Shipping weight: 2¼ lbs.
Finish: acrylic silver-gray and non-reflecting black.
Furnished with cloth carrying bag.
Professional net: $47.70

C) MODEL 501
Cardioid Dynamic Modular

Affords ultra-high discrimination against unwanted sound—virtually eliminating background noise. Performers can work a greater distance away due to the dependability and excellence of its directional characteristics — or extra-close without "booming" or unwanted bass attenuation.

SPECIFICATIONS
Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—54 db/1mw/10 dynes/cm²;
—147 db EIA sensitivity rating;
20,000 ohms into high impedance input:
17 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1½" maximum diameter
6¾" maximum length without adapter
Shipping weight: 2¼ lbs.
Finish: acrylic silver-gray and non-reflecting black.
Furnished with cloth carrying bag.
Professional net: $75.00

D) MODEL 502S
Cardioid Dynamic Modular Shock Mounted

Its directional characteristics yield superior results in noisy or reverberant locations, particularly when a discreet sound source is of primary interest. Features the unique University internal shock mounting arrangement which isolates it from spurious sound and eliminates extraneous noises.

SPECIFICATIONS
Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—54 db/1mw/10 dynes/cm²;
—147 db EIA sensitivity rating;
20,000 ohms into high impedance input:
17 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1¾" maximum diameter
7⅜" maximum length without adapter
Shipping weight: 2½ lbs.
Finish: acrylic silver-gray and non-reflecting black.
Furnished with cloth carrying bag.
Professional net: $87.00

Net
© U.C.P., Inc.

for TV, radio, recording, general purpose

UNIVERSITY

The completely interchangeable modular adapters

E) MODEL PA10
Adapts modular microphones to receive the Model CA10, Cannon XLR-3-11C plug, or Amphenol 91-854 . . . all permitting quick disconnect.
Dimensions: 3⅛″ x 1″
Shipping weight: ¼ lb.
Professional net: $6.30

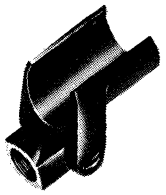
F) MODEL SSP10
Decorative stand adapter, for use wherever appearance is of prime importance. Connects directly to each basic microphone module. Includes on-off switch and receptacle for CA10, Cannon XLR-3-11C plug, or Amphenol 91-854. Permits tilting the microphone through a 90° arc. Mounts to any stand with standard ⅝-27 NPSM thread.
Dimensions: 3 1/16″ x 2¾″ x 1⅛″
Shipping weight: ½ lb.
Professional net: $11.10

G) MODEL SP10
Offers all advantages of PA10, with the addition of heavy duty positive action on-off slide switch.
Dimensions: 3⅛″ x 1″
Shipping weight: ¼ lb.
Professional net: $6.90

H) MODEL CC10
Provides most economical of all modular microphone assemblies. For use with any basic microphone module when neither switch nor quick-disconnect is required. Includes integral 18′ cable.
Dimensions: 1 15/16″ x 1″
Shipping weight: 1¼ lbs.
Professional net: $6.00

I) MODEL CA10
Cannon XLR-3-11C plug complete with 18′ cable. Has push-action latch lock.
Dimensions: 2 1/16″ x ¾″
Shipping weight: 1¼ lbs.
Professional net: $6.00

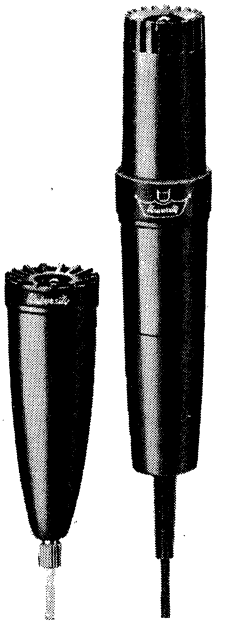
Accessories



MODEL SA10
Slide-on stand adapter for use with any complete assembly. Permits quick removal of microphone from stand to hand. Barrel section molded from high impact polystyrene; base is die-cast Zamak 3, machined with standard ⅝-27 thread.
Dimensions: 2⅛″ x 2″ x 1½″
Shipping weight: ¼ lb.
Professional net: $4.20

MODEL DS10
Heavy cast iron stand with handsome crackle black non-reflecting finish. Perfectly balanced to prevent tipping of even largest microphones. Quick-action knurled lock washer. Accommodates all microphones with standard ⅝-27 thread, as well as University SA10 and SSP10 stand adapters.
Dimensions: 4½″ x 7⅛″ x 4⅝″
Shipping weight: 3½ lbs.
Professional net: $7.95

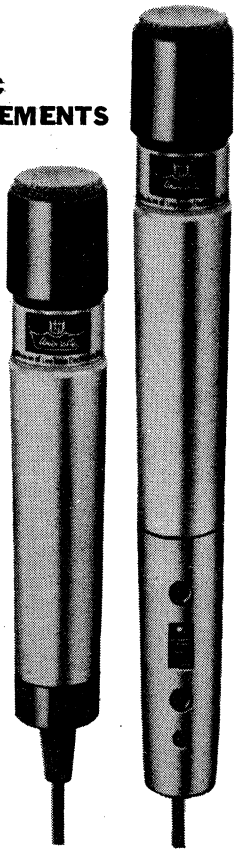
TV AND BROADCAST LAVALIERS



MODEL 403L
Omni-Directional Dynamic (TV Lavalier)
An ultra-compact lavalier microphone for use wherever unobtrusiveness and freedom of movement are required. It is ideal for soundcasting applications in nightclubs, churches, school and location broadcasting of AM, FM and television.
SPECIFICATIONS
Frequency response: 60-20,000 cps
Impedance: 30/50; 150/250 ohms
Ouptut level: —30/50 and 150/250 ohms: 55 db/1 mw/10 dynes/cm² —148 db EIA sensitivity rating:
Hum reference: —120 db/.001 gauss
Dimensions: 1 1/32″ maximum diameter 3⅜″ maximum length
Shipping weight: 2¼ lbs.
Finish: antique bronze
Furnished with adjustable neck cord and clip, integral 25 foot flexible plastic cable and cloth carrying bag,
Professional net: $52.50

MODEL 404L
Omni-Directional Dynamic (Broadcast Lavalier)
This premium quality lavalier microphone fulfills all the critical requirements of a professional broadcast microphone and incorporates every feature of the larger omni-directional professional microphones. And though designed to compensate for bass overemphasis due to chest resonances, it provides a natural sound when hand-held or desk stand mounted.
SPECIFICATIONS
Frequency response: 50-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50 and 150/250 ohms: —55 db/1 mw/10 dynes/cm²; 148 db EIA sensitivity rating; 20,000 ohms into high impedance input; 16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1⅛″ maximum diameter 5⅝″ maximum length
Shipping weight: 2¼ lbs.
Finish: antique bronze
Furnished with adjustable neck cord and clip, integral 25 foot flexible cloth-covered cable and cloth carrying bag.
Professional net: $57.00

. . . AND FOR DYNAMIC COMMERCIAL REQUIREMENTS



MODELS 70 and 71†
Omni-Directional Dynamic
These models fulfill all the strenuous and exacting requirements for general purpose, low cost dynamic microphones. Their rugged construction and exceptionally wide frequency response make them ideal for general sound casting applications in churches, schools, industrial and commercial public address installations—improving home tape recordings and upgrading ham broadcasting rigs. And, in the general purpose field, they offer performance, durability and flexibility that set an entirely new standard of quality per dollar. Low frequency response is excellent—approaching that of University professional models, and substantially exceeding that of other omni-directional dynamic microphones in their price range: the high range extends to a usable limit in the 18,000 cycle region. Resultant treble and high frequency characteristic is clear and free from harshness or stridency.

†Includes on-off slide switch.

SPECIFICATIONS
Frequency response: 50-14,000 cps
Impedance: 30/50; 20,000 ohms
Output level: 30/50 ohms: 50 db/1mw/10 dynes/cm²; —143 db EIA sensitivity rating: 20,000 ohms into high impedance input; 28 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: Model 70, 1 5/32″ maximum diameter, 6″ maximum length. Model 71, 1 5/32″ maximum diameter, 8⅝″ maximum length.
Finish: acrylic silver-gray and non-reflecting black.
Each furnished with integral 15 foot 3-conductor shielded cable, Model SA10 slide-on stand adapter and cloth carrying bag.
Professional net: Model 70, $29.95; Model 71, $34.95.

Write for complete microphone catalog
UNIVERSITY LOUDSPEAKERS, INC. White Plains, N. Y.

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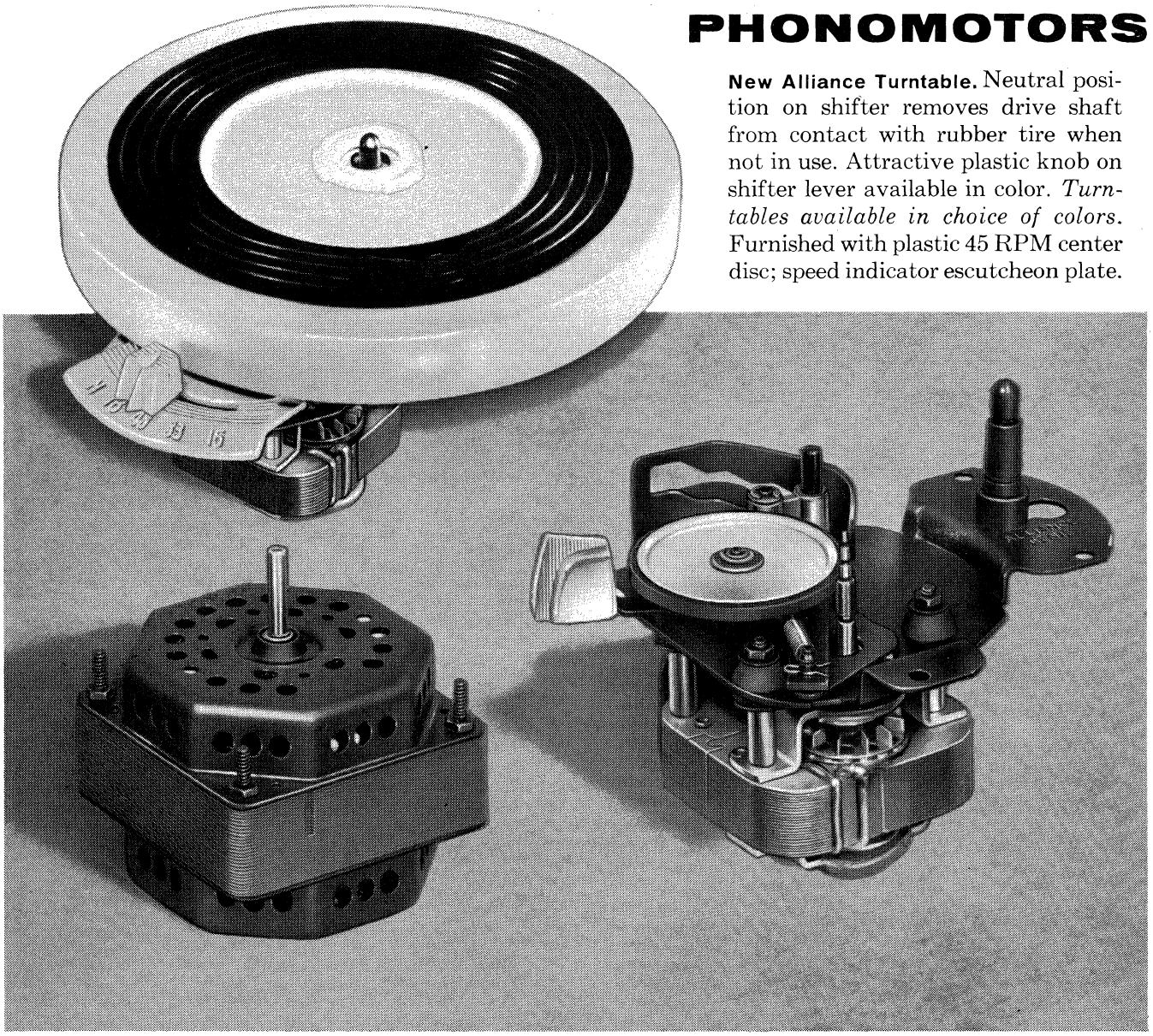
SECTION 1340

Choose from Alliance

for highest quality three and four speed

PHONOMOTORS

New Alliance Turntable. Neutral position on shifter removes drive shaft from contact with rubber tire when not in use. Attractive plastic knob on shifter lever available in color. *Turntables available in choice of colors.* Furnished with plastic 45 RPM center disc; speed indicator escutcheon plate.



For professional transcriptions, stereo and Hi-Fi

Model "S"—specifically designed for transcription type turntables, stereo tape, stereo disc and Hi-Fi applications. Check Alliance first for all your phonomotor needs. Alliance offers the widest choice, faster service, more for your money. Alliance is the world's largest producer of sub-fractional HP motors. Write for complete catalog.

World's Largest Selling Phonomotors—"JP" Series

Model JPQ8—4-speed, 16, 33⅓, 45, 78 RPM. (Shown with turntable chassis attached.) Easy-to-shift lever for four speeds plus neutral. Electronic dynamically balanced rotor, vibration-free mountings, exacting speed regulation, minimized rumble and hum.

Model JPT8—3-speed, 33⅓, 45, 78 RPM also available (not shown). Designed to meet UL requirements.

All Motor Price Quotations on Request

THE ALLIANCE MANUFACTURING CO., INC.

Alliance, Ohio

(Subsidiary of Consolidated Electronics Industries Corp.)

© U.C.P., Inc.

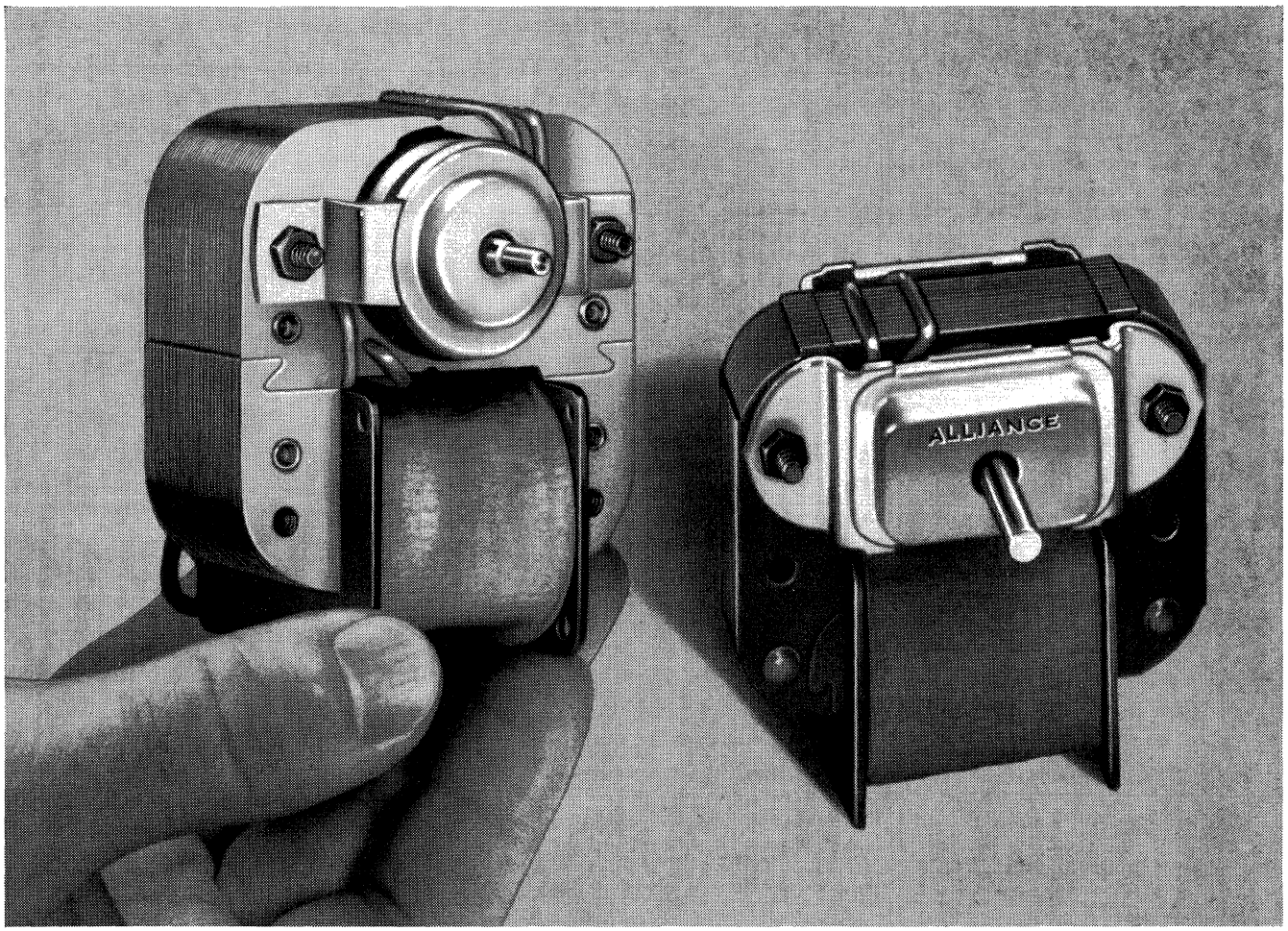
SECTION 1340

Choose from Alliance

for the Industry's newest, most advanced

SUB-FRACTIONAL HP MOTORS

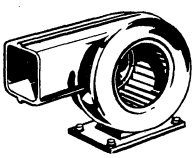
Alliance, the world's largest producer of sub-fractional HP motors, offers you the widest choice of standard and custom models. You get faster service, more for your money. Write for complete catalog. Price quotations upon request.



For phonographs, tape recorders—
New "JSY 1101" Motor

A low-cost synchronous motor, offering hysteresis features at shaded-pole price. Unique dual torque range permits freedom of design in dual function applications. Also available in our standard 4-pole design. Ideal also for signal timers, appliance timers. Voltage: 117; Starting Torque oz./in.—1.0; Amps: 0.27; Watts: 18; RPM: 3600; Weight: 1 lb. 14 oz.

For gear trains, air circulation—
"H" Motor



This outstanding motor features high starting torque, compact design offering more power at less cost. Precision, high quality Alliance engineering and design make the "H" motor an outstanding source of dependable power and trouble-free performance. Voltage: 117; Starting Torque oz./in—1.0; Amps: 0.31; Watts: 17; RPM: 2500; Weight: 1 lb.

THE ALLIANCE MANUFACTURING CO., INC.

Alliance, Ohio

(Subsidiary of Consolidated Electronics Industries Corp.)

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whatever electronic products
you require...
▼
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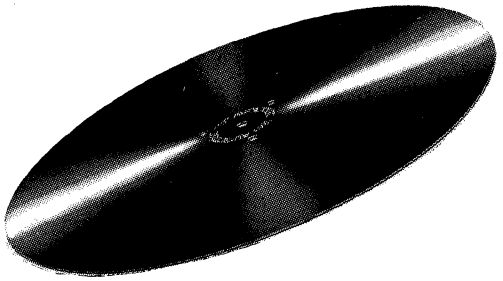
▼
...you'll find it
faster in
this catalog...
...the world's largest catalog
of electronic
products
sold through
distributors

The *Radio-Electronic*
MASTER

audiodiscs®



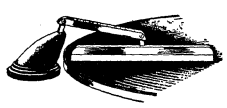
For truly fine recording and reproduction

For more than a decade, Audiodiscs have consistently maintained their position of eminent leadership in every field of instantaneous disc recording.

A superior lacquer coating, applied to the mirror-smooth aluminum base by a patented process, gives these outstanding advantages: maximum uniformity of coating, permanent resistance to humidity, longer stylus life, freedom from audible background scratch, long playback life, brilliant frequency response, and freedom from deterioration with age.

Type		Diameter	List Price per Disc	Box Contains
RED LABEL Audiodiscs for professional use. Exceed the most exacting demands for highest quality professional recordings. The finest discs obtainable. Aluminum base. Double sided. Embossed labels.		7"*	$1.40	25
		8"	1.10	
		10"	1.55	
		12"	2.55	
		16"	4.60	
SINGLE FACE RED LABEL Audiodiscs. Same quality as double sided Red Label Audiodiscs, listed above.		12"	2.00	25
		16"	3.70	
YELLOW LABEL Audiodiscs for general use. High uniform quality. The popular choice for all general purpose recording. Aluminum base. Double sided. Yellow paper labels.		7"*	1.19	25
		8"	.93	
		10"	1.24	
		12"	2.00	
		16"	3.70	
REFERENCE LABEL Audiodiscs. Provide maximum economy for test cuts, filing, reference recordings, auditions and equipment adjustments. Aluminum base. Double sided. White paper labels.		10"	1.05	25
		12"	1.55	
		16"	2.77	
BLUE LABEL Audiodiscs for amateur use. Same high quality lacquer as professional discs, but on thinner aluminum base. Ideal for schools, homes, and general amateur use. Double sided. Blue paper labels.		6½"	.50	50
		8"	.70	
		10"	1.00	
MASTER Audiodiscs. The outstanding choice of professional recordists for use where pressings are to be made. Give fine results with either silvering or gold sputterings. Aluminum base. Double sided or single face.	Double Sided	10"	2.50	25
		12"	3.20	
		13¼"	4.05	
		16"	5.95	
		17¼"	6.95	
	Single Face	10"	2.00	25
		12"	2.50	
		13¼"	2.95	
		16"	4.70	
		17¼"	5.10	

*Standard 45 rpm disc with 1½" center hole. Center-hole adapters included for recording on conventional turntable.



AUDIODISC CHIP-CHASER

A simple but perfect solution to the thread removal problem in recording. The felt-lined wiper blade is set on the disc before starting the recording. The Chip-Chaser automatically and infallibly brushes the thread toward the center, winding it up on the overhead post or drive pins, as the case may be.

List Price { for 16" turntables **$8.95**
{ for 12" turntables **$7.90**

audiopoints®

microscopically matched recording and playback styli

The complete line of Audiopoints covers the full range of recording and playback needs—for professional as well as general use. Audiopoints are made by skilled craftsmen, and conveniently packaged in cards, boxes or envelopes.

RECORDING AUDIOPOINTS

SAPPHIRE No. 14—long recognized as the finest recording stylus made. Short or long dural shank, 87° included angle.
List Price—$8.25
(Resharpening cost—$3.75)

SAPPHIRE No. 20—especially designed for professional microgroove recording. Short or long dural shank.
List Price—$8.25
(Resharpening cost—$3.75)

SAPPHIRE No. 202—a high-quality professional stylus. Short or long brass shank.
List Price—$6.60
(Resharpening cost—$3.25)

STELLITE No. 34—a favorite with many professional and non-professional users. Short or long shank. 87° included angle.
List Price $2.50
(Resharpening cost—$1.40)

DIAMOND LAPPED STEEL No. 50—most practical and economical stylus for non-professional use.
List Price—3 for $1.75

PLAYBACK AUDIOPOINTS

SAPPHIRE No. 113—meets the requirements of the most critical professional recordists. Straight dural shank.
List Price—$4.50
(Resharpening cost—$2.00)

SAPPHIRE No. 123—for professional use with microgroove recordings. **List Price—$2.00**

"RED CIRCLE" SAPPHIRE No. 103—for professional use with instantaneous recordings or vinyl transcriptions. Straight dural shank.
List Price—$2.00

"RED CIRCLE" SAPPHIRE No. 303—same as No. 103, except with bent dural shank. Ideal for phonograph records. **List Price—$2.00**

RESHARPENING SERVICE

Established years ago, our Resharpening Service materially reduces the over-all cost of using sapphire and stellite Audiopoints. Each resharpened point is disc-tested. Special cards and envelopes are available for returning Audiopoints for resharpening.

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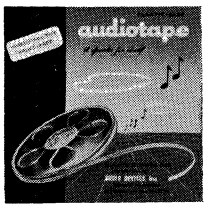
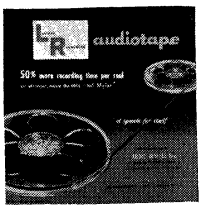
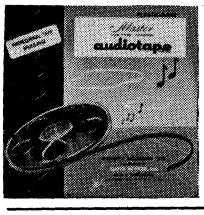
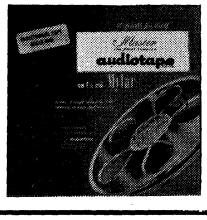
THE COMPLETE LINE OF PROFESSIONAL QUALITY audiotape TRADE MARK

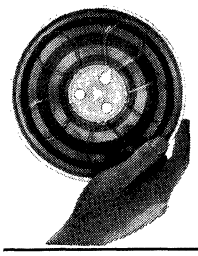
Description	Type No.*	Length	Reel†	List Price
 **PLASTIC-BASE AUDIOTAPE** on 1½-mil cellulose acetate meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for matchless performance and consistent uniform quality.	151	150 ft.	3" Plastic	$ 0.70
	351	300 ft.	4" Plastic	1.35
	651	600 ft.	5" Plastic	2.25
	1251	1200 ft.	7" Plastic	3.50
	2551H	2500 ft.	NARTB Hub	8.50
	2551R	2500 ft.	10½" Aluminum Reel	10.90
	‡2551FS	2500 ft.	10½" Fiberglass (RETMA)	10.90
	5051H	5000 ft.	NARTB Hub	17.00
	5051R	5000 ft.	14" Aluminum Reel	22.10
AUDIOTAPE ON 1½-MIL MYLAR® — a premium-quality professional tape with maximum mechanical strength and immunity to heat and humidity. Will not dry out or embrittle with age. ®Du Pont Trade Mark	671	600 ft.	5" Plastic	2.65
	1271	1200 ft.	7" Plastic	4.25
	2571H	2500 ft.	NARTB Hub	8.30
	2571R	2500 ft.	10½" Aluminum Reel	11.20
	‡2571FS	2500 ft.	10½" Fiberglass (RETMA)	11.20
	5071H	5000 ft.	NARTB Hub	16.65
	5071R	5000 ft.	14" Aluminum Reel	24.50
 **"LR" (Longer Recording) AUDIOTAPE ON 1-MIL "MYLAR"** — 50% more recording time per reel. Strong, superdurable polyester film base assures trouble-free operation even under extreme heat and humidity.	261	225 ft.	3" Plastic in Self-Mailer Pkg.	1.00
	961	900 ft.	5" Plastic	3.60
	1861	1800 ft.	7" Plastic	6.20
	3661H	3600 ft.	NARTB Hub	12.00
	3661R	3600 ft.	10½" Aluminum Reel	14.40
	‡3661FS	3600 ft.	10½" Fiberglass (RETMA)	14.40
	7261H	7200 ft.	NARTB Hub	24.00
	7261R	7200 ft	14" Aluminum Reel	30.00
PLASTIC-BASE "LR" AUDIOTAPE provides 50% more recording time on low-cost 1-mil cellulose acetate base, affording maximum economy where high strength is not required.	941	900 ft.	5" Plastic	3.50
	1841	1800 ft.	7" Plastic	5.50
	3641H	3600 ft.	NARTB Hub	10.00
	3641R	3600 ft.	10½" Aluminum Reel	12.85
	‡3641FS	3600 ft.	10½" Fiberglass (RETMA)	12.85
	7241H	7200 ft.	NARTB Hub	20.00
	7241R	7200 ft.	14" Aluminum Reel	26.00
SUPER-THIN AUDIOTAPE on ½-mil "Mylar" gives twice as much recording time per reel as standard plastic-base tape. For long-play applications where tape tension is not excessive.	1231	1200 ft.	5" Plastic	3.50
	2431	2400 ft.	7" Plastic	6.50
SUPER-THIN AUDIOTAPE ON TEMPERED "MYLAR" gives twice as much recording time per reel as conventional tape and is **twice as strong** as other double-length tapes. Will not stretch or break on any tape recorder — will not dry out or embrittle with age.	331T	300 ft.	3" Plastic in Self Mailer Pkg.	1.60
	1231T	1200 ft.	5" Plastic	5.45
	2431T	2400 ft.	7" Plastic	9.50
	4831T-R	4800 ft.	10½" Aluminum Reel	22.00
	‡4831T-FS	4800 ft.	10½" Fiberglass (RETMA)	22.00
 **MASTER LOW PRINT-THROUGH AUDIOTAPE** on plastic base — reduces print-through (magnetic echo) by 8 db. The finest, professional-quality recording tape. Base material, 1½-mil acetate. Maximum fidelity, uniformity, frequency response and freedom from noise and distortion.	651-M	600 ft.	5" Plastic	2.75
	1251-M	1200 ft.	7" Plastic	4.30
	2551H-M	2500 ft.	NARTB Hub	9.80
	2551R-M	2500 ft.	10½" Aluminum Reel	12.50
	‡2551FS-M	2500 ft.	10½" Fiberglass (RETMA)	12.50
	5051H-M	5000 ft.	NARTB Hub	19.55
	5051R-M	5000 ft.	14" Aluminum Reel	26.00
 **MASTER LOW PRINT-THROUGH AUDIOTAPE** on 1½-mil "Mylar"—print-through (magnetic echo) is reduced by 8 db. A super durable tape that meets the highest standards of performance. Withstands extreme temperatures and is virtually immune to humidity. Has maximum life under any conditions.	671-M	600 ft.	5" Plastic	3.20
	1271-M	1200 ft.	7" Plastic	5.10
	2571H-M	2500 ft.	NARTB Hub	10.00
	2571R-M	2500 ft.	10½" Aluminum Reel	13.50
	‡2571FS-M	2500 ft.	10½" Fiberglass (RETMA)	13.50

Trade Discount Applies to List Prices Only
© U.C.P., Inc.

SECTION 1340

Miscellaneous audiotape TRADE MARK Items

Item	Type No.	Description	List Price
AUDIOTAPE IN THE SNAP-LOAD CARTRIDGE on 1-mil "Mylar" Strong super-durable polyester film base Audiotape in new cartridge that has two hubs enclosed in dust-resistant plastic magazine for easy handling and loading.	C560	560 ft. in twin-hub, snap-load cartridges.	$4.50



COLORED PLASTIC-BASE AUDIOTAPE on 1½-mil cellulose acetate (in same box as above with label for color). Green and blue colored Audiotape, in conjunction with the standard red-brown tape, provide instant visual identification of recorded selections spliced into a single reel (as shown) — permit fast and easy color cueing and color coding. Eliminate need for identifying leaders between selections.

Green	Blue	Length	Reel	List Price
151G	151B	150 ft.	3" Plastic	$ 0.70
351G	351B	300 ft.	4" Plastic	1.35
651G	651B	600 ft.	5" Plastic	2.25
1251G	1251B	1200 ft.	7" plastic	3.50
2551HG	2551HB	2500 ft.	NARTB Hub	8.50
2551RG	2551RB	2500 ft.	10½" Aluminum Reel	10.90
‡2551FSG	‡251FSB	2500 ft.	10½" Fiberglass (RETMA)	10.90
5051HG	5051HB	5000 ft.	NARTB Hub	17.00
5051RG	5051RB	5000 ft.	14" Aluminum Reel	22.10

EMPTY AUDIO REELS IN INDIVIDUAL BOXES

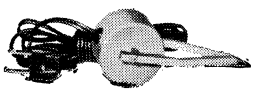
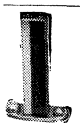
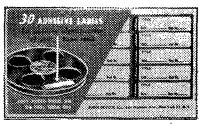
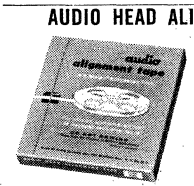
			List Price
Standard Reels	3PB	3" Plastic Reel in Box	.25
	4PB	4" Plastic Reel in Box	.45
	5PB	5" Plastic Reel in Box	.60
	7PB	7" Plastic Reel in Box	.75
	10RB	10½" Aluminum Reel in Box	4.00
	10FS	10½" Fiberglass (RETMA) in Box	4.00
	14RB	14" Aluminum Reel in Box	7.40
	10H	NARTB Metal Hub	.70
Colored Plastic Reels	5PBR	Red 5" Plastic Reel in Box	.60
	5PBY	Yellow 5" Plastic Reel in Box	.60
	5PBG	Green 5" Plastic Reel in Box	.60
	5PBB	Blue 5" Plastic Reel in Box	.60
	7PBR	Red 7" Plastic Reel in Box	.75
	7PBY	Yellow 7" Plastic Reel in Box	.75
	7PBG	Green 7" Plastic Reel in Box	.75
	7PBB	Blue 7" Plastic Reel in Box	.75

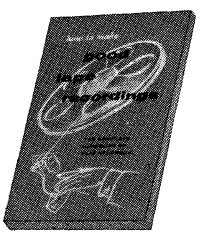
*Type Numbers listed cover red oxide wound on reel with OXIDE IN. For tape wound with Oxide Out, change last digit of Type No. from "1" to "0."

†COLORED PLASTIC REELS. Audiotape on 5" and 7" plastic reels can be supplied on colored reels at no increase in price when ordered in lots of 30 reels or more of any one color. To designate color of reel (Red, Yellow, Green or Blue) add letters "RR" and "YR," "GR," or "BR" to Type No. Listed.

‡"FS" in Type No. indicate Fiberglass reel with solid hub and 5/16" center hole.

Audio Accessories

Item	Type No.	List Price
AUDIO HEAD DEMAGNETIZER  Removes all permanent magnetism from recording and reproducing heads in a matter of seconds. Includes 7-foot cord and is individually boxed.	400	10.00
ECHORASER  Simple device for removing print-through from recorded tape. Kit contains one base and two Echorasers—**red** for removing weak print-through, **black** for removing strong print-through.	500	12.50
ADHESIVE REEL LABELS  Provide positive identification of your tapes, right on the reel. Simply press to apply, pull off to remove. Envelope of 30, 2" x ½" labels.	30AL	.20
AUDIO HEAD ALIGNMENT TAPE  Pre-recorded at 2,000, 10,000 and 15,000 cps (15"/sec.) with precisely correct head alignment. Each box contains 300 ft. on a 4" reel and instructions.	200	10.00

Item	Type No.	List Price
AUDIO RECORDING HEAD CLEANER Especially formulated for use on recording heads. Contains silicone solvent. Superior to carbon tetrachloride. One-ounce bottle with brush.	1HC	.65
AUDIO SELF-TIMING LEADER TAPE A strong, durable leader tape of white "Mylar" material with spaced markings to permit accurate rate time of leader intervals. Each box contains 100 feet, ¼" wide.	3L	.55
how to make **GOOD TAPE RECORDINGS**  This completely new handbook of tape recording contains up-to-the-minute information of interest and practical value to **every tape recordist.** Profusely illustrated with photographs, charts and diagrams prepared especially for this book, it contains 150 pages of valuable information on all phases of modern tape recording.	Clothbound 25C	2.50
	Paperbound 15P	1.50

Type EP AUDIOTAPE, extra precision magnetic recording tape for telemetering, electronic computers and other specialized applications, is also available. Ask for bulletin on EP AUDIOTAPE.

AUDIOFILM on 35mm, 17½mm and 16mm base, and AUDIO MAGNETIC DISCS are also available. Ask for information.

audiotex® HI-FI ACCESSORIES

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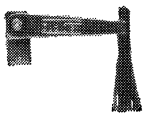
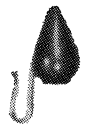
PHONO ACCESSORIES



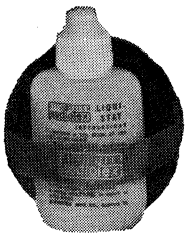
RECORD BRUSH
Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.
CAT NO. 30-000 ..... **List: $.75**

ATOMIC STAT-ELIM
Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.
CAT NO. 30-002 ..... **List: $3.95**



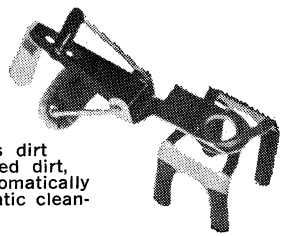
STYLUS BRUSH
Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable to any height.
CAT NO. 30-004 ..... **List: $1.65**

STATI-KLEER
Spray-type static eliminator comes in 12 oz. aerosol can. Eliminates dust-attracting static electricity.
CAT. NO. 30-008 ..... **List: $1.79**



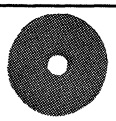
RECOR-DE-STAT
Squeeze bottle of anti-static detergent with velvet pad applicator. Long velvet fibers reach bottom of record grooves. Anti-static detergent cleans records; leaves dust-repelling film.
CAT NO. 30-010 ..... **List: $2.00**

DUST BUG
Four-in-One Record
Cleaner & Static Eliminator



Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge automatically while record is playing. Anti-static cleaning fluid included.

CAT. NO. 30-014 (changer model) ..... **List: $7.90**
CAT. NO. 30-012 (player model) ..... **List: $9.60**
CAT. NO. 30-016 (fluid refill) ..... **List: $2.00**
CAT. NO. 30-018 (plush pad replacement) ..... **List $1.40**



45-RPM RECORD ADAPTOR
Plastic adaptor slips over standard spindle to play any 45 RPM disc.
CAT. NO. 30-034 ..... **List: $.25**

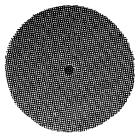
DISK-O-KLEEN
Silicone treated record cleaning cloth eliminates static charge. Specially woven velvet material has extra length nap to reach bottom of grooves.
CAT. NO. 30-022 ..... **List: $1.25**

KLEEN-O-RECORD
Triple action cloth, Anti-Static Record Cleaning Cloth, silicone impregnated, which cleans, lubricates and de-staticizes records. Long lasting.
CAT. NO 30-024 ..... **List: $.75**

RECORD SAVERS
Heavy-duty polyethelene envelopes protect records when not in use.

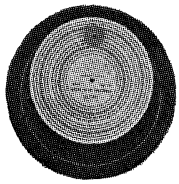
CAT NO.	SIZE	LIST
30-062	For 12" records. Pkg. of 5	$.49

45-RPM RECORD INSERTS
Plastic snap-in inserts adapt large hole 7" records for play on 3 speed changers. Spring-like construction holds insert firmly in place.
CAT NO. 30-030 (Pkg. of 6) ..... **List: $.30**



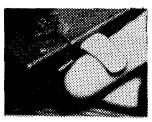
TURNTABLE RECORD CUSHIONS
Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.
CAT. NO. 30-040 (10") ..... **List: $1.25**
CAT. NO. 30-042 (12") ..... **List: $1.65**

TURNTABLE RUBBER MAT KIT
Heavy rubber mat fits any 12" turntable. Has tapered ridges 7", 10", and 12" in diameter. Supports any size record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.
CAT. NO. 30-044 ..... **List: $4.25**

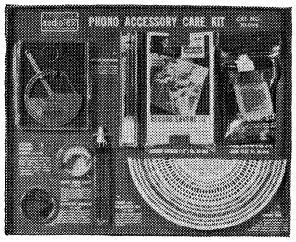


PHONO COVERS
Heavy duty embossed vinyl covers for turntables and changers.

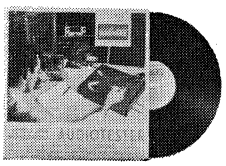
CAT. NO.	SIZE & USE	LIST PRICE
30-048	13¼" x 12½" x 8" For Webcor, V-M, Garrard RC-121, Mirracord, etc.	$2.50
30-050	17" x 15" x 8½" For Garrard RC-88, RC-98, 4HF; Glaser-Steers, Thorens Changer, Pickering	2.50
30-052	17½" x 16½" x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut Metzner	3.00
30-054	2½" x 16 x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut, Metzner	3.00



TONE ARM LIFT
Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.
CAT. NO. 30-066 ..... **List: $.75**



PHONO ACCESSORY KIT
Complete phono and record care kit contains record brush, recor-de-stat, 12" record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.
CAT. NO. 30-098 **List: $9.95**



AUDIOTESTER TEST RECORD
12" plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response, RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.
CAT. NO. 30-200 ..... **List: $4.98**

STYLUS MICROSCOPE
Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.
CAT NO. 30-218 ..... **List: $2.50**

PHONO LEVEL
Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1°.
CAT NO. 30-224 ..... **List: $2.50**

Trade Discount Applies to List Prices Only
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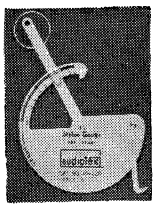
PHONO ACCESSORIES (Continued)

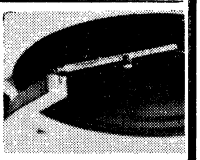


STYLUS WEIGHT GAUGE

Measures force needed to lift tone arm from record. Calibrated in bands with an expanded scale at low force. Accurately gauges correct stylus pressure.

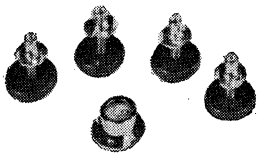
CAT. NO. 30-220 ..... **List: $2.80**

DECI-GRAM STYLUS PRESSURE GAUGE



Precisely calibrated, 1 to 10 gram pressure gauge measures stylus pressure within ½ gram. The sturdy DECI-GRAM is built to close tolerances to give you years of accurate service. Use it often . . . your records will last longer, sound better.

CAT. NO. 30-222 ..... **List: $1.65**



PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable.

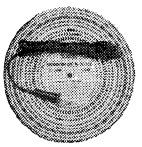
CAT NO. 30-226 ..... **List: $3.25**

STROBE DISC

New design shows not only correct speed but also ± 2% and ± 4% deviations.

CAT. NO. 30-228 (Cardboard) ..... **List: $ .55**
CAT. NO. 30-230 (Plastic) ..... **List: $1.65**

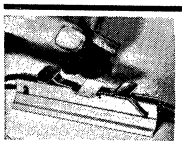
PHONO SPEED TEST KIT



Complete outfit for checking turntable speed. Includes plastic scrobe disc and handy neon lamp.

CAT. NO. 30-232 ..... **List: $2.90**

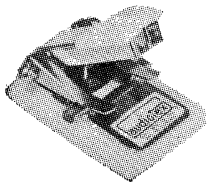
TAPE ACCESSORIES



TAPE SPLICER — EZE SPLICE MODEL

For fixing broken tape and editing. Provides easy-to-repair mitre cut.

CAT. NO. 30-100 ..... **List: $2.75**



TAPE SPLICER—PROFESSIONAL MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any ¼" tape.

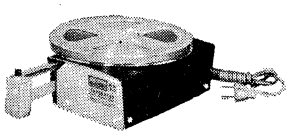
CAT. NO. 30-104 ..... **List: $9.95**

SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing adhesive on Mylar base. 100" spool, ½" width. Enough for 200 splices.

CAT. NO. 30-110 ..... **List: $.50**

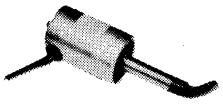
TAPERASER



Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to —52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10½" in diam. Complete operation takes only 30 seconds.

CAT. NO. 30-114 ..... **List: $33.00**

HEAD-DEMAG TAPE HEAD DEMAGNETIZER



Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered — can't scratch or damage. Reaches most heads with cover left on; on-off switch eliminates unplugging when device is not in use.

CAT. NO. 30-112 ..... **List: $9.95**

TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel.

CAT. NO. 30-116 (Pkg. of 18) ..... **List: $.60**

REEL-NEAT TAPE CLIPS

Works on full or partially fu'l reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel, full or partially empty. Made of non-magnetic stainless steel. Fits snugly on wheel—does not interfere with placing reel back into storage carton. Package of 5.

CAT. NO. 30-130 ..... **List: $1.25 Pkg.**

TAPE AND RECORD LABELS

36 pressure-sensitive ½" x 2" labels provide handy index to the music library. Space for title, date, and number.

CAT. NO. 30-118 ..... **List: $.55**

TAPE CUEING LABELS

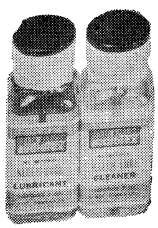
Color coded, pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box.

CAT. NO. 30-120 ..... **List: $1.65**

TAPE THREADING LEADER

For easy threading of tape on reel. 24" Mylar leaders with pressure sensitive adhesive. A small foam rubber ball at one end drops into hub of take-up reel. On fast rewind, the ball releases without damaging tape.

CAT. NO. 30-122 (Pkg. of 10) ..... **List: $1.40**



KLEEN-LUBE

Two-bottle kit for cleaning and lubricating tape heads. Cleaner dissolves dirt and grease. Lubricating fluid contains silicone in solvent base; leaves light silicone film to reduce friction, eliminate tape squeal.

CAT. NO. 30-124 ..... **List: $1.95**

KLEEN-TAPE

100′ of specially impregnated cloth tape on 5" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes.

CAT. NO. 30-126 ..... **List: $2.95**

audiotex® HI-FI ACCESSORIES

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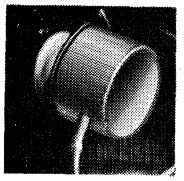
TAPE ACCESSORIES (Continued)

TAPE RECORDER ACCESSORY KIT

Complete set of essentials for proper care and operation of tape recorders. Contains "EZE-Splice" tape splicer, roll of splicing tape, package of tape labels, box of tape end clips, package of tape starting leaders, reel of Kleen-Tape and Vial of Phono and Recorder Oil.

CAT. NO. 30-148 ..... **List: $9.95**



TELEPHONE PICK-UP

Records both sides of a telephone conversation — suction cup attaches to any phone. Plugs into tape recorder.

CAT. NO. 30-150 (plug not included) ..... **List: $5.95**

CAT. NO. 30-152 (with standard phone plug) ..... **List: $6.95**

AUDIOTESTER TAPE

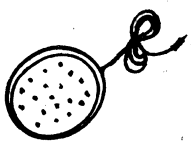
For checking performance of stereo and mono tape machines and associated equipment. Tests include head alignment, resonance, frequency response, NAB equalization, intermodulation, flutter, metronome balance, and distortion. 7.5 ips tape comes with detailed instruction.

CAT. NO. 30-206 (Standard tolerance) ..... **List: $6.50**

CAT. NO. 30-208 (Precise tolerance) ..... **List: $8.25**

CAT. NO. 30-210 (4 track test tape) ..... **List: $6.50**

PILLOW SPEAKER



Personal Instrument for Private Listening. For use with transistor radios or across voice coil leads of any speaker. Electromagnetic element for maximum sensitivity and widest possible tone range. For private listening, without disturbing others. Comes with cord and miniature phone plug to fit transistor radios.

CAT. NO. 30-160 ..... **List: $4.95**

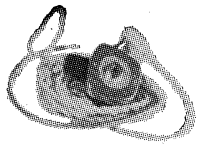
MISCELLANEOUS HI FI ACCESSORIES

PROFESSIONAL HEADPHONES

High quality instruments for stereo and monophonic play. Frequency range 50-15,000 cps. Moving coil elements contain dual 16 ohm voice coils and lightweight plastic diaphragms. Supplied with connecting cable and plugs. Impedance: 16/16 ohms (stereo) or 8 ohms (mono).

CAT. NO. 30-158 ..... **List $49.00**

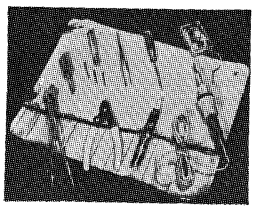
MINIATURE EARPHONE



For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.

CAT. NO. 30-154 (15 ohm) ..... **List: $4.50**

CAT. NO. 30-156 (2000 ohm) ..... **List: $4.50**



CAT. NO. 30-244

List: $16.50

ENGINEER'S HI-FI SERVICE TOOL KIT

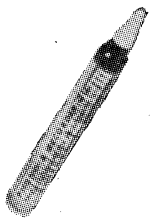
Special tools for the audiophile or professional for repair, installation and adjustment of hi-fi and music equipment. Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweezer; neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver ("Minihold"); wire stripper and cutter, and a package of solder.

ALL-PURPOSE TEST METER

True pocket size, rugged mechanical multi-purpose circuit tester. Ideal for servicemen, technicians, hobbyists, students, etc. 9 voltage ranges from 6 to 600 V., AC and DC; three resistance ranges to 200 megohms; three DC current ranges; also direct reading capacity, inductance and decibel ranges; sensitivity; 6000 O/V, DC; 2700 O/V AC.

CAT. NO. 30-240 ..... **List: $33.90**

PHONO AND RECORDER OIL



Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.

CAT. NO. 30-250 ..... **List: $.65**

SPEAKER CONE WEATHERPROOFING

Special silicone compound weatherproofs speakers for outdoor use. 8 oz. in aerosol-type spray can; enough to protect several speakers.

CAT. NO. 30-252 ..... **List: $2.50**

FM INDOOR ANTENNA

Folded Dipole for local or strong signal locations. Comes ready to install with 6' lead wire and spade lugs.

CAT. NO. 30-270 ..... **List: $2.10**

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.

CAT. NO.	SIZE	LIST
30-162	6"x12"	$0.90
30-164	9"x12"	1.25
30-166	12"x12"	1.60
30-168	13"x16"	2.25

HI FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.

CAT. NO. 30-314 ..... **List: $1.50**

Trade Discount Applies to List Prices Only

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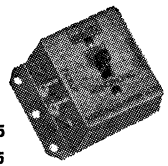
audiotex®

HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

MISCELLANEOUS HI FI ACCESSORIES (Continued)

STEREO/MONOPHONIC SWITCHBOX



Parallels two stereo channels for noise-free play of monophonic records with stereo cartridge. Two-position switch for stereo or mono play. 3 ft. shielded cables with male phono plugs included.

CAT. NO. 30-290 (surface mounting) List: $4.85

CAT. NO. 30-292 (panel mounting) List: $5.25

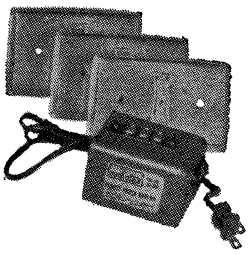
DUO JACK SWITCH BOX

Connects two units such as tuner and record player or tape machine to single input. Automatically switches signals. Contains two inputs that accept phono jacks and 18″ output cable with phono plug.

CAT. NO. 30-294 (surface mounting) .....List: $3.00

CAT. NO. 30-296 (panel mounting) .....List: $3.75

REMOTE POWER CONTROL



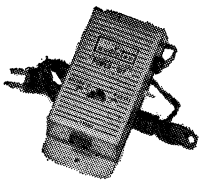
Operates like a light switch; provides remote control of electrical equipment at any location, with any number of switches. Contains low voltage signal power supply and relay switch. Remote switches fit standard electrical outlet box or may be built into a cabinet. Uses 3 conductor low voltage wire. 10 amp at 117.5 volt capacity.

CAT. NO. 30-300 (includes 3 switches) ..... List: $23.00

CAT. NO. 30-302 (with 3 pilot light switches) ..... List: $28.00

CAT. NO. 30-304 (additional switches without pilot light) ..... List: $2.25

POWEROFF



Shuts-off power to automatic record changers when last record has been played. Automatic shut-off may be switched to manual control. Complete with line cord and two receptacles.

CAT. NO. 30-310 (for changers drawing 30-45 watts) ....List: $11.95

CAT. NO. 30-312 (for changers drawing 15-30 watts) ....List: $11.95

HI FI KNOBS

Attractive plastic knobs with silver or gold ring inserts. Standard ¼″ brass insert bushing with set screw — fits any shaft configuration.

CAT. NO.	COLOR	SIZE	LIST
30-320	Black/gold	1″ x 13/16″	$1.00
30-322	Grey/silver	1″ x 13/16″	1.00
30-324	Ivory/gold	1″ x 13/16″	1.00
30-326	Black/gold	1 5/16″ x 13/16″	1.00
30-328	Grey/silver	1 5/16″ x 13/16″	1.00
30-330	Ivory/gold	1 5/16″ x 13/16″	1.00
30-332	Black/gold	1 1/2″ x 7/8″	1.30
30-334	Grey/silver	1 1/2″ x 7/8″	1.30
30-336	Ivory/gold	1 1/2″ x 7/8″	1.30

DRAWER SLIDES

For mounting record players, tape machines or other equipment in storage walls or cabinets. Support up to 50 lbs.; fit any drawer up to 17″ long. Nylon rollers provide smooth operation.

CAT. NO. 30-350 (one pair) ..... List: $3.30

CAT. NO. 30-348 (Ball bearing slides).....List: $5.00/pr.

ACOUSTIC PADDING

Spun fiberglass eliminates standing sound waves, reduces reverberation inside speaker cabinets. May be used for any application to control or absorb sound.

CAT. NO. 30-356 (24″x60″x1″) .....List: $ 2.25

CAT. NO. 30-358 (Roll 24″x150′x1″)..... ....List: $56.15 (30c lin. ft.)

SPEAKER SELECTOR SWITCH

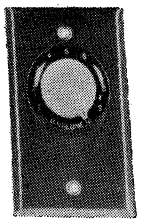
Dial switch provides control of 1 to 3 speakers anywhere in the house. Finished in attractive brush lacquered solid brass. Terminals on rear.

CAT. NO. 30-360
(surface mounting or free standing)
List: $5.50

CAT. NO. 30-362
(wall plate type) ..... List: $3.50

CAT. NO. 30-388
(Stereophonic speaker selector Wall plate type)
List: $4.95

SPEAKER VOLUME CONTROLS



Terminal-type controls for mounting on standard electrical wall plates. Also fit standard conduit box or may be mounted in any panel or cabinet. 10 watt power capacity (20 watt peak); "L" pad design.

CAT. NO.	List
WALL PLATE TYPE	
30-364 (for 8 ohm speakers)	$4.95
30-366 (for 16 ohm speakers)	$4.95
30-368 (for 8 ohm speakers with output jack for plug-in of extension speaker)	$5.25
30-370 (for 16 ohm speaker with jack as above)	$5.25
30-372 (for two 8 ohm speakers)	$8.50
30-374 (for two 16 ohm speakers)	$8.50
SURFACE MOUNTING (in self-contained box)	
30-376 (speaker volume control 8 ohm)	$ 7.00
30-378 (speaker volume control 16 ohm)	$ 7.00
30-380 (dual stereo speaker 8 ohm)	$10.50
30-382 (dual stereo speaker 14 ohm)	$10.50
CABINET TYPE	
30-384 (speaker volume control 8 ohm)	$ 3.50
30-386 (speaker volume control 16 ohm)	$ 3.50

"T" PAD, PANEL MOUNTING

30-390 (8 ohm, 25 watt peak audio) $6.75

30-392 (16 ohm, 25 watt peak audio) $6.75

SOLDERLESS PHONO PIN PLUGS

Completely new design requires only stripping of cable inserting in plastic shell and assembly with two screws. Right angle style.

CAT. NO. 30-530.....List $.90 pk/2 grey plugs

CAT. NO. 30-532.....List: $.90 pk/2 black plugs

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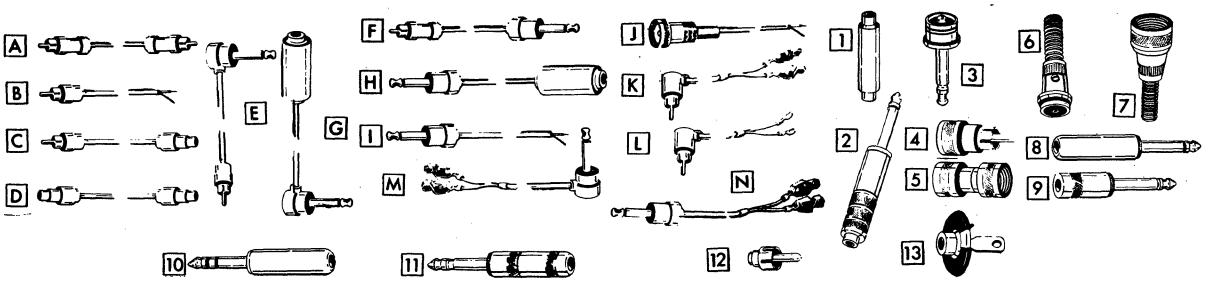
audiotex® HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

CONNECTING CABLES, ADAPTORS, PLUGS AND JACKS A full assortment of Interconnecting Cables, Adaptors and connectors for connecting Hi-Fi sets. Cables come in a variety of lengths for any application.



SHIELDED CABLES

Phono Pin Plugs on both ends.

A CAT. NO.	LENGTH	LIST
30-400	18″	$1.00
30-402	36″	1.25
30-404	72″	1.50
30-406	144″	2.00

Phono Pin Plug on one end, other end stripped and tinned.

B CAT. NO.	LENGTH	LIST
30-412	18″	$ .90
30-414	36″	1.00
30-416	72″	1.25
30-418	144″	1.75

Phono Pin Plug on one end; Phono Pin Jack on other end.

C CAT. NO.	LENGTH	LIST
30-424	18″	$1.25
30-426	36″	1.35
30-428	72″	1.75
30-430	144″	2.25

Phono Pin Jacks on both ends.

D CAT. NO.	LENGTH	LIST
30-434	18″	$1.55
30-436	36″	1.80
30-438	72″	2.25

Phono Pin Plug on one end, 90° Phone Plug on other.
E CAT. NO. 30-442 (72″) List: $2.00

Phono Pin Plug on one end, Std. Phone Plug on other.
F CAT. NO. 30-444 (72″) List: $2.00

90° Phone Plug on one end, Phone Jack on other.
G CAT. NO. 30-446 (10′) List: $5.00

Std. Phone Plug on one end, Phone Jack on other end.
H CAT NO. 30-448 (10′) List: $5.00

Phone Plug on one end, other end stripped and tinned.
I CAT. NO. 30-450 (6′) List: $1.90

Mike Connector on one end, other end stripped and tinned.

J CAT. NO.		List:
30-452 (10′)		$2.70
30-464 (8′)		2.80
30-466 (15′)		3.90

TWO-CONDUCTOR CABLES

Alligator Clips on one end; 90° Phono Pin Plug on other end.
K CAT. NO. 30-456 (10′) List: $2.25

Spade Lugs on one end; 90° Phono Pin Plug on other end.
L CAT. NO. 30-458 (10′) List: $1.85

Alligator Clips on one end; 90° Phono Plug on other end.
M CAT. NO. 30-460 (10′) List: $2.40

Standard Phone Plug on one end; Alligator Clips on other end.
N CAT. NO. 30-462 (10′) List: $2.40

ADAPTORS

Phono Pin Jack, for connecting two Phono Pin Plugs.
1 CAT. NO. 30-470 List: $1.00

Phono Pin Plug to Standard Phone Plug
2 CAT. NO. 30-472 List: $1.95

Female Mike Connector to Standard Phone Plug.
3 CAT. NO. 30-474 List: $ .45

Mike Connector to Phono Pin Plug.
4 CAT. NO. 30-476 List: $1.00
30-500 Phono Pin Plug to 2 Phono Jacks 1.75
30-502 (3 phono pin jacks) 1.75
30-504 (2 pin jacks) 1.90
30-506 Phone Plug to 2 Mike Connector 1.90

MISCELLANEOUS

Connector for two Male Mike Connectors.
5 CAT NO. 30-478 List: $1.00

Mike Connector, Single Contact, Male.
6 CAT. NO. 30-480 List: $ .50

Mike Connector, Single Contact, Female.
7 CAT. NO. 30-482 $ .70

Three Mike Connectors
CAT. NO. 30-508 List: $1.65

Standard Phone Plug, 2 Contact, Plastic handle.
8 CAT. NO. 30-484 List: $ .80

Standard Phone Plug, 2 Contact, "Stubby" Metal handle (shielded).
9 CAT. NO. 30-486 List: $1.00

Phone Plug, 3 Contact, Plastic handle.
10 CAT. NO. 30-488 List: $1.50

Phone Plug, 3 Contact, Metal handle (shielded).
11 CAT. NO. 30-490 List: $1.50

Phono Pin Plugs, Package of 4.
12 CAT. NO. 30-492 List: $ .55

Phono Pin Jacks, Package of 3.
13 CAT. NO. 30-494 List: $ .55

Phono Pin Plug with Removable Shielded Handle.
CAT. NO. 30-534 List: $1.00 (pkg./2)

Phono Pin Jack, Package of 2
CAT. NO. 30-536 List: $1.20

Speaker Wires, 22 Ga, 2 Conn for connecting loud spkr.
CAT. NO. 30-550 (20′) Speaker Wire List: $ .70
30-552 (40′) Speaker Wire 1.25

Trade Discount Applies to List Prices Only
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Garrard

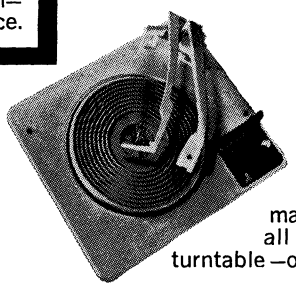
The World's Finest Stereo Record Players

THE LABORATORY SERIES

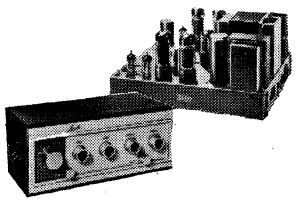
TYPE A AUTOMATIC TURNTABLE
4-speed unit—dynamically balanced tone arm—full size cast turntable—pusher platform—interchangeable spindle device.

Model AT6
A new Automatic Turntable modestly priced but distinguished by features and performance unequalled except by Garrard's own Type A. 4 speeds with separate manual and auto controls and intermix. Built-in gram scale—oversize turntable—interchangeable spindles—precision motor.

Model Tmk II—"Crest" 4-Speed Manual Player, less cartridge, 100/130 volts. 60 cycle A.C. (50 cycle pulley available).



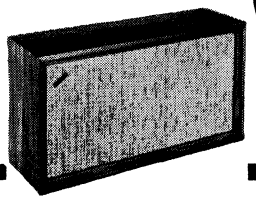
AUTOSLIM
A new standard of styling in a budget record player. Ultra-compact with automatic-manual operation—intermixes all records—new type balanced turntable—one-piece die cast tone arm.



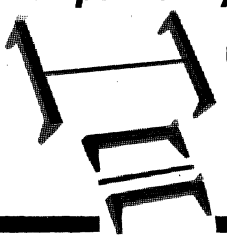
LEAK STEREO MODELS
"Point One Stereo" Preamplifier.
"Stereo 50" Amplifier, 25 watts per channel.
"Stereo 20" Amplifier, 12 watts per channel.

LEAK MONAURAL MODELS
Varislope III Preamplifier.
T/50 PLUS—0.1% dist. at 50 w.
TL/25 PLUS—0.1% dist. at 25 w.
TL/12 PLUS—0.1% dist. ot 12 w.
NEW! Trough Line II FM Tuner.
ONLY LEAK KEEPS HARMONIC DISTORTION DOWN TO 0.1% AT FULL RATED POWER.

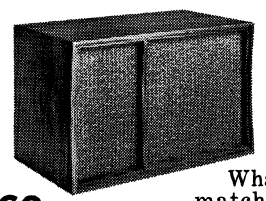
Wharfedale *Achromatic Speaker Systems*



W40 The first ultra-compact speaker system with sand-filled panels—famous Achromatic principle. Remarkable full range with excellent bass response.

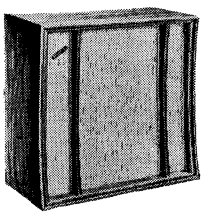


Model B67 Universal Mounting Base for **W60** and **W70**



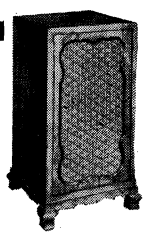
W60

A full-range speaker system with the rich, non-strident Wharfedale sound... the speakers matched and critically tuned to a craftsman's cabinet... ¾" genuine hardwood throughout.



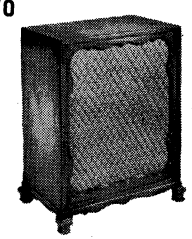
W70

French Provincial Models of the **W60** and **W70**



W60PR

A full-range speaker system with the rich, non-strident Wharfedale sound... the speakers matched and critically tuned to a craftsman's cabinet... ¾" genuine hardwood throughout.



W70PR

S. G. Brown

"Super K" Headphones
Specifically designed for Stereo/High Fidelity Applications. Moving coil watch-type receivers. 52 ohms.

BRITISH INDUSTRIES CORPORATION - PORT WASHINGTON, N. Y.

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BURGESS

MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .

- **SUPERB FREQUENCY RESPONSES**
- **LOW NOISE LEVEL • HIGH SENSITIVITY**
- **UNIFORM, TROUBLE-FREE PERFORMANCES ASSURED BY BURGESS QUALITY CONTROL**

BURGESS CATALOG NUMBER	TAPE LENGTH	REEL SIZE	LIST PRICE	DESCRIPTION
111-1.5	150′	3″	$ .70	**SERIES NO. 111 1.5 mil ¼″** **ALL-PURPOSE PLASTIC—** 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-3	300′	4″	1.35	
111-6	600′	5″	2.25	
111-12	1200′	7″	3.50	
150-2.25	225′	3″	1.00	**SERIES NO. 150 1.0 mil ¼″** **EXTRA-PLAY POLYESTER MYLAR*—** 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-9	900′	5″	3.60	
150-18	1800′	7″	6.20	
102-6	600′	5″	2.65	**SERIES NO. 102 1.5 mil ¼″** **ALL PURPOSE MYLAR*—** 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
102-12	1200′	7″	4.25	
190-9	900′	5″	3.50	**SERIES NO. 190 1.0 mil ¼″** **EXTRA-PLAY PLASTIC—** 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-18	1800′	7″	5.50	
200-3	300′	3″	1.60	**SERIES NO. 200 .5 mil ¼″** **DOUBLE LENGTH TENSILIZED POLYESTER MYLAR*—** .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600′	4″	3.05	
200-12	1200′	5″	5.45	
200-24	2400′	7″	9.50	

ACCESSORIES

BURGESS CATALOG NUMBER	SIZE	LIST PRICE	DESCRIPTION
LT-15	150′L. ¼″W.	$ .90	Plastic Leader Tape
ST-5	150″L. ½″W.	.39	Splicing Tape
RB-3	Clear Plastic 3″ Reel	.25	Empty Reel, Boxed
RB-4	Clear Plastic 4″ Reel	.55	Empty Reel, Boxed
RB-5	Clear Plastic 5″ Reel	.65	Empty Reel, Boxed
RB-7	Clear Plastic 7″ Reel	.75	Empty Reel, Boxed
B-3	For 3″ Reel	.15	Empty Box
B-4	For 4″ Reel	.20	Empty Box
B-5	For 5″ Reel	.20	Empty Box
B-7	For 7″ Reel	.20	Empty Box
MB-4	For 4″ Reel and Box	.15	Corrugated Mailing Carton
MB-5	For 5″ Reel and Box	.15	Corrugated Mailing Carton
MB-7	For 7″ Reel and Box	.20	Corrugated Mailing Carton

*Trade Mark of DuPont.

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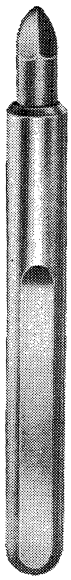
Capps

CAPPS & CO., inc.
valley stream, n.y.

CAPPSCUTTERS

Patent No. 2187512 and 2530284



CAPPS CUTTERS are the finest examples of precision hand craftsmanship available in this country today. Each one is made by a series of hand shaping and polishing operations on delicate facets so small that they can be covered by a human hair. Each is individually disc tested to assure the highest possible recording standards. PRODUCTION TOLERANCES: Included angle-Plus 7, minus 3 degrees: Radius, plus or minus .0003: Burnishing facet, plus or minus .00025 (measured at radius tip): Noise meter reading of minus 55db or better at an 8" record diameter.

SAPPHIRE CUTTERS

Cat. No.	Duty	Shank	Shank Matl.	Included Angle (degrees)	Radius (Mils)	List Price	Resharpening List Price
780S	For general course pitch work 78 and LP.	Short	Dural	87	1.5	$8.25	$3.75
780L	"	Long	Dural	87	1.5	8.25	3.75
702S	"	Short	Dural	70	2.0	8.25	3.75
702L	"	Long	Dural	70	2.0	8.25	3.75
330S	Routine microgroove	Short	Dural	87	0.5 to 1.0	8.25	3.75
330L	"	Long	Dural	87	0.5 to 1.0	8.25	3.75
B2S	Utility stylus	Short	Brass	87	to 1.0	6.60	3.25
B2L	"	Long	Brass	87	to 1.0	6.60	3.25

STELLITE CUTTERS

871S	Harder than steel—softer than sapphire	Short	Brass or Dural	87	to 1.0	2.50	1.40
871L	"	Long	Brass or Dural	87	to 1.0	2.50	1.40

CUSTOM MADE AND SPECIAL DESIGN STYLI AVAILABLE (MRS, ANM and FEATHER EDGE)

Eccentric styli, Advance balls, Shaving knives, Wax points, Embossing styli, Replaceable Sapphire reproducing needles, Cartridge assemblies with Sapphire points.

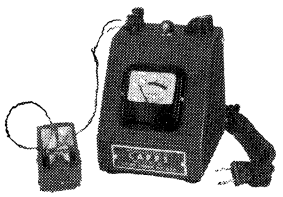
CAPPS RESHARPENING SERVICE

Most CAPPS MADE styli can be resharpened upwards of five times depending on whether they are simply dull or badly chipped (Thermo styli cannot be resharpened this many times because of the wiring which limits the available area of sapphire.) CAPPS "RESHARPS" are given the same exacting care and attention as CAPPS new styli and are returned to the sender promptly.

HOT STYLUS UNIT

The CAPPS HOT STYLUS UNIT is used for applying heat to disk recording styli, softening the disk material at the point of contact thereby producing smoother more accurate grooves. This results in a substantial reduction in surface noise, especially at the inner diameter and minimizes the mechanical load on the cutting head increasing its efficiency and frequency response.

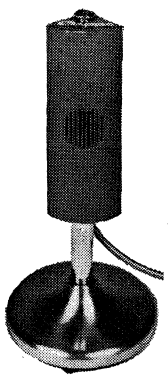
When ordering specify make and model number of cutter head and stylus requirements.



Model No.		
CU-I	Supplied without stylus	$60.00 net
CU-IR	Supplied with regular duty stylus, LP or 78	66.45 net
CU-IC	Supplied with custom made stylus to customer's specification	70.50 net

MICROPHONES

CONDENSER MICROPHONES



CR BB

CAPPS CONDENSER MICROPHONES are acoustically faithful, distortion free, omnidirectional, blast proofed, and have a smooth frequency response from 20 to 20,000 c.p.s. Their excellent transient response make them ideal for those who must have the ultimate in acoustical transmission. They are complete with preamplifier, power supply and cable.

CM 2001 "PROFESSIONAL." The lowest priced condenser microphone available. Combines all of the features above with low cost achieved through mass production. Available for high impedance input (Grid Input). A boon to high fidelity enthusiasts.

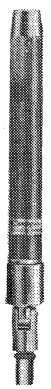
CM 2001 ..... Net Price $190.00*

CAPPS "STUDIO" Condenser Microphones are completely equipped with Cannon Connectors and swivel head.

CM 2030A—30 Ohms ..... Net Price $225.00*

CM 2250A—250 Ohms ..... Net Price $225.00*

CM 2011A—Hi Imp. (Mic Input) ..... Net Price $225.00*



CM 2030A
CM 2250A
CM 2011A

CRYSTAL MICROPHONE WITH CONTROLLABLE *BASS BOOST*

(Patent Pending)

Designed to compensate for frequency response deficiencies inherent in many tape recorder and p.a. systems, this microphone has a control knob which causes the acoustic chamber of this microphone to increase the bass response of the microphone up to 12 db from 50 to 150 c.p.s. with smooth rise and roll off below peak boost. Smooth frequency response 20-12,000 c.p.s. Output level —55 db re 1V/dyne/CM². Omnidirectional. 5/8"-27 thread for stand mounting or lay flat for desk use. Supplied with 15' of shielded microphone cable.

CR BB ..... List Price $36.00

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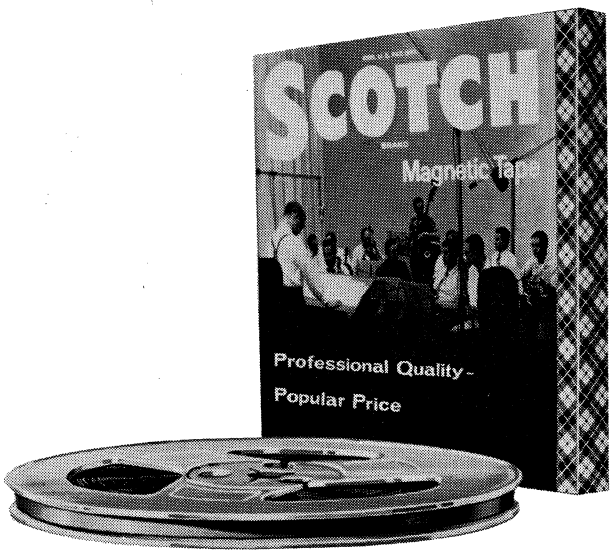

STOCK NO.	DESCRIPTION	REEL	LIST PRICE
*111-1.5	¼" x 150'	3"	$ .70
111-3	¼" x 300'	4"	1.35
111-6	¼" x 600'	5"	2.25
111-12	¼" x 1200'	7"	3.50
111-24H	¼" x 2400'	HUB	8.50
111-24R	¼" x 2400'	10½"	10.90
*102-6	¼" x 600'	5"	2.65
102-12	¼" x 1200'	7"	4.25
102-24H	¼" x 2400'	HUB	8.80
102-24R	¼" x 2400'	10½"	11.20
*120-3	¼" x 300'	4"	1.35
120-6	¼" x 600'	5"	2.25
120-12	¼" x 1200'	7"	3.50
120-24H	¼" x 2400'	HUB	8.50
120-24R	¼" x 2400'	10½"	10.90
†190-9	¼" x 900'	5"	3.50
190-18	¼" x 1800'	7"	5.50
190-36H	¼" x 3600'	HUB	10.00
190-36R	¼" x 3600'	10½"	12.85
†150-2.25	¼" x 225'	3"	1.00
150-9	¼" x 900'	5"	3.60
150-18	¼" x 1800'	7"	6.20
150-36H	¼" x 3600'	HUB	12.00
150-36R	¼" x 3600'	10½"	14.40
*131-12	¼" x 1200'	7"	4.40
131-24H	¼" x 2400'	HUB	10.00
131-24R	¼" x 2400'	10½"	12.40
*138-12	¼" x 1200'	7"	5.10
138-24H	¼" x 2400'	HUB	11.10
138-24R	¼" x 2400'	10½"	13.50
200-3	¼" x 300'	3"	1.60
200-6	¼" x 600'	4"	3.05
200-12	¼" x 1200'	5"	5.45
200-24	¼" x 2400'	7"	9.50
200-48RPS	¼" x 4800'	10½"	22.00
311-6	¼" x 600'	5"	2.40
311-12	¼" x 1200'	7"	3.75

ACCESSORIES

41-½S	½" x 150"	.39
41-7/32L	7/32" x 66'	.57
41-½L	½" x 66'	.76
41-¾L	¾" x 66'	1.01
43P-1.5	¼" x 150'	.90

EMPTY REELS AND BOXES

RB3	3"	.25
RB4	4"	.55
RB5	5"	.65
RB7	7"	.75

**Also available 4800' on hub or 14" reel.*
†Also available 7200' on hub or 14" reel.

1. No. 111. All Purpose. Plastic backing. Flawless sound reproduction at low cost. Recommended for all general recording needs. International standard of the recording industry.

2. No. 102. All Purpose. Polyester backing. Coated on weather-balanced, super tough 1½ mil PE backing. Flawless recording characteristics similar to No. 111. Ideal for long term storage of your valuable, irreplaceable recordings.

3. No. 120. High Output. Plastic backing. Enjoy music with greater dynamic range, freedom from distortion on signal peaks and 100% more output for brilliant sound reproduction. A must for hi-fi fans.

4. No. 190. Extra Play. Plastic backing. 50% more tape on a standard size reel—as much recording time as 1½ reels of standard tape. High-potency oxide provides complete purity of sound.

5. No. 150. Extra Play. Polyester backing. Made for use in extremes of temperature and humidity. 50% extra playing time.

6. No. 131. Low Print. Plastic backing. Reduces print-through to a point below noise level on most professional machines. Has excellent recording characteristics, allows long time storage.

7. No. 138. Low Print. Same magnetic and recording characteristics as No. 131—but has tough polyester backing.

8. No. 200. Double Length. Tensilized polyester backing. The original no-break, no-stretch tape that plays twice as long as standard tape. Tensilized polyester .6 mil backing makes it twice as strong as ordinary double length tape.

9. No. 311. TENZAR Backing. Designed especially for rugged use applications requiring frequent repeat, continuous play and constant handling. No. 311 is extra tough, tear-resistant, stretch-resistant and non-drying. End-Of-Reel Tape Clip packed with every reel, holds tape end securely in handling, storage and shipment. Available on clear, red, blue, green and yellow transparent reels.

10. No. 41. Splicing Tape. Has a special white thermosetting adhesive that is guaranteed not to ooze. Makes splices that actually strengthen with age. Available in handy metal dispenser on blister-pac display card.

11. No. 43P. Leader and Timing Tape. For tape lead-ins, cueing, exact timing, identification between recorded selections. Available on convenient, self-dispensing display card.

12. No. TC-12. End-of-Reel Tape Clip Display. List Price: .35¢ per pack of 10 clips; $4.20 per display.

M-CRMP-3(120.5)R

"SCOTCH" AND THE PLAID DESIGN ARE REGISTERED TRADEMARKS OF 3M COMPANY, ST. PAUL 6, MINNESOTA.
EXPORT: 99 PARK AVENUE, NEW YORK, N.Y. IN CANADA: LONDON, ONTARIO

MINNESOTA MINING AND MANUFACTURING COMPANY
. . . WHERE RESEARCH IS THE KEY TO TOMORROW
3M COMPANY

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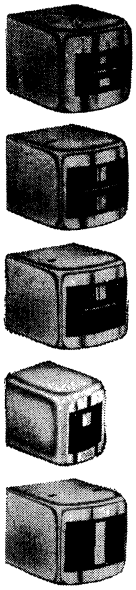
Nortronics® TAPE RECORDING COMPONENTS

Magnetic Tape Heads



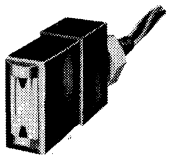
TLB — 4-Track stereo R/P heads, laminated cores, 0.1 mil gap. TLB-2 is high imp. (0.8 HY) for general purpose replacement and conversion. TLB-4 is low imp. (0.09 HY) for transistor circuits or recording only. TLB-7R is medium imp. (0.3 HY) and with 0.25 mil gap for recording only. Net $21.60

TLA — 2-Track stereo R/P heads, laminated cores, 0.16 mil gap. TLA-3 is high imp. (0.7 HY) for most applications. TLA-5 is low imp. (0.1 HY) for transistor circuits and record-only applications. Net $23.80

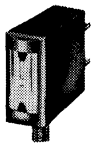
SLA — ½-Track monophonic R/P heads, identical to TLA models. SLA-3 is high imp. general purpose. SLA-5 is low imp. Net $16.40

SLS — ½-Track monophonic head, solid core. SLS-1 is high imp. (0.9 HY). SLS-3 is medium imp. (0.35 HY). Net $8.10

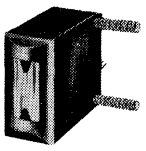
SLF — Full-Track monophonic R/P head, laminated core, 0.16 mil gap. Coils may be connected for low or high impedance (0.25/1.0 HY). Net $33.70



REAR MOUNT



BASE MOUNT



SIDE MOUNT

R/P HEADS have similar mounting selections

SEQ — 4-Track stereo erase head. SEQ1 is high imp. (115 V. 60 KC). SEQ4 is medium imp. (35 V. 60 KC). Net $12.50

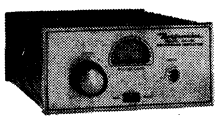
SEH — 2-Track stereo erase head. SEH1 is high imp. (115 V. 60 KC). SEH4 is medium imp. (35 V. 60 KC). Net $12.50

MEH — 1/2-Track monophonic erase head. MEH1 is high imp. (115 V. 60 KC). MEH4 is medium imp. (35 V. 60 KC). Net $7.50

MEF — Full-Track erase head. MEF1 is high imp. (115 V. 60 KC). MEF4 is medium imp. (35 V. 60 KC). Net $12.50

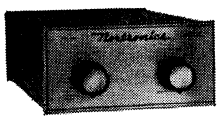
Many special purpose erase and record/play heads available from stock or on special order, such as miniature "J" Heads shown at right. Information available on request.

Equipment



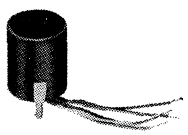
RA-100 RECORDING AMPLIFIER

Supplies power to recording and erase heads. Has inputs for microphone, phono pickup or tape head. Includes VU-meter, adjustable bias and record currents to match almost any head. Recording only, not playback. 60 KC bias frequency. Net $57.50



PL-100 PLAYBACK AMPLIFIER

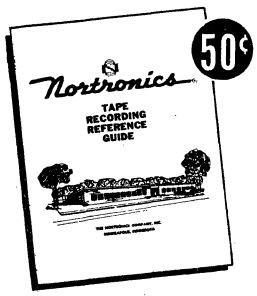
Provides 3 watts output to speaker. Inputs for tape head, phono cartridge, or tuner. Variable equilization for magnetic head. Net $46.50



T-60 OSCILLATOR TRANSFORMERS

Bias oscillator transformers, have Ferroxcube core for high efficiency. Furnishes bias and erase power. Type T-60E includes circuit diagram using 12AU7 tube — 60 KC. Net $4.50

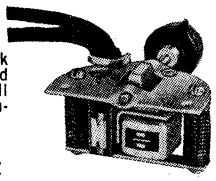
Type T-60T2 is for transistor circuits and is high and low impedance — 60 KC. Includes circuit diagram. Net $4.50



JUST PUBLISHED!

See your distributor Tape Recording Reference Guide featuring explanation, in layman's language, of how 4-Track Tape recorders operate and how to convert old recorders to 4-Track as well as replacement of heads. Contains full installation instructions for all of Nortronics Conversion Kits.

Stereo Conversion Kits



Convert your own tape equipment to 4-track stereo playback or stereo playback/record with these new stereo conversion kits. All kits come complete with hardware and instructions.

WOLLENSAK-REVERE

WR-60 — Converts all 2-track models to 4-track stereo. Includes 3 position head-shifter for 2-track stereo and 4-track mono operation. Allows stereo recording with additional amplifier (not included) $49.50

WR-35 — 4-Track Conversion Kit for all Revere and Wollensak 2-Track Stereo tape recorders. Includes TLB-2, 4-Track Stereo replacement head, and HS-1 Head Shifter which permits playing of 2-Track Stereo tapes also. Retains monophonic record/play ability. Net $25.50

WR-40 — 4-Track Conversion Kit for all Revere and Wollensak Monophonic recorders. Includes TLB-2 4-Track Stereo head, monophonic erase head, connecting cables, all mounted for ready replacement. Has Head Shifter for 4-Track and 2-Track playback. Net $32.50

PENTRON

P-6 — Kit for converting all Pentron Monophonic and Stereo machines to 4-track Stereo playback and Monophonic record. Net $29.70

P-7 — Stereo erase kit for machines. Works with P-6 kit described above to permit 4-track stereo recording.....$15.00

VM

V-6 — Kit for converting all VM recorders to 4-Track Stereo Playback and Monophonic record. Net $25.50

V-7 — Stereo erase kit for machines. Works with V-6 kit described above to permit 4-track stereo recording.....$15.00

WEBCOR

W-6 — WEBCOR 4-Track Stereo Conversion Kit. Converts Monophonic and 2-Track Stereo machines to 4-Track Stereo. Has head shifter for both 2-Track and 4-Track tapes. All 2800, 2900, and 2000 series (except 2020). Net $36.00

Prices Subject to Change. Write for Current Price List.

Nortronics®

THE NORTRONICS COMPANY, INC.

MINNEAPOLIS, MINNESOTA

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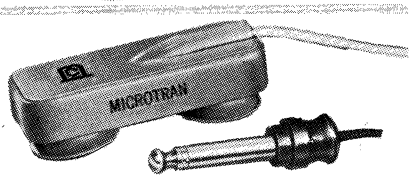
MICROTRAN

PRECISION HI-FI ACCESSORIES

hum-bucking telephone pick-up coil — model HP-70

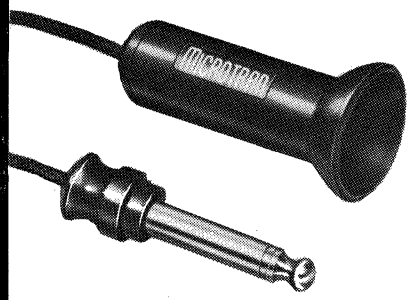
For transcribing telephone conversations, this coil is designed for use with high impedance input tape recorders, amplifiers and dictating machines. This deluxe unit has been designed with symmetrical hum cancelling pick-up coils. Ruggedly constructed of high impact plastic.

- Eliminates high stray hum pick-up usually encountered with conventional pick-up coils
- Color: Grey
- Size: 2½" L x ⅞" W x ⅝" H
  Model HP-70: User Net—$6.95
- Mounting: Double Suction Cup
- Cable Length: 5 Feet
- Termination: Tinned Leads
- Shipping Weight: 2 ozs.



As above with Molded Phone Plug Termination

- Model HP-71 — USER NET: $7.50
- Shipping Weight: 3 ozs.



telephone pick-up coil — model HP-61

For transcribing telephone conversations with recorder or making messages audible on amplifier. May also be used as probe for locating sources of hum.

Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.

Suction Cup: Mounting on telephone receiver.

Universal Model: One unit suitable for all types of telephones.

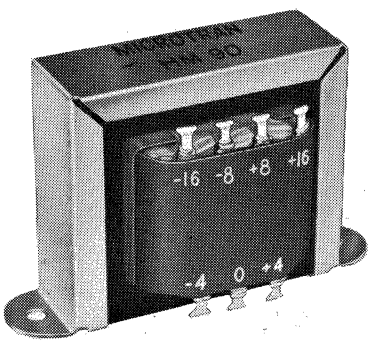
Plug-in Use: Supplied with 68" shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.

Finish: Optical Black.

Compact: Size only ⅝" diameter x 2" long.

Weight: 1½ ounces.

USER NET: $4.77



stereo 3rd channel—output matching transformers model HM-90

This precision transformer has been designed for the Audiophile who wishes to convert his Monaural System to Stereo or who wishes to modify or enlarge his Stereo system.

- Permits "hole-in-the-middle" fill in with 3rd Channel Speaker.
- Two HM-90 permits construction of Single cabinet, Single location, Stereo system.
- Permits addition of any combination of Monaural or Stereo speakers, regardless of ratings.
- Permits these changes to be made and still maintain matched impedances, required polarities, and desired power levels.

Power: 30 watts. Peak Power 100 watts.

Frequency Response (Power): 40 to 20,000 cycles.

Impedance Range:
+16, +8, +4, 0, −4, −8, −16 ohms
(Minus sign refers to reversed polarity.)

Insertion Loss: Less than 1 db. in most hookups. When used on +4Ω and in −4Ω out Taps, 3 db

Simple Connections: Easy to follow instructions show connections to be made to numbered solder lugs for each type of stereo system.

Finish: Vacuum Varnish impregnation.

Size: 3¾" x 2½" x 2 5/16" hi; 3⅛" Mtg. ctrs.

Weight: 2 lbs.

USER NET: $6.33

Net

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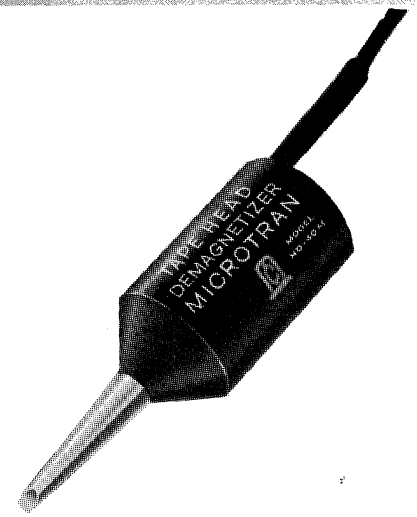
MICROTRAN

PRECISION HI-FI ACCESSORIES



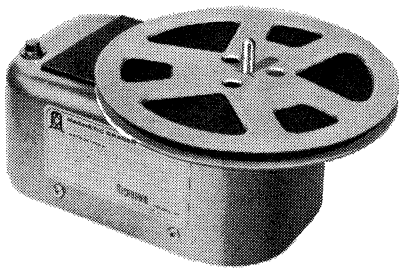
Tape Head Demagnetizer — Model HD-40M

FOR TAPE RECORDING HEADS

Permanent magnetizing of recording heads during normal use of tape recorders is a common occurrence. Magnetized heads cause high noise level and harmonic distortion.

The HD-40M Head Demagnetizer, when properly used, removes any residual permanent magnetism from the heads. It consists of a heavy duty alternating current electromagnet with an extended pole piece designed for easy access to the recording heads of most tape recorders. When energized, contact of the demagnetizer pole piece with the pole tip of the recording head causes the head to be saturated by an alternating magnetic field. Gradual removal of the head from this saturating field neutralized any residual permanent (DC) magnetism in the recording head.

- Removes permanent magnetism
- Reduces noise level
- Reduces harmonic distortion
- Improves signal to noise ratio
- Insures high frequency response
- Reduces hum of tape head
- Special finish on pole piece prevents marring recording head surfaces
- Rating 117 volts AC, 1 AMP.
- FINISH: High impact molded epoxy
- SIZE: 4" Long x 1¼" Diameter
- WEIGHT: 7 ozs.
- USER NET: $5.25



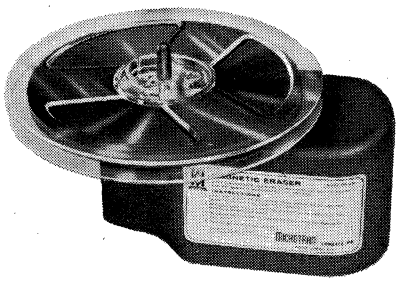
Magnetic Tape Eraser — Model HD-11

A bulk tape demagnetizer that develops a high intensity magnetic field. Erases recorded signals and noise from magnetic tape without rewinding. Saves unnecessary wear on heads and tape. Noise level reduced below level of standard erase heads. Restores tape to like new condition or better.

- Spindle Mounting of reel permits rapid thorough coverage without missed spots.
- Reel Size Range: 5", 7", 10½". Spindle removable for use with other reel sizes.
- Accessory: Adapter hub for use with N.A.B. 10½" reels (Model HD-11-AD . . . User Net $2.30)
- Universal Use: May also be used for demagnetizing record — playback — erase heads, watches and other metal objects.
- Rating: 117 volts AC, 5 amps.
- Finish: Baked Enamel.
- Size: 3" x 5" x 8".
- Weight: 8½ lbs.
- USER NET: $23.38

A MUST FOR STEREO RECORDING

Most stereo recorders do not provide facilities for pre-erasing both tracks



Magnetic Tape Eraser — Model HD-11M Epoxy Molded

A heavy duty bulk tape demagnetizer that develops a high intensity magnetic field. Erases recorded signals and noise from magnetic tape without rewinding. Saves unnecessary wear on heads and tape. Noise level reduced below level of standard erase heads. Restores tape up to ½" to like new condition or better.

- Spindle mounting of reel permits rapid thorough coverage without missed spots.
- Reel Size Range: 5" x 7" x 10½"
- Spindle removable for use with other reel sizes.
- Accessory: Adapter hub for use with N.A.B. 10½" reels (Model HD-11-AD . . . User Net $2.30)
- Universal Use: May also be used for Demagnetizing record Playback-Erase Heads, watches and other metal objects.
- Rating: 117 Volts AC, 5 Amps.
- Finish: Cast Epoxy—High impact.
- Size: 7" L x 3½" W x 3¼" H
- Weight: 9 lbs.
- USER NET: $18.95

A MUST FOR STEREO RECORDING

Most stereo recorders do not provide facilities for pre-erasing both tracks

MICROTRAN company inc.

Valley Stream, New York

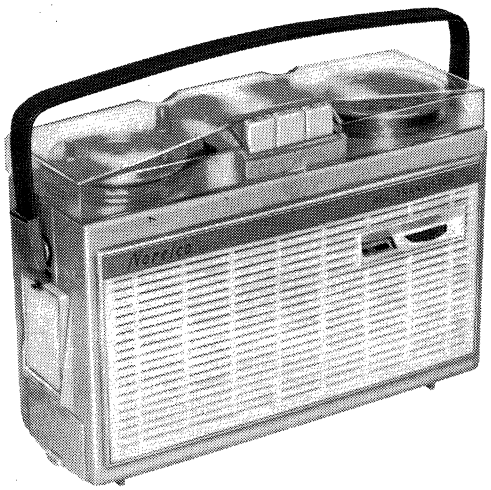
© U.C.P., Inc.

Norelco®

'CONTINENTAL' TAPE RECORDERS

developed and guild-crafted by Philips of the Netherlands

Whether you are a music lover, a recordist or a high fidelity enthusiast, we are confident you will find one of the justly famous Norelco 'Continental' family of professional quality tape recorders ideally suited to your specific recording requirements.



It's New... It's the CONTINENTAL "100" (EL 3585)

100% Transistorized, Battery Operated PORTABLE TAPE RECORDER

Ultra-light — ultra-simple — ultra-rugged

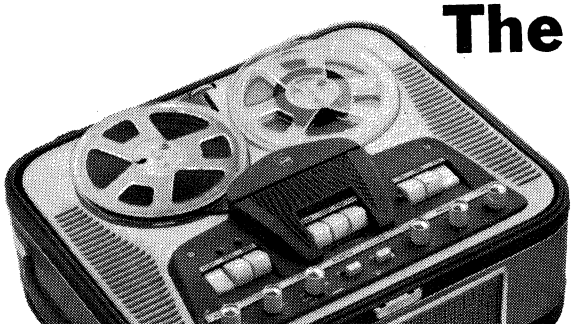
It's here — Exactly the portable you've been waiting for, for candid, on-the-shoulder, split-second recordings of any sound, any voice, anywhere, every time.

Nothing approaches this newest addition to the Norelco family of tape recorders when it comes to on-the-fly, extra-fidelity recordings of interviews, inventories, lectures, theatrical and musical performances, parties, nature walks, ball games and singing gondoliers. Enclosed in a handsome high-impact polystyrene case, and with its full complement of 6 low cost, (20 hr. recording life) "D" cell batteries, the Continental "100" weighs a mere 8 lbs. It readily handles both 3" and 4" reels and hence, provides up to 2 hours of recording and playback time per reel.

OTHER FEATURES AND SPECIFICATIONS: Instantaneous operation, minimum battery drain, small size, superior circuitry — thanks to 100% transistorized construction; **Compatibility** — tapes are fully interchangeable with all constant-speed 1⅞ ips, 2-track A.C. line-powered recorders; **Simple operation** — 3 self-locking push-buttons handle all recording and playback functions; **Self-contained** — with Norelco 4" speaker; **Combined Indicator** — for modulation level and battery life; **Combined volume control** — for recording and playback; **Storage space** — for microphone and cables; **Input** — for mike/radio/phonograph; **Output** — for external amplifier; **Tape speed** — 1⅞ ips, constant-speed, capstan-drive; **Frequency response** — 100-6000 cps; **Signal-to-noise ratio** — better than —40 db; **Dimensions** — 10½" x 3¾" x 7½".

$129.50 Complete with Norelco High Quality "Dynamic" microphone.

The CONTINENTAL "400"



4-Track Stereo Record-Playback
4-Track Mono Record-Playback

Model EL 3536 $399.50

◆ fully self-contained with unique dynamic stereo microphone, plus two speakers (one in the removable cover for perfect stereo separation), dual hi-fi preamps, recording and playback amplifiers ◆ fully compatible with conventional pre-recorded magnetic tapes ◆ self-contained phono/P.A. system ◆ mixing facilities ◆ 'sound on sound' trick switch ◆ interlocking pause button ◆ can also play through external hi-fi amplifier.

SPECIFICATIONS: Three Speeds — 7½, 3¾, and 1⅞ ips; **Tracks** — stereo 2 (dual); monophonic 4; **Heads** — Stacked; **Frequency Response** — at 7½ ips 50-18,000 cps; at 3¾ ips, 60-14,000 cps; at 1⅞ ips, 60-7,000 cps; **Signal-to-Noise Ratio** — 46 db or better; **Wow and Flutter** — less than .3% at 3¾ ips; **Modulation Indicator** — Magic Eye (Type EM84); **Program Indicator** — Built-in, 4-digit adjustable; **Pause Button** — instantaneous with locking device; **Fast Forward and Reverse** — Less than 2 minutes for 1200 ft. of tape; **Automatic Stop** — At ends of tape (with metalized strips); **Audio Facilities** — Self-contained, including dual hi-fi preamps; recording and playback amplifiers, balance control and Norelco wide-range loudspeakers; **Inputs** — (1) for stereo microphone; (2) for stereo phono or tuners; **Outputs** — (2) for extension speakers; (2) for external amplifiers; (1) for stereo headphones; **Microphone** — Stereophonic (dual elements); **Special Controls** — Two-channel volume, tone and balance; **Switches:** (1) 'sound on sound'; (1) 2-position for combining both stereo channels to single speaker output; (1) 4-position selector (channels 1 and 4, 2 and 3, stereo and P.A.); **Tube Complement** — EF86 (2), ECC83 (3), EL84 (2), EM84 (1); **Line Voltage** — 117 volts at 60 cycles; **Power Consumption** — 100 watts; **Dimensions** — 18½" x 15½" x 8½"; **Weight** — 43 pounds.

Net

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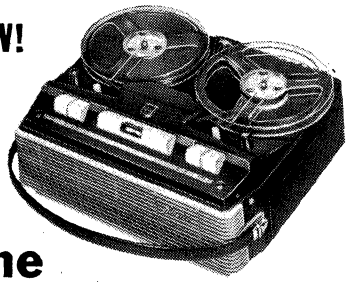
Norelco®

HIGH FIDELITY LOUDSPEAKERS

from the audio research center of the world

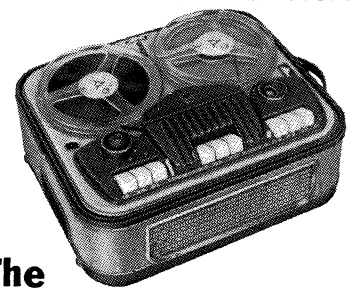
NEW!



The CONTINENTAL "200"

Model EL 3541 $179.50
Low-Cost 4-Track Stereo Playback and Mono Record-Playback

The top value, (7½ ips) recorder, available today! Frequency response 50 to 14,000 cps. Stereo head output for playback through external stereo pre-amplifier. 'Sound on sound' trick button. Interlocking pause button. Mixing facilities. Foot switch available. Self-contained, including microphone and wide-range Norelco speaker. Also suitable for use as a phono/P.A. system.



The CONTINENTAL "300"

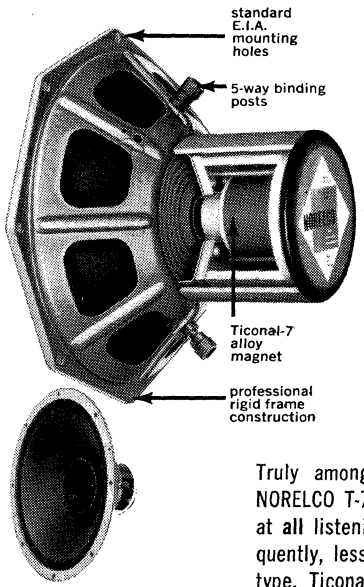
4-Track Stereo-Playback
4-Track Mono Record-Playback
Model EL 3542 $269.50

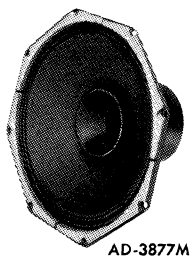
◆ mixing facilities ◆ self-contained phono/P.A. amplifier and speaker system ◆ sound on sound trick button ◆ interlocking pause button ◆ headphone monitoring ◆ stereo head output for playback through your own stereo preamplifier ◆ foot-switch available.

SPECIFICATIONS: Three Speeds—7½, 3¾, and 1⅞ ips; **Tracks** — stereo 2 (dual); Mono 4; **Heads** — Stacked; **Frequency Response** — at 7½ ips, 50 to 16,000 cps; at 3¾ ips, 60 to 13,000 cps; at 1⅞ ips, 60 to 6,500 cps; **Modulation Indicator** — Magic Eye (Type EM81); **Program Indicator** — Built-in, 4-digit adjustable; **Inputs** — (1) radio/phono; (1) microphone (with mixing facilities); **Outputs** — (2) stereo head; (1) for external speaker without controls (1) for headphone monitoring recording circuit; **Microphone** — High-impedance dynamic; **Line Voltage** — 117 volts AC at 60 cycles; **Power Consumption** — 80 watts; **Dimensions** — 15¾" x 13" x 6¾"; **Weight** — 30 pounds.

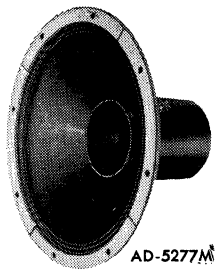
T-7 LOUDSPEAKERS

featuring the revolutionary TICONAL VIII *voice-coil magnets (30% more powerful than alnico V)*





AD-3877M



AD-5277M

AD-4201M/77*

Truly among the world's most efficient loudspeakers, NORELCO T-7 units provide sound of **professional** calibre at **all** listening levels — and with less power (and subsequently, less distortion), than all other speakers of their type. Ticonal-7 steel alloy makes the big difference in efficiency; NORELCO-designed dual-cones and magnet systems let you **hear** the difference — unexaggerated bass and transient response, topped by clean, beautifully transparent high frequency reproduction. Listen to the sound — **then** examine the price tag. Only Philips of the Netherlands, the audio research center of the world, could have guild-crafted these speakers to give you the 'cleanest sound around' at such moderate cost.

NOTE: Where quality is the prime requisite but economy is an important factor, the NEW Norelco 12", Ferroxdure Ceramic AD-4201M/77* is the ideal solution.

Model	Size	Power (watts) Continuous	Peak	Efficiency at 400 cps	Total Flux (Maxwells)	Frequency Response	Audiophile Net
AD-5277M	12"	20	30	14%	134,000	35-18,000	$59.50
AD-4277M	12"	20	30	7%	98,000	35-18,000	39.00
AD-4201M/77*	12"	10	15	7%	42,600	40-15,000	22.95
AD-4877M	8"	6	10	10%	58,300	50-20,000	26.00
AD-3877M	8"	6	10	6%	26,200	75-19,000	9.90
AD-3500M	5"	3	5	4%	26,200	30-19,000	4.95

NORTH AMERICAN PHILIPS COMPANY, INC
High Fidelity Products Division, Hicksville, L. I., N.

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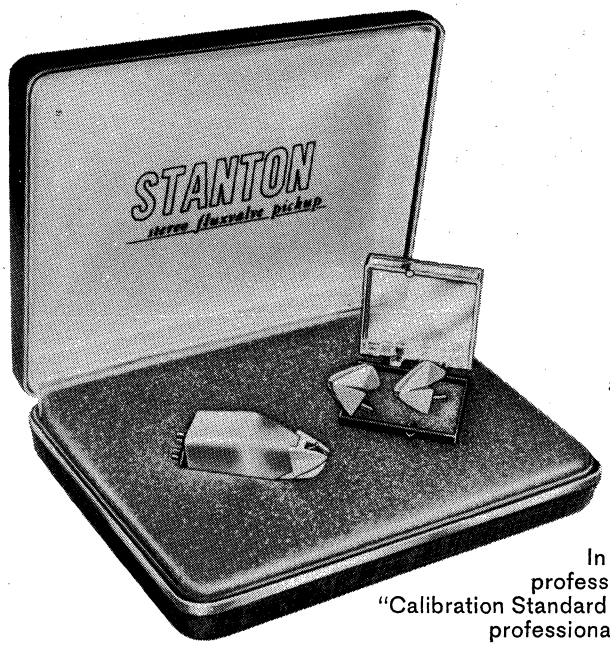
Net



STANTON 381 SERIES

The 381 Series Stereo Fluxvalve is more than a pickup. Originally, it was developed for the recording industry as a laboratory standard to enable recording engineers to make highly accurate and reliable measurements in order to precisely calibrate recording channels. In short, the 381 is a measuring instrument for precision playback applications universally used by the leading record manufacturers for quality control and A & R evaluation.

In 1961, Pickering & Co., Inc. incorporated this very same professional instrument in a new high quality line known as the "Calibration Standard Series" making the ultimate in pickups available to the professional music critic and the discriminating audiophile as well.

The Model 381E is a complete reproducer which affords the user the facility to play every type of record manufactured. It is supplied with three interchangeable V-GUARD stylus assemblies: 0.7 mil for stereo— 1 mil for monophonic microgroove—2.7 mil for 78's and transcriptions. In addition, V-GUARD stylus assemblies of various radii may be obtained on special order from our Custom Engineering Department.

Each Model 381 "Calibration Standard" pickup is individually calibrated in the laboratory by qualified personnel prior to shipment . . . assuring the highest quality record reproduction possible.

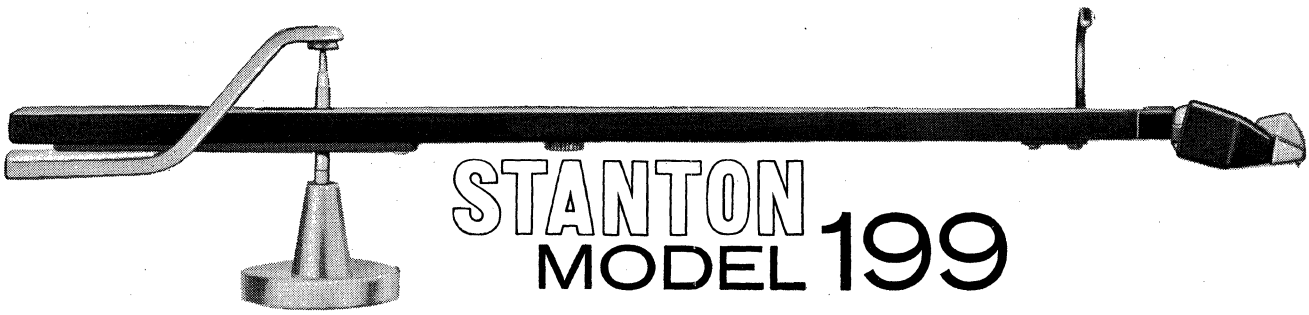
381 SERIES SPECIFICATIONS: Response ± 1 db from 20-10,000 cycles; ± 2 db from 20-17,000 cycles—Output 1 mv per cm. of recorded level—Channel Separation 35 db—Tracking Force 2-5 grams—Weight 14 grams.

MODEL 381E "Calibration Standard" STANTON Stereo Fluxvalve: An ultra-linear professional pickup available in a 500/600 ohm low impedance model or the standard high impedance: 47,000-100,000 ohms. Supplied with mounting hardware, instructions and three (3) V-GUARD stylus assemblies: 0.7 mil for stereo: 1 mil for monophonic microgroove: 2.7 mil for 78's and transcriptions.

$60.

MODEL 381A "Calibration Standard" STANTON Stereo Fluxvalve: An ultra-linear professional pickup available in a 500/600 ohm low impedance model or the standard high impedance of 47,000-100,000 ohms. Supplied with one 0.7 mil V-GUARD stylus assembly, mounting hardware and instructions .....

$48.



STANTON MODEL 199

Model 199 STANTON UNIPOISE Arm with integrated "Calibration Standard" Pickup. An integrated arm and cartridge combining the highly awarded* UNIPOISE Arm and the Model 381A "Calibration Standard" STANTON Stereo Fluxvalve. The highest standards of engineering and craftsmanship have been achieved in the design and manufacture of the UNIPOISE Arm. It is a precision instrument employing a single friction-free pivot bearing for almost-infinite freedom to trace the more-difficult-to-track stereo groove. The complete assembly—tone arm and pickup—is only a fraction of the weight of conventional arms alone. Universally used for making reproducible laboratory measurements of record masters. Easily mounts on the compact motorboards of present day turntables.

199 SPECIFICATIONS: Frequency Response—± 1 DB 20-10,000 cycles, ± 2 DB 20-17,000 cycles. Output—1 mv per cm. of recorded level. Channel Separation—35 db. Tracking Force—2-5 grams. Weight—6 oz. less base.

Audiophile net price, including D-3807A Diamond stylus, installation instructions and mounting hardware $67.50

*Brussels Fair; Milano Fair; American Society of Industrial Designers

Pickering

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PICKERING & CO., INC., PLAINVIEW, NEW YORK

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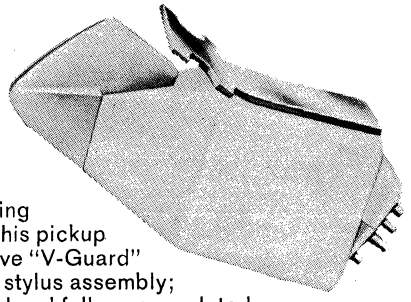
MODEL 198 UNIPOISE ARM

an integrated arm and cartridge combining the Unipoise Arm and the new Model 380A. The UNIPOISE employs a single friction-free pivot bearing for almost infinite freedom to trace precisely the delicate more-difficult-to-track groove of stereo records. The complete assembly—tone arm and pickup—is only a fraction of the weight of conventional tone arms. For use with all high quality transcription turntables its practical size permits installation into areas only slightly larger than that required for record changers . . . it will mount on a motorboard measuring only 15½" x 15½". Simple unimount installation, employs a single thumbscrew and bolt. Exclusive arm rest with soft sable brush to keep the stylus tip free of dust at all times. Convenient stylus force adjustment.

198 SPECIFICATIONS: Frequency Response–20-15 KC. Output–2.5 mv per cm. of recorded level. Channel Separation–35 db Tracking Force–2-5 grams. Weight 6 oz. less base.

Audiophile net price, including D-3807A Diamond stylus, installation instructions and mounting hardware $54.00

380 SERIES



for the discriminating record collector. This pickup utilizes the exclusive "V-Guard" easily replaceable stylus assembly; hermetically sealed and fully encapsulated in precious mu-metal for a lifetime of trouble-free and hum-free performance. Completely compatible for all records, stereophonic or monophonic. Miniature design, fits all pickup arms, manual or automatic.

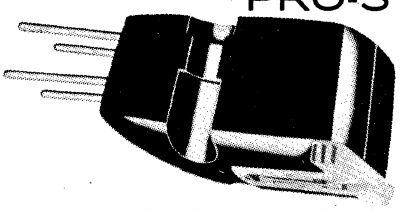
SPECIFICATIONS: Frequency Response–20-15 KC; Output–2.5 mv per cm. of recorded level; Channel Separation–35 db; Tracking Force–A Type 2-5 grams; C type 4-7 grams; Weight–14 grams.

Audiophile Net Prices: Includes Diamond Stylus, mounting hardware and installation instructions.

Model 380A for manual tone arms $34.50

Model 380C for auto changers $29.85

PRO-STANDARD SERIES MK II



a professional pickup outstanding for quality control. The choice of the leading recording companies throughout the United States for quality control of record masters and pressings. Traditional Pickering design quality assures the finest performance. Contains the easily replaceable "T-Guard" stylus assembly.

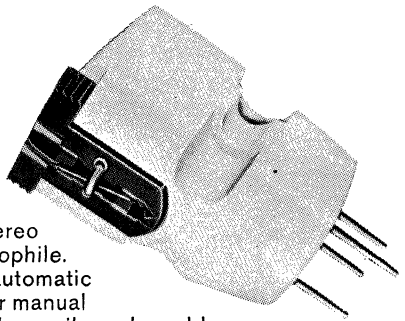
SPECIFICATIONS: Frequency Response–20-15 KC. Output–1.3 mv per cm. of recorded level. Channel Separation–20-25 db. Tracking Force–MK II A–2-5 grams, MK II C–4-7 grams. Weight–9 grams.

Audiophile net price, including Diamond stylus, installation instructions and mounting hardware.

Model MK II A–Manual Arm Type $26.40

Model MK II C–Changer Type $24.00

STEREO 90



a fine magnetic stereo pickup for the audiophile. For installation in automatic record changers, or manual players. Contains the easily replaceable "T-Guard" stylus assembly. Magnetic push-pull circuit, hum bucking coils.

SPECIFICATIONS: Frequency Response–20-12 KC. Output–1.3 mv per cm. of recorded level. Channel Separation–20 db. Tracking Force–4-7 grams. Weight–9 grams.

Audiophile net price, including Diamond stylus, installation instructions and mounting hardware $16.50

Replacement Stylus: Model D-9007–.0007" radius diamond–charcoal gray "T-Guard" ..... $ 9.90

REPLACEMENT STYLI FOR THE STEREO FLUXVALVE

To insure the same quality of performance you have come to know in your STANTON Stereo Fluxvalve, replace the worn stylus assembly with a genuine V-GUARD or T-GUARD which contains the finest quality diamond or sapphire precisely shaped to perfect contour and polished to ultimate smoothness.

Use the chart below for convenient selection of the correct stylus for the application you require.

TYPE	MODEL*	RADIUS	COLOR	381	198 199	380A	380C	MkIIA	196	MkIIC	Stereo 90	Audiophile Net Price
V-GUARD	D3807C	.7 mil	red				stereo					$15.00
V-GUARD	D3807A	.7 mil	yellow	stereo								$19.65
V-GUARD	D3810C	1 mil	white				mono LP					$15.00
V-GUARD	D3810A	1 mil	lt. gray	mono LP								$19.65
V-GUARD	D3827	2.7 mil	dk. blue	78's and transcriptions								$15.00
V-GUARD	S3827	2.7 mil	aqua	78's and transcriptions								$ 7.50
T-GUARD	D3707C	.7 mil	red							stereo		$12.00
T-GUARD	D3707A	.7 mil	yellow					stereo				$14.40
T-GUARD	D3710C	1 mil	white							mono LP		$12.00
T-GUARD	D3710A	1 mil	lt. gray					mono LP				$14.40
T-GUARD	D3727	2.7 mil	dk. blue					78's and transcriptions				$12.00
T-GUARD	S3727	2.7 mil	aqua					78's and transcriptions				$ 7.50
T-GUARD	D9007	.7 mil	black							stereo		$ 9.90

*D = Diamond. S = Sapphire.

Only Pickering & Co., Inc. manufactures the genuine V-GUARD stylus assembly for the Stanton Stereo Fluxvalve cartridge and pickup, covered under the following patents: U. S. #2,917,590; Great Britain #783,372; Commonwealth of Canada #605,673.

Pickering

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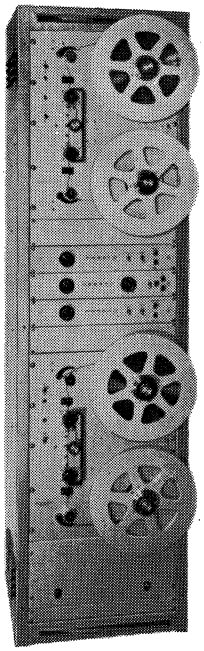
PRESTO

PROFESSIONAL BROADCAST AND TAPE EQUIPMENT

AUTOMATIC PROGRAMMING and INTERSPERSING SYSTEMS



Model 625 Tape Reproducer

Model A915 Preamplifier With Sensing Provisions

Model S911 Automatic Intersperser

Model A915 Preamplifier With Sensing Provisions

Model 625 Tape Reproducer

Standard 83" Relay Rack

BOGEN Model M030 (30 Watt) M060 (60 Watt) Or MO100 (100 Watt) Distrioution Amplifier

2 TRANSPORT SYSTEM

2 TRANSPORT SYSTEM

This system will provide up to 32 hours of continuous programming (using ½ mil tape on 14" reels) before repeating a single selection. Automatically programs the operation of 2 - Presto model 625 Tape Reproducers . . . Counts single tunes or groups of tunes as determined by silence or tone bursts between selections. Count can be pre-set independently between 1 and 10 for each transport. Provides automatic intermixing of material (e.g., mixing classical and popular musical selections) or interspersing of material (e.g., station breaks, commercials, announcements) between musical selections. Light indicators indicate transport in use. Contains "Fail-Safe" circuitry to automatically select alternate transport in event of tape failure . . . prevents loss of valuable air-time. 600 ohm line output.

Optional equipment . . . 30, 60 or 100 watt distribution amplifier . . . timer or program clock to turn transports on or off in 5 minute segments throughout an entire 24 hour day and thus have music (in multiples of 5 minutes) whenever wanted. . . . A separate calendar dial allows complete system to be shut off over night or during weekends. A microphone precedence circuit can be added to distribution amplifier to mute music while paging.

All components are mounted in a standard relay rack, all connections are made and complete system is thoroughly checked at the factory.

The system consists of the following components: 2—model 625 Tape Reproducer, 2—model A915 Preamplifier, 1—model S911 Intersperse-Programmer, 2—model SS2 Silence Sensing Adapter (or model SK25 tone sensing adapters), 2—model T161 Plug-in 600 ohm Line Matching Transformer, 1—model MO30, MO60 or MO100 Distribution Amplifier (optional), 1—model T910 Timer (optional), 1—Standard 83" Relay Rack.

4 TRANSPORT SYSTEM

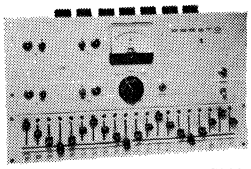
This system will provide up to 64 hours of continuous programming (using ½ mil tape on 14" reels) before repeating a single selection. Automatically programs the operation of 4 - Presto model 625 Tape Reproducers for up to 20 sequences of operations in any combination (e.g., can intermix background music tapes and in addition intersperse station identification, commercials, news-weather, etc., from any of the 4 separate tapes). It is activated by either silence periods or short bursts of 25 cycle tone on the tape. Light indicators are provided for each of the 20 sequences, to indicate selection going out on line, at any given time. Contains "Fail-Safe" circuitry to automatically select the next programmed transport in event of tape failure . . . prevents loss of valuable air-time.

Contains Cueing and Monitoring circuitry . . . Next selections, on unused transports, may be cued while transport, in use, is feeding a selection to line . . . monitoring of line or any other signal source may be accomplished aurally (headphones) without interference to programming. . . . VU meter measures level.

Optional equipment . . . same as for 2 transport system.

All components are mounted in two standard relay racks, all interconnections are made and the complete system is thoroughly checked at the factory.

The system consists of the following components: 4—model 625 Tape Reproducer, 4—model A915 Preamplifier, 1—model S914 4 channel—20 Sequence Programmer, 4—model SS2 Silence Sensing Adapter (or model SK25 tone sensing adapter), 4—model T161 Plug-in 600 ohm Line Matching Transformer, 1—model MO30, MO60 or MO100 Distribution Amplifier (optional), 1—model T910 Timer (optional), 2—Standard 83" Relay Rack.



S914

625 LONG PLAY TAPE REPRODUCER

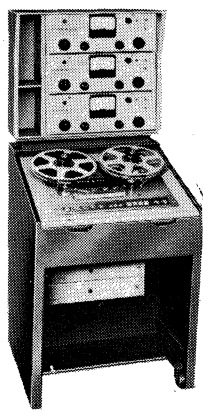
The Presto Model 625 tape transport mechanism is a professional quality reproducer designed specifically for use in highest quality background music systems and automated programming systems. . . . Features: • 4 to 8 hour continuous Tape Reproduction (4 hours with full track). • Monophonic or stereophonic operation. • Separate mono half-track or stereo ¼ track playback, heads readily accessible for adjustment. (Full track head for 1 direction available). • 3¾ and 7½ inch per second tape speeds. • Dual-track-bidirectional tape motion. • Fast Forward and Fast Rewind; memory direction operation. • Complete, separate direct-drive 2 speed - 2 direction hysteresis synchronous capstan motor and torque-type supply and take-up motors for optimum tape handling and easy servicing; no clutches to adjust. • Solenoid controlled brakes and capstan pressure pulley to provide instant action, precision pressure, ease of adjustment and protection. • Unique self-locking combination reel retainer-knobs. • Can be mounted vertically or horizontally. Custom cabinet or rack mounted available. • Unitized construction for easy service.

A915 PRE-AMPLIFIER

The Presto model A915 is a professional quality pre-amplifier designed expressly for use with Presto model 625 Tape Reproducer in background music or broadcast automatic programming systems. The A915 includes a two-channel pre-amplifier which is automatically switched to either upper or lower track playback heads, a line amplifier and provisions for accepting either the model SS2 Silence Sensing or model SK25 Tone Sensing Adapter.

The pre-amplifier contains equalization for any high impedance playback head corresponding to the NAB playback curve. In addition, each input may be adjusted, over a limited range, to compensate for frequency response differences between heads.

The output of the A915 is 600 ohm output for feeding a standard telephone line. Provisions are incorporated for connection of an external program clock or other similar timing device.



850

SS-2 AND SK-25 SENSING UNITS

The models SS-2 and SK-25 are Sensing Adapter Units which plug into the A-915 pre-amplifier. The model SS-2 senses silence periods on the tape. It can be set to release a control relay after silence periods of from 2 to 35 seconds (time at discretion of user). It can be used to control one or more transports to provide either "on" or "off" operation.

The model SK-25 senses a 25 cycle tone burst which has been prerecorded on the tape. The adapter activates a control relay to provide either "on" or "off" operation for one or more transports. The drop-out time of the relay (after the 25 cycle tone has ceased) is adjustable over a range of from 2 to 35 seconds. The SK-25 employs unique circuitry to provide precise selection of the 25 cycle tone, for sensing, while rejecting all other tones.

SERIES 800—PROFESSIONAL TAPE RECORDERS

A bold new design concept in tape recorders that retains the traditional high quality of Presto equipment and adds to it a versatility that results in greater efficiency and economy than has ever before been available.

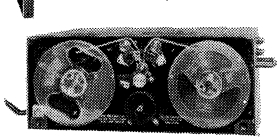
All series 800 recorders accept standard tape reels and core winds up to 10½", and operate at 7½ and 15 ips or 3¾ and 7½ ips. Speed accuracy is ±3 seconds/30 minutes. Flutter: less than 0.07% at 15 ips, and less than 0.15% at 7½ ips. The A908 amplifier has less than 1% total harmonic distortion at + 20 dbm, fom 25 to 20,000 cps.

Model 800 is a basic, high quality, ¼" monophonic recorder which can be easily converted to stereo in a matter of minutes by simply replacing the head assembly and adding another A908 amplifier.

Model 825 is a ¼" recorder which is quickly and readily convertible to accept ½" tapes by merely interchanging the recording heads and adding another A908 amplifier.

Model 850 is a full convertible recorder. It is equipped with 3 stacked A908 amplifiers and can be changed from ½" to ¼" operation (or vice versa) in a matter of a few minutes. Only a screwdriver is required to change the head assemblies.

All series 800 Recorders are available in portable cases as well as in consoles.



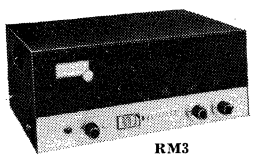
MPB601

MPB601 MOBILE TAPE REPRODUCER

The **MPB601** is a superb mobile tape reproducer, completely contained in a full length ½-ATR enclosure. It incorporates a transport mechanism permitting the use of standard 7-inch reels for dual half-track, quarter-inch tape. The tape motion reverses automatically at each end of the tape, providing for continuous, care-free operation with three or more hours of non-repititious program material.

The **MPB601 has** such exclusive features as: facility for immediate, easy conversion from DC to AC operation without accessories; extremely simple tape threading mechanism; magnetic clutch assembly; automatic shut-off in case of tape breakage or malfunction.

For optimum reliability and minimum maintenance, as well as simplified operation, moving parts have been reduced to a minimum in the MPB601.



RM3

RM-3 COMMERCIAL MULTIPLEX RECEIVER

A crystal-controlled multiplex receiver especially designed for background music service. It provides exceptionally high quality reception of frequency-modulated signals where the main channel and one or two sub-carrier channels are being transmitted. Features: cascode input r.f. stage insures optimum noise figure, i.f. gain control easily adjusted to accommodate different signal strengths, capture ratio of 4 db extends useful service area of any transmitter, three i.f. stages and nine tuned i.f. circuits provide adequate gain and selectivity to ensure freedom from adjacent channel interference, 10-watt audio amplifier with volume, bass and treble controls, microphone input jack, microphone volume control and amplifier stage; also provision for muting the receiver when the microphone is being used.

BP SIEGLER

BOGEN-PRESTO PARAMUS, N.J. A DIVISION OF THE SIEGLER CORP.

Prices on request. Specifications Subect to change without notice.

Trade Discount Applies to List Prices Only

© U.C.P., Inc.

RCA MAGNETIC SOUND TAPE

JUNE 1, 1961

RED SEAL

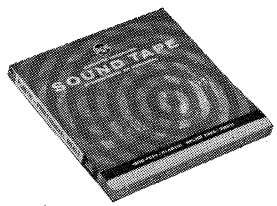
For Highest Quality Stereophonic & Monophonic Recordings—The Same Tape Used for RCA Victor Masters

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
1.0 mil Long Play				
900	Standard Reel	5	10A-9	**3.50**
1800	Standard Reel	7	10A-18	**5.50**
1.5 mil Professional Grade				
150	Standard Reel	3	15A-1.5	**.70**
300	Standard Reel	4	15A-3	**1.35**
600	Standard Reel	5	15A-6	**2.25**
1200	Standard Reel	7	15A-12	**3.50**

MYLAR† (POLYESTER) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
560	Snap-Load Cartridge	—	264C1	**4.50**
Tensilized Extra-Long Play				
300	Standard Reel	3	5TM-3	**1.60**
600	Standard Reel	4	5TM-6	**3.05**
1200	Standard Reel	5	5TM-12	**4.75**
2400	Standard Reel	7	5TM-24	**8.75**
.5 mil Extra-Long Play				
1200	Standard Reel	5	5M-12	**4.55**
2400	Standard Reel	7	5M-24	**7.85**
1.0 mil Long Play				
225	Standard Reel	3	10M-2.25	**1.00**
900	Standard Reel	5	10M-9	**3.60**
1800	Standard Reel	7	10M-18	**6.20**
1.5 mil Professional Grade				
600	Standard Reel	5	15M-6	**2.65**
1200	Standard Reel	7	15M-12	**4.25**



NAB reels have 3" center holes; EIA reels have 5/16" center holes.
†Du Pont Registered Trade Mark
*Prices higher in Alaska and Hawaii.

Prices exclude state and local sales and similar taxes and are subject to change without notice.

Check your authorized RCA magnetic tape distributor for 2-track and 4-track RCA prerecorded Living Stereo tapes.

BROADCAST

Sound Tape for Professional Use

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
1.0 mil				
3600	NAB Hub	—	269C1	**10.00**
3600	NAB Metal Reel	10½	270C1	**12.85**
3600	NAB Plastic Reel	10½	272C1	**12.85**
3600	EIA Plastic Reel	10½	271C1	**12.85**
1.5 mil				
2400	NAB Hub	—	265C1	**8.50**
2400	NAB Metal Reel	10½	266C1	**10.90**
2400	NAB Plastic Reel	10½	267C1	**10.90**
2400	EIA Plastic Reel	10½	268C1	**10.90**

MYLAR† (POLYESTER) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
.5 mil Tensilized				
4800	NAB Metal Reel	10½	273C1	**20.50**
4800	NAB Plastic Reel	10½	275C1	**20.50**
4800	EIA Plastic Reel	10½	274C1	**20.50**
1.0 mil				
3600	NAB Metal Hub	—	276C1	**12.00**
3600	NAB Metal Reel	10½	277C1	**14.40**
3600	NAB Plastic Reel	10½	279C1	**14.40**
3600	EIA Plastic Reel	10½	278C1	**14.40**
1.5 mil				
2400	NAB Metal Hub	10½	280C1	**8.80**
2400	NAB Metal Reel	10½	281C1	**11.20**
2400	NAB Plastic Reel	10½	283C1	**11.20**
2400	EIA Plastic Reel	10½	282C1	**11.20**

TAPE ACCESSORIES

RCA Type	Description	List Price* each (Optional)
501C1	5-Reel Tape Chest for 5" Reels	**1.28**
502C1	5-Reel Tape Chest for 7" Reels	**1.40**
505C1	Leader & Timing Tape	**.85**
506C1	5" Standard Reel with Box	**.65**
507C1	7" Standard Reel with Box	**.75**
508C1	5" Empty Box	**.20**
509C1	7" Empty Box	**.20**
510C1	Empty Box for Snap-Load Cartridge	**.20**
511C1	½" x 100" Splicing Tape	**.29**
512C1	½" x 150" Splicing Tape	**.39**
513C1	¾" x 100" Splicing Tape	**.42**
514C1	¾" x 150" Splicing Tape	**.51**
515C1	¼" x 100" Splicing Tape	**.22**
516C1	Tape Recorder Head Demagnetizer	**4.85**
517C1	12-Reel Tape shelf	**.98**
518C1	3" Empty Box	**.15**
519C1	3" Reel with Box	**.25**
520C1	4" Empty Box	**.20**
521C1	4" Reel with Box	**.55**

VIBRANT SERIES

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
600	1.5 Mil x ¼"	5	701C1	**1.75**
1200	1.5 Mil x ¼"	7	702C1	**2.95**
900	1.0 Mil x ¼"	5	703C1	**2.50**
1800	1.0 Mil x ¼"	7	704C1	**4.25**

MYLAR† (POLYESTER) BASE

900	1.0 mil x ¼"	5	707C1	**2.85**
1800	1.0 mil x ¼"	7	708C1	**4.95**
1200	Tensilized ¼"	5	709C1	**4.50**
2400	Tensilized ¼"	7	710C1	**7.95**

© U.C.P., Inc.

SECTION 1340

RECOTON® REPLACEMENT PHONEEDLES®

QUICK REPLACEMENT CHART. Compare with old needle. Needles pictured not actual size.

ASTATIC			PHILCO	R.C.A.	SHURE	WEBCOR		R.C.A.	ASTATIC	SHURE	ASTATIC
301 S-M-1.50 302 S-J-2.50 303 LP-J-2.50	304 S-M-1.50	305 S-M-1.50 306 S-J-2.50	307 LP-M-1.50 308 LP-J-2.50	309 S-J-3.50 310 LP-J-2.50	311 S-M-1.50 312 S.J.2.50	313 S & LP-M-4.00	314 S & LP-M-5.50	315 LP-M-1.50	316 LP-M-1.50	317 LP-J-2.50 318 LP-M-1.50 319 A-M-1.50	320 LP-M-1.50
ASTATIC	**WEBCOR**	**PHILCO**		**MAGNAVOX**		**WEB-ELEC**		**ELECTRO-VOICE**		**ASTATIC**	
321 S-M-1.50 322 LP-M-1.50	323 LP & S-M-4.00	324 S-J-2.50	325 LP & S-M-2.50	326 S-M-1.50	327 LP & S-M-2.50	328 LP & S-M-2.50	329 S-M-1.50 330 LP-M-1.50	331 LP & S-M-2.50 332 LP & S-J-3.50	333 S-J-2.50 334 LP-J-2.50 335 A-M-1.50	336 A-M-1.50 337 A-J-2.50	338 A-M-1.50
ASTATIC		**R.C.A.**	**WEBSTER-ELECTRIC**		**WEB-ELEC**	**SHURE**	**PHILCO**	**ASTATIC**		**WEBSTER-ELECTRIC**	
339 A-M-1.50 340 A-J-2.50	341 LP-M-1.50 342 S-M-1.50 343 LP-J-2.50 344 S-J-2.50	345 S-M-1.50	346 S-M-1.50	347 LP-M-1.50 348 S-M-1.50 349 LP-J-2.50	350 S-J-2.50 351 A-M-1.50	352 A-J-2.50	353 LP & S-J-3.50	354 S-M-1.50 355 LP-M-1.50 356 A-M-1.50	357 S-M-1.50 358 LP-M-1.50 359 S-J-2.50 360 LP-J-2.50	361 S-M-1.50 362 LP-M-1.50	363 S-M-1.50 364 LP-M-1.50 365 A-M-1.50
GENERAL-ELECTRIC			**ASTATIC**		**ELECTROVOICE**	**SEEBURG**	**ASTATIC**	**SHURE**	**AUDAX**	**SONOTONE**	**ASTATIC**
366 S-J-3.50 367 LP-J-3.50	368 LP & S-J-5.95	369 T-J-3.50	370 LP-J-2.50 371 S-J-2.50 372 A-J-2.50	373 LP-J-2.50 374 S-J-2.50	375 A-J-2.50	376 S-J-pr-2.50 377 LP-J-pr-2.50	378 A-M-1.50 379 A-J-2.50	380 S-M-1.50 381 LP-M-1.50 382 A-M-1.50	383 S-J-3.50 384 LP-J-3.50	385 LP & S-J-3.50	386 S-J-2.50 387 LP-J-2.50 388 A-J-2.50
WEB-ELEC	**ASTATIC**		**MAGNAVOX**		**R.C.A.**	**RECOTON**	**RONETTE**	**SONOTONE**	**ASTATIC**	**AMERICAN-MICROPHONE**	
389 LP-M-1.50 390 S-M-1.50 391 LP-M-1.50 392 S-M-1.50	393 LP & S-J-3.50 393R LP & S-J-3.50	394 LP & S-M-2.50	395 LP & S-J-3.50	396 LP & S-J-3.50	397 S-J-2.50	398 S-J-3.50 399 LP-J-3.50	400 S-J-2.50 401 LP-J-2.50	402 LP-J-2.50 403 A-J-2.50 404 S-J-2.50	405 LP-M-1.50 406 A-M-1.50 407 S-M-1.50	408 LP-M-1.50 409 A-M-1.50 410 S-M-1.50	411 LP-M-1.50 412 A-M-1.50 413 S-M-1.50 414 LP-J-2.50 415 S-J-2.50
GENERAL-ELECTRIC		**SHURE**		**SHURE**		**WEBSTER ELECTRIC**		**RECOTON**			**RONETTE**
417 LP & S-J-5.95	418 LP-J-3.50 419 S-J-3.50	420 LP-M-1.50 421 A-M-1.50 422 S-M-1.50	423 LP-J-2.50 424 A-J-2.50 425 S-J-2.50	427 LP & S-J-3.50	428 LP-M-1.50 429 S-M-1.50	430 LP-M-1.50 431 S-M-1.50	432 LP-M-1.50 433 S-M-1.50 434 LP-M-1.50 435 S-M-1.50	436 LP-M-1.50 437 A-M-1.50 438 S-M-1.50	439 S-M-1.50	440 LP-J-2.50 441 A-J-2.50 442 S-J-2.50	443 A-J-2.50
ASTATIC	**SHURE**	**WEBSTER ELECTRIC**		**ACOS**		**P.E.**	**G.E.**	**SONOTONE**		**ASTATIC**	**RECOTON**
444 S-J-2.50 445 LP-J-2.50 446 A-J-2.50	447 S-J-2.50 448 LP-J-2.50	449 LP-M-1.50 450 A-M-1.50	451 S-J-2.50 452 LP-J-2.50 453 A-J-2.50	454 S-J-2.50 455 LP-J-2.50	456 S-J-2.50 457 LP-J-2.50	458 LP & S-J-4.50	459 T-J-3.50	460 LP & S-J-3.50	461 LP-J-2.50 462 A-J-2.50 463 S-J-2.50	464 LP-J-2.50 465 A-J-2.50 466 S-J-2.50	467 A-M-2.50
P.E.	**G.E.**	**GARRARD**	**RONETTE**	**PHILLIPS**	**VACO**	**TELEFUNKEN**		**ZENITH**		**ELECTRO-VOICE**	
469 LP & S-J-4.50	470 LP-J-3.50 471 S-J-3.50 472 T-J-3.50	473 LP-J-3.50 474 S-J-3.50	475 LP-J-3.50 476 S-J-3.50	477 LP-J-3.50 478 S-J-3.50	479 LP-J-2.50 480 S-J-2.50	481 LP & S-J-4.50	482D S-D- 483D A-D- 484D LP-D-	485D A-D- 486D LP-D- 487D S-D-	488SD LP & S-D/J-	489SD LP & S-D/J-	490SD LP & S-D/J-
ASTATIC	**ASTATIC**	**RECOTON**	**AMER.-MIC.**	**P.E.**	**VACO**	**RECOTON**	**SONOTONE**	**RONETTE**	**ELECTROVOICE**	**ASTATIC**	**RONETTE**
491SD LP & S-D/J-	492SD LP & S-D J-	493 LP-J-3.50 494 S-J-3.50	495 LP-J-2.50 496 A-J-2.50 497 S-J-2.50	498D LP-D- 499D S-D-	501 A-J-2.50	502D ST-D-	503 ST & S-J-3.50	504 ST-J-2.50 505 S-J-2.50	506 ST-J-3.50 507 S-J-3.50	508SD ST & S-D/J-	509 LP-J-2.50 510 A-J-2.50
ELECTROVOICE	**B.S.R.**	**AST & VACO**	**WEBSTER-ELECTRIC**			**DUAL**	**G.E.**	**SONOTONE**	**R.C.A.**	**C.B.S.**	**ACOS**
511 LP-J-3.50	512 ST-J-2.50 513 LP-J-2.50 514 A-J-2.50 515 S-J-2.50	516 ST-J-2.50	517 ST-J-3.50	518 ST-J-3.50	519 ST & S-J-3.50	520 LP & S-J-3.50	521 ST-J-4.00	522 ST & S-J-3.50	523 ST-J-2.50	524 ST-J-3.50	525 ST & S-J-3.50
DUAL	**ELECTROVOICE**	**G.E.**	**MAGNAVOX**	**SONOTONE**	**ACOS**	**RCA**	**TELEFUNKEN**	**MAGNAVOX**	**ACOS**	**WEB. ELEC.**	**EUPHONICS**
526 ST & S-J-4.00	527 SD ST & S-D/J	528D ST-D	529 SD ST & S-D/J	530 SD ST & S-D/J	531 LP-J-2.50 532 S-J-2.50	533 ST & S-J-3.50	534 ST & S-J-4.50	535SD ST & S-D/J	536 LP-J-2.50 537 S-J-2.50	538 LP-J-3.50 539 A-J-3.50 540 S-J-3.50	541 ST-J-2.50 542 LP-J-2.50 543 S-J-2.50
SONOTONE		**ASTATIC**	**ELAC & PE**			**PIEZO**					
544 ST & S-J 4.00	545 ST & S-J-3.50	546 ST & S-J-4.00	547 ST & S-J-4.00 548 ST & S-J-4.00 549 ST & S-J-4.00		550 A-J-2.50	551 ST-J-2.50 552 S-J-2.50					

CODE

- BOLD FACE number is RECOTON'S catalogue number
- LIGHT FACE Number:

1. First part of number denotes point size
   S—Standard 78 RPM
   LP—Microgroove 33-1/3 RPM and 45 RPM

A—All Speeds; T—Transcription
ST—Stereo

2. Second part of number denotes point material
   M—Precious metal
   J—Jewel (Synthetic)
   D—Diamond

3. Third part of number denotes optional-retail price

FOR STANDARD PHONEEDLES, PHONO ACCESSORIES and other RECOTON PRODUCTS write for 9th Edition RECOTON REFERENCE GUIDE to

RECOTON CORPORATION Long Island City N.Y.

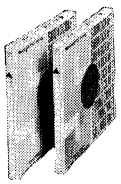
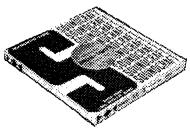
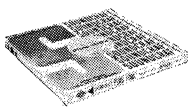
© U.C.P., Inc.

REEVES SOUNDCRAFT CORP.

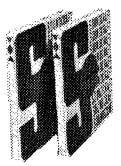
MAGNETIC RECORDING TAPES AND TAPE RECORDING ACCESSORIES

N. Y., N. Y. • Danbury, Conn. • Chicago, Ill. • Los Angeles, Calif. • Toronto, Can.

SOUNDCRAFT **MYLAR*** **BASE** RECORDING TAPES

Description		Code	Length	Reel	Std. Pkg.	Sug. Con. Net
Soundcraft LIFETIME® Recording Tape 1½ Mil "MYLAR" Base LIFETIME tape of "Mylar" has the strength to withstand the roughest usage, the dimensional stability to insure accurate timing in motion picture and radio work. New and exclusive SOUNDCRAFT plasticizer-free oxide improves uniformity of output, increases sensitivity of high frequencies and will never chip or flake.		L-1§	150′	3″	10	$ .75
		L-6	600′	5″	10	2.65
		L-12	1200′	7″	10	4.25
		L-24RM¶	2400′	10½″	5	10.40
		L-24RF†	2400′	10½″	5	10.40
		L-24RF3‡	2400′	10½″	5	10.40
		L-24H	2400′	Hub	5	8.30
		L-48R	4800′	14″	1	24.50
		L-48H	4800′	Hub	1	16.60
Soundcraft PLUS-50® Recording Tape 1 Mil "MYLAR" Base PLUS-50® tape of "Mylar" offers the best combination of long play with tape strength. It has the durability of LIFETIME® but is somewhat less rugged because of its thinner base. It is stronger however, than the strongest acetate tapes. PLUS-50 also has Soundcraft's exclusive oxide coating insuring top-quality recording characteristics.		PL-2§	225′	3″	10	.95
		PL-9	900′	5″	10	3.40
		PL-12	1200′	5¾″	10	4.65
		PL-18	1800′	7″	10	5.80
		PL-36RF†	3600′	10½″	5	13.75
		PL-36RF3‡	3600′	10½″	5	13.75
		PL-36RM¶	3600′	10½″	5	13.75
		PL-36H	3600′	Hub	5	11.25
		PL-72R	7200′	14″	1	28.10
		PL-72H	7200′	Hub	1	22.50
Soundcraft PLUS-100® Recording Tape ½ Mil "MYLAR" Base This fine tape requires careful handling, but rewards the user with extra long play—double the length of standard play tapes. Because of its "Mylar" base and plasticizer-free oxide, PLUS-100 is impervious to changes in temperature and humidity. In the hands of the experienced recording enthusiast, PLUS-100 is the ultimate in double length tapes.		XP-12	1200′	5″	10	3.50
		XP-18	1800′	5¾″	10	5.00
		XP-24	2400′	7″	10	6.50
		XP-48RM¶	4800′	10½″	5	16.80
		XP-48RF†	4800′	10½″	5	16.80
		XP-48RF3‡	4800′	10½″	5	16.80
		XP-48H	4800′	Hub	5	15.50
Soundcraft PLUS-100X Recording Tape ½ Mil Tensilized "MYLAR" Base Stretch resistant PLUS-100X uses a newly developed process to make the base ultra-thin and super-strong. One of the finest double-play tapes available.		XP-3	300′	3″	10	1.60
		XP-12X	1200′	5″	10	5.45
		XP-18X	1800′	5¾″	10	7.48
		XP-24X	2400′	7″	10	9.50
		XP-48XRM¶	4800′	10½″	5	22.00
		XP-48XRF	4800′	10½″	5	22.00
		XP-48XRF3‡	4800′	10½″	5	22.00
		XP-48XH	4800′	Hub	5	19.50

SOUNDCRAFT **ACETATE BASE** RECORDING TAPES

Soundcraft "STANDARD" Recording Tape 1½ Mil "ACETATE" Base The versatility and moderate cost of the "STANDARD" have made it the workhorse of the SOUNDCRAFT line and the standard for many applications in business, schools, government and professional work.		S-1§	150′	3″	10	$ .65
		S-3	300′	4″	10	1.25
		S-6	600′	5″	10	2.10
		S-12	1200′	7″	10	3.50
		S-24RF†	2400′	10½″	5	8.50
		S-24RF3‡	2400′	10½″	5	8.50
		S-24RM¶	2400′	10½″	5	8.50
Soundcraft "STANDARD-50" Recording Tape 1 Mil "ACETATE" Base "STANDARD-50" is the long play companion to "STANDARD" and "PROFESSIONAL." Its 1 mil acetate base gives the recordist 50% more recording time on the same size reel. "STANDARD-50" has been engineered to reproduce professional sound with wide frequency response, high signal-to-noise ratio and low distortion.		S5-9	900′	5″	10	3.29
		S5-12	1200′	5¾″	10	4.23
		S5-18	1800′	7″	10	5.17
		S5-36H	3600′	Hub	5	9.38
		S5-36RF3‡	3600′	10½″	5	12.04
		S5-36RF†	3600′	10½″	5	12.04
		S5-36RM¶	3600′	10½″	5	12.04
		S5-72R	7200′	14″	1	24.40
		S5-72H	7200′	Hub	1	18.75
Soundcraft "PROFESSIONAL" Recording Tape 1½ Mil "ACETATE" Base This tape, specifically engineered for professional use, carries this unmatched guarantee: Uniformity at 1000 cps, as tested on Ampex #307, is ±¼ db in a reel and ±⅜ db from reel to reel. Minimum response at 10,000 cps is guaranteed within 1 db of response at 1000 cps. Because of its uniformity, this tape is highly popular for all professional inter-splicing and tape duplicating applications.		P-12	1200′	7″	10	4.40
		P-24RM¶	2400′	10½″	5	10.25
		P-24RF†	2400′	10½″	5	10.25
		P-24RF3‡	2400′	10½″	5	10.25
		P-24H	2400′	Hub	5	8.00
		P-48R	4800′	14″	1	20.75
		P-48H	4800′	Hub	1	12.50

* DuPont's Registered Trade Mark for its Polyester Film
§ All 3″ Reels come packaged 10 to an attractive display carton
¶ Metal Reel
® Registered Soundcraft Trademark
† Fiberglass Reel (5⁄16″ center opening)
‡ Fiberglass Reel (3″ center opening)

PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

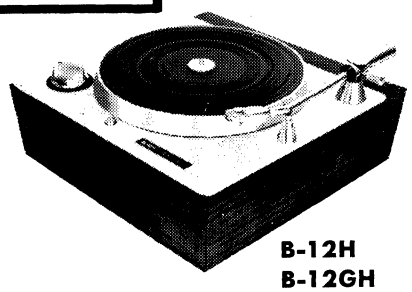
ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

SECTION 1340

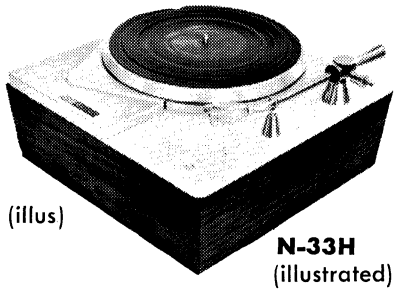
REK-O-KUT COMPANY

THE HYSTERESIS LINE OF STEREOTABLES



B-12H
B-12GH

N-34H (illus)
S-34H



N-33H
(illustrated)

THREE-SPEED

Model B-12H NET PRICE . . . **$139.95***

SPECIFICATIONS:

NOISE LEVEL: 57 db below average recording level.
WOW & FLUTTER: 0.12%.
MOTOR: Custom-built HYSTERESIS SYNCHRONOUS MOTOR.
SPEEDS: 33⅓, 45 and 78 rpm.
SPEED SELECTION: Single selector knob. Idler is disengaged in "off" position. "Off" positions adjacent to each speed permit turntable to be shut off without passing through other speeds.
45 RPM HUB: Built-in.
PILOT LIGHT: Jewelled neon light acts as "on/off" indicator.
MINIMUM DIMENSIONS FOR CABINET INSTALLATION WITH REK-O-KUT TONEARM: 17¾" wide x 16" deep; Height above Deck 3"; Height below Deck 6¼".
TURNTABLE: Solid Cast Aluminum Lathe Turned. Designed for easy disc handling.
FINISH: Silvertone Aluminum.
SHIPPING WEIGHT: 19 lbs.

Model B-12GH NET PRICE . . . **$99.95***

SPECIFICATIONS:

All specifications are identical to the B-12H with the following exceptions:
NOISE LEVEL: 53 db below average recording level.
WOW & FLUTTER: 0.13%.
MOTOR: High efficiency HYSTERESIS SYNCHRONOUS motor built to Rek-O-Kut specifications. Sealed lifetime lubrication.
MINIMUM DIMENSIONS FOR CABINET INSTALLATION WITH REK-O-KUT TONEARM: 17¾" wide x 16" deep; Height above Deck 3"; Height below deck 4¾".
SHIPPING WEIGHT: 18 lbs.

TWO-SPEED

Model N-34H/S-34H NET PRICE **$89.95**

NOISE LEVEL: 57 db below average recording level.
WOW & FLUTTER: 0.15%
MOTOR: High efficiency hysteresis synchronous motor built to REK-O-KUT specifications. Sealed lifetime lubrication.
SPEEDS: 33⅓ and 45 rpm.
REKOTHANE BELT: Special molded belt made to REK-O-KUT specifications with variable adjustment for optimum tension.
CHASSIS DECK: Model N-34H—12⅝" x 19"
FINISH: Model S-34H—15¾" x 15¾"
MINIMUM DIMENSIONS: White deck plate.
TURNTABLE: (for cabinet installation with REK-O-KUT Stereo Tonearm) Model N-34H — 13" x 21" deep; height above deck—3"; depth below deck—4¼". Model S-34H—17$^{9}/_{16}$" wide, 17$^{9}/_{16}$" deep. Other dimensions same as N-34H. Solid cast aluminum—lathe turned. Designed for easy disc handling.

SINGLE-SPEED

Model N-33H/NL-33H NET PRICE **$79.95**

NOISE LEVEL: 57 db below average recording level.
WOW AND FLUTTER: 0.15%.
MOTOR: High efficiency hysteresis synchronous motor built to REK-O-KUT specifications. Sealed lifetime lubrication.
REKOTHANE BELT: Special molded belt made to REK-O-KUT specifications with variable adjustment for optimum tension.
CHASSIS DECK: Model N-33H—15¾" x 15¾". Model NL-33H—12⅝" x 19".
FINISH: White deck plate.
MINIMUM DIMENSIONS: For cabinet installation with REK-O-KUT Stereo Tonearm: Model N-33H—17$^{9}/_{16}$" wide, 17$^{9}/_{16}$" deep; Height Above Deck —3"; Height Below Deck—4¼". Model NL-33H—13" x 21" deep. Other dimensions the same as Model N-33H.
TURNTABLE: Solid cast aluminum—lathe turned. Designed for easy disc handling.

STEREOTABLE KITS

K-34H/K33-H

True Stereotables,in kit form! If you can handle a screwdriver, you can easily build these kits. Model K-34H is similar to Model N-34H. Model K-33H is similar to Model N-33H in all specifications. Both feature the same hysteresis synchronous motor and Rekothane belt drive system. Substantial savings in costly factory assembly are passed directly on to you! Enjoy REK-O-KUT's new look of beauty and superior performance, at an unbeatable price.

MODEL K-34H (illustrated)—33 AND 45 RPM NET PRICE . . . **$69.95**

MODEL K33H—33 RPM NET PRICE . . . **$59.95**

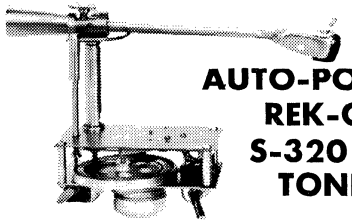
VARIABLE-SPEED TURNTABLE CVS-12

The CVS-12 permits continuous speed variation from 25 rpm to 100 rpm without resetting or stopping the record. It can therefore be used with 33⅓, 45 and 78 rpm records, and permits them to be slowed down to ⅓ normal tempo or speeded up to as much as 300%. It is standard equipment with the P-VC and P-VM players.

NET PRICE **$89.95***

NOTE: This turntable operates at either 50 or 60 cycles. At 50 cycles speed can be varied from 20 rpm to 85 rpm.

Shipping Weight: 15 lbs.



AUTO-POISE WITH REK-O-KUT S-320 STEREO TONEARM

Makes operation of your Rek-O-Kut Stereotable fully automatic! Easily installed. Here's how it works. Push a button. The arm moves gently to the record. The turntable starts to rotate. The arm lowers into the groove. As soon as it touches Auto-Poise disconnects automatically. The arm is now in completely free and independent motion, a must for quality music reproduction. When the record finishes, a sensing switch turns on the self-powered Auto-Poise. Automatically the arm lifts from the run-out groove, moves back to starting position, and the Stereotable shuts off. Model S-320 Tonearm features exclusive Omni-Balance, for perfect balance, both lateral and dynamic, with all cartridges.

MODEL AP-320—AUTO-POISE WITH S-320 ARM NET PRICE . . . **$74.95**

MODEL APK—AUTO-POISE ONLY, FOR ANY REK-O-KUT STEREO TONEARM NET PRICE . . . **$49.95**

MODEL S-320—TONEARM WITH EXCLUSIVE OMNI-BALANCE NET PRICE . . . **$34.95**

MODEL S-260—16" PROFESSIONAL TONEARM, LESS OMNI-BALANCE NET PRICE . . . **$36.95**

REK-O-KUT COMPANY

NEW IMPERIAL II

$695.00* net complete

RECORDING AMPLIFIER UNIT

R8B AMPLIFIER SPECIFICATIONS

OUTPUT: 20 watts.
RESPONSE: ±2db from 20 to 20,000 cps at full output.
HARMONIC DISTORTION: .3% @ 1,000 cps at full output.
INTERMODULATION DISTORTION: .8% at full output.
HUM LEVEL: (below rated output) Tape—60db; Mike—64db; Phone—61db.
4 INPUTS: Microphone, tape and phono-mixing, plus tuner (high level).
CONTROLS: Phono, microphone and tape level, master volume, bass (±22db @ 50 cps), treble (±20db @ 15 kc), playback-recording switch, power switch.
RECORDING LEVEL INDICATION: Damped volume unit type meter with special calibrated scale.
OUTPUTS: Speaker and cutter (16, 8 and 4 ohms). Monitor (for use with high impedance headphones), pre-amp (2,000 ohms).
TUBES: 2—6973; 1—6AN8.
TRANSISTORS: 3—2N408; 5—2N406.
RECTIFIERS: 1N2071 Silicon.
PREAMPLIFIER SECTIONS: Completely transistorized.
POWER REQUIREMENTS: 115 watts, 117 VAC, 50-60 cps.
VINYL COVERED CARRYING CASES with storage lid and handle.

Size:	Weight:
Height: 7"	R8B Amplifier: 25 lbs.
Depth: 10"	Recorder: 45 lbs.
Length: 20½"	

PRICES: IMPERIAL II COMPLETE ..... net **$695.00***

Disc Recorder, less amplifier
MODEL DR ..... net **$475.00***
Case for Model DR Disc Recorder
MODEL C-DR ..... net **$ 50.00***
Recording Amplifier
MODEL R8B (can be rack mounted) ..... net **$225.00***
Case for R8B Amplifier
MODEL C-B ..... net **$ 25.00***

ACCESSORIES AVAILABLE:
Portable dual speaker set
MODEL SPK-44 ..... net **$ 79.95***

Also available are headphones and microphones.

IMPERIAL II SPECIFICATIONS

RECORD CUTTER AND PLAYBACK UNIT

MOTOR: Custom built Hysteresis Synchronous motor fitted with lamitax drive pulley. Suspended in shock mounts to prevent transmission of motor vibration.

RECORDING AREA: Records from 6" up to 13¼" masters.

SPEEDS: Simple, finger-tip speed control. Records at both 33⅓ and 78 R.P.M. Includes Idler and Adapter for 45 R.P.M. recordings.

OVERHEAD RECORDING LATHE: Model M-12S Lathe. **HAND CRANK** for run-in and run-off spiral grooves. **PROVISION FOR INTERCHANGING LEADSCREWS** for Standard and Microgroove. Equipped with standard 120 line leadscrew. **LIFTOMATIC SAFETY CAM** prevents double cutting and stylus damage. Automatically raises cutter as center of disc is approached. **CALIBRATED SCALE FOR TIMING.**

RECORDING HEAD: Model RH-5 response from 30-13,000 cycles.

PLAYBACK ARM: Model S-120 for records up to 13¼"—with dual-sapphire magnetic cartridge.

LEADSCREWS FOR OVERHEAD LATHES

Lines/inch	Model M-5S	Net Price
120	MS-120	$39.95
150	MS-150	39.95
210	MS-210	49.95
216	—	—
240	MS-240	49.95
270	MS-270	49.95

Lines/inch	Model M-12S	Net Price
120	M12S-120	$35.95
150	M12S-150	35.95
210	M12S-210	44.95
216	—	—
240	M12S-240	44.95
270	M12S-270	44.95

Lines/inch	Model M-12	Net Price
120	M12-120	$19.95
150	—	—
210	—	—
216	M12-216	29.95
240	M12-240	29.95
270	—	—

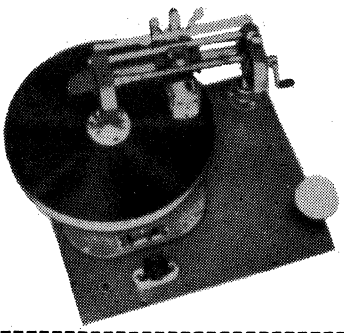
Leadscrews of 210 lines/inch or more = microgroove.

MODEL TR-43H 2 SPEED (33-78) 12" RECORDING TURNTABLE With Accessory Idler for 45 rpm Speed

Design and construction of the Model TR-43H is similar to the Rek-O-Kut 16" professional recording tables. The Model M-12S Overhead Recording mechanism is mounted to the chassis in a few moments.

CHASSIS: Cast ribbed aluminum drilled to accommodate the M-12S Lathe.
IDLERS: Neoprene compound for maximum traction.
OILING: Shafts and bearings are self-oiling. Require infrequent lubrication.
SPEEDS: Instantaneous speed shift engages either 78 or 33⅓ rpm idlers.
FINISH: Gray wrinkle.
DIMENSIONS: Front to back 16½"; width 16"; height above motor board 1⅜"; depth below motor board 5".
SHIPPING WEIGHT: 20 lbs.

NET PRICE:
$149.95*
(Less Lathe & Cutter)



MODEL M-12S 12" OVERHEAD LATHE

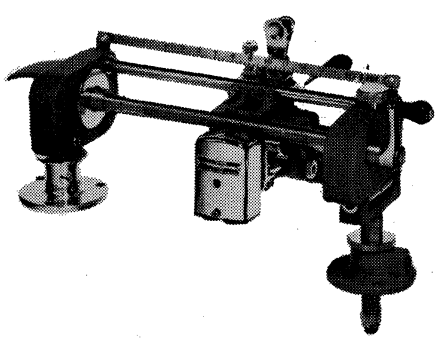
This professional lathe is designed to very exacting specifications and features the following:

- Interchangeable Leadscrews.
- Hand-crank for run-in and run-off Spiral Grooves.
- Timing Scale.
- Accommodate Standard Cutting Heads.
- Depth of Cut Adjustment.

LIFT-O-MATIC: Automatically lifts cutter from disc as it approaches end of lead-screw.

Designed for instantaneous replacement of the M-12. Supplied with 120-line leadscrew

MODEL M-12S less cutter **NET PRICE**..... **$150.00***



MODEL RH-5 CUTTER..... **$115 NET**

For use with Rek-O-Kut overhead lathes. Designed for vertical mounting—can be fitted to standard lathe brackets other than Rek-O-Kut.

SPECIFICATIONS

Impedance: 8-15-500 ohms. **Sensitivity:** Approximately 1.8 watts at 1000 cycles for 6.3 cm/sec peak recorded velocity. **Frequency Response:** ±2 db from 1000 to over 13,000 cycles. From 1000 down to 30 cycles. Built-in attenuation per R.I.A.A curve within 2 db. **Distortion:** 1.2% at 1000 cps. **Mounting:** Universal mounting for most lathes. 1⅛" between mounting holes of cutter. **Stylus:** Short shank steel or sapphire ⅝" overall stylus length. (Stylus not supplied.)

*All prices slightly higher West of Rockies.

The policy of Rek-O-Kut Co., Inc., is one of continual improvement in design and manufacture. Hence, we reserve the right to change specifications and design without notice.

Net
© U.C.P., Inc.

REK-O-KUT COMPANY

The MODEL B-16H *3 Speeds*

16"... PRECISION TURNTABLE

SPECIFICATIONS:

SPEEDS: 33⅓, 45 and 78 rpm.

SPEED SELECTION: Mastermatic, self-locking, instantaneous shift. Engages either idler without stopping turntable or removing disc.

STARTING: From standing start to operating speed —
at 78 rpm ..... ¾ turn
at 33⅓ and 45 rpm ..... ¼ turn

MOTOR: Self-lubricating, CUSTOM-BUILT HYSTERESIS SYNCHRONOUS.

NOISE LEVEL: 50 db below average recording level.

45 RPM HUB: Built-in—retractable—requires no external adapter.

STROBE DISC: Permanently affixed—permits instantaneous checking of all speeds.

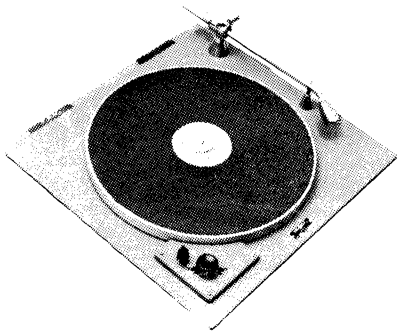
CHASSIS DECK: Radial-ribbed aluminum casting. Designed for flush mounting in rectangular cut-out, PRE-DRILLED: for ready mounting of Rek-O-Kut Turntable Arm Model S-160.

DIMENSIONS: 18¾" x 20". Fits existing consoles and cabinets with slight modification.

CLEARANCE REQUIRED: Above Deck—1½". Below Deck—6½".

FINISH: ..... Wrinkle gray.

SHIPPING WEIGHT: ..... 34 pounds

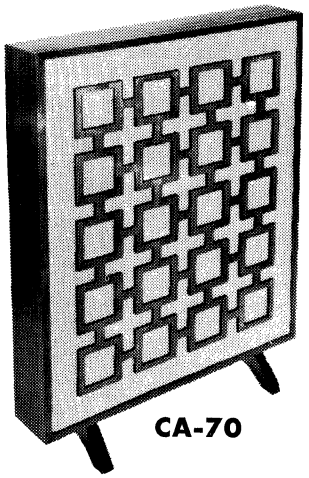


NET PRICE **$250.00** **All prices slightly higher West of Rockies.**

NOTE: All Rek-O-Kut Turntables are supplied for 110-120 volt, 60-cycle AC operation. Available in other voltages and frequencies at additional cost.

REK-O-KUT/AUDAX SPEAKER SYSTEMS AND PARAFLEX SPEAKERS

SONOTEER . . . *Combines high style with big sound*



CA-70

Model: CA-70 Style: Contemporary

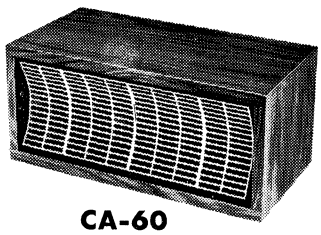
New concept in hi-fi speaker systems! Thinnest, most attractive cabinet you have even seen. Unique front and back radiation for a new dimension in big, clean sound. Full 40 to 18,000 cycle response from a precise match of the voices of two woofers, two mid-range speakers that eliminate the "hole-in-the-middle," and a super-tweeter. Perfect for any decor . . . hang it from walls, use as a room divider, place it anywhere! Solid, furniture-finished walnut. Exceptionally efficient . . . works with as little as five watts, handles up to 45 watts.

NET PRICE **$79.95**

Model CA-60 Style: Contemporary

A true bookshelf unit . . . only 9½" x 10" x 18"! Maximum fidelity for a speaker system this size. Features 2 high compliance 6" woofers and a super-tweeter with built-in high-pass filter. Works with as little as 5 watts, handles up to 25 watts. Solid, oil-finished furniture walnut cabinet, with satin aluminum grille.

NET PRICE **$59.95**



CA-60

SPECIFICATIONS — REK-O-KUT/AUDAX SPEAKERS

MODEL	CLASS	RESPONSE C.P.S.	POWER WATTS	RESONANCE FREE AIR	GAP FLUX DENS. (GAUSS)	SIZE	SHIPPING WT. LBS.	NET PRICE
A-35T	3½" Cone Type Tweeter	3,000-18,000	25 W.	—	—	3½x3¼x3½	2	$ 9.95
A-60-M	6" Mid-Range	300- 6,000	25 W.	—	12,000	6⅛ x 3¼	4	35.00
A-80 M	8" mid range	300- 6,000	20 W.	—	11,500	8⅛" x 4"	4¾"	22.95
A-80-D	8" Full Range	55-13,000	20 W.	55-60 CPS	11,500	8⅛ x 4	4¾	29.95
A-12 D	12" Full Range	40-12,000	20 W.	45-50 CPS	11,500	12⅛ x 6¾	6½	39.95
A-12 DX	12" Co-Axial	35-18,000	25 W.	40 cps	11,500	12¼" x 5¾"	9	49.95

SPECIFICATIONS — REK-O-KUT/AUDAX SPEAKER SYSTEMS

MODEL	CLASS	RESPONSE C.P.S.	POWER WATTS	CONTENTS	SIZE	SHIPPING WT. LBS.	NET PRICE
CA-60	Complete system	70-17,000	25 W.	Two 6" woofers —One Tweeter	9½" x 10" x 18"	15	$59.95
CA-70	Complete system	40-18,000	45 W.	Two woofers mid-range, super-tweeter	4" x 21" x 25"	24	79.95

Note: — A. C. Impedance of all models standardized at 8 ohms at 400 cps.

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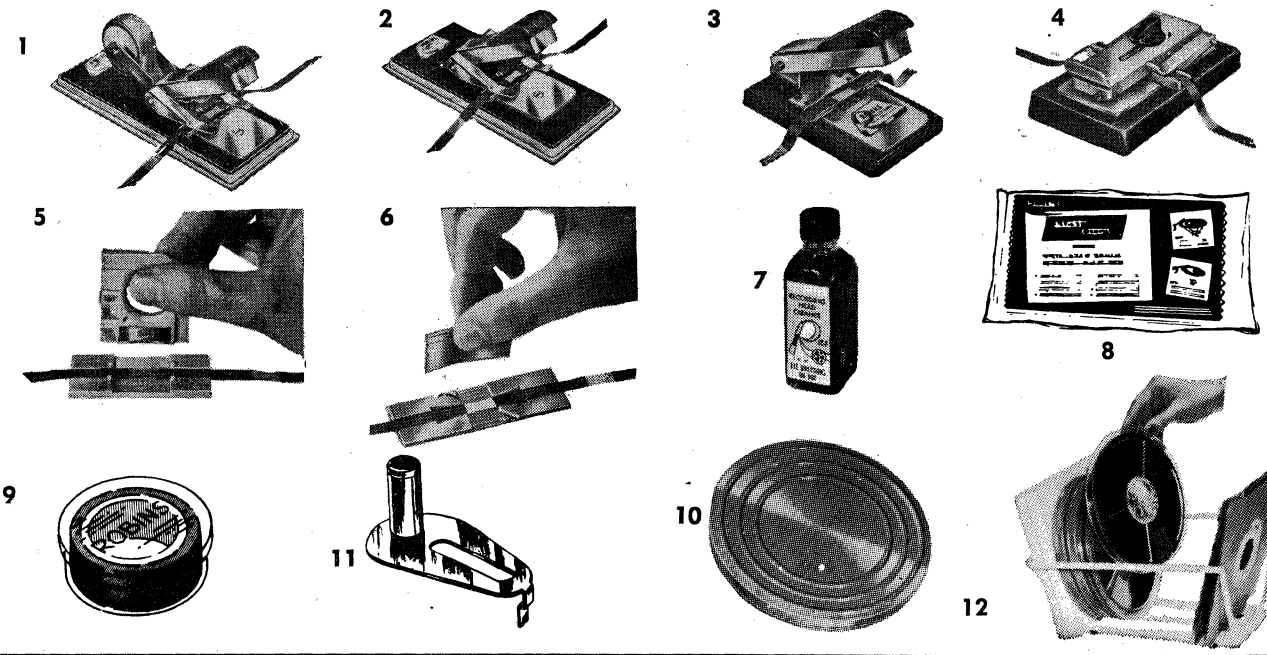
Gibson Girl®

ROBINS

Gibson Girl®

ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

GIBSON GIRL® TAPE SPLICERS & ACCESSORIES



Robins Gibson Girl® Tape Splicers are the accepted standard of the professional and industrial users of recording tape. They have gained this reputation because of their ease of operation. The high standards of workmanship assures reliability. They are the only splicers which actually cut a diagonal lap joint in the tape only splicers which actually cut a diagonal lap joint in the tape and trim the splicing tape and tape edges with an indented trim cut, making **"THE SPLICE WITH THE GIBSON GIRL® SHAPE".** These slight "waists" formed in the tape prevent adhesive from contacting critical parts of the recording mechanism and prevent layer to layer adhesion. Adhesive deposited on tape guides, etc. is a frequent cause of wow, flutter, and erratic performance.

Gibson Girl® Tape Splicers are Available in Six Models.

GIBSON GIRL® "TS4A" • SERIES MAKES PROFESSIONAL SPLICES IN SECONDS!

*New! With Replaceable Cutter Cartridge
The "TS" series splicers have cutter cartridges which house 3 long-life blades. The cartridge has two operating positions, miter cut and trimming cut. These are selected by moving the knob back and forth.
RK-2 Replacement Kit. Completely overhaul your TS4A series splicer. Contains Cutter Cartridge & 2 Cutter Pads $1.25

1. GIBSON GIRL® DELUXE—Our finest. A complete splicing unit. Has hinged padded fingers to hold tape in position. Splicer plus roll of Robins Splicing Tape mounted in an integral tape dispenser. Supplied with clear plastic dust cover.
Cat. #TS4A-DLX. List $11.50

2. GIBSON GIRL® STANDARD—Our basic, moderately priced professional model, same as the TS4A-DLX except without tape dispenser or splicing tape. Supplied with clear plastic dust cover.
Cat. #TS4A-STD. List $8.50

3. GIBSON GIRL® JUNIOR — Low cost, small and compact. This is a handy, carrying size model. Similar to TS4A-STD except tape is held in tape guide by friction.
Cat. #TS4A-JR. LIST $6.50

4. GIBSON GIRL® INDUSTRIAL TAPE SPLICERS — For computer, TV industrial and special purpose tapes. Gibson Girl® Industrial Tape Splicers have all of the features of the TS4A-STD. They are ruggedly constructed for industrial use, mounted on a heavy cast base. Precise blade centering adjustment. Long life blades easily replaceable.
For ¼" tapes. **Cat. #TS-250. Net $55.00**
For ½" tapes. **Cat. #TS-500. Net $55.00**
For 1" tapes. **Cat. #TS-1000. Net $55.00**
Custom Built Splicers For Special Tapes and Applications Available—Send for Quotation.

5. GIBSON GIRL® "SEMI-PRO"—This hand held splicer consists of three parts, a tape alignment guide, a cutting unit which has a diagonal cutter on one side and Gibson Girl® cutters on the other side, and a blade cover to protect the blades, designed for semi-professional use.
Cat. #SP-4. List $3.50

6. GIBSON GIRL® "HOBBYIST" — An inexpensive tape splicer consisting of a tape and blade guide and a unique curved blade. It is designed to produce uniform **Gibson Girl®** type splices for hobbyists who require its services less frequently.
Cat. #H-4. List $1.75

7. ROBINS RECORDING HEAD CLEANER — A fast, efficient solvent for cleaning recording heads. In brush applicator bottle.
Cat. #HC-2. List $1.00

8. JOCKEY CLOTH FOR TAPES—Revitalizes tapes. Reduces head wear. Reduces tape wear. Eliminates "grime distortion". Reduces tape squeal and chatter. Cleans, lubricates and protects by depositing a microscopic film of Silicone on the tape.
Cat. #JCT-2. List $1.00

SPLICING TAPES

9. ROBINS SPLICING TAPE—(New formula white) Specifically made for splicing recording tape. Tackiness, thickness, strength and cold flow are carefully controlled. Individually packed in crystal clear plastic container.
¼" x 100" Mylar (New Formula white) **Cat. #ST-234. List $.40**
½" x 100" Mylar (New Formula white) **Cat. #ST-500. List $.50**
¾" x 100" Mylar (New Formula white) **Cat. #ST-750. List $.60**

10. TAPE STORAGE CANS — For safe storage of recording tapes. Reduces tape "ageing". Helps prevent accidental tape erasure. Ribs on cans nest for stacking.
Cat. #TC-5 (for 5" reels). List $.55
Cat. #TC-7 (for 7" reels). List $.75

11. ROBINS TAPE THREADER—The perfect solution to an old nuisance! No more awkward fumbling. Just place tape against the reel, slip on your threader to hold it in place, turn the crank and presto!—you're ready to use your recorder.
Cat. #TT-1. List $1.00

12. TR-12 TAPE RACK — A modern browser rack which holds up to 12 boxed or unboxed 7" reels of tape. Compact only 5" x 8" x 9¾". Labels on side of boxes of pre-recorded tapes stored in the browser rack may be read without removing the boxes from the rack. May also be used for 7" records and movie film.
Cat. #TR-12. List $1.25

REEL LABELS—SELF-STICK ADHESIVE. (not illust.) Write on with pencil, pen, ball point, etc. Names can be typed on labels prior to removal from sheet. For Tape Reels, Parts, Record Service Calls, 1001 other uses.
Cat. #SL-30 (30 Labels). List $.45

GIBSON GIRL® TAPE SPLICERS—U.S. PAT. No. 2,778,420 PATS. PENDING T.M. REG. U.S. PAT. OFF.

Trade Discount Applies to List Prices Only
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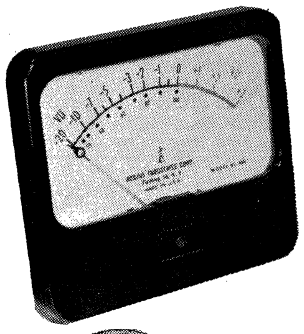
Gibson Girl®

ROBINS

Gibson Girl®

ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

FOR MORE FUN & BETTER TAPE CARE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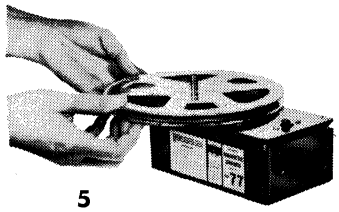
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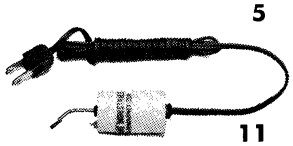
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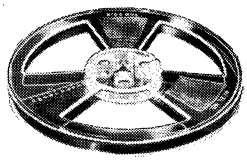

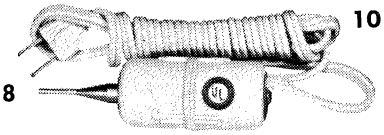
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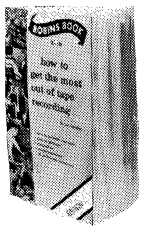

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1. NEW! ROBINS VU METER — No more "guess work" with level control. Prevents overmodulation (overloading) prevents recording on too low a level, etc. Specifications: 4½" VU Meter, 2 color scale; Modulation calibrations, 0-100%; VU calibrations —20 to +3; Dual impedance inputs. (Use with low or high impedance circuits). Sensitivity 200 Micro amps (basic movement). O VU operation: Shunts for 1.2 or 12 V; Mounts in 2¾" diameter hole; Depth 1½". **Cat. #VU-100. List $22.00**

2. NEW! REEL HOLDERS FOR TAPE RECORDERS — Damps wobbling, holds reels in place regardless of position of recorder. **Cat. #RH-2 (pair). List $.85**

3. TK-5, TAPE STROBE & LIGHT KIT— Makes checking of recorder drive motor speeds a snap. It consists of five lengths of 25" non-magnetic leader tape with stroboscopic markings. A neon light source is included. This flickers at the rate of 120 times per minute and indicates if motor speed is too slow, too fast or correct. The light operates on 110-120 volt AC. **Cat. #TK-5. List $2.00**

4. MAGNETIC BULK TAPE ERASER — Listed by Underwriters Laboratories, Inc. Removes completely, recorded and unwanted signals. Provides superior de-magnetizing of tape by reducing background noise levels of tapes from 3 to 6 db below normal erase head levels. Assures distortion-free tape—makes old tapes with accumulated background noise perform like new. Eliminates wear and tear of recording heads. Easy to operate for tape up to ½" wide. Accepts any reel up to 10½". 110-120 volts, 50-60 cycle AC. **Cat. #ME-99. List $33.00**

5. ME-77 LOW COST BULK TAPE ERASER — A professional low-cost bulk tape eraser for the amateur recordist. It is designed to remove recorded and unwanted signals from a reel of tape ¼" wide and up to 7½" diameter. It reduces background noise levels from 2 to 4 db below normal erase head levels. Only 2½" x 3¾" x 6¼" in size; weighs only 4 lbs; operates on 110-120 volt AC current. **Cat. # ME-77. List $22.00**

6. TAPE KARE KIT—Preserves valuable tapes and protects tape recorders. Contains: Robins Recording Head Cleaner. Jockey Cloth for cleaning tapes. **Cat. #TK-2. List $2.00**

7. GIBSON GIRL® ACCESSORY KITS-Everything You Need for Better Tape Recording and Editing. This kit contains the famous Gibson Girl® Tape Splicer, Splicing Tape, Tape Threader, Head Cleaner, Tape Cleaning Cloth, Tape Clips, Reel Labels and Tape Editing Book. For Professional Results! For More Pleasure! For Better Recordings! A Perfect Hi-Fi Gift!
With Gibson Girl® Standard Splicer.
Cat. #TK-4STD. List $12.00

*With Gibson Girl® Junior Splicer.
Cat. #TK-4JR. List $10.00
*With Gibson Girl® Hobbyist Splicer.
Cat. #TK-4H. List $ 3.50

8. REPLACEMENT REELS —Sturdy 7" virgin styrene reels. With write-on surfaces and tape log index. **Cat. #TR-70. List $.75**

9. TAPE CLIPS — Keeps tapes from unwinding from full or half empty reels. As important to the tape recordist as the diaper pin is to the baby nurse. 1. With full reel of tape, snap clip on one edge of reel flange with the long foot in, or— 2. With half empty reel, fold end of tape around edge of reel flange and place clip over tape. Lies flat in box. **Cat. #TC-12 (pkg. of 12). List $.40**

10. HEAD DEMAGNETIZER — Listed by Underwriters Laboratories, Inc. Removes permanent magnetization from Tape Recording Heads. Improves signal-to-noise ratio. Reduces noise level. Reduces Harmonic distortion when caused by head magnetization. Has an extended pole piece designed for easy access to the recording heads of most tape recorders. Contact of the demagnetizer pole piece with the pole tips of the recording head causes the head to be saturated by an alternating magnetic field. Gradual removal of the head from this saturating field neutralizes any residual permanent (DC) magnetism. 110-120 volts, 60 cycle. **Cat. #HD-6. List $10.00**

11. HD-3 HEAD DEMAGNETIZER—A first quality, popularly-priced, American-made demagnetizer. Removes permanent magnetization and reduces harmonic distortion caused by it. Improves signal-to-noise ratio. Special plastic sleeve on tip of probe prevents against accidentally scratching the recording head. The specially shaped probe makes almost any head accessible without removing the head cover.—Stereo or mono.
Cat. #HD-3. List $5.95

ROBINS BOOKS

12. HOW TO GET THE MOST OUT OF TAPE RECORDING—(stereo edition) 128 pp. fully illust. Covers every aspect of tape recorder for the hobbyist and the professional. Tells you how to get the most out of your tape recorder, or if you don't have one, what to look for when purchasing one. **Cat. #TE-128. List $1.00**

***TAPE EDITING AND SPLICING** — For the Professional and Amateur tape recordist by N. M. Haynes. 24 pp., illust. An authoritative work on the subject by an outstanding author. Contains a great deal of information which is not readily available elsewhere.
Cat #TE-24. List $.35

***TELEVISION TAPE RECORDING**—by George B. Goodall (48 pp., illust.) A semi-technical book on methods and techniques in the amazing new field of Video tape recording, just published.
Cat. #TE-48. List $1.00

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ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

PATCH CORDS (molded cable assemblies) FOR HI-FI • STEREO • PA

Precision engineered molded connecting cables in a complete variety of combinations to fit every possible need in hi-fi, stereo and pa systems for connection of amplifiers, pre-amplifiers, mixers, record changers, recorders, speakers, speaker extensions, tuners and musical instruments.

NEW!

***FM INDOOR ANTENNA (folded dipole)**—Eliminates need for outdoor antenna in most locations. A big improvement over "built-in" antennas. Easily concealed under a rug or back of cabinet. "Peg-packaged".
Cat. #FMA-1. List $2.00

***ROBINS 72" LINE CORD.** Heavy insulation (SPT-2), U.L. Listed, with molded AC plug. White.
*(Not illust.)
Cat. #LC-72. List $.55

			TYPE	LENGTH (Inches)	LIST PRICE
			(all Grey shielded cable unless otherwise shown)		
(M) (M) phono plug TO	(M)	phono plug	MM	18	1.00
			MM	36	1.25
			MM	72	1.50
			MM	120	2.00
	(F)	phono extension jack	MF	18	1.25
			MF	36	1.50
			MF	72	1.75
			MF	120	2.25
	(S)	stripped and tinned ends	MS	18	1.00
			MS	36	1.00
			MS	72	1.25
			MS	120	1.75
	(T)	phone plug	MT	72	2.00
			MT	120	2.50
	(C)	alligator clips	MC	120 *(grey parallel cable)*	2.25
	(J)	phone jack	MJ	72	2.50
(T) (T) phone plug TO	(F)	phono jack	TF	72	2.50
	(T)	phone plug	TT	72	2.00
			TT	120	2.50
	(S)	stripped and tinned ends	TS	72	2.00
			TS	120	2.50
	(C)	alligator clips	TC	72	2.00
			TC	120 *(grey parallel cable)*	2.50
(B) microphone connector TO	(J)	phone jack	TJ	120	4.00
	(S)	stripped and tinned ends	BS	120	2.75
(F) phono jack TO	(F)	phono jack	FF	72	2.25

ADAPTORS

FF-1 — Phono Plug coupler, mates with Phono plug at each end. Grey colored plastic: completely shielded. **1.00**

JM-1 — Adapter, 2-Conductor Phone Jack Input to Phono Plug Output. **2.00**

FT-1 — Phone plug output with phono jack input. Attractive grey colored molded housing, completely shielded. **1.50**

T-1 — Phone Plug **.75**

M-1 — Phono Plug (Pkg. of 4) **.50**

F-1 — Phono Jack (Pkg. of 3) **.50**

TD-1 — Male Microphone input to Phone Plug Output **.75**

BP-1 — Adapter, Phono Plug on end with Female Microphone Connector at other end. **1.00**

DP-1 — Adapter, Phono Plug one end with Male Microphone Connector at other end. **1.25**

D-1 — Male Microphone Connector **.50**

B-1 — Female Microphone Connector **.75**

MADE IN THE U.S.A.

Trade Discount Applies to List Prices Only

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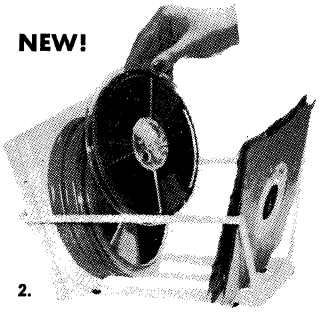
ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

"EXTRA-PLEASURE" PHONOGRAPH AIDS

NEW!

1.

NEW!



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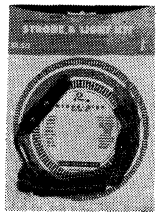

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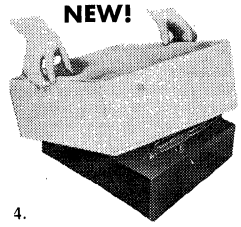

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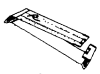

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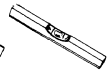

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1. NEW TURNTABLE MAT — Polyethylene mat features 3 concentric ridges of graduated heights to support 7, 10 and 12" records and protect record grooves from scratches caused by dust on the turntable. 11¾" in diameter. **Cat. #PC-22.**

2. NEW — RACK HOLDER for 7" RECORDS—Convenient storages of up to 100 7" LPS or 45's. May also be used for recording tape and movie film. Durable plastic. **Cat. #TR-12. List $1.25.**

3. NEW! STROBE & LIGHT KIT. This easy-to-read strobe is precision-engineered to furnish listeners with the easiest and surest way of determining the speed of their record player. Important because the turntable's speed affects the pitch of the music. Used simply by placing strobe disc on turntable and shining strobe light on the disc according to directions accompanying each kit. Indicates clearly whether turntable is too slow, too fast, or irregular. **Cat. #ESK-5. List $1.50.**

CHANGER COVERS

Transparent plastic covers to fit many models. Listed here are a few.

4. **NEW CHANGER COVERS!** Rigid, collapsible and easy to set up. Helps to keep changer dust free.

Cat. #CC-6	12" x 15½" x 5"	White	**List $6.95**
Cat. #CC-7	12" x 15½" x 5"	Brown	**List $6.95**
Cat. #CC-8	12" x 15½" x 5"	Clear	**List $6.95**
RECORD CHANGER COVERS:			
***Cat. #CC-1**	12" x 13½" x 8"	Webcor, V-M, Miracord 200, Dual, Garrard "T" etc.	**List $1.75**
***Cat. #CC-2**	13½" x 15" x 8"	Garrard RC80, 121, Thorens 134, 184, etc.	**List $1.75**
***Cat. #CC-5**	17" x 15" x 8¾"	Garrard RC-88, 98, 4HF, Glaser-Steers GS-77, Pickering, etc.	**List $1.75**
TURNTABLE COVERS:			
***Cat. #CC-3**	22" x 16½" x 9"	Fairchild, Rek-O-Kut, Garrard, etc.	**List $2.25**
***Cat. #CC-4**	17½" x 17½" x 8½"	Rek-O-Kut, L34, N33, Grey, Thorens TD-124 Metzner, Etc.	**List $2.25**

FOUR "ENGINEERED SOUND" RECORD KARE KITS

5. **DELUXE ENGINEERED SOUND RECORD KARE KIT**—Contains: Stylus Pressure Gauge SG-1, Hobbyist Stylus Microscope MX-40, Turntable Level TL-1, Jockey Record Cleaning Cloth JC-1, KleeNeeDle NB-1, Record Brush RB-75, Tone Arm Lift TA-1. **Cat. #ESK-3. List $5.00.**

***PROFESSIONAL ENGINEERED SOUND RECORD KARE KIT** — Contains: Stylus Microscope MX-40, Turntable Level TL-1, Stylus Pressure Gauge SG-1, **Cat. #ESK-2. List $3.00.**

***HOBBYIST ENGINEERED SOUND RECORD KARE KIT**—Contains: Stylus Pressure Gauge SG-1, Turntable Level TL-1. **Cat. #ESK-1. List $2.00.**

***ENGINEERED SOUND TURNTABLE LEVELING KIT**—Consists of: 4 adjustable rubber feet, mounts; Level. **Cat. #ESK-4. List $3.50.**

6. **ALUMINUM COMPONENT SLIDES**—Attractive easy-to-install, aluminum drawer slides for record players or other equipment. Has a load capacity of 30 lbs., length is 13" and maximum extension 14". **Cat. #CS-1311. List $4.00.**

7. **FIBERGLASS ACOUSTIC INSULATION**—For lining speaker cabinets, record changers, tape decks, etc. 36" x 36" x 1" thick. Reduces high and medium frequency reverberations and standing waves in speaker cabinets and enclosures. **Cat. #AM-90. List $2.25.**

8. **PHONO-CUSHION**—Polyester foam mat fits most changers and players. Cushions record fall, reduces motor rumble, reduces magnetic pull of pickup, eliminates record slip, covers worn tables. In attractive colors. **Cat. #PC-10 (10") List $1.15. Cat #PC-12 (12") List $1.50.**

9. **STYLUS PRESSURE GAUGE**—Measures stylus pressure accurately from 2 to 30 grams. **Cat. #SG-1. List $1.00.**

10. **TURNTABLE LEVEL**—Spirit level in attractive gold anodized aluminum case, sits easily on any turntable. **Cat. #TL-1. List $1.20.**

11. **ISOLATION PAD**—Scientifically designed for use under all Record Changer Bases made of dielectric foam. Can be used for Tape Recorders, T-V Chassis, etc. **Cat.#IP-16 (16½" x 13½") List $2.00.**

12. **JOCKEY CLOTH FOR RECORDS**—Anti-static Record cleaning cloth cleans, lubricates and eliminates static charges which attract dust. **Cat. #JC-1. List $1.00.**

13. **KleeNeeDle**—Automatic Changer Needle Brush. Automatically keeps needle clean by removing "dust blob" each time tone arm passes over brush. Adjustable height fits most record changers. Pressure sensitive adhesive for mounting. **Cat. #NB-1. List $1.40.**

ROBINS CHEMICALS

14. **TAPE AND PHONO DRIVE OIL**—Highly refined lubricant formulated especially for rotating and moving parts of tape and phono drives. Inhibits rust and oxidation. 2 oz. **Cat.#RC-2-33. List $.75**

***NON-SLIP FOR TAPE AND PHONO DRIVES**—Stops slippage of idler wheels, pulley belts and cords. Fast drying, stable and penetrating material dries to a tack-free yet non-slip surface, 2 oz. **Cat. #RC-2-56. List $1.00.**

15. **RECORD BRUSH**—A fine haired brush that clips on tone arm and gently sweeps dust from record as it rotates. **Cat. #RB-75. List $.75.**

16. **TONE ARM LIFT**—Clips on tone arm to provide a convenient finger lift. Eliminates fumbling. Reduces record scratching. **Cat. #TA-1. List $.35.**

17. **RECORD SPIDERS (PLASTIC) FOR 45 RPM RECORDS**—Clips into record to reduce hole diameter for fit on standard record spindle. Pkg of 5. **Cat. #RA-45. List $.25.**

18. **ATOMIC JEWEL**—Anti-static device keeps records dust free reducing record needle wear. Clips on arm. **Cat. #SE-900. List $4.00.**

19. **STROBE-DISC**—Easiest and simplest way to check turntable speed and assure its accuracy. **Cat. #SD-1. List $.35.**

SD-4 STROBE DISC for all 4 speeds **$.50.**

20. **HOBBYIST STYLUS MICROSCOPE**—Direct reading microscope with precision plastic lens. **Cat. #MX-40. List $1.50.**

***NEW! 45 RPM METAL ADAPTERS**—Easy to use, clips into record. 5 adapters. **Cat. #RA-45M. List $.30.**

***NEW!—ROUND TURNTABLE LEVEL**—4-way. Levels your turntable for top performance, prevents record and needle wear. A must for stereo output balance. **Cat. #TL-2R. List $2.50.**

***RECORD & ALBUM RACKS**—For neat, safe storage.
Holds 48 7" records **Cat. #RR-7 List $1.00**
Holds 40 12" records **Cat. #RR-10 List $1.35**

***PROFESSIONAL STYLUS MICROSCOPE**—Check stylus wear and protect against damage to records. **Cat. #MX-1. List $2.50.**

***SPINDLE ADAPTER FOR 45 RPM RECORDS**—Enlarges standard spindle diameter to take 45 RPM records. Top is tapered for ease in stacking records. **Cat. #SA-45. List $.25.**

***DISCLOSURES**—Virgin polyethylene envelopes for record storage, round bottom, extra long—Protects records from dust, grime, lint, etc. **Cat. #E-12** (12 inch.—pkg of 10) **List $1.00.**

ALL ITEMS MADE IN THE U.S.A. *Not Illustrated.

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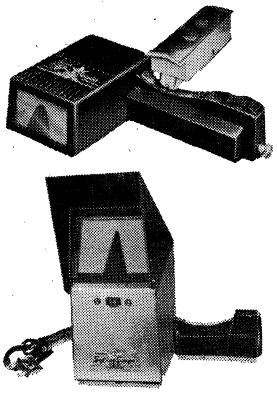
ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

ROBINS SYL-A-SCOPES



FIRST TRULY RELIABLE METHOD TO DETECT DAMAGED OR WORN STYLUS

SG-33, SYL-A-SCOPE— An inexpensive device for use by audiophiles and servicemen to examine phono styli for wear and/or damage. It is energized with two penlight batteries. The user need only place the tone arm of the phono on the bar rest of the SG-33, with the stylus in the aperture, and switch the unit on. Instantly, every detail of the stylus is magnified and projected on the illuminated ground-glass screen. The SG-33 is easy to carry and store, weighing only a few ounces. Housed in sturdy plastic case.

Cat. #SG-33. List $6.75 (less batteries)

AN ECONOMICAL APPROACH TO SMALL PARTS INSPECTION

SG-66, SYL-A-SCOPE, "Professional"—Based on same principles as optical equipment costing many times more, the SG-66 is designed for critical examination of phono styli by service technicians, broadcast studios and advanced audiophiles and for small parts inspection.

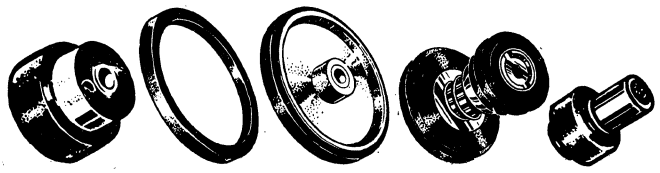
Provides rapid, precise inspections of small parts and tools up to 1/32" in diameter. Completely portable, the SG-66 can be transferred easily for on-the-spot inspections. Its low price permits the purchase of enough units to cover every critical inspection point in your plant. It provides an illuminated magnified silhouette (80 to 1 linear magnification) of part inspected on the ground glass screen.

Specifications: Power Requirements—110 VAC, 60 cycles; Screen size—2 5/8" x 2 1/4"; Dimensions—7" x 5 1/4" x 3 7/8"; Sturdy Metal Case.

Cat. #SG-66. List $19.95

133 ROBINS REPLACEMENT PARTS FOR TAPE RECORDER & PHONO DRIVES

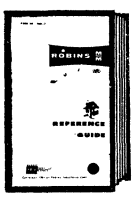
- Rubber Tread Idler Wheels
- Fabric Drive Belts
- Flat Rubber Belts & Tires
- "O" Ring Drive Belts
- Rubber Tread Pressure Rollers
- Index Fingers, Motor Pulleys

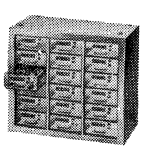


REPLACEMENT FOR THESE MFR'S RECORDERS & PHONOS

Admiral
Aero
Ampex
Ampro
Arvin
Bell Sound
Brush
Califone
Capitol
Collaro
Columbia
Concertone
Continental
Crescent
Crestwood
Decca
Dixieland
Dukane
Eicor
Elac (Miracord)
Emerson
Garrard
General Electric
General Industries
Glaser-Steers
Grundig
Heath
Knight
Lafayette
Magnetic Record Ind.
Magnavox
Metzner
Milwaukee Stamping
Miracord (Elac)
Mitchell
Monarch (BSR)
Motorola
Olympic
Pentron
Philco
RCA
Raytheon
Recordio
Revere
Roberts
Roland
Seeburg
Sentinel
Silvertone
Sonic
Steelman
Stromberg Carlson
Symphonic
Sylvania
Tape Master
TDC
Telectro
Tower
Trav-Ler
Trifi
VM
Viking
Webcor
Westinghouse
Wilcox-Gay
Wollensak
Zenith

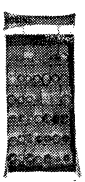
FREE ROBINS CONVERSION & REFERENCE CHART





DD-6-1

DD-11M



DD-10RP

Ask your distributor about Robins display deals. Displays for merchandising more than 300 fast-selling Robins accessories. These items are 'peg-packaged' for use on any type of peg board display.

Trade Discount Applies to List Prices Only

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ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

ROBINS M/M EXACT REPLACEMENT AND CONVERSION M/M RECORDING AND ERASE HEADS

- REPLACE WORN HEADS
- UPGRADE OLD EQUIPMENT
- CONVERT TO STEREO
- BUILD SPECIAL EQUIPMENT

WRITE FOR LATEST CONVERSION DATA BOOK RMM-3. LIST 50c

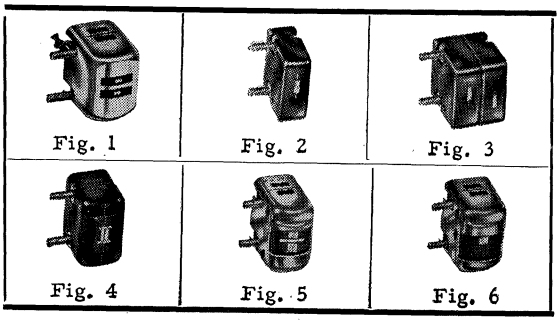
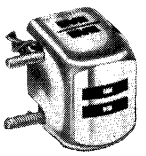


Fig. 1 | Fig. 2 | Fig. 3 | Fig. 4 | Fig. 5 | Fig. 6

Robins M/M 5Q17 (¼ track)



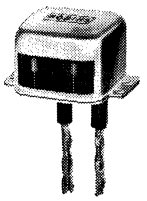


Fig. 14

NEW!

ROBINS/SHURE 5TRB—½ track, mono, record/playback and erase head. Will replace heads in most Revere and Wollensak recorders as well as other tape recorders. **Optional List $18.90**

Replacements for Obsolete Michigan Magnetics Heads

Part No.	Robins M/M Replacement
2120	3L20
08Q8	5Q17
2L35	3L20
2M40	3L20
3F20.L	3F20-101
3FM20	3FM20-108
3M20A	3L20
5B20	7B17
5L20	7L17
5L20U	7L17U
5Q8	5Q17
5Q08	5Q17
8BE30	9QE3
9L20S	7L17
10L17	7L17
10L17B	7L17
10L17S	7L17
10L20S	7L17
10L70	7L17
10M70A	7L17

Robins M/M Replacements for Shure Heads

Shure Model #	M/M Replacement
Recording Heads	
817	3L20
TE-2, TE-11 C	7EM12A
TE-2C	40EM12
TR-5B	5TRB
TR-16	7L17
TR-16A	3L20
TR-21C, TR-26	7L17
TR-35	3FM20-108

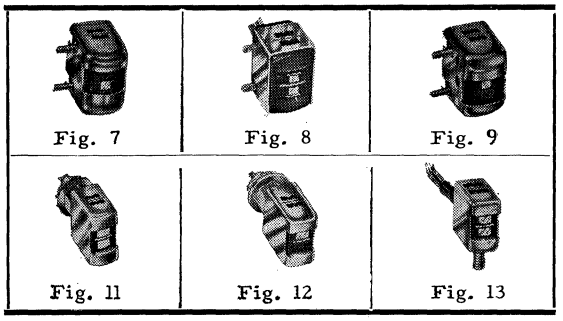


Fig. 7 | Fig. 8 | Fig. 9 | Fig. 11 | Fig. 12 | Fig. 13

SPECIFICATIONS — R/P HEADS

PART No.	TYPE	TAPE SPEED (IPS)	IMPED. (1 kc)	REC. LEVEL (below sat) (db)	AUDIO CURRENT (ma)a	BIAS CURRENT (m.a.)	BIAS FREQ. (kc)	PLAY LEVEL (1kc) (mv)	PLAY LEVEL (10kc) (bel. 1kc level)	INDUCT. (nom.) (h)	FIG. No.	LIST PRICE
7B17	½ tr. Stereo	7.5	5150	—12	.023	1.0	80	2.15	—11	.75	5	27.00
5B20LS	½ tr. Stereo	7.5	3520	—12	.026	1.2	80	1.8	—13	.5	8	27.00
10B20LS	½ tr. Stereo	7.5	7034	—12	.02	1.0	80	2.5	—13	1.0	8	27.00
3F20-101	½ tr. Stereo	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	11	31.00
3F20-105	½ tr. Stereo	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	13	31.00
3FM20-104	½ tr. Mono	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	16.00
3FM20-108	½ tr. Mono	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	16.00
3L20	½ tr. Mono	7.5	2460	—12	.03	1.25	50	1.64	—13	.35	9	14.00
7L17	½ tr. Mono	7.5	5150	—12	.023	1.0	80	2.15	—11	.75	6	14.00
7L17U	Same as 7L17 except mounts opposite side											
5TRB	Comb. ½ tr. Mono* R/P and Erase*	7.5	1450	+	.05	1.5	50	+	+	+	14	18.90
5Q17	¼ tr. Stereo	7.5	3340	—12	.025	.5	80	1.9	— 8.0	.5	1	30.00
5Q17-105	¼ tr. Stereo	Identical to 5Q17 (above) except mounting lugs on 5Q17-105 on opposite side.										

NOTE: All series L (single track), B (two track) and Q (four track) are electrically and mechanically interchangeable for easy stereo conversion.
9QE3 erase head is ¼ track replacement for 5S1 and 5SS1 heads.
*Erase and Record Specs in separate charts.

SPECIFICATIONS — ERASE HEADS

PART No.	TYPE (ERASE)	TAPE SPEED	IMPED. @ ERASE FREQ.	ERASE FREQ. (kc)	ERASE CURRENT	ERASURE (DB) (200 cy. Sat.)	INDUCT (Nom.) (mh)	FIG. No.	LIST PRICE
7EM12A	½ tr. Mono	7.5	2,200	80	30	50	5.4	4	11.00
40EM12	½ tr. Mono	7.5	10,000	52	10	50	40.0	4	11.00
9QE3	¼ tr. Stereo	7.5	2,500	75	12.5	60	9		14.00
5S1	½ tr. Mono	7.5	1,750	62	17	55	5	2	11.00
5SS1	½ tr. Stereo	7.5	1,750	62	17	55	5	3	15.00
5TRB	*	7.5	780	25	27	50	+	14	*

Kit #DD-6-1. List $309.00.

A COMPLETE KIT — containing 1 ea. of 16 of the above ROBINS M/M heads. This popular assortment, ideal for laboratories and service organizations includes **FREE** 9" x 10" x 6" cabinet (illust.) and replacement data.

Write for our Replacement Guide. Also available from your Robins Distributor.

MADE IN THE U.S.A.

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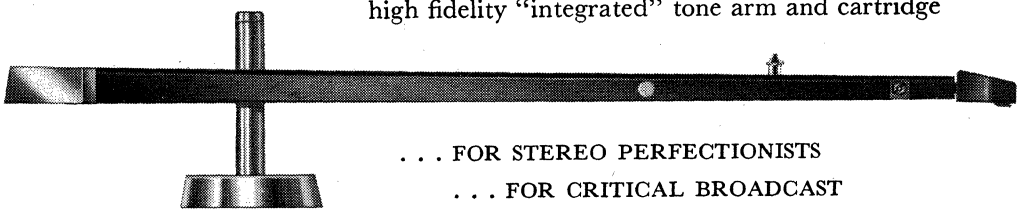
...the incomparable Shure studio **Stereo Dynetic**

high fidelity "integrated" tone arm and cartridge



. . . FOR STEREO PERFECTIONISTS
. . . FOR CRITICAL BROADCAST
AND RECORDING APPLICATIONS

The overwhelming first choice of perfectionists who appreciate the full importance of "integrated" tone-arm and cartridge to optimum stereo performance. *Tracks at incredibly light 1½-2½ grams—with unparalleled fidelity . . .* absolutely minimizes record wear, and CANNOT scratch records! We urge you to make listening tests of this unit before buying any stereo cartridge or arm—you'll hear the difference.

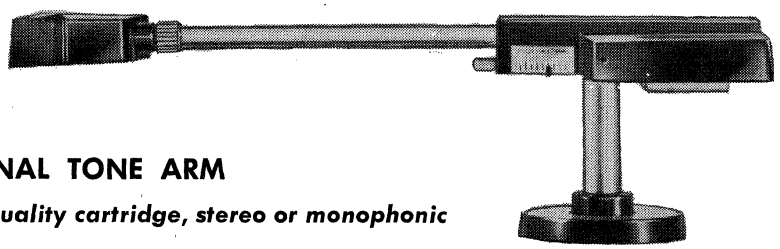
The Studio Stereo Dynetic has a special advantage for those music lovers who like to "index". The cartridge stylus is placed far in front, making it extremely easy for you to position the stylus on the exact spot of the record you want to play.

Still another feature of the Studio Stereo Dynetic is the fact that the stylus can be changed in the home without tools—within ten seconds.

SPECIFICATIONS	STEREOPHONIC M216; M212	MONOPHONIC M16; M12
Tracking Force	1½-2½ grams	1-2 grams
Frequency Response	20-20,000 cps± 2½ db	20-20,000± 2 db
Channel Separation	over 20 db at 1000 cps	*
Sensitivity: Output at 1000 cps	4.5 mv per channel (On Westrex /4 Test Record)	14 mv for 10 cms/sec
Recommended load impedance	50,000 ohms	10,000 ohms
Compliance: (Vertical, *Lateral)	9 x 10^{-6} cms/dyne	8 x 10^{-6} cms/dyne
Inductance	400 millihenrys	130 millihenrys
D.C. Resistance	600 ohms	180 ohms
Needle tip Mass	1.3 milligrams	1.25 milligrams
Stylus	.0007" diamond	.0007" diamond

* Applies to stereo units only.

Model M216—Studio Stereo Dynetic for records up to 16" including M21 cartridge with .0007" Diamond Stylus Audiophile Net: $89.50
Model M212—Studio Stereo Dynetic for records up to 12" including M21 cartridge with .0007" Diamond Stylus Audiophile Net: $89.50
Model M21—Studio Stereo Dynetic Cartridge with .0007" Diamond Stylus. Audiophile Net: $49.50
Model N21—Replacement Stereophonic stylus assembly for Model M21, M216, M212; .0007" Diamond tip. Audiophile Net: $24.75
Model A30C—Stereo Cable Assembly for connecting M212 or M216 to pre-amplifier and amplifiers. Assures maximum performance and greatest ease of installation. Audiophile Net: $ 1.95
Model A29R—Adapter Plate for use with Model M12 or M212 for mounting purposes with the Rek-O-Kut turntable. Audiophile Net $ 2.40



the new

SHURE PROFESSIONAL TONE ARM

for use with any quality cartridge, stereo or monophonic

The Shure M232 (and M236) Professional Tone Arm is a new, premium-quality independent tone arm that accepts practically all cartridges (Stereo and Monophonic) and permits their maximum potential performance characteristics to be utilized. Features precision ball bearings at all pivot points, plug-in head with positive-alignment lock, variable height adjustment. Pays for itself in reduced record wear and damage. Ingeniously simple and unprecedented combination of adjustments gives instant, positive, VISUAL control over balance (without altering overall arm length), tracking force (0—8 grams), and overhang. Floats the needle over the record . . . smoothly — without "drag" — without "skip" — without unnecessary (and ruinous) force. Furnished with cable having plug on each end to simplify and speed up installation (eliminates soldering).

SPECIFICATIONS: MODELS M232 — M236 PROFESSIONAL TONE ARMS

NET PRICE: TONE ARM M232, for 12" records $29.95
TONE ARM M236, for 16" records $31.95
Model A23H extra Plug-In Head ..... $ 2.40

FURNISHED ACCESSORIES: Arm rest, mounting template, mounting hardware, 4 ft. cable assembly.

DIMENSIONS: M232 — 12 11/16" long
M236 — 14½" long

NET WEIGHT: M232 1 lb. M236 1⅛ lbs.

NOTE: WHEN REPLACING STYLUS, use only genuine Shure replacement stylus with the certification, "Precision Made by Shure." Inferior imitations can seriously downgrade the performance of the cartridge.

See Pages 160-167 for additional Shure Products.

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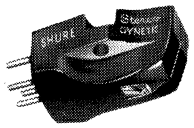
world acclaimed

SHURE Stereo Dynetic

HIGH FIDELITY PHONOGRAPH CARTRIDGES

Painstakingly tested, proved, perfected—these superb Shure Stereo Dynetic moving-magnet cartridges are designed specifically to satisfy the critical ear of the most discriminating music lover . . . the most exacting audio-phile. They separate disc stereo sound channels with incisive clarity. They are singularly smooth throughout the audible spectrum . . . and they are superior to other separate stereo cartridges in the re-creation of clean lows, true-to-performance mid-ranges and brilliant highs. Completely Compatible.

NOTE: WHEN REPLACING STYLUS, use only genuine Shure replacement stylus with the certification, "This Dynetic Stylus is Precision Manufactured by Shure Brothers, Inc." Inferior imitations can seriously downgrade the performance of the cartridge.



SHURE PROFESSIONAL Stereo Dynetic

CARTRIDGE SERIES—MODEL M3D—MODEL M3/N21D

MODEL M3D

The M3D Stereo Professional Dynetic is the premium stereo phono cartridge. It reflects quality control of a high order, based on critical tolerances in all performance characteristics.

MODEL M3D

Professional Stereo Dynetic cartridge . . . including N3D stylus assembly with .0007" diamond.
Audiophile Net Price **$45.00**

MODEL N3D

Stereo Stylus assembly for M3D, including .0007" diamond.
Audiophile Net Price **$22.50**

MODEL M3D WITH N21D TUBULAR STYLUS

New, higher compliance and frequency response cartridge-stylus combination designed for the perfectionist. For use with top quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

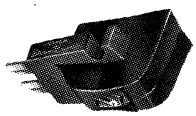
MODEL M3/N21D

Professional Stereo Dynetic cartridge . . . including Shure N21D Tubular Stylus with .0007" diamond.
Audiophile Net Price **$47.25**

MODEL N21D STYLUS

Top-rated Tubular Stereo Stylus assembly for higher compliance and response with M3D. Includes .0007" diamond.
Audiophile Net Price **$24.75**

SPECIFICATIONS	M3D	M3/N21D
Channel Separation (at 1000 cps)	Over 20 db	Over 20 db
Frequency Response	20 to 15,000 cps (± 3 db)	20 to 20,000 cps (± 2½ db)
Output Voltage (per channel, at 1000 cps)	5 mv	4 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms
Compliance; Vertical & Lateral	4.0 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne
Tracking force	3 to 6 grams	2 gms. optimum (2½ max.)
Inductance	420 millihenrys	420 millihenrys
D. C. Resistance	280 ohms	280 ohms
Terminals Mounting Centers	4 Terminals. Furnished with 3-terminal adapter. Fits Standard ½".	



SHURE CUSTOM Stereo Dynetic

CARTRIDGE SERIES—MODEL M7D—MODEL M7/N21D

MODEL M7D

The M7D Stereo Custom Dynetic is designed for the economy-conscious consumer who wants a high quality Stereo Phono Cartridge at moderate cost.

MODEL M7D

Custom Stereo Dynetic cartridge . . . including N7D stylus assembly with .0007" diamond.
Audiophile Net Price **$24.00**

MODEL N7D

Stereo Stylus assembly for M7D, including .0007" diamond.
Audiophile Net Price **$12.00**

MODEL M7D with N21D TUBULAR STYLUS

Top-rated cartridge-stylus assembly. Extraordinarily high compliance and response at modest price. For use in finest quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

MODEL M7/N21D

Custom Stereo Dynetic cartridge . . . including Shure N21D Tubular Stylus with .0007" diamond.
Audiophile Net Price $36.75

MODEL N21D STYLUS

Top-rated Tubular Stereo Stylus assembly for higher compliance and response with M7D. Includes .0007" diamond.
Audiophile Net Price $24.75

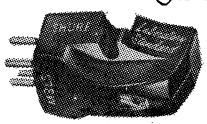
SPECIFICATIONS	M7D	M7/N21D
Channel Separation (at 1000 cps)	Over 20 db	Over 20 db
Frequency Response	20 to 15,000 cps	20 to 20,000 cps
Output Voltage (per channel, at 1000 cps)	5 mv	4 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms
Compliance; Vertical & Lateral	3.5 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne
Tracking Force	4 to 7 grams	2 gms. optimum (2½ max.)
Inductance	420 Millihenrys	420 Millihenrys
D. C. Resistance	280 ohms	280 ohms
Terminals Mounting Centers	4 terminals. Furnished with 3-terminal adapter. Fits both ½" and 7/16"	

See Pages 160-167 for additional Shure Products.

SHURE HIGH FIDELITY STEREO PRODUCTS

LABORATORY STANDARD

Stereo Dynetic



MODEL M3LS STEREO CARTRIDGE

The M3LS Stereo Cartridge is an individually selected and tested laboratory standard M3D Stereo Professional Dynetic Phono Cartridge. Each M3LS, its corresponding bos, individual response curve and specifications are serially numbered. Each cartridge carries a 3-year guarantee (not including needle wear or damage to needle from abuse or mishandling.)

SPECIFICATIONS:

Model N3LS Replacement Stylus — **$25.00** (NOTE: M3LS must be returned to Shure factory for installation of replacement stylus. At this time, new calibration curve and specifications will be issued as part of replacement stylus charge.)

Channel Separation: 23 db minimum at 1 KC.; 15 db minimum at 10 KC.

Channel to Channel Balance: 1.5 db maximum (1 KC on monaural record.)

Frequency Response: 30 to 15,000 cps ± 2 db.

Output Voltage: 5.0 mv ± 2 db per channel at 1,000 cps.

Recommended Load Impedance: 47,000 ohms.

Compliance: 4.4 x 10^{-6} centimeters per dyne minimum; 7.3 x 10^{-6} centimeters per dyne maximum at 80°F.

Tracking Force: 3 to 4 grams.

Inductance: 420 millihenrys.

D. C. Resistance: 280 ohms.

Terminals: 4 terminals. Adaptable to 3 terminal arms.

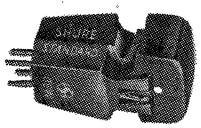
Mounting Standard ½" centers.

Stylus: .0007" diamond stylus.

NGT Price: **$75.00**

STANDARD

Stereo Dynetic



THE M8D STANDARD STEREO DYNETIC

Is designed for dependable use in record changers. It features clear, hum-free operation at low cost.

SPECIFICATIONS:

Channel Separation: More than 20 db at 1000 cps.

Frequency Response: 30 to 15,000 cps.

Output Voltage: 5 mv per channel at 1000 cps.

Recommended Load Impedance: 47,000 ohms.

Compliance: Vertical, Lateral 3.0 x 10^{-6} centimeters per dyne.

Tracking Force: 5 to 8 grams.

Inductance: 420 millihenrys.

D. C. Resistance: 280 ohms.

Terminals: 4 terminals. Adaptable to 3 terminal arms.

MOUNTING: Standard ½" and 7/16" centers.

STYLUS: .0007" diamond stylus.

Model M8D Standard Stereo Dynetic cartridge . . . including .0007" diamond stylus.

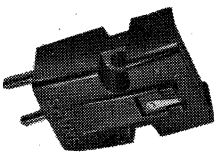
Audiophile Net: **$16.50**

Model N8D Stereo Stylus assembly for M8D, including .0007" diamond.

Audiophile Net: **$8.25.**

MONOPHONIC PROFESSIONAL

Dynetic



STEREO PROFESSIONAL MONOPHONIC

For those who prefer monophonic cartridges with monophonic records, Shure offers the outstanding Model M5D Professional Dynetic.

SPECIFICATIONS:

Frequency Response: 20 to 20,000 cps.

Sensitivity: Output at 1,000 cycles—21 millivolts for 10 cms/sec.

Recommended Load Impedance: 27,000 ohms.

Compliance: 3 x 10^{-6} centimeters per dyne.

Tracking Force: 2 to 6 grams.

Inductance. 350 millihenrys

D. C. Resistance: 440 ohms.

Model M5D—has .001" diamond for use with micro-groove records, 33⅓, 45 r.p.m.

Model M6S—has .0027" sapphire for use with standard records, 78 r.p.m.

Model M5D Monophonic Professional Dynetic Phono Cartridge for LP records including N5D .001" diamond stylus. Audiophile Net: **$27.50.**

Model M6S Monophonic Professional Dynetic Phono Cartridge for 78 rpm records including N6S .0027" sapphire stylus.

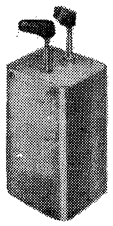
Audiophile Net: **$15.00**

Model N5D Monophonic Professional Dynetic stylus with .001" diamond tip.

Audiophile Net: **$16.50**

Model N6S Monophonic Professional Dynetic stylus with .0027" sapphire tip.

Audiophile Net: **$5.00**



BROADCAST STEREO EQUALIZER

Compensates output of stereo and monophonic magnetic cartridges for flat RIAA and roll-off responses, when used with inputs designed for low impedance microphones.

SPECIFICATIONS:

FREQUENCY RESPONSE DEVIATION (with all Shure Stereo Cartridges): 30 to 20,000 cps ± 1 db.

30 DB CHANNEL SEPARATION: 30 to 20,000 cps.

LOW OUTPUT IMPEDANCE: 250 ohms. Provision for 125 & 500 ohms.

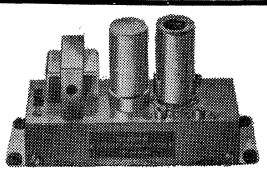
CIRCUIT: 9-terminal network—3-terminal input, 4-terminal balance output with two convenient Shield terminals for unbalanced output.

INSERTION LOSS: Approximately 28 db. (varies with frequency and impedance.).

FURNISHED ACCESSORIES: Supplied with escutcheon, mounting bolts, L-shaped mounting bracket, and long control shafts for mounting through varying panel thicknesses up to 1½" inches.

DIMENSIONS: 7⅝" x 3½" x 3" overall. 5½" x 3½" x 3" excluding control shafts.

NET WEIGHT: 1-4/10 lbs. NET PRICE: **$60.00**



STEREO LINE PRE-AMPLIFIER

High quality, low noise, stereo line pre-amplifier providing additional gain for use with magnetic stereo phono cartridges and microphones. Additional gain also can be provided from tape recorder outputs on standard pre-amplifier to improve quality of recordings. Provides flat output response from 30 to 80,000 cps ± ½ db. Low output impedance permits use of longer cable lengths (up to 50 feet) without loss of gain or deterioration in response when used with magnetic phono cartridges, microphones, etc.

SPECIFICATIONS:

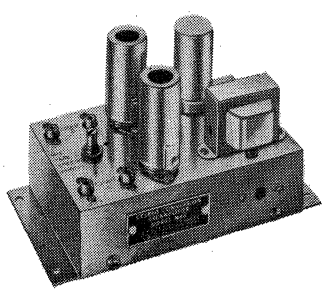
GAIN: 17 db or 7 to 1 (5 mv. input gives 35 mv. output). Circuit change information provided to give one-third and two-thirds output.

IMPEDANCE: Input—47,000 ohms—Output—5,000 ohms.

HUM & NOISE: 64 db below rated output.

DIMENSIONS: 5⅞" x 2⅛" x 3⅜".

NET WEIGHT: 2 lbs. NET PRICE: **$19.95**



STEREO CONVERSION PRE-AMPLIFIER

Provides equalization with amplification for conversion of ceramic inputs to magnetic inputs. Gives smoother, more natural sound. As an added feature, 60 db of amplification without equalization is also provided. Permits the use of a magnetic cartridge with "package" consoles supplied with a ceramic cartridge. Also provides pre-amplification and equalization functions for other inputs (phono, tape, microphone).

SPECIFICATIONS:

GAIN: Phono: 44 db (5 mv input produces .76 v. output).

Special: 45 db (5 mv input produces .88 v. output).

Tape: 40 db (5 mv input produces .50 v. output).

Microphone: 63 db (2 mv input produces 2.8 v. output).

Frequency Response: ± 1.5 db of each function's nominal characteristic from 25 cps to 15,000 cps. EQUALIZATION: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement the high frequency characteristic of most magnetic cartridges).

Special: A Shure-developed magnetic phono equalization circuit for use with high impedance amplifiers normally used with ceramic phono cartridges.

Tape: N A R T B equalization.

Microphone: Flat response. ± 3 db from 20 to 12,000 cps.

INPUT IMPEDANCE: 47,000 ohms (all functions).

OUTPUT IMPEDANCE: low output impedance (less than 5000 ohms at 10,000 cps for phono, special and tape functions).

CHANNEL SEPARATION: 40 db.

CHANNEL BALANCE: ± 1 db at 1000 cps.

HUM-NOISE: 50 db below rated output.

OVERALL DIMENSIONS: Length 6⅞"; Width 3 15/16"; Height 3¼".

NET WEIGHT: 1 lb. 14 oz.

NET PRICE: **$24.00**

See Pages 160-167 for additional Shure Products.

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SHURE MAGNETIC RECORDING HEADS

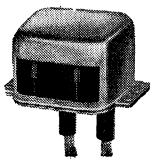

Fig. A.
RECORD-PLAYBACK-ERASE

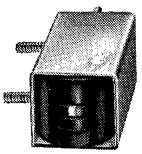

Fig. B
RECORD-PLAYBACK ALSO ERASE

Fig. C
RECORD-PLAYBACK-ERASE

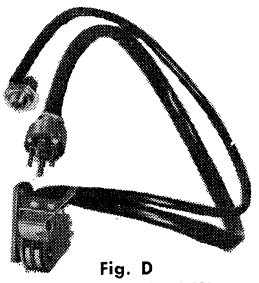

Fig. D
STEREO PLAYBACK MONAURAL RECORD ERASE

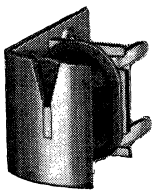

Fig. E
ERASE ONLY

Fig. F
STEREO RECORD-PLAYBACK

TECHNICAL DATA—MAGNETIC TAPE AND WIRE RECORDING HEADS

Model	Recording Speed	Bias & Erase Frequency	Std Recording Level	Operating Bias Current	Erase* Current	Impedance Erase Coil	Impedance Record-Playback Coil
815 (Fig. A)	3.75" per sec 7.5" per sec 3.75" per sec	25KC 50KC DC	.05 ma .05 ma .095 ma	1.25 ma 1.5 ma .35 ma	27 ma 30 ma 25 ma	750 ohm at 25KC 1300 ohm at 50KC 12 ohm	1450 ohm at 1000 cps 1450 ohm at 1000 cps 180 ohm
815H (Fig. A)	3.75" per sec 3.75" per sec	25KC DC	.03 ma .056 ma	.72 ma .24 ma	27 ma 25 ma	750 ohm at 25KC 12 ohm	5800 ohm at 1000 cps 556 ohm
816 (Fig. B)	3.75" per sec 3.75" per sec	25KC DC	.03 ma .07 ma	.80 ma .26 ma			5500 ohm at 1000 cps 556 ohm
817 (Fig. C)	3.75" per sec 3.75" per sec	25KC DC	.06 ma .175 ma	3.6 ma .42 ma			1860 ohm at 1000 cps 180 ohm
TE2-J (Fig. C) Without case	3.75" per sec 3.75" per sec 3.75" per sec	25KC 50KC DC			30 ma 35 ma 25 ma	750 ohm at 25KC 1300 ohm at 50KC 12 ohm	
TE11C-J (Fig. D)	7.5" per sec 7.5" per sec 7.5" per sec	50KC 75KC 100KC			25 ma 26 ma 26 ma	1700 ohm at 50KC 2250 ohm at 75KC 2670 ohm at 100KC	
TR21C-J (Fig. E)	7.5" per sec	75KC	.040 ma	1.0 ma			4000 ohm at 1000 cps
TR40-J (Fig. F)	7.5" per sec	75KC	.05 ma	.6 ma			4000 ohm at 1000 cps
TK41-J (Fig. G) Upper Channel Lower Channel Erase	7.5" per sec 7.5" per sec 7.5" per sec	65KC 65KC	.08 ma	1.25 ma	50 ma	2100 ohm at 65KC	1150 ohm at 1000 cps 3300 ohm at 1000 cps

*Erase current chosen for 50 db Erasure of Saturated 400 C.P.S. Recording.

Recording Medium—Minnesota Mining & Mfg. Co., Tape No. 111
Pressure Pad Force (Area—.025 sq. in.) Two Ounces.

RECORDING HEAD DIMENSIONS

Models 815, 815H (Fig. A) & 816 (Fig. B) Width 1.240" Depth 1.031" Height .695"	**Model TE2-J (Fig. C)** Width .516" Depth .830" Height .715"	**Model TR21C-J (Fig. E)** Width .600" Depth .821" Height .775"
Model 817 (Fig. C) Width .552" Depth .830" Height .765"	**Model TE11C-J (Fig. D)** Width .366" Depth .641" Height .468"	**Model TR40-J (Fig. F)** Width .633" Depth .875" Height .469"

NUMERICAL LIST OF SHURE TAPE HEADS USED IN ORIGINAL EQUIPMENT

Model	ILLUSTR.	LIST PR.	DESCRIPTION	OPERATING DATA
812	Not Shown	$20.00	Wire Recording Head.	Not Shown
815	Fig. A	15.00	Upper track recording. Low impedance record-playback coil.	See 815
815H	Fig. A	15.00	Upper track recording. High impedance record-playback coil.	See 815H
816	Fig. B	12.00	Upper track recording. High impedance record-playback coil.	See 816
817	Fig. C	9.00	.093" record track width. Low impedance record-playback coil.	See 817
TE2-J	Fig. C	7.00	Erase head .116" erase track width.	See TE2-J
TE11C-J	Fig. D	12.00	Erase head .132" erase track width.	See TE11C-J
TK41-J	Fig. G	57.50	Stereo Head Kit to convert magnetic tape recorder to stereophonic playback and monaural recording. For Revere Models T-10, T-11, TR-20, T-700, T-700D, TR-800, TR-800D, T-900, TR-1000, T-1100, TR-1200, T-70,000. For Wollensak Model T-1500.	See TK41-J
TR5B-J	Fig. A	17.00	Upper track recording with 14-inch completely insulated leads. Cinch plug attached.	See 815*
TR5N-J	Fig. A	16.00	Special Shield. Special Leads. Special Plug.	See 815*
TR5Z-2J	Fig. A	18.50	Upper track recording. High impedance record-playback coil.	See 815H
TR6-J	Fig. B	12.00	Lower track recording. Low impedance record-playback coil.	Not Shown
TR16-J	Fig. C	9.00	.093" record track width. High impedance record-playback coil.	Not Shown
TR21C-J	Fig. E	14.00	.093" record track width. Record-playback coil.	See TR21C-J
TR26-J	Fig. C	11.00	.093" record track width (¼ mil gap). High impedance record-playback coil.	Not Shown
TR40-J	Fig. F	35.00	Stereophonic record/playback head. Two tracks .074" width (0.2 mil gap).	See TR40-J

*Operating data only. 815 does not replace

See Pages 160-167 for additional Shure Products.

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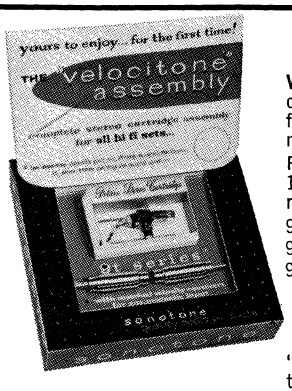
SONOTONE® pioneer in the development of

SONOTONE CARTRIDGES—one line for a multitude of service and replacement needs.

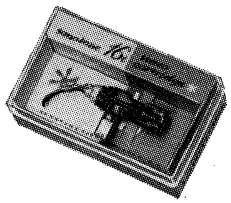
Stereo:



Velocitone Assembly—Deluxe "9T" cartridge plus matched equalizers for improved sound through any magnetic input system.

Flat ±½ db from 20 to 6,000 cps, 1 db to 17,000 cps, with deliberate rolloff to 20,000 cps.

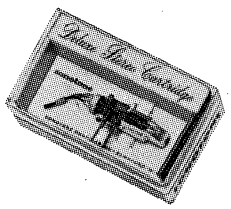
9TS-V $20.50
9TSD-V 23.50
9TD77-V ... 26.50



"16T"—Ideal cartridges combining top quality with moderate price... now original equipment on most leading phonographs.

Response: flat ±1 db from 20 to 10,000 cps, with smooth rolloff to 12,000 cps.

16T-S $12.50
16T-SD 15.50
16T-S77 ... 12.50



"18T"—Companion to the 16T with slightly greater output voltage, moderately priced and now original equipment with most phonograph manufacturers.

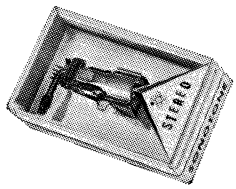
Response: flat ±1 db from 20 to 10,000 cps, with smooth rolloff to 12,000 cps.

18T-S $12.50
18T-SD 15.50
18T-S77 ... 12.50

"9T"—Superb quality for even the most advanced audiophile.

Response: flat ±1 db from 20 to 17,000 cps, with deliberate rolloff to 20,000 cps.

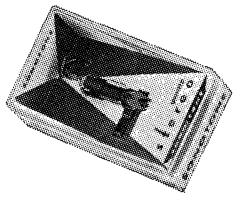
9T-S $16.50
9T-SD 19.50
9T-S77 .... 16.50



"8TA"—A choice cartridge for real integrity of sound.

Response: flat ±2.5 db from 20 to 15,000 cycles, with gradual rolloff to 20,000 cycles.

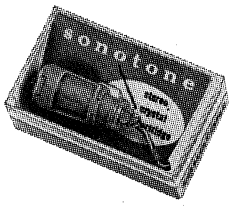
8TA4-S $14.50
8TA4-SD ... 17.50
8TA4-S77 .. 14.50



"10T"—Fine economical replacement to achieve well-balanced reproduction from most popular systems.

Response: flat from 20 to 15,000 cycles ±2.5 db.

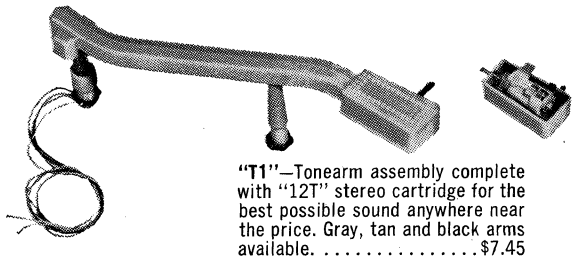
10T2-S ....$ 6.45
10T2-SD ... 13.45
10T2-S77 .. 6.45
10T2-SD77 . 13.45



"12T"—Crystal cartridge offering clear stereo sound at budget price.

Response: flat ±2.0 db to 10,000 cycles, smooth rolloff to 15,000 cycles.

12THA-S $6.45
12THA-S77 .. 6.45
12TLA-S 6.45
12TLA-S77 .. 6.45



"T1"—Tonearm assembly complete with "12T" stereo cartridge for the best possible sound anywhere near the price. Gray, tan and black arms available. $7.45

Monaural:

"3T" and "3P"—Crisp, clear highs...full authoritative lows. Outperforms expensive magnetic cartridges.

Response: smooth 20 to 20,000 cps, flat to 15,000 with gradual rolloff beyond.

3T-LB-S....3T-S $12.50
3T-LB-SD...3T-SD 15.00
3P-LB-1S....3P-1S 10.50
3P-LB-3S....3P-3S 10.50
3P-LB-1D....3P-1D 14.50
3P-LB-3D....3P-3D 14.50

"2T"—Wide spectrum response ...ideal for monophonic replacement at less cost.

Response: smooth 20 to 20,000 cps, flat to 12,000, with gradual rolloff beyond.

2T-LB-S.....2T-S .....$ 8.50
2T-LB-SD....2T-SD 14.50

"1P"—Improves performance of even simplest record players.

Response: smooth 20 to 20,000 cps, flat to 12,000, with gradual rolloff beyond.

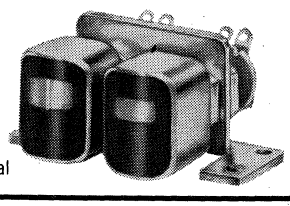
1P-LB-1S....1P-1S .....$ 7.50
1P-LB-2S....1P-2S 7.50
1P-LB-3S....1P-3S 7.50
1P-LB-1D....1P-1D 13.50
1P-LB-3D....1P-3D 13.50

Note: S = 0.7-mil sapphire, 3-mil sapphire; SD = 0.7-mil diamond, 3-mil diamond; D77 = 0.7-mil diamond, 0.7-mil diamond; 1S = 1-mil sapphire; 3S = 3-mil sapphire; 1D = 1-mil diamond; 3D = 3-mil diamond; 3P = single needle; LB = less bracket for slim tonearms.

STEREO AND MONO TAPE HEADS: Selected as original equipment for tape recorders by leading manufacturers. Designed for high quality reproduction, plus rugged endurance.

MODEL NUMBER		PRICE
RH-4A	(record and play head)	$28.50
EH-4A	(erase head)	13.50
RH-2A	(record and play head)	10.00
EH-2A	(erase head)	9.00

2=½ track for monaural



MODEL NUMBER		PRICE
REH-1B	(mounted record-play and erase head)	$23.00
REH-1C	(mounted record-play and erase head)	23.00
RH-2A7	(mounted record and play head)	12.00
RH-2B7	(mounted record and play head)	12.00

4=¼ track for stereo

Net

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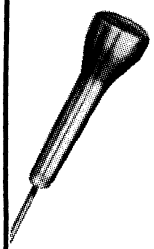
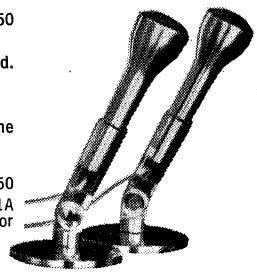
full-line electronics for the reproduction of sound

SONOTONE "CERAMIKES" for rugged use, long life with true-to-life transmission of voice. Big value at modest price.



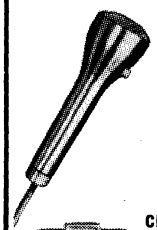
CM-10A Specifications $17.50
For tape recording, sound movies, PA systems.
Frequency Response..50 to over 11,000 cycles per second.
Sensitivity.....—56 decibels ±2 db.
Transducer.....Ceramic element.
Damping Grid.....Lanced, louvered metal grid.
Connections .....7 feet of shielded cable with phone plug.

CM-11A Specifications $17.50
For use where greater sensitivity is desired, the CM-11A specifications are the same as the CM-10A except for the following:
Frequency Response..80 to 9,000 cycles per second.
Sensitivity.....—53 decibels ±2 db.

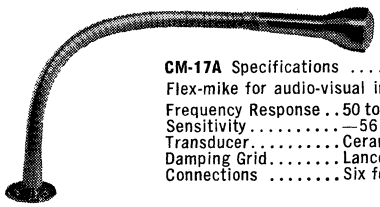


CM-T10A Specifications (Matched pair) $35.50
For the ultimate in stereo recording.
Frequency Response..50 to over 11,000 cycles per second.
Sensitivity.....—56 decibels ±2 db.
Transducer.....Ceramic element.
Damping Grid.....Lanced, louvered metal grid.
Connections .....7 feet of shielded cable with phone plug.

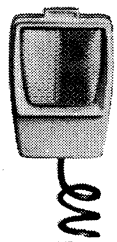
CM-T11A Specifications (Matched pair) $35.50
Where greater sensitivity is desired, we recommend the Sonotone CM-T11A, the improved version of the CM-T11 "Ceramike"—also in matched twins. The specification for the CM-T11A are the same as for the CM-T10A except:
Frequency Response..80 to 9,000 cycles per second.
Sensitivity.....—53 decibels ±2 db.



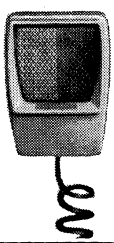
CM-12A Specifications $29.50
For PA systems, any long-lead installations. Low impedance with push-to-talk button.
Frequency Response..200 to 8,000 cycles per second.
Sensitivity.....—63.5 decibels ±2 db.
Transducer.....Ceramic element.
Damping Grid.....Lanced, louvered metal grid.
Connections .....18 feet of shielded cable secured to case with a plastic strain relief.



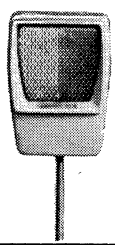
CM-17A Specifications $24.50
Flex-mike for audio-visual installations.
Frequency Response..50 to over 11,000 cycles per second.
Sensitivity.....—56 decibels ±2 db.
Transducer.....Ceramic element.
Damping Grid.....Lanced, louvered metal grid.
Connections .....Six feet of shielded cable.



CM-30 Specifications $14.00
New, true-to-life "Citizen's Band" mike for 2-way broadcasts. Push-to-talk button.
Frequency Response....90 to 6,000 cycles per second
Sensitivity...—49 decibels ±2 db.
Case .....Shatterproof plastic
Transducer.....Ceramic element
Connections...6 feet of 4-conductor shielded coil cable (contracts to one foot) with tinned ends
Mounting.....Molded dash mount with bracket



CM-31 Specifications $13.50
Lightweight companion of the CM-30 for communications and mobile systems.
Frequency Response....90 to 6,000 cycles per second
Sensitivity...—49 decibels ±2 db.
Case .....Shatterproof plastic
Transducer.....Ceramic element
Connections.....6-foot, 2-conductor shielded coil cable (contracts to 1 foot) with presoldered ends
Mounting.....molded dash mount with bracket



CM-32 Specifications $12.50
Lower-priced companion of the CM-30 for tape recorders, entertainment.
Frequency Response....80 to 9,000 cycles per second
Sensitivity...—49 decibels ±2 db.
Case .....Shatterproof plastic
Transducer.....Ceramic element
Connections.....7-foot, 2-conductor shielded cable
Plug.....Shielded phone plug

SONOTONE ELECTRONIC TUBES—U.S. Army Signal Corps approved for reduced inspection under R.I.Q.A.P. program.

TYPE TUBE	DESCRIPTION
0Z4	Full wave gas rectifier
*1AB6	Heptode
*1AC6	Heptode
*1AH5	Diode A-F pentode
*1AJ4	Remote-cutoff R-F pentode
1B3GT	Half wave rectifier
*1M3	Tuning indicator tube
*1S5	Diode A-F pentode
*1T4	Variable-MU R-F pentode
1X2B	Half wave rectifier
2AF4A	UHF triode oscillator
2AF4B	UHF triode oscillator
3AF4A	UHF triode oscillator
3AF4B	UHF triode oscillator
*3C4	Power pentode
*3V4	Power amplifier pentode
4BQ7	Medium-MU twin triode
4BZ7	Medium-MU twin triode
*5AR4	Rectifier
5J6	Medium-MU twin triode
5U4GB	Full wave rectifier
5Y3GT	Full wave rectifier
*6AB4	R-F triode
*6AB8	Triode pentode
6AF4	UHF triode oscillator
6AF4A	UHF triode oscillator
*6AJ8	Triode heptode
*6AK5	Sharp-cutoff pentode
*6AL5	Duodiode, separate cathodes
*6AM6	Sharp-cutoff R-F pentode
6AN8	Triode pentode
*6AQ4	High-MU triode
*6AQ5	Power pentode
*6AQ8	R-F double triode
*6AT6	Duplex diode high-MU triode
*6AU6	Sharp-cutoff R-F pentode
*6AV6	Duodiode and A-F triode
6AX4GT	Half wave high vacuum rectifier
*6BA6	Remote-cutoff pentode
*6BE6	Pentagrid converter
6BG6GA	Beam power amplifier
6BL7GTA	Medium-MU twin triode
*6BL8	Triode pentode
*6BM8	Triode power pentode
*6BQ5	Power pentode
*6BQ5	MP Power pentode
6BQ6GTB/6CU6	Beam power amplifier
6BQ7A	High frequency twin triode
*6BR5	Tuning indicator tube
*6BX6	R-F pentode
*6BY7	Remote-cutoff R-F pentode
6BZ7	High frequency twin triode
*6C4	Power triode
*6CA4	Rectifier
*6CA7	Power pentode
*6CA7	MP Power pentode
6CB6	Sharp-cutoff R-F pentode
6CD6GA	Beam power amplifier
*6CD7	Tuning indicator
6CG7	Medium-MU twin triode
*6CJ6	Power pentode
*6CK5	Power pentode
*6CN6	Beam power amplifier
*6CS6	Heptode
*6CT7	Diode-Variable-MU pentode
*6CW5	Power pentode
*6CW7	Double triode
*6DA5	Tuning indicator tube
*6DA6	Variable-MU R-F pentode
*6DC8	Duodiode and variable-MU pentode
*6DJ8	Twin triode
*6DL5	Power pentode
*6ER5	High gain amplifier
*6ES8	Frame grid twin triode
*6FG6	Tuning indicator tube
*6J4WA	UHF high-MU triode
6J6	Medium-MU twin triode
6J6A	Medium-MU twin triode
*6J6WA	R-F amplifier
6K6GT	Power amplifier pentode
6L6GC	Power amplifier
*6N8	Duplex diode pentode
*6SL7GT	High-MU twin triode
6SN7GTB	Medium-MU twin triode
6S4A	Medium-MU triode
*6T8	Triple diode and A-F triode
*6U8	Triode pentode
*6V4	Rectifier
6V6GT	Power amplifier
6W4GT	Half wave high vacuum rectifier
*6X4	Full wave rectifier
*6X5G	Full wave rectifier
6X8	Triode pentode
*9A8	Triode pentode
*9AQ8	R-F double triode
*12AT6	Twin diode-high-MU triode
*12AT7	R-F double triode
*12AU7	Medium-MU twin triode
12AU7A	Medium-MU twin triode
*12AV6	Twin diode-high-MU triode
12AX	4GT Half wave rectifier
*12AX7	High-MU twin triode
12AX7A	High-MU twin triode
*12BA6	Remote-cutoff R-F pentode
*12BE6	Pentagrid converter
12SN7GT	Medium-MU twin triode
*16A8	Triode power pentode
18DZ8	Triode pentode
25EH5	Power output pentode
35C5	Beam power tube
35DZ8	Triode pentode
35EH5	Power output pentode
*35W4	Half wave high vacuum rectifier
*50BM8	Triode power pentode
*50C5	Beam power amplifier
50EH5	Power output pentode
*5928-6267	A-F pentode
60FX5	Power output pentode
6026	Medium-MU triode
7025	High-MU twin triode
7189	Power pentode
7189	MP Power pentode
#DAF91/1S5	Diode A-F pentode
#DAF96/1AH5	Diode A-F pentode
DC90	H-F triode
#DF91/1T4	Variable-MU R-F pentode
#DF96/1AJ4	Remote-cutoff R-F pentode
#DK92/1AC6	Heptode
#DK96/1AB6	Heptode
#DL94/3V4	Power amplifier pentode
#DL96/3C4	Power pentode
#DM70/1M3	Tuning indicator tube
#EAA-EB91/6AL5	Duodiode, separate cathodes
#EABC80/6T8	Triple diode and A-F triode
#EAF42/6CT7	Diode and variable-MU pentode
#EBC90/6AT6	Duplex diode high-MU triode
#EBC91/6AV6	Duodiode and A-F triode
#EBF80/6N8	Duplex diode pentode
#EBF89/6DC8	Duodiode and variable pentode
#EC90/6C4	Power triode
#EC91/6AQ4	High-MU triode
#EC92/6AB4	R-F triode
#EC95/6ER5	High gain amplifier
#ECC35/6SL7GT	High-MU twin triode
ECC40	A-F double triode
#ECC81/12AT7	R-F double triode
#ECC82/12AU7	Medium-MU twin triode
#ECC83/12AX7	High-MU twin triode
#ECC84/6CW7	R-F double triode
#ECC85/6AQ8	R-F double triode
#ECC88/6DJ8	Twin triode
#ECC91/6J6	Medium-MU twin triode
#ECC189/6ES8	Frame grid twin triode
#ECF80/6BL8	Triode pentode
#ECF82/6U8	Triode pentode
#ECH81/6AJ8	Triode heptode
#ECL80/6ABB	Triode pentode
#ECL82/6BM8	Triode power pentode
EF40	A-F pentode
#EF80/6BX6	R-F pentode
#EF85/6BY7	Remote-cutoff R-F pentode
#EF86/5928-6267	A-F pentode
#EF89/6DA6	Variable-MU R-F pentode
#EF91/6AM6	Sharp-cutoff R-F pentode
#EF93/6BA6	Remote-cutoff pentode
#EF94/6AU6	Sharp-cutoff pentode
#EF95/6AK5	Sharp-cutoff pentode
#EH90/6CS6	Heptode
#EK90/6BE6	Pentagrid converter
#EL34/6CA7	Power pentode
#EL34/6CA7	MP Power pentode
EL37	Power pentode
EL37	MP Power pentode
#EL38/6CN6	Beam power amplifier
#EL41/6CK5	Power pentode
#EL81/6CJ6	Power pentode
#EL84/6BQ5	Power pentode
#EL84/6BQ5	MP Power pentode
#EL86/6CW5	Power pentode
#EL90/6AQ5	Power pentode
#EL95/6DL5	Power pentode
#EM34/6DC7	Tuning indicator
EM71	Tuning indicator tube
#EM80/6BR5	Tuning indicator tube
#EM81/6DA5	Tuning indicator tube
#EM84/6FG6	Tuning indicator tube
#EZ35/6X5G	Full wave rectifier
#EZ80/6V4	Rectifier
#EZ81/6CA4	Rectifier
#EZ90/6X4	Full wave rectifier
#GZ34/5AR4	Rectifier
#HBC90/12AT6	Twin diode-High-MU triode
#HBC91/12AV6	Twin diode-High-MU triode
#HF93/12BA6	Remote-cutoff R-F pentode
#HK90/12BE6	Pentagrid converter
#HL92/50C5	Beam power amplifier
#HY90/35W4	Half wave rectifier
#M8081/6J6WA	R-F amplifier
#M8232/6J4WA	UHF high-MU triode
#PCC85/9AQ8	R-F double triode
#PCF80/9A8	Triode pentode
#PCC82/16A8	Triode power pentode
#UCL82/50BM8	Triode power pentode

*Available as European equivalent as listed. #Available as American equivalent as listed. MP Matched Pair

All prices are suggested list (7/61) subject to change.

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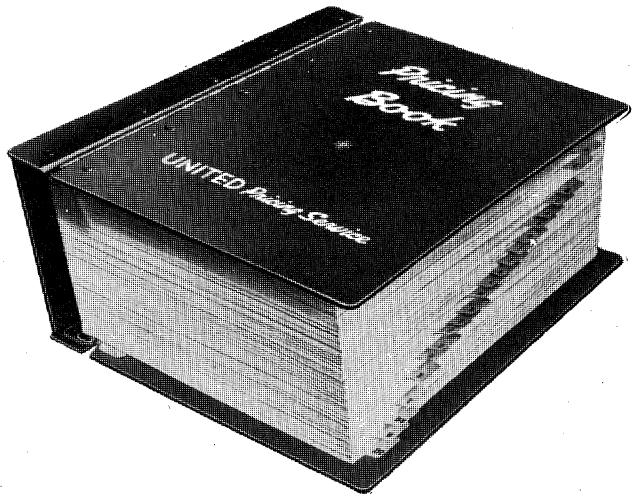

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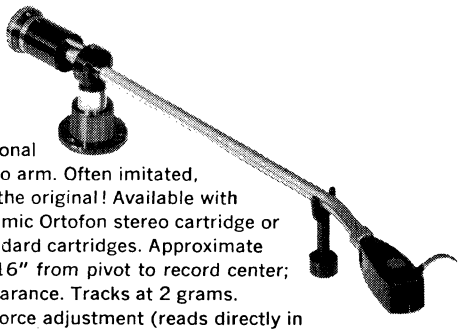
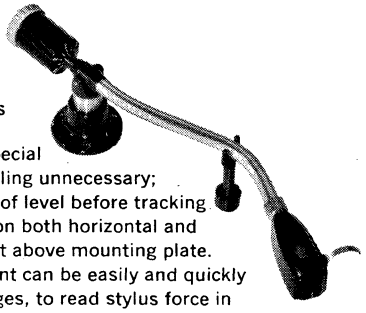
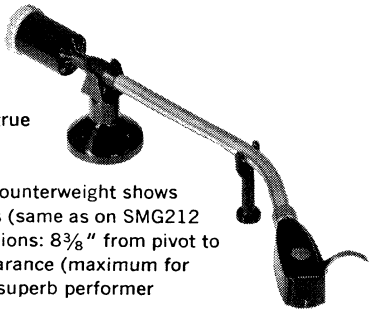
NEW!...for the first time in the U. S.! 3 superlative stereo arms and a cartridge by ORTOFON...world famous Danish makers of studio recording equipment!



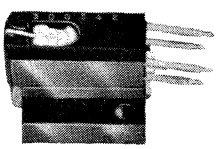
FINEST! Professional RMG309, 16" stereo arm. Often imitated, but nothing equals the original! Available with plug-in, electrodynamic Ortofon stereo cartridge or with shell to fit standard cartridges. Approximate dimensions: 12 3/16" from pivot to record center; requires 3" rear clearance. Tracks at 2 grams. Micrometer stylus force adjustment (reads directly in grams). Adjustable height over mounting plate. Statically balanced by counterweight with spring controlled stylus force (no leveling required). Rubber damping between arm and counterweight . . . $59.95 net.



PERFECTION! Ortofon SMG212, 12" stereo arm. Takes Ortofon or any standard stereo cartridge. Tracks at 2 grams. Special arm shape makes turntable leveling unnecessary; turntable may be up to 30° out of level before tracking difficulties arise. Ball bearings on both horizontal and vertical pivots. Adjustable height above mounting plate. Unique counterweight adjustment can be easily and quickly calibrated, without tools or gauges, to read stylus force in grams for any cartridge . . . approximate dimensions: 8⅜" pivot to record center; 3¼" rear clearance (maximum for heaviest cartridges) . . . $29.95 net.



ECONOMICAL! Ortofon SKG212 12" stereo arm. A renowned Ortofon arm with true economy. Takes Ortofon or standard stereo cartridges. Adjustable, user-calibrated counterweight shows stylus force directly in grams (same as on SMG212 above). Approximate dimensions: 8⅜" from pivot to record center; 3¼" rear clearance (maximum for heaviest cartridges). A truly superb performer . . . only $19.95 net.



MIRACULOUS! You'll have to hear it to believe it! New, sealed-into-shell Ortofon electrodynamic stereo cartridge, with built-in transformers, plugs into any Ortofon arm above. Also available without shell for other arms. 2 gram tracking. 20-20,000 cps response. 20-25 db channel separation. Extremely high compliance: 10×10^{-6} centimeter per dyne. IM distortion practically immeasurable, even on highest recorded levels. Equivalent mass at stylus point: 1 milligram . . . $49.95 net.

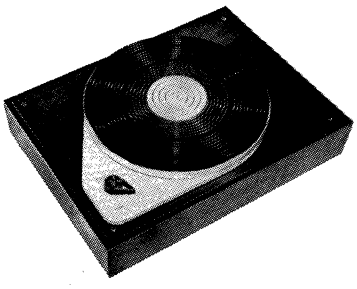
WORLD FAMOUS STUDIO EQUIPMENT **Ortofon**

NEW!...3 new, 8-lb, 12" THORENS turntables now supplement fabulous TD-124!

MATCHLESS TD-124! 11 lb. table with exclusive clutch . . . all four speeds . . . illuminated strobe, with variable speed control (± 3%) . . . completely silent dual-belt drive. . . . Many more exclusive features. $99.75 net. Optional base $10.00.

NEW TD-121! Single-speed version of TD-124 brings you maximum performance with economy . . . standard in 33⅓, can be set for 16, 45 or 78 rpm . . . 8 lb., 12" non-magnetic table. Variable speed control (± 3%) . . . micrometer leveling screws. $80.00 net. Optional base $10.00.

NEW TD-135! Four-speed transcription turntable with integral professional arm . . . ends installation worries . . . assures finest tracking. Variable speed control (± 3%) . . . 8 lb., 12" table . . . precision built motor. $99.75 net. Optional base $6.00.



NEW TD-111! Still more economy with superb Thorens performance! Single-speed, 8 lb., 12" non-magnetic table with precision idler-and-belt-type drive for isolation of motor vibrations. Self-lubricating bearings . . . variable speed control. $60.00 net. Optional base $10.00.

THORENS FAMOUS HI-FI COMPONENTS

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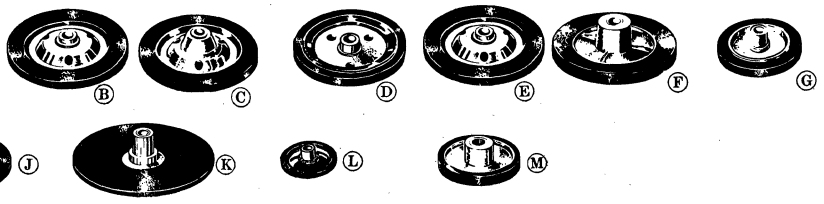
Walsco ELECTRONICS PHONO DRIVES



(B) IDLER WHEEL—2⅛" O.D. With bushing. Used on GE, Motorola, Philco, Webcor. Similar to Item No. 1440 but has .160" tire thickness.
Cat. No. 1437 Net **$1.16**

(C) IDLER WHEEL—2⅛" O.D. With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438 Net **$1.16**

(D) IDLER WHEEL—2" O.D. With bushing. For use on Webcor. Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439 Net **$1.03**

(E) IDLER WHEEL—2⅛" O.D. Comes with bushing. Similar to Item No. 1437 but has .140" tire thickness at the outer edge. Use on Webcor Model 1135 record changer.
Cat. No. 1440 Net **$1.16**

(F) IDLER WHEEL—2⅛" O.D. Used on most Webcor tape recorders.
Cat. No. 1441 Net **$1.83**

(G) IDLER WHEEL—1½" O.D. With bushing. For use with Philco & Webcor.
Cat. No. 1443 Net **$ .66**

(H) MOLDED IDLER WHEEL — RCA 45 RPM. For use with RCA Series RP168 & RP190.
Cat. No. 1447 Net **$ .83**

(J) IDLER WHEEL—2" O.D. For use with Collaro record changers in the 520 Series.
Cat. No. 1448 Net **$1.83**

(K) IDLER WHEEL—2½" O.D. For use with all Collaro record changers in the 54 and 530 Series.
Cat. No. 1449 Net **$1.83**

(L) IDLER WHEEL—1" O.D. For use with Crescent. In Models of 550 Series.
Cat. No. 1450 Net **$1.00**

(M) IDLER WHEEL—1⁹⁄₁₆" O.D. For use with VM Models 920 and 990, and Silvertone record changers.
Cat. No. 1452 Net **$ .70**

RECORDER DRIVE BELTS
ROUND BLACK RUBBER DRIVES

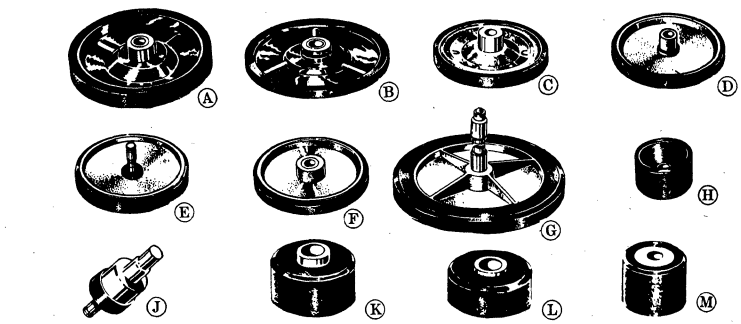
Precision ground to exacting tolerances for positive, non-slipping drive action. Will eliminate "wow" and "rumble".

Cat. No.	Insd. Circum.	Thickness	Used On	Dealer Net
1410-06	6.2"	.139"	Model VM-700, 701, 710, 711, 714 Tape Recorders	$ .40
1410-07	7.4"	.139"	RCA SRT 301, 401, 402, 403, Wilcox-Gay 3A10, 3A11	.46
1410-08	8.6"	.139"	Pentron, Crestwood & other tape recorders	.46
1410-10	10.6"	.139"	Crescent and other tape recorders	.53
1410-12	12.0"	.093"	Ampro and most Revere recorders	.53
1410-14	14.5"	.139"	Most Revere Recorders	1.00
1410-15	15.3"	.139"	Webcor Tape Recorders	1.00
1410-18	18.1"	.139"	Ampro Tape Recorders	1.33
1410-20	20.4"	.139"	Ampro Tape Recorders	1.66
1410-21	21.1"	.139"	Ampro, Gen. Ind., Webcor & other Tape Recorders	1.66
1410-50	10.75"	.085"	Webcor & Revere	.58
1410-51	11.3"	.063"	Viking Tape Recorders	1.10
	5.8"	.139"	Replaces Belts on	
1410-52	4.3"	.139"	Webcor 11 x 1736 pkg.	.86
1410-53	6.5"	.210"	Revere Tape Recorders	.46
1474	9.8"	.139"	Crestwood Tape Recorders	.56

Made of a tough, durable, specially treated fabric, to give years of service. Gives smooth, silent, non-slip action.

Cat. No.	Width	Inside Circum.	Used On	Net
1409-02	5⁄16"	17"	Pentron Tape Recorders	2.03
1409-03	5⁄16"	12¼"	Pentron, Crescent & other Tape Recorders	2.03
1409-04	5⁄16"	12 13⁄32"	VM 700, 701, 710, 711, 714 Tape Recorders	2.08
1409-05	3⁄16"	17"	Webcor Tape Recorders	2.08

CAPSTAN PRESSURE ROLLER—1" O.D. For use on many Pentron tape recorders.
Cat. No. 1488 Net **$1.33**



(A) IDLER WHEEL—2½" O.D. With bushing. Use on Gen. Ind., Seeburg, and other record players.
Cat. No. 1430 Net **$1.16**

(B) IDLER WHEEL—2½" O.D. Used on Webcor Model 110 record players. Replaces Manufacturer's Part No. 45P1530.
Cat. No. 1431 Net **1.26**

(C) IDLER WHEEL—2" O.D. Use on Admiral, Columbia, Crescent, GE, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1432 Bushing I.D.—.215 Net **.66**
1487 Bushing I.D.—.183 Used on older Silvertone, etc. Net **.93**

(D) IDLER WHEEL—2" O.D. With bushing. Use on VM and GE.
Cat. No. 1433 Net **.73**

(E) IDLER WHEEL—2" O.D. With Shaft. Use on Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434 Net **.80**

(F) IDLER WHEEL—2" O.D. With bushing. Use on Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435 Net **$ .81**

(G) DRIVE WHEEL—3" O.D. For use on Zenith Cobramatic Changers. Replaces Manufacturer's Part Nos. S-16922 and S-21754, which are inter-changeable.
Cat. No. 1473 Net **$3.34**

(H) DRIVE WHEEL—1" O.D. For use on Crescent changers of the 550 series.
Cat. No. 1451 Net **$1.13**

(J) 3-STEP DRIVE SLEEVE Used on Webcor Model 135, 136 and other late record changers.
Cat. No. 1469 Net **$1.06**

(K) PRESSURE ROLLER—⅞" O.D. For use with certain Webcor tape recorders.
Cat. No. 1455 Net **$1.53**

(L) PRESSURE ROLLER—⅞" O.D. For use on certain Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1482 Net **$1.23**

(M) PRESSURE ROLLER—¾" O.D. For use with VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458 Net **$1.10**

PRESSURE ROLLER—¾" O.D. For certain RCA & Wilcox-Gay tape recorders.
Cat. No. 1457 Net **$1.66**

TAKE-UP DRIVER For use with VM tape recorder Model 700.
Cat. No. 1484 Net **$3.75**

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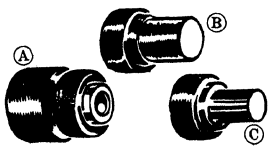
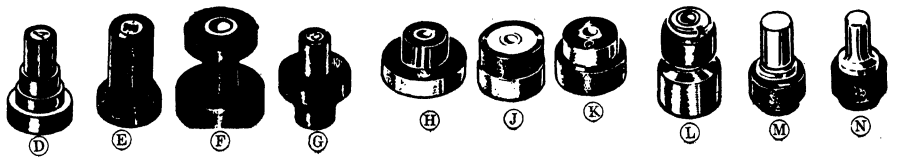
Walsco ELECTRONICS PHONO DRIVES





(A) Cat. No. 1460 78 RPM Net $ **.86**
1470 78 RPM **.96**
(B) Cat. No. 1461 45 RPM Net $ **.86**
1471 45 RPM **.83**
(C) Cat. No. 1462/1472 33⅓ RPM Net $ **.83**

1460, 1461 and 1462 are a Turret Drive group that is used on Crescent, GE, Motorola, RCA, VM and other record changers.

The 1470 series is used on RCA, VM and other record changers.

NOTE: Drives No. 1460, 1461 and 1462 are the same as No. 1470, 1471 and 1472 except that the 1460 series is approximately ¼" larger in rubber diameter than the 1470 series. If model number of changes or manufacturer's part number is not known, use 1460 series. For most purposes, these two series are interchangeable.

(D) 33 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors replaces Mfg.'s Part No. 102941.
Cat. No. 1495-01 Net $ **.86**

(E) 45 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102942.
Cat. No. 1495-02 Net $ **.86**

(F) 78 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102943.
Cat. No. 1495-03 Net $ **.86**

(G) 16 RPM PULLEY—⅝" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102944.
Cat. No. 1495-04 Net $ **.86**

(H) Cat. No. 1463 78 RPM Net **$1.66**
Standard Pack: 12

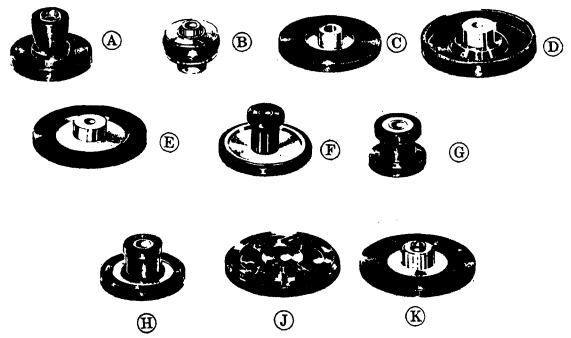
(J) Cat. No. 1464 45 RPM Net **$1.66**
Standard Pack: 6

(K) Cat. No. 1465 33⅓ RPM
Standard Pack: 6 Net **$1.66**

Above 3 items are turret drives for GE and Webcor record changers.

(L) Cat. No. 1466 78 RPM Net **$1.03**
(M) Cat. No. 1467 45 RPM Net **$1.03**
(N) Cat. No. 1468 33⅓ RPM Net **$1.03**

For use on Crescent, Motorola, VM, RCA and other record changers.



(A) IDLER WHEEL—1 11/32" O.D. This is a molded rubber wheel for use on RCA Series RP-199 record changers.
Cat. No. 1454 Net **$1.43**

(B) IDLER WHEEL—1" O.D. For use with all Zenith Cobra-Matic record changers.
Cat. No. 1459 Net **$2.09**

(C) CAPSTAN IDLER—1¾" O.D. For use with VM tape recorders in the 700 series.
Cat. No. 1485 Net **$1.00**

(D) IDLER WHEEL—2" O.D. Used on certain Eicor Tape Recorders and Silvertone Record Changers.
Cat. No. 1475 Net **$1.60**

(E) IDLER WHEEL—2" O.D. For use with certain Pentron Tape Recorders.
Cat. No. 1483 Net **$1.23**

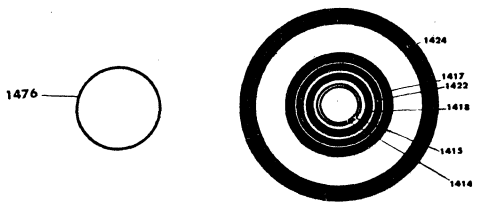
(F) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on VM Record Changers in 1200 series. Also used on other types.
Cat. No. 1453 Net **$1.99**

(G) IDLER PULLEY—15/16" O.D. A molder rubber wheel for use with VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456 Net **$1.99**

(H) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on certain VM record changers.
Cat. No. 1486 Net **$1.99**

(J) INTER WHEEL—2" O.D. For use with Garrard Model RC-80 Record Changers.
Cat. No. 1444 Net **$1.92**

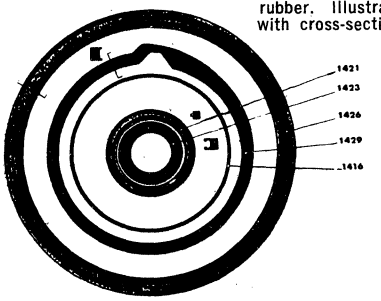
(K) INTER WHEEL—2" O.D. Has a ball-bearing hub cap. For use with Garrard T & TA record players.
Cat. No. 1445 Net **$1.92**



WALSCO TIRES & BELTS

Cat. No.	I.D.	Wall Thickness	Length	Used on	Net
1414	5/8"	1/32"	1/4"	Admiral, GE, VM	$ .18 per pair
1415	21/32"	1/32"	1/4"	Garrard, GE, Philco	.17 per pair
1416	2¾"	1/16"	3/16"	Zenith	.20 each
1417	1½"	5/32"	3/16"	Admiral, Garrard	.17 each
1418	7/8"	1/8"	3/16"	Genl. Ind., Wilcox-Gray	.13 each
1422	1 7/32"	1/8"	3/16"	Genl. Ind.	.13 each
1424	2 7/8"	1/4"	1/4"	Admiral, Crescent, RCA	.37 each
1476	15/16"	1/32"	1/4"	Admiral	.20 per pair

BELTS & CAM TIRES — Special Shapes. These belts and tires are made of highest quality abrasion-resistant neoprene rubber. Illustrations are actual size with cross-sections shown on tires.



INDEX FINGER CUSHION
Used on Webcor 100, 121, 1124 series. Also on Webcor 110 and 114 series.
Cat. No. 1419
Net $ **.20** pr.

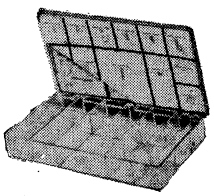
BELTS AND CAM TIRES

Cat. No.	I.D.	Used On	Net
1421	1 3/32"	Miracord	$ .42
1423	1/16"	RCA	.17
1426	4½"	GE & RCA	.67
1429	3¼"	RCA Cam	.67

RUBBER BUMPERS—Used on VM Record Changers.
Cat. No. 1411
Net $ **.27** pr.

WALSCO RECORD ARM SLEEVE — For Garrard. Protects record arm and reduces vibration. Resilient, long-lasting neoprene rubber. (2 required).
Net $ **.17** pr.
Cat. No. 1412

WALSCO VELOCITY TRIP — For Webcor, precision-molded to manufacturers specifications.
Cat. No. 1413
Net **$.20** pr.



PHONO DRIVE INVENTORY CASE — The Walsco Phono Inventory Case enables dealers to give better service to their customers by providing space for 90% of all Phono Drive Replacement needs. Combination loading chart and Manufacturer's Cross Reference chart.
Cat. No. 1403 Net **$2.92**

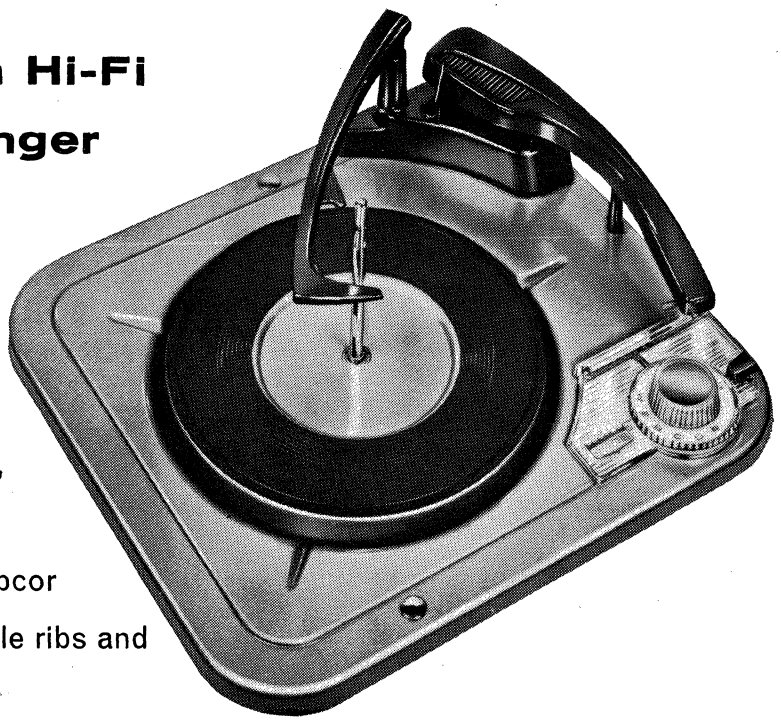
WALSCO PHONO HARDWARE KIT — Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497 Net **$1.65**

1962 WEBCOR Stereo-Diskchangers —one for every need...and price!

Series 1041

Webcor Custom Hi-Fi Stereo-Diskchanger

Golden beige and brown



Webcor's budget-priced Stereo-Diskchanger plays stereo and monaural records in all sizes at all four speeds, and shuts off automatically. Contains most exclusive Webcor features, including anti-rumble ribs and positive manual control.

ECONOMY MODELS

Model 1041-50—Has Ceramic Cartridge with .7 mil Sapphire tip for microgroove records, and 3 mil Sapphire tip for 78 RPM records. **$27.95**

Model 1041-51—Ceramic Cartridge with .7 mil Diamond tip for microgroove records, and 3 mil Sapphire tip for 78 RPM records. **$31.47**

45 RPM record inserts not included with -50 or -51.

Installation: 2 fono cables with 2 pin plugs AC cord and plug. Pickup and AC leads 36" from clamp. Templates. Operates on 110-120 volts, 60 cycles AC.

Model TR-1041-1—Astatic ceramic Stereo Cartridge with turnover stylii. .7 mil Diamond tip for Stereo and standard microgroove records. 3 mil Sapphire tip for 78 rpm records.

Output: .4 volts per channel at 1,000 cycles. **$45.75**

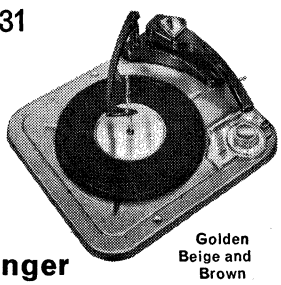
Model TR-1041-21—GE Stereo magnetic cartridge with .7 mil Diamond tip. 4-pole motor.

Output: 10 millivolts per channel at 1,000 cycles. **$60.60**

Model TR-1041-27—Two plug-in heads that accommodate most cartridges. 1" wiring on pins for cartridge hookup. ½" mounting centers. ⅛" spacing to rear, ½" spacing in front of mounting holes. **$44.20**

Series 1031

Webcor Imperial Hi-Fi Stereo-Diskchanger



Golden Beige and Brown

Webcor's finest—with every feature desirable in a changer. Plays stereo and monaural in all sizes; all four speeds; jam-proof mechanism; anti-rumble ribs; heavy 9" rubber matted turntable; automatic shut-off; top-of-arm stylus pressure adjustment; positive manual control.

Model 1031-1—Sonotone Stereo ceramic turnover cartridge. .7 mil Diamond tip for Stereo and standard microgroove records. 3 mil Sapphire tip for 78 RPM records. 4-pole, 4-coil motor. Output: .4 volts per channel at 1,000 cycles. **$60.43**

Model 1031-21—Same as model 1031-1 except has Shure Stereo magnetic cartridge. Output: 10 millivolts per channel at 1,000 cycles. Dual channel pre-amplifier required. **$67.05**

Model 1031-27—Two plug-in heads accommodate most stereo cartridges. ⅞" spacing to rear of mounting holes and ½" in front of mounting holes. 1" wiring on pins for easy cartridge hook-up. 4-pole, 4-coil motor. Minimum Mounting Board Dimensions: 13½" deep x 14 11/16" wide x 9½" high. **$49.38**

Series 1042

Webcor Custom Plug-in Hi-Fi Stereo-Diskchanger

Golden Beige and Brown

Same as Model 1041—except it is mounted on a handsome base pan, and is ready to plug into any amplifier-speaker system equipped with phono input jacks.

Model TS-1042-1—Same as model 1041-1 except diskchanger is mounted on attractive metal base pan. AC lead is 72" outside pan. **$53.81**

Model TS-1042-21—Same as model 1041-21 except mounted on attractive metal base pan and AC lead is 72" outside pan.

Dimensions: 14¾" wide, 13¼" deep, 9½" high. **$68.53**

WEBCOR, INC., Chicago Illinois

© U.C.P., Inc.

2 New Webcor Stereo Components!

Stereofonic High Fidelity
WEBCOR TAPE DECK
Regent Coronet Model 2250

Tape deck version of the top-rated recorder in the Webcor line, the Regent Coronet is loaded with professional features, yet priced for home use. Records 4 and 2 track stereo tapes—plays back 2 and 4 track stereo tapes—records monaurally on all 4 tracks—in all three speeds. This versatile, durable heart of the home sound system also features SYNCHRO-TRACK, Webcor's new language and music learning tool that enables you to add a second track. **Audiophile Net: $219.95**

Frequency Response: Normal voice frequency at 1⅞ IPS; 50 to 7KC ± 2DB at 3¾ IPS; 40 to 14 KC ± 3DB at 7½ IPS.

Two Pre-amplifiers: Pre-amplifiers built-in for each channel. Cathode follower output for each Channel. Output from "O" level recording—2 volts.

Wow and Flutter: 0.2% at 7½ inches per second.

Signal to Noise Ratio: Better than 50 DB per channel.

Tubes: 6 tubes including dual selenium rectifier; DC filaments—1st and 2nd stages.

Power Requirements: 117 volts; 60 cycles AC; 90 watts.

Dimensions: 7½" high x 15" wide x 15" deep.

Shipping Weight: 26 lbs.

SPECIAL FEATURES: Two or four track Stereo record and playback. 4 pole, heavy duty electronically balanced motor. Three speeds. SYNCHRO-TRACK. New Slide-Tape Synchronizer jack. Belt driven tape transport. Professional type editing key. Record safety lock. Automatic shut-off of amplifier, and recorder mechanism. VU meter indicates correct recording level for each channel. Monitor-Volume control. Numerical type tape counter. Individual volume controls. "Dual-gang" Bass and Treble controls. Function switch. 2 Microphone Inputs. Hi-Level Input jacks. Ch. 1 and Ch. 2. Ext. Amp. and Ext. Speaker Output jacks. Installs vertically or horizontally.

Carrying Case, Model A 2976 Net: $32.50

WEBCOR
AM-FM STEREO TUNER
Model 304-1

Webcor's first entry in the stereo tuner field is a precision-engineered instrument of advanced functional design. Pulls in sharply defined signals on AM and FM, and prevents FM station drift with AFC. A flip of the switch brings in stereo simulcasts. Multiplex adaptable, too!

Audiophile Net: W 304-1 $109.95
N 304-1 99.95

FM SPECIFICATIONS: 3½ μV for 20 DB quieting.

Selectivity—200 KC, 3 DB down.

Negligible FM drift with Automatic Frequency Control.

Antenna input—300 ohms.

Hum noise—60 DB below 100% modulation.

Frequency response—20 CPS—20,000 CPS ± 1 DB.

FM circuitry: Pentode RF amp.; triode mixer; 2—1F amplifiers; 1 Limiter; Balanced Ratio Detector.

AM SPECIFICATIONS: Sensitivity—10 μV for 20 DB signal to noise terminal input; Selectivity—6 DB down at 11.5 KC; Built-in Ferrite rod antenna; provision for external antenna.

Power Requirements: 117 volts; 60 cycles AC; 45 watts.

Tubes: 9 tubes, 2 silicon rectifiers, 1 germanium diode.

Controls: Separate AM and FM tuning knobs. On-Off switch. FM, FM-AM Stereo, AM selector switch. Push control for AFC defeat.

Colors: Walnut—W 304-1; Neutral—N 304-1.

Dimensions: 14¼" wide x 12¼" deep x 4⅜" high.

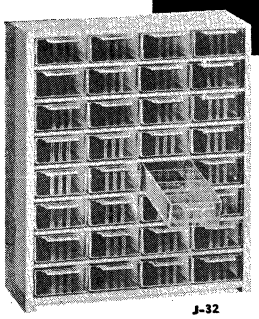
Shipping Weight: 17 lbs.

WEBCOR IS BUILT...with an ear to the future

© U.C.P., Inc.

A-M Akro-Mils Parts Cabinets

J SERIES CABINETS WITH JD-1 DRAWER



J-32

DRAWERS: 2¾" w. x 1⅛" d. x 5⅞" l.

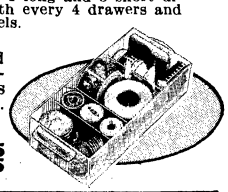
Welded steel cabinet stands, stacks or hangs on wall. Can be integrated into standard shelving set-ups. JD-1 crystal-clear, spill-proof drawers. All cabinets, 6" d. Models J-32 and J-48, 12½" w.; J-64, J-96 and J-128, 25⅛" w.

A-M Model	Drawers*	Size, H., In.	Wt., Lbs.	Net Each
J-128	128	30½	50	$52.98
J-96	96	22½	38	41.98
J-64	64	15¼	24	23.98
J-48	48	22½	18	18.98
J-32	32	15¼	12½	11.98

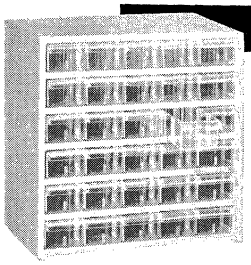
*Includes 1 long and 3 short dividers with every 4 drawers and index labels.

JD-1 Drawer—Molded from crystal-clear styrene. Infinite flexibility of crosswise compartments; divides into three lengthwise compartments. Measure scale on bottom for visual inventory.

D-JDA–Pkg. 50 crosswise dividers. **$1.25**
D-JF-Pkg. 25 lengthwise dividers.. **1.25**



M3C SERIES CABINETS



M3C-30

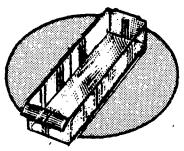
DRAWERS: 3" w. x 2" d. x 11" l.

Furnished with M3 drawers. Provide unusual flexibility for small parts storage. Sturdy welded steel can be used individually, stacked in any desired combination, hung from wall, or integrated into standard 36" shelving set-ups with 7" to 28" between shelves. Durable, one-piece clear plastic drawers have full width pull handle at front and stop tab at rear to prevent accidental spillage.

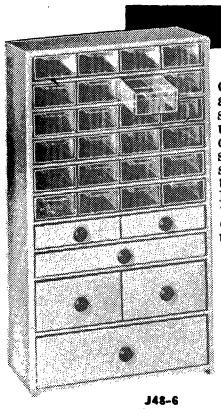
A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each
M3C-10	10	17¼ x 11⅛ x 6⅝	11	$11.50
M3C-15	15	17¼ x 11⅛ x 9	14	17.00
M3C-20	20	17¼ x 11⅛ x 11¾	18	22.50
M3C-30	30	17¼ x 11⅛ x 17⅛	26	33.50
M3C-40	40	17¼ x 11⅛ x 22⅝	34	44.50
M3C-50	50	17¼ x 11⅛ x 28	38½	56.50

M3 Plastic Drawer—Molded of durable one-piece clear plastic with full width pull handle at front and stop tab at rear to prevent accidental spillage. Press-on front labels, plus inside label slots. Full length runners. Adjustable metal dividers lock into grooves. Divide into 2—12 compartments. 3" x 11" x 2". Net Each..... **60c**
24 Drawers. Net Each..... **55c**
96 Drawers. Net Each..... **50c**

D-MF **Lengthwise Dividers**—Net Pkg. 10. **$1.00**
D-M3A **Full-Width Dividers**—Net Pkg. 25. **1.00**
D-M3G **Half-Width Dividers**—Net Pkg. 25. **.70**



J SERIES COMBINATION



J48-6

Combination tool chest and parts cabinet permits storing together what you use together. JD-1 plastic drawers for small parts storage–sturdy, seamless steel drawers for heavy tools and large parts. Drawer front labels provide easy indexing. Welded steel cabinets can be used singly, stacked or hung on wall.

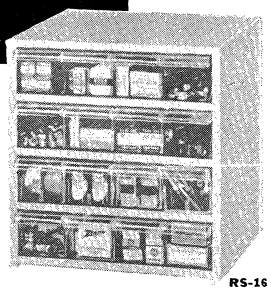
DRAWERS
All are 5⅞" d.

A-M Model	Size, In. W. x H.	Material
JB	5¾ x 1⅞	Steel
JC	11½ x 1⅞	Steel
JD	5¾ x 3⅜	Steel
JE	11½ x 3⅜	Steel
JD-1	2¾ x 1⅞	Plastic

All cabinets, 6" deep.

A-M Model	Drawers JD-1	JB	JC	JD	JE	Cabinet, In. H. x W.	Wt., Lbs.	Net Each
J128-12	80	4	2	4	2	30½ x 25⅛	52	$54.98
J48-6	24	2	1	2	1	22½ x 12½	18¼	19.98
J32-6	8	2	1	2	1	15¼ x 12½	12¾	12.48

RS SERIES CABINETS
DRAWERS: 2⅞" w. x 2¼" d. x 11" l.

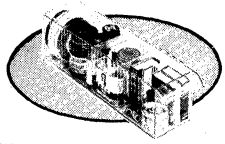


RS-16

All-steel frame; baked-on hammertone silver gray finish. Lifetime-guaranteed transparent plastic drawers have safety catch to prevent spilling. Molded in full length drawer runners.

Cabinets can stand on any flat surface, be stacked, or hung from wall. Labels supplied for quick and easy indexing. Allow perfect storage and inventory of electronic parts, etc.

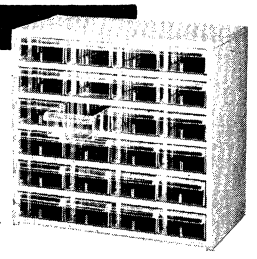
RPD-1 Plastic Drawer—Removable dividers allow for creation of compartments every ¼" in a single drawer. Stop tab at rear. Net Each..... **70c**
24 Drawers, Net Each.... **65c** 96 Drawers, Net Each.... **60c**



A-M Model	Drawers	Size*, H., In.	Wt., Lbs.	Net Each
RS-32	32	28½	28½	$37.00
RS-24	24	21½	22	27.00
RS-16	16	14½	16	18.50
RS-12	12	11	12½	13.50
RS-8	8	7½	9	9.25

*All cabinets 13⅝" w. x 11⅛" d.

M4B SERIES CABINETS

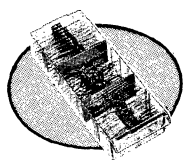


M4B-24

DRAWERS: 4" w. x 2" d. x 11" l.
PERFECT FOR STORING RESISTORS

Furnished with M4 drawers. Best yet for electronic parts storage. Clear plastic drawers come with adjustable dividers for lengthwise and/or crosswise compartmentalization; divide drawers into 12 or less equal or odd sized sections. Dividers and index labels for front of drawers provided.

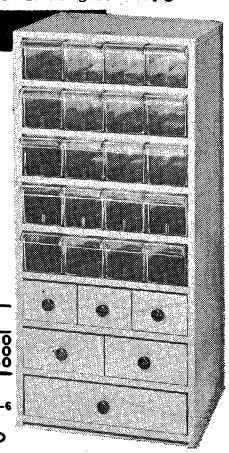
A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each
M4B-8	8	17⅞ x 11⅛ x 6⅝	10¾	$10.98
M4B-12	12	17⅞ x 11⅛ x 9	14	15.98
M4B-16	16	17⅞ x 11⅛ x 11¾	17¼	20.98
M4B-24	24	17⅞ x 11⅛ x 17⅛	24½	31.98
M4B-32	32	17⅞ x 11⅛ x 22⅝	36	41.98
M4B-40	40	17⅞ x 11⅛ x 28	47	52.98



M4 Plastic Drawers—Molded of durable one-piece plastic with full width pull handle and stop tab at rear. Full length runners for easy movement. Press-on front labels, plus inside label slots. Removable dividers lock in place in grooves. Each drawer can be divided into from 2 to 12 equal-size compartments or many odd-sized compartments. 4" x 11" x 2". Net Each..... **65c**
24 Drawers. Net Each..... **60c**
96 Drawers. Net Each..... **55c**

D-MF **Lengthwise Dividers**—Net Pkg. 10. **$1.00**
D-M4A **Full-Width Dividers**—Net Pkg. 25. **1.00**
D-M4G **Half-Width Dividers**—Net Pkg. 25. **.70**

RS SERIES COMBINATION



RS32-6

Store tools and parts in one convenient place. Welded steel cabinets can be used singly, stacked, hung on wall or integrated into standard shelving. All cabinets 13⅝" w. x 11⅛" d.

Seamless Steel Drawers

A-M No.	H. x W. x D.
S1	2¾" x 12" x 11"
S2	2¾" x 6" x 11"
S3	2¾" x 4" x 11"

RPD-1 Plastic Drawer 2⅞" w. x 2¾" d. x 11" l.

A-M Model	Cab. Ht.	Drawers RPD-1	S-1	S-2	S-3	Wt., Lbs.	Net Each
RS32-6	28⅛"	20	1	2	3	31	$37.00
RS24-6	21⅛"	12	1	2	3	25	27.00
RS16-6	14⅛"	4	1	2	3	19	18.50

AKRO-MILS, INC., AKRON 9, OHIO
Form 17-2C1

Net
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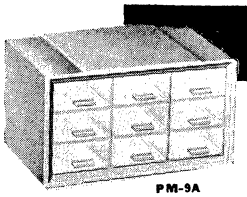
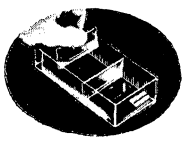
A-M Akro-Mils Parts Cabinets

NIFTY KNICKNACK PLASTIC CABINETS


PM-9A

DRAWERS: 2¾" w. x 1¼" d. x 5¾" l.

With PM-1 Drawers. Handy small parts cabinet with breakproof styrene cabinet. Cabinets can be used singly or stacked. Available in beige or ebony finish. All cabinets are 6¼" deep. Clear plastic drawers have plastic dividers so they can be divided into an infinite number or size compartments.



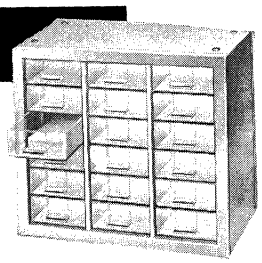
PM-9A—9 drawers. 9¾" w. x 5" h. Shipping Weight, 2½ lbs. Net Each..... **$2.98**

PM-15A—15 drawers. 9¾" w. x 7½" h. Shipping Weight, 4 lbs. Net Each..... **$4.45**

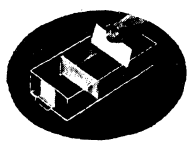
PM-21A—21 drawers. 9¾" w. x 10⅜" h. Shipping Weight, 6 lbs. Net Each..... **$5.98**

D-PMA-25 -Package of 25 plastic dividers for PM-1 drawers. Net..... **50c**

NIFTY KNICKNACK STEEL CABINETS


PM-18A

DRAWERS: 2¾" w. x 1¼" d. x 5¾" l. With A1 Drawers. For storing small parts where they are quickly accessible. Strong welded steel cabinet can be used singly, stacked or hung on wall. Durable molded one-piece plastic drawers with removable metal dividers. Can be divided into two or three compartments. Complete with index labels and one divider per drawer. All cabinets 6" deep.



PM-18A—18 drawers. 10" w. x 9 1/16" h. Shipping Weight, 6 lbs. Net Each..... **$5.98**

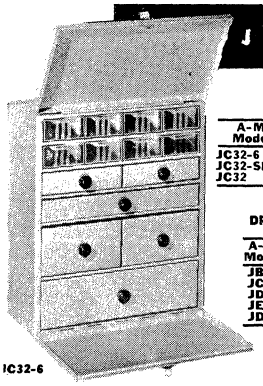
PM-24A—24 drawers. 13 1/16" w. x 9 1/16" h. Shipping Wt., 7 lbs. Net Each..... **$7.98**

PM-36A—36 drawers. 10" w. x 18⅛" h. Shipping Weight, 11 lbs. Net Each..... **$11.98**

PM-48A—48 drawers. 13 1/16" w. x 18⅛" h. Shipping Weight, 14 lbs. Net Each... **$15.98**

D-PA25-Package of 25 steel dividers for A1 plastic drawer. Net **62c**

J SERIES PORTABLE CABINETS


JC32-6

A-M Model	Drawers JD-1	JB	JC	JD	JE	Ht., In.	Wt., Lbs.	Net Each
JC32-6	8	2	1	2	1	15¼	14	15.48
JC32-SD	24	....	....	....	1	15¼	13¾	14.98
JC32	32	....	....	....	....	15¼	13¾	14.98

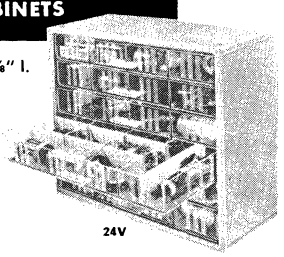
DRAWER DIMENSIONS FOR PORTABLE CABINETS

A-M Model	Size, Inches Wide x Deep x High	Material
JB	5¾ x 5⅞ x 1 7/16	Steel
JC	11½ x 5⅞ x 1 7/16	Steel
JD	5¾ x 5⅞ x 3⅛	Steel
JE	11½ x 5⅞ x 3⅛	Steel
JD-1	2¾ x 5⅞ x 1 7/16	Plastic

THEFT-PROOF! Can be padlocked for protection of contents. Welded steel cabinet has convenient non-slip handle for easier carrying.

Take these cabinets right to the place where you need them. Welded all-steel cabinet will carry 100 lb. load safely. Locking front doors serve as handy tray. Solid steel back has four keyholes for safe hanging and easy removal. Combines small, clear JD-1 plastic drawers with movable dividers for small components storage and sturdy seamless steel drawers for tools and heavy parts. All models are 12½" wide x 6½" deep.

"E-Z FIND" FULL-VUE CABINETS


24V

J4 DRAWERS: 11½" w. x 1 7/16" d. x 5⅞" l.

Crystal-clear drawers, **four to a section,**—all one strong piece; lengthwise and crosswise dividers. Can be stacked on top of each other or hung on wall. Press-on labels included.*

16V—16 drawers, 48 compartments. 7½" x 12½" x 6". Shipping Wt., 6 lbs. Net Each. **$4.78**

24V—24 drawers, 72 compartments. 10½" x 12½" x 6". Shipping Weight, 8 lbs. Net Each..... **$7.00**

32V—32 drawers, 96 compartments. 14" x 12½" x 6". Shipping Weight, 11 lbs. Net Each..... **$9.00**

48V—48 drawers, 144 compartments. 20" x 12½" x 6". Shipping Weight, 13½ lbs. Net Each..... **$13.00**

*With every 4 drawers 1 long and 3 short dividers are furnished.

SWING-BIN CABINETS

SC-12

DRAWERS: 2½" w. x 1 1/16" d. x 9½" l.

Efficiently stores dozens of small items. Bins swing out for access. Clear plastic drawers are 2½" x 9½" x 1⅛" deep. Pedestal base (SP) or Bolt-Down (SC) types. Removable bin dividers. Bins easily removed for cleaning.

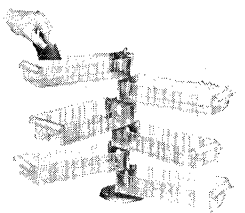
A-M Model	Drawers No.	Height	Net Each $
SC-12	12	16"	4.98
SC-18	18	23⅝"	7.98
SC-24	24	31"	9.98

PEDESTAL BASE MODELS A-M Model	Drawers No.	Height	Net Each $
SP-9	9	12½"	4.98
SP-12	12	15½"	6.48

New — SP-M4-6 Pedestal Base Swing-Bin with M4 KING-SIZE Drawers

DRAWERS: 4" w. x 2" d. x 11" l.

Two new models with Extra Wide M4 Drawers provide greater flexibility and capacity. Find things quickly and easily in these large turnstyle drawers. Heavy metal base screws to bench or table top to prevent tipping and sliding. These cabinets are ideal for assembly lines, work shops — anywhere small item orderliness is required.



SP-M4-6 Pedestal Base Model with 6 Drawers. Each.... **$7.00**

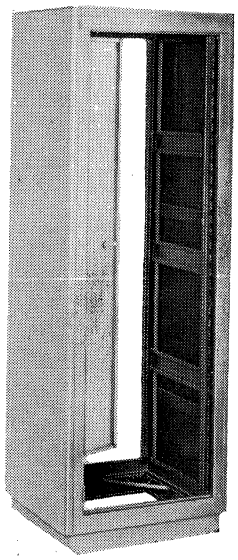
SC-M4-6 Wall Bracket Model with 6 Drawers. Each..... **$7.00**

SPACE DOES NOT PERMIT LISTING ALL AVAILABLE MODELS OR CABINETS. COMPLETE AKRO-MILS CATALOGS AVAILABLE UPON REQUEST.

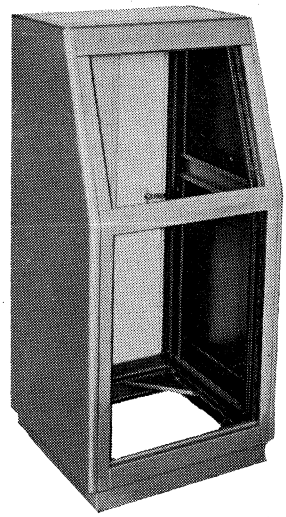
AKRO-MILS, INC., AKRON 9, OHIO

Form 17-2C2

SERIES SIXTY CABINET RACKS



Upright Model



Sloping Panel Model

The basic frame is welded into a solid unit composed of 14 gauge cold rolled steel channels. The sides have "U" braces with perforated channels to which vertical adjustable mounting rails are fastened. In addition to a normal panel mounting, these rails are designed to support other types of equipment such as brackets. shelves, slides, etc. This eliminates any necessity of drilling holes in the sides of the cabinet rack or destroying the fine symmetry of appearance.

The sides and rear door are made of 16 gauge steel. The door may be mounted to open from the left or from the right. A six inch wide vertical channel is welded to the door as a strengthening device preventing excessive vibration or whip.

The UPRIGHT RACKS have two pair of panel mounting rails that are fully adjustabe. The INCLINED PANEL RACKS have three sets of panel mounting rails that are likewise fully adjustable. Panels may be mounted in the front and the rear at the same time. The front rails are drilled and tapped 10-32 W.E. spacing while the rear rails are drilled adhering to universal spacing.

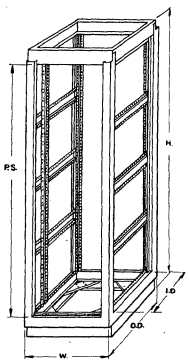
All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in our Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports, and front door may be easily installed. See them in the Bud catalog.

WE CANNOT TOO GREATLY EMPHASIZE THE FACT THAT THE FURNISHING OF THESE ENCLOSURES COMPLETELY ASSEMBLED AND READY FOR USE ELIMINATES ALL CHANCES OF ERROR IN ORDERING OF MULTIPLE COMPONENTS AND THE TIME AND COST OF COMPLETING THE ASSEMBLY.

The standard finishes are smooth baked enamel over a prime finish, a choice of two tone grey or two tone blue is available. Please designate by the suffix "SG" if grey is required, or "SB" if blue is required.

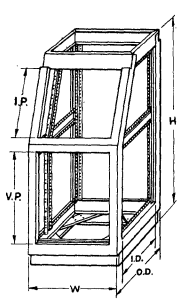
Standard Bud relay rack panels are available for the Series Sixty racks in light grey and light blue. When ordering panels please add suffix "SG" for grey and "SB" for blue. See Bud page 4.

Upright models are regularly furnished with plain sides, plain rear door and solid top. Accessories such as plain or louvred doors, plain or louvred sides and perforated top are available. See Bud Catalog.



Cat No	Height	Width	Outside Depth	Clear Inside Depth	Panel Space	Top Opening	Wgt. Lbs.	Net
60-2300	29⅝"	24 1/16"	22"	20¼"	21"	18½"x17"	118	$106.30
60-2301	40⅛"	24 1/16"	22"	20¼"	31½"	18½"x17"	156	131.45
60-2302	50⅝"	24 1/16"	22"	20¼"	42"	18½"x17"	173	146.05
60-2303	61⅛"	24 1/16"	22"	20¼"	52½"	18½"x17"	142	166.25
60-2304	69⅞"	24 1/16"	22"	20¼"	61¼"	18½"x17"	220	180.25
60-2305	78⅝"	24 1/16"	22"	20¼"	70"	18½"x17"	235	200.00
60-2306	87⅜"	24 1/16"	22"	20¼"	78¾"	18½"x17"	265	218.65
60-2307	29⅝"	24 1/16"	25½"	23¾"	21"	18½"x20½"	156	125.50
60-2308	40⅛"	24 1/16"	25½"	23¾"	31½"	18½"x20½"	176	151.20
60-2309	50⅝"	24 1/16"	25½"	23¾"	42"	18½"x20½"	185	168.00
60-2310	61⅛"	24 1/16"	25½"	23¾"	52½"	18½"x20½"	211	186.50
60-2311	69⅞"	24 1/16"	25½"	23¾"	61¼"	18½"x20½"	240	207.30
60-2312	78⅝"	24 1/16"	25½"	23¾"	70"	18½"x20½"	256	230.30
60-2313	87⅜"	24 1/16"	25½"	23¾"	78¾"	18½"x20½"	267	251.35

Please specify color desired by adding suffix "SG" for gray or "SB" for blue.



Sloping panel models are regularly furnished with plain sides, plain rear door and solid top. Accessories such as plain or louvred font doors, plain or louvred rear doors, plain or louvred sides and perforated top are available. See Bud Catalog.

Cat. No.	Height	Width	Outside Depth	Clear Inside Depth	Inclined Panel Space	Vertical Panel Space	Top Opening	Wgt. Lbs.	Net
60-2330	50⅝"	24 1/16"	22"	20¼"	10½"	29¾"	11¾"x18½"	165	$165.25
60-2331	50⅝"	24 1/16"	22"	20¼"	15¾"	24½"	10"x18½"	165	175.15
60-2332	50⅝"	24 1/16"	22"	20¼"	17½"	22¾"	9⅜"x18½"	165	175.15

Please specify color desired by adding suffix "SG" for gray or "SB" for blue.

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 1

Net

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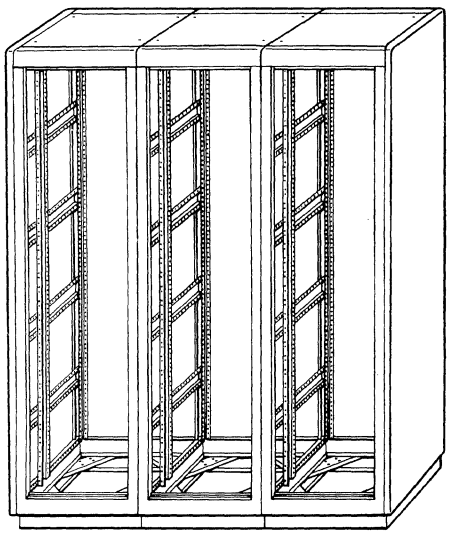
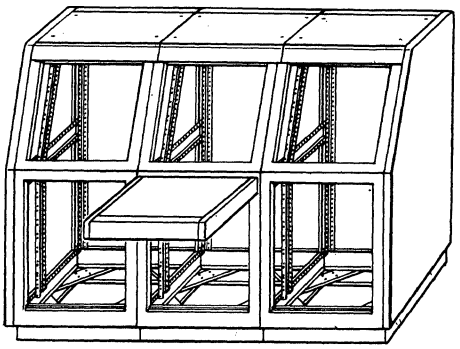
SERIES SIXTY

ADD-A-RACK SERIES

When it is desirable to join any of the Series Sixty enclosures in a bank of two or more, use the Add-A-Rack system. Each Add-A-Rack assembly consists of a frame, top, bottom, rear door and cowlings. Thus, with one complete unit and several Add-A-Rack assemblies, any desired number of racks may be combined to attain the optimum width.

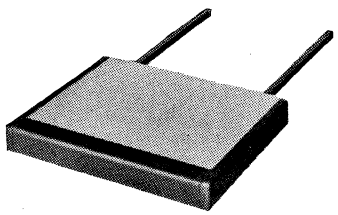




Catalog Number	Used to add an Identical size unit to	Weight Lbs.	Net
60-2500	60-2300	92	$ 86.10
60-2501	60-2301	113	104.75
60-2502	60-2302	115	114.70
60-2503	60-2303	145	125.30
60-2504	60-2304	148	140.00
60-2505	60-2305	152	156.00
60-2506	60-2306	158	167.35
60-2507	60-2307	120	100.00
60-2508	60-2308	132	117.25
60-2509	60-2309	138	128.00
60-2510	60-2310	142	139.60
60-2511	60-2311	164	156.10
60-2512	60-2312	168	174.00
60-2513	60-2313	172	192.50
60-2530	60-2330	119	132.90
60-2531	60-2331	119	142.10
60-2532	60-2332	125	142.10

SERIES SIXTY DESK TOP

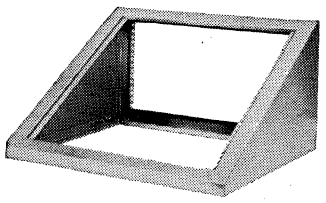
The 60-2360 Desk Top may be used in connection with any Sixty Series Enclosure. Furnished completely assembled with wood grained formica surface. Fastened to panel mounting rails by means of two pre-drilled channels. Will support in excess of 200 lbs. Choice of blue or gray enamel finish. When ordering please use suffix "SG" for gray and "SB" for blue.

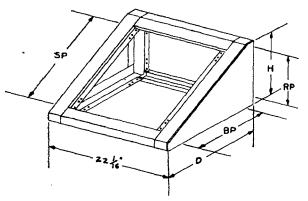


Cat. No.	Size	Weight	Net
60-2360	24 1/16" x 19 1/2" x 3 1/16"	29 lbs.	$36.05

SERIES SIXTY TURRETS

Series Sixty turrets are fabricated from 16 gauge steel. They are designed so that any one of three sides may be attached to a Series Sixty upright rack or they may be placed upon any horizontal surface. Thus several convenient viewing angles may be obtained. Will accommodate standard 19" panels.
All panel mounting rails are in adherance with universal spacing. Sides may be quickly removed when a series of interconnecting turrets is desired. Choice of two colors. Please specify "SG" for dark gray or "SB" for dark blue. Standard Bud panels for these turrets are available in light gray and light blue. When ordering please add suffix "SG" for gray or "SB" for blue.





Cat. No.	Width	D Depth	H Height	SP Sloping Panel Space	BP Bottom Panel Space	RP Rear Panel Space	Wgt. Lbs.	Net
60-2364	22 1/16"	17 7/8"	12 5/16"	17 1/2"	14"	8 3/4"	17	$39.05
60-2365	22 1/16"	14 3/8"	10 3/16"	12 1/4"	10 1/2"	7"	14	32.55
60-2366	22 1/16"	20 13/16"	14 3/8"	21"	17 1/2"	10 1/2"	20	41.00

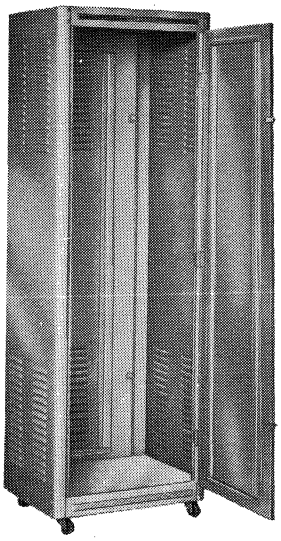
Standard Bud panels for these turrets are available in light gray and light blue. When ordering add suffix "SG" for gray or "SB" for blue.

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 2

RELAY RACKS

DELUXE RELAY RACKS



These relay racks are made of 16 gauge steel with 7/64" gauge panel mounting supports. The panel mounting supports are recessed so that no edges of the panel will be exposed.
The two sides and the door are well louvered to provide adequate ventilation. The door is hung on sturdy, loose joint hinges; it is held closed by two attractive aluminum die cast plunger type snap action catches. A streamlined appearance is achieved by the use of rounded corners and red lined chrome trim. This relay rack is shipped knocked down and complete with all necessary hardware for assembly. All standard 19" panels will fit these racks. Overall width is 22". Overall depth is 1" greater than inside clear depth. Clearance through rear door 17⅜". Clearance across panel mounting rails 17¾". Panel rails tapped 10/32 with W.E. spacing

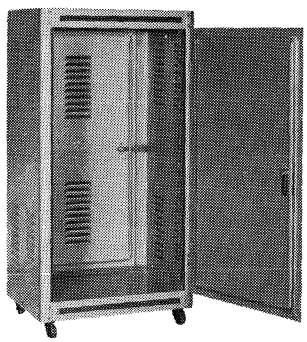
A SPECIAL FEATURE IS THE USE OF FOUR STURDY SUPPORTS IN THE BOTTOM, SO THAT CASTERS CAN BE FASTENED DIRECTLY TO THE BASE.

Bud RC-7756 casters will fit this unit. The casters are not included in the price of the cabinet.

All units are available in three finishes. Specify by suffix letter "B" for black wrinkle finish; "G" for grey wrinkle finish and "HG" for light grey hammertone finish.

CAT. NO.	OVERALL HEIGHT	CLEAR INSIDE DEPTH	PANEL SPACE	WGT. LBS.	NET
CR-1774	42 1/16"	16 1/8"	36 3/4"	90	$45.17
CR-1771	49 5/16"	16 1/8"	42"	95	51.10
CR-1772	66 5/16"	16 1/8"	61 1/4"	116	63.96
CR-1773	82 5/16"	16 1/8"	77"	137	76.57
CR-2071	47 5/16"	21"	42"	98	71.40
CR-2072	66 5/16"	21"	61 1/4"	150	89.35
CR-2073	82 5/16"	21"	77"	175	106.13
CR-2074	42 1/16"	21"	36 3/4"	91	63.10

SUPER DELUXE 2 DOOR RACKS



This relay rack is made of 16 gauge steel with 7/64" gauge panel mounting supports. The panel mounting supports are recessed so that no edges of the panel will be exposed. IN ADDITION, THEY ARE ADJUSTABLE FROM FRONT TO BACK IN VARIOUS STOPPING POINTS. THIS ENABLES YOU TO USE THE SPACE IN FRONT AND BEHIND THE PANEL TO ANY DEGREE THAT YOU MAY FIND NECESSARY. Overall width is 22". Depth 17⅛". Inside clearance depth in back of panels 16⅛". Clearance thru rear door 17⅜". Clearance across panel mounting rails 17¾". Panel rails tapped 10/32 with W.E. spacing. Clearance behind panels is 15" to 9" in increments of 1 inch.

These racks are fitted with both front and rear doors. The louvred rear door is to cover any of the equipment behind the panel and at the same time provide easy accessibility to it. The front door, flush with front of rack, is to provide a means of concealing dials, knobs, etc., that may be in front of the panel.

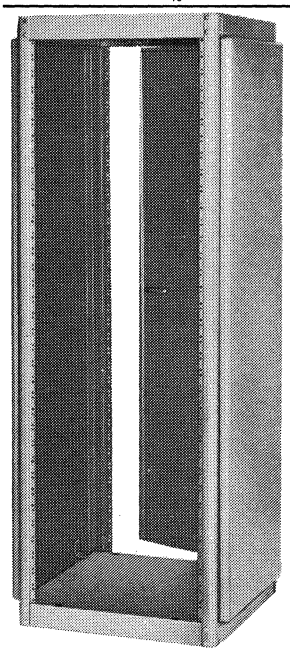
The exclusive Bud feature of supports on the bottom so the casters may be fixed directly to the base, eliminating the need and expense of dollies, is also present in this series of racks.

Bud RC-7756 casters will fit these units. The casters are not included in the price of the cabinet.

For black wrinkle finish use suffix letter "B." For grey wrinkle finish use suffix letter "G." For light grey hammered finish use suffix "HG."

Catalog No.	Overall Height	Panel Space	Shipping Weight	Net
CR-2174	42 1/16"	36 3/4" x 19"	102 lbs.	$ 64.13
CR-2171	47 5/16"	42" x 19"	104 lbs.	72.65
CR-2172	66 5/16"	61 1/4" x 19"	138 lbs.	93.77
CR-2173	82 5/16"	77" x 19"	163 lbs.	112.56

PRESTIGE RELAY RACKS



WITH ADJUSTABLE PANEL MOUNTING RAILS WHICH CAN BE MOVED FROM FRONT TO BACK IN ONE INCH INCREMENTS.

A standard Prestige Relay Rack consists of the framework, top, bottom, two ball cornered sides and a ball cornered door. Shipped knocked-down with necessary assembly hardware.

Interior servicing is easily accomplished without tearing down rack since sides are attached to frame by means of tongue and slot arrangement at bottom and two screws at top, thus sides are quickly removed.

Drilled and tapped panel mounting rails on all four vertical members of the frame. Standard 19" panels can, if desired, be mounted on all four sides of the rack.

Doors may be mounted to open either from left or right side. Extra doors may be purchased so that doors may be placed on any of four sides.

Panel rails will support 200 lbs. suspended between rails at any vertical position. Bottom will support 500 lbs.

The base is slotted to accept ball cornered side panels on any of the four sides of the rack.

Clearance of ball cornered door and side panels is sufficient to permit their installation over panels without damage to knobs or instrument controls.

Casters may be attached to base to achieve mobility if desired. Base is so designed that casters are recessed.

Knockout holes are provided in the sides of the rack so that two or more may be joined together in series.

Racks will accommodate Bud SD-1717 Sliding Drawer Assembly, Bud Console Drawer CD-2210 or "Prestige" Supporting Angles.

Finished in grey hammertone.

PRESTIGE CABINET RACKS

Cat. No.	Panel Space	Height	Weight Lbs.	Net
CR-2280	61 1/4"	66 5/16"	104	$108.35
CR-2281	66 1/2"	71 13/16"	115	115.55
CR-2282	77"	82 5/16"	132	129.75

Inside clearance	21⅛" x 21⅛"
Overall depth without door	22"
Overall depth with door	23 1/16"
Overall width without side panels	22"
Overall width with side panels	24⅛"

BALL CORNER DOORS

Cat. No.	Weight	Net
DR-2290 for CR-2280 Rack	28 lbs.	$13.50
DR-2291 for CR-2281 Rack	33 lbs.	14.40
DR-2292 for CR-2282 Rack	39 lbs.	16.20

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 3

Net

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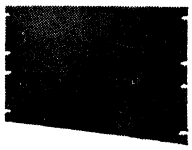
PANELS

STANDARD RELAY RACK PANELS



These panels are available in either steel or aluminum. The steel panels are made of high grade steel ⅛" thick. Aluminum panels are standard at ⅛" thick aluminum. All panels are 19" wide. Aluminum panels 3/16" thick are available at a 60% increase in cost over the standard ⅛" panel.

For the first time, we are offering light grey hammered finish panels at no extra charge. Be sure to specify by use of suffix "B" for black wrinkle finish, suffix "G" for grey wrinkle finish or suffix "HG" for light grey hammered finish. Add "SG" for grey enamel or "SB" for blue enamel when used with Series Sixty.

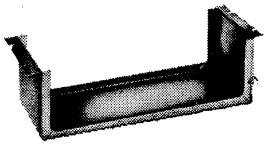
STEEL

Catalog No.	Height	Actual Weight lbs.	Net	Catalog No.	Height	Actual Weight lbs.	Net
PS-1250	1¾"	1¼	$ .84	PS-1256	12¼"	8¼	$2.42
PS-1251	3½"	2¼	1.00	PS-1257	14"	9½	2.84
PS-1252	5¼"	3¼	1.25	PS-1258	15¾"	10¾	3.09
PS-1253	7"	4½	1.42	PS-1259	17½"	11¾	3.51
PS-1254	8¾"	6	1.75	PS-1260	19¼"	13	3.84
PS-1255	10½"	7	2.09	PS-1261	21"	14¼	4.26

ALUMINUM

Catalog No.	Height	Actual Weight lbs.	Net	Catalog No.	Height	Actual Weight lbs.	Net
PA-1101	1¾"	¼	$1.09	PA-1107	12¼"	2¾	$4.09
PA-1102	3½"	¾	1.42	PA-1108	14"	3	4.76
PA-1103	5¼"	1	1.92	PA-1109	15¾"	3½	5.34
PA-1104	7"	1¾	2.42	PA-1110	17½"	4	5.85
PA-1105	8¾"	2	2.84	PA-1111	19¼"	4¼	6.43
PA-1106	10½"	2½	3.59	PA-1112	21"	5	7.01

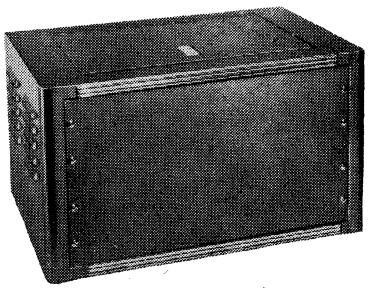
PANEL CHASSIS



This series of panel mounting chassis is for professional type installations primarily. Made of .062" aluminum. The front flange has standard notching suitable for mounting to a rack.

Catalog No.	Width	Depth	Height	Net
CB-1370	19"	5 9/32"	1¾"	$2.30
CB-1371	19"	5 9/32"	3½"	2.59
CB-1372	19"	5 9/32"	5¼"	2.84
CB-1373	19"	5 9/32"	7"	3.26
CB-1374	19"	5 9/32"	8¾"	3.76
CB-1375	19"	5 9/32"	10½"	4.43
CB-1376	19"	5 9/32"	12¼"	4.84
CB-1377	19"	5 9/32"	14"	5.34

DELUXE CABINET RACKS



FURNISHED WITH FULL SIZED ALUMINUM RELAY RACK PANEL AT NO EXTRA COST.

These cabinet racks are so made that a professional appearance is given. They are ideal for commercial broadcasters, for sound equipment or test equipment. The five larger sizes have a hinged rear door, while the smaller sizes have the welded panel in the rear.

No other manufacturer has the wide variety of sizes that are included in the Bud line of deluxe cabinet racks.

Adequate ventilation is assured by means of louvered sides and a 2½" opening in the bottom of the back, which extends the entire width of the cabinet. "No scratch" extended metal feet are embossed on the bottom to minimize marring of the table top or any other equipment that this is placed on.

Combination handle and catch fits flush with top of cabinet. All exposed parts are chrome plated.

Overall Depth	14¾"
Overall Width	22"
Clear Inside Depth	14"
Top Door Opening	10½" x 15⅜"

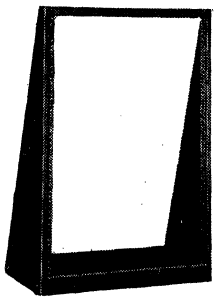
Catalog No.	Overall Height	Space Panel	Shipping Weight	Net
CR-1726A	8-25/32"	7"	27 lbs.	$15.28
CR-1741A	10-9/16"	8¾"	28 lbs.	16.70
CR-1740A	12-5/16"	10½"	31 lbs.	19.12
CR-1742A	14-1/16"	12¼"	32 lbs.	20.12
CR-1739A	15-13/16"	14"	35 lbs.	21.96
CR-1743A*	19-5/16"	17½	40 lbs.	26.22
CR-1727A*	22-13/16"	21"	43 lbs.	28.06
CR-1744A*	28-1/16"	26¼"	51 lbs.	30.14
CR-1728A*	33-5/16"	31½	58 lbs.	31.98
CR-1745A*	36-13/16"	35"	63 lbs.	33.65

* These sizes have top and rear doors.

Specify a suffix "B" when black wrinkle is desired, the suffix "G" when grey wrinkle is desired, or the suffix "HG" when light grey hammered is desired.

RACKS

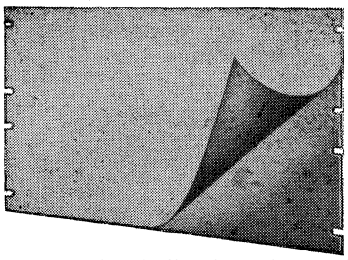
DESK TYPE RELAY RACKS



These racks are perfect for table mounting of low and medium powered transmitters, public address systems and other electronic instruments. The rack has a strong chassis for mounting heavy components. These units are shipped knocked down with necessary hardware and are easy to assemble. Depth 12". Panel holes tapped 10/32 with W.E. spacing. Standard 19" wide panels can be used and the panels are set in recess so that no edges are exposed. Black wrinkle or light grey hammertone finish.

Catalog No.	Panel Space	Height	Actual Wt. Lbs.	Net
RR-1248	21" x 19"	24"	15	$ 9.10
RR-1249	28" x 19"	31"	17	11.19

"Surface Shield" Aluminum Panels



Now . . . naturally bright aluminum panels with blemish-free mill finish.

Each panel is covered on both sides with sturdy self-stick paper to protect against damage. The paper provides an excellent surface for indicating size and position of drilling or milling. These operations may then be done while the paper is still in place thus minimizing the possibility of surface damage and elimination or surface soil. Paper is not removed until the panel is ready for installation.

Panels available in both 1/8" and 3/16" thicknesses, have standard notching and are 19" wide. Individually wrapped in heavy Kraft-backed cellulose wadding for protection in shipment or storage.

⅛" PANELS				3/16" PANELS			
Cat. No.	Ht.	Wt.	Net	Cat. No.	Ht.	Wt.	Net
SFA-1831	1¾"	¼ lb.	$ .97	SFA-3161	1¾"	¼ lb.	$ 1.79
SFA-1832	3½"	¾ lb.	1.34	SFA-3162	3½"	¾ lb.	2.36
SFA-1833	5¼"	1 lb.	1.80	SFA-3163	5¼"	1 lb.	3.17
SFA-1834	7"	1¾ lbs.	2.21	SFA-3164	7"	1¾ lbs.	3.91
SFA-1835	8¾"	2 lbs.	2.66	SFA-3165	8¾"	2 lbs.	4.68
SFA-1836	10½"	2½ lbs.	3.34	SFA-3166	10½"	2½ lbs.	5.90
SFA-1837	12¼"	2¾ lbs.	3.85	SFA-3167	12¼"	2¾ lbs.	6.80
SFA-1838	14"	3 lbs.	4.45	SFA-3168	14"	3 lbs.	7.85
SFA-1839	15¾"	3½ lbs.	4.97	SFA-3169	15¾"	3½ lbs.	8.76
SFA-1840	17½"	4 lbs.	5.47	SFA-3170	17½"	4 lbs.	9.67
SFA-1841	19¼"	4¼ lbs.	5.99	SFA-3171	19¼"	4¼ lbs.	10.57
SFA-1842	21"	5 lbs.	6.50	SFA-3172	21"	5 lbs.	11.48

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

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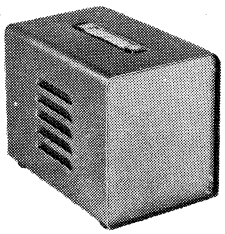
CABINETS

BLOWERS

PORTACABS



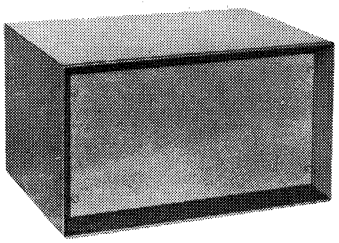
These attractive and versatile cabinets are desirable as housings for instrumentation requiring highly stylized appearance. The body is one piece .050 aluminum with contoured corners. Panel is .062 aluminum.

Flexible recessed handle permits easy portability as well as vertical stacking. Well louvred for adequate ventilation. Since louvres point inward, side-to-side placement of cabinets is possibe without space loss. Welded back has opening.

Aluminum front panel is recessed ½". Four detachable rubber feet furnished. Gray hammer-tone finish only.

Cat. No.	Depth	Width	Height	Use BUD Chassis	Rear Opening	Weight in lbs.	Net
WA-1540	8"	6⅛"	8"	AC-402	2" x 4½"	2½	$ 9.20
WA-1541	12"	8⅛"	9"	AC-407	2" x 6½"	3	12.00
WA-1542	8"	10⅛"	8"	AC-406	2" x 8½"	3½	10.65
WA-1543	18"	11⅛"	11"	AC-416	2" x 9½"	4½	13.50
WA-1544	18"	14⅛"	12"	AC-420	2" x 12½"	5½	15.50

SHADOW CABINET



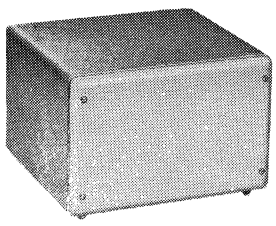
An extremely versatile housing since both front and rear panels as well as the bottom may be removed for installation or servicing purposes. Unusually attractive appearance is created by recessing the front panel one inch as well as by beveling the front edges of the body. The recessed front panel prevents accidental movement of controls, knobs, and switches attached to it.

The two piece body of the shadow cabinet is made of 18 gauge steel and the panels of 16 gauge steel. Finish is light gray hammertone.

Four rubber feet attached to the bottom of the cabinet eliminate marring of the surface on which it may be placed.

Cat. No.	Overall Size Width	Height	Depth	Use Bud Chassis		Net
SB-2140	14¼"	8"	10"	AC-424	CB-704	$6.50
SB-2141	13¼"	7½"	9"	AC-407	CB-1193	5.00
SB-2142	17"	9½"	11"	AC-411	CB-666	8.85
SB-2143	15½"	6"	9"	AC-409	CB-1194	4.85

CONTOUR UTILITY CABINETS



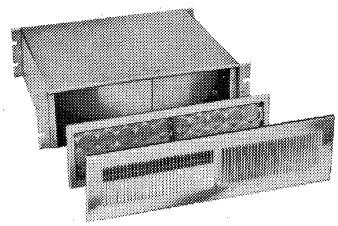
This Bud Utility Cabinet is a highly attractive housing with rounded contour corners. The flanged panels also have rounded corners to preserve the symmetry of design. All parts are fabricated from 20 gauge steel.

Both front and rear panels are removable; the front panel being solid while the rear panel is louvred to provide ventilation.

Four rubber feet attached to base prevent scratching of the surface upon which the unit may be placed. The body is finished in smooth dark gray enamel and the panels are light gray enamel.

Cat. No.	Overall Size Height	Width	Depth	Net
CU-463	4 7/32"	6 7/32"	3¾"	$ 5.50
CU-465	4 7/32"	6 7/32"	5¾"	6.35
CU-585	5 7/32"	8 7/32"	5¾"	8.35
CU-587	5 7/32"	8 7/32"	7¾"	9.00
CU-7125	7 7/32"	12 7/32"	5¾"	9.70
CU-7127	7 7/32"	12 7/32"	7¾"	10.35

TRANS-AIRE BLOWERS



Ideal where excessive heat is generated by equipment in an enclosed rack, cabinet, or console. Used to draw in cool air or exhaust heated air.

These blowers occupy less area, and a smaller panel space than others having similar air dispacement capability. They are the lowest priced units of equal capacity and performance.

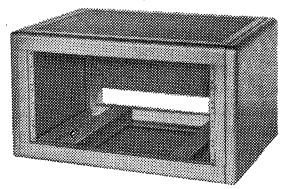
Two speed, rubber mounted motor operates on 110 v. 50/60 cycle current. Motor has Oilite bearings with oil impregnated wick as well as thermal overload protection and automatic reset. Oil impregnated, fiberglass, disposable filter furnished.

Blower operates in any position—vertical, horizontal, oblique. Mounts on rails of standard cabinet or console.

Cat. No.	Panel Space	Depth	Air Displacement* High	Low	Motor	Net
B-23	Blower 3½" x 19"	12"	200 cfm	100 cfm	1/20 hp	$47.10
B-25	Blower 5¼" x 19"	14½"	500 cfm	250 cfm	1/6 hp	53.35
B-27	Blower 7" x 19"	14½"	700 cfm	350 cfm	1/4 hp	61.35
BF-24	Filter used with B-23					1.35
BF-26	Filter used with B-25					1.50
BF-28	Filter used with B-27					1.65

*-at 0° static pressure

"PRESTIGE" VERSA-CABINETS



A standard Prestige Versa-Cabinet consists of the framework, two ball cornered sides, perforated metal back, solid bottom plate and two supporting channels.

The front, back, top, bottom may be quickly removed for access to interior for easy servicing. Standard 19" panels may be attached to the top, bottom, front or back of cabinet to provide complete closure.

An opening is provided across bottom of back for cable leads, controls or knobs. Opening is 1¾" x 19". Bud Steel Panel PS-1250 (shown on Bud Page 4) or Aluminum Panel PA-1101 (shown on Bud Page 4) may be used to close opening if desired.

Sides are attached by means of holding flanges on the bottom of the frame and nut at top. Handles may be fastened to sides. Cabinets may be fastened side-to-side in batteries of two or more or may be stacked one on another. Proper provision is made for fastening cabinets together either vertically or horizontally by means of four holes on each side and four holes in top and bottom of frame.

Four rubber feet are regularly supplied.

Finished in grey hammertone.

Cat. No.	Panel Space	Height	Weight	Net
PC-1700	5¼"	8¾"	28 lbs.	$27.25
PC-1701	7"	10½"	29 lbs.	28.92
PC-1702	8¾"	12¼"	31 lbs.	30.75
PC-1703	10½"	14"	34 lbs.	33.50
PC-1704	12¼"	15¾"	35 lbs.	35.25

Clear inside width	22¼"
Overall width	23 3/16"
Clear inside depth	15"
Overall depth	15 25/32"

PERFORATED STEEL TOP PANEL

Cat. No.	Size	Weight	Net
PC-1710	12¼" x 19"	2½ lbs.	$2.70

ACCESSORIES

Solid Steel Top Panel	PS-1256HG
Solid Aluminum Top Panel	PA-1107HG
Top Panel w. Solid Door	PS-616HG
Top Panel w. Ventilated Door	PS-815HG

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 5

Net

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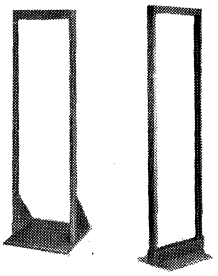
RACKS

TELEPHONE TYPE RELAY RACKS



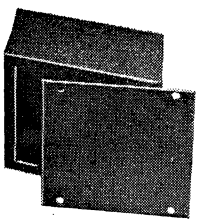
RR-1263 RR-1363 RR-1265
RR-1264 RR-1364
RR-1366

Catalog Nos. RR-1263, RR-1264, RR-1363, RR-1364 and RR-1366 are made of 7/64" steel channels, three inches deep, with cross bars of the same thickness. The design of the base has been improved to incorporate a chassis type bottom, together with the usual side angles, making this rack exceptionally strong and stable.

Holes are provided in the base to accommodate Bud RC-7756 casters. Base is 20" x 22". Clearance between uprights 17⅞". Panel mounting rails tapped 10/32 with W. E. spacing. Finish black wrinkle or light grey hammertone.
The RR-1265 is a heavy duty rack, suitable for broadcast stations and other commercial installations, where it is desired that exceptionally sturdy construction be utilized. The usual manner of installation is to bolt this unit to the floor.
To emphasize the heavy duty construction, it is necessary to realize that the base is made of two angles 3½" x 5" x ¼", 20⅜" long. The channels are 72" long and made of 3" x 1⅜" x 3/16" steel plate. The two supporting cross bars are made of ⅛" x 2 3/32" steel angles. Base is 13" x 20⅜". Panel holes are tapped 12-24 with W.E. spacing. Finish black wrinkle only.
Any of the panel chassis shown on Bud Page 10 or the standard relay rack panels shown on Bud Pages 9 and 10 can be used with these racks.

Catalog No.	Height	Panel Space	Shipping Weight lbs.	Net
RR-1263	35-39/64"	31½"	35	$21.71
RR-1363	40-55/64"	36¾"	37	21.96
RR-1264	70-39/64"	66½"	46	24.80
RR-1364	75-55"64"	71¾"	48	25.13
RR-1366	81-7/64"	77"	49	29.98
RR-1265	72-1/4*	66½"	68	54.78

UTILITY CABINETS



A large number of sizes available makes this line useful for all types of electronic equipment. These cabinets have two removable panels for easy accessibility. Units prefixed by CU are made from cold rolled steel and are finished in black wrinkle or light grey hammertone. Those prefixed by AU are made from high grade sheet aluminum and have natural finish or light grey hammertone.

STEEL (Black Wrinkle or Grey Hammertone)

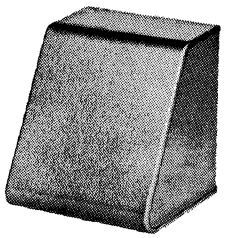
Cat. No.	Depth	Width	Height	Net
CU-883	2"	4"	4"	$1.09
CU-728	3"	5"	4"	1.22
CU-729	4"	5"	6"	1.38
CU-1098	6"	6"	6"	2.09
CU-1099	5"	6"	9"	2.34
CU-879	7"	8"	10"	3.34
CU-1124	6"	7"	12"	3.29
CU-880	8"	10"	10"	4.01
CU-881	8"	11"	12"	4.34
CU-882	7"	9"	15"	4.51

ALUMINUM (Natural or Grey Hammertone)

Cat. No.	Depth	Width	Height	Net Natural	Grey
AU-1083	2"	4"	4"	$1.29	$1.50
AU-1028	3"	5"	4"	1.37	1.67
AU-1029	4"	5"	6"	1.50	1.84
AU-1039	6"	6"	6"	2.17	2.42
AU-1040	5"	6"	9"	2.51	2.84

CABINETS

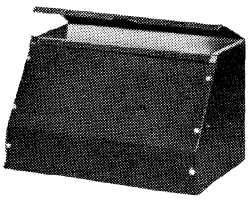
UNIVERSAL SLOPING PANEL CABINETS



Versatile, streamlined housings with two viewing angles.
One piece, detachable back and sides fastened to body with self tapping screws permits easy access for mounting and servicing components.
Fully enclosed and shielded. The opportunity for dust, dirt and moisture entering cabinet is minimized. No danger from exposed wiring.
Components may be mounted on back, bottom, sides or front and still be easily accessible for service or replacement.
Will accommodate a Bud Miniature Aluminum Chassis. Overall height is 4¼", overall depth is 4". Available in steel or aluminum. Gray hammertone finish only.

	STEEL				ALUMINUM		
Cat. No.	Width	Weight	Net	Cat. No.	Width	Weight	Net
C 1606	4"	¾ lb.	$1.45	AC 1610	4"	½ lb.	$1.68
C 1607	5"	¾ lb.	1.55	AC 1611	5"	½ lb.	1.75
C 1608	6"	1⅛ lb.	1.65	AC 1612	6"	¾ lb.	1.90
C 1609	7"	1⅛ lb.	1.90	AC 1623	7"	¾ lb.	2.10

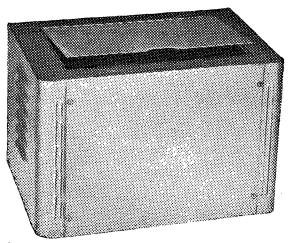
SLOPING PANEL CABINETS



The entire front panel of this cabinet is removable if so desired. THIS CABINET IS ALSO PROVIDED WITH A HINGED TOP FOR EASY ACCESSIBILITY TO TUBES AND OTHER PARTS THAT ARE MOUNTED ON THE CHASSIS, WITHOUT NECESSITATING REMOVAL OF THE FRONT PANEL. Finished in black wrinkle enamel or light grey hammertone. Specify with suffix B for black, HG for grey hammertone.

Catalog Number	Height	Width	Depth	Fits Chassis	Net
C-1584	6½"	7-1/16"	7 5/16"	7" x 6" x 2"	$3.30
C-1585	6½"	9-1/16"	7 5/16"	7" x 8" x 2"	3.75
C-1586	6½"	11-1/16"	7 5/16"	7" x 10" x 2"	4.34
C-1587	8"	8-1/16"	8"	7" x 7" x 2"	4.51
C-1588	8"	10-1/16"	8"	7" x 9" x 2"	5.01
C-1892	8"	13-1/16"	8½"	8" x 12" x 2½"	5.95
C-1893	10"	18-1/16"	10½"	10" x 17" x 3"	7.85
C-1894	8"	14-1/16"	8"	7" x 13" x 2"	5.34
C-1896	9"	18-1/16"	8⅛"	7" x 17" x 3"	7.68

STREAMLINED CABINETS



Have recessed hinged cover with convenient finger lift. Panels fit flush with the embossed, rounded corner fronts.
All components built into these cabinets are easily accessible.
Bud Open End Chassis are recommended for use in these cabinets.
Overall Height is 8" and overall depth is 8¼". 3½" high opening is provided across the back for cables or rear controls. Louvred sides provide ample ventilation.
Available in black wrinkle, gray wrinkle, or gray hammertone finish. Please specify when ordering.

Cat. No.	Width	Panel Sp.	Top Opening	Wt.	Net
CD-1480	10½"	8" x 8"	5⅝" x 7⅞"	5¾ lbs.	$ 5.90
CD-1481	12½"	8" x 10"	5⅝" x 9⅛"	6 lbs.	6.01
CD-1482	14½"	8" x 12"	5⅝" x 11⅛"	6½ lbs.	6.31
CD-1483	16½"	8" x 14"	5⅝" x 13⅛"	7 lbs.	6.77
CD-1484	18½"	8" x 16"	5⅝" x 15⅞"	7¾ lbs.	7.36
CD-1485*	20⅝"	12" x 18"	10½" x 15½"	15 lbs.	14.95

* Has ½" vertical chrome strip fastened to corners and is available in grey wrinkle finish only. Note that panel space is 12" x 18" and depth is 12".

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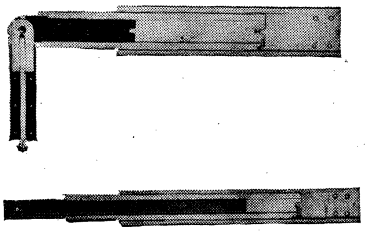
BUD RADIO PAGE 6

CHASSIS SLIDES



Quality ball bearing slides designed to give the highest possible serviceability under difficult conditions. Smooth operation and long life assured over a period of repeated movements of the slide mechanism. Specifically designed to allow withdrawal of a full 17" wide chassis when housed in standard 19" panel space relay rack or cabinet. Slides drilled to accommodate either a panel rail bracket or direct side rail mounting. Complete with mounting brackets and hardware. "SC" line is designed for commercial applications. "SI" line is designed for industrial and military applications.

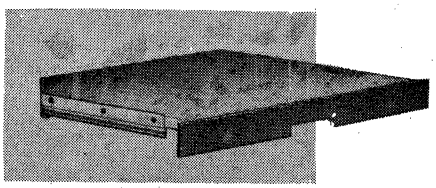
"SC" SERIES

SC-4312, SC-4316, SC-4320 are full ball bearing slides. Inner members do not disconnect or tilt. Aluminum extrusions used on these slides are made of 2014T6 per QQ-A-261. Precision broached for smooth, flawless operation.

SC-4412, SC-4416, SC-4420 are same type as SC-4312 except outer track is full ball bearing and inner track is dry lubricated friction type. Have quick detach facility and locks in the extended position.

SC-4512, SC-4516 SC-4520 are full ball bearing quick detach, tilting type slides with a lock performing when in extended position. These units permit the chassis to be tilted 90° below and above horizontal position in 45° increments.

Series Sixty Sliding Desk Top



The Bud Sliding Desk Top provides a handy, smooth surface for writing, servicing or inspection. The light grey formica surface resists most elements that might otherwise damage metal or wood finishes. When fully extended, the useable area is 11" by 16⅞". Tested to support 75 pounds distributed weight.

Occupying only 1¾" of panel height, the Sliding Desk Top does not use up valuable interior or panel space. It fits flush with the front of the unit in which it is installed. Front panel is finished in light grey hammertone.
Mounting is direct to the uprights in Bud Series 60 cabinet racks. Brackets are included for fastening to panel mounting rails in other Bud cabinets and consoles. Ball bearing slide mechanism assures free and easy movement.

		Surface Area		
Cat. No.	Width	Depth	Panel	Net
60-2361	16⅞"	15⅛"	19" x 13¾"	$16.65

"SI" SERIES

This series slide channels are aluminum extrusions made from 7075T6 per QQ-A-227 to afford the greatest possible strength. All component parts such as locking devices, stop pins, etc. are made from 302 stainl ss steel per Mil-S-5059Z. The ball bearings are 440 stainless steel per QQ-S-763. All aluminum parts are anodized per Mil-A-8625A and stainless steel parts passivated per Mil-A-5002. The lubricant used is hi-low temperature grease per Mil-G-3278.

SI-4212, SI-4216, SI-4220 are full ball bearing slides.

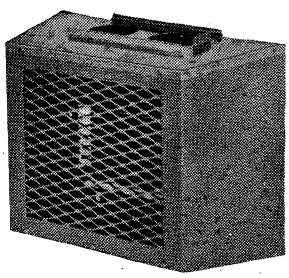
On SI-4012, SI-4016, SI-4020 the outer track is full ball bearing and inn r track is dry lubricated friction type. Have quick disconnect feature and lock in extended position.

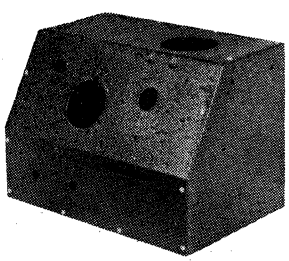
SI-4112, SI-4116, SI-4120 are same as SI-4012 except with quick disconnect a .d locking features, but in addition have tilting action which permits chassis to be tilted 90° above and 90° below horizontal position in 45° increments.

	Height	Length	Travel	Load Cap.	Net per pr.
SC-4312	2"	12"	12"	150 lb.	$27.15
SC-4316	2"	16"	16"	110 lb.	29.10
SC-4320	2"	20"	20"	95 lb.	31.80
SC-4412	2"	12"	12"	150 lb.	39.30
SC-4416	2"	16"	16"	110 lb.	42.15
SC-4420	2"	20"	20"	95 lb.	44.10
SC-4512	3½"	12"	12"	275 lb.	56.25
SC-4516	3½"	16"	16"	215 lb.	60.90
SC-4520	3½"	20"	20"	180 lb.	64.65
SI-4212	3½"	12"	12"	275 lb.	41.25
SI-4216	3½"	16"	16"	225 lb.	45.00
SI-4220	3½"	20"	20"	180 lb.	48.75
SI-4012	3½"	12"	12"	275 lb.	48.75
SI-4016	3½"	16"	16"	225 lb.	53.40
SI-4020	3½"	20"	20"	180 lb.	59.10
SI-4112	3½"	12"	12"	275 lb.	64.65
SI-4116	3½"	16"	16"	225 lb.	69.30
SI-4120	3½"	20"	20"	180 lb.	72.15

Custom Designing and Special Fabrication

When none of the hundreds of products illustrated and described in our catalog are entirely applicable as a housing for your product, we invite you to take advantage of our custom designing and special fabrication services.
We offer highly skilled engineering personnel, an expert production staff and huge manufacturing facilities. A pilot model or a large run receive equal attention.
Our high annual volume, large buying power and specialized equipment enable us to effect economies in production resulting in savings in cost and time. We welcome the opportunity to quote from your blueprints. There's no obligation. Consult your distributor.
Illustrated on this page are two examples of specially produced products.





Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 7

Net

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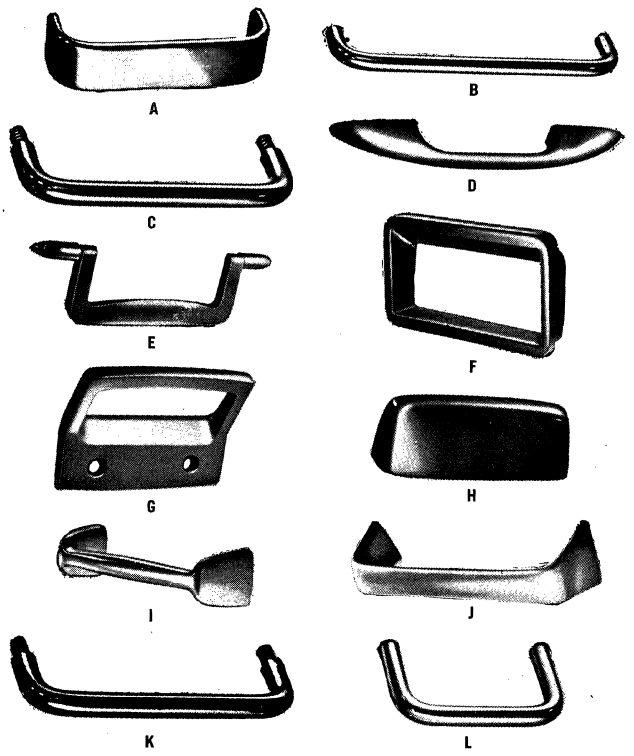
HANDLES

MINIBOXES

HANDLES

Bud handles are fabricated from steel, brass or cast aluminum. Their durable, attractive finish will provide long wear. The material and finish specifications for each handle is described below. They have unlimited applications in the electronic, electrical, and many other fields. Packaged in pairs only. Necessary mounting hardware is furnished. Bud handles are designed for rugged applications and are far superior to handes of similar appearance. Illustrated below is a typical handle of each style available.



A. H-9100 1" x ¼" Chrome plated solid brass. 4" x ½" mounting centers. 1" hand clearance. Four 6-32 x ½" screws. **$3.96** pair.

A. H-9101 Same as H9100 but has 8" x ½" mounting centers. **$6.15** pair.

A. H-9102 ⅝" x ¼" chrome plated solid brass. 4" mounting centers. 1" hand clearance. Two 6-32 x ½" screws. **$3.15** pair.

A. H-9103 Same as H-9102 except has 6" mounting centers.

B. H-9110 Angular formed steel rod. Chrome plated. 6" mounting centers. Two 10-32 x ½" screws. **$2.79** pair.

B. H-9111 Same as H-9110 except has 4" mounting centers 1 5/16" hand clearance. **$1.50** pair.

B. H-9112 Same as H-9111 except has 6" mounting centers. **$1.89** pair.

B. H-9113 Same as H-9111 except has 8" mounting centers. **$2.10** pair.

B. H-9114 ½" chrome plated steel rod. 8" mounting centers. 1½" hand clearance. Two ¼-28 x ½" screws. **$3.51** pair.

C. H-9115 ⅜" chrome plated steel rod. 4" mounting centers. 1 5/16" hand clearance. Two ¼-28 nuts. **$2.40** pair.

C. H-9116 Same as H-9115 except has 6" mounting centers. **$3.00** pair.

D. H-9120 Silver anodized die cast aluminum. 4⅜" inside and 5⅜" outside mounting centers. 1" hand clearance. Four 6-32 x ½" screws. **$3.51** pair.

D. H-9121 Similar to H-9120 except is chrome plated die cast alloy. **$4.95** pair.

D. H-9123 Similar to H-9120 except has 4½" mounting centers. 1" hand clearance. Two 10-32 x ½" screws. **$2.61** pair.

E. H-9122 Silver anodized die cast aluminum. Two hinge blocks with ¼" steel pins. 6½" inside and 7¼" outside mounting centers. 1½" hand clearance. Four 10-32 x ⅜" screws. **$5.94** pair.

E. H-9130 Silver anodized die cast aluminum. 3" mounting centers. Two 10-32 x ⅜" screws. **$5.25** pair.

G. H-9131 Silver anodized die cast aluminum. Size 4" x 2⅞". 2¼" mounting centers. Two ¼ - 28 raised countersunk screws and nuts. **$3.90** pair.

H. H-9140 Silver anodized die cast aluminum. 3½" mounting centers. ¾" hand clearance. Two 10-32 x ½" screws. **$2.34** pair.

I. H-9150 Silver anodized die cast aluminum. 4" x ⅝" mounting centers. 1¼" hand clearance. Four 10-32 x ½" screws. **$3.15** pair.

J. H-9151 Silver anodized die cast aluminum. 5 5/32" x ⅝" mounting centers. 1⅜" hand clearance. Four 10-32 x ½" screws. **$5.10** pair.

J. H-9152 Similar to H-9151 except has 3⅞" mounting centers and 1⅛" hand clearance. **$4.14** pair.

K. H-9160 Chrome plated ⅜" steel rod. 3½" mounting centers. 1 11/16" hand clearance. Two ¼ - 28 Hex nuts. **$2.70** pair.

K. H-9161 Same as H-9160 except with 5¼" mounting centers. **$3.15** pair.

K. H-9162 Same as H-9160 except with 7" mounting centers. **$3.24** pair.

K. H-9163 Same as H-9160 except with 8¾" mounting centers. **$3.51** pair.

K. H-9164 Same as H-9160 except with 10½" mounting centers. **$3.96** pair.

K. H-9165 Same as H-9160 except with 12¼" mounting centers. **$4.35** pair.

L. H-9166 Chrome plated ¼" brass rod. 1 29/32" mounting centers. 1" hand clearance. Two 6-32 x ½" screws. **$1.20** pair.

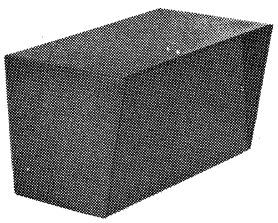
L. H-9168 Same as H-9166 except with 3" mounting centers. **$1.35** pair.

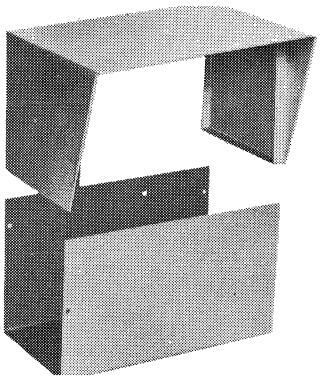
COWL-TYPE MINIBOXES

Bud Cowl-Type Minibox has a projecting cover which reduces glare on the panel from overhead lighting. It also provides protection for controls and dials.

Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy rigid housing.

Fabricated of .040 aluminum and furnished natural or with light hammertone gray finish.





Cat. No. Painted	Net.	Cat. No. Natural	Net	Overall Dimensions When Assembled Height	Width	Depth	Base Dimensions Height	Width	Depth
SC-2130	$5.95	SC-3030	$4.30	6"	10"	7"	5 61/64"	9 13/16"	5 3/16"
SC-2131	6.50	SC-3031	4.70	7"	12"	8"	6 61/64"	11 13/16"	5 59/64"
SC-2132	3.45	SC-3032	2.45	3"	8"	5"	2 61/64"	7 13/16"	3 63/64"
SC-2133	3.60	SC-3033	2.60	5"	5"	5"	4 61/64"	4 13/16"	3 29/64"

Prices subject to change without notice. Only a few of many BUD Products are shown. Write for complete catalog.

BUD RADIO PAGE 8

CALIFORNIA *Chassis* COMPANY

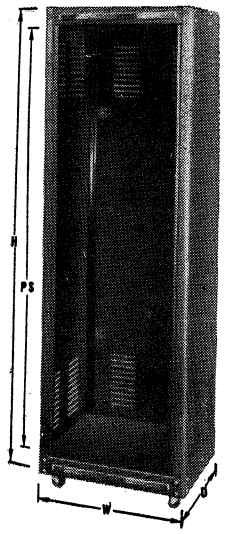
CABINET RACKS

These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32″ screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.

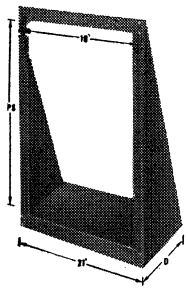
All standard 19″ panels RETMA, Western Electric or Amateur will fit these racks.

Double rows of louvres side and rear give ample ventilation.

Finish is black wrinkle, gray wrinkle or silver hammertone. Black will be furnished unless specified otherwise.



NO. CAT.	PANEL SPACE	HEIGHT	WIDTH	DEPTH	DEPTH INSIDE CLEAR.	SHIP. WT. LBS.	Net Price
CR-36	36¾	42	22	17	15½	90	47.21
CR-42	42	47¼	22	17	15½	96	53.36
CR-61	61¼	66½	22	17	15½	120	66.86
CR-77	77	82¼	22	17	15½	145	80.05
CRD-36	36¾	42	22	24	22½	99	66.86
CRD-42	42	47¼	22	24	22½	105	79.17
CRD-61	61¼	66½	22	24	22½	133	94.81
CRD-77	77	82¼	22	24	22½	160	133.97



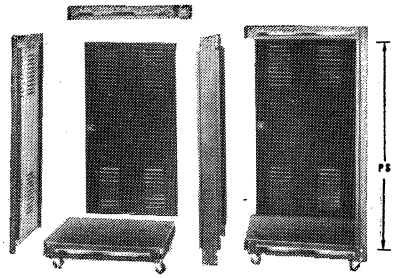
DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32″.

Cat. No.	Panel Space	Overall Height	Width	Depth	Ship. Wt.	Net Price
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92

MULTI RACK SERIES

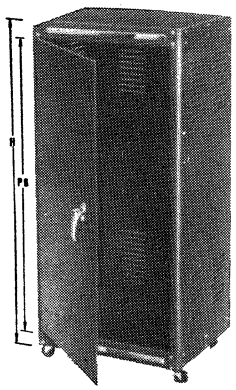


With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors are black rwinkle, gray wrinkle or gray hammertone.

CATALOG NO.	PANEL SPACE	FITS RACK	SHPG. WT.	NET PRICE
MR-36	36¾	CR-36	75	46.33
MR-42	42	CR-42	80	51.22
MR-61	61¼	CR-61	100	63.73
MR-77	77	CR-77	118	78.29

FRONT DOOR RACKS

This deluxe rack series has, in addition to the rear door, a front door which completely encloses the panels. Rack strips may be moved towards the rear of the rack to allow space for meters, switches, etc. Rack strips are punched with universal spacing, and tapped 10/32″. Casters, TC-10, fit to base of rack, but are not included in price. Finish is black wrinkle (B), Graw wrinkle (G), or gray hammertone (GH). Black wrinkle shipped if no color is specified.



CATALOG NO.	HEIGHT	PANEL SPACE	SHPG. WT.	NET PRICE
FDR-36	42	36¾	102	67.80
FDR-42	47¼	42	118	75.94
FDR-61	66½	61¼	152	98.04

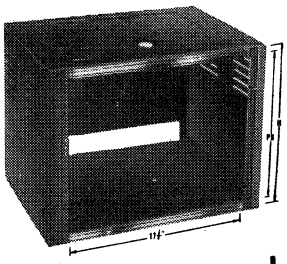
DESK CABINET RACKS

This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.

Cabinets have universal punching, accommodating W. E.; RETMA; or Amateur notched panels. Unit is made from 16 ga. steel, hav niga 2″ opening on bottom rear for ventilation in addition to side louvers.

The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.

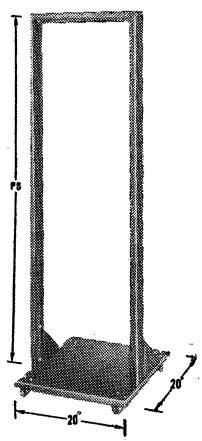
All models clear 14½″ inside depth — Outside width is 21½″. Black wrinkle is standard. If gray wrinkle or gray hammertone is desired please specify. No additional charge.



CATALOG NO.	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
DCR-7	7	8 15/16	25	17.14
DCR-8	8¾	10 1/16	27	17.49
DCR-10	10½	12 7/16	29	20.01
DCR-12	12¼	14 3/16	31	21.06
DCR-14	14	15 15/16	33	22.97
DCR-17	17½	19 7/16	37	27.37
DCR-21	21	22 15/16	39	29.33
DCR-26	26¼	28 3/16	47	31.47
DCR-31	31½	33 7/16	51	33.42
DCR-35	35	36 15/16	58	35.19

OR SERIES

These open racks are constructed so the uppermost panel mounts at the top of the ⅛″ steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32″. Two brackets of ⅛″ steel bind the uprights and a chassis like base into one solid unit.



CATALOG NO.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
OR-31	31½	32¾	27	22.76
OR-36	36¾	38	28	22.97
OR-42	42	43¼	30	24.63
OR-61	61¼	62½	37	25.45
OR-66	66½	67¾	39	25.96
OR-71	71¾	73	41	26.88
OR-77	77	78¼	42	31.28

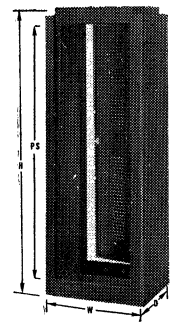
SOLID WELDED RACKS

These neat all welded solid racks are constructed entirely of 16 gauge steel.

Panel mounting strips are ⅛″ steel punched to accept all standard panels and tapped for 10-32 screws.

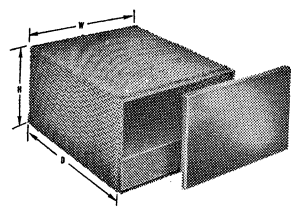
Panel mounting screws are concealed by swinging rounded corner trims. These can be removed but normally are pulled forward and swung out to give access to the panel mounting screws. This eliminates usual assembly and disassembly problems encountered. Entire bottom of the unit is flush with the floor.

Below rear door are three ⅞″ diameter knockouts to accept ½″ conduit.



Cat. No.	Panel Space	H	W	D	Depth Inside Clear.	Open. Rear Clear.	Wt	Net Price
WSR-42	42	50⅜	23 13/16	18 11/16	17⅛	19⅝	138	
WSR-61	61¼	69⅝	23 13/16	18 11/16	17⅛	19⅝	150	135.83

LOW TEMPERATURE CABINETS



This cabinet made of perforated metal with 3/32 holes on 3/16 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis.

Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

Catalog Number	Cabinet Size H	W	D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4½	7 3/16	9 3/16	4½x 7¼	6 15/16x 8 15/16x1½	⅞x4	6.97
LTC-464	4½	9 3/16	7 3/16	4½x 9 3/16	8 15/16x 6 15/16x1½	⅞x5	6.97
LTC-469	5 11/16	8¾	x11 3/16	5⅝x 8¾	8 7/16x10 15/16x2	1½x5	7.82
LTC-470	5 11/16	x11 3/16	x 8 11/16	5⅝x11 3/16	10 15/16x 8 7/16x2	1½x6	7.82

CALIFORNIA CHASSIS CO. — Lynwood, California

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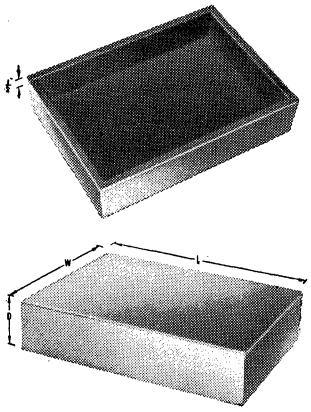
CALIFORNIA *Chassis* COMPANY



STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.

Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½	4½	1	18	¼	1.12
A-135	3½	4½	1	18	¼	1.22
A-136	3½	5½	1	18	¼	1.22
A-137	4	6	1½	18	¼	1.34
A-155	4	6	2	18	¼	1.22
A-149	4	6	3	18	¼	1.31
A-138	4	5	2	18	⅜	1.38
A-121	5½	5½	1	18	¼	1.45
A-101	5	7	2	18	⅜	1.22
A-150	5	7	3	18	⅜	1.39
A-147	4	8	2	18	⅜	1.63
A-119	4½	8	1½	18	⅜	1.31
A-122	5	9	1½	18	⅜	1.39
A-102	5	9½	2½	18	⅜	1.51
A-120	6	8	2	18	¾	1.68
A-103	5	10	3	18	½	1.82
A-104	7	7	2	18	½	1.36
A-105	7	9	2	18	¾	1.63
A-113	7	11	2	18	¾	1.77
A-106	8	10	2½	18	1	2.48
A-151	6	14	3	18	1	2.75
A-114	7	13	2	18	¾	1.87
A-139	5	13	3	18	¾	1.84
A-107	8	12	2½	18	1	2.77
A-117	7	12	3	18	1	1.96
A-124	8	12	3	18	1	2.33
A-108	10	12	3	18	1¼	2.70
A-129	12	12	3	18	1½	3.28
A-115	10	14	3	18	1¼	3.18
A-130	7	15	3	18	1¼	2.62
A-125	9	15	3	18	1½	3.45
A-118	4	17	3	18	1	2.62
A-145	6	17	3	18	1¼	2.87
A-144	7	17	2	18	1	2.81
A-152	7	17	3	18	1½	3.08
A-109	8	17	2	18	1½	2.62
A-116	8	17	3	16	1½	2.87
A-140	10	17	2	16	2¼	2.99
A-110	10	17	3	16	2½	3.37
A-153	10	17	4	16	3	4.86
A-141	10	17	5	14	3¼	5.98
A-146	11	17	2	16	1½	3.71
A-128	11	17	3	14	2½	4.45
A-127	12	17	2	14	2¼	3.74
A-123	12	17	3	14	2½	4.57
A-126	13	17	2	14	2½	3.74
A-111	13	17	3	14	2¾	4.67
A-112	13	17	4	14	3¼	5.13
A-142	13	17	5	14	3½	6.55
A-133	14	17	3	14	3¼	5.24
A-131	15	17	4	14	3¾	6.21
A-148	15	17	6	14	4	8.04
A-132	10	23	3	16	2½	4.67
A-154	17	17	3	16	2½	6.73
A-143	17	17	4	14	4¼	7.11

ENTIRE LINE OF CHASSIS DUPLICATED IN STEEL.

USE PREFACE "C" INSTEAD OF "A" FOR PLATED STEEL CHASSIS.

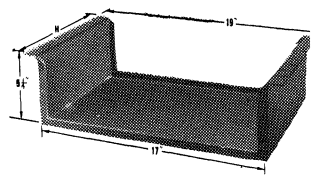
Special chassis made regardless of quantity using a set up charge of $3.60 plus cost of next larger chassis. Unless specified, all aluminum chassis are etched finish.

CHASSIS BOTTOM PLATES

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-134	2½x 4½	1 oz.	2 oz.	.48
BP-135	3½x 4½	2 oz.	¼ lb.	.48
BP-136	3½x 5½	2 oz.	¼ lb.	.56
BP-137	4 x 6	2 oz.	¼ lb.	.56
BP-138	4 x 5	2 oz.	¼ lb.	.63
BP-147	4 x 8	¼ lb.	½ lb.	.85
BP-121	5½x 5½	2 oz.	½ lb.	.70
BP-101	5 x 7	2 oz.	¼ lb.	.77
BP-119	4½x 8	¼ lb.	½ lb.	.70
BP-122	5 x 9	¼ lb.	½ lb.	.70
BP-102	5 x 9½	¼ lb.	½ lb.	.75
BP-120	6 x 8	¼ lb.	½ lb.	.85
BP-151	6 x14	½ lb.	1¼ lb.	1.04
BP-103	5 x10	¼ lb.	½ lb.	.60
BP-104	7 x 7	¼ lb.	½ lb.	.88
BP-105	7 x 9	¼ lb.	¾ lb.	.88
BP-113	7 x11	½ lb.	1 lb.	1.19
BP-106	8 x10	¼ lb.	¾ lb.	1.17
BP-139	5 x13	¼ lb.	½ lb.	.94
BP-114	7 x13	½ lb.	1 lb.	1.34
BP-107	8 x12	¾ lb.	1¼ lb.	1.50
BP-117	7 x12	½ lb.	1 lb.	.88
BP-108	10 x12	¾ lb.	1½ lb.	1.56
BP-129	12 x12	¾ lb.	1½ lb.	1.50
BP-115	10 x14	¾ lb.	2 lb.	1.39
BP-130	7 x15	½ lb.	1 lb.	.97
BP-125	9 x15	¾ lb.	1½ lb.	1.56
BP-118	4 x17	½ lb.	1 lb.	.85
BP-145	6 x17	½ lb.	1 lb.	1.41
BP-144	7 x17	½ lb.	1 lb.	1.36
BP-109	8 x17	½ lb.	1¾ lb.	1.53
BP-110	10 x17	¾ lb.	2½ lb.	1.60
BP-128	11 x17	1 lb.	2 lb.	1.60
BP-123	12 x17	1¼ l.b	3 lb.	1.87
BP-111	13 x17	1½ lb.	3¼ lb.	2.24
BP-133	14 x17	1½ lb.	3½ lb.	2.43
BP-131	15 x17	1½ lb.	3½ lb.	2.47
BP-143	17 x17	2 lb.	5 lb.	2.99
BP-132	10 x23	1½ lb.	3¼ lb.	2.24

Steel bottom plates may be supplied in either zinc plate or black enamel — aluminum is caustic etched. Actual size of BP is ⅛" under chassis size which is shown. This allows 1/16" of set back when attached to bottom of chassis.

PANEL CHASSIS

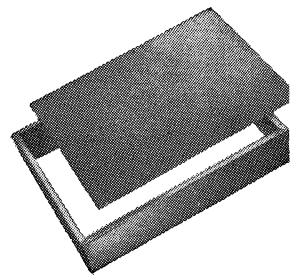


CAT. NO.	HEIGHT	WEIGHT	NET PRICE
PC-110	1¾	2 #	2.33
PC-111	3½	2¾	2.69
PC-112	5¼	4	2.96
PC-113	7	4½	3.47
PC-114	8¾	5¾	4.01
PC-115	10½	6¾	4.40
PC-116	12¼	7½	4.76
PC-117	14	8½	5.15

Larger Sizes On Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. 16 gauge zinc steel is standard. 14 gauge etched aluminum on request at no added cost.

REMOVABLE TOP CHASSIS



Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.55
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

TOPS ONLY FOR REMOVABLE TOP CHASSIS

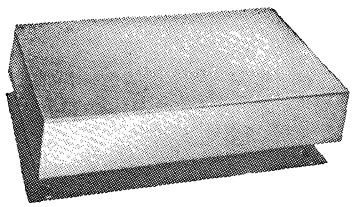
Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

Made From 16 Gauge Steel — Electro Zinc Finish

HEAVY DUTY CHASSIS 16 GAUGE STEEL

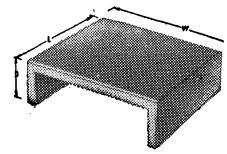
			Net Price
HD-109	6¾#	8x17x2	4.68
HD-116	7½	8x17x3	5.15
HD-110	8½	10x17x3	5.24
HD-146	8	11x17x2	5.19
HD-128	10	11x17x3	5.80
HD-126	9½	13x17x2	6.17
HD-111	11½	13x17x3	6.55
HD-112	12	13x17x4	7.48

Bottom Plates Included

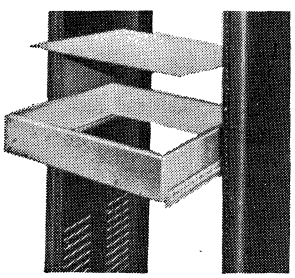


Cat. No.	Weight	W	L	D	Net Price
EC-1	1 #	7	x 6	x2	1.02
EC-2	¾	5	x 7	x1½	.97
EC-3	1	5½	x 9	x1½	1.12
EC-4	1¼	7½	x 9	x1½	1.39
EC-5	1½	7	x13	x1½	1.58
EC-6	2¼	7¾	x15	x2	1.68
EC-7	1	7	x 8	x2	1.16
EC-8	1¼	7	x10	x2	1.39

These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only



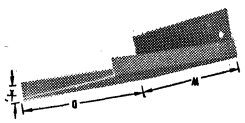
SLIDING DRAWER CHASSIS



The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19" rack. Brackets are ⅛" Aluminum. Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

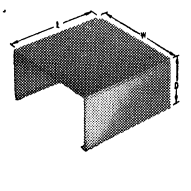
Cat. No.	Chassis Size	Brk. H	Wt.	Net Price
SD-399	16¾x14x3	6½"	6½#	$15.52

PLATFORM CHASSIS



These steel platforms are useful as variable level chassis simply by fastening to any side of a carrying case, utility box, etc. They may also be used as shields. Black enamel finish.

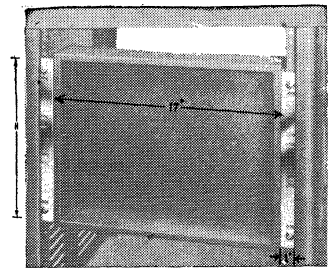
			Net Price
CD-260	4¾	5½	.70
CD-261	4¾	4½	.60
CD-262	5¾	5½	.82



MINIATURE ALUMINUM CHASSIS

These are small open end chassis for use where space is limited.

Catalog No.	Width	Length	Depth	Approx. Shpg. Wt.	Net Price
MA-210	2⅝	2¾	1¼	¼#	.39
MA-211	1¾	3⅛	1	¼	.43
MA-212	3¼	4½	2	¼	.49
MA-213	2¾	4⅛	1	¼	.46
MA-214	3¾	4⅛	1½	¼	.46
MA-215	3	6⅛	1¼	¼	.56



CHASSIS FLANGES

These 1" chassis flanges will convert any 17" chassis to a 19" panel rack chassis. Made of 16 gauge Zinc plated steel.

Catalog No.	Height	Shpg. Wt.	Net Price
CF-12	5¼	½#	.94
CF-13	7	½	1.00
CF-14	8¾	1	1.07
CF-15	10½	1	1.16
CF-16	12¼	1	1.22
CF-17	14	1	1.34

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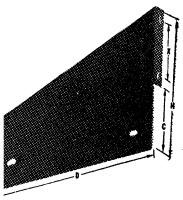
CALIFORNIA *Chassis* COMPANY

CHASSIS MOUNTING BRACKETS

To assure the proper support for a chassis a sturdy mounting bracket it uted. Flange is 5/8" inside dimension. Elongated hole 3/16" x 11/32" is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.



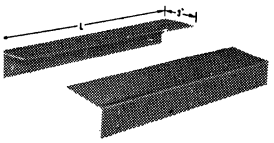
Black Enamel	Height	x	Depth	Clearance	Wt.	Net Price
E-58B	6½	2½	8	3 1/16	1¼	1.07
E-57B	6½	2½	9	3 1/16	1½	1.50
E-48B	6½	2½	10	3 1/16	1¾	1.34
E-59B	6½	2½	11	3 1/16	1¾	1.50
E-49B	6½	2½	12	3 1/16	1¾	1.75
E-60B	6½	2½	13	3 1/16	2	1.68
E-50B	8½	3½	10	4 1/16	2½	1.96
E-51B	8½	3½	13	4 1/16	3	2.09
E-52B	12	7	15	4 1/16	4½	3.09
E-53B	14	8	17	5 1/16	5¾	3.55

TRIANGULAR MOUNTING BRACKETS

Cat. No.	Height	Dimensions	Net Price
MB-55	½	5x5	1.02
MB-77	1½	7x7	1.19
MB-99	1¾	9x9	1.41

Steel — Black Enamel Only

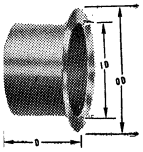
CHASSIS SUPPORT ANGLES



These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of 1/8" thick steel and are finished in black enamel only.

Cat. No.	Length	Width	Shpg. Lbs. Wt.	Price Net
CA-12	12	3	3	2.14
CA-14	14½	3	4	2.24

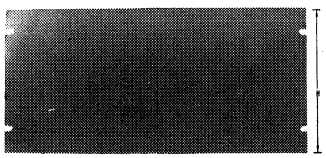
METER SHIELD



This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Furnished with no holes and in natural finish only.

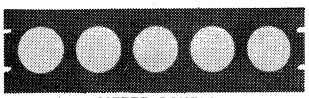
Catalog Number	L	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2 7/8	2	1.75
MSA-3	2	2-25/32	3¾	3	1.75

RELAY RACK PANELS



Regular panels are made from 1/8" steel or aluminum material. Aluminum is 1100 H 14. Notching is either Western Electric (WE) or Amateur (A). Finish Black or Gray Wrinkle or Silver Gray Hammertone. Aluminum is standard and will be sent unless steel is specified. Panels in any material will be furnished 24" wide instead of 19" wide at twice the cost.

Notching Western Electric	Amateur	Height	Width	Wt. Alum.	Wt. Steel	Steel Price Net
PW-10	PA-10	1¾	19	½	1¼	.87
PW-11	PA-11	3½	19	¾	2¼	1.00
PW-12	PA-12	5¼	19	1¼	4	1.34
PW-13	PA-13	7	19	1½	4¾	1.51
PW-14	PA-14	8¾	19	2	6	1.89
PW-15	PA-15	10½	19	2½	6¾	2.16
PW-16	PA-16	12¼	19	3	8¾	2.53
PW-17	PA-17	14	19	3½	9¾	2.96
PW-18	PA-18	15¾	19	4	10¾	3.28
PW-19	PA-19	17½	19	4½	12	3.74
PW-20	PA-20	19¼	19	5	13	4.13
PW-21	PA-21	21	19	5½	15¾	4.57
PW-22	PA-22	24½	19	6	18½	7.00
PW-23		26¼	19	7	20¼	7.75



METER PANELS

All panels are 5¼" x 19" x 1/8" steel or aluminum, black or grey wrinkle — designed to handle either 2" or 3" meters. All units Western Electric notch.

ALUMINUM

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPA-32	1	3	2 3/16	2.69
MPA-52	1¼	5	2 3/16	3.13
MPA-33	1⅛	3	2 13/16	2.69
MPA-53	1	5	2 13/16	3.13

STEEL

Cat. No.	Wt.	No. Holes	Dia.	Net Price
MPS-32	3	3	2 3/16	1.94
MPS-52	2¾	5	2 3/16	2.55
MPS-33	3½	3	2 13/16	1.94
MPS-53	3	5	2 13/16	2.55

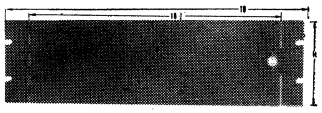
Small holes are for 2" meters, larger holes are for 3" meters.

HARD ALUMINUM PANELS

Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1¾	19	½	1.63
PWHA-11	3½	19	¾	2.06
PWHA-12	5¼	19	1¼	2.72
PWHA-13	7	19	1½	3.32
PWHA-14	8¾	19	2½	3.93
PWHA-15	10½	19	2½	4.59
PWHA-16	12¼	19	3	5.25
PWHA-17	14	19	3½	6.07
PWHA-18	15¾	19	4	6.78
PWHA-19	17½	19	4½	7.48
PWHA-20	19¼	19	5	8.18
PWHA-21	21	19	5½	8.87
PWHA-22	24½	19	6	10.73
PWHA-23	26¼	19	7	11.68

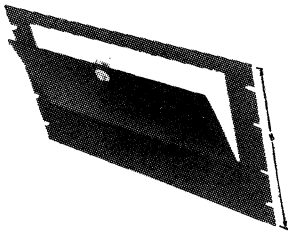
These 1/8" panels are recommended for high quality work. They are 2024T3 aluminum. Notching is Western Electric, but Amateur on request at no added cost. We also carry a complete line of 3/16" or .188 panels. These are all 2024T3.

SIDE HINGED PANELS



Cat. No.	Height	Wt.	Net Price
SH-12	5¼	4¼	3.66
SH-13	7	5½	3.94
SH-14	8¾	6¾	4.23
SH-15	10½	7¼	4.56
SH-16	12¼	8¾	4.91

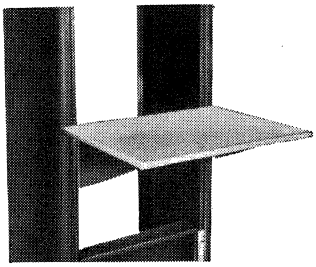
FRONT HINGED DOOR PANEL



This door gives access to the chassis top. It is free moving and has a substantial catch. Made of 1/8" steel. Please specify finish.

Cat. No.	Height	Door	Net Price
FH-430	10½	6 x15⅜	6.07
FH-432	12¼	7½x15⅜	7.48

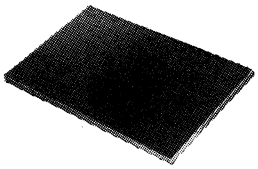
EXTERIOR RACK SHELVES



The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting 1/8" steel brackets. All hardware included.

Cat No.	Shelf Size	Wt.	Net Price
ER-416	16x22	12	11.66
ER-420	20x22	15	11.83

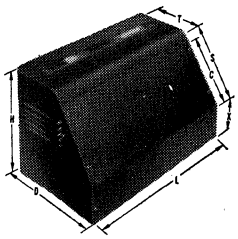
INTERIOR RACK SHELVES



These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modulator units, power supplies etc. Finish black enamel.

Cat. No.	Size	Shpg. Wt.	Price Net
RS-512	12x19	5½	2.64
RS-515	15x19	6½	3.47

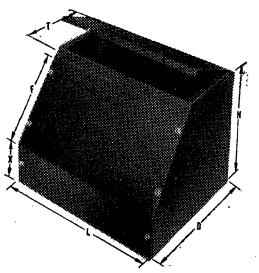
SLOPING FRONT CABINETS



These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle finish.

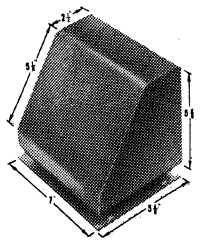
Catalog No.	D	H	L	T	X	S	Use This Chassis C	Net Price
SFC-42	8	8	8	4¼	2¾	6	5¼ C-104	5.19
SFC-44	8	8	10	4¼	2¾	6	5¼ C-105	7.29
SFC-46	8	8	14	4¼	2¾	6	5¼ C-114	8.79
SFC-48	12	12	18	6	3⅛	10⅜	9½ C-110	11.78

HINGED TOP SLOPING CABINET



This cabinet provides for a complete opening of top and front. Bottom has embossed feet. Rear has opening for connectors. Black wrinkle or Gray hammertone finishes.

ENCLOSED METER CABINET



Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Gray wrinkle unless other color specified. Available in black wrinkle, silver gray hammertone at no additional cost. Steel or Aluminum.

Catalog No. EMC-2

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

Net

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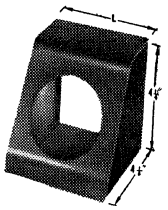
CALIFORNIA *Chassis* COMPANY

METER CABINETS

Meter Size			Aluminum Cat. No.	Net Price		Gray Hammertone Cat. No.	Wt. Lbs.	Net Price
2″	4	″	MC-2	1.43	½	SMC-2	1½	1.12
3″	4	″	MC-3	1.43	½	SMC-3	1½	1.12
No Holes	4	″	MC-4	1.43	½	SMC-4	1½	1.12
2″	4	″	MC-6*	1.43	½	SMC-6*	1½	1.12
3″	4	″	MC-7*	1.43	½	SMC-7*	1½	1.12
No Holes	7½″		MC-8	2.06	¾	SMC-8	2¼	1.87
3″	6	″	HAC-MC-7*	2.06	¾			

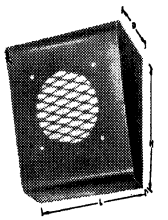
* Indicates it has two ½″ holes on ¾″ centers at top of cabinet for insulators. 2″ meter hole is 2³⁄₁₆″. 3″ meter hole is 2¹³⁄₁₆″.



WALL SPEAKER CASES

These all metal cases have keyslotted holes on the rear for easy mounting. They are also provided with embossed feet on one side. Finish is gray hammertone for ease of cleaning.

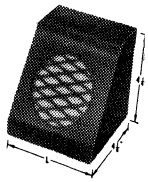
Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Price Net
WS-304	4	3½	7½	6½	4¼	1¾	3.20
WS-305	5	4	1⁄27	6½	4¼	1¾	3.37
WS-306	6	4¾	9½	8	5⅝	3	3.81
WS-308	8	6½	11½	9½	7	4	4.68
WS-310	10	8½	13½	11½	8¼	5	5.88
WS-312	12	10½	15½	13½	9¾	6	7.38



MINIATURE SPEAKER CABINETS

These small meter cabinets are like the MC series except the meter hole is covered by an expanded metal shield. Furnished in steel only. Black wrinkle standard.

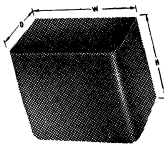
Catalog No.	Length	Meter Size	Wt. Lbs.	Net Price
MS-261	4″	2″	¾	1.77
MS-262	4″	3″	¾	1.77

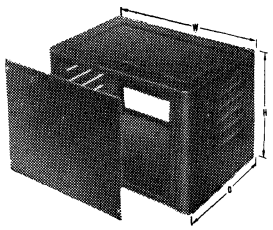


STREAMLINED MINIATURE CABINETS

This miniature steel cabinet has a radiussed face. The base has four embossed feet. There rear is open except for a ¼″ flange down two sides. This gives rigidity as well as a place to attach a back cover. Gray wrinkle standard.

Catalog No.	H	W	D	Wt.	Net Price
SM-271	4½	5½	3½	1 #	1.90
SM-272	6½	5½	3½	1½	1.96

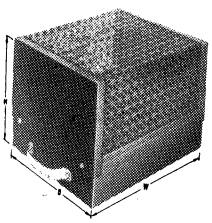




DELUXE AMPLIFIER FOUNDATION

This foundation is used where the chassis must be covered and appearance is important. Material is steel, finish is black wrinkle. Gray hammertone at no extra cost. Use suffix B or GH.

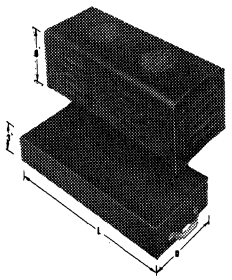
Cat. No.	Length	Depth	Wt.	Net Price
DA-420	10	5	4½	6.82
DA-421	12	7	5	8.04
DA-422	17	7	8	8.50
DA-423	17	10	9	9.25



STREAMLINED INSTRUMENT CABINET

Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.

Catalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x 8	8	10½	8¼	5¾	4.37
SC-32	8x10	8	12½	8¼	6	5.42
SC-33	8x12	8	14½	8¼	6½	5.88
SC-34	8x14	8	16½	8¼	7	6.17
SC-35	8x16	8	18½	8¼	7¾	6.77
SC-36	12x18	12	20½	12	15	12.17



AMPLIFIER FOUNDATIONS

These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package. Black wrinkle standard.

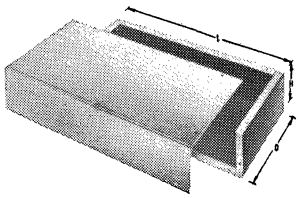
Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	Net Price
AF-240*	6	7⅜	5⅛	2	2	4.49
AF-241	8 5⁄16	9⅝	5⅛	2½	3	5.61
AF-242	8 5⁄16	13⅝	5⅛	2½	4⅜	6.43
AF-243	8 5⁄16	17⅛	7⅛	2½	6	7.29
AF-244	8 13⁄16	17⅛	10⅛	3	8	10.01

* Has one handle only — at top.

UTILITY BOX — REMOVABLE COVER

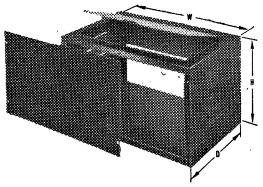
This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed.

Cat. No.	D	L	H	Net Price
HA-10	3x	4	x1½	1.50
HA-11	4x	5	x2	1.96
HA-12	4x	8	x2	2.14
HA-13	5x	9½	x2½	2.33
HA-14	6x	12	x2½	2.62
HA 15	7x	15	x2½	3.55



INSTRUMENT CABINETS

This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners gives more inside room. The rear has a 3½″ opening for ventilation plus louvers at each end. The open end chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.

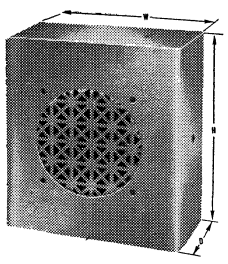


Cat. No.	H	W	D	Ship. Wt.	Net Price
HTC-342	7	8	8	5	3.77
HTC-343	7	10	8	5½	4.86
HTC-344	7	12	8	5¾	5.13
HTC-345	7	14	8	6	5.51
HTC-346	8	16	8	7	7.58
HTC-347	9	15	11	8	7.75
HTC-348	12	18	12	14½	11.12

UNIVERSAL SPEAKER HOUSING—This versatile unit can be screwed to the wall or mounted directly to an outlet box. If greater adjustability is desired a yoke or "U" shaped speaker bracket, one of the USHB series, can be used.

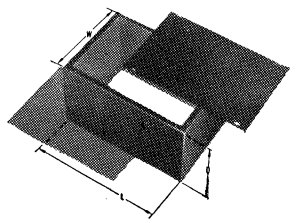
Speaker openings face front and back for bilateral sound projection. This makes them very adaptable for use in halls or auditoriums. Being of steel they do not weather and are easy to clean. Interior is coated with a sound deadening material. Finish is silver gray hammertone.

Cat. No.	Speak. Size	H	L	D	Wt.	Price Net
USH-534	4 or 5	7¼	6¾	3½	2½	5.51
USH-535	5 or 6	8¼	7½	4	2¾	5.98
USH-536	6 or 8	10⁹⁄₁₆	9½	5	4½	9.62
USH-540	10 or 12	15	13½	7⅞₂	9	13.09



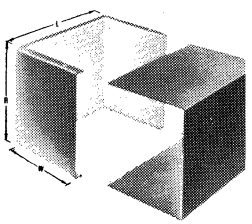
METAL UTILITY CABINETS

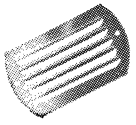
Catalog No.	Wt. Stl.	D	W	L	Wt. Alm.	Painted Alum.
CAB-1	¾	2″	4″	4″	⅜	1.68
CAB-2	1	3″	5″	4″	½	1.87
CAB-3	1½	4″	5″	6″	¾	2.14
CAB-4	2½	6″	6″	6″	1	2.53
CAB-5	3¼	5″	6″	9″	1¼	3.09
CAB-6	4¾	7″	8″	10″	2	3.76
CAB-7	5	6″	7″	12″	2	3.76
CAB-8	6	8″	10″	10″	2½	4.91
CAB-9	7	8″	11″	12″	2¾	5.90
CAB-10	7	7″	9″	15″	2¾	6.82



MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L	H	W
M-51	.83	M-81	.61	2¾x	2⅛x	1⅝
M-52	.95	M-82	.85	2¾x	2⅛x	2¾
M-53	1.04	M-83	.66	3¼x	2⅛x	1⅛
M-54	.88	M-84	.61	3¼x	2⅛x	1⅝
M-55	.92	M-85	.65	4	x2⅛x	1⅝
M-56	1.00	M-86	.83	4	x2¼x	2¼
M-57	1.16	M-87	.83	4	x2	x2¾
M-58	1.17	M-88	.87	4¼x	2¼x	1½
M-59	1.21	M-89	.90	5	x2¼x	2¼
M-60	1.29	M-90	.99	5	x4	x3
M-61	1.14	M-91	.97	5¼x	3	x2⅛
M-62	1.85	M-92	1.28	6	x5	x4
M-63	1.89	M-93	1.34	7	x5	x3
M-64	2.28	M-94	2.02	8	x6	x3½
M-65	1.41	M-95	1.28	10	x2	x1⅝
M-66	2.79	M-96	2.21	10	x6	x3½
M-67	1.62	M-97	1.24	12	x2½	x2¼
M-68	3.30	M-98	1.97	12	x7	x4
M-69	3.88	M-99	3.28	17	x5	x4





CHROME VENTILATING LOUVER

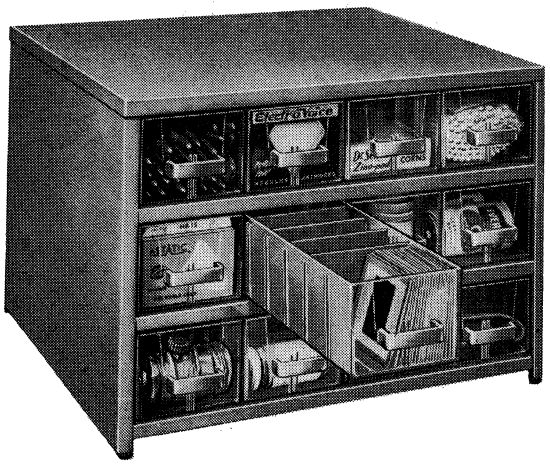
These are made of stainless st with a high polish finish. They our sloping face cabinets but be adopted to any unit. They behind a 2x4⅜ rectangular h and mount on 4-27/32 centers. S pair with screws.

Catalog No. TRM-40 .78

CALIFORNIA CHASSIS CO. — Lynwood, California

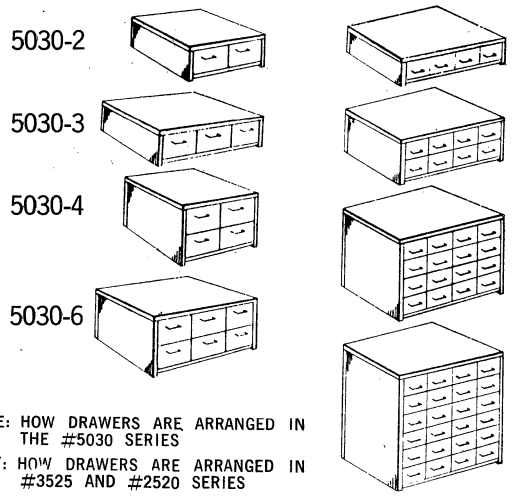
"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

NEW "Mr. JIFFY" CABINETS are LONGER, WIDER, DEEPER



STURDY STEEL FRAMES, GRAY BAKED ENAMEL FINISH; CLEAR DRAWERS TO IDENTIFY CONTENTS INSTANTLY

All drawers are 11" long available in three sizes . . . (5" x 3", 3½" x 2½" and 2½" x 2") Mr. Jiffy Cabinets fit nicely on standard shelving or stand solidly on counters for constant service.



ABOVE: HOW DRAWERS ARE ARRANGED IN THE #5030 SERIES
RIGHT: HOW DRAWERS ARE ARRANGED IN #3525 AND #2520 SERIES

MISTER JIFFY
5030 SERIES: All Drawers Size 5" wide x 3" high x 11" deep

Order Stock No.		Cabinets Overall Wide	Deep	High	Weight	List Price
5030-2	2 Drawers	11⅝"	11⅛"	4½"	5½ lbs.	$ 6.00
5030-3	3 Drawers	17⅛"	11⅛"	4½"	6¾ lbs.	8.00
5030-4	4 Drawers	11⅝"	11⅛"	8¼"	9 lbs.	10.00
5030-6	6 Drawers	17⅛"	11⅛"	8¼"	12 lbs.	14.00

MISTER JIFFY
3525 SERIES: All Drawers Size 3½" wide x 2½" high x 11" deep

3525-4	4 Drawers	14⅝"	11⅛"	3¾"	5¾ lbs.	$ 7.50
3525-8	8 Drawers	14⅝"	11⅛"	7"	10½ lbs.	11.00
3525-16	16 Drawers	14⅝"	11⅛"	13¼"	18½ lbs.	20.00
3525-24	24 Drawers	14⅝"	11⅛"	19½"	25 lbs.	30.00

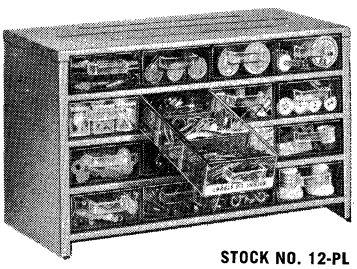
MISTER JIFFY
2520 SERIES: All Drawers Size 2½" wide x 2" high x 11" deep

2520-4	4 Drawers	12¼"	11⅛"	3¼"	4½ lbs.	$ 6.00
2520-8	8 Drawers	12¼"	11⅛"	6"	7½ lbs.	9.00
2520-16	16 Drawers	12¼"	11⅛"	11¼"	15 lbs.	16.00
2520-24	24 Drawers	12¼"	11⅛"	16½"	20 lbs.	23.00

MAXIMUM INNER COMPARTMENTS POSSIBLE PER DRAWER—TEN. INDEX LABELS AND TWO DIVIDERS SUPPLIED FOR EACH DRAWER. RUBBER FEET SUPPLIED.

THE ORIGINAL CABINETS FOR SMALL PARTS . . .

JIFFY "UTILITY" CABINETS



STOCK NO. 12-PL

INCREASED VISIBILITY! LOSS-PROOF, DIRT-PROOF INDEX LABELS FIT INSIDE AT DRAWER BOTTOM

RUBBER TIP FEET PREVENT SCRATCHES, INCREASE STABILITY AND STACKING

METAL FRAMES GRAY BAKED ENAMEL CRYSTAL CLEAR "SEE-THRU" DRAWERS

ALL UTILITY CABINETS ARE 6" DEEP, 12½" WIDE

NOTE: All Jiffy Cabinets listed on this page are standard stock sizes but nearly unlimited other sizes of cabinets are available using stock size drawers.

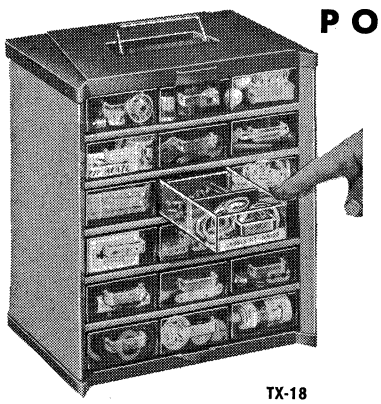
ONE PIECE BACK IS PUNCHED FOR WALL HANGING OR PEGBOARD

REMOVABLE DIVIDERS FURNISHED TO MAKE 3 BINS IN EACH DRAWER

DRAWER SIZE
5¾ x 2⅞ x 1¼

Order Stock No.	Drawers	Compartments	Cabinet Height	Weight	List Price
12-PL	12	36	5¾"	4½ lbs.	$ 5.00
16-PL	16	48	7⅜"	5 lbs.	6.00
20-PL	20	60	9"	6½ lbs.	7.25
24-PL	24	72	10½"	7½ lbs.	8.00
32-PL	32	96	13¾"	10½ lbs.	11.50
48-PL	48	144	20¼"	15 lbs.	16.00

PORTABLE JIFFY CABINETS

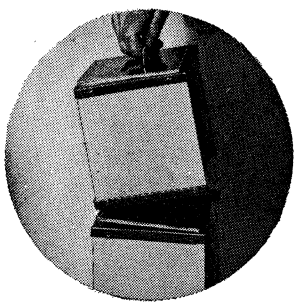


TX-18

Jiffy TRIPLEX Series . . . Steel sides and back are enameled Light Gray; high impact plastic tops and bottoms of Dark Gray. Drawers same as utility (above).

TRIPLEX CABINETS ARE 6⅝" DEEP, 9¾" WIDE OVERALL				
TX-12	12	7½"	4 lbs.	$4.50
TX-15	15	9"	4½ lbs.	5.25
TX-18	18	10½"	5½ lbs.	6.00
TX-21	21	12¼"	6½ lbs.	6.75
TX-24	24	13¾"	7 lbs.	7.50
TX-30	30	17"	9 lbs.	9.00

DRAWERS TILT BACKWARD TO AVOID SPILLING



STACKABLE . . . ADD MORE UNITS AS DESIRED

CAMPRO PRODUCTS, Inc.

CANTON, OHIO

THE ORIGINATORS OF SMALL PARTS STORAGE CABINETS. WRITE OR PHONE FOR ELECTRONIC PARTS JOBBER OR SOURCE OF SUPPLY NEAREST YOU.

Trade Discount Applies to List Prices Only
© U.C.P., Inc.

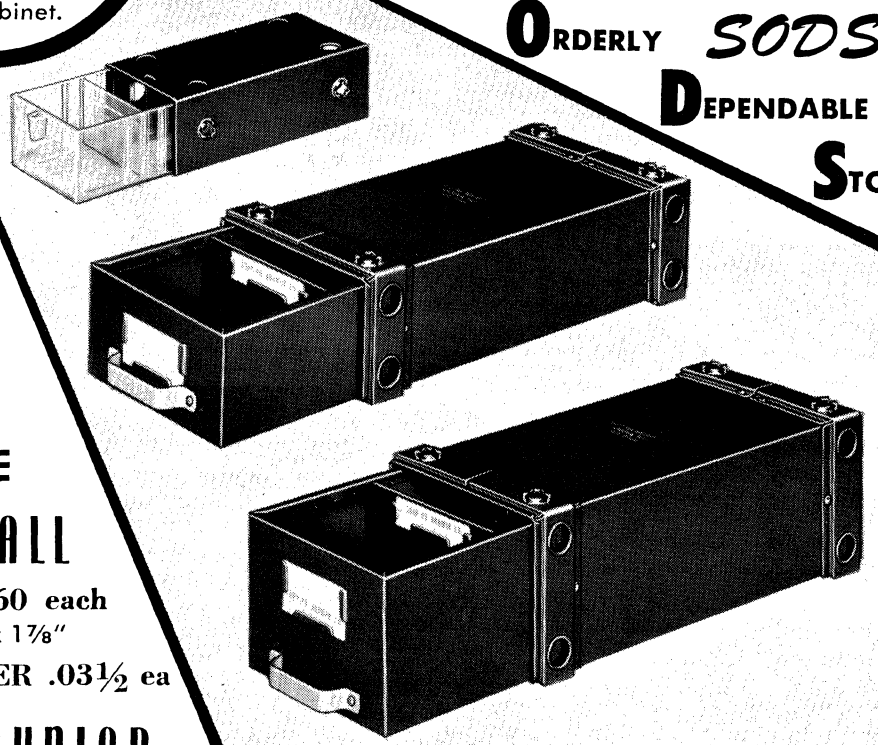
HAKE PRODUCTS, INC.

CINCINNATI OHIO

The sturdy, steel shells of SODS snap together on sides, top and bottom, with duplicate shells to form a strong metal cabinet.

YOU make up your own Small Parts Cabinet to fit YOUR NEEDS

SYSTEMATIC with
ORDERLY SODS
DEPENDABLE
STORAGE



3 SIZES OF SODS AVAILABLE

No. 1 SMALL

SODS $ .60 each

6 1/16" x 3 1/8" x 1 7/8"

No. 1D DIVIDER .03½ ea

No. 2 JUNIOR

SODS . . $3.00 each

11 3/4" x 5 1/8" x 2 1/2"

inside measurement.

No. 2D DIVIDER .13½ each

No. 3 SENIOR

SODS . . $3.30 each

11 3/4" x 5 1/8" x 3 1/2"

inside measurement.

No. 3D DIVIDER .15 each

ONE DIVIDER INCLUDED IN PRICE OF EACH OF ABOVE DRAWERS. PRICES NET.

- **MODERN** Light weight, functional in design.
- **EFFICIENT** Parts are quickly, easily located.
- **PRACTICAL** You build to suit your needs.
- **SELECTIVE** You have a choice of three sizes.
- **ECONOMICAL** You buy only what you actually need.
- **CONVENIENT** When you need more room.
- **SO SIMPLE** Just add more SODS

SODS unique construction is patented—U. S. Pats. #2,482,174 and #2,569,236; they snap together on sides, top and bottom joining one drawer cabinet to another—buttons that *hold tight*, yet pry apart easily for rearrangement.

It's so easy to order from this catalog...

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The *Radio-Electronic* **MASTER**

L M B® Box Chassis

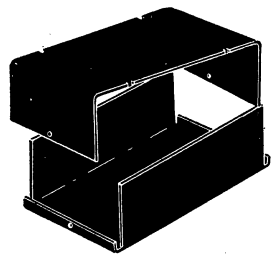
The Engineered Precision Line with Interlocking and Flangelocking Construction

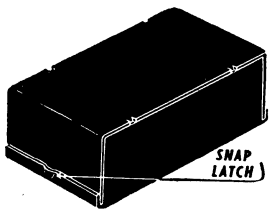
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B. Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammertone, and black crackle. When ordering specify style and color.

Aluminum used in all LMB products is aircraft quality specifications type 3003-H 14.

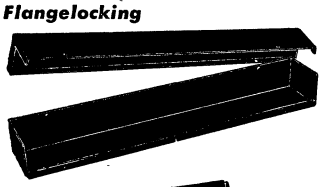
All prices quoted are dealer net. Manufacturers Special Discounts on Application.

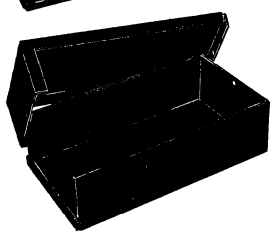
Interlocking





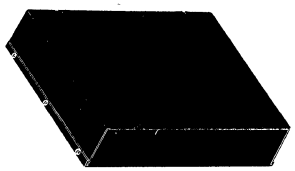
Flangelocking





Endlock

SLIDE COVER



SHIELDED CHASSIS

INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

Model	Size	Price	Model	Size	Price
M00	2¼″ x 1½″ x 1⅜″	.57	138	6¼″ x 3½″ x 2⅛″	1.32
00Z	2 5/16″ x 2⅛″ x 1¾″	.64	139	5½″ x 3″ x 1¼″	1.01
000	3¼″ x 2⅛″ x 1⅝″	.68	140PL	3″ x 4″ x 5″	1.29
00	4″ x 2⅛″ x 1⅝″	.71	140	3″ x 4″ x 5″	1.61
100	2¾″ x 2⅛″ x 2⅝″	.89	141PL	6″ x 4″ x 3″	1.44
101	4¼″ x 2¼″ x 1¼″	.87	141	6″ x 4″ x 3″	1.72
102	4″ x 2″ x 2¾″	1.02	142PL	6″ x 4″ x 5″	1.68
107	4″ x 2¼″ x 2¼″	.96	142	6″ x 4″ x 5″	2.11
108	5″ x 2¼″ x 2¼″	1.03	143	4″ x 4″ x 2″	1.33
135	3¾″ x 3″ x 2⅛″	.97	144	10″ x 4″ x 2½″	2.19
136	5¼″ x 3″ x 2⅛″	1.08	145	7″ x 5″ x 3″	2.11
650	6½″ x 2⅛″ x 1⅝″	1.05	146	8″ x 6″ x 4½″	2.99
137	8″ x 3″ x 2¾″	1.61	15	12″ x 2″ x 1¾″	1.61
850	8½″ x 2⅛″ x 1⅝″	1.35			

SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B. aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

Model	Size	Price	Model	Size	Price
221	2¾″ x 3⅛″ x 1⅝″	1.13	654	6″ x 5″ x 4″	2.51
321	3¼″ x 2⅛″ x 1⅝″	1.13	666	6″ x 6″ x 6″	3.39
421	4″ x 2⅛″ x 1⅝″	1.13	686	6″ x 8″ x 6″	4.27
422	4″ x 2¼″ x 2¼″	1.29	695	6″ x 9″ x 5″	3.84
424	4″ x 2″ x 4″	1.98	753	7″ x 5″ x 3″	2.60
435	4″ x 3″ x 5″	2.19	754	7″ x 5″ x 4″	2.76
444	4″ x 4″ x 4″	1.89	863	8″ x 6″ x 3½″	2.86
531	5¼″ x 3″ x 1½″	1.29	865	8″ x 6″ x 5″	3.57
532	5¼″ x 3″ x 2⅛″	1.47	1063	10″ x 6″ x 3½″	3.57
534	5⅝″ x 3″ x 4″	2.06	1085	10″ x 8″ x 5″	4.42
543	5″ x 4″ x 3″	1.87	1221	12″ x 2″ x 1¾″	1.87
546	5″ x 4″ x 6″	2.74	1274	12″ x 7″ x 4″	4.65
645	6″ x 4″ x 5″	2.60	1754	17″ x 5″ x 4″	5.27

SLIDE COVER (or dust cover) BOXES

Designed by BROADCAST ENGINEERS

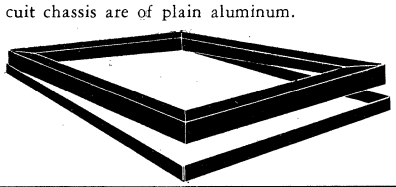
No.	L W H	Ea.	No.	L W H	Ea.
16—Natural Aluminum	13″ x 3⅛″ x 2⅝″	$1.85	18—Natural Aluminum	13″ x 5¼″ x 2⅝″	3.50
16—Gray, Black, Brown	13″ x 3⅛″ x 2⅝″	2.52	18—Gray, Black, Brown	13″ x 5¼″ x 2⅝″	4.30
17—Natural Aluminum	13″ x 4⅛″ x 2⅝″	3.18	19—Natural Aluminum	17″ x 3⅛″ x 2⅝″	3.35
17—Gray, Black, Brown	13″ x 4⅛″ x 2⅝″	3.95	19—Gray, Black, Brown	17″ x 3⅛″ x 2⅝″	4.15

SHIELDED CHASSIS

	L W H	Ea		L W H	Ea.
No. 20 Plain	7½″ x 7″ x 2″	$1.67	No. 21 Anodized	13″ x 10″ x 3″	$5.81
No. 20 Anodized	7½″ x 7″ x 2″	2.06	No. 22 Plain	17″ x 10″ x 3″	5.13
No. 21 Plain	13″ x 10″ x 3″	4.34	No. 22 Anodized	17″ x 10″ x 3″	6.67

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



STANDARD SIZES

Model No.	L W D	Mounting Lip	Price
PC 325	3 x 2 x ½	3/16″	ea. .70
PC 635	6 x 3 x ½	3/16″	ea. .80
PC 645	6 x 4 x ½	⅛″	ea. .91
PC 855	8 x 5 x ½	⅛″	ea. 1.04
PC 10875	10 x 8 x ¾	½″	ea. 1.52
PC 12975	12 x 9 x ¾	⅝″	ea. 1.76

Model No.	Size	Mounting Lip	Model No.	Size	Mounting Lip
D 7131	7 x 13 x 1	½″	D 541	5 x 4 x 1	½″
for use in building with the Danco model No. 14 printed amplifier circuit....ea. 1.17			for use in building with the Danco model No. 21, 31, 41 printed preamplifier circuit ....ea. $ .63		

PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

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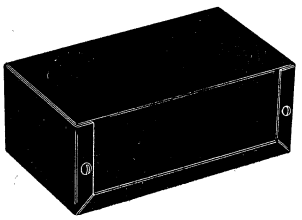
L M B® Box Chassis (Continued)

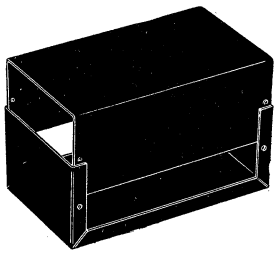
	Each	DEALER NET Plain	Gray, Black, Brown
T-F 770	2¾x2⅛x1⅝	$ .62	$ .81
T-F 771	2¾x2⅛x2¾	.68	.95
T-F 772	3¼x2⅛x1⅛	.62	.84
T-F 773	3½x2⅛x1⅝	.62	.84
T-F 774	4 x2⅛x1⅝	.62	.95
T-F 775	4 x2¼x2¼	.75	.97
T-F 776	4 x2 x2¾	.75	1.00
T-F 777	4¼x2¼x1½	.72	1.00
T-F 778	5 x2¼x2¼	.78	1.03
T-F 779	5 x4 x3	.94	1.32
T-F 780	5¼x3 x2⅛	.82	$1.12
T-F 781	6 x5 x4	1.47	1.83
T-F 782	7 x5 x3	1.40	1.86
T-F 783	8 x6 x3½	1.72	2.25
T-F 784	10 x6 x3½	2.02	2.54
T-F 785	10 x2 x1⅝	1.15	1.57
T-F 786	12 x2½x2¼	1.37	1.67
T-F 787	12 x7 x4	2.71	3.43
T-F 788	17 x5 x4	2.92	3.44

TITE-FIT BOX CHASSIS



	Each	PRICES Plain	Gray, Black, Brown
J-870	2¾x2⅛x1⅝	.62	$ .81
J-871	2¾x2⅛x2¾	.68	.95
J-872	3¼x2⅛x1⅛	.62	.84
J-873	3½x2⅛x1⅝	.62	.84
J-874	4 x2⅛x1⅝	.62	.95
J-875	4 x2¼x2¼	.75	.97
J-876	4 x2 x2¾	.75	1.00
J-877	4¼x2¼x1½	.72	1.00
J-878	5 x2¼x2¼	.78	1.03
J-879	5 x4 x3	.94	1.32
J-880	5¼x3 x2⅛	$ .82	$1.12
J-881	6 x5 x4	1.47	1.83
J-882	7 x5 x3	1.40	1.86
J-883	8 x6 x3½	1.72	2.25
J-884	10 x6 x3½	2.02	2.54
J-885	10 x2 x1⅝	1.15	1.57
J-886	12 x2½x2¼	1.37	1.67
J-887	12 x7 x4	2.71	3.43
J-888	17 x5 x4	2.92	3.44

JIFFY BOX CHASSIS



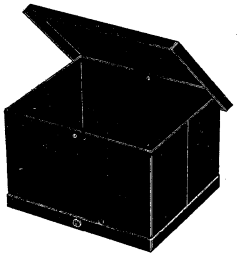
NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

		ALUM. GAUGE	Each	PRICES Plain	Gray, Black, or Brown
U-C 970	4x 4x2	.040		$1.57	$1.82
U-C 971	5x 4x3	.040		1.69	1.98
U-C 972	6x 5x4	.040		2.18	2.52
U-C 973	6x 6x6	.040		2.55	3.02
U-C 974	7x 5x3	.040		2.98	3.48
U-C 975	9x 6x5	.051		3.38	3.89
U-C 976	10x 8x7	.051		$4.63	$5.35
U-C 977	12x 7x6	.051		4.46	5.30
U-C 978	10x10x8	.051		5.90	6.85
U-C 979	12x11x8	.051		7.06	8.02
U-C 980	15x 9x7	.051		7.15	8.11

UTILITY BOXES

Give approximately 25% more usable spaces for building.



SIZES

No.	L	W	H
M-01	1⅛"	x 1"	x ½"
02	1"	x ⅞"	x ½"
*04	1¼"	x 1 3/32"	x ⅞"
*06	1½"	x 1⅛"	x ½"
07	1¾"	x 1"	x ¾"
*08	2¼"	x 1"	x 5/16"
* 09	2 5/16"	x 1"	x 3/8"
010	1¾"	x 1¼"	x ⅞"
011	2"	x 1¼"	x ¾"
*012	2"	x 1¼"	x 1"
*013	1¾"	x 1¼"	x 1"
014	1½"	x 1½"	x ¾"
*015	2"	x 1¾"	x ½"
016	2"	x 1¾"	x ¾"
017	2"	x 1¾"	x 1"
018	2"	x 2"	x 1¼"
*019	2½"	x 1¾"	x 5/16"
*020	1½"	x 1½"	x 1"
*021	2½"	x 1¾"	x ¾"
022	3⅛"	x 1¾"	x ½"

* Without Mounting Ears

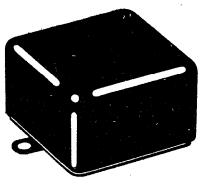
PRICES

	Plain	Plated
With Mounting Ears in Lots of 100 to 999 ea.	.49	.65
Without Mounting Ears 100 to 999 ea.	.41	.57

	Plain
Covers for LMB Miniature Boxes 100 to 999 ea.	.15

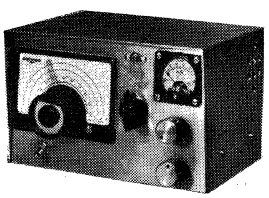
MINIATURE BOX CHASSIS

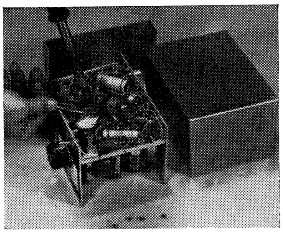
Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.



UTILITY ENCLOSURES

No.	L	W	H		Plain	Gray
W-1A	7"	x 5"	x 4½"	with built in chassis	$3.97	$4.84
W-1B	10"	x 4"	x 3½"	with built in chassis	3.97	4.84
W-1C	8½"	x 6⅛"	x 5"	with built in chassis	4.43	5.33
W-1D	18"	x 9"	x 11"	will accommodate an 11" x 17" 2", 3" or 4" chassis	9.75	13.13

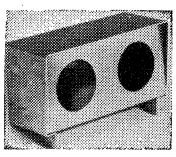


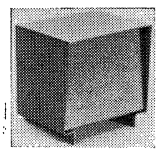


"AL-CAB" CABINETS for meter cases or any application where outstanding appearance is needed

No.	L	W	H		Plain	Gray
W-2AP	3½"	x 4"	x 3"	with holes	$1.88	$2.18
W-2A	3½"	x 4"	x 3½"	without holes	1.98	2.28
W-2B	3"	x 7"	x 3½"	with and without holes	2.25	2.67
W-2C	2⅜"	x 7"	x 3½"	without holes	2.93	3.36
W-2E	4½"	x 4½"	x 3½"	without holes	2.30	2.60

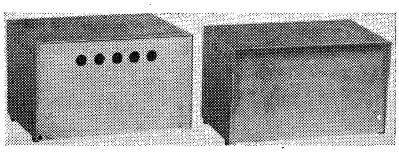
Holes in W-2AP, 2B are 2¼", 2 13/16". For 4" Meter holes and knockout, add 10% to above prices.





W.M. "AL-CAB" Deluxe Series All with Built-in Chassis

No.	D	W	H	Plain	Gray
W-2F	7½"	x 5"	x 4½"	$4.40	$5.18
W-2G	13"	x 10"	x 5¾"	9.36	11.06
W-2H	7"	x 11"	x 6¼"	7.38	8.63
W-2J	8"	x 11½"	x 7½"	8.10	9.35



PRICES SUBJECT TO CHANGE

Net

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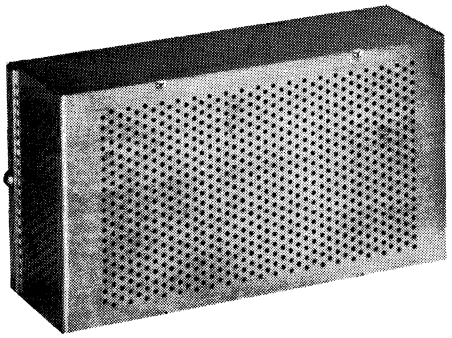
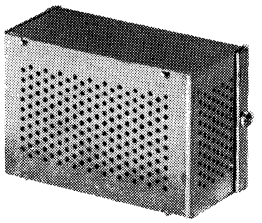


LMB PERFORATED BOX CHASSIS



LMB Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

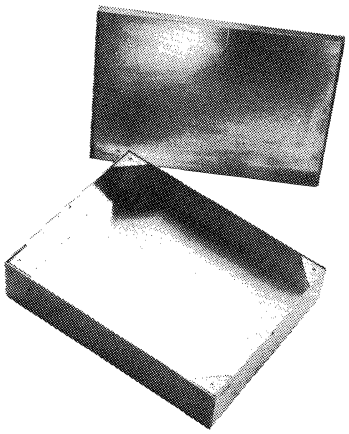
NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 5/16 x 2 1/8 x 1 3/4	$ .83
000	" "	3 1/4 x 2 1/8 x 1 5/8	.95
00	" "	4 x 2 1/8 x 1 5/8	1.02
100	" "	2 3/4 x 2 1/8 x 2 5/8	1.20
101	" "	4 1/4 x 2 1/4 x 1 1/4	1.12
102	" "	4 x 2 x 2 3/4	1.41
107	" "	4 x 2 1/4 x 2 1/4	1.09
108	" "	5 x 2 1/4 x 2 1/4	1.50
135	" "	3 3/4 x 3 x 2 1/8	1.36
136	" "	5 1/4 x 3 x 2 1/8	1.50
137	" "	8 x 3 x 2 3/4	2.14
138	Plain or Gray	6 1/4 x 3 1/2 x 2 1/8	$1.82
139	" "	5 1/2 x 3 x 1 1/4	1.36
140	" "	3 x 4 x 5	1.75
141	" "	6 x 4 x 3	1.88
142	" "	6 x 4 x 5	2.18
143	" "	4 x 4 x 2	1.40
144	" "	10 x 4 x 2 1/2	2.19
650	" "	6 1/2 x 2 1/8 x 1 5/8	1.41
850	" "	8 1/2 x 2 1/8 x 1 5/8	1.59
15	" "	12 x 2 x 1 3/4	1.79

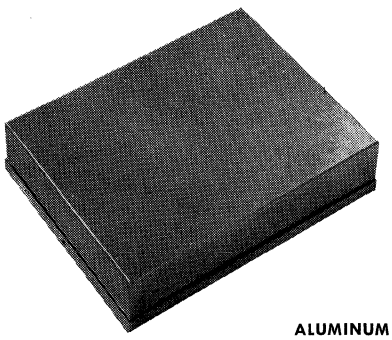
L M B PRESENTS SOMETHING NEW IN CHASSIS —

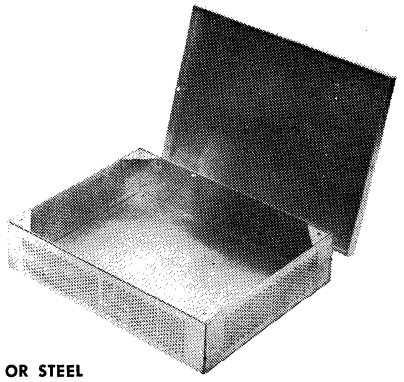
THE CHASSIS WITH THE CAP COVER AS ORIGINATED BY LMB

Built with the new original LMB popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum, Type 3003, H-14, the same material as is used in the construction of all LMB precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.

The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.







ALUMINUM OR STEEL

WITHOUT COVER				WITH CAP COVER			PERFORATED		
NO.	SIZE L W H	GUAGE	NET	NO.	L W H	NET	NO.	L W H	NET
572	5x 7x2	18	$1.17	572C	5x 7x2	$1.75	572P	5x 7x2	$2.05
573	5x 7x3	18	1.42	573C	5x 7x3	1.95	573P	5x 7x3	2.25
5952	5x9 1/2x2	18	1.25	5952C	5x9 1/2x2	1.85	5952P	5x9 1/2x2	2.15
5103	5x10x3	18	1.65	5103C	5x10x3	2.25	5103P	5x10x3	2.55
5133	5x13x3	18	1.85	5133C	5x13x3	2.50	5133P	5x13x3	2.80
6173	6x17x3	18	2.67	6173C	6x17x3	3.40	6173P	6x17x3	3.70
772	7x 7x2	18	1.35	772C	7x 7x2	1.90	772P	7x 7x2	2.20
792	7x 9x2	18	1.46	792C	7x 9x2	1.95	792P	7x 9x2	2.25
7112	7x11x2	18	1.58	7112C	7x11x2	2.30	7112P	7x11x2	2.60
7123	7x12x3	18	2.03	7123C	7x12x3	2.75	7123P	7x12x3	3.05
7153	7x15x3	18	2.67	7153C	7x15x3	3.60	7153P	7x15x3	3.90
7173	7x17x3	18	2.75	7173C	7x17x3	3.70	7173P	7x17x3	4.00
8123	8x12x3	18	2.42	8123C	8x12x3	3.23	8123P	8x12x3	3.53
8172	8x17x2	18	2.52	8172C	8x17x2	3.50	8172P	8x17x2	3.80
8173	8x17x3	16	2.95	8173C	8x17x3	4.50	8173P	8x17x3	4.80
10123	10x12x3	18	2.70	10123C	10x12x3	3.60	10123P	10x12x3	4.30
10143	10x14x3	18	2.95	10143C	10x14x3	4.30	10143P	10x14x3	4.70
10172	10x17x2	16	2.85	10172C	10x17x2	4.37	10172P	10x17x2	4.77
10173	10x17x3	16	3.40	10173C	10x17x3	5.18	10173P	10x17x3	5.98
10174	10x17x4	16	4.85	10174C	10x17x4	6.37	10174P	10x17x4	7.17
11173	11x17x3	14	4.20	11173C	11x17x3	6.60	11173P	11x17x3	7.10
12172	12x17x2	14	4.50	12172C	11x17x2	6.60	12172P	12x17x2	7.20
12173	12x17x3	14	4.60	12173C	12x17x3	6.90	12173P	12x17x3	7.50
13172	13x17x2	14	4.50	13172C	13x17x2	6.60	13172P	13x17x2	7.30
13173	13x17x3	14	4.80	13173C	13x17x3	6.90	13173P	13x17x3	7.50
13174	13x17x4	14	5.95	13174C	13x17x4	7.95	13174P	13x17x4	8.55

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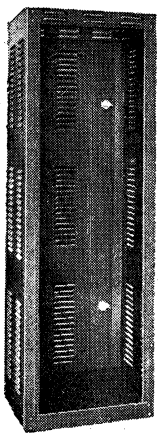
CABINETS CHASSIS CASES PANELS

MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

DE LUXE RELAY RACKS

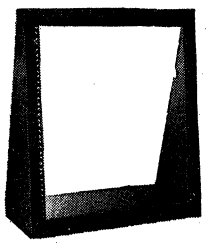


Middletown De Luxe Relay Racks are made of 16-gauge steel with ⅛" panel supports which are recessed so that edges of panels set flush. Standard 19" panels fit these racks. (See next page.)
Adequate ventilation is provided by louvres in the two sides, the door and in the top at front and back. Door is hung on sturdy hinges and has snap catches. Racks come with rigid, built-in caster supports. (Casters not included in price of rack.) Furnished in either black or grey wrinkle finish. Shipped knocked down with all necessary hardware.
Rack shelves and supporting angles to fit these Relay Racks are available. Information and prices on request.

Cat. No. (Black Wrinkle)	Overall Size H	W	D	Panel Size H	W
DRR 4236	42⅛	22	17¼	36¾	19
DRR 4742	47⅝	22	17¼	42	19
DRR 6661	66⅝	22	17¼	61¼	19
DRR 8277	82⅝	22	17¼	77	19

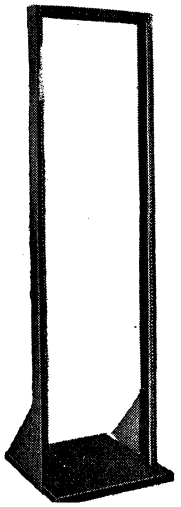
Note: When ordering grey wrinkle, add prefix "G" to catalog number. Dimensions in Inches.

OPEN-TYPE TABLE RELAY RACKS



For table mounting of power transmitters, P. A. systems and other radio and electronic apparatus. Rack is ruggedly constructed with strong base to accommodate heavy components. Drilled and tapped for conventional 19" wide panels which set in recess so that no edges are exposed. (See next page.)
Shipped knocked down with necessary hardware. Black wrinkle finish.

Catalog Number	Overall Size H	W	D	Panel Space H	W
TRR 31	31	21	12	28	19
TRR 24	24	21	12	21	19



OPEN-TYPE CHANNEL RELAY RACKS

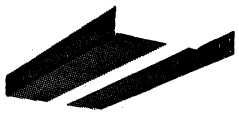
Sturdy construction with rigid supporting members and side angle braces make these racks perfectly suited to all heavy-duty assignments. Made of ⅛" steel channels, 3" deep. Held together with angle cross pieces of the same material. Chassis type base. Drilled and tapped to accommodate conventional 19" panels. (See next page.) Black wrinkle finish. Shipped knocked down with necessary hardware.

Cat. No.	Overall Size H	W	D	Panel Size H	W
OCR 35	35½	21	22	31½	19
OCR 70	70½	21	22	66½	19

Dimensions in inches

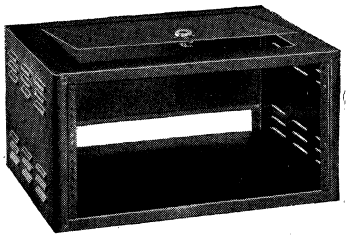
CASTERS

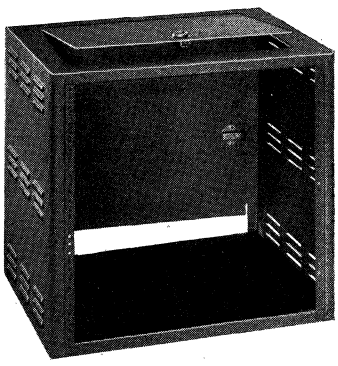
Catalog Number
CA 234



CHASSIS SUPPORTING BRACKETS

Catalog Number	Size
CSB 12	12 x 3 x 3
CSB 14	14½ x 3 x 3





D. C. DELUXE CABINET RACKS — USE 19" RACK PANELS

Middletown D. C. Cabinets conform to the conventional design of streamlined cabinets used by builders of amateur and commercial equipment.

Features

- ★ **Constructed of 16 gauge steel, electrically welded.**
- ★ **Adequate ventilation is provided by sufficient louvres in sides, and ventilation in back.**
- ★ **Front Vertical posts rounded.**
- ★ **Flush panel mounting (recessed).**
- ★ **Drilled and tapped for 10/32" screws on universal centers.**
- ★ **Flush door in top fitted with flush snap-lock and piano hinges.**
- ★ **Black Wrinkle finish. *Grey Wrinkle if desired.***

Standard 19" panels fit these cabinets. For panel sizes, see listing next page.

CATALOG NUMBER (Black Wrinkle)	OVERALL SIZE H	W	D	PANEL SPACE H	W	TYPE OF UNIT
*DC 108	10½	21½	15	8¾	19	Single
*DC 1210	12¼	21½	15	10½	19	Single
*DC 1412	14	21½	15	12¼	19	Single
*DC 1514	15¾	21½	15	14	19	Single
**DC 1917	19¼	21½	15	17½	19	Double
**DC 2119	21	21½	15	19¼	19	Double
**DC 2321	22¾	21½	15	21	19	Double
**DC 2826	28	21½	15	26¼	19	Triple
**DC 3635	36¾	21½	15	35	19	Quad.

*Door in Top only.
**Door in Top & Rear.
Note: When ordering grey wrinkle, add prefix "G" to catalog number.
Dimensions in Inches.

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CABINETS CHASSIS — CASES PANELS

MIDDLETOWN MANUFACTURING CO.

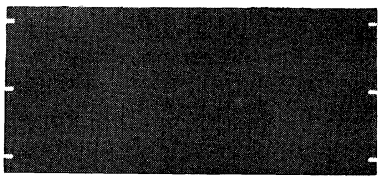
MIDDLETOWN IN CONNECTICUT

RACK PANELS — 19" LONG
(Steel and Aluminum)

Middletown Rack Panels are offered in either 1/8" steel or 1/8" aluminum. They are 19" wide and are slotted for conventional W. E. mounting. Twelve standard sizes. Furnished in black or grey wrinkle finish.

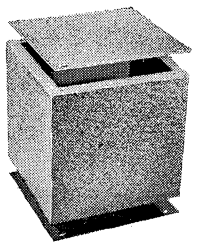
Note: When ordering grey wrinkle, add prefix "G" to catalog number.

*Available on special order.
Aluminum panels 3/16" thick available at 60% increase in cost above 1/8" al. panels.



Cat. No. Steel (Blk. Wrinkle)	Height	Cat. No. Aluminum (Black Wrinkle)
R.P. 1	1 3/4"	A.R.P. 1
R.P. 3	3 1/2"	A.R.P. 3
R.P. 5	5 1/4"	A.R.P. 5
R.P. 7	7"	A.R.P. 7
R.P. 8	8 3/4"	A.R.P. 8
R.P. 10	10 1/2"	A.R.P. 10
R.P. 12	12 1/4"	A.R.P. 12
R.P. 14	14"	A.R.P. 14
R.P. 15	15 3/4"	A.R.P. 15
R.P. 17	17 1/2"	A.R.P. 17
R.P. 19	19 1/4"	A.R.P. 19
R.P. 21	21"	A.R.P. 21
R.P. 26*	26 1/4"	A.R.P. 26*
R.P. 35*	35"	A.R.P. 35

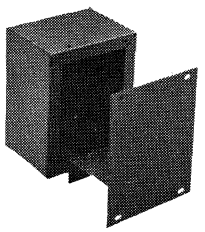
STEEL AND ALUMINUM CASES



These cases are similar to our standard steel utility cans except they have flat tops and bottoms which are held in place with self tapping screws and are removable. These cases are of sturdy construction and have spot welded corners. Case has flanges on all edges. Steel cases furnished in black wrinkle. Aluminum cases are natural.

STEEL Catalog Number	Size W	Size D	Size H	ALUMINUM Catalog Number
SC 442	4"	4"	2"	AC 442
SC 453	4"	5"	3"	AC 453
SC 465	4"	6"	5"	AC 465
SC 564	5"	6"	4"	AC 564
SC 666	6"	6"	6"	AC 666
SC 596	5"	9"	6"	AC 596
SC 1276	12"	7"	6"	AC 1276
SC 1287	12"	7 3/4"	6 1/2"	
SC 1576	15"	7 3/4"	6 1/2"	
SC 1597	15"	9"	7"	

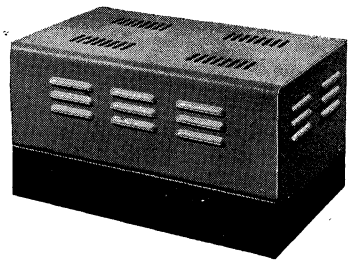
STEEL CASES WITH BUILT IN CHASSIS



Catalog Number	H	W	D	Chassis Size
SCWC 442	4	4	2	1 x2 7/8x1 7/8
453	4	5	3	1 x3 7/8x2 7/8
543	5	4	3	1 1/4x2 7/8x2 7/8
654	6	5	4	1 3/4x3 7/8x3 7/8
645	5	6	4	1 1/4x4 7/8x3 7/8
666	6	6	6	1 3/4x4 7/8x5 7/8

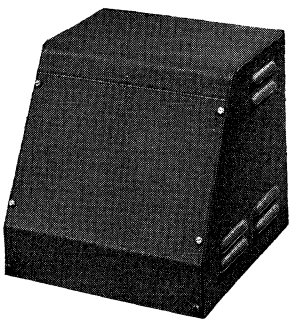
AMPLIFIER FOUNDATIONS—DeLuxe Models

This unit is designed to meet the most critical requirements. It has rounded corners, special Middletown designed louvres on all 4 sides and elongated holes on top to give maximum ventilation. Chassis are finished in Black wrinkle. Covers are finished in Grey wrinkle. Chassis are drilled for bottom plates which are listed separately. Covers all have a depth of 6"



Cat. No.	Size
A.F.-5109	5 x 10 x 9"
A.F.-6149	6 x 14 x 9"
A.F.-7179	7 x 17 x 9"
A.F.-10129	10 x 12 x 9"
A.F.-10179	10 x 17 x 9"
A.F.-13179	13 x 17 x 9"

SLOPING FRONT PANEL CABINETS

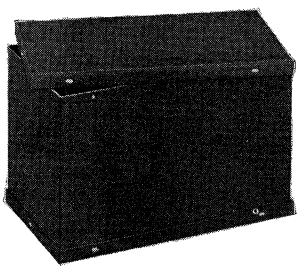


Sloping front panel cabinets have a wide application in the electronic field since they are adaptable for various uses. They are constructed of heavy gauge steel electrically spot-welded. Top corner is rounded, front panel is removable, and louvres on sides provide ventilation.

Back panel is ventilated on top and an opening is provided on the bottom so that connections can be made directly to the rear of the chassis. Finished in Grey wrinkle.

Cat. No.	H.W.D.	Chassis Size
S.F.-888	8 x 8 x 8"	7 x 7 x 2"
S.F.-8108	8 x 10 x 8"	7 x 9 x 2"
S.F.-8128	8 x 12 x 8"	7 x 11 x 2"
S.F.-8148	8 x 14 x 8"	7 x 13 x 2"
S.F.-121812	12 x 18 x 12"	10 x 17 x 3"

STEEL UTILITY CANS



These Utility Cans are ruggedly constructed from sheet steel with spot welded reinforced corners. Tops and bottoms are removable and are flanged on all four sides. Held in place with self-tapping screws.

Cat. No.	Size	Weight
U.C.565	5 1/2 x 6 x 5 1/2"	3 lbs.
U.C.596	5 x 9 x 6"	5 lbs.
U.C.8107	8 x 10 x 7"	6 lbs.
U.C.81010	8 x 10 x 10"	7 lbs.
U.C.11128	11 x 12 x 8"	9 lbs.

CABINETS CHASSIS CASES PANELS

MIDDLETOWN MANUFACTURING CO.

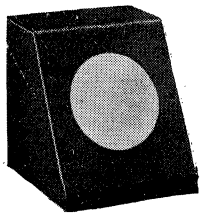
MIDDLETOWN IN CONNECTICUT

METER PANELS

Middletown Meter Panels are made 5¼" high and are made to the same specifications as our Rack Panels—are available to fit 3" meters.

Cat. No.	Holes	Hole Size
R.P.M. 33	3	2 3/16"
R.P.M. 35	5	2 3/16"

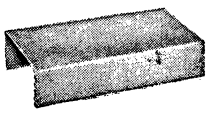
METER CASES



These cases have sloping front panel with rounded top corner which blends with streamline equipment. They are sturdily constructed from sheet steel with welded joints.

Cat. No.	Meter	Hole Size	H.W.D.
M.C. 13	Single 3"	2 13/16"	4½ x 4 x 4
M.C. 33	3-3" Meters	2 13/16"	4½ x 11¼ x 4

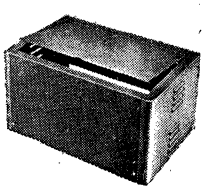
ALUMINUM MIDGET CHASSIS



These small, open-end aluminum chassis are ideal for miniature tube assemblies and all applications where space is limited. Made of prime sheet aluminum with ¼" flange on bottom for fastening down, or attaching bottom plate. Finish is natural aluminum.

Cat. No. AMC	D	Size W	H	Cat. No. AMC	D	Size W	H
221	2 5/16	2¾	1¼	541	5¾	4⅞	1½
131	1¾	3⅛	1	431	4	3⅛	1
342	3¼	4½	2	441	4	4⅛	1
241	2¾	4⅛	1	451	4	5⅛	1
341	3¾	4⅛	1½	461	4	6⅛	1
361	3	6⅛	1¼				

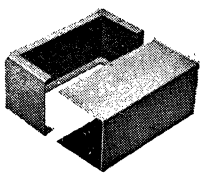
ROUNDED CORNER CABINETS



These are de luxe streamlined cabinets with front vertical corners rounded. Flush panel door, hung on full-length piano hinge, provided in top for convenient access. Ventilating louvres on sides. Opening at bottom of rear panel permits easy accessibility for leads, cables, etc. Front panel held in position with self-tapping screws. Grey wrinkle finish. Sturdily built of sheet steel.

Catalog No.	Size H	W	D	Panel Space H	W	Chassis Size D	W	H
RC 8108	8	10	8	8	8	7	7	2
RC 8128	8	12	8	8	10	7	9	2
RC 8168	8	16	8	8	14	7	13	2
RC 91711	9	17	11	9	15	10	14	3
RC 122012	12	20	12	12	18	10	17	3

Chassis are not included unless ordered. See chassis listings. Dimensions in Inches.



MULTI-MOUNTS

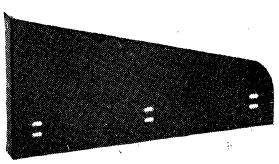
These are all-purpose boxes with an unlimited field of application in radio and electronics. Made from prime sheet aluminum. Two-piece telescoping construction, each half forming three sides. Finish is natural aluminum or grey hammer-tone.

Natural Aluminum Catalog Number	SIZE H	W	D	Grey Hammertone Catalog Number
MM 122	1⅝	2¾	2⅛	GHMM 122
MM 132	1⅝	3¼	2⅛	GHMM 132
MM 142	1⅝	4	2⅛	GHMM 142
MM 242	2¼	4	2¼	GHMM 242
MM 252	2¼	5	2¼	GHMM 252
MM 354	3	5	4	GHMM 354
MM 253	2⅛	5¼	3	GHMM 253
MM 465	4	6	5	GHMM 465
MM 375	3	7	5	GHMM 375
MM 386	3½	8	6	GHMM 386
MM 3106	3½	10	6	GHMM 3106
MM 4127	4	12	7	GHMM 4127
MM 4175	4	17	5	GHMM 4175
MM 1102	1⅝	10	2	GHMM 1102
MM 2122	2¼	12	2½	GHMM 2122
MM 2420	2¾	4	2	GHMM 2420
MM 1420	1½	4¼	2¼	GHMM 1420

CHASSIS BRACKETS

Mounting

These brackets are for chassis listed on next page. Front end of the bracket is seven inches high. Finished in black wrinkle.



Catalog Number	Size	Shipping Weight
C.B. 8	For 8" Base	2 lbs.
C.B. 11	For 11" Base	3 lbs.
C.B. 13	For 13" Base	3 lbs.

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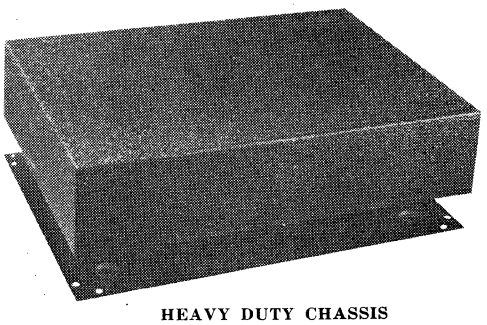
CABINETS CHASSIS CASES PANELS

MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

CHASSIS AND BOTTOM PLATES



HEAVY DUTY CHASSIS WITH BOTTOM PLATE

HEAVY DUTY CHASSIS

Stock Sizes

Black Wrinkle

Catalog Number	Size
H.D. 8172	8 x 17 x 2″
H.D. 8173	8 x 17 x 3″
H.D. 11172	11 x 17 x 2″
H.D. 11173	11 x 17 x 3″
H.D. 13172	13 x 17 x 2″
H.D. 13173	13 x 17 x 3″
H.D. 13174	13 x 17 x 4″

Middletown **STANDARD** Steel Chassis are made from one piece of steel, spot welded at all four corners. 22-, 20- and 18-gauge steel is used as indicated in the table. Bottom edges are folded over on four sides for additional rigidity. Black wrinkle finish.

Middletown **HEAVY-DUTY** Steel Chassis are made from one piece of 16-gauge steel, spot welded at all four corners. Bottom edges are folded over on all four sides for additional rigidity and drilled to match bottom plates. Ends are drilled to fit standard brackets. Black wrinkle finish. **Bottom plates are supplied with HEAVY-DUTY chassis.**

Middletown **ALUMINUM** Chassis are made from one piece of prime sheet aluminum, 16- and 18-gauge aluminum is used as indicated in the table. The design and construction of these chassis are identical with Middletown blank steel chassis. Natural aluminum finish.

Middletown **BOTTOM PLATES** are drilled and have pressed bumpers at corners. Material is 20-gauge steel. Gauge of aluminum bottom plates match gauge of chassis. Natural finish.

CHASSIS — STEEL AND ALUMINUM

CATALOG NUMBERS STEEL			CATALOG NUMBERS ALUMINUM			SIZE		
STANDARD		GAUGE	ALUMINUM		GAUGE	D	W	H
*BS	442	22	ABC	442	18	4	4	2
BS	462	22	ABC	462	18	4	6	2
BS	463	20	ABC	463	18	4	6	3
BS	4173	20	ABC	4173	16	4	17	3
BS	572	22	ABC	572	18	5	7	2
BS	573	22	ABC	573	18	5	7	3
BS	591	22	ABC	591	18	5½	9½	1½
BS	592	22	ABC	592	18	5	9½	2
BS	5103	22	ABC	5103	18	5	10	3
BS	5133	20	ABC	5133	18	5	13	3
BS	6143	20	ABC	6143	16	6	14	3
BS	6173	20	ABC	6173	16	6	17	3
BS	772	22	ABC	772	18	7	7	2
BS	792	22	ABC	792	18	7	9	2
BS	7112	20	ABC	7112	18	7	11	2
BS	7123	20	ABC	7123	18	7	12	3
BS	7132	20	ABC	7132	18	7	13	2
BS	7153	20	ABC	7153	16	7	15	3
BS	7173	20	ABC	7173	18	7	17	3
BS	8123	20	ABC	8123	16	8	12	3
BS	8172	20	ABC	8172	16	8	17	2
BS	8173	20	ABC	8173	16	8	17	3
BS	10123	20	ABC	10123	16	10	12	3
BS	10143	20	ABC	10143	16	10	14	3
BS	10172	20	ABC	10172	16	10	17	2
BS	10173	20	ABC	10173	16	10	17	3
BS	10174	20	ABC	10174	16	10	17	4
BS	11172	18	ABC	11172	16	11	17	2
BS	11173	18	ABC	11173	16	11	17	3
BS	12172	20	ABC	12172	16	12	17	2
BS	12173	20	ABC	12173	16	12	17	3
BS	12174	20	ABC	12174	16	12	17	4
BS	13172	18	ABC	13172	16	13	17	2
BS	13173	18	ABC	13173	16	13	17	3
BS	13174	18	ABC	13174	16	13	17	4

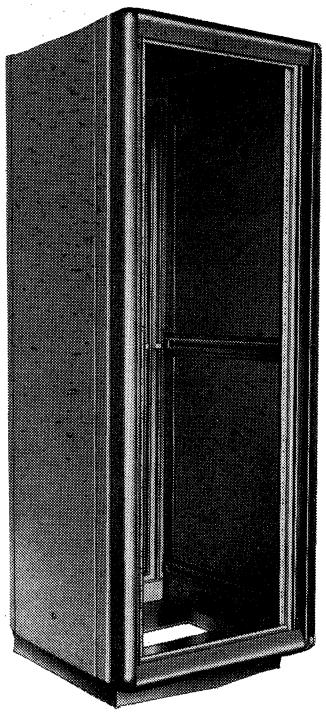
Steel Chassis available in zinc plate at 10% additional cost
**No flange on 4 x 4 x 2 Chassis*

STEEL AND ALUMINUM BOTTOM PLATES

CATALOG NUMBER STEEL	SIZE	CATALOG NUMBER ALUMINUM
BP 46	4 x 6	ABP 46
BP 417	4 x 17	ABP 417
BP 57	5 x 7	ABP 57
BP 59B	5 x 9	ABP 59B
BP 59	5½ x 9½	ABP 59
BP 510	5 x 10	ABP 510
BP 513	5 x 13	ABP 513
BP 614	6 x 14	ABP 614
BP 617	6 x 17	ABP 617
BP 77	7 x 7	ABP 77
BP 79	7 x 9	ABP 79
BP 711	7 x 11	ABP 711
BP 712	7 x 12	ABP 712
BP 713	7 x 13	ABP 713
BP 715	7 x 15	ABP 715
BP 717	7 x 17	ABP 717
BP 812	8 x 12	ABP 812
BP 817	8 x 17	ABP 817
BP 1012	10 x 12	ABP 1012
BP 1014	10 x 14	ABP 1014
BP 1017	10 x 17	ABP 1017
BP 1117	11 x 17	ABP 1117
BP 1217	12 x 17	ABP 1217
BP 1317	13 x 17	ABP 1317

Steel Bottom Plates available in zinc plate at 10% additional cost

PAR-METAL UNIVERSAL CABINET RACKS



SERIES "PL" as above
SERIES "FL" has front
as well as rear doors
DeLuxe Series Racks with
Detachable Side Panels

GENERAL DESCRIPTION

Par-Metal Universal Cabinet Racks are now available in three series of models to solve your most difficult housing problems. Our deluxe series "PL" and "FL" brings you a new trend in cabinet design.

Although smartly styled, there has been no sacrifice in the rugged construction which features all universal type racks. The same sturdy frame which is used in our "PR" series provides a solid foundation for maximum loading under severe conditions. Series "PL" may be combined with our console units listed on Par-Metal Pages 10 to 15 to solve your equipment housing problems. Several typical examples are shown on Par-Metal Page 11.

Except where needed for purposes of adjustment or accessibility, all Universal Cabinet Racks are securely welded into an integral unit. No metal screws, clips, or similar devices are used. Every care has been taken to facilitate your assembly problems with a minimum of parts, an efficient utilization of space, and rapid accessibility to interior components.

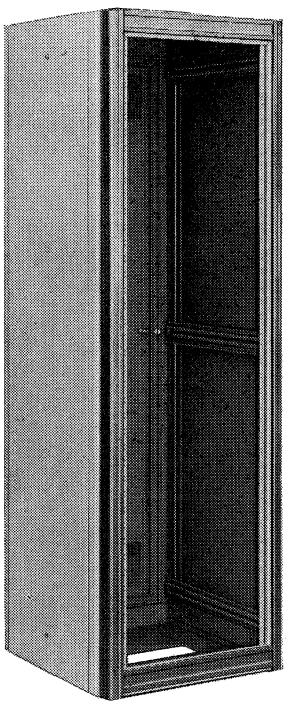
RECESSED BASES (shown on illustration at left) are available for all universal type racks, and are purchased separately as an optional accessory.

MODULAR GROUPS: All universal type racks (in each series) may be joined into modular groups; cabinets of the same height, in varying panel widths, **with and without front doors,** may be intermixed.

DIMENSIONS: Racks are available for 19", 24", or 30" wide panels. Cabinet heights are 48⅛", 67⅜", 77⅛" and 83⅛"; depths available are 18" or 24".

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Side shields for use between racks are also available.

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Addditional panel mounting angles may be easily inserted where needed for mounting terminal boards, etc.



SERIES "PR" as above
SERIES "FR" has front
as well as rear doors
Standard Series Racks with
Detachable Side Panels

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks. The means of attaching such brackets is fully adjustable so that chassis may be accurately lined up with the front panels. No drilling or other fabrication is required. The chassis may then be installed or removed with a minimum of effort. The vertical side supports also facilitate the installation of special sliding devices obtainable from slide manufacturers.

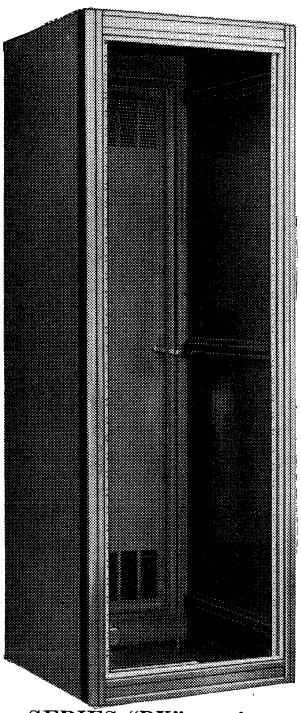
ADJUSTABLE FLOOR LEVELLERS are supplied with all racks as standard.

SLIDING SHELVES AND DRAWERS: Several models are listed on Par-Metal Page 9. These are constructed for mounting on the front of the racks the same as regular panels.

SLOPING INSTRUMENT PANELS and EXTENSION DESK TABLES for single and modular assemblies are available for all universal racks, as listed on Par-Metal Page 8.

MODIFICATIONS: Without departing from the basic design of our universal cabinet racks, it is possible to modify them to meet your special requirements. Standard ventilated tops are available. They may also be modified with our standard dies for making openings, louvers, circular holes, etc., in sides, tops, bottoms and doors of racks. For additional information write for our complete Catalog 61.

All of our products incorporate the same exacting standards of quality and uniformity which we have maintained for over three decades. If you have a specific problem, do not hesitate to consult us. **Personalized and interested engineering assistance is always available.**



SERIES "PX" as above
SERIES "FX" has front
as well as rear doors
With Solid Side Walls

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

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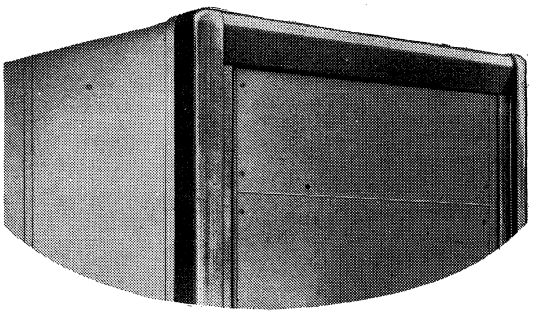
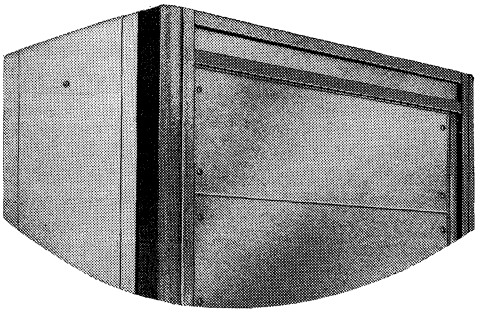
PAR-METAL UNIVERSAL CABINET RACKS

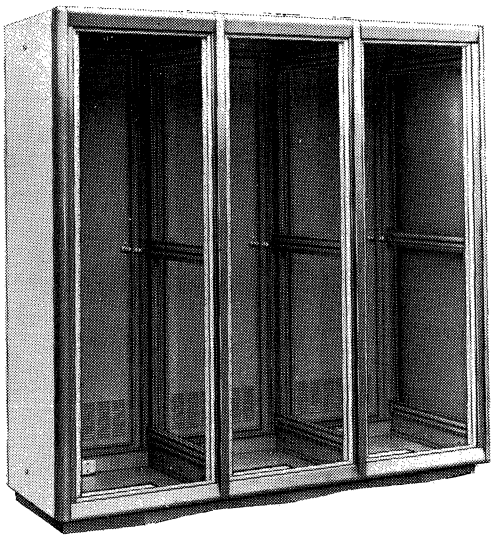
Below are close-up views of the new styling used on our universal cabinet racks. Illustrations of typical assemblies of these racks are shown with additional accessories now available. All racks and accessories may be obtained for 19″, 24″, and 30″ wide panels. On Par-Metal Page 11, you will find additional photographs showing how our "PL" series DeLuxe racks may be combined with console units in modular groups.



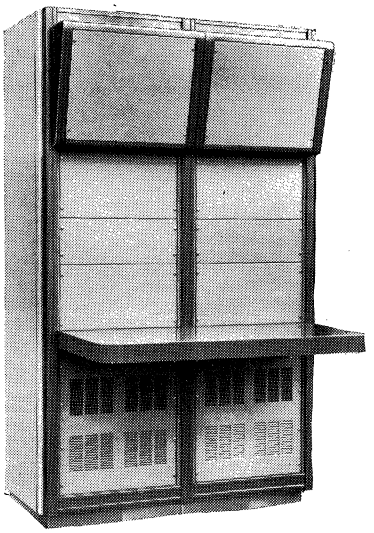
A new concept in modern styling features our series "FL" and "PL" cabinet racks listed on Par-Metal Page 5.



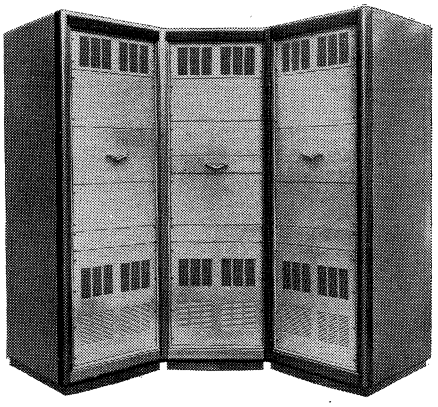
To provide a fresh, compact appearance to our Series PR, FR, PX, and FX Racks, the front of the rack is completely framed as illustrated above.



Illustrated above is a modular group of three No. PL-7724-A Racks with sub-bases. They are available in various heights for panels 19″, 24″, and 30″ wide.

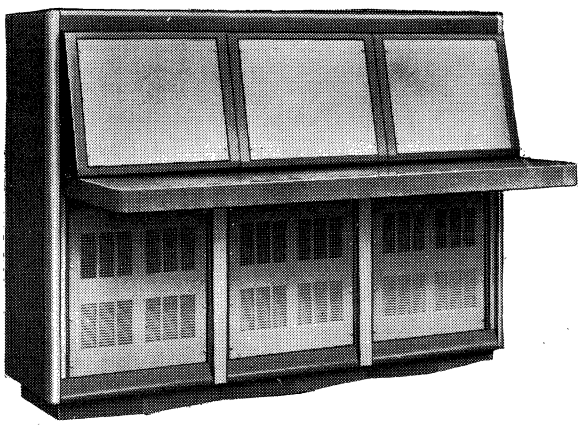


The duplex unit shown above has two No. PR-8424-A racks, a pair of No. RS-824-A detachable side panels, two sloping panels No. SP-1719, and an extension table No. RX-219. The same assembly can be made as a single unit or a longer multiple row, as all units are modular, and are available as 19″, 24″, and 30″ panel widths.



ANGULAR SECTION FRAMES may be obtained for assembling adjacent cabinet racks. Due to extensive listings needed, they have been omitted from this abbreviated catalog. If required, please indicate the **catalog no.** and the **adjacent racks.** They are available in **30° and 45°** units for all universal racks listed on Par-Metal Pages 5 thru 7.

The above illustrations show some of the many possible combinations of units listed. Let us provide engineering assistance on any assembly suitable to your project.



This desirable low console assembly consists of these standard Par-Metal units: three No. PL-4824-A racks, a pair of RL-424 detachable side panels, three No. SP-1719 sloping panels, and one RX-319 extension table. Any panels listed on Par-Metal Pages 20 and 21 may be substituted for the ventilated panels shown at the bottom.

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DETAILS OF CONSTRUCTION AND ASSEMBLY

RACK CONSTRUCTION:

The frame shown is used on series "FL", "FR", "PL", and "PR" racks. The top and bottom is made from 7/64" steel. The four uprights are also 7/64" steel, and have multiple-formed angle bends to insure rigidity. Series "PX" and "FX" racks are similar, except that the solid side walls are made from 1/16" steel. The entire assembly is securely welded to form an integral unit.

DOORS:

For sake of clarity, doors are not shown on the frame drawing. They are stamped from one piece of 1/16" steel, and "dutch formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Short doors for fan or blower installations are available.

DOOR HARDWARE:

Door hinges are slip type to permit easy removal. Die cast, chrome plated handles are equipped with cam latches for door closures. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.

- **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

- **PANEL MOUNTING ANGLES:**

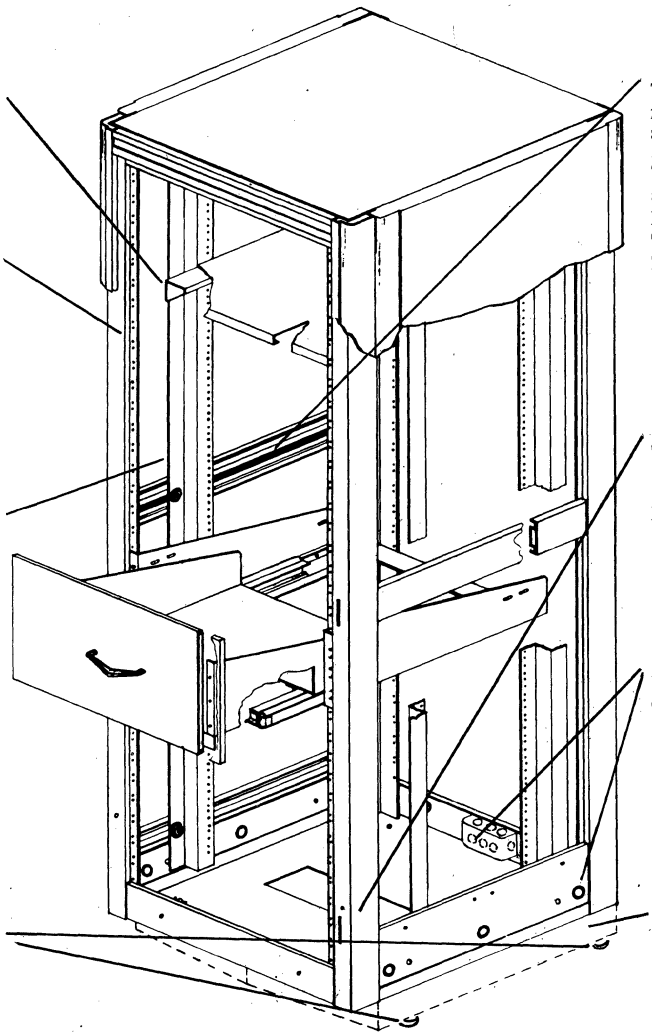
They are made from 1½" x 1½" x 3/16" thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on 1¼"-½" alternate spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

- **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are 5/8"—5/8"—½" alternate centers, tapped 10/32 thread, provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from 7/64" thick steel, locked in place with 3/8" diameter screws, lock washers and hexagon nuts, to afford maximum support.

- **FLOOR LEVELERS:**

Four are supplied with all universal type racks.



- **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from 7/64" steel, and are rigidly welded in place. Angles and supports are securely fastened to rails with 3/8" diam. steel bolts, lock washers, and hexagon nuts.

- **ACCESS OPENING:**

Opening in bottom is 4" x 14" on 19" panel racks; 4" x 19" on 24" panel racks; 4" x 25" on 30" wide panel racks.

- **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet, outlet box and plate are mounted on cabinet under rear door.

- **RECESSED SUB-BASES:**

They are available for all universal type racks as an optional accessory.

FRONT VERTICAL CORNER AND JOINING TRIMS:

In previous catalogs, wide corner trims were listed as standard on our universal racks. They overlapped the side edges of the rack panels to conceal the panel mounting screws. This type of trim was not suitable where sliding shelves, sliding drawers, extension desk tables, sloping panels and similar equipment were mounted on the rack.

Since such shelves, drawers, etc. are now being used on the majority of racks purchased from us, **we will now supply as standard "narrow type" corner trims** which do not interfere with the use of these accessories. Narrow type trims are shown on all racks illustrated on the opposite page.

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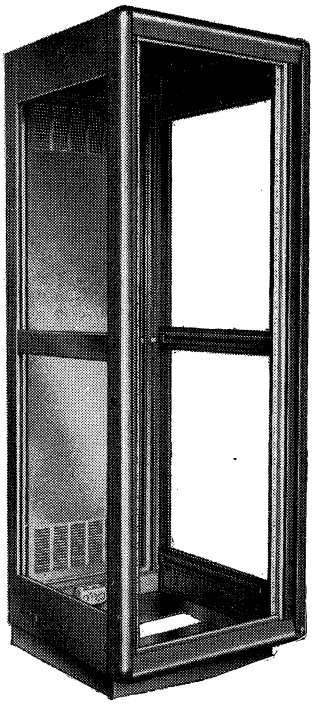
PAR-METAL UNIVERSAL CABINET RACKS

SERIES "PL" & "FL" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



"PL" SERIES RACKS WITH REAR DOOR ONLY

Our new series "PL" and "FL" racks will solve the major part of your enclosure problems. They are attractively styled with built-in custom quality. Ball corners are not used merely as a sales feature, but are attractively blended into a functional, modular design. The rack frames have the same rugged construction which features all universal type racks. Serious consideration has been given to the problem of stability, as well as maximum flexibility for modular assembly. Removable side panels make the interior readily accessible for assembly, inspection, and adjustment.

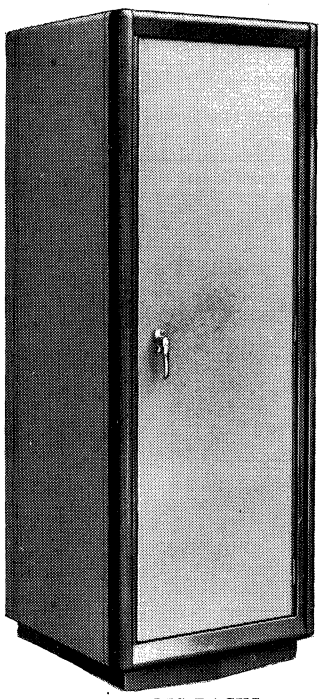
Series "PL" racks may be assembled with console assemblies as shown on Par-Metal Page 11.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on Par-Metal Pages 2 and 4. Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 61. Write directly to home office for personalized and interested engineering assistance.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

ACCESSORIES: All accessories listed on Par-Metal Pages 8 and 9 may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 19. **RACK PANELS** are listed on Par-Metal Pages 20 and 21.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.
Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.



"FL" SERIES RACKS WITH FRONT AND REAR DOORS

RECESSED RACK SUB-BASES SHOWN IN ILLUSTRATIONS ARE NOT INCLUDED IN RACK PRICES. They are available as an optional accessory. Listings and prices are on Par-Metal Page 8.

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 8 Cat. No.
					FOR 19" WIDE PANELS — 18" DEEP RACKS								
PL-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	110	$ 92.00	RL-418	40	$40.00	RB-2217
PL-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	150	105.00	RL-618	55	48.90	RB-2217
PL-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	160	116.75	RL-718	60	52.20	RB-2217
PL-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	180	128.50	RL-818	65	55.80	RB-2217
					FOR 19" WIDE PANELS — 24" DEEP RACKS								
PL-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	110.50	RL-424	50	47.20	RB-2223
PL-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	126.00	RL-624	60	55.80	RB-2223
PL-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	137.75	RL-724	65	59.40	RB-2223
PL-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	152.75	RL-824	70	62.60	RB-2223
					FOR 24" WIDE PANELS — 24" DEEP RACKS								
PL-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	150	139.75	RL-424	50	47.20	RB-2723
PL-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	185	158.75	RL-624	60	55.80	RB-2723
PL-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	200	170.50	RL-724	65	59.40	RB-2723
PL-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	215	187.75	RL-824	70	62.60	RB-2723
					FOR 30" WIDE PANELS — 24" DEEP RACKS								
PL-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	189.50	RL-624	60	55.80	RB-3323
PL-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	205.50	RL-724	65	59.40	RB-3323
PL-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	224.25	RL-824	70	62.60	RB-3323

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 8 Cat. No.
					FOR 19" WIDE PANELS — 18" DEEP RACKS								
FL-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	125	$109.25	RL-418	40	$40.00	RB-2217
FL-6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	128.00	RL-618	55	48.90	RB-2217
FL-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	145.25	RL-718	60	52.20	RB-2217
FL-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	157.00	RL-818	65	55.80	RB-2217
					FOR 19" WIDE PANELS — 24" DEEP RACKS								
FL-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	130.75	RL-424	50	47.20	RB-2223
FL-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	149.00	RL-624	60	55.80	RB-2223
FL-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	166.75	RL-724	65	59.40	RB-2223
FL-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	181.25	RL-824	70	62.60	RB-2223
					FOR 24" WIDE PANELS — 24" DEEP RACKS								
FL-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	170	160.00	RL-424	50	47.20	RB-2723
FL-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	220	188.00	RL-624	60	55.80	RB-2723
FL-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	240	199.00	RL-724	65	59.40	RB-2723
FL-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	245	223.00	RL-824	70	62.60	RB-2723
					FOR 30" WIDE PANELS — 24" DEEP RACKS								
FL-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	231.50	RL-624	60	55.80	RB-3323
FL-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	252.75	RL-724	65	59.40	RB-3323
FL-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	274.00	RL-824	70	62.60	RB-3323

*Clearance between front and rear doors

**Indicates clearance for chassis between panel mounting strips.

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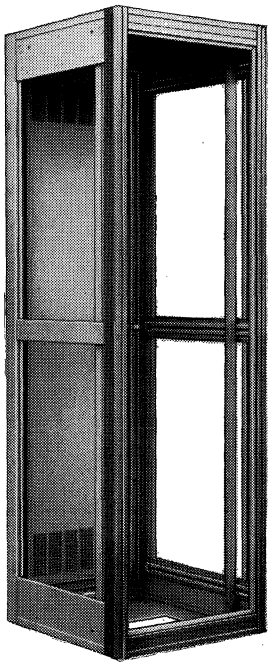
PAR-METAL UNIVERSAL CABINET RACKS

SERIES "PR" & "FR" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



"PR" SERIES WITH REAR DOOR ONLY

SERIES "PR" and "FR" RACKS USE THE SAME sturdy cabinet frames as our De Luxe racks listed on PAR-METAL Page 5. New horizontal mouldings and vertical corner trims on the front of racks, with new compact side panels, creates a distinctive appearance in keeping with the current trend in cabinet styling. In effect, a frame is provided which can be finished in a contrasting color at your option.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on Par-Metal Pages 2 and 4.

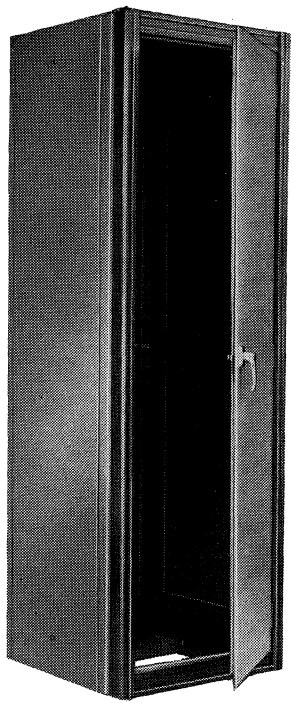
Additional engineering information such as completely detailed drawings of these cabinet racks are given in our Catalog 61. Write directly to home office for assistance.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

ACCESSORIES: All accessories listed on Par-Metal Pages 8 and 9 may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 19. **RACK PANELS** are listed on Par-Metal Pages 20 and 21.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.

Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.



"FR" SERIES WITH FRONT AND REAR DOORS

RECESSED BASES are available as an optional accessory. Listings and prices are on Par-Metal Page 8.

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 8 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
PR-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	110	$ 80.60	RS-418-A	40	$34.50	RB-2217
PR-6718-A	67¾"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	150	92.20	RS-618-A	55	41.40	RB-2217
PR-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	160	103.80	RS-718-A	60	44.70	RB-2217
PR-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	180	115.20	RS-818-A	65	48.30	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
PR-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	97.70	RS-424-A	50	41.70	RB-2223
PR-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	112.00	RS-624-A	60	48.30	RB-2223
PR-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	123.50	RS-724-A	65	51.90	RB-2223
PR-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	138.30	RS-824-A	70	55.10	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
PR-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	23¾"	24⅛"	150	126.20	RS-424-A	50	41.70	RB-2723
PR-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	23¾"	24⅛"	185	143.80	RS-624-A	60	48.30	RB-2723
PR-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	23¾"	24⅛"	200	155.30	RS-724-A	65	51.90	RB-2723
PR-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	23¾"	24⅛"	215	172.30	RS-824-A	70	55.10	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
PR-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	173.20	RS-624-A	60	48.30	RB-3323
PR-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	189.00	RS-724-A	65	51.90	RB-3323
PR-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	207.40	RS-824-A	70	55.10	RB-3323

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	Shipping Wt. Lbs. (Per Pr.)	Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 8 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
FR-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	125	$ 97.70	RS-418-A	40	$34.50	RB-2217
FR-6718-A	67¾"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	115.20	RS-618-A	55	41.40	RB-2217
FR-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	132.20	RS-718-A	60	44.70	RB-2217
FR-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	143.80	RS-818-A	65	48.30	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
FR-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	118.00	RS-424-A	50	41.70	RB-2223
FR-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	134.90	RS-624-A	60	48.30	RB-2223
FR-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	152.50	RS-724-A	65	51.90	RB-2223
FR-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	166.80	RS-824-A	70	55.10	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
FR-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	23¾"	24⅛"	170	146.50	RS-424-A	50	41.70	RB-2723
FR-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	23¾"	24⅛"	220	172.90	RS-624-A	60	48.30	RB-2723
FR-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	23¾"	24⅛"	240	183.80	RS-724-A	65	51.90	RB-2723
FR-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	23¾"	24⅛"	245	207.40	RS-824-A	70	55.10	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
FR-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	215.20	RS-624-A	60	48.30	RB-3323
FR-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	236.20	RS-724-A	65	51.90	RB-3323
FR-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	257.20	RS-824-A	70	55.10	RB-3323

*Clearance between front and rear doors

**Indicates clearance for chassis between panel mounting strips.

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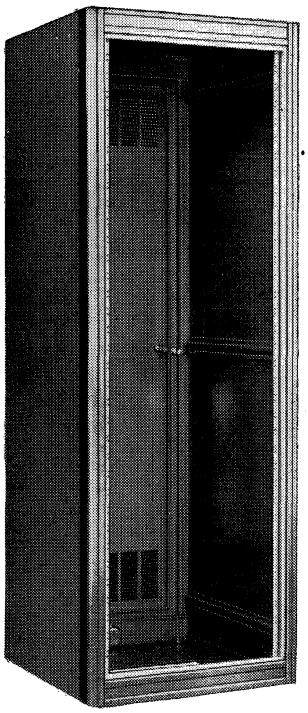
PAR-METAL UNIVERSAL CABINET RACKS

SERIES "PX" & "FX" RACKS WITH SOLID SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS—18" & 24" DEEP



"PX" SERIES
WITH REAR DOOR ONLY

SERIES "PX" and "FX" RACKS ARE SIMILAR to our "PR" series, except that they are constructed with solid side walls as shown.

These racks feature the same horizontal mouldings and corner trims used on our "PR" series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

SPECIFICATIONS: Constructional details of rack frame and material specifications are listed on Par-Metal Pages 2 and 4. Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 61. Write directly to home office for personalized and interested engineering assistance.

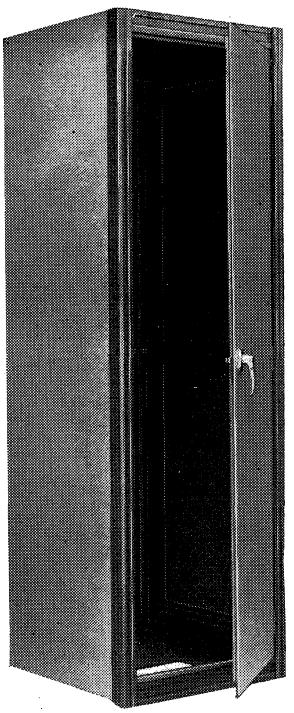
CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

ACCESSORIES: All accessories listed on Par-Metal Pages 8 and 9 may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 19. **RACK PANELS** are listed on Par-Metal Pages 20 and 21.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.

Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.

RECESSED Bases are available as an optional accessory. Listings and prices are on next page.



"FX" SERIES
WITH FRONT & REAR DOORS

TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional) Prices on Par-Metal Page 8. Cat. No.
				FOR 19" WIDE PANELS — 18" DEEP RACKS						
PX-3718-A	42⅞"	22"	18"	36¾" x 19"	16⅞"	17¾"	19⅛"	105	$ 69.00	RB-2217
PX-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	120	80.60	RB-2217
PX-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	155	92.20	RB-2217
PX-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	170	103.80	RB-2217
PX-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	185	115.20	RB-2217
				FOR 19" WIDE PANELS — 24" DEEP RACKS						
PX-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	140	97.70	RB-2223
PX-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	180	112.00	RB-2223
PX-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	195	123.50	RB-2223
PX-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	210	138.30	RB-2223
				FOR 24" WIDE PANELS — 24" DEEP RACKS						
PX-4827-A	48¼"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	155	126.20	RB-2723
PX-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	200	143.80	RB-2723
PX-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	225	155.30	RB-2723
PX-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	240	172.30	RB-2723
				FOR 30" WIDE PANELS — 24" DEEP RACKS						
PX-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	260	173.20	RB-3323
PX-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	280	189.00	RB-3323
PX-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	300	207.40	RB-3323

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSED BASES (Optional) Prices on Par-Metal Page 8. Cat. No.
				FOR 19" WIDE PANELS — 18" DEEP RACKS						
FX-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	135	$ 97.70	RB-2217
FX-6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	175	115.20	RB-2217
FX-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	190	132.20	RB-2217
FX-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	205	143.80	RB-2217
				FOR 19" WIDE PANELS — 24" DEEP RACKS						
FX-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	160	118.00	RB-2223
FX-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	205	134.90	RB-2223
FX-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	225	152.50	RB-2223
FX-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	235	166.80	RB-2223
				FOR 24" WIDE PANELS — 24" DEEP RACKS						
FX-4827-A	48¼"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	175	146.50	RB-2723
FX-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	235	172.90	RB-2723
FX-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	265	183.80	RB-2723
FX-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	270	207.40	RB-2723
				FOR 30" WIDE PANELS — 24" DEEP RACKS						
FX-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	295	215.20	RB-3323
FX-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	320	236.20	RB-3323
FX-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	345	257.20	RB-3323

*Clearance between front and rear doors.

**Indicates clearance for chassis between panel mounting strips.

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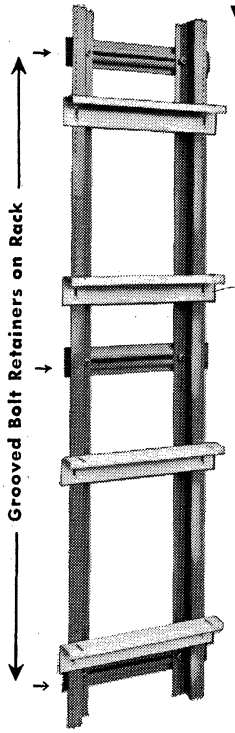
PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS



These vertical side supports are supplied in sets of four uprights to fit all universal racks listed on PAR-METAL Pages 5 thru 7. (Cut shows side mounting brackets in place which are sold separately—see listing below).

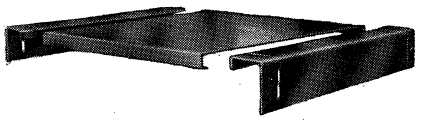
Supports are fastened to grooved bolt retainers which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are **drilled** and **tapped vertically** to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

When installed in racks for 19" wide panels, the clearance between supports (from right to left) is 17¾". On 24" wide panel racks, the clearance is 22¾"; on 30" wide panel racks, the clearance is 28¾". Supports are 2⅝" wide and 1½" deep.

Supports are made from 7/64" thick steel, finished in aluminum enamel. Each set is supplied with ⅜" dia. bolts, lock washers, and nuts for rack mounting.

Cat. No.	Height	To Fit Universal Cabinet Racks	Sh. Wt. Lbs.	Net Price Set of 4
VS-36	41¼"	Series 3718-A	22	$14.15
VS-42	46½"	Series 4818-A, 4824-A, 4827-A	25	15.50
VS-61	65¾"	Series 6718-A, 6724-A, 6727-A, 6733-A	35	20.50
VS-70	74½"	Series 7718-A, 7724-A, 7727-A, 7733-A	39	24.00
VS-77	81½"	Series 8418-A, 8424-A, 8427-A, 8433-A	45	26.75

SIDE MOUNTING BRACKETS



Brackets BR-118 and Shelf SS-1918

These brackets will fit on Vertical Side Supports shown above. They are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2" wide and 1-13/16" high. The vertical face of the bracket is also slotted to match holes in equipment shelves listed below. Where desirable, the horizontal face of the bracket may be bolted to the vertical side supports. They are made from ⅛" steel, zinc plated finish. Necessary bolts are supplied.

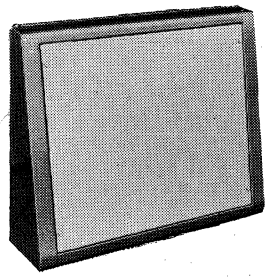
Cat. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
BR-118	14"	All 18" deep racks	4 lbs.	$3.15 per pr.
BR-124	20"	All 24" deep racks	6 lbs.	4.20 per pr.

EQUIPMENT SHELVES

These shelves will assemble with the side mounting brackets listed above, to make a complete shelf between Vertical Side Supports. Made from 1/16" steel, zinc plated. Necessary bolts for assembly are included. All shelves are ⅞" high.

Cat. No.	Width	Depth	To Fit Racks	Net Price
SS-1918	17⅝"	14¼"	19" panels-18" deep	$3.30
SS-1924	17⅝"	20¼"	19" panels-24" deep	3.96
SS-2724	22⅝"	20¼"	24" panels-24" deep	4.68
SS-3324	28⅝"	20¼"	30" panels-24" deep	7.50

SLOPING RACK MOUNTING PANELS



These panels are intended for installation on relay racks, and are installed the same as other standard rack panels.

The front slopes at any angle of 20°, and it may be used with the slope upward or downward (see illustrations) on PAR-METAL Page 3).

Front and back have removable panels. They are designed for single unit or modular group assemblies.

Constructed from 1/16" sheet steel; panels are included in prices listed below. Available in all finishes—please specify when ordering. **All panels are 7⅝" deep.**

Cat. No.	Panel Space Required	Sloping Panel Size	Rear Panel Size	Net Price
SP-1719	17½" x 19"	15¾" x 19"	14" x 19"	$35.00
SP-1724	17½" x 24"	15¾" x 24"	14" x 24"	42.50
SP-1730	17½" x 30"	15¾" x 30"	14" x 30"	55.00

RACK TYPE EXTENSION TABLES

These tables are mounted to the front of cabinet racks as illustrated on PAR-METAL Page 3. They are made from ¾" plywood, to which is bonded 1/16" thick formica of a dark grey pattern on both top and apron, which is 2½" high.

The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from 7/64" thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

The tables may be installed on any of the cabinet racks (without front door) listed on PAR-METAL Pages 5 thru 7. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3½" OF PANEL SPACE (height).

Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21¼" x 20"	Single	19"	$ 42.00
RX-219	42⅛" x 20"	Double	19"	78.00
RX-319	64¼" x 20"	Triple	19"	104.00
RX-419	86⅜" x 20"	Quadruple	19"	144.00
RX-124	26¼" x 20"	Single	24"	48.00
RX-224	52⅛" x 20"	Double	24"	95.00
RX-324	79¼" x 20"	Triple	24"	128.00
RX-130	32¼" x 20"	Single	30"	55.00
RX-230	64⅛" x 20"	Double	30"	100.00

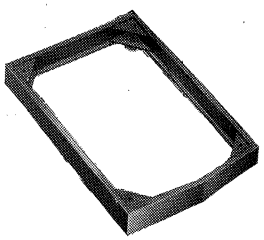
PANEL MOUNTING ANGLES

These panel mounting angles (or strips) are the same as used in all Universal type racks, (see PAR-METAL Pages 5 thru 7). They are supplied with necessary bolts to fit into the grooved retainers which hold the pair of panel mounting angles regularly supplied with each rack.

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within the rack from front to back.

Angle No.	To Fit Universal Cabinet Racks	Net Price Per Pair
PA-36	PX-3718-A	$ 9.50
PA-42	PL, FL, PX, FX, PR, FR-4818, 4824, 4827-A	11.50
PA-61	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733-A	15.90
PA-70	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733-A	18.10
PA-77	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433-A	19.80

RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the universal racks listed on PAR-METAL Pages 5 thru 7. They are rigidly made from 7/64" thick steel, and are securely braced at all corners.

4 holes in top match those provided in the racks. Hardware for attaching is supplied. 4 adjustable floor levellers are used under the bottom of the bases. Will be finished in enamel to match racks ordered. Where roller trucks are mounted under the racks, recessed bases are not recommended or required.

Cat. No.	To Fit Universal Racks Width	Depth	Net Price
RB-2217	22"	18"	$15.00
RB-2223	22"	24"	16.00
RB-2723	27"	24"	17.50
RB-3323	33"	24"	18.75

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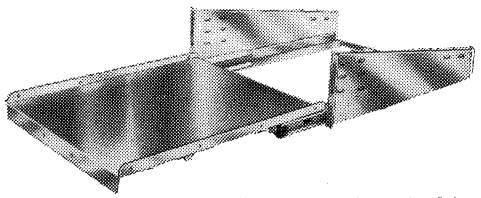
PAR-METAL RACK TYPE SLIDE ASSEMBLIES

GENERAL DESCRIPTION

These slide assemblies will save considerable lay-out and assembly time as an alternate method of attaching individual slides directly to the interior of a rack. All models are screw mounted to the front panel mounting angles of relay racks, the same as regular panels. Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

The basic slide assemblies for use in 19″ wide panel **racks will accommodate chassis up to 17″ wide.** All of the "usable space" noted below may be fully extended from the front of the rack; load capacities are based on the shelf in this position. All units are ruggedly constructed to withstand constant usage. The frames and brackets are made from 7⁄64″ thick steel. All parts are securely welded or fastened with stainless steel rivets.



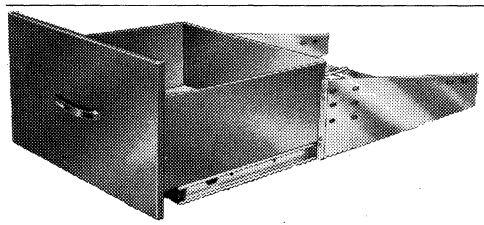
BASIC SLIDE ASSEMBLIES

The basic slide assembly illustrated is sold as a complete unit, ready for installation in all 18″ or 24″ deep racks. Panels may be attached to chassis by using standard *brackets or any other convenient method. The panel and chassis assembly is then bolted directly to the slide pan. Formed panels with a minimum height of 7″ are recommended. Four models are listed to fit racks using panels either 19″ or 24″ wide.

The BS-1940 and BS-2419 are identical in size, but have different load capacities. All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended. All parts are zinc plated.

Catalog No.	Usable Space Width	Usable Space Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	Load Capacity	Net Price	Shipping Weight	Replaces Catalog No.
BS-1980	17 1/8″	14″	19″	18″	6 1/2″	1 3/4″	50 lbs.	**17.50**	24 lbs.	SD-1916, 1920
BS-1940	17 1/8″	20″	19″	24″	6 1/2″	1 3/4″	36 lbs.	**24.00**	32 lbs.	SD-2016, 2020
BS-2419	17 1/8″	20″	19″	24″	6 1/2″	1 3/4″	60 lbs.	**29.00**	32 lbs.	NEW
BS-2424	22 1/8″	20″	24″	24″	6 1/2″	1 3/4″	55 lbs.	**31.00**	35 lbs.	SD-2416, 2420

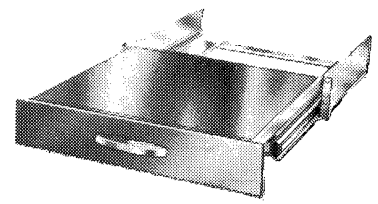
Special brackets are available for mounting rack panels, as listed on Par-Metal page 23.



STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. The drawers are mounted on the basic slide assemblies described above. They are available either 7″ or 10½″ high to match standard rack panels of the same height. Three models are listed for racks with 19″ wide panels, and one for 24″ wide panel racks.

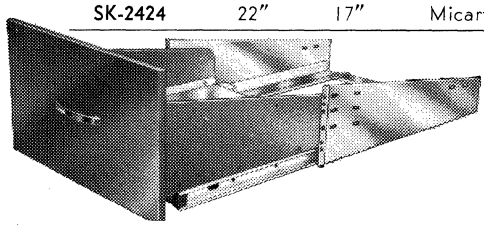
Catalog No.	Usable Space Width	Usable Space Length	Depth	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight	Replaces Catalog No.
DD-1980	17″	14″	5″	7″	19″	18″	40 lbs.	**24.00**	33 lbs.	DD-1925
DD-1940	17″	20″	5″	7″	19″	24″	25 lbs.	**33.00**	42 lbs.	NEW
DD-2419	17″	20″	8″	10 1/2″	19″	24″	45 lbs.	**39.50**	50 lbs.	NEW
DD-2424	22″	20″	8″	10 1/2″	24″	24″	45 lbs.	**44.00**	50 lbs.	NEW



DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used for supporting test instruments or other devices. When not in use, it saves valuable aisle space. The writing surface is charcoal grey micarta. The front requires only 3½″ of panel space, and is provided with a drawer pull. It is made for racks using panels either 19″ or 24″ wide. No. SK-1970 and SK-2419 are identical except for load capacity.

Catalog No.	Shelf Size Width	Shelf Size Depth	Writing Surface	Pulls Out	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
SK-1970	17″	17″	Micarta	16 3/8″	19″	18-24″	36 lbs.	**34.00**	32 lbs.
SK-2419	17″	17″	Micarta	16 3/8″	19″	18-24″	60 lbs.	**39.00**	32 lbs.
SK-2424	22″	17″	Micarta	16 3/8″	24″	24″	60 lbs.	**46.00**	35 lbs.



PHONO DRAWER ASSEMBLIES

Consists of basic sliding shelf assembly with a drawer front and handle as illustrated. Drawer front is same size as standard formed panel 10½″ high. (12¼″ high drawer fronts are also available.) The 17″ width will accommodate almost all standard changers and turntables.

Where metal base pans are available with changers, it is recommended that such pans be used and bolted directly to the shelf.

Catalog No.	Usable Space Width	Usable Space Depth	Height	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight	Replaces Catalog No.
PH-1980	17″	14″	8 3/4″	10 1/2″	19″	18″	45 lbs.	**23.50**	33 lbs.	PH-1916
PH-1940	17″	20″	8 3/4″	10 1/2″	19″	24″	30 lbs.	**30.00**	40 lbs.	PH-2020
PH-2419	17″	20″	8 3/4″	10 1/2″	19″	24″	50 lbs.	**35.50**	40 lbs.	NEW
PH-2424	22″	20″	10 1/2″	12 1/4″	24″	24″	45 lbs.	**39.00**	44 lbs.	PH-2416

IMPORTANT: When ordering, please specify paint finish of front panels or drawer fronts of series "DD", "PH", or "SK" assemblies.

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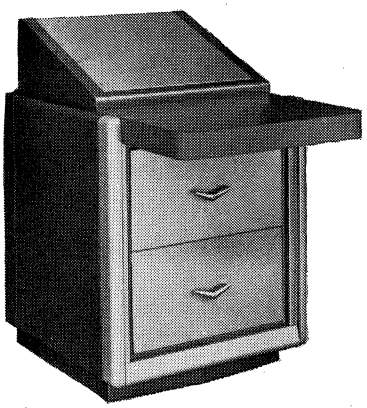
PAR-METAL DE LUXE CONSOLE ASSEMBLIES

General Description

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

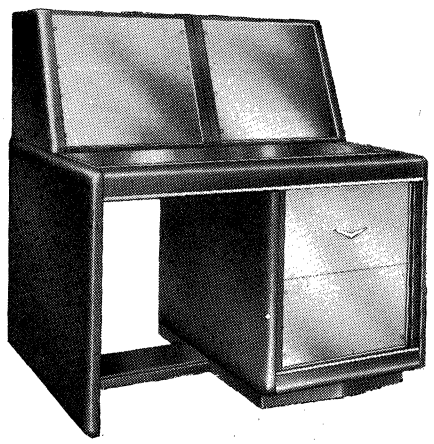
While it is obvious that no particular fixed design can serve every requirement, **we have devised a group of standard units,** the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. Our previous models have been functionally redesigned and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.



SINGLE UNIT ASSEMBLY

The **versatile pedestal racks** are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our type "PL" cabinet racks listed on PAR-METAL Page 5. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are **solidly built** to withstand heavy strains **whether in a laboratory or a moving vehicle.**

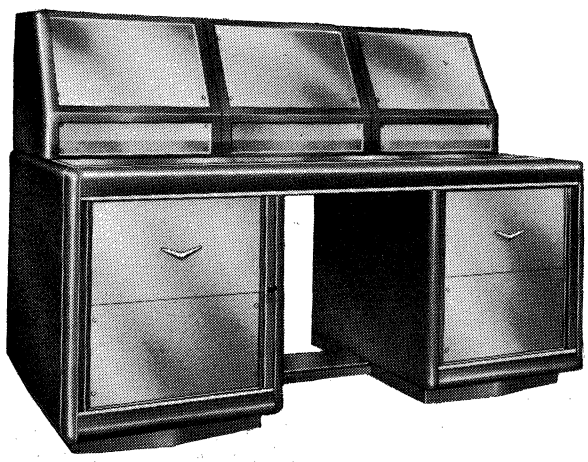
Two models of pedestal frames are available, which are identical except for the depth (front to back). The PD-224 frame (24¼" deep) unit may be used with or without an extension desk table as illustrated below.



DOUBLE UNIT ASSEMBLY

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top. (PAR-METAL Page 15) to make a complete console. Single or multiple unit consoles may be combined with our Series "PL" racks (see PAR-METAL Page 11).

The PD-234 frame (34¼" deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34¼" depth provides additional interior space, and may also be assembled with our Series "PL" cabinet racks to perform the same functions as our PD-224 (24¼" deep) pedestal frame. Unit assemblies are not limited to triple units, and may be extended to modular groups of four or more. If you have a specific problem, do not hesitate to consult us. Personalized and interested engineering assistance is always available.



TRIPLE UNIT ASSEMBLY

The **new side panels** are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws—no metal screws or clips are used.

Our standard finish is a combination of light and dark grey hammertone enamel. Your desk requirements are easily selected from the group charts on the next page. For the turret, you may choose from four types of control cabinets listed on PAR-METAL Page 15. Other standard finishes, including black or blue grey wrinkle enamel, light grey or medium grey enamel or primer coat only, are optional without additional cost.

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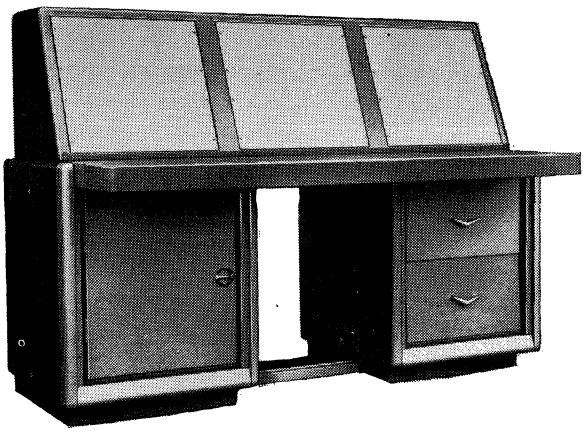
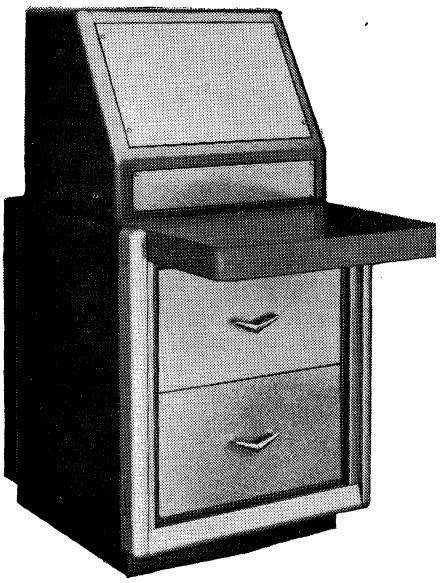
PAR-METAL DE LUXE CONSOLE ASSEMBLIES

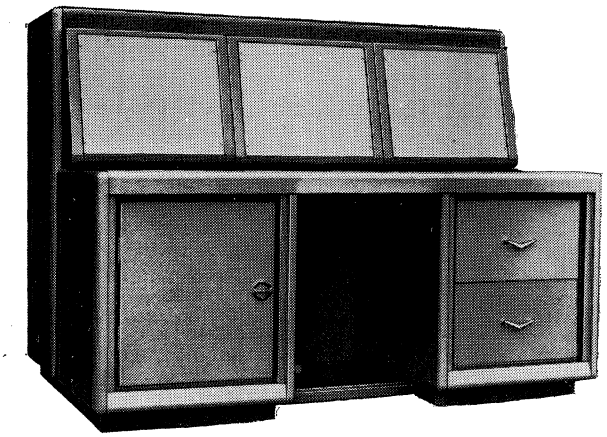


Below are illustrated additional assemblies of console units, as well as console units combined with our Series "PL" universal cabinet racks (listed on Par-Metal Page 5).



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-103 high slope cabinet, one No. CD-24 center desk section and one CT-319 extension table, (door drawers, or rack panels for front and back are optional).

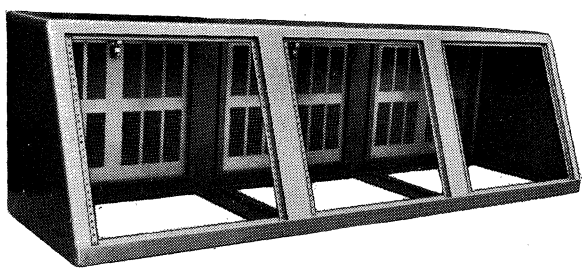
The above illustrates a single unit assembly similar to the triple unit shown on the left. Any of the four types of Desk Cabinets shown on Par-Metal Page 15 may be used in this combination. These console assemblies are available with heavy-duty 3" wheel casters in place of a recessed sub-base, if desired.



A versatile assembly suitable for many projects is shown above. It consists of the following units: three No. PL-4818 universal racks (Par-Metal Page 5), one pair No. RL-418 detachable side panels (Par-Metal Page 5), two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. CD-24 center section, three No. SP-1719 sloping panels, (Door, drawers, and rack panels for front and back are optional).

The console combination at the front of the cabinet racks (pedestal frames, sloping panels, table top, etc.) may be assembled with our other series "PL" cabinet racks listed on Par-Metal Page 5.

A single unit assembly consisting of the following: one No. PL-4818 cabinet rack, one No. LS-101 low slope panel cabinet, one No. PD-224 pedestal frame, one No. CT-119 extension desk table. Front panels or hinged door are optional. Many other groupings of consoles and cabinet racks may be made. Let us know your individual requirements for any project. Our Engineering Dept. will give you personalized and interested assistance.



This is an interior view of our No. HS-103 high slope panel cabinet. Note the rigid bracing and well ventilated individual rear doors. This construction is typical of all panel control cabinets listed on Par-Metal Page 15.

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PAR-METAL COMPONENT GROUP CHECK LISTS

The group charts below list all necessary and alternate components for single, double, and triple unit assemblies, and also provides a check list to determine your exact requirements. There are four models of desk panel cabinets specially designed to fit on the top of the assemblies detailed below. For simplicity, they have been omitted; for a complete description see Par-Metal Page 15.

All of the 19" wide panels listed on Par-Metal Pages 20 and 21 may be mounted on these assemblies. Refer to Par-Metal Page 9 for sliding drawers shown in the illustrations on the opposite page. Other component parts suitable for use with these assemblies are shown on Par-Metal Page 14.

FOR SINGLE UNIT ASSEMBLIES

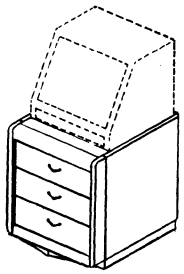

FIGURE "A" AS ABOVE
FIGURE "B" (LESS TOP CABINET)

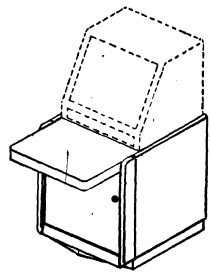

FIGURE "C" AS ABOVE
FIGURE "D" (LESS TOP CABINET)

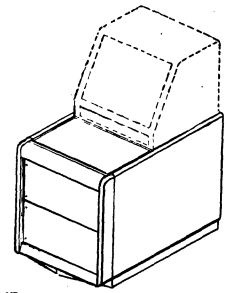

FIGURE "E" AS ABOVE
FIGURE "F" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "A"	Fig. "B"	Fig. "C"	Fig. "D"	Fig. "E"	Fig. "F"
Pedestal Frame	13	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Exterior Side Panel	13	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Extension Desk Table	14	1			CT-119	CT-119		
Formica Table Top	14	1	*	WT-241	*	NT-241	HT-341	WT-341

*Table top not required.

FOR DOUBLE UNIT ASSEMBLIES

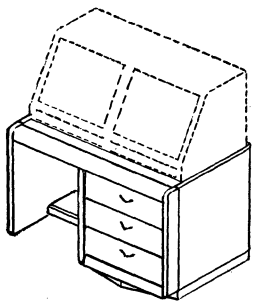

FIGURE "G" AS ABOVE
FIGURE "H" (LESS TOP CABINET)

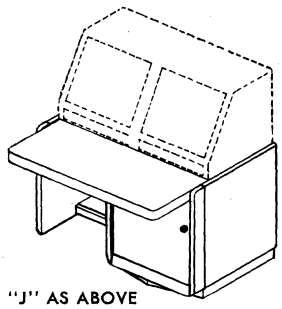

FIGURE "J" AS ABOVE
FIGURE "K" (LESS TOP CABINET)

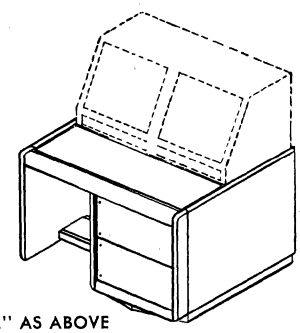

FIGURE "L" AS ABOVE
FIGURE "M" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "G"	Fig. "H"	Fig. "J"	Fig. "K"	Fig. "L"	Fig. "M"
Pedestal Frame	13	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
End Pedestal Assembly	13	1	DU-24	DU-24	DU-24	DU-24	DU-34	DU-34
Exterior Side Panel	13	1	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panel	13	1	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	14	1			CT-219	CT-219		
Micarta Table Top	14	1	*	WT-242	*	NT-242	HT-342	WT-342

*Table top not required

FOR TRIPLE UNIT ASSEMBLIES

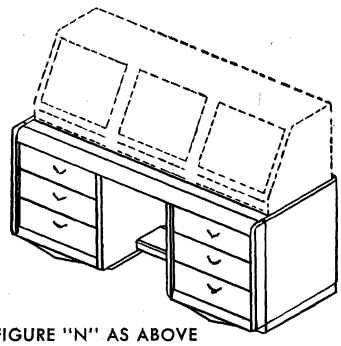

FIGURE "N" AS ABOVE
FIGURE "O" (LESS TOP CABINET)

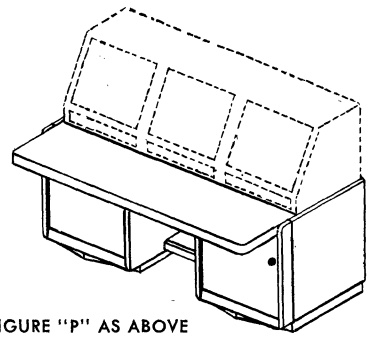

FIGURE "P" AS ABOVE
FIGURE "R" (LESS TOP CABINET)

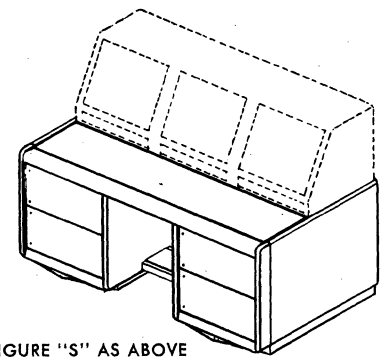

FIGURE "S" AS ABOVE
FIGURE "T" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "N"	Fig. "O"	Fig. "P"	Fig. "R"	Fig. "S"	Fig. "T"
Pedestal Frames	13	2	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Center Desk Section	13	1	CD-24	CD-24	CD-24	CD-24	CD-34	CD-34
Exterior Side Panels	13	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panels	13	2	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	14	1			CT-319	CT-319		
Micarta Table Top	14	1	*	WT-243	*	NT-243	HT-343	WT-343

*Table top not required

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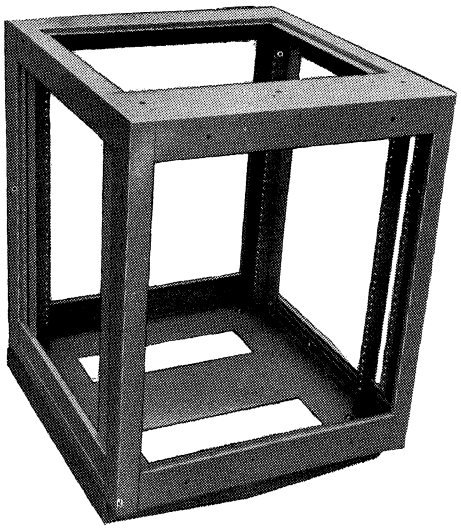
PAR-METAL DE LUXE CONSOLE ASSEMBLIES



Cat. No. PD-224

RACK PEDESTAL FRAMES

The rack pedestal is the principal component used in all single and multiple unit assemblies. It combines the essential features of our **type "PL" racks** listed on Par-Metal Page 5 and is attractively styled for any environment.

The bottom and step base are formed from 7/64" steel; all other parts are made from 1/16" steel. They are substantially welded together to insure the extra strength and stability needed for heavy duty installation, wherever located. They are capable of carrying heavy transformers, large power supplies, motors, compressors, and similar apparatus.

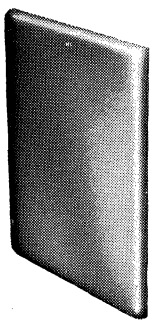
Panel space at front and back is 21" x 19". Panel mounting angles (or "strips") may be located at any position from front to back, and have tapped holes for mounting standard rack panels, sliding shelves, phono drawers, or storage drawers. Two pairs are supplied—one pair for front mounting and another pair for rear mounting. Additional tapped holes are available at the sides for mounting chassis supports and shelves.

The various units required to make up complete assemblies are listed on Par-Metal Pages 14 and 15. The component check lists on Par-Metal Page 12 enables you to easily select the parts required.

Pedestal frames may be obtained as standard units with heavy duty casters at a nominal additional cost. See listing and description on Par-Metal Page 19. **FINISHES:** Standard finish is a combination of light and dark grey hammertone enamel. Other optional finishes are listed on Par-Metal Page 10. We will be happy to answer any questions regarding dimensional information, construction details, etc. Write for assistance.

CATALOG NO. PD-224 (24¼" deep)
Overall Dimensions (with side panels, front and rear trim) 30" high, 24½" wide, 25⅜" deep.
Overall Dimensions (less side panels, front and rear trim) 29" high, 22" wide, 24¼" deep.
Height of pedestal rack (less step base): 26½"
Panel Mounting Space: Front and Back: 21" high x 19" wide.
Clear opening at front and back: 19⅛"
Clear opening between panel mounting angles: 17¾"
*Clear opening at left and right: 17⅝" wide, 21" high.
Clear inside depth (front to back): 23⅛"
*Suitable for standard rack panel 19" wide, 21" high (if needed).
NET PRICE $80.00

CATALOG NO. PD-234 (34¼" deep)
Overall Dimensions (with side panels, front and rear trim) 30" high, 24½" wide, 35⅜" deep.
Overall Dimensions (less side panels, front and rear trim) 29" high, 22" wide, 34¼" deep.
Height of pedestal rack (less step base): 26½"
Panel Mounting Space: Front and Back: 21" high x 19" wide.
Clear opening at front and back: 19⅛"
Clear opening between panel mounting angles: 17¾"
*Clear opening at left and right side: 22⅝" wide, 21" high.
Clear inside depth (front to back): 33⅛"
*Suitable for standard rack panel 24" wide, 19" high (if needed).
NET PRICE $95.00



DETACHABLE SIDE PANELS

All panels are made from 1/16" sheet steel. All corners are securely welded and ground smooth. Each panel has cowl fasteners at top and bottom, so that they may be quickly removed to provide complete access to the interior of the pedestals. Prices include front horizontal mouldings on pedestal frames. Panels are finished to match color of pedestal frames, unless otherwise ordered.

Cat. No.	Description	To fit Pedestal	For use on	Net Price
EP-24	Exterior side panel	PD-224	All assemblies	$20.00
KP-24	Interior side panel	PD-224	" "	17.50
EP-34	Exterior side panel	PD-234	" "	25.00
KP-34	Interior side panel	PD-234	" "	20.00

CENTER DESK SECTION (For Triple Unit Assmblies)

The center desk section shown is attached between two rack pedestals to make up a triple unit assembly. It consists of a table top support and floor brace illustrated on Par-Metal Page 12. The formica table top is not included in prices of center desk sections. Sections are finished to match color of pedestal frames, unless otherwise ordered. Both Center Desk Sections are 1⅝" high and 22" wide.

Cat. No.	For assembly with	Front to back	Net Price
CD-24	Pedestal PD-224	25⅜"	$16.80
CD-34	Pedestal PD-234	35⅜"	19.80

END PEDESTAL (For Double Unit Assemblies)

This end pedestal is designed to make up a double unit assembly as illustrated on Par-Metal Pages 10 and 12. It may be installed on either the right or left hand side of the pedestal frame. The formica table top is not included in prices listed below. Will be finished to match pedestal frame, unless otherwise ordered. Both End Pedestals are 30" in height.

Cat. No.	For assembly with	Front to back	Net Price
DU-24	Pedestal PD-224	26½"	$38.50
DU-34	Pedestal PD-234	36½"	45.00

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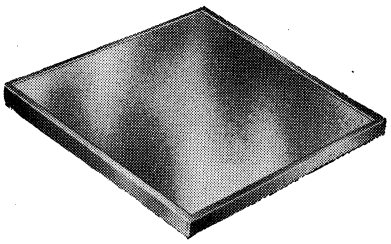
PAR-METAL DE LUXE CONSOLE ASSEMBLIES



FORMICA BONDED TABLE TOPS

These table tops are made from ¾" thick plywood to which is bonded 1/16" thick patterned grey formica. All sizes are edged with a narrow stainless steel moulding to prevent pencils and similar objects from rolling off the table. There are no metal spacers between units, providing a clear unobstructed writing surface across the entire top.

The table top required for any particular assembly may be easily identified from the check list of component groups on Par-Metal Page 12. The listings below are a cross reference and also include prices.

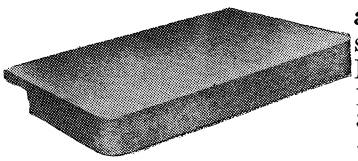
For Use on No. PD-224 Pedestal Frames (24¼" deep)

Catalog No.	Size	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
WT-241	21 7/16"x22"	Single Unit Assembly	"B"	12	$15.60
NT-241	18 7/8"x22"	Single Unit Assembly	"D"	12	14.20
WT-242	21 7/16"x44"	Double Unit Assembly	"H"	12	30.00
NT-242	18 7/8"x44"	Double Unit Assembly	"K"	12	25.40
WT-243	21 7/16"x66"	Triple Unit Assembly	"O"	12	45.00
NT-243	18 7/8"x66"	Triple Unit Assembly	"R"	12	39.00

For Use on No. PD-234 Pedestal Frames (34¼" deep)

Catalog No.	Size	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
HT-341	12 9/16"x22"	Single Unit Assembly	"E"	12	$11.20
WT-341	31 7/16"x22"	Single Unit Assembly	"F"	12	23.40
HT-342	12 9/16"x44"	Double Unit Assembly	"L"	12	18.20
WT-342	31 7/16"x44"	Double Unit Assembly	"M"	12	46.00
HT-343	12 9/16"x66"	Triple Unit Assembly	"S"	12	26.00
WT-343	31 7/16"x66"	Triple Unit Assembly	"T"	12	68.00

EXTENSION DESK TABLES



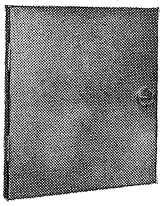
These extension tables are used in console assemblies illustrated on Par-Metal Pages 11 and 12. They are made from ¾" thick plywood, to which is bonded 1/16" thick grey formica.

The formica covers both the top and apron of the table which is 2½" deep. The apron is substantially reinforced for fastening to horizontal channel supports. The assembly provides a rugged structure with a smooth writing space across the entire top.

There are no metal parts exposed, and no metal surfaces to deteriorate with constant usage. As these tables are mounted above the front panels on the pedestal frame, the full front panel space of 21" may be used.

Cat. No.	For use on Assemblies	Overall Size	Net Price
CT-119	Single Unit	16"x22"x2½"	$36.00
CT-219	Double Unit	16"x44"x2½"	68.00
CT-319	Triple Unit	16"x66"x2½"	96.00

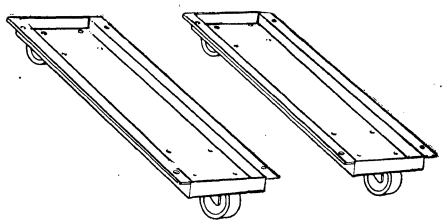
PEDESTAL FRAME DOORS



These doors are made to enclose the front or back of pedestal frames. They are "double wall" type with smooth surfaces inside and outside. A push button spring catch provides easy operation with a minimum projection from the front of the door. Made in two heights: 21" high to completely enclose the front opening of the pedestal, and a 10½" high door, which may be inserted above or below a sliding drawer or rack panel. Can be supplied to match finish of console assembly, or any finish listed on Par-Metal Page 10.

Louvered doors are available at same prices if so ordered.

Cat. No.	For assembly with Pedestal	Size	Net Price
DR-1019	No. PD-224 or 234	10½"x19"	$13.50
DR-2119	No. PD-224 or 234	21 "x19"	16.50



PEDESTAL CASTER ASSEMBLIES

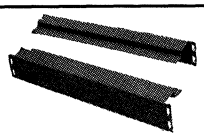
These assemblies are made specifically for use on our No. PD-224 and No. PD-234 pedestal frames listed on Par-Metal Page 13. They replace the regular recessed sub-bases, and are used where mobility is required. The caster plates are made from 7/64" thick steel for heavy-duty usage. Casters are equipped with 3" diameter composition wheels. capable of supporting loads of 225 lbs. per wheel.

Where pedestal frames with caster assemblies are required, they will be supplied at an additional cost of $4.00 per frame. Simply specify on your pedestal frame order **"with casters."** They may be obtained separately as listed below for replacement of recess sub-bases on pedestal frames now in use.

Cat. No.	For use on	*Net Price
CA-24	Pedestal Frame No. PD-224	$15.00
CA-34	Pedestal Frame No. PD-234	15.00

*Price is for a pair, for installation on one pedestal frame.

MOUNTING BRACKETS

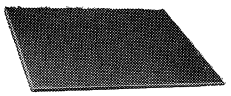


These brackets may be mounted on each side of the pedestal.

They are slotted to match the lapped holes in the sides of the pedestal and may be adjusted to any height.

Cat. No.	To Fit Pedestal	Overall Size	Net Price Per Pair
CB-24	PD-224	2½" x 2 31/32" x 18 13/16"	$4.20
CB-34	PD-234	2½" x 2 31/32" x 28 13/16"	5.80

SHELVES



These shelves are drilled for assembly with Mounting Brackets CB-24 and CB-34.

Both shelves are 17½" wide and 5/8" high.

Cat. No.	To Fit Brackets	For Pedestal	Depth	Net Price
SS-24	CB-24	PD-224	22¾"	$4.60
SS-34	CB-34	PD-234	32¾"	6.40

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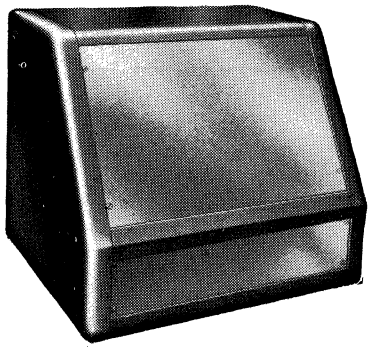
PAR-METAL DE LUXE CONSOLE ASSEMBLIES

DESK PANEL CABINETS

The desk control cabinets shown below are ideal **for use in the laboratory, for test equipment** and **other industrial applications.** Each cabinet section is made from 1/16" sheet steel, rigidly welded together—ready for use without a multiplicity of clips, studs, nuts and other fastening devices.

Cabinets are regularly supplied with full hinged ventilated doors at the back (except Series LS-101, etc.). Tapped holes are also provided for mounting standard 19" wide panels; panels (blank or ventilated) up to 15¾" high are optional at the same price.

Standard finish is dark grey hammertone for cabinets, with contrasting light grey hammertone for panels. Other finishes are available, as listed on Par-Metal Page 10.



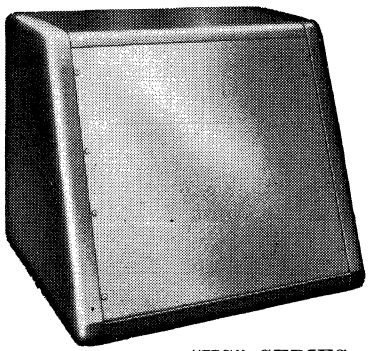
"CX" SERIES

DUAL PANEL DESK CONTROL CABINETS

On Series "CX" cabinets, the upper panel is 12¼" high, and is sloped at an angle of 30°; the lower vertical panel is 3½" high. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is louvered for efficient ventilation, and held closed with a push-button type spring catch. In double and triple unit cabinets individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 21). Standard aluminum or steel rack panels, 1/8" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
CX-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	**$ 70.00**
CX-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	**115.00**
CX-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	**160.00**



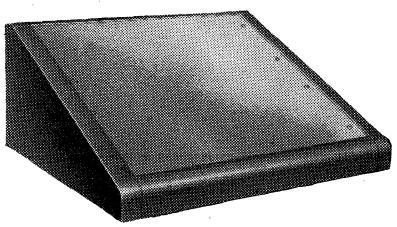
"HS" SERIES

HIGH SLOPE PANEL DESK CABINETS

On Series "HS" cabinets, the front panel size is 17½" x 19", and is sloped at an angle of 23°. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is adequately louvered, and held closed with a push-button type spring catch. In double and triple units, individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 21). Standard aluminum or steel rack panels, 1/8" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
HS-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	**$ 66.50**
HS-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	**110.00**
HS-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	**150.00**

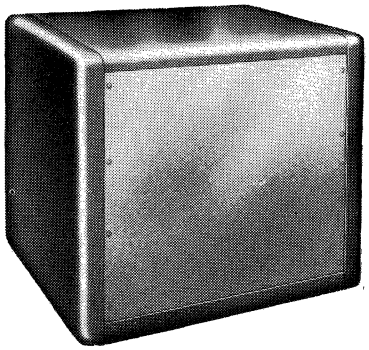


"LS" SERIES

LOW SLOPE PANEL DESK CABINETS

On Series "LS" cabinets, the front panel is 17½" x 19", and slopes upward at an angle of 22°. The bottom has a removable panel size, 15¾" x 19". Standard aluminum or steel rack panels, 1/8" thick, may be substituted for the formed steel panels regularly supplied at no additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
LS-101	Single Unit	9⅛"	22"	18⅞"	**$ 40.00**
LS-102	Double Unit	9⅛"	44"	18⅞"	**70.00**
LS-103	Triple Unit	9⅛"	66"	18⅞"	**100.00**



"VF" SERIES

VERTICAL DESK PANEL CABINETS

On Series "VF" cabinets, the vertical front panel, the top panel, and the bottom panel are removable. All have the same size, 15¾" x 19". A hinged removable door is mounted on the back, adequately ventilated with hinges at the bottom for easy access to the interior. The door is held closed with a push-button spring catch; in double and triple units, individual doors are used on each unit.

All panels supplied are the formed type 19" wide (see Par-Metal Page 21). Standard aluminum or steel panels, 1/8" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
VF-101	Single Unit	18⅞"	22"	18⅞"	**$ 55.00**
VF-102	Double Unit	18⅞"	44"	18⅞"	**100.00**
VF-103	Triple Unit	18⅞"	66"	18⅞"	**145.00**

Complete dimensional information on Desk Panel Cabinet Racks including explanatory drawing of side section is available in our Catalog 61. Kindly write directly to home office for personalized and interested engineering assistance.

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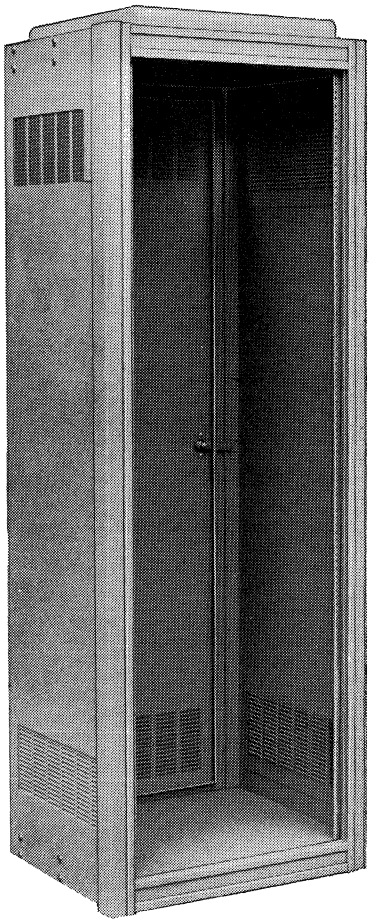
PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16" sheet steel. The sides are adequately ventilated with "venetian" type louvres similar to our universal cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped **"knocked down"** for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc. **PANEL MOUNTING:** Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

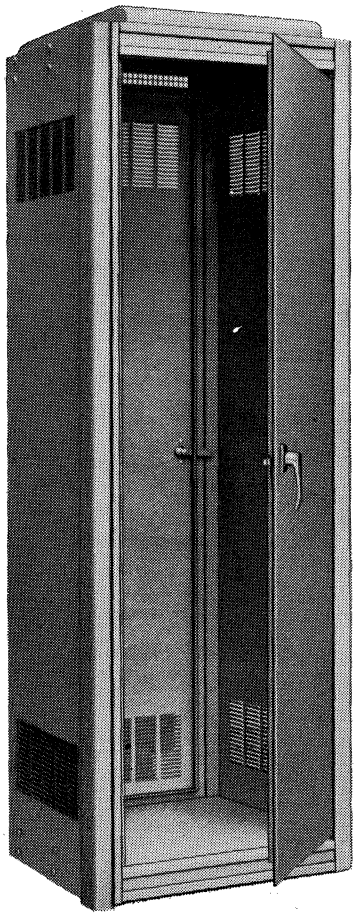
HARDWARE: Doors are the same as our universal racks. **"Series ER-225A"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"Series FD-225A"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel finish will be supplied without extra charge if so specified on your order. Grey hammertone enamel is available at an additional charge of 10%.

ROLLER TRUCK: Roller truck No. RT-412 for Series ER-225A racks; use RT-418 for Series FD-225A; both are listed on Par-Metal Page 19.

PANELS: Panels 19" wide to fit these racks are listed on Par-Metal Pages 20 and 21.

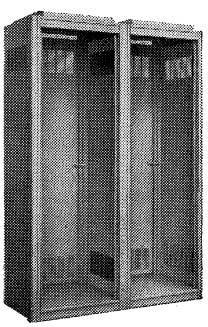
SHELVES: For Series ER-225A Racks, use shelf No. ER-2212 listed on Par-Metal Page 19. To install shelves in Series FD-225A, it is recommended that Vertical Side Supports, Brackets and Shelves listed on Par-Metal Page 8 be used.



"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	Net Price
ER-223-A	Rear only	43¼x22x18"	36¾x19"	**17⅝"	19"	16¾"	90	**$ 52.20**
ER-225-A	Rear only	67¾x22x18"	61¼x19"	**17⅝"	19"	16¾"	120	**64.35**
ER-227-A	Rear only	83½x22x18"	77 x19"	**17⅝"	19"	16¾"	140	**77.70**
FD-223-A	Front & Rear	43¼x22x18"	36¾x19"	19⅛"	19"	*16"	110	**66.90**
FD-225-A	Front & Rear	67¾x22x18"	61¼x19"	19⅛"	19"	*16"	150	**83.10**
FD-227-A	Front & Rear	83½x22x18"	77 x19"	19⅛"	19"	*16"	175	**103.95**

*clearance between front and rear doors. **between panel mounting angles.



MULTI-RACK ASSEMBLY

MULTI-RACK CABINET ASSEMBLIES

MULTI-RACK ASSEMBLIES: Both **Series "ER"** and **"FD"** racks may be set up in rows as shown in the sketch. The use of "venetian type" louvers provides a flat exterior surface on the sides of the racks; separate side plates with welded screw studs inserted at top and bottom of adjacent sides simplifies the assembly—no screwdrivers or wrenches are needed. Vertical joining trims overlap the joint between racks as shown on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustable panel mounting angles, which may be located at any distance from front to rear of rack. VERTICAL SIDE SUPPORTS listed on Par-Metal Page 8 will fit into these racks.

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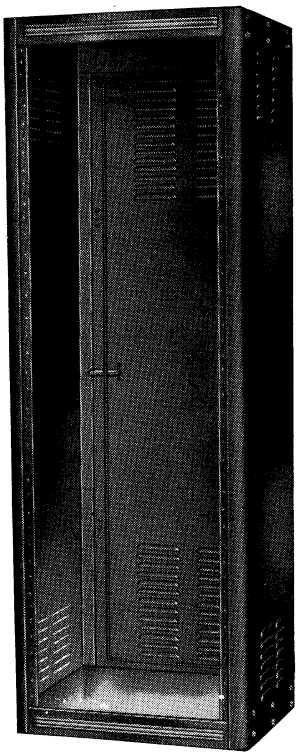
PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE — FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

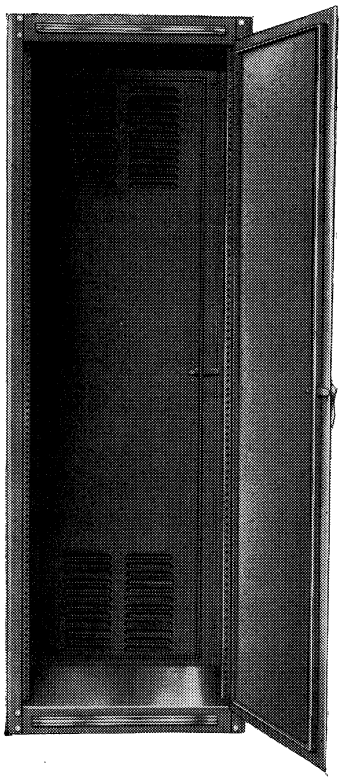
THESE RACKS ARE SIMILAR in construction to our Series ER-225 Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16" thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of same design as our universal racks. **"SERIES ER-215"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"SERIES FD-215"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD-215 racks, the front panel mounting angles are recessed 2" deep to allow clearance for dials, etc. The clear inside depth behind the panel is 13½".



"FD" SERIES
WITH FRONT AND REAR DOOR

SPECIFICATIONS

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
ER-213	Rear only	42 x22x16½"	36¾x19"	15¼"	19"	**17⅝"	85	**$37.20**
ER-215	Rear only	66½x22x16½"	61¼x19"	15¼"	19"	**17⅝"	110	**54.90**
ER-217	Rear only	82¼x22x16½"	77 x19"	15¼"	19"	**17⅝"	130	**66.30**
FD-215	Front & Rear	66½x22x16½"	61¼x19"	*13½"	19"	19⅛"	130	**73.92**
FD-217	Front & Rear	82¼x22x16½"	77 x19"	*13½"	19"	19⅛"	155	**89.10**

*clearance behind panel. **between panel mounting angles.

FINISH: BLUE GREY RIPPLE is standard. Black Ripple Enamel will be supplied without extra charge if so specified on your order. Grey hammertone enamel is available at an additional cost of 10%.

PANELS: Panels 19" wide to fit these racks are listed on Par-Metal Pages 20 and 21.

ROLLER TRUCK: No. RT-411 will fit all racks listed on this page. Roller trucks are listed on Par-Metal Page 19.

SHELVES: For series ER-215 racks, use shelf No. ER-2112. For series FD-215 racks, use shelf No. R-2215. Both shelves are listed on Par-Metal Page 19.

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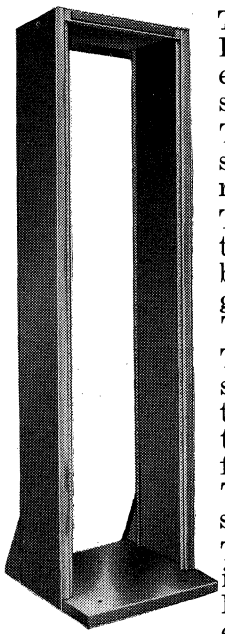
PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19" and 24" wide panels



No. RR-197

These new DeLuxe Channel Type Relay Racks **are made from 7/64" thick steel,** and extend the utility and applicability of the standard channel relay rack.

The panel space is 77" x 19", to match a standard height used on enclosed cabinet racks.

The upright channels have been modified to an 8" overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

The rack is drilled and tapped for 10/32 screws at **both front and back,** permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The **full** panel space of 77" x 19" is available on the back, the same as the front.

The clear distance between panel mounting flanges (from front to back) is 6¾". It is practicable to use this 6" depth as an enclosure for dish type chassis listed on Par-Metal Page 23.

When such chassis are mounted at the back, the addition of standard or hinged type panels (see Par-Metal Page 21) will make a rack enclosure with a clear depth of 6¾".

The top cross-brace is provided with a grille for ventilation where needed. Two holes are located on each side for bolting racks together in rows, there are no projecting screw heads on the sides.

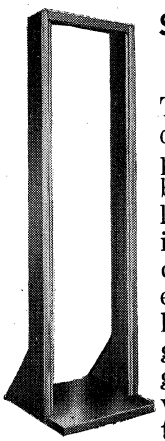
The top brace and the vertical channel members are securely welded together. The base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. For grey ripple enamel, add 5%. For grey hammertone enamel, add 10%.

CATALOG No. RR-197: (for 19"Wide Panels)
Overall Dimensions: 80⅜" high, 21⅛" wide, 26" deep
Available Panel Space: 77"x19" (at front and rear)
Clearance between Uprights: 17⅝"
Clear Depth in Channel: 6¾" inside
Shipping Weight: 100 lbs. **Net Price: $40.50.**

CATALOG No. RR-1924: (for 24" Wide Panels)
Overall Dimensions: 80⅜" high, 26⅛" wide, 26" deep
Available Panel Space: 77"x24" (at front and rear)
Clearance between Uprights: 22⅝"
Clear Depth in Channel: 6¾" inside
Shipping Weight: 115 lbs. **Net Price $52.00**

STANDARD TYPE RACKS for 19" wide panels



No. RX-195

THESE RACKS are sturdily constructed from 7/64" pressed steel, and are braced at the back as illustrated. They have been improved by a formed recess for the panels; the edges of the panels are no longer exposed, and the rigidity of the rack has been greatly increased. The two vertical members and the top crossbrace are securely WELDED TOGETHER.

Panel mounting holes are accurately drilled for standard rack panels, tapped for 10-32 machine screws at the front only. An ample supply of panel mounting screws and finishing washers are supplied.

Upright channels are 3" deep with flanges 1⅛" wide. Clearance between uprights is 17¾". Base is 20⅞" deep and extends both front and rear, and is 21" wide for either unit.

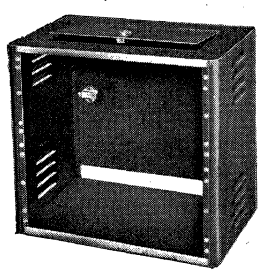
FINISH: Standard finish is black wrinkle. For blue grey wrinkle or grey hammertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHP. WT. LBS.	NET PRICE
RX-195	74 7/16"	71¾"	55	$24.00
RX-193	39 7/16"	36¾"	45	19.80

DESK PANEL CABINET RACKS For Standard 19" Rack Panels

In keeping with our other De Luxe racks, the vertical front corners are rounded and the top and bottom are trimmed with re-striped chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13" x 17" in size. All cabinets are rigidly constructed of 1/16" thick cold rolled sheet steel, with all joints electrically welded. Louvres provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. Panel mounting screws and washers are furnished.



No. DL-1713

FINISH: BLACK RIPPLE ENAMEL is standard. Blue grey wrinkle enamel will be supplied without extra charge if so specified in your order.

PANELS: Rack panels to fit these racks are listed on Par-Metal Pages 20 and 21.

RACK SHELF: Rack shelf No. R-2128 listed on Par-Metal Page 19 is designed to fit these racks.

(With door in top only) *(not illustrated)*

Catalog No.	Cabinet Size	Available Panel Space	Shp. Wt.	Net Price
DL-128	10½"x21½"x15" deep	8¾"x19"	28 lbs.	$16.20
DL-1210	12¼"x21½"x15" deep	10½"x19"	29 lbs.	17.70
DL-1225	14" x21½"x15" deep	12¼"x19"	30 lbs.	19.20
DL-1413	15¾"x21½"x15" deep	14" x19"	32 lbs.	21.00

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp. Wt.	Net Price
DL-1713	19¼"x21½"x15" deep	17½"x19"	38 lbs.	$22.80
DL-2613	28" x21½"x15" deep	26¼"x19"	48 lbs.	26.70
DL-3513	36¾"x21½"x15" deep	35" x19"	58 lbs.	29.55

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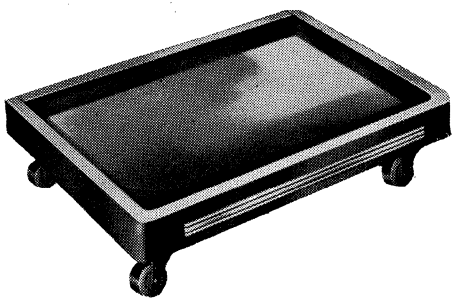
PAR-METAL — ROLLER TRUCKS — SHELVES

STANDARD ROLLER TRUCKS FOR RACKS

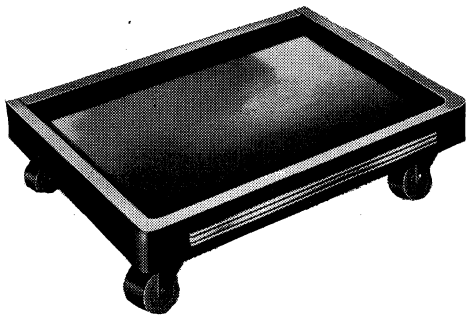


These trucks are especially designed for use on our Cabinet racks, and have rounded corners at the front with a chrome finished moulding. Overall size is about 2" wider than the racks for better distribution of weight.

Casters are ball-bearing swivel type with 2" rubber composition wheels. **FINISH: BLUE GREY RIPPLE** is standard. Also available in Grey Hammertone at an additional cost of 10%. Shipping weight on all sizes is 22 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Page No.	Net Price
RT-410	DL-1713, 2613, 3513	18	$10.08
RT-411	ER-213, ER, FD-215, 217	17	10.56
RT-412	ER-223, ER-225, ER-227-A	16	12.15
RT-418	FD-223, 225, 227-A	16	12.90
	PX, FX-3718-A, 4818-A, 6718-A	7	
	PX, FX-7718-A, 8418-A	7	
RT-420	PX, FX-4824-A, 6724-A, 8424-A	7	16.65

HEAVY DUTY ROLLER TRUCKS



Our heavy duty roller trucks are similar in size and design to the standard units, except that they have reinforced bottoms, and are equipped with heavy-duty swivel type casters, with 3" diam. wheels.

They are recommended for use on all 24" deep racks, and on other racks where necessary. The 3" casters have a load capacity of 225 lbs. per wheel. **FINISH: BLUE GREY RIPPLE** is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%. Shipping weight is 35 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Page No.	Net Price
HD-412	ER-223, ER-225, ER-227-A	16	$20.76
HD-418	FD-223, FD-225, FD-227-A	16	22.65
	PX, FX-3718-A, 4818-A, 6718-A	7	
	PX, FX-7718-A, 8418-A	7	
HD-420	PX, FX-4824-A, 6724-A	7	24.00
	PX, FX-7724-A, 8424-A	7	
*HD-425	PL, FL, PR, FR-4818-A, 6718-A	5, 6	24.15
	PL, FL, PR, FR-7718-A, 8418-A	5, 6	
*HD-426	PL, FL, PR, FR-4824-A, 6724-A,	5, 6	26.70
	PL, FL, PR, FR-7718-A, 8418-A	5, 6	
HD-427	PX, FX-4827-A, 6727-A,	7	27.00
	PX, FX-7727-A, 8427-A	7	
*HD-432	PL, FL, PR, FR-4827-A, 6727-A	5, 6	29.40
	PL, FL, PR, FR-7727-A, 8427-A	5, 6	
HD-434	PX, FX-6733-A, 7733-A, 8433-A	7	33.50
*HD-438	PL, FL, PR, FR-6733-A, 7733-A	5, 6	36.80
	PL, FL, PR, FR-8433-A	5, 6	

* For racks with detachable side panels attached to racks.

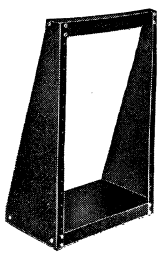
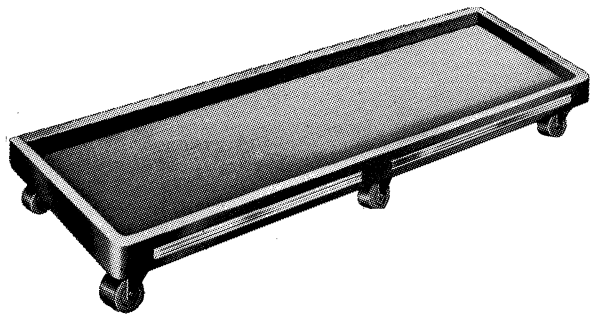


TABLE TYPE RACKS

THESE RACKS are intended for table mounting and are useful where a regular floor type heavy duty rack is not required.

The base is constructed of one piece, similar to a chassis. Mounting holes are accurately drilled on universal centers, tapped for 10/32 screws. They are finished in black ripple enamel and shipped "knocked down" with all necessary screws.

HEAVY DUTY DOUBLE WIDTH ROLLER TRUCKS



It is often necessary to mount groups of 2 of our enclosed racks on roller trucks. The truck illustrated above is used for that purpose. They are similar to our heavy duty trucks except that they have been reinforced with heavier steel because of their greater length.

They are supplied with 6 heavy-duty swivel type casters with 3" diameter wheels. These casters have a load capacity of 225 lbs. per wheel.

FINISH: BLUE GREY RIPPLE is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%.

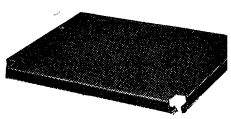
Catalog No.	Will Fit Rack No.	Par-Metal Page No.	Net Price
HD-412-2	ER-223, ER-225, ER-227-A	16	$41.52
HD-418-2	FD-223, FD-225, FD-227-A	16	45.30
	PX, FX-3718-A, 4818-A, 6718-A	7	
	PX, FX-7718-A, 8418-A	7	
HD-420-2	PX, FX-4824-A, 6724-A	7	48.00
	PX, FX-7724-A, 8424-A	7	
*HD-425-2	PL, FL, PR, FR-4818-A, 6718-A	5, 6	48.30
	PL, FL, PR, FR-7718-A, 8418-A	5, 6	
*HD-426-2	PL, FL, PR, FR-4828-A, 6724-A	5, 6	53.40
	PL, FL, PR, FR-7724-A, 8418-A	5, 6	
HD-427-2	PX, FX-4827-A, 6727-A	7	54.00
	PX, FX-7727-A, 8427-A	7	
*HD-432-2	PL, FL, PR, FR-4827-A, 6727-A	5, 6	58.00
	PL, FL, PR, FR-7727-A, 8427-A	5, 6	
HD-434-2	PX, FX-6733-A, 7733-A, 8433-A	7	67.00
*HD-438-2	PL, FL, PR, FR-6733-A, 7733-A	5, 6	73.60
	PL, FL, PR, FR-8433-A	5, 6	

* For racks with detachable side panels attached to racks.

WE CAN SUPPLY ON A "SEMI-CUSTOM" BASI pressed steel roller trucks for our cabinet racks up to 36 wide and 88" long. They can be equipped with 4" dia. whee casters and necessary foot brakes. The extra width i used in front of the rack assembly to provide stabilit where extension shelves and other accessories are mounte on the front of the racks. Drawings and prices availabl upon request

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1" high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.



R-2215

Catalog No.	Will Fit Rack No.	Rack Page No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217	17	13"x21 5/16"	$3.60
R-2215	FD-215, FD-217	17	10 5/8"x21 5/16"	3.60
ER-2212	ER-223, ER-225, ER-227-A	16	15"x21 5/16"	3.60
R-2128	DL-1713, 2613, 3513	18	12"x21 3/16"	2.94

Cat. No.	Overall Size	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2520	24x21x12"	21x19"	17	$8.70
TR-3220	31x21x12"	28x19"	20	9.90

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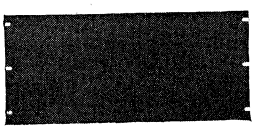
PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit universal cabinet racks and all type "A" racks. They will also fit any other rack equipment having multiple 1¼"-½" spacings or what is commonly termed as W.E. spacing.

IN ADDITION TO FINISHES LISTED BELOW, THEY MAY BE OBTAINED IN LIGHT GREY EQUIPMENT ENAMEL, OR MEDIUM GREY ENAMEL, PRIMER COAT ONLY SUPPLIED AT SAME PRICE AS GREY HAMMERTONE ENAMEL.

STANDARD STEEL BLANK PANELS
⅛" STEEL



Standard flat panels made from ⅛" thick steel, either 19", 24", or 30" wide. Other finishes available as mentioned in page heading.

19" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6600	G-6600	$ .75	1¾"	H-6600	$ .83
6601	G-6601	.96	3½"	H-6601	1.06
6602	G-6602	1.20	5¼"	H-6602	1.32
6603	G-6603	1.47	7"	H-6603	1.62
6604	G-6604	1.74	8¾"	H-6604	1.91
6605	G-6605	1.98	10½"	H-6605	2.18
6606	G-6606	2.34	12¼"	H-6606	2.57
6607	G-6607	2.70	14"	H-6607	2.97
6608	G-6608	3.06	15¾"	H-6608	3.37
6609	G-6609	3.39	17½"	H-6609	3.73
6610	G-6610	3.72	19¼"	H-6610	4.09
6611	G-6611	4.05	21"	H-6611	4.15

24" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6201	G-6201	$1.38	3½"	H-6201	$1.52
6202	G-6202	1.77	5¼"	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8¾"	H-6204	3.04
6205	G-6205	3.15	10½"	H-6205	3.47
6206	G-6206	3.57	12¼"	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15¾"	H-6208	5.45
6209	G-6209	5.40	17½"	H-6209	5.94
6210	G-6210	6.09	19¼"	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6301	G-6301	$2.10	3½"	H-6301	$2.31
6302	G-6302	2.55	5¼"	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8¾"	H-6304	3.96
6305	G-6305	3.99	10½"	H-6305	4.39
6306	G-6306	4.71	12¼"	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15¾"	H-6308	6.60
6309	G-6309	6.72	17½"	H-6309	7.39
6310	G-6310	7.44	19¼"	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 3003-H14 aluminum alloy, caustic etched for proper paint adhesion. Panels 24" or 30" wide, made from 3/16" aluminum, are available on order.

19" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675	G-6675	$ .90	1¾"	H-6675	$ .99
6676	G-6676	1.26	3½"	H-6676	1.39
6677	G-6677	1.74	5¼"	H-6677	1.91
6678	G-6678	2.22	7"	H-6678	2.44
6679	G-6679	2.70	8¾"	H-6679	2.97
6680	G-6680	3.21	10½"	H-6680	3.53
6681	G-6681	3.78	12¼"	H-6681	4.16
6682	G-6682	4.29	14"	H-6682	4.59
6683	G-6683	4.83	15¾"	H-6683	5.31
6684	G-6684	5.37	17½"	H-6684	5.91
6685	G-6685	5.91	19¼"	H-6685	6.50
6686	G-6686	6.47	21"	H-6686	7.12

24" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6276	G-6276	$2.28	3½"	H-6276	$2.51
6277	G-6277	3.00	5¼"	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8¾"	H-6279	5.21
6280	G-6280	5.73	10½"	H-6280	6.30
6281	G-6281	6.66	12¼"	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15¾"	H-6283	9.44
6284	G-6284	9.54	17½"	H-6284	10.49
6285	G-6285	10.47	19¼"	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6376	G-6376	$2.73	3½"	H-6376	$3.00
6377	G-6377	3.96	5¼"	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8¾"	H-6379	7.06
6380	G-6380	7.65	10½"	H-6380	8.42
6381	G-6381	8.88	12¼"	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15¾"	H-6383	12.47
6384	G-6384	12.57	17½"	H-6384	13.83
6385	G-6385	13.80	19¼"	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — 3/16" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
6675-3	G-6675-3	$1.65	1¾"	H-6675-3	$1.74
6676-3	G-6676-3	2.28	3½"	H-6676-3	2.40
6677-3	G-6677-3	3.36	5¼"	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8¾"	H-6679-3	5.43
6680-3	G-6680-3	6.18	10½"	H-6680-3	6.51
6681-3	G-6681-3	7.20	12¼"	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15¾"	H-6683-3	9.78
6684-4	G-6684-3	10.35	17½"	H-6684-3	10.89
6685-3	G-6685-3	11.40	19¼"	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

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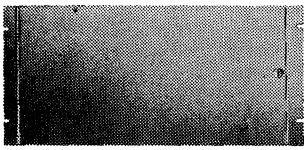
PAR-METAL RACK PANELS 19" & 24" WIDE

(FOR FURTHER DESCRIPTION, SEE PRECEDING PAGE)

SIDE HINGED BLANK PANELS
1/8" STEEL 19" WIDE



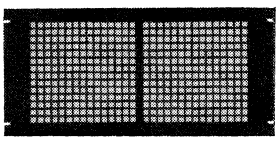
These door panels are made from 1/8" steel, hinged at the sides with a cowl type fastener to hold the door closed.

May be mounted on racks with hinges on right or left side. Clear opening (width) is 15¾".

Standard finishes are black wrinkle, blue grey wrinkle, or smooth grey hammertone enamel. Primer coat only is available at hammertone price.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
HP-350	GP-350	$3.15	3½"	HA-350	$3.37
HP-525	GP-525	3.27	5¼"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8¾"	HA-875	4.22
HP-1050	GP-1050	4.14	10½"	HA-1050	4.56
HP-1225	GP-1225	4.41	12¼"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17½"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — 1/8" STEEL



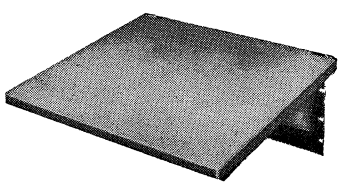
This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Net Price
P-661	G-661	$2.94	5¼"	3⅜x14⅜"	H-661	$3.23
P-662	G-662	3.24	7"	4⅞x14⅜"	H-662	3.56
P-663	G-663	3.87	8¾"	6⅞x14⅜"	H-663	4.26
P-664	G-664	3.54	8¾"	*8⅞x14⅜"	H-664	3.89
P-665	G-665	4.29	10½"	8⅜x14⅜"	H-665	4.72
P-666	G-666	4.02	10½"	*5⅞x14⅜"	H-666	4.42
P-667	G-667	4.35	12¼"	*7⅜x14⅜"	H-667	4.79

* Allows 3½" space at bottom for chassis mounting.

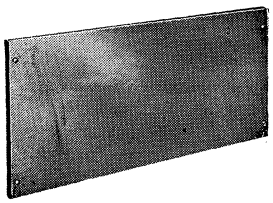
STANDARD DESK PANELS

These standard tables are rigidly made of 1/16" thick furniture steel. The rounded front corners are of seamless construction and the flanges of the shelf are folded in to provide smooth edges underneath.



They are securely mounted to regular 1/8" steel panels, size 10½ x 19". They may be obtained in two sizes and finishes as listed below. The tables are 22" wide to give full working space across the front of the racks when mounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65



These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 1/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

In addition to standard finishes listed, primer coat only can be supplied at same cost as hammertone enamel.

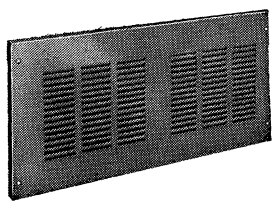
19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
P-601	G-601	$1.38	3½"	H-601	$1.52
P-602	G-602	1.56	5¼"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8¾"	H-604	2.39
P-605	G-605	2.46	10½"	H-605	2.71
P-606	G-606	2.88	12¼"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15¾"	H-608	4.09
P-609	G-609	4.11	17½"	H-609	4.52
P-610	G-610	4.53	19¼"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45

24" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
P-641	G-641	$1.95	3½"	H-641	$2.15
P-642	G-642	2.37	5¼"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8¾"	H-644	3.76
P-645	G-645	3.78	10½"	H-645	4.16
P-646	G-646	4.14	12¼"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15¾"	H-648	5.74
P-649	G-649	5.82	17½"	H-649	6.40
P-650	G-650	6.45	19¼"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE



These are standard formed panels with louvre type ventilation as shown above. Primer coat only available at same price as hammertone. Same panels can be supplied in 24" width if required

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
PV-603	GV-603	$3.45	7"	HV-603	$3.80
PV-604	GV-604	3.90	8¾"	HV-604	4.29
PV-605	GV-605	4.29	10½"	HV-605	4.72
PV-606	GV-606	4.86	12¼"	HV-606	5.35
PV-611	GV-611	7.56	21"	HV-611	8.32

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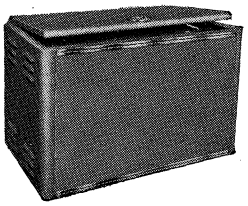
PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

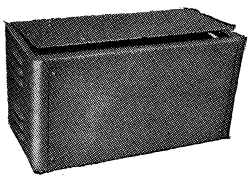
DELUXE TYPE CABINETS



These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is **hinged at the back** for full access to the interior. Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres **on each side**, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 23.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12⅛x 8″	8½x10″	7x 9x2″	6	$ 7.95
CA-301	9x16⅛x 8″	8½x14″	7x13x2″	7	9.00
CA-302	10x17⅛x11″	9½x15″	10x14x3″	8	12.15
CA-303	10x20⅛x 9″	9½x18″	8x17x3″	11	12.15
CA-304	13x20⅛x12″	12½x18″	10x17x3″	15	13.65

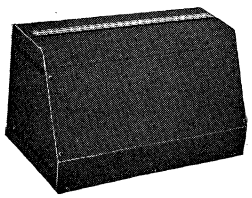
ROUNDED CORNER TYPE CABINETS



Standard type cabinets are similar in design to those listed above. They have **flat type doors**, hinged at back to permit full access to the interior. The vertical front corners are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 23.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8½x10⅛x 8″	8½x 8″	7x 7x2″	6	$ 5.85
CA-201	8½x12⅛x 8″	8½x10″	7x 9x2″	7	6.30
CA-202	8½x16⅛x 8″	8½x14″	7x13x2″	8	7.65
CA-203	9½x17⅛x11″	9½x15″	10x14x3″	11	10.05
CA-204	12½x20⅛x12″	12½x18″	10x17x3″	15	11.85

SLOPING FRONT CABINETS

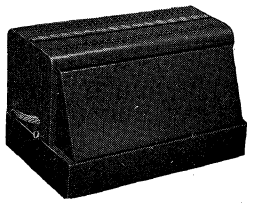


May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.
- A chassis may be mounted to a front panel and removed as a unit.
- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 23.

Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8″	7x 7x2″	6	$ 5.70
SF-501	8x10x 8″	7x 9x2″	7	6.30
SF-502	8x14x 8″	7x13x2″	8	6.75
SF-503	9x18x 8″	7x17x3″	10	8.40
SF-504	12x18x12″	10x17x3″	14	10.20

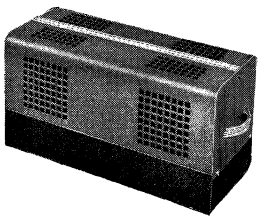
SLOPING FRONT TYPE



These new foundations follow the latest trend in amplifier design. The combination of sloping front panel and streamlined cover enables you to build up a job similar to that used on commercial deluxe type amplifiers. All parts are finished in blue grey ripple enamel, trimmed with red-striped chrome finished mouldings and handles. The front panel is removable and protrudes 3″ from the face of the screen cover. **Chassis are supplied WITH bottom plates.**

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Price
F-10120	10x12x3″	6½″ high	11	$ 8.40
F-10170	10x17x3″	6½″ high	13	9.90
F-13170	13x17x3″	6½″ high	15	10.80

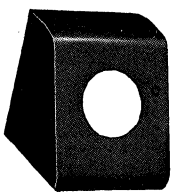
ROUNDED CORNER TYPE



Rounded corners effectively streamline the screen covers of these chassis. Ventilation is obtained through rectangular screen openings. The moulding and handles, finished in chrome with red striping, gives the units a distinctive, modern design.

The screen cover is finished in blue grey ripple enamel to contrast with the black chassis. Chassis are drilled for bottom plates, which are listed on PAR METAL Page 23.

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Price
DF-510	5x10x3″	6″	7	$5.10
DF-615	6x14x3″	6″	8	5.67
DF-717	7x17x3″	6″	9	6.57
DF-1012	10x12x3″	6″	9	6.57
DF-1017	10x17x3″	6″	10	7.35
DF-1317	13x17x3″	6″	12	8.76



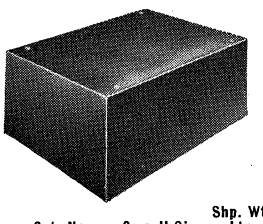
UTILITY CASES & CANS

STEEL METER CASES

These meter cases may be obtained for 2″ and 3″ meters, in both single and triple units.

They are substantially made of steel, with welded joints, and black ripple enamel finish. Top front corner is rounded.

Cat. No.	Meters	Meter Hole	Shp. Wt. Lbs.	Net Price
SM-12	Single 2″	2¼″	1	$1.32
SM-32	Three 2″	2¼″	2	3.00
SM-13	Single 3″	2⅛″	1	1.32
SM-33	Three 3″	2⅛″	2	3.00



STEEL UTILITY CASES

These cases have flat tops and bottoms, which are removable.

Made from 20 gauge sheet steel, with flanged edges and spot-welded corners. Finished in black ripple enamel.

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-442	4x 4x 2″	1	$1.11
MC-453	4x 5x 3″	2	1.32
MC-596	5x 9x 6″	4	2.28
MC-654	6x 5x 4″	3	1.47
MC-666	6x 6x 6″	3	1.92

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-8101	8x10x10″	7	$3.51
MC-8107	8x10x 7″	6	3.21
MC-1128	11x12x 8″	9	3.96
MC-1597	15x 9x 7″	8	4.32

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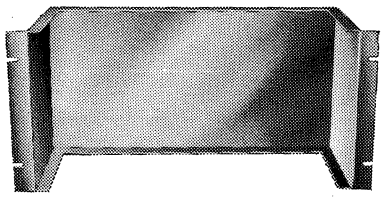
PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS

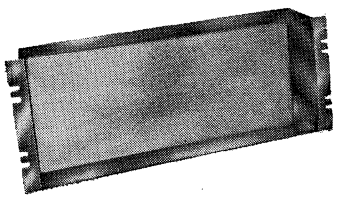


These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 18. Material used is 1/16" aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼" deep; overall width is 19"; chassis width inside is 16⅞".

Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1¾"	2	$2.70
AC-431	3½"	3	3.09
AC-432	5¼"	3	3.51
AC-433	7"	4	3.90
AC-434	8¾"	5	4.29
AC-435	10½"	5	4.80
AC-436	12¼"	6	5.46
AC-437	14"	7	5.97

VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS

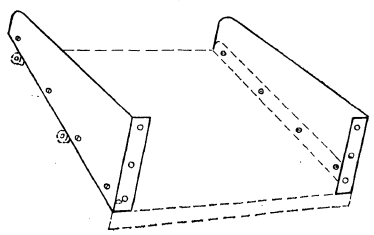


These chassis are fabricated from 1/16" **thick aluminum** with etched finish, or 1/16" **thick steel, zinc** plated. Overall length including mounting flanges is 18¾". They are designed to mount under 19" wide formed panels listed on PAR METAL Page 21. The 4 15/16" height is for use with 5¼" high panels, 6 1/16" for 7" high panels, etc.

Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18¾" overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	$3.98	4-15/16"x17"x3"	SC-402	$3.06
AC-403	4.54	6-11/16"x17"x3"	SC-403	3.45
AC-404	5.10	8- 7/16"x17"x3"	SC-404	3.84
AC-405	5.64	10- 3/16"x17"x3"	SC-405	4.23
AC-406	6.30	11-15/16"x17"x3"	SC-406	4.59

PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES



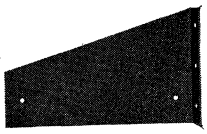
These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 9. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from 1/16" steel, zinc plated. Brackets are 6½" high at front, and 3½" at back. Front flange is 5/16" wide. Made in two lengths, for 14" and 20" deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14¼"	BS-1980	$2.55 pair
BR-20	20¼"	BS-1940, 2419, 2424	3.45 pair

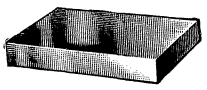
CHASSIS MOUNTING BRACKETS

These brackets are made for assembly with our standard or heavy duty type chassis listed on this page. Panels must be at least 7" high. Finished in black enamel or zinc plated. Made from 1/16" thick steel.



Black Cat. No.	Dimensions	Shp. Wt. Lbs.	Net Price
SB- 78	For 8" Base	2	$1.05
SB-710	For 10" Base	2	1.23
SB-711	For 11" Base	2	1.32
SB-713	For 13" Base	3	1.50
SB-717	For 17" Base & Larger	4	2.31

BLANK STEEL CHASSIS



Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from 1/16" steel exactly like for heavy-duty use.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4500	5½x9½x1½"	2	$1.08
C-4507	5x 7x2"	2	1.08
C-4508	5x10x3"	3	1.38
C-4509	6x14x3"	4	1.77
C-4510	7x 7x2"	2	1.08
C-4511	7x 9x2"	2	1.29
C-4512	7x11x2"	3	1.41
C-4513	7x13x2"	3	1.56
C-4514	7x15x3"	4	1.83
C-4518	4x17x3"	4	1.74
C-4515	7x17x3"	4	1.98
C-4502	8x12x3"	5	1.86
C-4531	8x17x2"	4	1.83
C-4532	8x17x3"	5	1.98
C-4525	10x12x3"	4	1.89
C-4524	10x14x3"	5	2.01
C-4528	10x17x2"	5	2.04
C-4529	10x17x4"	7	2.46
C-4526	10x17x3"	7	2.22
C-4533*	11x17x2"	7	2.91
C-4534*	11x17x3"	9	3.18
C-4516	12x17x2"	5	2.31
C-4517	12x17x3"	6	2.55
C-4530	12x17x4"	6	2.88
C-4535*	13x17x2"	8	3.12
C-4536*	13x17x3"	9	3.51
C-4537*	13x17x4"	10	3.87
C-4540*	17x17x4"	13	4.65

STEEL BOTTOM PLATES

Bottom plates have holes to match our standard or heavy duty type chassis listed on this page, and have pressed "bumpers" at the corners. Made from #20 gauge steel, zinc plated.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4507	5x 7"	1	$0.39
CP-4502	8x12"	1	.84
CP-4500	5½x9½"	1	.48
CP-4508	5x10"	1	.48
CP-4509	6x14"	1	.63
CP-4510	7x 7"	1	.57
CP-4511	7x 9"	1	.66
CP-4512	7x11"	1	.69
CP-4513	7x13"	2	.75
CP-4514	7x15"	2	.78
CP-4518	4x17"	2	.60
CP-4515	7x17"	2	.87
CP-4531	8x17"	2	.90
CP-4525	10x12"	2	.87
CP-4524	10x14"	2	.90
CP-4528	10x17"	2	1.08
CP-4533	11x17"	2	1.05
CP-4516	12x17"	3	1.20
CP-4535	13x17"	3	1.26
CP-4540	17x17"	4	1.71

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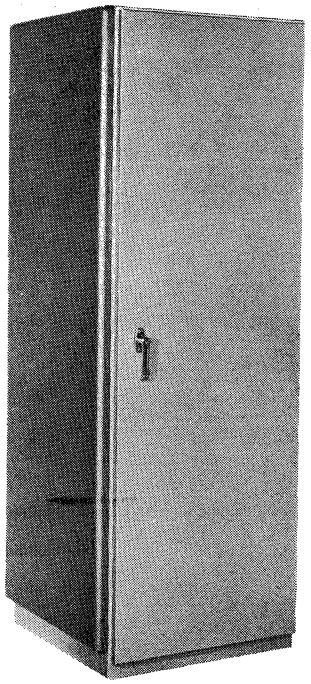
PREM-Ō-RAK® MODULAR Rounded Corner FRAMES

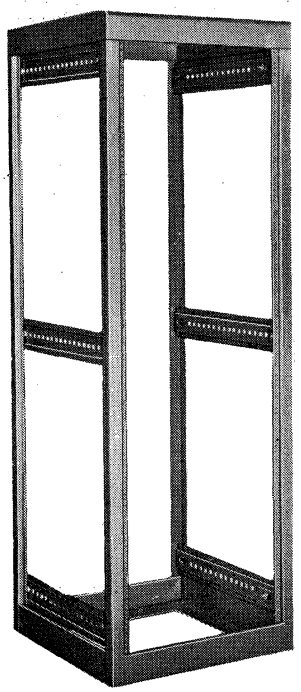
22″ and 25½″ DEEP for 19″ and 24″ PANELS

Designed for MULTIPLE INSTALLATIONS and for use with PREM-O-RAK CONSOLE CABINETS

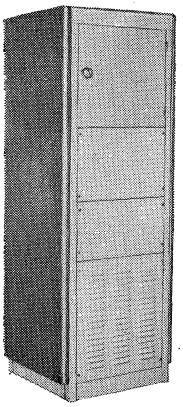
- TOPS OF FRONT AND REAR ARE ROUNDED.
- Frame Made of No. 14 gauge steel.
- Supplied with one pair 3/16″ thick panel mounting angles and tapped 12/24 on E.I.A. spacings. Adjustable to any desired position.
- Panel mounting angles are held in place at three points by 3/8″ carriage bolts.
- Frame completely welded throughout.
- Top of frame is solid. Cutout furnished at no additional charge.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2″) and CA-5 (3″) casters.
- Finished in Gray Hammertone.



Above unit consists of Frame (F Series), 2 End Panels (CEP Series) and Door (DF Series).



F FRAME



Above unit consists of Frame (F Series), 2 End Panels (CEP Series), Flush Door (CD Series), Louvred Panel (FPL Series) and Formed Panels (FP Series)

FRAMES — 22″ WIDE

22″ DEEP					25½″ DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
F-42-22	50	$78.00	48⅝″	42 x 19″	F-42-255	58	$81.96
F-52-22	65	84.60	59⅛″	52½ x 19″	F-52-255	75	88.80
F-61-22	80	95.85	67⅞″	61¼ x 19″	F-61-255	92	105.60
F-70-22	100	112.44	76⅝″	70 x 19″	F-70-255	115	123.60
F-77-22	110	115.59	83⅝″	77 x 19″	F-77-255	127	127.20

FRAMES — 27″ WIDE

F-2761-22	90	105.00	67⅞″	61¼ x 24″	F-2761-255	98	114.60
F-2770-22	110	123.60	76⅝″	70 x 24″	F-2770-255	123	135.60
F-2777-22	120	126.00	83⅝′	77 x 24″	F-2777-255	135	138.00

ORDERING GUIDE →

FRAME	Use END PANEL (Page 9)	Use DOOR (Page 9)	Use VERTICAL SIDE SUPPORT (Page 11)	Use SIDE MOUNTING BRACKETS (Page 11)	Use SHELF (Page 11)
Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
F-42-22	CEP-42-22	DF-42	PVS-422	SMB-24	S-2419
F-52-22	CEP-52-22	DF-52	PVS-522	SMB-24	S-2419
F-61-22	CEP-61-22	DF-61	PVS-612	SMB-24	S-2419
F-70-22	CEP-70-22	DF-70	PVS-702	SMB-24	S-2419
F-77-22	CEP-77-22	DF-77	PVS-772	SMB-24	S-2419
F-42-255	CEP-42-255	DF-42	PVS-422	SMB-24	S-2419
F-52-255	CEP-52-255	DF-52	PVS-522	SMB-24	S-2419
F-61-255	CEP-61-255	DF-61	PVS-612	SMB-24	S-2419
F-70-255	CEP-70-255	DF-70	PVS-702	SMB-24	S-2419
F-77-255	CEP-77-255	DF-77	PVS-772	SMB-24	S-2419
F-2761-22	CEP-61-22	DF-2761	PVS-612	SMB-24	S-2424
F-2770-22	CEP-70-22	DF-2770	PVS-702	SMB-24	S-2424
F-2777-22	CEP-77-22	DF-2777	PVS-772	SMB-24	S-2424
F-2761-255	CEP-61-255	DF-2761	PVS-612	SMB-24	S-2424
F-2770-255	CEP-70-255	DF-2770	PVS-702	SMB-24	S-2424
F-2777-255	CEP-77-255	DF-2777	PVS-772	SMB-24	S-2424

ALL PRICES F.O.B. N. Y. 59, N. Y.

PREMIER PAGE 1

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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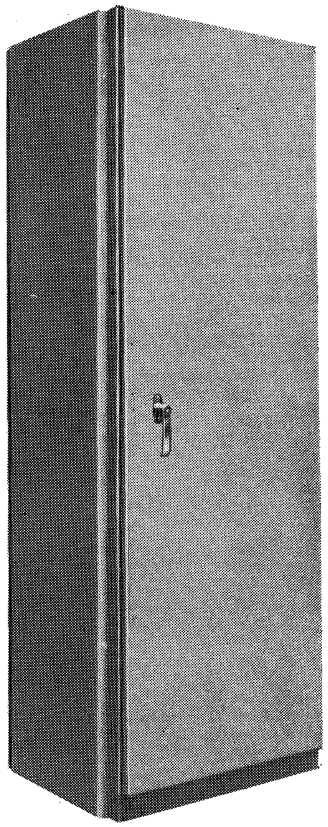
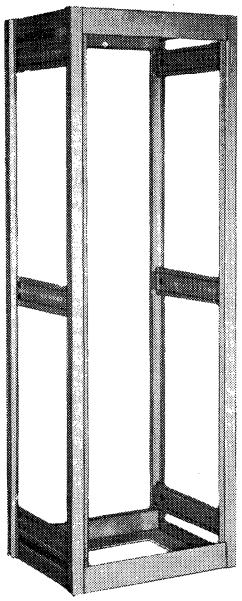
PREMIER MODULAR Square Cornered FRAMES

18" and 24" DEEP For 19", 24" and 30" PANELS

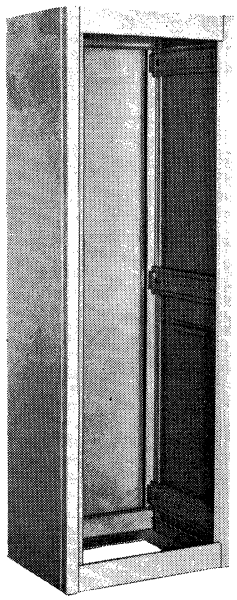


Above unit consists of Frame (PRX Series), Rounded Side Panels (SP Series) and Door (DF Series)

- **DESIGNED FOR MULTIPLE INSTALLATIONS**
- **TOPS of FRONT and REAR are SQUARE**
- **FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)**
- Frame made of No. 14 gauge steel.
- Supplied with one pair 3/16" thick panel mounting angles and tapped 12/24 on E.I.A. spacings. Adjustable to any desired position.
- Panel mounting angles are held in place at three points by 3/8" carriage bolts.
- Frame completely welded throughout.
- Top of frame is solid. Cutout furnished at no additional charge.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2") and CA-5 (3") casters.
- Finished in Gray Hammertone.



PRX FRAME



Above unit consists of Frame (PRX Series), Flush Side Panels (FL Series) and Door (DF Series)

FRAMES

18" DEEP			22" WIDE		24" DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
PRX-42	48	$46.80	48 1/8"	42 x 19"	PRX-42-24	58	$70.80
PRX-52	60	57.60	58 5/8"	52 1/2 x 19"	PRX-52-24	72	78.00
PRX-61	70	71.70	67 5/8"	61 1/4 x 19"	PRX-61-24	85	99.54
PRX-70	88	86.76	76 1/8"	70 x 19"	PRX-70-24	108	118.56
PRX-77	100	88.56	83 1/8"	77 x 19"	PRX-77-24	120	126.00
			27" WIDE				
PRX-2761	100	80.58	67 5/8"	61 1/4 x 24"	PRX-2761-24	134	112.38
PRX-2770	104	95.58	76 1/8"	70 x 24"	PRX-2770-24	140	123.00
PRX-2777	116	100.20	83 1/8"	77 x 24"	PRX-2777-24	156	128.76
			33" WIDE				
PRX-3361	122	85.56	67 5/8"	61 1/4 x 30"	PRX-3361-24	162	118.80
PRX-3370	126	109.14	76 1/8"	70 x 30"	PRX-3370-24	169	140.64
PRX-3377	142	110.76	83 1/8"	77 x 30"	PRX-3377-24	190	143.52

ORDERING GUIDE

FRAME Cat. No.	USE EITHER ROUNDED END PANEL (Page 9) Cat. No.	OR	FLUSH END PANEL (Page 9) Cat. No.	Use DOOR (Page 9) Cat. No.	Use VERTICAL SIDE SUPPORT (Page 11) Cat. No.	Use SIDE MOUNTING BRACKETS (Page 11) Cat. No.	Use SHELVES (Page 11) Cat. No.
PRX-42	SP-42		FL-42	DF-42	PVS-422	SMB-18	S-1819
PRX-52	SP-52		FL-52	DF-52	PVS-522	SMB-18	S-1819
PRX-61	SP-61		FL-61	DF-61	PVS-612	SMB-18	S-1819
PRX-70	SP-70		FL-70	DF-70	PVS-702	SMB-18	S-1819
PRX-77	SP-77		FL-77	DF-77	PVS-772	SMB-18	S-1819
PRX-42-24	SP-42-24		FL-42-24	DF-42	PVS-422	SMB-24	S-2419
PRX-52-24	SP-52-24		FL-52-24	DF-52	PVS-522	SMB-24	S-2419
PRX-61-24	SP-61-24		FL-61-24	DF-61	PVS-612	SMB-24	S-2419
PRX-70-24	SP-70-24		FL-70-24	DF-70	PVS-702	SMB-24	S-2419
PRX-77-24	SP-77-24		FL-77-24	DF-77	PVS-772	SMB-24	S-2419
PRX-2761	SP-61		FL-61	DF-2761	PVS-612	SMB-18	S-1824
PRX-2770	SP-70		FL-70	DF-2770	PVS-702	SMB-18	S-1824
PRX-2777	SP-77		FL-77	DF-2777	PVS-772	SMB-18	S-1824
PRX-2761-24	SP-61-24		FL-61-24	DF-2761	PVS-612	SMB-24	S-2424
PRX-2770-24	SP-70-24		FL-70-24	DF-2770	PVS-702	SMB-24	S-2424
PRX-2777-24	SP-77-24		FL-77-24	DF-2777	PVS-772	SMB-24	S-2424
PRX-3361	SP-61		FL-61	DF-3361	PVS-612	SMB-18	S-1830
PRX-3370	SP-70		FL-70	DF-3370	PVS-702	SMB-18	S-1830
PRX-3377	SP-77		FL-77	DF-3377	PVS-772	SMB-18	S-1830
PRX-3361-24	SP-61-24		FL-61-24	DF-3361	PVS-612	SMB-24	S-2430
PRX-3370-24	SP-70-24		FL-70-24	DF-3370	PVS-702	SMB-24	S-2430
PRX-3377-24	SP-77-24		FL-77-24	DF-3377	PVS-772	SMB-24	S-2430

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PREMIER PAGE 2

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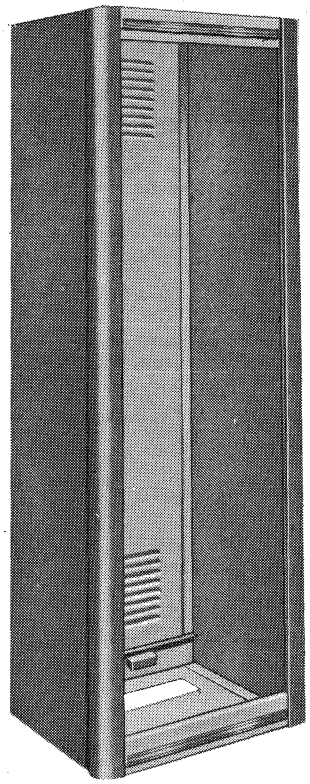
ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

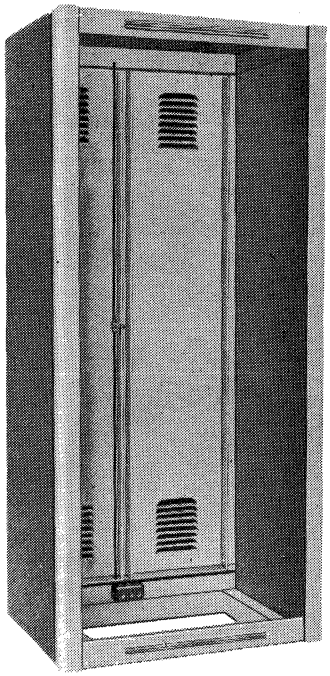
PREMIER HEAVY DUTY RACKS

FOR 19", 24" AND 30" RACK PANELS — 18" AND 24" DEEP

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Panel mounting angles are 3/16" thick and are tapped 12-24 on E.I.A. spacings.
- Rear doors are hung on sturdy slip-jointed hinges and closed by a chrome handle.
- A rectangular cut-out is made in the bottom for leads ,etc.
- RM-7030 Rack supplied with double rear doors and with a 3-point locking device.
- **All racks are supplied without louvres on sides unless specified.**
- Vertical rounded corner "J" type moldings are supplied.
- When joining racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RM-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with red striped chrome moulding.
- Panel mounting angles are adjustable to any distance from the front by means of channel slides on RMA Racks.
- A Duplex Receptacle and Outlet Box are furnished in the Back Under the Door.
- Racks finished in either Black or Gray wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.

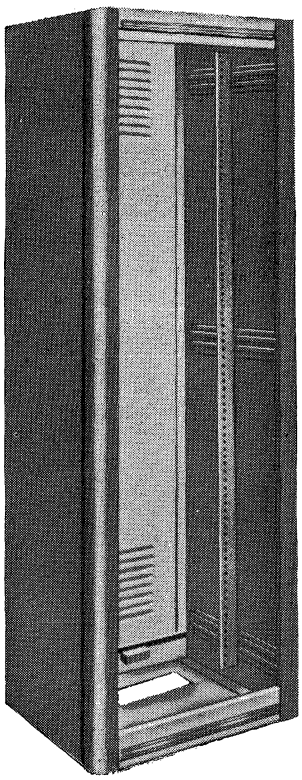


RM MODEL



RM-7030 Model

All RM Racks can be furnished with adjustable panel mounting angles at no additional cost. Specify RMA.



RMA Model

SPECIFY COLOR WHEN ORDERING

18" DEEP RACKS

Cat. No.	H x W	Panel Space	Shp. Wt. Lbs.	Net Price
RM-3619	42 7/8x22"	36 3/4x19"	100	**$ 66.15**
RM-4219	48 1/8x22"	42 x19"	130	**78.00**
RM-6119	67 3/8x22"	61 1/4x19"	150	**86.01**
RM-7618	76 1/8x22"	70 x19"	170	**105.84**
RM-7719	83 1/8x22"	77 x19"	190	**109.20**

24" DEEP RACKS

Cat. No.	H x W	Panel Space	Shp. Wt. Lbs.	Net Price
RM-3619-24	42 7/8x22"	36 3/4x19"	110	**$ 84.00**
RM-4219-24	48 1/8x22"	42 x19"	130	**93.05**
RM-6119-24	67 3/8x22"	61 1/4x19"	175	**122.40**
RM-7618-24	76 1/8x22"	70 x19"	200	**132.30**
RM-7719-24	83 1/8x22"	77 x19"	225	**148.86**
RM-7030	76 1/8x33"	70 x30"	240	**191.85**
RMA-2742	48 1/8x27"	42 x24"	170	**120.78**
RMA-2761	67 3/8x27"	61 1/4x24"	210	**137.58**
RMA-2770	76 1/8x27"	70 x24"	240	**148.59**
RMA-2777	83 1/8x27	77 x24"	270	**165.39**

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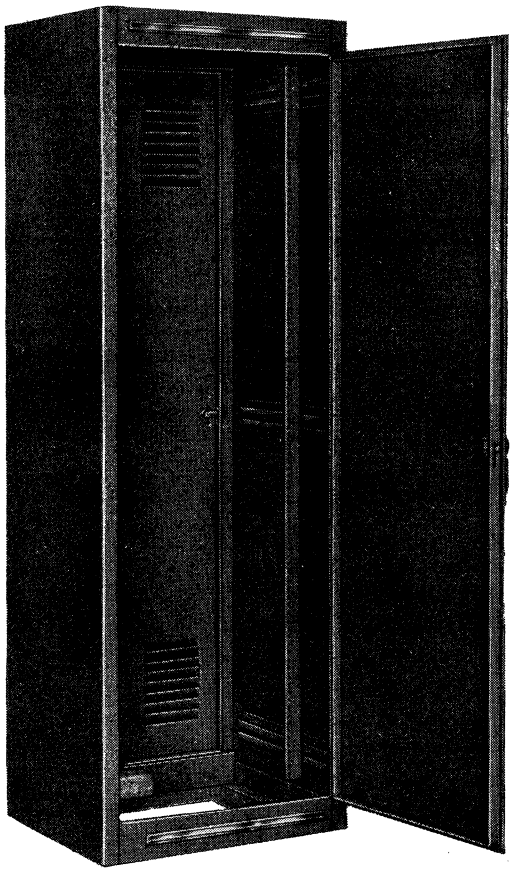
PREMIER HEAVY DUTY RACKS



FD SERIES

WITH FRONT DOORS

FOR 19" AND 24" RACK PANELS — 18" AND 24" DEEP

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Panel mounting angles are 3/16" thick and are tapped 12-24 on E.I.A. spacings.
- Rear doors are hung on sturdy slip-jointed hinges and closed by a chrome handle. Locking handle with 2 keys available at additional cost.
- All racks are supplied without louvres on sides and front doors unless specified.
- A rectangular cut-out is made in the bottom for leads, etc.
- Tops and bottoms are trimmed with red striped chrome moulding.
- Front door supplied with locking handle and 2 keys.
- Panel mounting angles are adjustable to any distance from the front by means of channel slides.
- A Duplex Receptacle and Outlet Box are Furnished in the Back Under the Door.
- Racks finished in either black or gray wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE IS FURNISHED IF COLOR IS NOT SPECIFIED.

18" DEEP RACKS

Cat. No.	H x W	Panel Space	Shp. Wt. Lbs.	Net Price
FD-3619	42 7/8x22"	36 3/4x19"	115	**$102.39**
FD-4219	48 1/8x22"	42 x19"	120	**108.00**
FD-6119	67 3/8x22"	61 1/4x19"	175	**115.77**
FD-7019	76 1/8x22"	70 x19"	200	**132.30**
FD-7719	83 1/8x22"	77 x19"	220	**142.23**

24" DEEP RACKS

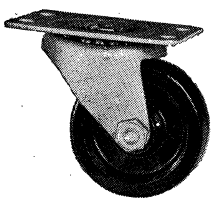
Cat. No.	H x W	Panel Space	Shp. Wt. Lbs.	Net Price
FD-3619-24	42 7/8x22"	36 3/4x19"	125	**$100.80**
FD-4219-24	48 1/8x22"	42 x19"	150	**111.00**
FD-6119-24	67 3/8x22"	61 1/4x19"	200	**152.16**
FD-7019-24	76 1/8x22"	70 x19"	255	**158.76**
FD-7719-24	83 1/8x22"	77 x19"	270	**181.89**
FD-2742	48 1/8x27"	42 x24"	180	**140.19**
FD-2761	67 3/8x27"	61 1/4x24"	230	**165.39**
FD-2770	76 1/8x27"	70 x24"	260	**176.22**
FD-2777	83 1/8x27"	77 x24"	290	**198.45**

SPECIFY COLOR WHEN ORDERING

Self-Spraying LACQUER Available in 3 Colors

Cat. No.	To Match
SGL-101	Premier Gray Wrinkle
GHL-102	Premier Gray Hammertone
BHL-103	Premier Brown Hammertone

NET PRICE: $1.95 EACH 12 oz. CAN



CASTERS FOR RACKS AND CABINETS

Made of Plaskite non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Catalog No.	Wheel Dia.	Net Price
CA-4	2"	**$3.60 set of 4**
CA-5	3"	**7.20 set of 4**

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PREMIER PAGE 4

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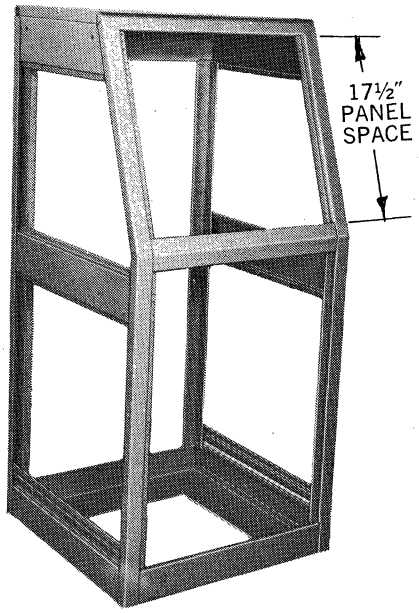
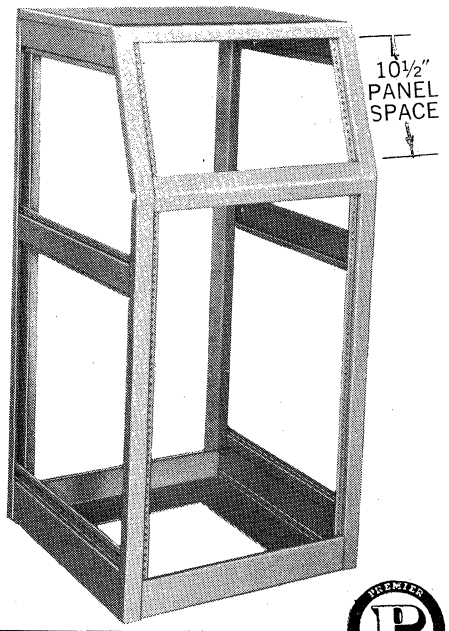
PREM-Ō-RAK® MODULAR CONSOLE SYSTEM



10½" and 17½" SLOPED FRONT CONSOLE FRAMES FOR 19" and 24" PANELS

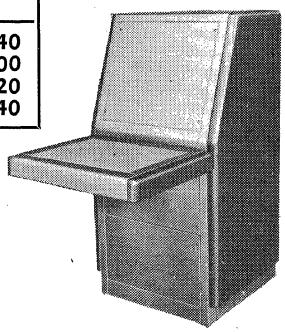
- Tops of Front and Rear Are Rounded
- Designed for Multiple Installations
- Made of No. 14 Gauge Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles Are Made of No. 12 Gauge Steel and Tapped 10/32 on E.I.A. Spacings; Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit Into ½" Recess
- Holes Punched in Bottom to Accommodate CA-4 (2") and CA-5 (3") Casters
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Finished in Gray Hammertone.



Cat. No.	Width	Height	Depth	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	**$80.40**
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	**78.00**
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	**88.20**
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	**86.40**

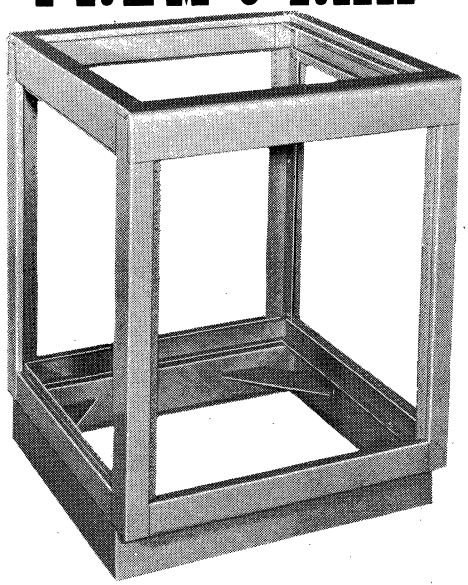
ORDERING GUIDE

FRAME Cat. No.	USE END PANEL (Page 9) Cat.No.	USE REAR DOOR (Page 8) Cat. No.	USE SHELF (Page 7) Cat. No.
FS-1001	CEP-1201 LH and/or RH	CD-42	SH-101
FS-1002	CEP-1202 LH and/or RH	CD-42	SH-101
FS-1003	CEP-1201 LH and/or RH	CD-4224	SH-102
FS-1004	CEP-1202 LH and/or RH	CD-4224	SH-102



Above unit consists of Frame (FS Series), 2 End Panels (CEP-1201 Series), Writing Work Shelf (WW Series) and 2 End Panels (CEP Series) for shelf.

PREM-Ō-RAK® CONSOLE PEDESTAL FRAMES



- TOPS OF FRONT AND REAR ARE ROUNDED.
- Units are designed for multiple installation.
- Adjustable panel mounting angles front and rear are tapped for 10/32 machine screws on E.I.A. spacings.
- Panels fit into ½" recess.
- Two rectangular knockouts supplied on one top cross member to accommodate channels of Writing Work Shelf.
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel; panel mounting angles of 12 gauge steel.
- Finished in Gray Hammertone.

Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$56.04
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.20
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.00
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.00
CPF-101-34	22"	34¼"	30"	29½"	21 x 19"	29¾ x 19"	54	78.00

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 9) Cat. No.	Use DOOR (Page 8) Cat. No.	Use SHELVES (Page 7) Cat. No.
CPF-101	CEP-401	CD-21	SH-101
CPF-102	CEP-402	CD-28	SH-101
CPF-103	CEP-401	CD-2124	SH-102
CPF-104	CEP-402	CD-2824	SH-102
CPF-104-34	CEP-401-34	CD-21	SH-103

PREMIER PAGE 5

ALL PRICES F.O.B. N. Y. 59, N. Y.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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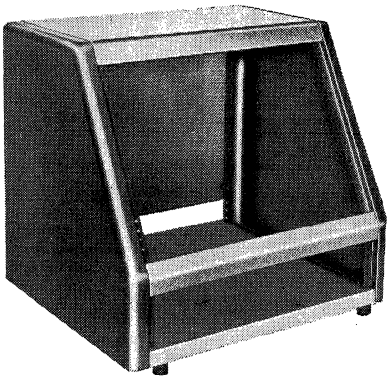
PREM-O-RAK® MODULAR CONSOLE SYSTEM

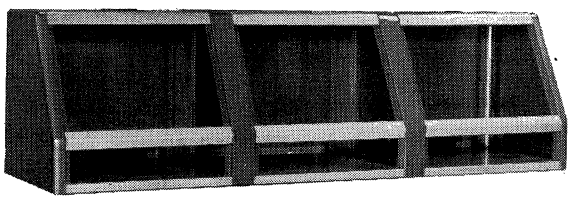


CONSOLE SLOPING CABINET

DIMENSIONS
Width — 21¾" Depth — 18"
Height — 18⅛" Slope — 30° from vertical
Upper panel space — 12¼" x 19"
Lower panel space — 3½ x 19"
Rear panel space — 15¾" x 19"

Cat. No.	Ship. Wt. Lbs.	Net Price
CSC-201	35	$49.80

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings.
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has 1¾" opening on bottom for leads, etc.
- Panels fit into ½" recess.
- Base has 6 knockouts for leads and furnished with 4 rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone — Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.



One Triple CSC-201 consists of one CSC-201 and two CMS-301

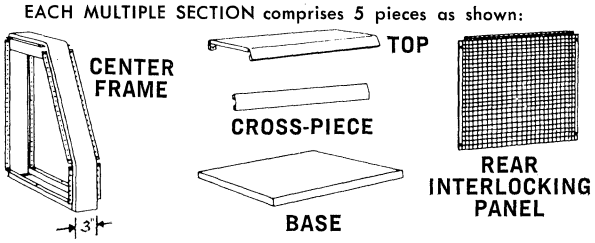
DESIGNED FOR MULTIPLE INSTALLATION

The PREM-O-RAK CONSOLE CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top, cross-piece and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

MULTIPLE SECTION for SLOPING CABINET

Catalog No.	Shipping Wt. Lbs.	Net Price
CMS-301	26	$30.00

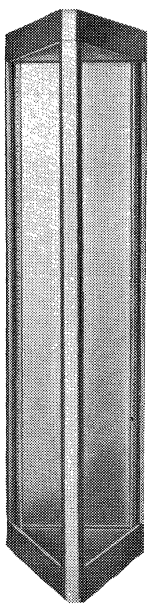
EACH MULTIPLE SECTION comprises 5 pieces as shown:



EXAMPLE:

One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301

30° and 45° WEDGE FRAMES



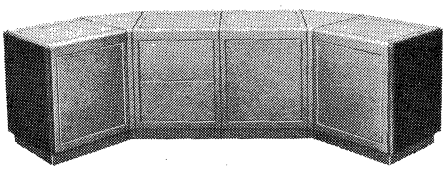
- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (F Series)
- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone

30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48⅝"	22"	F-42-22	$111.00
WED-30-52-22	59⅛"	22"	F-52-22	120.00
WED-30-61-22	67⅞"	22"	F-61-22	126.00
WED-30-70-22	76⅝"	22"	F-70-22	135.00
WED-30-77-22	83⅝"	22"	F-77-22	141.00
WED-30-42-255	48⅝"	25½"	F-42-255	133.20
WED-30-52-255	59⅛"	25½"	F-52-255	140.40
WED-30-61-255	67⅞"	25½"	F-61-255	144.00
WED-30-70-255	76⅝"	25½"	F-70-255	156.00
WED-30-77-255	83⅝"	25½"	F-77-255	162.00

45° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48⅝"	22"	F-42-22	114.00
WED-45-52-22	59⅛"	22"	F-52-22	123.00
WED-45-61-22	67⅞"	22"	F-61-22	129.00
WED-45-70-22	76⅝"	22"	F-70-22	138.00
WED-45-77-22	83⅝"	22"	F-77-22	144.00
WED-45-42-255	48⅝"	25½"	F-42-255	136.20
WED-45-52-255	59⅛"	25½"	F-52-255	143.00
WED-45-61-255	67⅞"	25½"	F-61-255	147.00
WED-45-70-255	76⅞"	25½"	F-70-255	159.00
WED-45-77-255	83⅝"	25½"	F-77-255	165.00



30° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29½"	22"	CPF-101 & 103	$93.00
WED-30-102	36½"	22"	CPF-102 & 104	99.00

45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29½"	22"	CPF-101 & 103	$96.00
WED-45-102	36½"	22"	CPF-102 & 104	102.00

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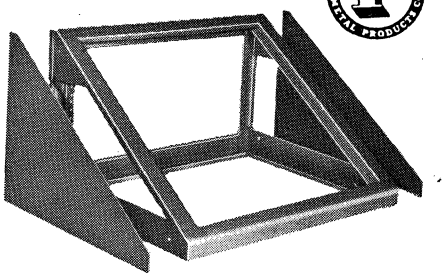
PREM-Ō-RAK® MODULAR CONSOLE SYSTEM



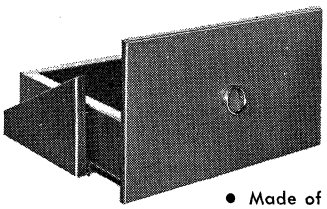
TURRET WITH FLAT SIDE PANELS

- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings.
- Panels fit into ½" recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.

DIMENSIONS

Width — 22", Height — 12¼" or 17½"*, Depth — 17½" or 12¼"*
Sloped front panel space is 17½" x 19" when mounted either 35° or 55° from vertical.
Rear panel space — 8¾" x 19", Bottom panel space — 14" x 19"
According to method of mounting.

Catalog No.	Shipping Wt. Lbs.	Net Price
TUR-3	20	$34.80



SLIDING DRAWERS

- Made of heavy gauge steel.
- Drawer is mounted on ball-bearing suspension slides which can sustain 40 lbs.
- Drawer extends 11" from front of cabinet.
- Entire unit mounts to the rear of the tapped holes of the panel mounting angles of cabinet.
- Furnished with attractive, round, chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Finished in Gray Hammertone.

Will fit CPF Series, 18" deep POR Series, FS Series, F and PRX Racks (when used with other formed panels).

Cat. No.	Panel Size	Drawer Size W	D	H	Shpg. Wt. Lbs.	Net Price
D-1916	10⅜ x 18⅞"	17	16½	6	23	$18.00
D-2016	6⅞ x 18⅞"	17	16½	6	22	17.25
D-2116	10⅜ x 23⅞"	22	16½	6	25	21.60
D-2216	6⅞ x 23⅞"	22	16½	6	24	20.70

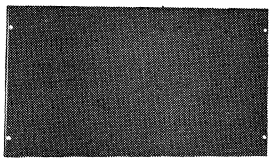
SHELF FOR PEDESTAL FRAMES (CPF SERIES) and SLOPED FRONT FRAMES (FS SERIES)

- Made of No. 16 Ga. Steel
- Finished in Gray Hammertone
- Mounts to 10-32 tapped holes on side of Panel Mounting Angles.

Cat. No.	Depth	Width —	For use with	Net Price
SH-101	20½"	20 7/16"	CPF-101, CPF-102 FS-1001, FS-1002	$9.00
SH-102	20½"	25 7/16"	CPF-103, CPF-104 FS-1003, FS-1004	10.20
SH-103	32¾"	20 7/16"	CPF-101-34	12.00

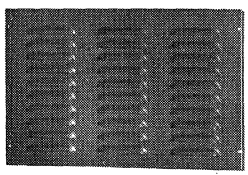
FORMED PANELS — 19" and 24" WIDE

- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of ½".
- Each panel has only 2 mounting holes on each side.
- Finished in Gray or Brown Hammertone.



BLANK

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FP-319	2	$1.14	3½"	FP-324	3	$1.38
FP-519	2½	1.32	5¼"	FP-524	3½	1.56
FP-719	3	1.50	7"	FP-724	4	1.80
FP-819	4	1.83	8¾"	FP-824	5	2.22
FP-1019	5	2.25	10½"	FP-1024	6	2.70
FP-1219	6	2.61	12¼"	FP-1224	7	3.12
FP-1419	6½	2.94	14"	FP-1424	7½	3.54
FP-1519	7	3.39	15¾"	FP-1524	8	4.08
FP-1719	7½	3.75	17½"	FP-1724	8½	4.50
FP-1919	8	4.11	19¼"	FP-1924	9	4.92
FP-2119	9	4.50	21"	FP-2124	10	5.40
FP-2219	10	5.00	22¾"	FP-2224	11	6.00
FP-2619	11	5.55	26¼"	FP-2624	12	6.66
FP-2819	12	6.00	28"	FP-2824	13	7.20



LOUVRED

19" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24" WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FPL-719	3	3.15	7"	FPL-724	4	3.78
FPL-819	4	3.54	8¾"	FPL-824	5	4.26
FPL-1019	5	3.90	10½"	FPL-1024	6	4.68
FPL-1219	6	4.41	12¼"	FPL-1224	7	5.28
FPL-1419	6½	4.74	14"	FPL-1424	7½	5.70
FPL-1719	7½	5.55	17½"	FPL-1724	8½	6.66
FPL-2119	9	6.90	21"	FPL-2124	10	8.28
FPL-2619	11	7.74	26¼"	FPL-2624	12	9.30
FPL-2819	12	8.20	28"	FPL-2824	13	9.84

FORMICA WRITING PANELS

19" and 24" WIDE — ½" THICK

Gray Linen Weave Pattern Formica bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

19" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10½" x 19"	WW-15-22 & WW-15-255	$6.60
FWP-1419	14" x 19"	WW-18-22 & WW-18-255	8.40
FWP-1719	17½" x 19"	WW-22-22 & WW-22-255, WTO-22-22 & Top Panel Space of CPF-101 and CPF-102	10.20

24" WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10½" x 24"	WW-2715-22, WW-2715-255	$7.20
FWP-1424	14" x 24"	WW-2718-22, WW-2718-255	9.00
FWP-1724	17½" x 24"	WW-2722-22, WW-2722-255, WTO-2722 & Top Panel Space of CPF-103 & CPF-104	10.80

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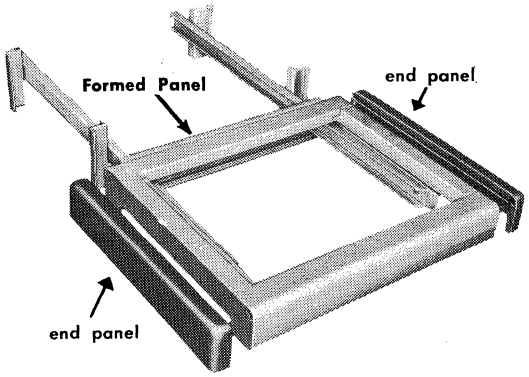
PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

WRITING WORK SHELVES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied with 3½" x 19" Formed Panel
- Supplied With Channels And Brackets For Mounting To Inside of Frames



DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION

22" WIDE — 3" HIGH

To Fit 22" DEEP FRAMES — To Fit 25½" DEEP FRAMES

Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-15-22	11	$36.00	10½" x 19"	15"	WW-15-255	12	$36.75
WW-18-22	12	37.80	14" x 19"	18½"	WW-18-255	13	38.55
WW-22-22	13	39.60	17½" x 19"	22"	WW-22-255	14	40.35

27" WIDE

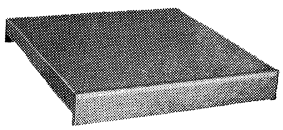
WW-2715-22	14	41.40	10½" x 24"	15"	WW-2715-255	15	42.15
WW-2718-22	15	42.60	14" x 24"	18½"	WW-2718-255	16	43.35
WW-2722-22	16	43.80	17½" x 24"	22"	WW-2722-255	17	44.55

END PANELS FOR WRITING WORK SHELF

- Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel
- Finished in Brown Hammertone

Cat. No.	Lbs.	Used With	Net Price
CEP-15	1½	WW-15-22, 15-255; 2715-22, 2715-255	$3.54
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	3.78
CEP-22	2½	WW-22-22, 22-255; 2722-22, 2722-255	4.02

WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH



CWT Series
Solid Type

WTO Series
Open Type

- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

WORK TOPS

Solid Type

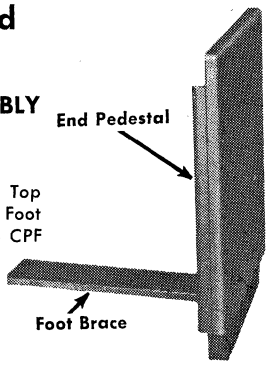
Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	$12.60
CWT-603	27"	22"	18	15.00
CWT-601-34	22"	34¼"	20	18.90

Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17½ x 19"	9½	$27.00
WTO-27-22	27"	22"	17½ x 24"	11	32.40
WTO-22-34	22"	34¼"	29¾ x 19"	12	42.00

END PEDESTAL and FOOT BRACE

FOR DOUBLE UNIT ASSEMBLY



- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
  - Foot Brace can be mounted between two Pedestal Frames (CPF Series).
- Finished in Brown Hammertone

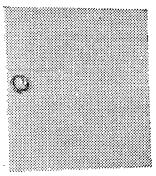
END PEDESTAL

Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22"	29½"	25	$30.00
PE-901-34	34¼"	29½"	30	45.00

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	3	22" Wide Work Tops	$8.10
FB-802	3½	27" Wide Work Tops	8.76

FLUSH DOORS — ½" DEEP



For Prem-O-Rak Console Frames
CPF, FS, F and PRX Series

- Made of 16 gauge steel • Finished in Gray or Brown Hammertone.
- Doors can be mounted either left or right hand by rotating door 180°.
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

Cat. No.	Height	Width	Shpg. Wt. Lbs.	Net Price
CD-17	17½"	19"	7	$11.34
CD-21	21"	19"	8	12.21
CD-26	26¼"	19"	9	13.74
CD-28	28"	19"	10	14.40
CD-29	29¾"	19"	11	15.00
CD-42	42"	19"	16	24.42
CD-1724	17½"	24"	8	13.62
CD-2124	21"	24"	9	14.64
CD-2824	28"	24"	12	17.28
CD-2924	29¾"	24"	13	18.00
CD-4224	42"	24"	17	30.00

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PREMIER PANELS AND DOORS

SIDE PANELS FOR PRX FRAMES

Made of No. 16 Gauge Steel Finished in Gray Hammertone

18" DEEP

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-42	48 x 15 x 1½"	20	$16.56
SP-52	58½ x 15 x 1½"	21	18.60
SP-61	67¼ x 15 x 1½"	23	21.54
SP-70	76 x 15 x 1½"	26	23.16
SP-77	83 x 15 x 1½"	28	24.90

24" DEEP

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-42-24	48 x 21 x 1½"	22	$21.36
SP-52-24	58½ x 21 x 1½"	25	23.40
SP-61-24	67¼ x 21 x 1½"	28	25.83
SP-70-24	76 x 21 x 1½"	31	27.78
SP-77-24	83 x 21 x 1½"	34	30.00

END PANELS — 1-11/32" DEEP FOR F FRAMES

- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22" WIDE				25½" WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Hgt.	Cat. No.	Shpg. Wt. Lbs.	Net Price
CEP-42-22	23	$18.00	45¼"	CEP-42-255	28	$21.00
CEP-52-22	27	21.60	55¾"	CEP-52-255	32	24.60
CEP-61-22	30	24.00	64½"	CEP-61-255	35	26.40
CEP-70-22	33	25.80	73¼"	CEP-70-255	38	28.80
CEP-77-22	35	27.90	80¼"	CEP-77-255	40	30.60

DOORS FOR PRX FRAMES 13/16" DEEP

- Made of No. 16 gauge steel
- Doors can be mounted either left or right hand by rotating door 180°
- Doors supplied blank. Louvres furnished at no additional charge
- Doors hung on slip jointed hinges and equipped with locking handle and 2 keys
- Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied
- Finished in Gray Hammertone.

21½" WIDE				26½" WIDE		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price
DF-42	20	$26.40	45 5/16"	—	—	—
DF-52	25	29.40	56 1/16"	—	—	—
DF-61	28	33.60	64 13/16"	DF-2761	34	$39.60
DF-70	31	36.00	73 9/16"	DF-2770	38	43.50
DF-77	34	38.40	80 5/16"	DF-2777	41	45.00

32½" WIDE (DOUBLE DOORS with 3 Point Locking Device)

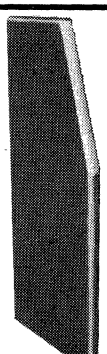
Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price	Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 13/16"	$45.00	DF-3370	45	73 9/16"	$50.50	DF-3377	48	80 5/16"	$54.00

FLUSH SIDE PANELS FOR PRX FRAMES — ½" DEEP

- Fits into side recess of frame.
- Made of one piece of No. 16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.

15" WIDE for 18" DEEP FRAMES					21" WIDE for 24" DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each	Height	Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-42	PRX-42	19	$15.66	48"	FL-42-24	PRX-42-24	21	$20.46
FL-52	PRX-52	21	17.72	58½"	FL-52-24	PRX-52-24	24	22.50
FL-61	PRX-61, 2761, 3361	22	20.64	67¼"	FL-61-24	PRX-61-24, 2761-24; 3361-24	27	24.90
FL-70	PRX-70, 2770, 3370	25	22.26	76"	FL-70-24	PRX-70-24, 2770-24; 3370-24	30	26.88
FL-77	PRX-77, 2777, 3377	27	24.00	83"	FL-77-24	PRX-77-24, 2777-24; 3377-24	33	29.00

END PANELS FOR SLOPED FRONT CONSOLE FRAME — 1-11/32" DEEP

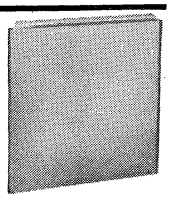


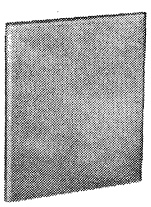
- Ball Cornered.
- Made of One Piece No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom and Held Securely by Two Captive Screws on Top
- Supplied Blank; Louvres Furnished at No Additional Charge
- Finished in Brown Hammertone.

End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	$22.62
CEP-1201 RH	Right side FS-1001 & 1003	20	22.62
CEP-1202 LH	Left side FS-1002 & 1004	18	18.00
CEP-1202 RH	Right side FS-1002 & 1004	18	18.00

END PANELS FOR PEDESTAL FRAMES

- Made of one piece of No. 18 gauge steel.
- Finished in Brown Hammertone.
- For easy installation and access, the end panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.





END PANEL 1-11/32" DEEP

- Ball Cornered.
- Finished in Brown Hammertone.

Cat. No.	Width	Height	For use with	Ship. Wt. Lbs.	Net Price
CEP-401	22"	26"	CPF-101 & 103	17	$15.00
CEP-402	22"	33"	CPF-102 & 104	20	18.00
CEP-401-34	34¼"	26"	CPF-101-34	22	19.80

SHORT END PANEL — 1-11/32" DEEP

Used only when work top is mounted between 2 pedestal frames • Finished in Brown Hammertone.

Cat. No.	Width	Height	For use with	Ship. Wt. Lbs.	Net Price
CSS-701	22"	23"	CPF-101 & 103	15	$9.00
CSS-701-34	34¼"	23"	CPF-101-34	18	12.00

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ALL PRICES F.O.B. N. Y. 59, N. Y.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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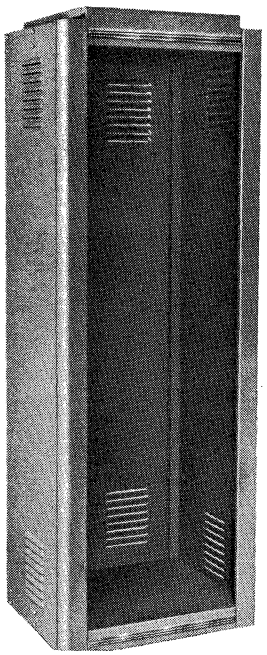
PREMIER ENCLOSED RELAY RACKS

FOR STANDARD 19" RACK PANELS

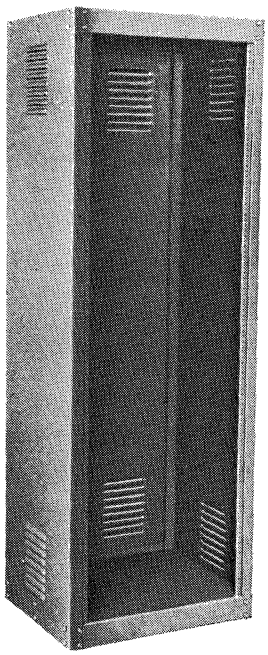
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- The panel mounting angles are of #12 gauge steel and are tapped for 10-32 machine screws on E.I.A. spacings.
- Panels fit into a 5/16" recess so that the edges are not exposed.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Rear doors are hung on sturdy slip-jointed hinges, and closed by a chrome handle. Locking handle with two keys available at additional cost.
- Holes punched in bottom to accommodate CA-4 casters.
- ROUNDED TYPE have front vertical rounded corners.
- STANDARD TYPE have square front vertical corners.
- DELUXE TYPE — The removable vertical corner mouldings are rounded and cover the mounting screws.
- DELUXE TYPE — Top and bottom are trimmed with red stripped chrome finished moulding.
- FRONT DOOR TYPE has front vertical rounded corners and is supplied with locking chrome handle and two keys.
- Cabinets finished in either Black or Gray Wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE WILL BE FURNISHED IF COLOR IS NOT SPECIFIED.

DELUXE TYPE



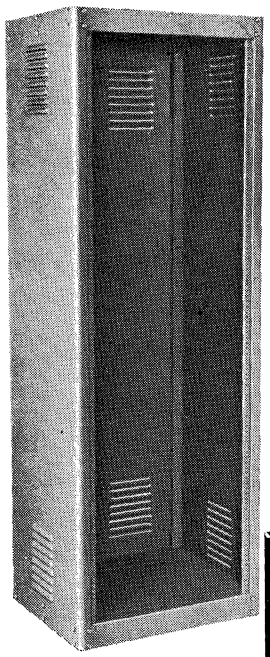
DR SERIES

STANDARD TYPE



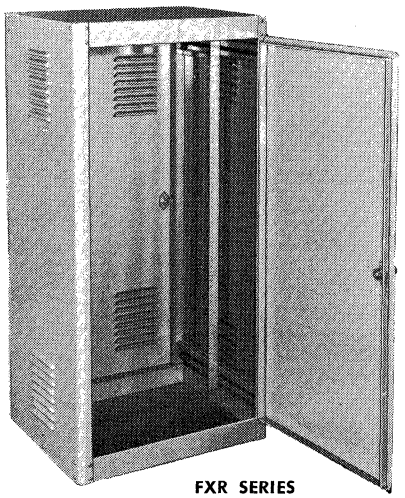
RS SERIES

ROUNDED TYPE



R SERIES

FRONT DOOR TYPE



FXR SERIES
Supplied with adjustable Panel Mounting Angles

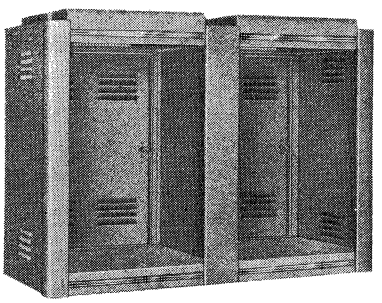
SPECIFY COLOR WHEN ORDERING
Racks are 22" wide x 18" deep

	Cat. No.	Overall Height	Panel Space	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43 1/8"	36 3/4"	85	$54.00
	DR-6119	67 5/8"	61 1/4"	135	66.00
	DR-7719	83 3/8"	77"	160	79.89
STANDARD	RS-3619	41 7/8"	36 3/4"	80	37.89
	RS-6119	66 3/8"	61 1/4"	120	56.43
	RS-7719	82 1/8"	77"	140	67.77
ROUNDED	R-3619	41 7/8"	36 3/4"	80	37.89
	R-4219	47 1/8"	42"	90	43.38
	R-6119	66 3/8"	61 1/4"	120	56.43
	R-7719	82 1/8"	77"	140	67.77
FRONT DOOR	FXR-3619	41 7/8"	36 3/4"	93	56.00
	FXR-4219	47 1/8"	42"	105	64.23
	FXR-6119	66 3/8"	61 1/4"	140	80.76
	FXR-7719	82 1/8"	77"	164	95.00

	Cat. No.	Overall Height	Panel Space	Used With	Net Price
MULTIPLE RACK SECTIONS	DMR-3619	43 1/8"	36 3/4"	DR-3619	$51.78
	DMR-6119	67 5/8"	61 1/4"	DR-6119	61.83
	DMR-7719	83 3/8"	77"	DR-7719	73.80
	MR-3619	41 7/8"	36 3/4"	R&RS-3619	35.81
	MR-4219	47 1/8"	42"	R&RS-4219	41.29
	MR-6119	66 3/8"	61 1/4"	R&RS-6119	52.29
	MR-7719	82 1/8"	77"	R&RS-7719	63.57
	MXR-3619	41 7/8"	36 3/4"	FXR-3619	54.00
	MXR-4219	47 1/8"	42"	FXR-4219	62.23
	MXR-6119	66 3/8"	61 1/4"	FXR-6119	78.76
	MXR-7719	82 1/8"	77"	FXR-7719	93.00

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example:

One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple RS-3619 consists of one RS-3619 and two MR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

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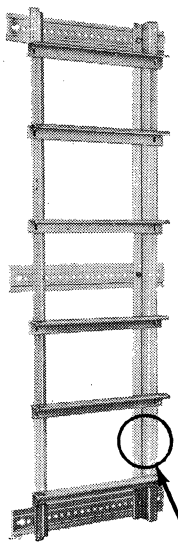
ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER Standard PRECISION BUILT METAL HOUSINGS

Horizontal side section of PRX or F Frame showing Vertical Side Supports and Side Mounting Brackets assembled.



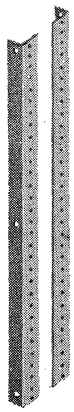
Section of Vertical Side Supports

VERTICAL SIDE SUPPORTS and PANEL MOUNTING ANGLES

To Fit Premier Heavy Duty Racks

Vertical Side Supports are made of No. 12 ga. steel and tapped 10-32 on E.I.A. spacings. They mount to the inside of the Horizontal Side Sections of the PRX, F, RMA and FD models. Finished in Gray Hammertone.

Panel Mounting Angles are made of 3/16" thick steel and tapped 12-24 on E.I.A. spacings. Finished in Gray Hammertone.

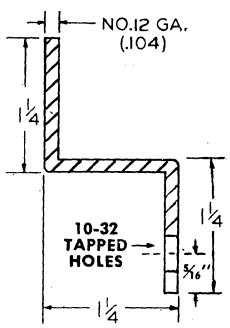


VERTICAL SIDE SUPPORTS 1¼" DEEP x 2⅜" WIDE

Cat. No.	Ht.	Net Price Set of 4	To Fit Racks
PVS-362	36¾"	$13.74	FD & RMA 3619, 3619-24
PVS-422	42"	15.00	FD & RMA 4219, 4219-24, 2742; PRX-42, 42-24; F-42-22, 42-255
PVS-522	52½"	17.40	PRX 52 & 52-24; F-52-22 & 52-255
PVS-612	61¼"	19.85	FD & RMA 6119, 6119-24, 2761; PRX-61, 61-24, 2761, 2761-24, 3361, 3361-24; F-61-22, 61-255, 2761-22, 2761-255
PVS-702	70"	23.10	FD-7019, 7019-24, 2770; RMA 7618, 7618-24, 7030, 2770; PRX 70, 70-24; 2770, 2770-24, 3370, 3370-24; F-70-22, 70-255, 2770-22, 2770-255
PVS-772	77"	25.85	FD & RMA 7719, 7719-24, 2777; PRX 77, 77-24, 2777, 2777-24, 3377, 3377-24; F-77-22, 77-255, 2777-22, 2777-255

PANEL MOUNTING ANGLES 1¼" x 1¼"

Cat. No.	Ht.	Net Price Pair
PMA-362	36¾"	$10.50
PMA-422	42"	12.00
PMA-522	52½"	13.80
PMA-612	61¼"	15.00
PMA-702	70"	16.80
PMA-772	77"	18.00

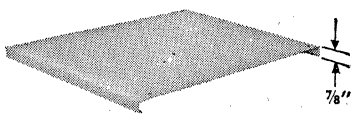


NOTE:
RMA Cabinets are constructed exactly the same as **RM** units except panel mounting angles are adjustable, and are furnished at no additional cost.

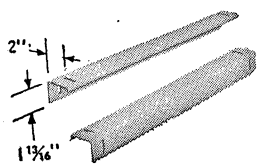
SHELVES

Made of No. 16 Gauge Steel —

Finished in Gray Hammertone



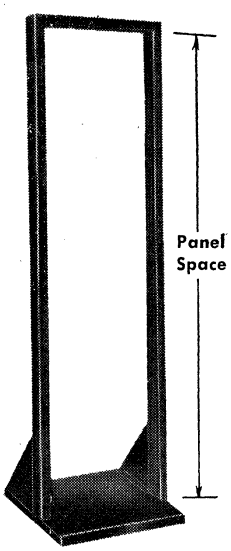
Cat. No.	Depth	Width	To Fit Racks	Net Price
S-1819	14¼"	17½"	19" Panels-18" Deep	$3.15
S-1824	14¼"	22½"	24" Panels-18" Deep	3.60
S-1830	14¼"	28½"	30" Panels-18" Deep	4.47
S-2419	20¼"	17½"	19" Panels-22", 24", 25½" Deep	3.78
S-2424	20¼"	22½"	24" Panels-22", 24", 25½" Deep	4.47
S-2430	20¼"	28½"	30" Panels-24" Deep	5.40



SIDE MOUNTING BRACKETS

Cat. No.	Length	To Fit Racks	Net Price (Pair)
SMB-18	14"	All 18" deep PRX, FD & RMA Racks	$3.00
SMB-24	20"	All 24" deep PRX FD & RMA Racks and 22" & 25½" deep F Racks	3.90

Made of No. 12 Gauge Steel — Finished in Gray Hammertone.

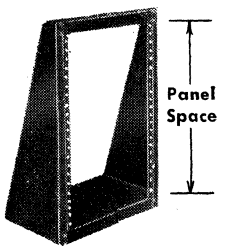


CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. Spacings.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 casters.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39¼"	20"	18⅜"	36¾" x 19"	40	$20.16
RR-801	74¼"	20"	20⅞"	71¾" x 19"	55	24.00
RR-802	79½"	20"	20⅞"	77" x 19"	60	27.78

TABLE TYPE RELAY RACKS



- Rigidly constructed of #16 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Base constructed of one piece, similar to a chassis.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. Spacings.
- Racks are shipped knocked down with all necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2119	25"	21"	12"	21 x 19"	17	$ 8.02
TR-2819	32"	21"	12"	28 x 19"	20	10.03

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ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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PREM-O-RAK® DESK CABINET RACKS

POR Series

BOTH FRONT AND REAR OF TOP HAVE ATTRACTIVE BALL CORNERS.

The ARISTOCRAT of DESK CABINET RACKS

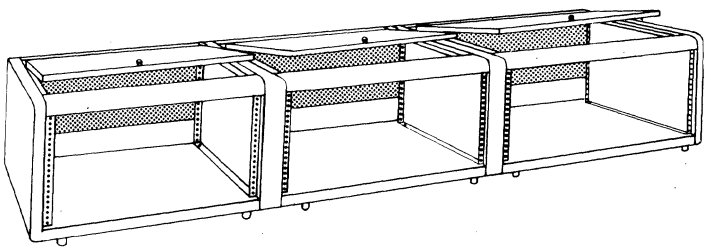
AVAILABLE IN 24 DIFFERENT SIZES — FROM 3½" to 35" PANEL SPACES

BOTH 15¼" and 18" DEEP FOR STANDARD 19" PANELS.

SHIPPED KNOCKED-DOWN WITH ALL THE NECESSARY HARDWARE FOR EASY ASSEMBLY.

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.
- Rear Panel has 3½" opening on bottom for leads, etc., except on POR-3, 318, 5, 518.
- Panels fit into ½" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- HANDSOMELY FINISHED IN TWO-TONE HAMMERTONE.
  Top cross braces and base are Gray Hammertone.
  Top and rear panel and side panels are Brown Hammertone.

15¼" DEEP			ALL CABINETS ARE 21¾" WIDE		18" DEEP		
Catalog No.	Shp. Wt. Lbs.	Net Price	Overall Height	Panel Space	Catalog No.	Ship. Wt. Lbs.	Net Price
POR-3	18	$22.80	5⅞"	3½"	POR-318	20	$24.00
POR-5	20	24.00	7⅝"	5¼"	POR-518	22	26.46
POR-7	22	25.20	9⅜"	7"	POR-718	24	27.88
POR-8	24	26.46	11⅛"	8¾"	POR-818	26	29.30
POR-10	26	30.24	12⅞"	10½"	POR-1018	29	33.39
POR-12	28	32.76	14⅝"	12¼"	POR-1218	31	36.07
POR-14	32	36.54	16⅜"	14"	POR-1418	35	40.32
POR-17	40	43.47	19⅞"	17½"	POR-1718	44	47.88
POR-21	44	47.25	23⅜"	21"	POR-2118	48	52.29
POR-26	45	51.03	28⅝"	26¼"	POR-2618	49	56.23
POR-31	50	53.55	33⅞"	31½"	POR-3118	55	59.69
POR-35	55	56.70	37⅜"	35"	POR-3518	60	62.53



Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

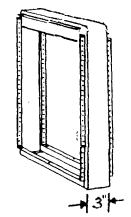
MULTIPLE SECTION FOR PREM-O-RAK DESK CABINETS

PREM-O-RAK DESK CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top cross pieces and base. When ordering multiple units specify number of units, such as Double, Triple, etc.

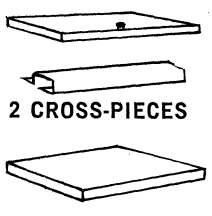
EXAMPLE: One Double POR-1218 consists of one POR-1218 and one MOR-1218.
One Triple POR-8 consists of one POR-8 and two MOR-8.

15¼" DEEP					18" DEEP		
Cat. No.	Ship. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Ship. Wt Lbs.	Net Price
MOR-3	16	$16.00	5⅞"	3½"	MOR-318	18	$16.80
MOR-5	17	16.80	7⅝"	5¼"	MOR-518	19	18.55
MOR-7	18	17.64	9⅜"	7"	MOR-718	20	19.60
MOR-8	19	18.52	11⅛"	8¾"	MOR-818	21	20.60
MOR-10	20	21.20	12⅞"	10½"	MOR-1018	23	23.50
MOR-12	21	23.00	14⅝"	12¼"	MOR-1218	24	25.25
MOR-14	23	25.60	16⅜"	14"	MOR-1418	26	28.25
MOR-17	31	30.50	19⅞"	17½"	MOR-1718	34	33.60
MOR-21	33	33.10	23⅜"	21"	MOR-2118	37	36.60
MOR-26	34	35.80	28⅝"	26¼"	MOR-2618	38	39.40
MOR-31	36	37.50	33⅞"	31½"	MOR-3118	40	41.80
MOR-35	40	39.70	37⅜"	35"	MOR-3518	44	43.80

EACH MULTIPLE SECTION (MOR Series) comprises 6 pieces as shown.



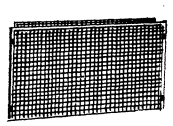
CENTER FRAME



TOP

2 CROSS-PIECES

BASE



REAR INTERLOCKING PANEL

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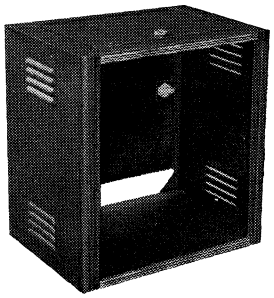
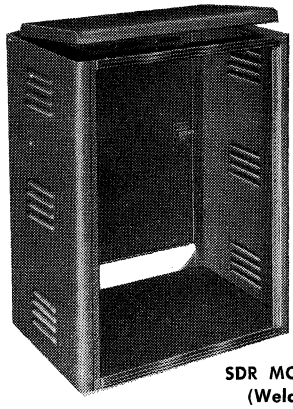
PREMIER DESK CABINET RACKS

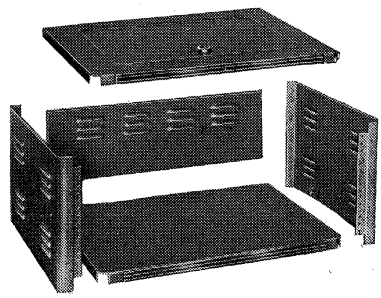
DESK CABINET RACKS FOR STANDARD 19" RACK PANELS IN STANDARD, SUPER DELUXE AND KNOCKED DOWN MODELS — BOTH 15¼" AND 18" DEEP



DCR MODEL
(Welded)



SDR MODEL
(Welded)



DRK MODEL
(Knocked Down)

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome finished moulding.
- Rigidly constructed of No. 16 Ga. cold rolled sheet steel.
- Panels fit into a ¼" recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings.
- Piano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Models SDR and SDRK open to 90° and have a rounded front corner.
- DRK is identical to DCR; SDRK is identical to SDR except shipped knocked down with all necessary bolts for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Cabinets finished in either Black or Gray Wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE IS FURNISHED, IF COLOR IS NOT SPECIFIED.

21¾" WIDE x 15¼" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.
WITH DOOR ON TOP ONLY	DCR-70	$13.20	SDR-70	$18.09	DRK-70	$12.51	SDRK-70	$17.40	8¾"	7"	22
	DCR-80	13.89	SDR-80	18.78	DRK-80	13.20	SDRK-80	18.09	10½"	8¾"	24
	DCR-100	15.66	SDR-100	20.52	DRK-100	14.97	SDRK-100	19.86	12¼"	10½"	26
	DCR-120	16.92	SDR-120	21.75	DRK-120	16.20	SDRK-120	21.06	14"	12¼"	28
	DCR-140	18.78	SDR-140	23.64	DRK-140	18.09	SDRK-140	22.95	15¾"	14"	32
WITH DOOR ON TOP AND REAR	DCR-170	22.26	SDR-170	27.09	DRK-170	21.57	SDRK-170	26.40	19¼"	17½"	40
	DCR-190	23.31	SDR-190	28.20	DRK-190	22.62	SDRK-190	27.48	21"	19¼"	42
	DCR-210	24.18	SDR-210	29.25	DRK-210	23.49	SDRK-210	28.29	22¾"	21"	44
	DCR-260	26.10	SDR-260	30.99	DRK-260	25.41	SDRK-260	30.24	28"	26¼"	45
	DCR-310	27.48	SDR-310	32.34	DRK-310	26.79	SDRK-310	31.71	33¼"	31½"	50
	DCR-350	28.86	SDR-350	33.72	DRK-350	28.17	SDRK-350	33.03	36¾"	35"	55

21¾" WIDE x 18" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.
WITH DOOR ON TOP ONLY	DCR-1880	$16.71	SDR-1880	$21.58	10½"	8¾"	26
	DCR-18100	18.78	SDR-18100	23.64	12¼"	10½"	29
	DCR-18120	20.25	**SDR-18120**	25.11	14"	12¼"	31
	DCR-18140	22.53	SDR-18140	27.42	15¾"	14"	35
WITH DOOR ON TOP AND REAR	DCR-18170	26.70	SDR-18170	31.59	19¼"	17½"	44
	DCR-18190	27.99	SDR-18190	32.85	21"	19¼"	46
	DCR-18210	28.98	SDR-18210	33.87	22¾"	21"	48
	DCR-18260	31.29	SDR-18260	36.15	28"	26¼"	49
	DCR-18310	32.97	SDR-18310	37.80	33¼"	31½"	55
	DCR-18350	34.65	SDR-18350	39.48	36¾"	35"	60

SPECIFY COLOR WHEN ORDERING

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ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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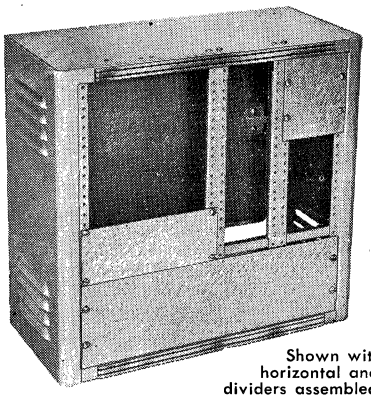
PREMIER Standard PRECISION BUILT METAL HOUSINGS



MDK Series

Shown with panels, horizontal and vertical dividers assembled.

MODU-RAK®

12" DEEP MINIATURE DESK RACKS

for modular construction of test equipment

FOR STANDARD 19", 9½" AND 4¾" RACK PANELS

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of No. 16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.

21¾" WIDE x 12" DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7"	5¼ x 19"	16	$10.71
	MDK-70	8¾"	7 x 19"	20	11.07
	MDK-80	10½"	8¾ x 19"	21	11.76
	MDK-100	12¼"	10½ x 19"	23	13.53
	MDK-120	14"	12¼ x 19"	25	14.76
	MDK-140	15¾"	14 x 19"	29	16.65
WITH REAR DOOR	MDK-170	19¼"	17½ x 19"	36	20.22
	MDK-210	22¾"	21 x 19"	39	22.05
	MDK-260	28"	26¼ x 19"	40	24.12
	MDK-280	29¾"	28 x 19"	41	26.01

12¼" WIDE x 12" DEEP

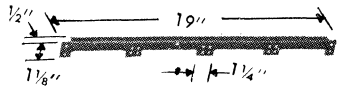
WITH REMOVABLE REAR PANEL	MDK-50-95	7"	5¼ x 9½"	14	10.26
	MDK-70-95	8¾"	7 x 9½"	15	10.71
	MDK-80-95	10½"	8¾ x 9½"	16	11.43
	MDK-100-95	12¼"	10½ x 9½"	17	13.23
	MDK-120-95	14"	12¼ x 9½"	18	14.37
	MDK-140-95	15¾"	14 x 9½"	20	15.81

- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings.
- 6 knock-out holes are provided on top and bottom of MDK-70 through MDK 280 series to accommodate angle brackets (Cat. No. AB-2).

  Two knock-out holes are provided on top and bottom of MDK-50-95 through MDK-140-95 series.
- Rear panel on Models MDK-70 through MDK-140 and MDK-70-95 through MDK-140-95 can be removed from back of cabinet for service.
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE
- SHIPPED KNOCKED-DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY

ACCESSORIES FOR SUBDIVIDING MODU-RAK INTO MODULAR UNITS

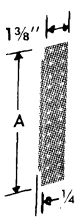
HORIZONTAL DIVIDERS



- Holes punched to accommodate vertical dividers (DV Series) which subdivides MODU-RAK into 9½" and 4¾" widths.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Catalog No.	Dimensions	Net Price
DH-19	19" x 1⅛"	$2.85
DH-95	9½" x 1⅛"	2.34

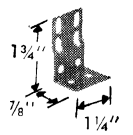
VERTICAL DIVIDERS



- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5¼"	$0.79
DV-7	7"	1.05
DV-8	8¾"	1.32
DV-10	10½"	1.62
DV-12	12¼"	1.71
DV-14	14"	1.86
DV-17	17½"	2.43
DV-21	21"	2.97
DV-26	26¼"	3.69
DV-28	28"	3.90

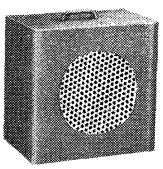
ANGLE BRACKETS



- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Cat. No.	Net Price	sold in
AB-2	$.99 pr.	pairs only

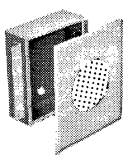
SPEAKER CABINETS



- Constructed of No. 18 gauge steel with perforated grille spot welded behind the opening.
- Front vertical corners are rounded.
- Supplied with handle.
- Removable back plate has key hole slots for hanging.
- Finished in Black Wrinkle.

Cat. No.	H.	W.	D.	Hole Size	Speaker Size	Ship. Wt. Lbs.	Net Price
SC-1006	10"	10"	6"	4⅝"	6"	7⅜	$4.02
SC-1227	12"	12"	7"	6½"	8"	10	5.04

RECESSED SPEAKER BOXES AND PLATES



SB Series SP Series

Designed with adjustable mounting brackets for easy installation in walls or acoustical tile ceilings. Speaker plate has beveled edges to give the same appearance as an acoustical tile, and is easily fastened to the speaker box by means of Tinnerman nuts. Box made of #20 gauge steel; plate of #16 gauge steel with perforated grille spot-welded behind the opening. Interior sprayed with special undercoating to eliminate metallic sound. Finished in gray primer.

SPEAKER BOX

Catalog No.	W H D	Ship. Wt. Lbs.	Net Price
SB-1010	10 x 10 x 4"	4	5.19
SB-1012	10 x 12 x 4"	5	5.49

SPEAKER PLATE

Catalog No.	W.	H.	Speaker Size	Ship. Wt. Lbs.	Net Price
SP-1212	12"	12"	8"	2½	2.58
SP-1214	12"	14"	8"	3	2.76

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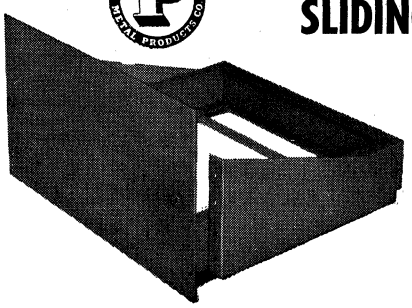
PREMIER RACK ACCESSORIES



SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15" AND 18" DEEP

Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension slides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in black or gray wrinkle, and Gray or Brown Hammertone. **BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.**

Catalog No.	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Ship. Wt. Lbs.	Net Price
RD-10	R, RS, DCR-18, SDR-18, RM, RMA & FD Models	10⅜" x 18⅞"	17" x 16" x 3"	15	$15.66
RD-12		12⅛" x 18⅞"	17" x 16" x 4"	18	17.40
RD-10-14	DCR, SDR, DRK, RM, RMA & FD SDRK, R, RS, DCR-18, SDR-18 Models	10⅜" x 18⅞"	17" x 14" x 3"	14½	15.54
RD-12-14		12⅛" x 18⅞"	17" x 14" x 4"	17	17.25

FRONT DOORS TO FIT STANDARD 19" DESK RACK CABINETS AND ENCLOSED RACKS

Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings and are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position on FD-300-306. All necessary bolts furnished for easy assembly. All doors are 20½" wide x 1¼" deep. Finished in Black or Gray Wrinkle, Gray or Brown Hammertone. **BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.**

FD-310-313 MODELS

FD-300-306 MODELS

Locking Chrome handle with two keys supplied on FD-310-313 models.

Cat. No.	Will Fit Rack No.	Height	Ship Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR, SDRK-260, 18260	26¼"	10	$12.75
FD-301	DCR, DRK, SDR, SDRK-310, 18310	31½"	11	14.82
FD-302	DCR, DRK, SDR, SDRK-350, 18350	35"	12	16.53
FD-303	DCR, DRK, SDR, SDRK-120, 18120	12¼"	6	9.60
FD-304	DCR, DRK, SDR, SDRK-140, 18140	14"	7	10.44
FD-305	DCR, DRK, SDR, SDRK-170, 18170	17½"	8	11.34
FD-306	DCR, DRK, SDR, SDRK-210, 18210	21"	9	12.21
FD-310	R or RS-3619	36⅞"	13	18.27
FD-311	R-4219	42⅛"	15	20.85
FD-312	R or RS-6119	61⅜	20	24.33
FD-313	R or RS-7719	77⅛"	24	27.81

DESK PANELS

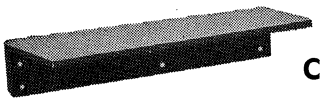
- Made of No. 16 gauge steel and bolted to a standard steel panel 10½" x 19".
- Front corners are rounded.
- Finished in Black or Gray Enamel, Gray or Brown Hammertone.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Ship. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	$14.91
DP-1020	22"	20"	22	15.24

RACK SHELVES

Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Black or Gray Wrinkle, Gray or Brown Hammertone. **BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.**

Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	Net Price
RS-1106	All 15¼" SDR and DCR Racks	12x21⅜	7	$2.82
RS-1107	R, RS, DR, 18" deep RM, DCR and SDR Racks	15x21 13/16	7	3.48
RS-1108	18" deep FD Racks	13x21 13/16	7	3.15
RS-1110	For 27" wide - 24" deep Racks (RMA-27 and FD-27 Series)	22x26⅞	8	6.60
RS-1111	MDK Series - 21¾" wide	10x21⅜	6	2.70
RS-1112	For 22" wide - 24" deep Racks (RM, RMA, FD Series)	22x21 13/16	7	5.64

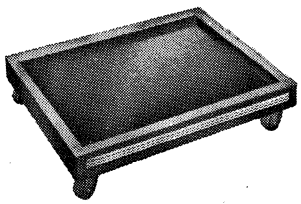


CHASSIS SUPPORTS

Made of #12 gauge steel. Finished in black enamel. Sold in pairs only.

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
CS-12	12 x 3 x 3"	4	1.92
CS-14	14½ x 3 x 3"	5¼	2.10

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Black or Gray Wrinkle, Gray or Brown Hammertone with a red striped chrome molding. IF COLOR IS NOT SPECIFIED, BLACK WRINKLE FURNISHED.

With 2" Dia Casters Cat. No.	Ship. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimensions	With 3" Dia. Casters Cat. No.	Ship. Wt. lbs.	Net Price
RT-1100	22	$ 9.93	All 15¼" Racks	15¾ x 22¼"	RT-1100-3	24	$14.93
RT-1101	22	12.57	R, RS, DR, 18" deep FXR, RM, RMA, FD, DCR and SDR Racks	18¾ x 22¾"	RT-1101-3	24	17.57
RT-1103	23	15.60	24" deep RM, FD and RMA Racks	22½ x 24½"	RT-1103-3	25	20.60
RT-1110	25	23.33	RMA-27 and FD-27 Series	27½ x 24½"	RT-1110-3	27	27.33
RT-1111	30	30.00	RM-7030	33½ x 24½"	RT-1111-3	32	35.00

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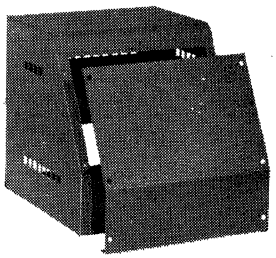
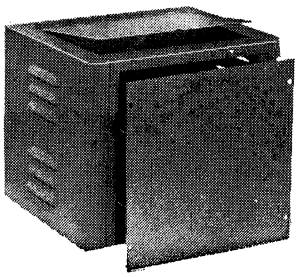
PREMIER Standard PRECISION BUILT METAL HOUSINGS



SLOPING FRONT

Cabinet has rounded top corners and a removable front panel. Back of cabinet is perforated and has opening for leads. Constructed of #20 gauge steel. Finished in Grey Wrinkle.

Catalog No.	H.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8 x	8 x	8"	CH-403	6	$ 4.26
SFC-501	8 x	10 x	8"	CH-404	7	4.74
SFC-502	8 x	14 x	8"	CH-406	8	5.07
SFC-503	9 x	18 x	8"	CH-409	10	7.29
SFC-504	12 x	18 x	12"	CH-415	14	9.30

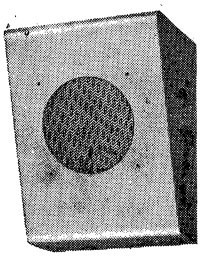


HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Grey Wrinkle.

Catalog No.	H. W. D.	Panel Size	Use Chassis No.	Ship Wt. Lbs.	Net Price
HTC-200	8x10x 8"	8x 8"	CH-403	6	$4.19
HTC-201	8x12x 8"	8x10"	CH-404	6½	4.54
HTC-202	8x16x 8"	8x14"	CH-406	11	5.89
HTC-203	9x17x11"	9x15"	CH-413	6½	9.13
HTC-204	12x20x12"	12x18"	CH-415	13½	10.80
HTC-205	8x14x 8"	8x12"	CH-405	7¼	5.23

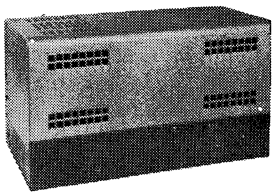
METAL WALL SPEAKER BAFFLE



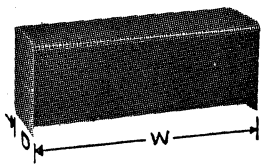
Sturdily constructed of #18 gauge cold rolled steel to eliminate splitting, warping, or cracking. Perforated grille is spot-welded behind speaker opening. Interior has special undercoating to eliminate metallic sound. Supplied with mounting bracket for simple hanging on wall. Finished in buff enamel or brown hammertone.

Cat. No.	H.	W.	D.	Speaker Size	Net Price
WSB-8	11½ x	9½ x	7"	8"	$5.04
WSB-12	15½ x	13½ x	9¾"	12"	6.30

AMPLIFIER FOUNDATIONS



STANDARD TYPE



PERFORATED TYPE COVERS

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6" high. Finished in Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Black Wrinkle.

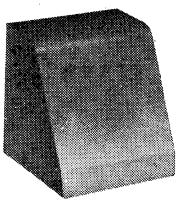
Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5" x 10" x 3"	5	$4.59
AF-615	6" x 14" x 3"	7	5.29
AF-1017	10" x 17" x 3"	11	7.13
AF-1317	13" x 17" x 3"	13	8.58

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends. 6" high except PC-57*. Finished in Gray Wrinkle. Supplied without chassis.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7"	5"	ACH or CH-426	1	$3.06
PC-510	10"	5"	ACH or CH-401	1¾	3.12
PC-615	14"	6"	ACH or CH-402	2⅜	3.60
PC-717	17"	7"	ACH or CH-409	3	3.96
PC-1012	12"	10"	ACH or CH-412	3	4.02
PC-1017	17"	10"	ACH or CH-415	3¼	4.95

* 4" high.

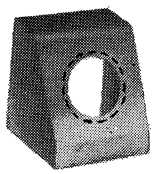


STEEL and ALUMINUM Sloping Panel Cabinets

ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W.	H.	D.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Net Price
SPC-1200	4⅜6	x4 1/16	x4⅝6	¾	$1.14	ASPC-1200	$1.37
SPC-1201	5⅜6	x4 1/16	x4⅝6	1	1.29	ASPC-1201	1.55
SPC-1202	6⅜6	x4 1/16	x4⅝6	1	1.47	ASPC-1202	1.76
SPC-1203	7⅜6	x4 1/16	x4⅝6	1½	1.77	ASPC-1203	2.12

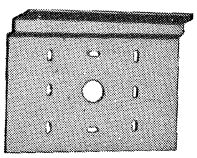


2 in 1 STEEL & ALUMINUM METER CASES

Center Hole for 2" meter increases to 3" meter hole by simply removing a knock-out. Size: 4⅜6" x 4⅝6" x 4 1/16". Supplied with two ½" dia. knock-outs. #20 gauge steel — Black Wrinkle Finish, #18 gauge (.040) Aluminum — Natural Aluminum Finish.

	Cat. No.	Sh. Wt.	Net Price
ALUMINUM	ASPC-23	¾	1.51
STEEL	SPC-23	¾	1.26

WALL SPEAKER MOUNTING PLATE



For Use with WSB-8 and WSB-12 Wall Speaker Baffles

DESIGNED FOR SIMPLE MOUNTING OF SPEAKER BAFFLE TO STANDARD 2" x 4" AND 4" x 4" ELECTRICAL OUTLET BOXES

Bracket has two threaded holes for easy mounting to baffle. Made of No. 16 gauge cold rolled steel and finished in gray primer.

Catalog No. SMP-812 ..... .96 Net Price

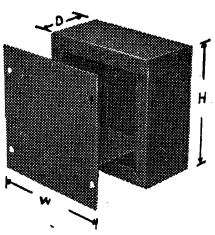
WALL MOUNTING BRACKETS

FOR MOUNTING DESK CABINET RACKS ON WALL — REMOVE REAR DOOR AND USE WALL MOUNTING BRACKETS.

Catalog No. WB-19
Net Price $2.85

Sold in sets only.
Finished in Gray Enamel.
Shipping Weight 2½ lbs.

STEEL UTILITY CASES WITH CHASSIS ATTACHED



Made of #20 gauge steel with a chassis spot welded to front panel. Front and rear panels are removable. Finished in black wrinkle.

Catalog No.	Height	Width	Depth	Chassis Size	Ship. Wt. Lbs.	Net Price
CA-1400	4"	4"	2"	1 x 2⅞ x 1⅞"	1	$1.22
CA-1401	4"	5"	3"	1 x 3⅞ x 2⅞"	1¼	1.42
CA-1402	5"	4"	3"	1¼ x 2⅞ x 2⅞"	1¼	1.42
CA-1403	6"	5"	4"	1¾ x 3⅞ x 3⅞"	2	1.78
CA-1404	5"	6"	4"	1¼ x 4⅞ x 3⅞"	2	1.78
CA-1405	6"	6"	6"	1¾ x 4⅞ x 5⅞"	3	1.85

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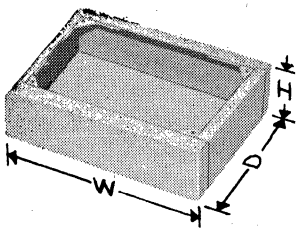
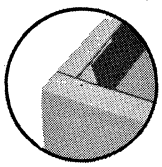
PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!



View of Chassis Showing Gusset Spot-Welded in Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064).

Natural Aluminum Finish.

ALUMINUM Cat. No.	Ship. Wt. Lbs.	Net Price	Size D.	W.	H.
ACH-400	½	$1.33	5½"	9½"	1½"
ACH-401	¾	1.52	5"	10"	3"
ACH-402	1	2.57	6"	14"	3"
ACH-403	½	1.33	7"	7"	2"
ACH-404	½	1.39	7"	9"	2"
ACH-405	¾	1.52	7"	11"	2"
ACH-406	¾	1.64	7"	13"	2"
ACH-407	1	2.89	7"	15"	3"
ACH-408	1	2.36	4"	17"	3"
ACH-409	1½	2.85	7"	17"	3"
ACH-410	1⅛	2.89	8"	17"	2"
ACH-411	1½	3.00	8"	17"	3"
ACH-412	1¼	2.68	10"	12"	3"
ACH-413	1¼	3.40	10"	14"	3"
ACH-414	1¼	3.26	10"	17"	2"
ACH-415*	1⅞	3.65	10"	17"	3"
ACH-416*	2	4.20	10"	17"	4"
ACH-417*	1¾	3.48	11"	17"	2"
ACH-418*	2	4.27	11"	17"	3"
ACH-419*	1⅞	3.81	12"	17"	2"
ACH-420*	2⅛	4.51	12"	17"	3"
ACH-421*	2⅞	4.98	12"	17"	4"
ACH-422*	1⅞	4.02	13"	17"	2"
ACH-423*	2⅛	4.79	13"	17"	3"
ACH-424*	2½	5.48	13"	17"	4"
ACH-425	⅞	1.64	7"	11"	3"
ACH-426	¼	1.09	5"	7"	2"
ACH-427	1¼	2.91	8½"	15"	3"
ACH-428	¼	1.50	5"	7"	3"
ACH-429	¾	1.80	5"	13"	3"
ACH-430	1	2.19	8"	12"	3"
ACH-431	¼	1.29	4"	6"	2"
ACH-432	¼	1.33	4"	6"	3"
ACH-433	⅞	1.83	7"	12"	3"
ACH-434	1	2.70	6"	17"	3"
ACH-435*	2½	5.37	10"	23"	3"
ACH-436	¼	1.09	4"	6"	1½"
ACH-437	⅜	1.13	4"	8"	2"
ACH-438*	3	10.79	17"	17"	4"
—	—	—	10"	17"	5"
—	—	—	13"	17"	5"
ACH-441	1	1.68	8"	10"	2½"

*Made from No. 14 gauge (.064) aluminum.

STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
CH-400	1	$0.91
CH-401	1½	1.26
CH-402	2½	1.48
CH-403	1¼	1.07
CH-404	1½	1.26
CH-405	1⅞	1.29
CH-406	2	1.40
CH-407	2¾	1.67
CH-408	2¼	1.50
CH-409	3⅛	1.83
CH-410	2¾	1.67
CH-411	5¼	1.83
CH-412	2¾	1.76
CH-413	3¼	1.86
CH-414	3¼	1.92
CH-415*	6	2.16
CH-416*	7½	2.39
CH-417*	5¼	2.62
CH-418*	6¼	2.87
CH-419*	5	1.99
CH-420*	7	2.40
CH-421*	8½	2.62
CH-422*	6	2.87
CH-423*	7	3.31
CH-424*	10	3.78
CH-425	2¼	1.40
CH-426	1	1.04
CH-427	3	1.92
CH-428	1¼	1.06
CH-429	2	1.56
CH-430	2½	1.67
CH-431	1	1.01
CH-432	1	1.04
CH-433	2½	1.46
CH-434	4	1.76
CH-435*	10	2.74
CH-436	¾	1.04
CH-437	1	1.07
CH-438*	13	5.42
CH-439*	8½	2.89
CH-440*	11	4.26
CH-441	2½	1.42

*Made from No. 16 gauge steel.

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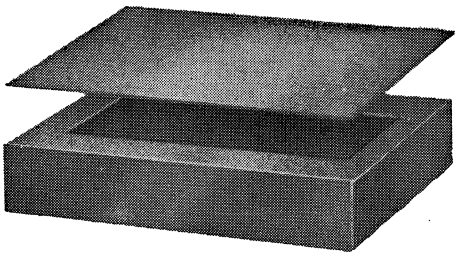


REMOVABLE TOP

Made of #16 Ga. Cold Rolled Steel. Top and Bottom edges flanged in on four sides. Top plate is removable. Finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

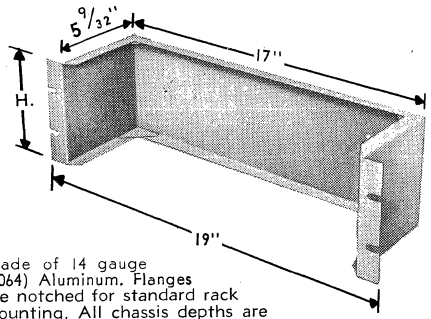
Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RCH-415	10 x 17 x 3	5	$4.01
RCH-416	10 x 17 x 4	5	4.46
RCH-423	13 x 17 x 3	9	4.20
RCH-424	13 x 17 x 4	10	5.18

REPLACEMENT TOPS

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RTC-415	10 x 17	2	$1.56
RTC-423	13 x 17	3	1.92

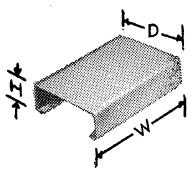
ALUMINUM VERTICAL PANEL

TO FIT 19" STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32". Gussets are spot welded in each corner for greater strength. Etched finish.

Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1¾"	¾	$2.55
ACH-1201	3½"	1¾	2.79
ACH-1202	5¼"	1½	3.04
ACH-1203	7"	2	3.51
ACH-1204	8¾"	2¼	4.14
ACH-1205	10½"	2¾	4.44
ACH-1206	12¼"	3	4.95
ACH-1207	14"	3¼	5.35



ALUMINUM OPEN END

Made of 18 ga. (.040) Aluminum.

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2⅝"	2¾"	1¼"	¼	$ .37
ACH-1351	1¾"	3⅛"	1"	¼	.41
ACH-1352	3¼"	4½"	2"	¼	.44
ACH-1353	2¾"	4⅛"	1"	¼	.44
ACH-1354	3¾"	4⅛"	1½"	¼	.44
ACH-1355	3"	6⅛"	1¼"	¼	.52
ACH-1356	5¾"	4⅞"	1½"	¼	.55
ACH-1357	4"	3⅛"	1"	½	.44
ACH-1358	4"	4⅛"	1"	½	.48
ACH-1359	4"	5⅛"	1"	½	.51
ACH-1360	4"	6⅛"	1"	½	.55

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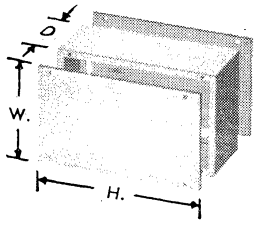
PREMIER Standard PRECISION BUILT METAL HOUSINGS

UTILITY CASES

ALUMINUM

Constructed of #16 ga. (.051) aluminum with flanged edges. spotwelded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.



Natural Aluminum Cat. No.	Net Price	Size H. W. D.	Ship. Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AC-442	$1.26	4 4 2"	½	PAC-442	$1.39
AC-453	1.39	4 5 3"	¾	PAC-453	1.62
AC-564	1.65	5 6 4"	1	PAC-564	2.02
AC-596	2.71	5 9 6"	1½	PAC-596	3.07
AC-666	1.89	6 6 6"	1½	PAC-666	2.11
AC-1276	3.73	12 7 6"	2¼	PAC-1276	4.14
AC-1597	5.10	15 9 7"	3½	PAC-1597	5.65
AC-695	2.71	6 9 5"	1½	PAC-695	3.07

STEEL

Constructed of #20 ga. sheet steel with flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4"	4"	2"	⅞	$0.93
C-453	4"	5"	3"	1¼	1.08
C-564	5"	6"	4"	1¾	1.28
C-596	5"	9"	6"	3	2.02
C-666	6"	6"	6"	2¼	1.46
C-695	6"	9"	5"	3	2.02
C-754	7"	5"	4"	2	1.39
C-8101	10"	10"	8"	6	3.30
C-1276	12"	7"	6"	4½	2.74

CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Black enamel.
- Sold in pairs only.

TRIANGULAR

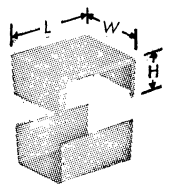
TRIANGULAR TYPE

Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5"	5"	1	$ .99
TCB-77	7"	7"	1	1.12
TCB-99	9"	9"	1½	1.36

STANDARD

STANDARD TYPE

	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3" Chassis	CB-78	6½"	8"	1½	$0.96
	CB-710	6½"	10"	1¾	1.29
	CB-711	6½"	11"	2	1.39
	CB-712	6½"	12"	2⅛	1.51
	CB-713	6½"	13"	2¼	1.62
	CB-717	6½"	17"	3	2.51
Notched for 4" Chassis	CB-810	8½"	10"	2⅜	1.91
	CB-813	8½"	13"	3	2.02

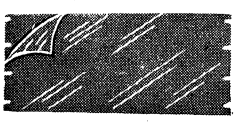


ALUMINUM MINIATURE CASES

A two piece case made of #16 Ga. (.051) aluminum. Natural Aluminum Finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	$ .70	2¾"	2⅛"	1⅝"	¼	PMC-1000*	$ .79
AMC-1001*	.70	3¼"	2⅛"	1⅝"	¼	PMC-1001*	.79
AMC-1002*	.73	4"	2⅛"	1⅝"	¼	PMC-1002*	.83
AMC-1003	.96	4"	2¼"	2¼"	⅜	PMC-1004	1.09
AMC-1004	.99	5"	2¼"	2¼"	½	PMC-1005	1.23
AMC-1005	1.17	5"	4"	3"	½	PMC-1006	1.19
AMC-1006	1.09	5¼"	3"	2⅛"	1	PMC-1007	1.53
AMC-1007	1.39	6"	5"	4"	¾	PMC-1008	1.69
AMC-1008	1.56	7"	5"	3"	1⅛	PMC-1009	2.45
AMC-1009	2.31	8"	6"	3½"	1½	PMC-1010	3.04
AMC-1010	2.88	10"	6"	3½"	1¾	PMC-1011	3.57
AMC-1011	3.24	12"	7"	4"	2	PMC-1012	4.20
AMC-1012	3.84	17"	5"	4"	½	PMC-1013	1.23
AMC-1013	1.17	10"	2"	1⅝"	¼	PMC-1014	1.65
AMC-1014	1.53	12"	2½"	2¼"	¼	PMC-1015	1.20
AMC-1015	.93	4"	2"	2¾"	⅜	PMC-1003	1.06
AMC-1016	.96	4¼"	2¼"	1½"	¼	PMC-1016	1.06

* 18 Gauge (.040)

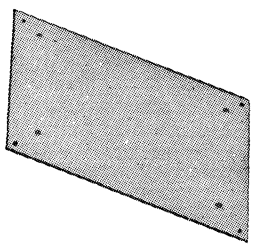


MASKED ALUMINUM PANELS 19" WIDE — ⅛" THICK

Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

Catalog No.	Height	Ship. Wt. Lbs.	Net Price
MAP-119	1¾"	½	$1.01
MAP-319	3½"	1	1.36
MAP-519	5¼"	1½	1.86
MAP-719	7"	2	2.24
MAP-819	8¾"	2½	2.68
MAP-1019	10½"	3	3.37
MAP-1219	12¼"	3½	3.94
MAP-1419	14"	4	4.51
MAP-1519	15¾"	4	5.04
MAP-1719	17½"	4¾	5.54
MAP-1919	19¼"	5	6.08
MAP-2119	21"	6	6.62

ALUMINUM AND STEEL BOTTOM PLATES



The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Zinc Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM Cat. No.	Net Price	Size	STEEL Cat. No.	Ship. Wt. Lbs.	Net Price
ABP-400	$0.87	5½" x 9½"	BP-400	1	$0.41
ABP-401	.87	5" x 10"	BP-401	1	.46
ABP-402	1.32	6" x 14"	BP-402	1	.63
ABP-403	.90	7" x 7"	BP-403	1	.46
ABP-404	.96	7" x 9"	BP-404	1	.50
ABP-405	1.06	7" x 11"	BP-405	1	.60
ABP-406	1.32	7" x 13"	BP-406	2	.66
ABP-407	1.32	7" x 15"	BP-407	2	.73
ABP-408	1.32	4" x 17"	BP-408	2	.60
ABP-409	1.36	7" x 17"	BP-409	2	.77
ABP-410	1.53	8" x 17"	BP-410	2	.77
ABP-412	1.50	10" x 12"	BP-412	2	.77
ABP-413	1.37	10" x 14"	BP-413	2	.80
ABP-414	1.72	10" x 17"	BP-414	2	1.03
ABP-418	2.16	11" x 17"	BP-418	3	1.06
ABP-419	2.28	12" x 17"	BP-419	3	1.11
ABP-422	2.41	13" x 17"	BP-422	3	1.19
ABP-423	.87	5" x 7"	BP-423	1	.41
ABP-424	.99	5" x 13"	BP-424	1	.66
ABP-425	1.32	8" x 12"	BP-425	2	.92
ABP-426	.87	4" x 6"	BP-426	1	.41
ABP-427	1.14	7" x 12"	BP-427	2	.79
ABP-428	1.36	6" x 17"	BP-428	2	.77
ABP-429	2.55	10" x 23"	BP-429	2	1.66
ABP-430	.87	4" x 8"	BP-430	1	.41
ABP-431	2.57	17" x 17"	BP-431	4	1.67
ABP-432	2.41	8½" x 15"	BP-432	1½	1.19
ABP-433	1.14	8" x 10"	BP-433	1	.79

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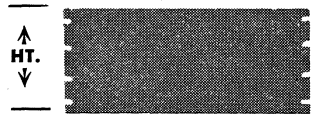
PREMIER STEEL & ALUMINUM RACK PANELS



All 24" and 30" wide blank panels are finished in Black or Gray Wrinkle, Gray or Brown Hammertone. If color is not specified, Black Wrinkle is furnished.

ALL 19" WIDE PANELS ARE FINISHED IN REVERSIBLE COLORS

REVERSIBLE

When ordering just specify Reversible Colors—

Example: Aluminum Panel 8¾" x 19" — Black Wrinkle on one side — Gray Wrinkle on other side — order as follows:

ARP-819 Reversible Wrinkle.

Example: Steel Panel 7" x 19" — Gray Hammertone one side — Brown Hammertone other side — order as follows:

RP-719 Reversible Hammertone.

BLANK RACK PANELS
4¾" - 9½" - 19" - 24" - 30" WIDTHS

ALUMINUM
Made of ⅛" Thick Aluminum and finished in Gray Hammertone only.

4¾" Wide

Cat. No.	Ship. Wt.	Height	Net Price
ARP-147	⅛	1¾"	$0.50
ARP-347	¼	3½"	.70
ARP-547	⅜	5¼"	1.05
ARP-747	½	7"	1.26

9½" Wide

Cat. No.	Ship. Wt.	Height	Net Price
ARP-195	¼	1¾"	$0.84
ARP-395	½	3½"	1.14
ARP-595	¾	5¼"	1.65
ARP-795	1	7"	2.01
ARP-895	1¼	8¾"	2.37
ARP-1095	1½	10½"	3.00
ARP-1295	1¾	12¼"	3.48
ARP-1495	2	14"	3.96

19" WIDE

Height	Aluminum — ⅛" Thick: Cat. No.	Ship. Wt. Lbs.	Net Price	Aluminum — 3/16" Thick: Cat. No.	Ship. Wt. Lbs.	Net Price	Steel — No. 12 Gauge: Cat. No.	Ship. Wt. Lbs.	Net Price
1¾"	ARP-119	½	$1.01	ARP-119-36	¾	$1.62	RP-119	1	$0.77
3½"	ARP-319	1	1.36	ARP-319-36	1½	2.11	RP-319	2	.88
5¼"	ARP-519	1½	1.86	ARP-519-36	2½	3.00	RP-519	3	1.09
7"	ARP-719	2	2.24	ARP-719-36	3	3.60	RP-719	4	1.26
8¾"	ARP-819	2½	2.68	ARP-819-36	3¾	4.29	RP-819	5¼	1.54
10½"	ARP-1019	3	3.37	ARP-1019-36	4½	5.40	RP-1019	6¼	1.86
12¼"	ARP-1219	3½	3.94	ARP-1219-36	5	6.30	RP-1219	7¼	2.21
14"	ARP-1419	4	4.51	ARP-1419-36	6	7.23	RP-1419	8¼	2.55
15¾"	ARP-1519	4	5.04	ARP-1519-36	6	8.07	RP-1519	9	2.87
17½"	ARP-1719	4¾	5.54	ARP-1719-36	7	8.88	RP-1719	10½	3.15
19¼"	ARP-1919	5	6.08	ARP-1919-36	7½	9.75	RP-1919	12	3.50
21"	ARP-2119	6	6.62	ARP-2119-36	9	10.59	RP-2119	12½	3.85

24" WIDE

Aluminum — 1/8" Thick: Cat. No.	Ship. Wt. Lbs.	Net Price	Height	Steel — No. 12 Gauge: Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-324	1¼	$2.09	3½"	RP-324	2¼	$1.35
ARP-524	2	3.09	5¼"	RP-524	3½	1.65
ARP-724	2½	3.72	7"	RP-724	4½	1.89
ARP-824	3	4.44	8¾"	RP-824	6	2.34
ARP-1024	3½	5.58	10½"	RP-1024	7	2.82
ARP-1224	4	6.54	12¼"	RP-1224	8	3.33
ARP-1424	4½	7.47	14"	RP-1424	9	3.81
ARP-1524	5	8.32	15¾"	RP-1524	10	4.32
ARP-1724	5½	9.18	17½"	RP-1724	11	4.74
ARP-1924	6	10.05	19¼"	RP-1924	12	5.25
ARP-2124	6½	10.95	21"	RP-2124	13	5.79

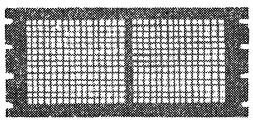
30" WIDE

Aluminum — 1/8" Thick: Cat. No.	Ship. Wt. Lbs.	Net Price	Height	Steel — No. 12 Gauge: Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-330	1½	$2.77	3½"	RP-330	3	$1.77
ARP-530	2¼	4.11	5¼"	RP-530	4½	2.19
ARP-730	3	4.95	7"	RP-730	6	2.52
ARP-830	3¾	5.89	8¾"	RP-830	8	3.09
ARP-1030	4½	7.44	10½"	RP-1030	9¼	3.12
ARP-1230	5	8.67	12¼"	RP-1230	10¼	4.41
ARP-1430	6	9.93	14"	RP-1430	12	5.07
ARP-1530	6½	11.10	15¾"	RP-1530	13½	5.76
ARP-1730	7	12.24	17½"	RP-1730	15	6.30
ARP-1930	7½	13.41	19¼"	RP-1930	18	6.96
ARP-2130	9	14.56	21"	RP-2130	19	7.71

PANELS — 19" WIDE
FINISHED IN EITHER BLACK OR GRAY WRINKLE, GRAY OR BROWN HAMMERTONE

Made of No. 12 Gauge Steel

IF COLOR IS NOT SPECIFIED, BLACK WRINKLE IS FURNISHED.



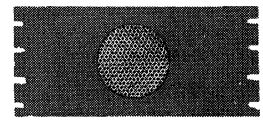
GRILLE PANELS

Cat. No.	Grill Size	Height	Ship. Wt. Lbs.	Net Price
GRP-601	3⅞"x13⅜"	5¼"	2	$3.09
GRP-602	3⅞"x13⅜"	7"	2	3.31
GRP-603	5⅞"x13⅜"	8¾"	2½	4.00
GRP-604	*3⅞"x13⅜"	8¾"	2½	3.68
GRP-605	7⅞"x13⅜"	10½"	2½	4.38
GRP-606	*5⅞"x13⅜"	10½"	2½	4.00
GRP-607	*7⅞"x13⅜"	12¼"	3	4.54

* Allows 3½" space at bottom for chassis mounting.

METER PANELS — 5¼"

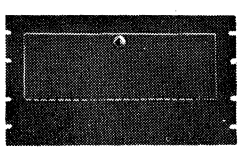
Cat. No.	No. of Holes	Meter Size	Hole Size	Shp. Wt. Lbs.	Net Price
MRP-900	3	2"	2¼"	7	$1.62
MRP-901	5	2"	2¼"	7	2.19
MRP-902	3	3"	2 13/16"	7	1.62
MRP-903	5	3"	2 13/16"	7	2.19



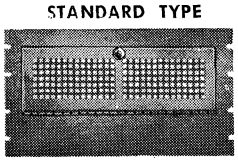
SPEAKER PANELS

A piece of perforated metal is spot-welded behind the opening.

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4⅝"	6	$2.88
SRP-1019	10½"	8"	6½"	8	3.66
SRP-1219	12¼"	10"	8½"	9	4.38
SRP-1419	14"	12"	11"	10	5.04



STANDARD TYPE



GRILLE TYPE

DOOR PANELS — 19" WIDE
Made of No. 12 Gauge Steel

Panels have flush hinged doors with piano hinges, and are supplied with a quick turn fastener. Doors are located 1" from top to allow space for chassis at bottom.

STANDARD TYPE Cat. No.	Net Price	Height	Door Size	Shp. Wt. Lbs.	GRILLE TYPE Cat. No.	Net Price
DRP-700	$5.12	8¾"	4½" x 15⅜"	9	GDRP-700	$6.57
DRP-701	5.48	10½"	6" x 15⅜"	10	GDRP-701	7.13
DRP-702	6.04	12¼"	7½" x 15⅜"	12	GDRP-702	7.86

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SIDE HINGED DOOR PANELS

Used for left or right hand opening. Supplied with a quick turn fastener.

Cat. No.	Height	Net Price
SHP-319	3½"	$3.00
SHP-519	5¼"	3.12
SHP-719	7"	3.42
SHP-819	8¾"	3.66
SHP-1019	10½"	3.96
SHP-1219	12¼"	4.23
SHP-1419	14"	4.59
SHP-2119	21"	7.26

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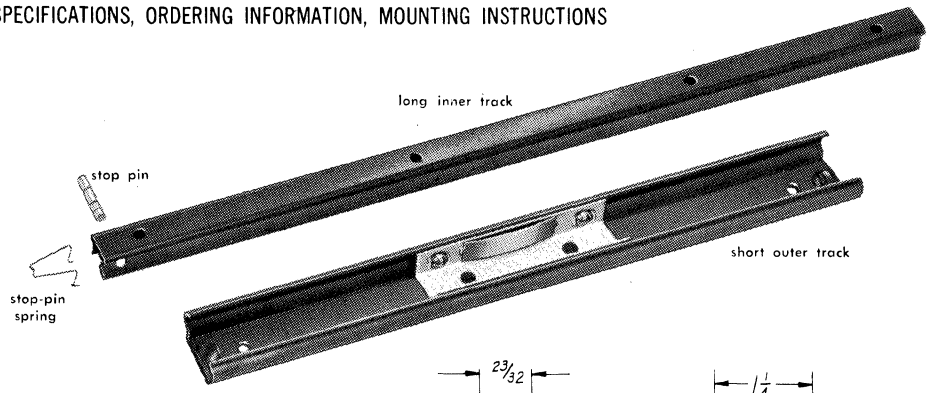
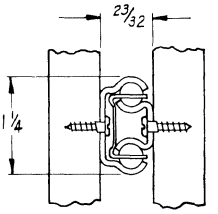
South River

BALL BEARING Record Player and Hi-Fi CHASSIS SLIDES

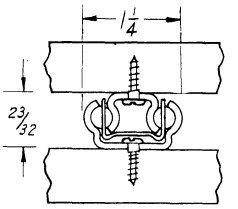
SPECIFICATIONS, ORDERING INFORMATION, MOUNTING INSTRUCTIONS



Part No. PS-13-9, exploded view.



Side mounting, end view.

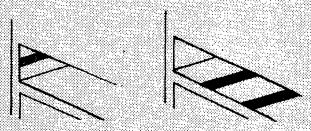


Bottom mounting, end view.

mounting instructions

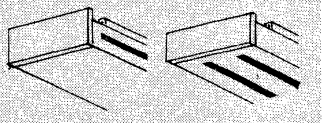
Tracks may be mounted on bottom or side. These instructions apply to either type of mounting.

1. Disassemble slide assemblies.
2. Fasten the short outer tracks to the cabinet with wood screws provided, keeping the track ends flush with the front of the cabinet. Tracks must be mounted parallel to each other to insure proper operation. (See Fig. A).
3. Fasten the long inner tracks to the chassis or moving unit, positioning them to conform in spacing to the outer tracks. Make certain that the stop pins are to the rear of the chassis. Also be sure that the tracks protrude sufficiently to the rear of the moving unit to enable removal and replacement of the stop pins. (See Fig. B).
4. Remove stop-pin springs, then remove stop pins from the long inner tracks which are mounted to the chassis.
5. Place the chassis or moving unit into the cabinet by lining up the inner and outer tracks and sliding into position.
6. Replace stop pins and springs.



Side mounting on cabinet — Bottom mounting on cabinet

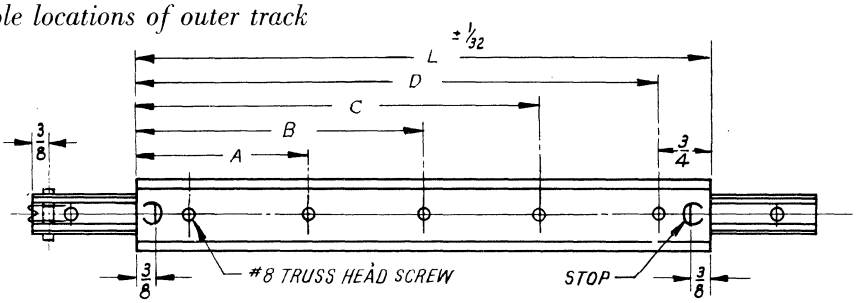
Fig. A—Short outer track



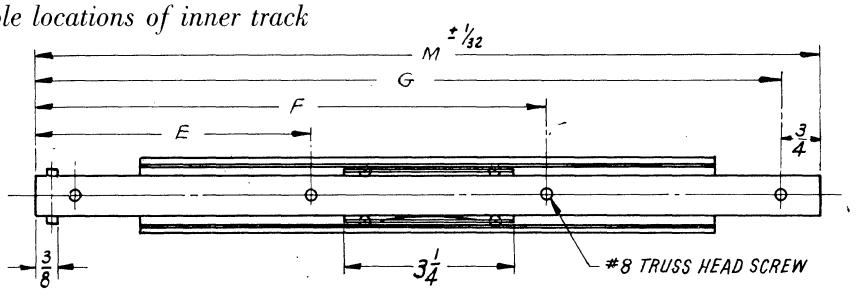
Side mounting on moving unit — Bottom mounting on moving unit

Fig. B—Long inner track

hole locations of outer track



hole locations of inner track



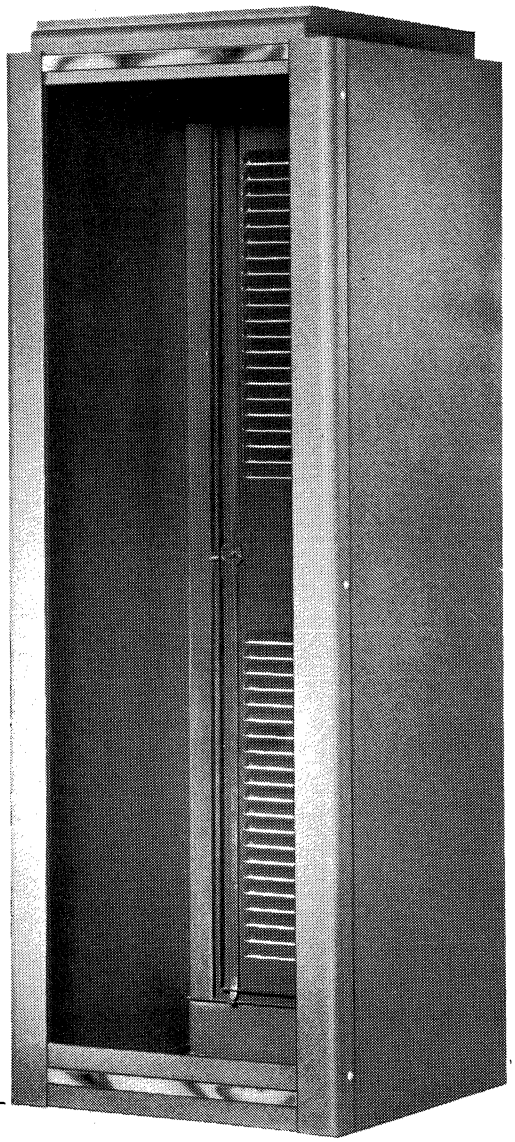
MODEL NUMBER	SLIDE TRAVEL (inches)	OUTER TRACK (inches)					INNER TRACK (inches)				LOAD CAP. (lbs.)	LIST PER PAIR
		LOCATION OF HOLES				LENGTH	LOCATION OF HOLES			LENGTH		
		A	B	C	D	L	E	F	G	M		
PS-11-7	7½	—	5½	—	10¼	11	4⅝	8⅜	10¾	11½	50	$2.75
PS-13-9	9	3⅛	4-15/16	6¾	9⅛	9⅞	4⅝	8⅜	12¼	13	50	2.75
PS-13-10	10	—	5½	—	10¼	11	4⅝	8⅜	12¼	13	50	2.85
PS-15-11	11	—	5½	—	10¼	11	5¾	10¾	14¼	15	40	3.05
PS-16-12	12½	—	5½	—	10¼	11	5¾	10¾	15¾	16½	30	3.35
PS-18-14	14½	—	5½	—	10¼	11	6-7/16	12⅛	17¾	18½	30	3.65

Model number explanation—"PS" indicates "Phonograph Slide". First number indicates length of movable inner track (excluding fractions). Second number indicates slide travel. Example: Model PS-13-10 indicates a Phonograph Slide with a 13" inner track which has a 10" travel.

South River **METAL PRODUCTS CO., INC.**
South River, New Jersey

WYCO METAL PRODUCTS ALL-WELDED DELUXE CABINET RACKS

DELUXE "D" SERIES
AN ALL-WELDED UNIT FOR 19" RACK PANELS



SPECIFICATIONS:

A. Rack is constructed throughout from 16 gauge high-quality steel and is completely welded together.
B. Panel mounting angles constructed of 1½ x 1½ x ⅛" angle iron.
C. Mounting holes are tapped 10/32 thread.
D. Mounting holes are at 1¼"-½" spacings. (WESTERN ELECTRIC SPACING.)
E. Double row of louvres in rear door provide ventilation.
F. Door is hung on loose-pin hinges; it may be easily removed.
G. Door is securely locked by means of an "automotive" type highly-polished handle and linkage rods.
H. Highly polished metal trim is on front of rack at top and bottom.
I. Panel mounting screws are concealed by detachable corner vertical trim (see Item "L").
J. Finished in black or grey wrinkle enamel and silver grey hammertone.
K. When it is desired to "gang" two or more of these cabinets together, order connecting trim, using the prefix "AD" plus the last two numbers of the catalog number of the cabinet.
L. Narrow vertical trim, allowing for removal of 19" panels, without removing vertical trim, is available, upon request, at no additional charge.

RACKS — 18½" DEEP

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
D 1869	69⅝ x 23⅝ x 18½	61¼ x 19	17⅞	19⅝	16¾	155 lbs.	$112.07
D 1878	78⅜ x 23⅝ x 18½	70 x 19	17⅞	19⅝	16¾	167 lbs.	122.73
D 1885	85⅜ x 23⅝ x 18½	77 x 19	17⅞	19⅝	16¾	180 lbs.	138.71

RACKS — 24" DEEP

D 2469	69⅝ x 23⅝ x 24	61¼ x 19	17⅞	19⅝	22¼	176 lbs.	$131.61
D 2478	78⅜ x 23⅝ x 24	70 x 19	17⅞	19⅝	22¼	192 lbs.	142.26
D 2485	85⅜ x 23⅝ x 24	77 x 19	17⅞	19⅝	22¼	205 lbs.	159.97

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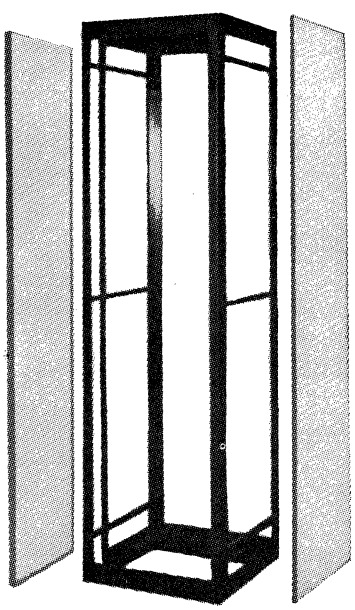
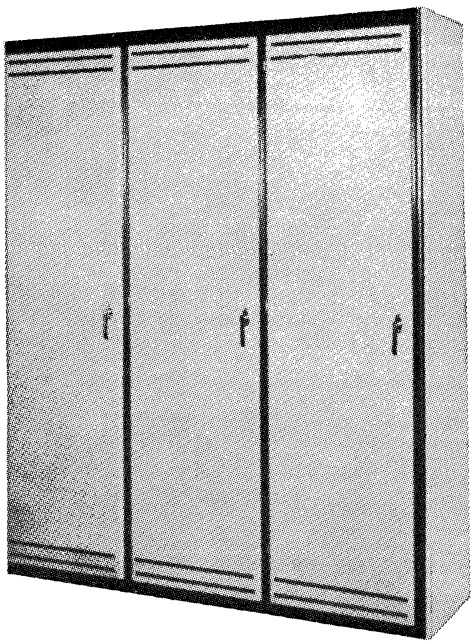
WYCO METAL PRODUCTS

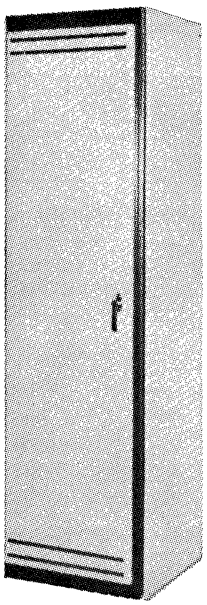
MULTIPLE RACK INSTALLATIONS

ALL-WELDED FRAME—FOR 19" MODELS
REMOVABLE SIDES—ADJUSTABLE MOUNTING ANGLES

18" DEEP AND 24" DEEP







SPECIFICATIONS:

A. Sides are removable for MULTIPLE RACK installations of two or more units.
B. This series consists of one frame and rear door, or one frame, rear and front door.
C. Removable sides sold separately, in pairs only.
D. Fabricated of high-quality, heavy gauge steel and electronically welded together.
E. Panel mounting angles are 3/16" structural steel with mounting holes tapped 10-32 thread on 1¼"-½" spacing.
F. Panel mounting angles are adjustable from front to back.
G. Highly-polished trim on doors.
H. "Automotive" type, highly-polished handles on doors.
I. Door can be mounted left or right hand.
J. Bottom has cut-out for cables, leads, etc.
K. Louvres in doors, sides and cabinet top can be added at no additional cost.
L. A rectangular or round opening can be put into cabinet top at no additional cost.
M. Available in primer coat, two-tone grey enamel (frame in dark grey; doors and ends in silver-grey hammertone), black or grey wrinkle.
N. Heavy-duty Caster #RC7773 may be used with this series.

18" DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW861	67⅜"	61¼"	123	$103.28	FW618	67⅜"	61¼"	143	$122.24
RW870	76⅛"	70"	129	119.30	FW708	76⅛"	70"	152	132.71
RW877	83⅛"	77"	143	123.60	FW778	83⅛"	77"	168	145.50

24" DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW461	67⅜"	61¼"	144	123.94	FW614	67⅜"	61¼"	169	$146.67
RW470	76⅛"	70"	153	143.22	FW704	76⅛"	70"	183	167.65
RW477	83⅛"	77"	169	152.03	FW774	83⅛"	77"	202	178.42

18" DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 1861	45 lbs.	$37.88 pr.
RS 1870	50 lbs.	40.76 pr.
RS 1877	55 lbs.	43.84 pr.

24" DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 2461	56 lbs.	$45.46 pr.
RS 2470	64 lbs.	48.88 pr.
RS 2477	70 lbs.	52.79 pr.

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WYCO METAL PRODUCTS

ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

A. 16 ga. high quality steel.
B. Welded together.
C. Panel mounting angles 1/8" steel.
D. Western Electric spacing.
E. Tapped 10/32.
F. Louvres rear door.
G. Rear door hung on loose-pin hinges.
H. Rear door has flush-type latch.
I. Highly-polished trim at front, top and bottom.
J. Front corners rounded.
K. Available grey or black wrinkle and silver grey hammertone.
L. "SL" and "S" series have detachable vertical trim.
M. "G" and "DF" series panel mounting angles adjustable front to back.
N. "DF" series has front door with automotive type handle and three point catch.
O. "SL" series has louvres at sides.
P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

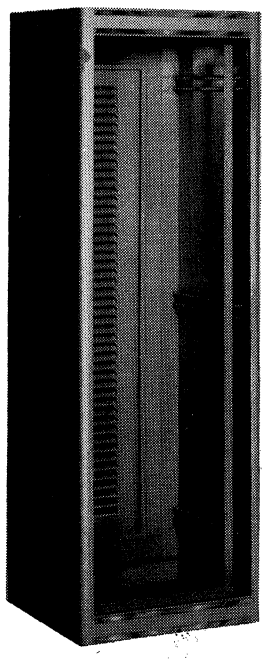
Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.	Dealer Cost
G 6119	67 3/8" x 22" x 18"	61 1/4" x 19"	165	$ 99.14
G 7019	76 1/8" x 22" x 18"	70" x 19"	185	111.56
G 7719	83 1/8" x 22" x 18"	77" x 19"	195	123.92
DF 1961	67 3/8" x 22" x 18"	61 1/4" x 19"	185	123.92
DF 1970	76 1/8" x 22" x 18"	70" x 19"	200	142.22
DF 1977	83 1/8" x 22" x 18"	77" x 19"	210	154.64
SL 1842	42 7/8" x 21 1/8" x 18"	36 3/4" x 19"	107	71.13
SL 1867	67 3/8" x 21 1/8" x 18"	61 1/4" x 19"	145	92.08
SL 1883	83 1/8" x 21 1/8" x 18"	77" x 19"	177	116.86

STANDARD "S" SERIES

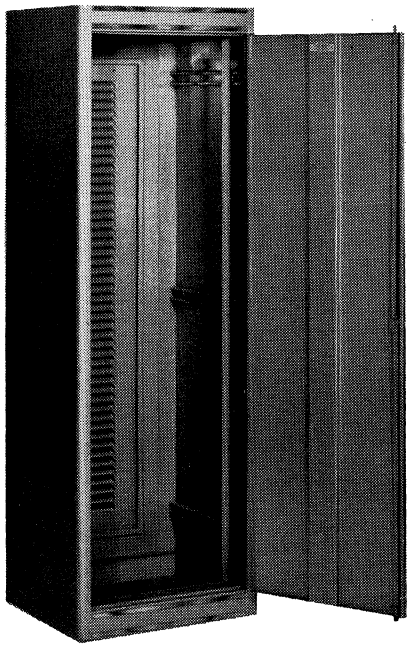
FOR 19" RACK PANELS

SPECIFICATIONS:

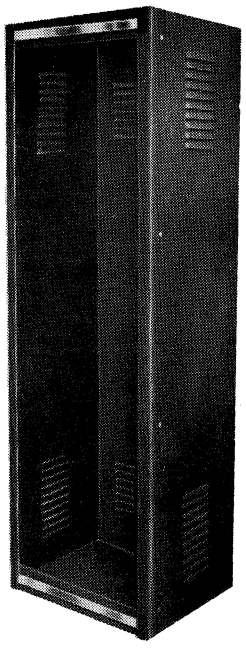
A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:
(1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
(2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
(3) Catalog Numbers are prefaced with "S" instead of "SL."



"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM AT FRONT CORNERS

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CABINET RACKS - RELAY RACKS EXPAND-A-RACKS

WYCO METAL PRODUCTS

MODEL "W" AND BANNER "B" SERIES

DESCRIPTION: "W" SERIES

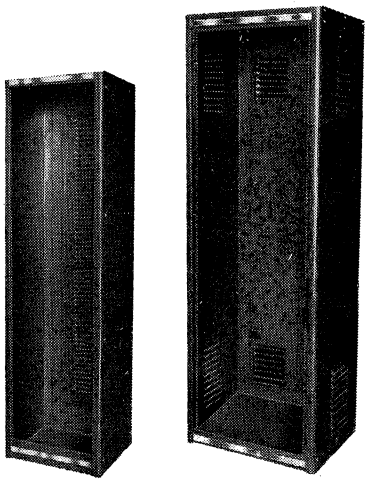
A. 16 gauge high-quality steel.
B. Front corners are rounded.
C. Panel mounting angles 1/8" steel.
D. Mounting holes tapped 10/32 thread.
E. Mounting holes are UNIVERSAL CENTERS.
F. Louvres in rear door and sides.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
K. Finished in black or grey wrinkle and silver grey hammertone.
L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.

DESCRIPTION: "B" SERIES

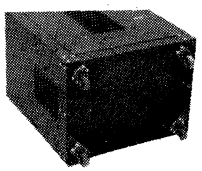
A. 16 gauge high-quality steel and is welded together.
B. Panel mounting angles 1½x1½x⅛" angle iron.
C. Mounting holes are 10/32 thread.
D. (WESTERN ELECTRIC SPACING.)
E. Louvres in rear doors.
F. Rear corners re-inforced.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. Panel mounting screws concealed by vertical trim.
K. Finished in black or grey wrinkle enamel and silver grey hammertone.
L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.

SPECIFICATIONS:

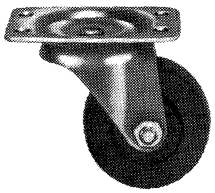
Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
W 1036	42 x22x171¼	36¾x19	17⅞	17¼	15⅞	88 lbs.	$45.17
W 1042	47¼x22x171¼	42 x19	17⅞	17¼	15⅞	95 lbs.	51.10
W 1061	66½x22x171¼	61¼x19	17⅞	17¼	15⅞	122 lbs.	63.96
W 1077	82¼x22x171¼	77 x19	17⅞	17¼	15⅞	148 lbs.	76.57
B 1876	76⅛x21⅛x18	70 x19	17⅞	17¼	16½	178 lbs.	124.49



"B" SERIES



"W" SERIES



CASTERS

DESCRIPTION:

A. Can be used with our "W" series and Expand-A-Rack series.
B. Load capacity of a set of four is 520 lbs.
C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.
DEALER COST $1.10 ea.

EXPAND-A-RACK SERIES

DESCRIPTION:

A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
B. Figure "A" shows two Expand-A-Racks joined together.
C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship Wt. Lbs.	Dealer Cost
E-400	W-1036	74	$44.34
E-401	W-1042	78	49.01
E-402	W-1061	99	60.96
E-403	W-1077	126	74.90

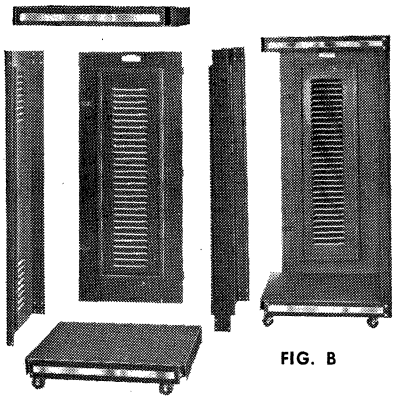


FIG. B

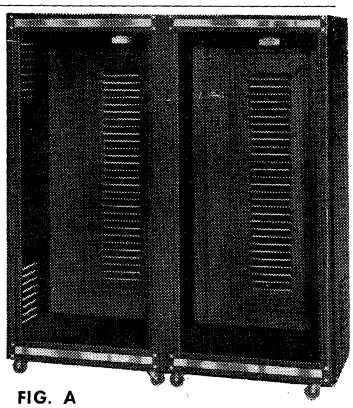
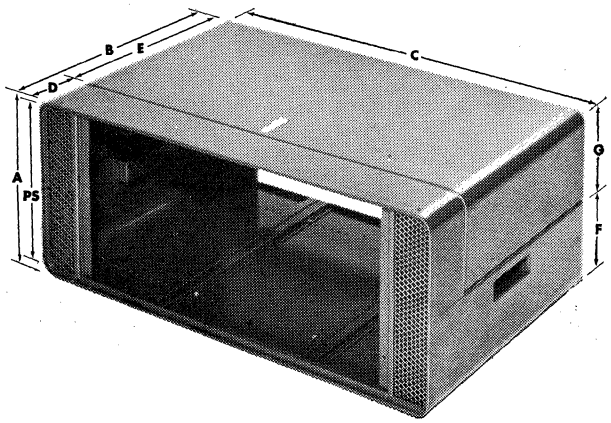


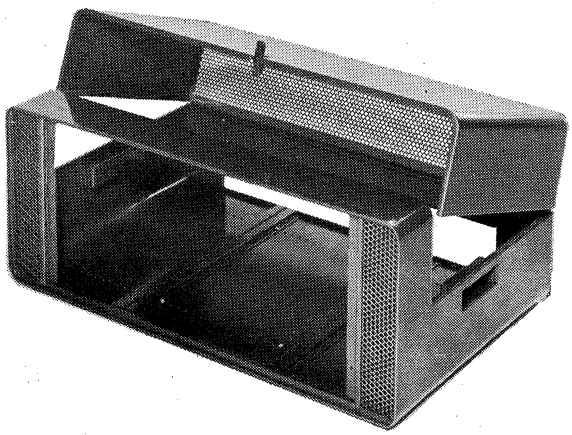
FIG. A

Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

WYCO METAL PRODUCTS — THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

A. Fabricated of 16 ga. steel.

B. Mounting holes tapped 10-32.

C. Mounting holes: Universal spacing.

D. Ventilated by perforated metal front and back and rear opening.

E. Top door has continuous piano hinge.

F. Top door has flush-type latch.

G. Embossed feet with rubber bumpers at bottom.

H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.

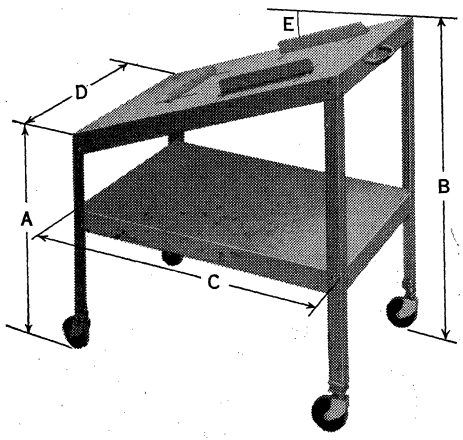
I. Recessed carrying handles are in sides of cabinet.

J. Finished in dark grey hammertone.

K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship. Wt. Lbs.	Dealer Cost
SL 7760	7x19	7¾	15	24	3	12	3⅞	3⅞	3⅛	3⅞	23	$26.39
SL 7761	8¾x19	9½	15	24	3	12	4¾	4¾	3⅛	4¾	25	28.15
SL 7762	10½x19	11¼	15	24	3	12	5⅝	5⅝	3⅛	5⅝	27	29.91
SL 7763	12¼x19	13	15	24	3	12	6½	6½	3⅛	6½	29	33.87
SL 7764	14x19	14¾	15	24	3	12	7⅜	7⅜	3⅛	7⅜	31	37.66



PORTABLE SCOPE DOLLY

DESCRIPTION

A. Shelves fabricated of high-quality steel.

B. Legs fabricated of structural steel for strength.

C. Highly - polished functional handle included.

D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.

E. Full - swivel 3" rubber casters included.

F. Painted in smooth silver-grey hammertone.

G. Shipped knocked-down with all necessary hardware for easy assembly.

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship. Wt.	Price
SD 7783	sloping	21¾"	32½"	28"	19"	20°	30#	$34.95

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

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WYCO METAL PRODUCTS

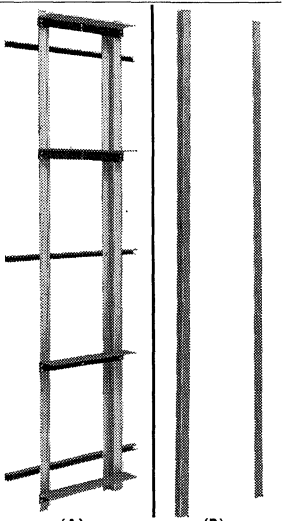
SLIDES — SLIDE ASSEMBLIES

SLIDING DRAWERS
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES
HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: RW/FW/G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes; Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. #	Panel Space	Ship Wt.	Price Set 4
ZA-7757	61¼"	30	$20.38
ZA-7758	70"	34	23.71
ZA-7759	77"	38	26.54



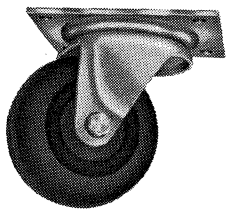
(A) (B)

(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: RW/FW/DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. #	Panel Space	Ship Wt.	Price Per Pr.
MA-7774	61¼"	22	$17.48
MA-7775	70"	26	19.89
MA-7776	77"	30	21.73

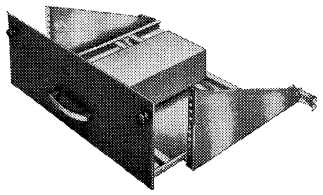
HEAVY DUTY CASTER



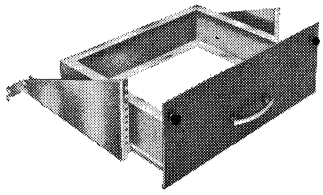
Description: (A) Capacity: 200# per caster. (B) 4" x 1⅝" full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series.
Catalog #RC-7773
PRICE: ea. $5.18

PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19" RACKS

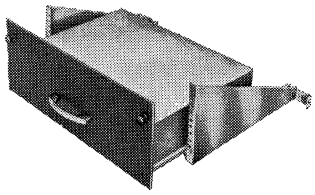
(A) Example: Slide Assembly Using Chassis LESS Than 17" Width



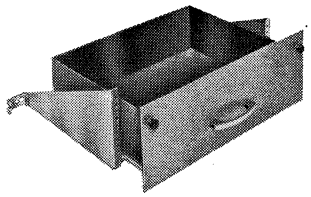
(B) Example: Slide Assembly Using Chassis Frame



(C) Example: Slide Assembly Using 17" Wide Chassis

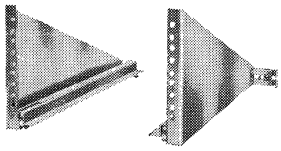


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19" RACK MOUNTING

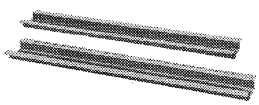
SLIDES FOR 17" WIDE CHASSIS



Catalog #BS-7777
PRICE: $7.77 pr. net

Description: (A) Supports 17" wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14" deep in closed position. (E) Extends 10" to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

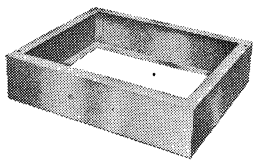
SUPPORTS FOR CHASSIS LESS THAN 17" WIDE



Catalog #BS-7778
PRICE: $2.29 pr. net

Description: (A) Used with BS-7777 to support any chassis less than 17" wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

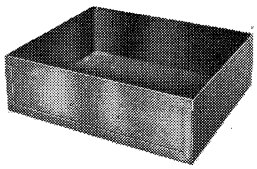
CHASSIS FRAMES



Catalog #BS-7779
PRICE: $5.12 net

Description: (A) Size 17" x 14" x 3" x 1" flange. (B) 1" flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

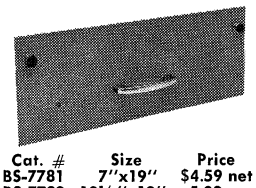
DRAWER



Catalog #BS-7780
PRICE: $8.96 net

Description: (A) Size: 17" wide x 14" deep x 5" high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

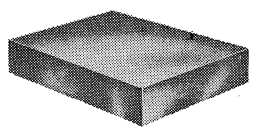
FRONT SLIDE PANEL



Cat. #	Size	Price
BS-7781	7"x19"	$4.59 net
BS-7782	10½"x19"	5.22 net

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

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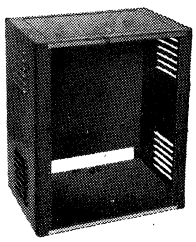
CABINET RACKS - RELAY RACKS CHASSIS - CASES

WYCO METAL PRODUCTS

MODEL "C" SERIES



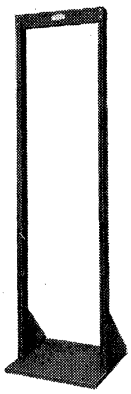
DESCRIPTION:

A. Constructed of heavy gauge high-quality steel and is completely welded together.
B. Front vertical corners rounded.
C. Mounting holes tapped 10/32 thread.
D. Mounting holes spaced on UNIVERSAL CENTERS.
E. Louvres in side provide ample ventilation.
F. Highly-polished trim at top and bottom of front.
G. Top door has piano hinge and flush-type latch.
H. Finished in black or grey wrinkle and silver grey hammertone.
I. Embossed feet on bottom minimize marring of table tops.

SPECIFICATIONS:

(DOOR IN TOP ONLY)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Dealer Cost
C719	8¾x22x15 Deep	7 x19	25 lbs.	$15.28
C819	10½x22x15 Deep	8¾x19	27 lbs.	16.70
C1019	12¼x22x15 Deep	10½x19	28 lbs.	19.12
C1219	14 x22x15 Deep	12¼x19	30 lbs.	20.12
C1419	15¾x22x15 Deep	14 x19	32 lbs.	21.96
	(DOOR IN TOP AND REAR)			
C1719	19¼x22x15 Deep	17½x19	36 lbs.	$26.22
C2119	22¾x22x15 Deep	21 x19	40 lbs.	28.06
C2619	28 x22x15 Deep	26¼x19	43 lbs.	30.14
C3119	33¼x22x15 Deep	31½x19	47 lbs.	31.98
C3519	36¾x22x15 Deep	35 x19	50 lbs.	33.65

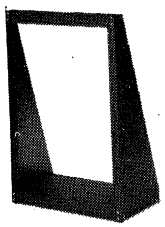


"RC" SERIES

A. Rack constructed of ⅛" high-quality steel.
B. Mounting holes are tapped 10/32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. Base is 20" x 20".
E. Finished in black wrinkle only.
F. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.

"RT" SERIES

A. Rack constructed of heavy gauge high-quality steel.
B. Mounting holes are tapped 10/32 thread.
C. Mounting holes are spaced on UNIVERSAL CENTERS.
D. Finished in black wrinkle only.
E. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.



SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight	Dealer Cost
RC36	36¾x19	28 lbs	$21.96
RC71	71¾x19	41 lbs.	25.13

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight	Dealer Cost
RT21	21x19	25"	21"	12"	16 lbs.	$ 9.10
RT28	28x19	32"	21"	12"	18 lbs.	11.19

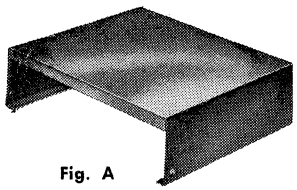


Fig. A

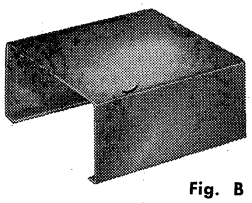
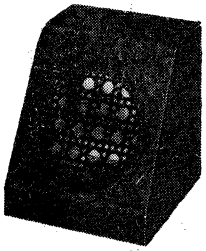


Fig. B



OPEN END CHASSIS

DESCRIPTION: Fig. A

A. Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
B. Electro-Zinc plated.

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
E-570	7"	6"	2"	1	$1.00
E-571	5"	7"	1½"	¾	.97
E-572	7"	7"	1½"	¾	1.24
E-573	7"	8"	2"	1	1.17
E-574	5½"	9"	1½"	¾	1.09
E-575	7½"	9"	1½"	1	1.40
E-576	7"	10"	2"	1¼	1.37
E-577	7"	11"	1½"	1¼	1.30
E-578	7"	13"	1½"	1½	1.59
E-579	10¾"	14"	2"	2½	1.87
E-580	7¾"	15"	2"	2	1.78

MINIATURE ALUMINUM CHASSIS

DESCRIPTION: Fig. B

A. Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
B. Has ¼" flanges on bottom.
C. Etched aluminum finish.

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
MA-700	2⅝"	2¾"	1¼"	¼	$.38
MA-701	1¾"	3⅛"	1"	¼	.42
MA-702	3¼"	4½"	2"	¼	.48
MA-703	2¾"	4⅛"	1"	¼	.45
MA-704	3¾"	4⅛"	1½"	¼	.45
MA-705	3"	6⅛"	1¼"	¼	.53
MA-706	5¾"	4⅞"	1½"	¼	.57
MA-707	4"	3⅛"	1"	½	.41
MA-708	4"	4⅛"	1"	½	.50
MA-709	4"	5⅛"	1"	½	.53
MA-710	4"	6⅛"	1"	½	.55

MINIATURE SPEAKER CASE

DESCRIPTION:

A. Houses midget 2" or 3" speaker.
B. Silver Grey Hammertone Finish.

SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.	Dealer Cost
MS-80	2¼"	2"	¾	$1.58
MS-81	2 13/16"	3"	¾	1.58

Net

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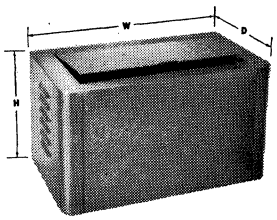
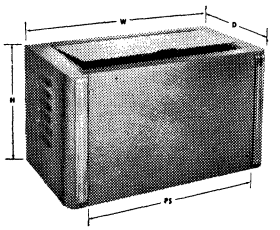
WYCO METAL PRODUCTS — RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK



MODEL "CS" RECEIVER CABINET (Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

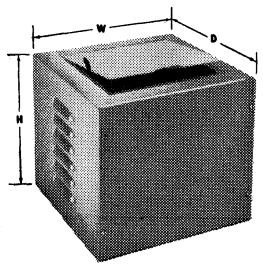
Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
CS 7727	8"	10½"	8¼"	8"x 8"	6¼	$4.31
CS 7728	8"	12½"	8¼"	8"x10"	6½	5.31
CS 7729	8"	14½"	8¼"	8"x12"	7	5.78
CS 7730	8"	16½"	8¼"	8"x14"	7½	6.05
CS 7731	8"	18½"	8¼"	8"x16"	8¼	6.63
CS 7732	12"	20⅝"	12"	12"x18"	15½	12.06



MODEL "DC" RECEIVER CABINET (Description)

(A.) Description of Model "DC" Receiver Cabinet is same as Model "CS" Cabinet except for following: There are two vertical, highly-polished trim strips on face of cabinet.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
DC 7733	8"	10½"	8¼"	8"x 8"	6¼	$6.41
DC 7734	8"	12½"	8¼"	8"x10"	6½	6.51
DC 7735	8"	14½"	8¼"	8"x12"	7	6.88
DC 7736	8"	16½"	8¼"	8"x14"	7½	7.33
DC 7737	8"	18½"	8¼"	8"x16"	8¼	8.06
DC 7738	12"	20⅝"	12"	12"x18"	15½	14.66



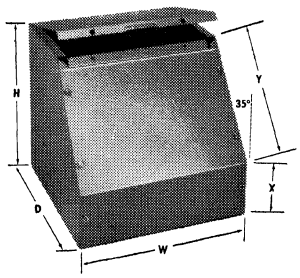
MODEL "CR" RECEIVER CABINET (Description)

(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

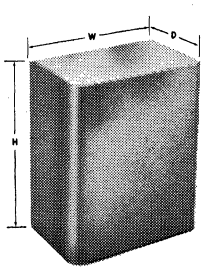
Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CR 7720	7"	8"	8"	5½	$4.18
CR 7721	7"	10"	8"	6	4.84
CR 7722	7"	12"	8"	6¼	5.01
CR 7723	7"	14"	8"	6½	5.26
CR 7724	8"	16"	8"	7½	7.60
CR 7725	9"	15"	11"	8½	9.19
CR 7726	12"	18"	12"	15½	9.92

SLOPING PANEL/TOP OPENING CABINET (Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only.



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.	Dealer Cost
SC 7739	6½"	7 1/16"	7 5/16"	2¼"	5 1/16"	3	$3.30
SC 7740	8"	8 1/16"	8"	2¼"	6 7/16"	3¼	4.51
SC 7741	6½"	9 1/16"	7 5/16"	2¼"	5 1/16"	3½	3.75
SC 7742	8"	10 1/16"	8"	2¼"	6 7/8"	3¾	5.01
SC 7743	6½"	11 1/16"	7 5/16"	2¼"	5 1/16"	4	4.34
SC 7744	8"	14 1/16"	8"	2¼"	6 7/8"	4½	5.34
SC 7745	8"	13 1/16"	8½"	2¾"	6 5/16"	4¾	5.59
SC 7746	9"	18 1/16"	8⅛"	2¼"	6 15/16"	7½	7.68
SC 7747	10"	18 1/16"	10½"	3¼"	8⅛"	8¾	7.85



MULTI-USE CABINET (Description)

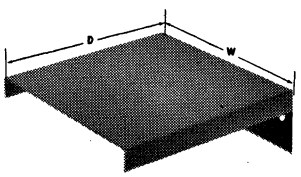
(A.) Ventilated by open back. (B.) Streamlined by rounded corners. (C.) Silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
MC 7748	4½"	5½"	3½"	1¼	$1.70
MC 7749	6½"	5½"	3½"	1¾	1.75

CHASSIS DECK (Description)

(A.) Can be used for interstage shielding. (B.) Made of steel. (C.) Painted black enamel.

Cat. #	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CD 7754	4¾"	5½"	1	$.68
CD 7755	4¾"	4½"	1	.65
CD 7756	5¾"	5½"	1½	.78



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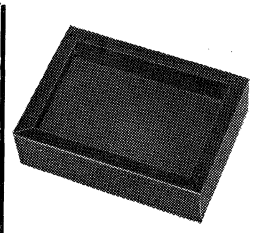
WYCO METAL PRODUCTS

CHASSIS

Black Wrinkle Cat. No.	Zinc Plated Cat. No.	STEEL Depth	Width	Ht.	Ga.	Approx. Ship. Wt.-Lbs.	Dealer Cost B.W.	Cad.
BC-940	CP-1300	5″	7″	2″	22	1	$1.07	$1.30
BC-941	CP-1301	5″	9½″	2½″	22	1¼	1.37	1.67
BC-942	CP-1302	5″	9½″	1½″	22	1	1.20	1.69
BC-943	CP-1303	5″	10″	3″	22	1¼	1.27	1.84
BC-944	CP-1304	6″	14″	3″	20	1¾	1.75	2.05
BC-945	CP-1305	7″	7″	2″	22	1½	1.20	1.50
BC-946	CP-1306	7″	9″	2″	22	1½	1.40	1.59
BC-947	CP-1307	7″	11″	2″	20	1½	1.45	1.67
BC-948	CP-1308	7″	12″	3″	20	1¾	1.57	2.05
BC-949	CP-1309	7″	13″	2″	20	2	1.54	1.92
BC-950	CP-1310	5″	13½″	2½″	20	1¾	1.77	2.17
BC-951	CP-1311	7″	15″	3″	20	2	2.00	2.40
BC-952	CP-1312	8½″	15″	3″	20	2½	2.24	2.71
BC-953	CP-1313	4″	17″	3″	20	2¼	1.80	2.14
BC-954	CP-1314	7″	17″	2½″	20	2½	1.99	2.37
BC-955	CP-1315	7″	17″	3″	20	1¾	2.15	2.59
BC-956	CP-1316	8″	10″	2½″	20	2	1.72	2.02
BC-957	CP-1317	8″	12″	2½″	20	2½	1.75	2.24
BC-958	CP-1318	8″	12″	3″	20	1¾	1.85	2.34
BC-959	CP-1319	8″	17″	2″	20	2½	1.70	2.34
BC-960	CP-1320	8″	17″	3″	20	3¼	2.05	2.62
BC-961	CP-1321	10″	12″	3″	20	3	1.89	2.25
BC-962	CP-1322	10″	14″	3″	20	4	2.04	2.44
BC-963*	CP-1323	10″	17″	2″	20	3¼	2.00	2.39
BC-964*	CP-1324	10″	17″	3″	20	4	2.00	2.84
BC-965*	CP-1325	10″	17″	3″	18	5	2.54	3.05
BC-966	CP-1326	10″	23″	3″	18	5½	2.86	3.42
BC-967*	CP-1327	11″	17″	2″	18	4½	2.35	2.81
BC-968*	CP-1328	11″	17″	3″	18	4½	2.77	3.49
BC-969*	CP-1329	12″	17″	2″	18	4½	2.44	3.09
BC-970*	CP-1330	12″	17″	3″	18	5¼	2.91	3.67
BC-971*	CP-1331	13″	17″	2″	18	5	2.91	3.72
BC-972*	CP-1332	13″	17″	3″	18	5½	3.41	4.07
BC-973*	CP-1333	10″	17″	4″	18	6½	2.92	3.51
BC-974*	CP-1334	13″	17″	4″	18	7½	3.92	4.68
BC-975	CP-1335	10″	17″	5″	18	7½	4.51	5.34
BC-976	CP-1336	13″	17″	5″	18	8	4.93	5.93

Cat. No.	ALUMINUM Depth	Width	Ht.	Gauge	Approx. Shipping Wt.-Lbs.	Dealer Cost
CA-2001	4″	6″	3″	18	½	$1.34
CA-2002	4″	6″	2″	18	½	1.10
CA-2003	4″	17″	3″	16	1¼	2.33
CA-2004	5″	7″	2″	18	½	1.17
CA-2005	5″	7″	3″	16	¾	1.42
CA-2006	5″	9½″	2″	18	½	1.24
CA-2007	5″	9½″	3″	18	¾	1.60
CA-2008	5″	10″	3″	18	¾	1.63
CA-2009	5″	13″	3″	18	¾	1.84
CA-2010	6″	17″	3″	16	1¼	2.67
CA-2011	7″	7″	2″	18	½	1.35
CA-2012	7″	9″	2″	18	½	1.46
CA-2013	7″	11″	2″	18	¾	1.58
CA-2014	7″	12″	3″	18	1	2.00
CA-2015	7″	13″	2″	18	¾	1.67
CA-2016	7″	15″	3″	16	1½	2.67
CA-2017	7″	17″	3″	16	1¾	2.75
CA-2018	8″	12″	3″	16	1½	2.42
CA-2019	8″	17″	2″	16	1½	2.51
CA-2020	8″	17″	3″	16	1¾	2.84
CA-2021	10″	12″	3″	16	1½	2.67
CA-2022	10″	14″	3″	16	1¾	2.84
CA-2023	10″	17″	2″	16	1¼	2.68
CA-2024	10″	17″	3″	16	2	3.17
CA-2025	11″	17″	2″	14	2¼	3.42
CA-2026	11″	17″	3″	14	2¾	3.97
CA-2027	12″	17″	3″	14	2¾	4.08
CA-2028	13″	17″	2″	14	2½	3.51
CA-2029	13″	17″	3″	14	2¾	4.26
CA-2030	10″	17″	4″	14	3½	4.51
CA-2031	13″	17″	4″	14	3¾	5.26



STEEL CHASSIS

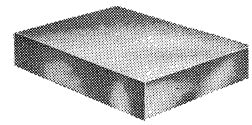
DESCRIPTION:

A. Fabricated from one piece of steel.
B. All corners electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Finished in Black Wrinkle or Zinc plated.
E. Asterisk indicates holes punched to receive chassis mounting brackets.

ALUMINUM CHASSIS

DESCRIPTION:

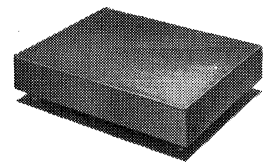
A. Fabricated of one piece of aluminum, 3003-H14.
B. All corners are electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Etched aluminum finish, MIL-C-5541.
E. Gauges indicated are aluminum gauges.



HEAVY DUTY AND PANEL CHASSIS

DESCRIPTION:

A. Made of 16 gauge cold rolled steel.
B. Bottom plate included at no additional charge.
C. Available in Black Wrinkle finish or Electro Zinc Plate.

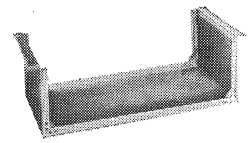


Black Wrinkle Cat. No.	Cad. Plated Cat No.	Depth	Width	Height	Approx. Shipping Wt. - Lbs.	Dealer Cost Black Wrinkle	Cad Plated
C-620	C-627	8″	17″	2″	6	$3.93	$4.50
C-621	C-628	8″	17″	3″	7½	4.26	4.76
C-622	C-629	11″	17″	2″	8½	4.17	4.78
C-623	C-630	11″	17″	3″	9	4.34	4.84
C-624	C-631	13″	17″	2″	9½	4.84	5.34
C-625	C-632	13″	17″	3″	10	4.93	5.43
C-626	C-633	13″	17″	4″	11	5.26	5.85

PANEL CHASSIS ALUMINUM OR STEEL

DESCRIPTION:

A. .062 aluminum (3003-H14) or 16 ga. steel.
B. Aluminum etched finish; steel plated.
C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	Steel Cat. #	W.	H.	D.	Alum. Wt.	Steel Wt.	Alum. Cost	Steel Cost
PC-505	PC-7765	19″	1¾	5/32	¾	1½	$2.30	$2.30
PC-506	PC-7766	19″	3½	5/32	1¼	2½	2.59	2.59
PC-507	PC-7767	19″	5¼	5/32	1½	3½	2.84	2.84
PC-508	PC-7768	19″	7	5/32	2	4	3.26	3.26
PC-509	PC-7769	19″	8¾	5/32	2¼	5	3.76	3.76
PC-510	PC-7770	19″	10½	5/32	2¾	6	4.43	4.43
PC-511	PC-7771	19″	12¼	5/32	3	7	4.84	4.84
PC-512	PC-7772	19″	14	5/32	3¼	8	5.34	5.34

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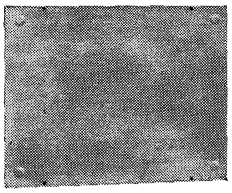
WYCO METAL PRODUCTS — ROLLER TRUCKS - BOTTOM PLATES - SHELVES SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

STEEL AND ALUMINUM



DESCRIPTION:

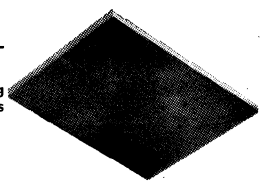
A. Protects component parts and wiring from dust.
B. Four embossed feet protect table top or other surfaces from being marred.
C. Catalog numbers R6000 to R6022 are Black Wrinkle steel.
D. Catalog number R6023 to R6045 are Zinc plated steel.
E. Catalog numbers R6046 to R6055 are Aluminum etched finish.

Black Wrinkle Cat. No.	Cad. Plated Cat. No.	Aluminum Etched Cat. No.	W.	L.	Steel Ship. Wt.	Alum. Ship. Wt.	Dealer Cost B.W.	Cad.	Alum.
R-6000	R-6023	R-6046	5"	7"	1/2	1/8	$.57	$.69	$.74
R-6001	R-6024	R-6047	5"	9 1/2"	3/4	1/4	.62	.75	.75
R-6002	R-6025	R-6048	5"	10"	3/4	1/4	.67	.73	.75
R-6003	R-6026	R-6049	7"	7"	1	1/3	.92	.97	.77
R-6004	R-6027	R-6050	7"	9"	1	1/3	.94	.99	.90
R-6005	R-6028	R-6051	7"	11"	1	1/3	.95	1.07	.90
R-6006	R-6029	R-6052	7"	12"	1 1/4	1/2	.99	1.12	.97
R-6007	R-6030	R-6053	7"	13"	1 1/4	1/2	1.02	1.20	1.14
R-6008	R-6031		5"	13 1/2"	1		.84	1.00	—
R-6009	R-6032		7"	15"	1 1/4		1.00	1.37	—
R-6010	R-6033		8 1/2"	15"	1 1/2		1.04	1.47	—
R-6011	R-6034		4"	17"	1 1/2		.84	1.07	—
R-6012	R-6035		6"	17"	1 1/2		.90	1.37	—
R-6013	R-6036		8"	10"	1 1/4		.92	1.05	—
R-6014	R-6037		8"	12"	1 1/2		1.06	1.34	—
R-6015	R-6038		8"	17"	1 3/4		.95	1.54	—
R-6016	R-6039		10"	12"	1 1/2		.95	1.57	—
R-6017	R-6040		10"	14"	1 1/2		1.25	1.33	—
R-6018	R-6041	R-6054	10"	17"	1 3/4	3/4	1.20	1.60	1.52
R-6019	R-6042		11"	17"	1 1/2		1.20	1.60	—
R-6020	R-6043		12"	17"	2		1.27	1.87	—
R-6021	R-6044	R-6055	13"	17"	2 1/2	3/4	1.47	2.24	2.07
R-6022	R-6045		10"	23"	2 1/4		2.07	2.37	—

RACK SHELVES

DESCRIPTION:

A. Used to mount heavy power supplies, modulator units, etc.
B. Supported by chassis supporting angles which are described on this page.
C. Made of heavy gauge steel.
D. Finished in black enamel only.

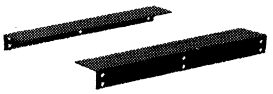


Cat. No.	Size	Wt. Lbs.	Dealer Cost
S195	19"x15"	6 1/2	$3.47
S196	19"x12"	5 1/2	2.64

CHASSIS SUPPORTING ANGLES

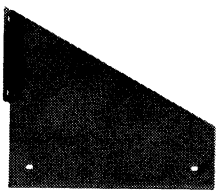
DESCRIPTION:

A. Used when heavy weights are encountered in chassis construction.
B. Distributes weight on sides of rack to relieve panel.
C. Made of 1/8" steel.
D. Finished in black enamel only.
E. Sold in pairs only.



Cat. No.	Length	Wt. Lbs.	Dealer Cost
A143	14 1/2"	4	$2.25 pr.
A144	12"	3	2.17 pr.

CHASSIS MOUNTING BRACKETS

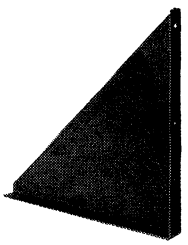


DESCRIPTION:

A. Used to insure proper support of chassis.
B. Made of heavy gauge steel.
C. Cut away at bottom to provide clearance so that chassis can mount flush against panel.
D. Finished in black enamel only.
E. Cat. # CB-565 and CB-566 designed for 4" chassis height.
F. Sold in pairs only.

Cat. No.	H.	D.	Wt. Lbs.	Dealer Cost
CB-560	6 1/2"	8"	1 1/4	$1.09 pr.
CB-561	6 1/2"	10"	1 3/4	1.35 pr.
CB-562	6 1/2"	11"	2	1.50 pr.
CB-563	6 1/2"	12"	2	1.75 pr.
CB-564	6 1/2"	13"	2 1/2	1.69 pr.
CB-565	8 1/2"	10"	2 1/4	1.97 pr.
CB-566	8 1/2"	13"	3	2.09 pr.

TRIANGULAR MOUNTING BRACKETS

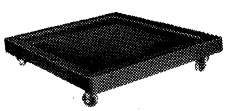


DESCRIPTION:

A. When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.
B. Fabricated of heavy gauge steel; finished in Black enamel only.
C. Sold only in pairs.

Cat. No.	Size	Approx. Shipping Wt. - Lbs.	Dealer Cost
TB-410	5"x5"	1	$1.00 pr.
TB-411	7"x7"	1	1.17 pr.
TB-412	9"x9"	1 1/2	1.42 pr.

ROLLER TRUCKS



SPECIFICATIONS:

A. Roller Truck constructed from heavy gauge high-quality steel.
B. Casters have 2" rubber wheels and are ball-bearing swivel type.
C. Finished in black or grey wrinkle or silver grey hammertone.

Catalog No.	Constr. for Rack Series	Description of Rack	Inside Clearance	Approx. Ship. Weight	Dealer Cost
T 18	SL	Page #4	21 1/2x18 1/2	16 lbs.	$13.79
	S	Page #4			
	B	Page #5			
T 19	D (18 1/2" Deep)	Page #2	23 7/8x18 3/4	18 lbs.	14.66
	W	Page #5			
T 24	D (24" Deep)	Page #2	23 7/8x24 1/4	22 lbs.	15.86

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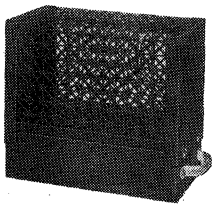
WYCO METAL PRODUCTS

AMPLIFIER FOUNDATIONS - RACK PANELS SLOPING PANEL SUPPORTS - CABINETS

AMPLIFIER FOUNDATIONS



DESCRIPTION:

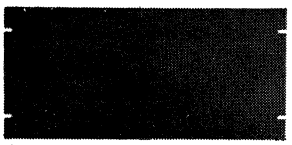
A. Consists of standard chassis and perforated metal cover.
B. Includes handles.
C. Available in Black Wrinkle only.

Cat. No.	Height	Width	Depth	Height Chassis	Approx. Shipping Wt. - Lbs.	Dealer Cost
AF-680	8 5/16"	9 5/8"	5 1/8"	2 1/2"	3	$5.61
AF-681	8 5/16"	13 5/8"	5 1/8"	2 1/2"	4 3/4	6.43
AF-682	8 5/16"	17 1/8"	7 1/8"	2 1/2"	6	7.26
AF-683	8 13/16"	17 1/8"	10 1/8"	3"	8	8.50
AF-684	8 13/16"	12 1/8"	10 1/8"	3"	7	7.52

STANDARD RELAY RACK PANELS

DESCRIPTION:

A. 11 ga. STEEL or 1/8" ALUMINUM.
B. 19" wide.
C. Western Electric notching.
D. Available in black or grey wrinkle, silver grey hammertone and unpainted finish.



STEEL

Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost
SP-210	1 3/4"	1 1/4	$ .84	SP-216	12 1/4"	8 1/4	$2.42
SP-211	3 1/2"	2 1/4	1.00	SP-217	14"	9 1/2	2.84
SP-212	5 1/4"	3 1/4	1.25	SP-218	15 3/4"	10 3/4	3.09
SP-213	7"	4 1/2	1.42	SP-219	17 1/2"	11 3/4	3.51
SP-214	8 3/4"	6	1.75	SP-220	19 1/4"	13	3.84
SP-215	10 1/2"	7	2.09	SP-221	21"	14 1/4	4.26

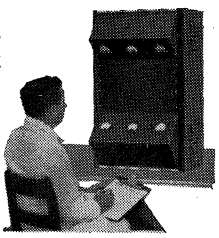
ALUMINUM

Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost
AP-320	1 3/4"	1/4	$1.09	AP-326	12 1/4"	2 3/4	$4.09
AP-321	3 1/2"	3/4	1.42	AP-327	14"	3	4.76
AP-322	5 1/4"	1	1.93	AP-328	15 3/4"	3 1/2	5.34
AP-323	7"	1 3/4	2.42	AP-329	17 1/2"	4	5.85
AP-324	8 3/4"	2	2.84	AP-330	19 1/4"	4 1/4	6.43
AP-325	10 1/2"	2 1/2	3.59	AP-331	21"	5	7.01

SLOPING PANEL SUPPORT

In answer to many requests from engineers within the industry, WYCO METAL PRODUCTS presents the all-new SLOPING PANEL SUPPORT, The SLOPING PANEL SUPPORT allows for mounting of the standard 19" panel in sloping position. This enables the engineer or equipment user to more easily view the rack mounted instrument panel. From this illustration, it is easy to see that the SLOPING PANEL SUPPORT offers a variety of positions in which a standard 19" panel may be supported in sloping position. The SLOPING PANEL SUPPORT is fabricated of heavy gauge steel and is finished in Black and Grey Wrinkle or Silver Grey Hammertone.

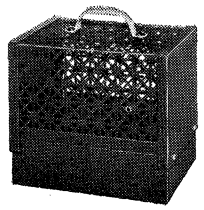
Supports Panel Size — Requires Panel Space



IMPORTANT! When ordering SLOPING PANEL SUPPORTS FOR CABINET RACKS THAT HAVE FRONT CORNER VERTICAL TRIM, use catalog Prefix "B". In all other cases use catalog Prefix "G."

Prefix "B" Cat. No.	Prefix "G" Cat. No.	Supports Panel Size	Requires Panel Space	Prefix "B" Ship. Wt.	Prefix "G" Ship. Wt.	Dealer Cost "B"	Dealer Cost "G"
B-335	G-350	5 1/4"x19"	7"	4	2	$6.50	$3.60
B-336	G-351	7" x19"	10 1/2"	6	4	7.50	4.20
B-337	G-352	8 3/4"x19"	12 1/4"	6 1/2	4 1/2	8.10	4.67
B-338	G-353	10 1/2"x19"	15 3/4"	9	6 1/2	9.42	5.90
B-339	G-354	12 1/4"x19"	17 1/2"	10	7	10.32	6.80
B-340	G-355	14" x19"	21"	12	9	11.52	7.97

MINIATURE AMPLIFIER FOUNDATION



DESCRIPTION:

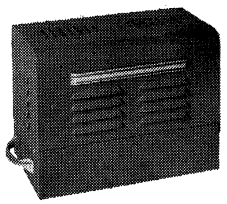
A. Chassis size 5" x 7" x 2".
B. Perforated metal cover.
C. Includes handle.
D. Black Wrinkle finish only.

Catalog No.	Approx. Shipping Weight - Lbs.	Dealer Cost
MA-1000	2	$4.00

STREAMLINED AMPLIFIER FOUNDATIONS

DESCRIPTION:

A. Consists of standard chassis and streamlined removable top cover.
B. Includes attractive stainless steel trim and handles.
C. Available in Silver Grey Hammertone only.

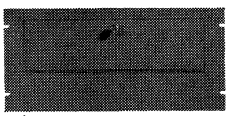


Catalog No.	Width	Depth	Approx. Shipping Wt. - Lbs.	Dealer Cost
SA-670	10 1/16"	5"	4 3/4	$6.76
SA-671	12 1/16"	7"	5	8.02
SA-672	17 1/16"	7"	8	8.52
SA-673	17 1/16"	10"	9	9.27

METAL DOOR RACK PANELS

DESCRIPTION:

A. Used when accessability to component parts on chassis is necessary.
B. Made of 1/8" steel.
C. Available in black or grey wrinkle and silver grey hammertone.
D. 19" wide.

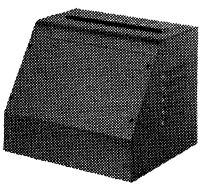


Cat. No.	Height	Door Opening	Wt. Lbs.	Dealer Cost
RP-310	10 1/2"	15 3/8" x 5 7/8"	7 1/4	$6.08
RP-311	12 1/4"	15 3/8" x 7 5/8"	8 1/4	7.52

SLOPING FRONT CABINET

DESCRIPTION:

A. Top corner rounded.
B. Attractive high-polish moulding at top.
C. Front panel is removable.
D. Chassis may be mounted to front panel and removed as unit.
E. Louvres at both sides; vented at rear.
F. Available in silver grey hammertone only.



Cat. No.	Height	Width	Depth	Dealer Cost
K810	8"	8"	8"	$5.13
K811	8"	10"	8"	7.06
K812	8"	14"	8"	8.53
K813	12"	18"	12"	11.46

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70. Dealer Cost: $.92

Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

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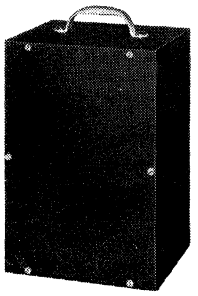
WYCO METAL PRODUCTS BOXES-CASES-CABINETS-DESK PANELS

CARRYING CASE

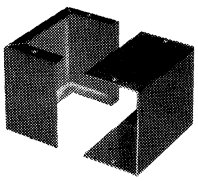


DESCRIPTION:

A. Front and rear panels are removable.
B. Includes handle.
C. Prefix "D" designates steel finished in Grey Hammertone.
D. Prefix "DA" designates aluminum etched finish (.051 alum.).

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Height	Steel Approx. Ship. Wt.	Alum. Approx. Ship. Wt.	Dealer Cost Steel	Dealer Cost Alum.
D-850	DA-857	5"	6"	9"	3¼	1⅛	$3.01	$3.09
D-851	DA-858	5"	9"	6"	3¼	1⅛	3.01	3.09
D-852	DA-859	6"	7"	12"	4	1⅓	4.18	4.50
D-853	DA-860	6"	12"	7"	4	1⅓	4.18	4.50
D-854	—	7"	7¾"	15"	5		4.68	—
D-855	—	8"	10"	10"	5		4.84	—
D-856	—	7"	15"	9"	5		5.85	—

MINITBOXES



DESCRIPTION:

A. Fabricated of aluminum (.051).
B. Design assures necessary shielding.
C. Available in etched finish or Silver Grey Hammertone.

Silver Grey Cat. No.	Etched Cat. No.	Length	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost S.G.H.	Dealer Cost Etched
E-900	E-918	2¾"	2⅛"	1⅝"	¼	$ .85	$ .62
E-901	E-919	3¼"	2⅛"	1⅝"	¼	.92	.62
E-902	E-920	4"	2⅛"	1⅝"	¼	.92	.62
E-903	E-921	4"	2¼"	2¼"	¼	1.00	.75
E-904	E-922	5"	2¼"	2¼"	¼	1.09	.78
E-905	E-923	5"	4"	3"	½	1.25	.94
E-906	E-924	5¼"	3"	2⅛"	¼	1.09	.82
E-907	E-925	6"	5"	4"	¾	1.90	1.47
E-908	E-926	7"	5"	3"	¾	1.82	1.40
E-909	E-927	8"	6"	3½"	1	2.23	1.72
E-910	E-928	10"	6"	3½"	1¼	2.59	2.02
E-911	E-929	12"	7"	4"	1¾	3.27	2.71
E-912	E-930	17"	5"	4"	2¼	3.51	2.92
E-913	E-931	10"	2"	1⅝"	½	1.38	1.15
E-914	E-932	12"	2½"	2¼"	¾	1.70	1.37
E-915	E-933	4"	2"	2¾"	¼	1.09	.75
E-916	E-934	4¼"	2¼"	1½"	¼	1.00	.72
E-917	E-935	3¼"	2⅛"	1⅛"	¼	.84	.62

EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

A. Design allows a number of small components to be easily wired or serviced.
B. Fabricated of 22 gauge steel.
C. Black Wrinkle finish only.

Catalog No.	Height	Width	Depth	Approx. Shipping Wt.-Lbs.	Dealer Cost
H-105	2¼"	4¼"	1½"	½	$1.15
H-106	2"	4"	2¾"	½	1.17

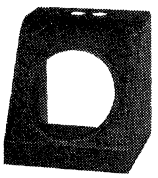
DESK PANELS

DESCRIPTION:

A. Table is constructed of heavy gauge high-quality steel and measures 21" x 16".
B. Panel, constructed of ⅛" steel, is 10½" x 19".
C. Front corners of table are rounded.
D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.
E. Finished in black or grey enamel and silver grey hammertone.

Catalog No.	Width	Depth	Approx. Shipping Weight	Dealer Cost
DP 16	21"	16"	14 lbs.	$14.79

METER CASES

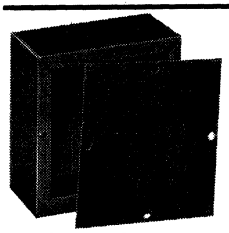


DESCRIPTION:

A. Sloping front with top corner rounded.
B. Prefix "MC" designates steel Grey Hammertone finish.
C. Prefix "AC" designates aluminum etched finish.

Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.	Dealer Cost
MC-73	2¼"	1	$1.10
MC-74	2 13/16"	1	1.10
AC-86	2¼"	⅓	1.42
AC-87	2 13/16"	⅓	1.42

METAL UTILITY CABINETS



DESCRIPTION:

A. Cabinet has two removable covers.
B. Prefix MU designates steel finished in Silver Grey Hammertone only.
C. Prefix LU designates aluminum in an etched finish (.051 Alum.).
D. Used for amplifiers, monitors, input stages, meters, tranceivers, etc.

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Ht.	Steel Approx. Ship. Wt. Lbs.	Alum. Approx. Ship. Wt. Lbs.	Dealer Cost Steel	Dealer Cost Alum.
MU-750	LU-760	2"	4"	4"	¾	¼	$1.09	$1.29
MU-751	LU-761	3"	5"	4"	1	¼	1.22	1.37
MU-752	LU-762	4"	5"	6"	1¼	½	1.38	1.50
MU-753	LU-763	6"	6"	6"	2½	¾	2.09	2.17
MU-754	LU-764	5"	6"	9"	3	1	2.34	2.51
MU-755	—	7"	8"	10"	5		3.34	—
MU-756	—	6"	7"	12"	4		3.29	—
MU-757	—	8"	10"	10"	5½		4.01	—
MU-758	—	8"	11"	12"	6		4.34	—
MU-759	—	7"	9"	15"	7½		4.51	—

MINIATURE UTILITY CABINETS

DESCRIPTION:

A. Front and rear panels are removable.
B. Chassis attached to front panel.
C. Fabricated in steel; Silver Grey Hammertone only.

Cat. No.	Ht.	Width	Depth	Chassis Size	Approx. Shipping Wt.-Lbs.	Dealer Cost
A-780	4"	4"	2"	1" x3⅛"x1⅞"	¾	$1.34
A-781	4"	5"	3"	1" x4⅛"x2⅞"	1	1.48
A-782	5"	4"	3"	1¼"x3⅛"x2⅞"	1	1.62
A-783	6"	5"	4"	1¾"x4⅛"x3⅞"	1¾	1.70
A-784	5"	6"	4"	1¼"x5⅛"x3⅞"	1¾	1.92
A-785	6"	6"	6"	1¾"x4⅞"x5⅞"	2¾	2.17

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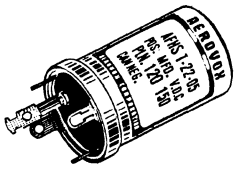
AEROVOX Capacitors

ELECTROLYTICS



TYPE AFH (85°C)

Twist-Prong Electrolytic Capacitors

SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong electrolytic capacitors with the very latest refinements . . . 85°C operation; improved moisture resistant sealing; special Types AFHS and PWHS for high ripple current circuits; high-purity aluminum foil construction throughout; either etched or composite-plate depending on electrical requirements. Types PWH and PWHS are special construction for printed wiring.

For use over a wide temperature range with minimum change in capacitance. Designed for filter audio bypass applications in radio-TV and amplifier equipment.

While AFH electrolytics enjoy a tremendous popularity as replacement capacitors for TV receivers, they are rapidly gaining acceptance in many industrial applications.

Capacity tolerances and surge voltage are as listed in EIA Specification No. RS-154.

ELECTROLYTIC CAPACITY TOLERANCES:

0- 50 Volts	—10 +250%
51-350 Volts	—10 +100%
351-Up	—10 + 50%

AFH—SINGLES

AFH No.	Capacity	Voltage	Size	Net Price★
1-00-50	2000	6	1⅜x2	1.83
1.01	3000	10	1⅜x3	2.43
1-01-25	225	15	¾x2	1.05
1-02	1000	15	1x3	1.53
1-03	2000	15	1⅜x3	2.07
1-04	3000	15	1⅜x3	2.55
1-05	25	25	¾x2	.93
1-06	40	25	¾x2	.81
1-07	100	25	¾x2	1.20
1-08	500	25	1x2½	1.53
1-10	1000	25	1⅜x2	2.13
1-10-10	4	50	¾x2	.93
1-11	100	50	¾x2	.99
1-12	150	50	¾x2	1.08
1-13	500	50	1⅜x2½	1.59
1-13-05	500	50	1x3	1.59
1-14	1000	50	1⅜x3½	2.25
1-14-50	1500	50	1⅜x4	2.64
1-15	25	150	1x2	1.11
1-16	30	150	1x2	.93
1-17	40	150	1x2	1.20
1.18	50	150	1x2	.99
1-19	60	150	1x2	1.29
1-20 AFHS	80	150	1x2	1.11
1-21	100	150	1x2	1.20
1-22 AFHS	120	150	1x3	1.23
1-22-05 AFHS	120	150	1⅜x2½	1.29
1-23 AFHS	140	150	1x3	1.26
†1-23-01 PWHS	140	150	1x3	1.29
1-24	150	150	1x3	1.29
1-24-24 AFHS	200	150	1x3½	1:47
1-24-25 AFHS	200	150	1⅜x2½	1:47
1-24-75 AFHS	300	150	1⅜x3	1.68
†1-24-95 PWH	375	165	1⅜x3½	2.79
1-25	40	200	1x2	1.26
1-25-60	120	200	1⅜x2	1.38
1-25-70	150	200	1x3½	1.68
†1-25-75 PWH	160	200	1⅜x3	1.74
1-26	15	250	1x2	1.14
1-27	20	250	¾x2	.96
1-28	30	250	¾x2	1.26
1-29	40	250	1x2	1.08
1-30	60	250	1x2½	1.53
1-31	80	250	1x3	1.59
1-31-25	100	250	1x3	1.62

AFH — SINGLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
1-31-75	150	250	1⅜x2½	1.86
1-31-85 AFHS	200	250	1⅜x3	2.19
1-32	15	300	1x2	1.20
1-33	30	300	1x2	1.29
1-34	50	300	1x2½	1.56
1-35	80	300	1x3	1.53
1-36	100	300	1x3½	1.74
1-36-05 AFHS	100	300	1⅜x2	1.74
1-37	125	300	1⅜x3	2.10
1-37-25 AFHS	150	300	1⅜x3	2.10
1-37-30 AFHS	200	300	1⅜x3	2.37
1-37-35	250	300	1⅜x4	3.33
1-38	15	350	1x2	1.23
1-39	30	350	1x2	1.14
1-40	40	350	1x2½	1.20
1-41	50	350	1x3	1.26
†1-41-05 PWH	50	350	1x2½	1.26
1-42	80	350	1⅜x2½	1.71
1-42-10 AFHS	90	350	1⅜x3	2.31
1-43 AFHS	125	350	1⅜x3	2.19
1-43-20	150	350	1⅜x3½	2.37
1-43-80 AFHS	320	350	1⅜x4½	3.99
1-44	10	400	¾x2	1.11
1-45	20	400	1x2	1.29
1-46	40	400	1⅜x2	1.50
1-47	80	400	1⅜x2½	2.22
1-48	10	450	1x2	.93
1.49	15	450	1x2	1.26
1-50	20	450	1x2	1.08
1-51	30	450	1x2½	1.17
1-52	40	450	1x3	1.23
1-53	50	450	1x3	1.41
1-54	60	450	1⅜x2½	1.62
1-55	80	450	1⅜x3	1.83
1-55-20	100	450	1⅜x3	2.07
1-55-25	125	450	1⅜x4	2.37
1-56	30	475	1x3	1.50
1-56-10	40	475	1⅜x2	1.50
1-57	90	475	1⅜x3½	2.61
1-58	10	500	1x2	.96
1-59	20	500	1x2½	1.11
1-60	30	500	1x3	1.23
1-61	40	500	1x3½	1.50
1-62	80	500	1⅜x3	2.16
1-63	90	500	1⅜x3½	2.34
1-64	10	525	1x2	1.26
1-65	10 ohm-30 cps	3 VNP	¾x2	1.50
1-66	0.5 ohm-15,750 cps	3 VNP	1x2	1.65
1-67	1 ohm-60 cps	3 VNP	1⅜x3	3.00

DUALS

AFH No.	Capacity	Voltage	Size	Net Price★
2-01	1000-500	6NP	1⅜x2	2.91
2-02	1000-1000	15	1x3½	2.64
†2-02-05-PWH	250-250	16	1x2	1.65
2-02-10	500-100	16	1x2	1.86
2-02-55	800-200	16	1x2	1.83
†2-02-60 PWH	800-250	16	1x2½	2:01
2-02-70	1000-500	16	1x2½	2.28
†2-02-75 PWH	500-200	18	1x2	2.01
2-03	20-20	25	1x2	1.08
2-04	40-40	25	1x2	1.20
2-05	150-50	25	1x2	1.41
†2-05-25 PWH	250-250	25	1x2½	1.80
2-06	50-50	50	1x2	1.02
2-06-20	100-100	50	1x2	1.26
2-07	20-10	150	1x2	1.20
2-08	20-20	150	1x2	1.02
2-09	30-15	150	1x2	1.29
2-10	30-20	150	1x2	1.29
2-11	30-30	150	1x2	1.11
2-12	40-20	150	1x2	1.08
2-13	40-30	150	1x2	1.11
2-14	40-40	150	1x2	1.14
2.15	50-30	150	1x2	1.20
†2-15-05 PWH	50-30	150	1x2	1.20

†—Special construction for printed wiring.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

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AEROVOX Capacitors

ELECTROLYTICS — (Continued)

DUALS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
2-16	50-50	150	1x2½	1.29
2-17	60-60	150	1x3	1.41
†2-17-50 PWH	70-30	150	1x2	1.32
2-18	75-75	150	1x3	1.56
2-19	80-40	150	1x2½	1.38
†2-19-05 PWH	80-40	150	1x2½	1.35
2-19-25	80-50	150	1x2½	1.44
2-20	80-80	150	1⅜x2	1.59
2-20-50	125-100	150	1⅜x2½	2.10
2-21 AFHS	200-5	150	1⅜x2½	1.62
†2-21-01 PWHS	200-5	150	1⅜x3	1.68
2-22	200-125	150	1⅜x3	2.25
2-22-50	200-150	150	1⅜x3	2.25
2-23	200-200	150	1⅜x3	2.40
2-24	60-60	200	1⅜x2	1.53
2-24-20 AFHS	100-100	200	1⅜x3	2.10
2-24-21	100-100	200	1x3	2.10
2-24-75 AFHS	200-5	200	1⅜x3	1.83
2-25	10-10	250	1x2	1.26
2-26	20-20	250	1x2	1.14
2-27	30-30	250	1x2½	1.71
2-28	40-20	250	1x2½	1.65
2-29	40-40	250	1x3	1.50
2-30 AFHS	150-150	250	1⅜x4	3.09
2-30-25 AFHS	200-15	250	1⅜x3½	2.94
2-30-75 AFHS	200-200	250	1⅜x4½	3.66
2-31	10-10	300	1x2	1.29
†2-31-01 PWH	10-10	300	1x2	1.05
†2-31-02 PWH	10-10	300	1⅜x2	1.29
2-32	15-15	300	1x2	1.38
2-33	50-50	300	1⅜x2½	2.49
2-33-75	80-60	300	1⅜x2½	2.79
2-34	80-80	300	1⅜x3	2.43
2-35	120-20	300	1⅜x3	2.40
2-35-50 AFHS	200-80	300	1⅜x4	3.15
2-36	15-15	350	1x2	1.35
2-37	20-20	350	1x2½	1.71
2-38	30-20	350	1x3	1.95
2-39	30-30	350	1x3	1.74
2-40	50-30	350	1⅜x2½	1.89
2-40-50	60-40	350	1x3½	1.98
2-40-80	80-40	350	1⅜x3	2.37
2-41	80-80	350	1⅜x3½	2.82
2-41-10	90-40	350	1⅜x3	2.58
2-41-40	100-60	350	1⅜x3½	2.88
2-41-50 AFHS	100-100	350	1⅜x3½	3.69
2-41-80 AFHS	160-10	350	1⅜x3	2.58
2-43	15-15	400	1x2½	1.68
2-43-30	30-10	400	1x3	1.71
2-44	60-60	400	1⅜x3½	3.30
2-44-90	75-75	400	1⅜x4	3.63
2-44-95	80-4	400	1x4	1.95
2-45	80-10	400	1⅜x3	2.55
2-45-10	80-20	400	1⅜x3	2.73
2-45-40	80-60	400	1⅜x4	2.91
2-45-50 AFHS	80-80	400	1⅜x4	2.97
2-45-55 AFHS	100-100	400	1⅜x4¼	3.75
2-45-60	120-40	400	1⅜x4	3.15
2-46	5-5	450	1x2	1.05
2-47	10-10	450	1x2	1.14
2-48	15-10	450	1x2½	1.53
2-49	15-15	450	1x2½	1.35
2-50	20-10	450	1x3	1.35
2-51	20-20	450	1x3	1.53
2-52	30-10	450	1x3	1.50
2-53	30-15	450	1⅜x2	1.98
2-54	30-30	450	1⅜x2	1.83
2-56	40-20	450	1⅜x2½	1.80
2-57	40-40	450	1⅜x3	2.07
2-58	50-40	450	1⅜x3	2.73
2-59	50-50	450	1⅜x3	2.31
2-60	60-20	450	1⅜x3	2.13
2-61	60-40	450	1⅜x3½	2.37
2-61-50	60-60	450	1⅜x4	3.36
2-62	80-10	450	1⅜x3	2.16
2-63	80-20	450	1⅜x3½	2.34
2-64	80-40	450	1⅜x3½	2.61
2-64-25	100-40	450	1⅜x4	2.91
2-64-50	15-15	475	1x2½	1.41
2.65	30-10	475	1⅜x2	1.62

DUALS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
2-66	40-10	475	1⅜x2½	1.86
2-66-25	40-40	475	1⅜x3	2.58
2-66-50	80-40	475	1⅜x4	3.78
2-66-60	80-50	475	1⅜x4	3.12
2-67	10-10	500	1x2½	1.23
2-69	20-20	500	1⅜x2½	1.71
2-71	30-10	500	1⅜x2½	1.71
2-71-90	40-25	500	1⅜x3	2.73
2-72	40-40	500	1⅜x3	2.64
2-73	60-40	500	1⅜x3½	2.76
2-74	250/1000	10/6	1⅜x2	1.71
2-75	250/2000	10/6	1⅜x2	2.46
†2-75-45 PWH	1000/1000	16/10	1x2½	2.43
2-75-50	1500/1000	16/10	1⅜x2	2.55
*2-75-75 AFHS	2000/500	30/25	1⅜x3	3.81
2-76	50/500	150/5	1x3	1.47
2-77-05	50/1000	150/10	1x2	1.77
2-77-20	50/1000	150/16	1x2½	1.95
2-78	40/150	150/25	1x2	1.53
2-78-10	50/150	150/25	1x2½	1.65
2-78-25	150/100	150/25	1⅜x2½	1.62
2-78-30	40/20	150/50	1x2	1.26
2-78-60 AFHS	150/50	150/50	1x3½	1.95
2-78-90	80/25	200/25	1x2	1.32
2-79	40/20	250/25	1x2	1.50
2-80	50/100	250/50	1⅜x2	1.95
2-81	100/150	250/50	1⅜x3	2.19
2-81-80	35/500	300/6	1x2½	1.68
†2-81-95 PWH	2/20	300/25	1x2	.99
2-82	20/20	300/25	1x2	1.38
2-82-30	20/40	300/50	1x3	1.35
2-82-55	150/100	300/150	1⅜x4	2.70
2-82-57	100/100	300/200	1x4	2.55
2-82-60	20/60	300/250	1x3	2.07
2-84	20/20	350/25	1x2	1.41
2-85	40/20	350/25	1x2½	1.74
2-85-10 PWH	40/25	350/25	1x2	1.38
2-85-70	5/75	350/150	1x3	1.56
2-86	40/10	350/200	1⅜x2	1.80
2-86-15	40/10	350/250	1x3	1.83
2-86-30	60/80	350/250	1⅜x3½	2.58
2-86-40	30/30	350/300	1x3	1.98
2-86-45	35/100	400/50	1x3	1.56
2-86-60	40/100	400/50	1⅜x2	2.01
2-86-70	100/30	400/50	1⅜x3	2.34
2-86-72	80/80	400/200	1⅜x3½	2.37
2-86-75	60/80	400/250	1⅜x4	2.91
2-86-85 AFHS	4/140	400/300	1⅜x3	2.16
2-86-95	100/80	400/350	1⅜x4	4.08
2-87	10/20	450/25	1x2	1.05
2-88	20/20	450/25	1x2	1.50
2-89	40/20	450/25	1x3	1.83
2-89-50	40/50	450/25	1x3	1.50
2-90	80/20	450/25	1⅜x3	2.55
2-90-50	50/100	450/50	1⅜x2½	1.80
2-91	80/50	450/50	1⅜x3	2.10
2-91-50	80/100	450/50	1⅜x3	2.25
2-92	10/50	450/100	1⅜x2	1.53
2-93	20/100	450/100	1⅜x2	2.16
2-94	30/40	450/150	1⅜x2	1.86
2-94-30	30/200	450/150	1⅜x3	2.10
2-94-45	80/40	450/200	1⅜x3	2.85
2-94-60	20/50	450/250	1x3	1.68
2-94-75 AFHS	20/150	450/250	1⅜x3	2.88
2-94-85	90/200	450/250	1⅜x4	3.63
2-94-90	10/100	450/350	1⅜x3	3.00
2-95	20/80	450/350	1⅜x3	2.16
2-96	40/10	450/350	1⅜x2	1.62
2-97	40/40	450/350	1⅜x3	2.46
2-99	75/50	475/50	1⅜x3	2.73
2-99-75	40/80	475/200	1⅜x2½	2.73
2-99-90 AFHS	80/80	475/250	1⅜x4	2.79
2-100	20/100	475/300	1⅜x3	2.49
2-100-50	20/100	475/400	1⅜x4	2.70
2-101	40/40	475/400	1⅜x3	2.79
2-101-75	80/20	475/400	1⅜x3½	3.06
2-102	80/50	500/50	1⅜x3½	2.85
2-103	60/80	500/150	1⅜x3	2.79
2-104	40/50	500/200	1⅜x3	2.46
2-105	15/20	500/300	1x2½	1.71

†—Special construction for printed wiring. *Common Positive

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net

© U.C.P., Inc.

AEROVOX Capacitors

ELECTROLYTICS — (Continued)

DUALS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
2-106	20/100	500/300	1⅜x3	2.91
2-107	40/40	500/400	1⅜x3	2.76
2-108	0.5 ohm-15,750 cps 2.5 ohm-60 cps	12 6	1⅜x2	2.70

TRIPLES

AFH No.	Capacity	Voltage	Size	Net Price★
3-00-50	1500-1500-1500	3	1x3½	5.40
†3-00-70 PWH	500-250-250	8	1x1⅝	2.04
†3-00-80 PWH	250-250-50	16	1x2	1.95
3-00-90 PWH	400-100-100	16	1x2	1.80
†3-00-92 PWH	450-100-50	16	1x2	1.77
†3-00-93 PWH	500-250-50	16	1x2	2.10
†3-00-94 PWH	500-250-250	16	1x2	2.46
3-00-95	500-500-100	16	1x2	2.34
3-00-95.5	700-200-100	16	1x2	2.13
3-00-96	1000-200-50	16	1x2	2.28
3-00-97	1000-500-20	16	1⅜x2	2.58
3-01	20-20-20	25	1x2	1.17
3-02	40-40-40	25	1x2	1.29
3-03	30-30-30	50	1x2	1.29
3-05	20-20-20	150	1x2	1.38
†3-05-50 PWH	30-25-20	150	1x2	1.44
3-06	30-30-10	150	1x2	2.10
3-07	40-20-10	150	1x2	1.41
3-08	40-20-20	150	1x2	1.44
3-09	40-30-20	150	1x2	1.50
3-10	40-40-40	150	1x2½	1.56
3-11-20	50-40-10	150	1x2½	1.53
†3-11-30 PWH	50-40-30	150	1x2½	1.62
3-11-40	50-50-30	150	1x3	2.55
3-11-50	50-50-50	150	1x3	1.80
3-12	60-40-20	150	1x3	1.65
†3-12-10 PWH	70-15-15	150	1x2	1.62
3-12-20	70-40-40	150	1x3	1.77
3-13	80-40-20	150	1x3	1.74
3-13-15	120-80-40	150	1⅜x3	2.28
3-13-30	120-120-40	150	1⅜x3	2.43
3.13-50	200-100-60	150	1⅜x3½	2.73
3-13-60	300-100-80	150	1⅜x4	3.09
3-13-70 PWH	100-80-40	175	1x3	2.40
3-13-75	200-150-150	200	1⅜x4	4.50
3-13-90 AFHS	250-200-10	200	1⅜x4	4.02
3-14	15-15-10	250	1x2	2.19
3-17	20-20-10	250	1x2	2.25
3-17-10	20-20-20	250	1x2½	1.56
3-17-50	30-15-15	250	1x2½	2.46
3-18	30-20-10	250	1x2½	2.43
3-19	40-20-10	250	1x3	2.55
3-20	40-20-20	250	1x3	1.74
3-21	80-80-60	250	1⅜x3	2.94
3-22	10-10-10	300	1x2	1.44
3-25	60-20-10	300	1⅜x2	2.07
3-25-40	80-20-10	300	1⅜x2½	3.42
3-25-50	80-40-40	300	1⅜x2½	2.85
3-25-75	100-20-10	300	1⅜x3	3.87
3-26	120-50-40	300	1⅜x4	3.39
†3-26-50 PWHS	150-100-30	300	1⅜x4	3.81
3-27	10-10-10	350	1x2½	1.44
3-28	20-20-10	350	1x3	2.64
3-28-30	30-20-10	350	1x2½	1.95
3-29	60-40-20	350	1⅜x3½	2.55
3-29-25	60-50-50	350	1⅜x4	2.94
3-29-50	80-60-60	350	1⅜x4	3.33
3-29-75	90-40-20	350	1⅜x4	3.15
3-29-80	100-60-40	350	1⅜x4	3.69
3-29-85	100-100-10	350	1⅜x4	4.08
3-29-87 AFHS	100-100-40	350	1⅜x4½	4.50
3-29-95	120-40-40	350	1⅜x4	5.58
3-29-98	140-140-20	350	1⅜x4	4.59
3-30	10-10-10	400	1x2½	1.44
3-30-30	40-10-4	400	1x3½	1.83
3-30-35	40-10-10	400	1x3	1.89
3-30-45	40-30-10	400	1x4	2.22
3-30-60	80-20-10	400	1⅜x3	2.58
3-30-75	90-10-5	400	1⅜x3	2.64
3-31	10-10-10	450	1x3	1.56

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-33	15-15-10	450	1x3	2.64
3-34	15-15-15	450	1x3	1.86
3-35	20-10-10	450	1x3	1.77
3-36	20-20-20	450	1⅜x2½	2.16
3-37	30-20-20	450	1⅜x3	2.31
3-37-95	30-30-10	450	1⅜x3	3.36
3-38	30-30-20	450	1⅜x3	3.69
3-39	30-30-30	450	1⅜x3	2.61
3-41	40-10-10	450	1⅜x3	2.01
3-42	40-30-20	450	1⅜x3	2.58
3-43	40-40-10	450	1⅜x3	2.52
3-43-50	40-40-20	450	1⅜x3	2.67
3-44	40-40-40	450	1⅜x3½	2.94
3-44-50	50-40-30	450	1⅜x4	2.94
3-45	60-20-20	450	1⅜x3½	2.76
3-45-10	60-30-10	450	1⅜x3	2.70
3-45-25	60-40-20	450	1⅜x3½	3.00
3-45-50	80-40-10	450	1⅜x4	4.53
3-46	80-40-20	450	1⅜x4	3.24
3-47	10-10-10	475	1x3	1.62
3-47-50	20-20-10	475	1x3½	2.13
3-48	30-20-20	475	1⅜x3	3.54
3-49	30-30-10	475	1⅜x3	3.60
3-49-10	30-30-20	475	1⅜x3	2.85
3-50	40-10-10	475	1⅜x3	3.45
3-50-05	40-20-20	475	1⅜x3	2.85
3-50-07	40-30-10	475	1⅜x3	2.70
3-50-10	40-30-30	475	1⅜x4	3.09
3-51	10-10-10	500	1x3	1.62
3-52	30-20-20	500	1⅜x3	2.52
3-53	40-10-10	500	1⅜x3	2.34
3-54	40-40-10	500	1⅜x3½	3.03
3-54-30	850-400/4	16/11.5RMS	1x2½	2.46
3-54-40	1000-500/4	16/11.5RMS	1⅜x2	2.65
3-54-41	1000-500/4	16/11.5 RMS	1x2½	2.64
3-54-50	5/500-200	25/16	1x2	1.92
3-55	100/50-25	100/25	1x3	2.37
3-57	15-15/1200	150/2	1x2	1.80
3-58	30-20/100	150/6	1x2	2.16
3-59	20-20/100	150/10	1x2	2.10
3-60	20-20/250	150/10	1x2	2.37
3-61	30-30/200	150/10	1x2	2.25
3-62	40-20/150	150/10	1x2	1.44
3-63	40-20/200	150/10	1x2½	1.47
3-64	40-20/250	150/10	1x2½	2.43
†3-64-40 PWH	70-30/100	150/10	1x2½	1.68
3-64-50	80-20/200	150/10	1⅜x2	2.55
3-64-60	80-30/300	150/10	1⅜x2	1.89
†3-64-65 PWH	80-60/250	150 10	1x3	2.04
†3-64-70 PWH	80-60/400	150/10	1x3	2.19
†3-64-75 PWH	90-40/400	150/10	1x3	2.10
3-64-85 AFHS	100-80/200	150/10	1⅜x2½	2.16
3-65	20/250-100	150/15	1⅜x2	2.61
3-66	80-20/100	150/15	1⅜x2	2.52
3-66-25	50-30/100	150/16	1x2	1.59
3-67	20-20/20	150/25	1x2	1.98
3-68	20-20/200	150/25	1x3	2.37
3-69	30-20/20	150/25	1x2	2.01
3-70	30-30/20	150/25	1x2	2.07
3-72	40-20/20	150/25	1x2	1.38
3-73	40-20/100	150/25	1x3	2.25
3-74	40-20/200	150/25	1x3	1.62
3-75	40-30/20	150/25	1x2½	2.10
3-76	40-40/20	150/25	1x2½	1.44
3-76-50	40-40/200	150/25	1x3	1.68
3-76-55	40-40/250	150/25	1x3	1.89
3-77	50-30/20	150/25	1x2½	1.50
3-78	50-30/100	150/25	1x3	1.62
3-79	50-50/20	150/25	1x3	1.59
3-80	60-20/20	150/25	1x2	2.28
3-81	60-40/20	150/25	1x2½	2.37
†3-81-50 PWH	70-30/20	150/25	1x2½	1.62
3-82	80-40/20	150/25	1x2½	1.68
3-82-40	80-40/300	150/25	1⅜x2½	2.22
3-83	120-60/20	150/25	1⅜x2½	3.00
3-83-10	10/10-4	150/50	1x2	1.83
3-83-95	300-80/200	150/50	1⅜x4	2.97
3-84	30-20/20	200/25	1x2	2.28
3-84-15	10-5/500	200/50	1⅜x2	2.16

†—Special construction for printed wiring.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

© U.C.P., Inc.

Net

AEROVOX Capacitors

ELECTROLYTICS — (Continued)

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-84-25	40-5/500	200/50	1x2½	2.37
3-84-50	60-5/20	200/50	1x2½	1.50
3-84-60	60-5/100	200/50	1x2½	1.74
3-84-75	80-10/20	200/50	1x3	1.68
3-85	90-90/20	200/50	1⅜x3	3.45
3-86	100-10/40	200/50	1⅜x2	2.82
3-86-50	30-20/40	200/150	1x2½	1.62
3-86-80 AFHS	60/200-140	200/150	1⅜x4	2.88
3-86-90	10-10/100	250/10	1x2	2.07
3-87	15-15/20	250/25	1x2	1.40
3-88	20-15/20	250/25	1x2	2.10
3-89	30-30/20	250/25	1x2½	1.68
3-90	70-70/20	250/50	1⅜x3	3.51
3-91	90-90/20	250/50	1⅜x3	2.76
3-92	15/20-20	250/150	1x2	2.16
3-93	40-20/10	250/150	1⅜x2	2.43
3-94 AFHS	40-40/10	250/200	1⅜x2	2.79
3-95	80-80/60	250/200	1⅜x3½	4.05
3-96-20 AFHS	10/500-500	300/15	1⅜x2	2.34
3-97	20-20/20	300/25	1x2	2.46
3-98	40-15/20	300/25	1x2½	2.64
†3-98-60 PWH	60-10/25	300/25	1⅜x2	1.83
3-98-80	100-10/20	300/25	1⅜x3	3.51
3-98-90 AFHS	140-10/100	300/25	1⅜x3½	3.99
3-99	30-30/25	300/50	1x3	2.61
3-99-75	100-10/60	300/50	1⅜x2½	2.43
3-99-80 AFHS	125-20/100	300/50	1⅜x3½	4.35
3-99-82	125-60/40	300/50	1⅜x4	5.40
3-99-83	140-100/60	300/50	1⅜x3½	3.63
3-99-85	200-20/10	300/100	1⅜x4	2.94
3-99-95	20/150-80	300/150	1⅜x3	2.37
3-100	40-40/20	300/150	1⅜x2	2.64
3-100-20	60/200-30	300/150	1⅜x4	3.90
3-100-40 AFHS	100/200-30	300/150	1⅜x4	3.03
3-100-60	140-10/200	300/150	1⅜x4	3.30
3-101	10-10/15	300/250	1x2	2.19
3-101-20	60/30-30	300/250	1⅜x2½	3.36
3-101-40	100/60-20	300/250	1⅜x3½	4.41
3-101-60	200/60-20	300/250	1⅜x4	3.48
3-102-90	5/100-40	350/25	1x2	2.01
3-103	10-10/20	350/25	1x2	2.01
3-104	15-10/20	350/25	1x2	1.50
3-105	15-15/20	350/25	1x2½	2.43
3-105-50	20-5/100	350/25	1x3	1.56
3-106	20-10/20	350/25	1x2½	1.53
3-107	20-20/20	350/25	1x2½	1.68
3-107-50 AFHS	20/50-50	350/25	1x2	2.25
3-108	30-10/20	350/25	1x2½	2.73
3-109	30-20/20	350/25	1x3	1.86
3-110	30-30/20	350/25	1⅜x2	2.04
†3-110-30 PWH	40-10/25	350/25	1⅜x2	1.77
3-110-50	40-20/50	350/25	1x2½	1.98
3-111	40-40/50	350/25	1⅜x2½	3.36
3-111-50	90-40/50	350/25	1⅜x3½	3.18
3-111-85 AFHS	200-10/50	350/25	1⅜x4	4.77
3-111-90	10-5/30	350/50	1x2	1.98
3-112	10-5/150	350/50	1x3	2.43
3-112-10	20-5/150	350/50	1x3	1.77
3-112-20	20-10/100	350/50	1x3½	1.74
3-112-50	60-5/20	350/50	1x3½	1.80
3-112-60 AFHS	80-40/400	350/50	1⅜x4	3.39
3-112-75	150-4/30	350/50	1⅜x3	2.85
3-112-80	30-20/100	350/75	1⅜x2½	3.60
3-113	40-20/10	350/100	1⅜x2	2.55
3-114-50	30-20/100	350/150	1⅜x2½	2.40
3-114-52	40-20/10	350/150	1x3	2.88
3-114-55	40/200-100	350/150	1⅜x3½	3.00
3-114-58	60/200-30	350/150	1⅜x4	2.64
3-114-60	10/40-40	350/200	1x3	2.67
3-114-70	30-5/100	350/200	1⅜x2½	3.33
3-114-80	80-40/100	350/200	1⅜x3	3.27
3-115	20-10/5	350/250	1x2½	1.53
3-116	30/20-10	350/250	1x3	2.70
3-117	30-10/20	350/250	1x3	2.73
3-118	100-60/20	350/250	1⅜x4	3.30
3-119	15-15/40	400/25	1x2½	2.52
3-120	20-20/20	400/25	1x3	1.71
3-121	30-10/150	400/50	1⅜x2½	3.06

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-122	80-40/150	400/50	1⅜x4	3.09
3-122-10	100-40/100	400/50	1⅜x4	3.36
3-122-30	100-10/20	400/50	1⅜x3½	2.70
3-122-80	40/200-60	400/200	1⅜x4	4.98
3-123	80/20-10	400/300	1⅜x3½	3.81
3-123-10	20-10/10	400/350	1x3	2.43
3-123-30	20-10/40	400/350	1x4	3.06
3-123-40	20-20/10	400/350	1x3	1.80
3-123-65	60-30/20	400/350	1⅜x3	2.73
3-123-80	80-20/10	400/350	1⅜x3	2.58
3-123-90	100-10/80	400/350	1⅜x4	3.66
3-124	10-10/10	450/25	1x2	1.41
3-125	10-10/20	450/25	1x2	1.44
3-127	15-15/20	450/25	1x2½	2.43
3-127-10	15-15/40	450/25	1x2½	1.65
3-127-30	20-10/20	450/25	1x2½	1.62
3-128	20-15/20	450/25	1x3	2.61
3-129	20-20/20	450/25	1x2½	1.83
3-129-50	20/500-500	450/25	1⅜x3½	4.89
3-130	30/100-25	450/25	1⅜x2	2.67
3-131	30-30/20	450/25	1⅜x2½	2.13
3-131-30	30-30/125	450/25	1⅜x3	2.37
3-132	40-20/20	450/25	1⅜x2½	2.10
3-133	40-40/20	450/25	1⅜x3	2.37
3-134	40-40/40	450/25	1⅜x3	2.37
3-134-50	80-10/125	450/25	1⅜x3	2.64
3-135	80-40/100	450/25	1⅜x4	3.06
3-136	10-10/40	450/50	1x2½	1.50
3-137	20-10/40	450/50	1x3	2.52
3-138	20-10/50	450/50	1x3	1.71
3-138-30	30-10/150	450/50	1⅜x2½	2.10
3-138-40	30-15/150	450/50	1⅜x3	3.33
3-139	30-30/40	450/50	1⅜x3	3.27
3-139-50	35-25/100	450/50	1⅜x3	2.37
3-139-75	40-10/40	450/50	1⅜x2½	2.91
3-140	40-10/100	450/50	1⅜x3	2.58
3-140-50	40-30/25	450/50	1⅜x2½	3.36
3-141	40-40/80	450/50	1⅜x3½	3.69
3-142	40-40/100	450/50	1⅜x3½	2.58
3-142-20	60-40/75	450/50	1⅜x4	2.76
3-142-40	80-20/100	450/50	1⅜x4	2.88
3-142-50	80-80/50	450/50	1⅜x4	3.54
3-142-60	80/100-20	450/50	1⅜x3	3.81
3-142-80	30-30/125	450/75	1⅜x3	3.75
3-143	10-10/50	450/100	1⅜x2	2.37
3-144	30-20/30	450/150	1⅜x2½	3.15
3-145	40/90-50	450/150	1⅜x3	2.37
3-146	40-10/80	450/150	1⅜x3	3.36
3-147	40-40/40	450/150	1⅜x3½	2.46
3-148	40-10/80	450/200	1⅜x3	2.34
3-148-40	40-40/60	450/200	1⅜x3½	2.67
3-148-50	40-40/100	450/200	1⅜x4	2.97
3-148-80	10/80-80	450/250	1⅜x3	2.52
3-149	20/40-10	450-250	1⅜x2	2.82
3-149-35	80/40-40	450/250	1⅜x4	2.97
3-149-40	5/80-40	450/300	1⅜x3	2.49
3-149-60	10/100-20	450/300	1⅜x3	3.90
3-149-80	15-10/120	450/300	1⅜x4	4.05
3-150	15-15/10	450/300	1x3	2.55
3-151	20/15-10	450/300	1x3	2.55
3-152	15-5/15	450/350	1x3	2.55
3-152-50	20/15-15	450/350	1x3	2.91
3-153	20-20/60	450/350	1⅜x3	3.63
3-153-30	20/40-10	450/350	1⅜x2½	2.10
3-153-60	20/80-10	450/350	1⅜x3	2.55
3-154	40-10/10	450/350	1⅜x2	2.97
3-154-20	40-40/60	450/350	1⅜x4	4.41
3-154-30	40-40/80	450/350	1⅜x4	3.33
3-154-40	50-5/50	450/350	1⅜x3½	2.55
3-154-60	60/20-20	450/350	1⅜x3½	3.87
3-155-15	10-10/150	475/50	1x3	2.70
3-155-30	25-10/20	475/50	1x3	2.67
3-155-45	40/80-10	475/300	1⅜x3½	4.32
3-155-52	20/20-10	475/350	1x3½	2.88
3-155-60	20-10/100	475/400	1⅜x4	3.15
3-155-75	40/80-10	475/450	1⅜x4	3.30
3-155-90	30-20/20	500/25	1⅜x2½	3.18
3-156	10-10/100	500/50	1x3½	2.55

†—Special construction for printed wiring.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net

© U.C.P., Inc.

AEROVOX Capacitors

ELECTROLYTICS—(Continued)

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-157	20-10/100	500/50	1x4	1.98
3-158	30-10/20	500/50	1⅜x2½	2.79
3-159	40-40/100	500/200	1⅜x4	3.51
3-160	10-10/5	500/350	1x2½	2.25
3-160-50	10/40-40	500/450	1⅜x3½	3.72
3-161	20-20/60	500/450	1⅜x3½	2.91
3-162	40/25/130	150/25/15	1x3	2.97
3-162-80	50/100/25	150/50/25	1x2½	2.43
3-163	100/50/25	150/50/25	1x3	2.70
3-164	80/40/50	250/150/50	1⅜x2½	1.74
†3-164-50 PWH	10/10/20	300/50/25	1x2	1.26
3-165	100/60/20	300/150/25	1⅜x3	3.78
3-165-30 AFHS	140/200/100	300/150/50	1⅜x4	5.16
3-165-70 AFHS	100/60/200	300/200/150	1⅜x4	3.33
†3-165-80 PWHS	150/60/200	300/200/150	1⅜x4	3.54
3-165-90	30/25/100	350/25/6	1x2½	1.68
3-166	20/50/100	350/100/75	1x3	1.86
3-166-25 PWH	125/5/100	350/150/10	1⅜x3½	2.76
3-167	10/50/100	350/150/50	1x3	2.55
3-167-15 AFHS	60/140/100	350/150/50	1⅜x3½	2.55
3-167-20	10/150/200	350/200/25	1⅜x2½	2.52
3-167-25	40/80/500	350/200/25	1⅜x3½	4.53
3-167-50	125/5/100	350/200/75	1⅜x3½	3.18
3-168	50/10/500	350/250/5	1⅜x2½	3.24
3-168-50	100/40/5	350/250/50	1⅜x3½	2.91
†3-168-90 PWH	20/20/20	350/300/25	1x2	1.65
3-169	30/30/20	350/300/25	1x3	1.89
3-169-50	30/50/20	350/300/25	1⅜x2½	3.24
3-169-90	10/40/5	350/300/150	1x2½	2.88
3-170	20/40/10	350/300/150	1x3½	2.82
3-170-50	40/20/10	350/300/200	1⅜x2	2.97
3-171	60/40/20	400/300/25	1⅜x3½	3.78
3-172	10/40/10	400/300/150	1⅜x2	2.61
3-173	55/50/80	400/300/250	1⅜x3½	4.80
3-174	10/50/30	400/350/25	1x3	2.79
3-174-25	100/10/200	400/350/25	1⅜x3	2.94
3-174-50	80/80/100	400/350/50	1⅜x4	5.13
3-175	10/50/100	450/150/25	1x3	2.46
3-176	40/40/130	450/150/50	1⅜x3	2.25
3-177	40/100/50	450/150/50	1⅜x3	3.54
3-177-20	10/50/100	450/150/75	1x3	1.95
3-177-40	20/50/100	450/150/75	1⅜x2	3.06
3-177-50	10/100/200	450/200/25	1x3½	2.16
3-177-60	10/100/100	450/200/50	1x3½	2.13
3-177-80	20/80/50	450/200/150	1⅜x2½	2.16
3-178	20/60/100	450/250/25	1⅜x2½	2.19
3-178-25	10/10/50	450/250/50	1x2½	2.16
3-178-60 AFHS	50/160/50	450/250/50	1⅜x4	3.12
3-179	10/40/10	450/300/150	1⅜x2	1.86
3-179-50	30/10/10	450/300/150	1x3	2.67
3-180	10/10/20	450/350/25	1x2	2.07
3-180-50	10/10/50	450/350/25	1x3	2.16
3-181	30/15/40	450/350/25	1x3	1.50
3-181-50	30/40/50	450/350/25	1x4	2.22
3-182	20/80/100	450/350/50	1⅜x3½	4.05
3-182-80	80/50/100	450/350/200	1⅜x4	3.51
3-183	15/20/20	450/350/250	1⅜x2	2.67
3-184	20/15/10	450/350/300	1x3	2.73
3-185	10/30/150	450/400/5	1x3	2.70
3-186	30/50/40	450/400/25	1⅜x3	3.51
3-186-80	60/80/20	450/400/250	1⅜x4	3.27
3-186-90	4/40/40	450/400/300	1⅜x2½	3.33
3-187	10/30/30	450/400/300	1⅜x2½	3.00
3-187-20	60/80/20	450/400/350	1⅜x4	3.39
3-187-25	20/50/20	475/50/25	1x3	1.65
3-187-50	20/10/500	475/150/25	1⅜x3	2.49
3-187-75	80/80/50	475/150/50	1⅜x4	2.91
3-188	10/100/40	475/200/50	1⅜x2½	2.97
3-188-50	40/40/100	475/250/100	1⅜x3	3.69
3-189	20/20/40	475/300/25	1⅜x2	2.73
3-189-40	10/4/100	475/350/50	1x2½	2.34
3-189-60	20/10/5	475/350/150	1x2½	2.52
3-189-70	10/4/40	475/350/300	1⅜x2	1.80
3-190	40/40/25	475/450/50	1⅜x3	3.96
3-190-80	10/45/100	475/450/200	1⅜x3	2.52
3-191	10/100/40	500/200/50	1⅜x2½	3.00
3-192	40/40/100	500/250/50	1⅜x3	3.87

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-193	20/20/40	500/300/25	1⅜x2	2.79
3-193-25	20/40/100	500/300/25	1⅜x2½	3.24
3-193-75	5/100/200	500/300/150	1⅜x4	4.62
3-194	40/40/25	500/400/50	1⅜x3	3.87

QUADS

AFH No.	Capacity	Voltage	Size	Net Price★
4-01	40-40-40-30	150	1⅜x2	2.01
4-01-40	100-80-60-40	150	1⅜x3	2.79
4-01-45 AFHS	250-200-10-10	150	1⅜x4	3.21
4-01-55 AFHS	200-200-60-30	175	1⅜x4	3.33
4-01-60	40-40-40-40	200	1⅜x2	5.43
4-01-70	40-40-40-40	250	1⅜x2	2.76
4-01-80	40-20-10-10	300	1⅜x2	2.37
4-02	40-40-20-10	300	1⅜x2½	2.73
4-02-10	40-40-30-20	300	1⅜x3	2.91
4-02-20	60-20-10-5	300	1⅜x2½	3.63
4-02-30	60-40-10-10	300	1⅜x2½	2.73
4-02-45	80-60-20-10	300	1⅜x4	4.77
4-02-60	100-40-20-20	300	1⅜x4	5.22
4-02-70 AFHS	140-100-20-20	300	1⅜x4½	4.26
4-02-75 AFHS	150-100-10-10	300	1⅜x4	3.96
4-02-80	150-150-30-30	300	1⅜x4½	4.62
4-02-90	200-20-20-20	300	1⅜x4	3.69
4-03	10-10-10-10	350	1⅜x2	2.79
4-04	40-20-20-10	350	1⅜x2½	2.61
4-04-50	40-40-40-40	350	1⅜x4	3.60
4-05	80-10-10-10	350	1⅜x3	4.08
4-05-50	80-40-10-4	350	1⅜x3½	4.62
4-05-55	80-60-40-20	350	1⅜x4	3.84
4-05-60	100-40-10-10	350	1⅜x3½	3.60
4-05-70	100-40-20-20	350	1⅜x4	3.93
4-06	30-30-20-20	400	1⅜x3	4.35
4-06-25	40-35-10-10	400	1⅜x3	3.99
4-06-40	50-40-30-20	400	1⅜x4	3.30
4-06-75	80-10-10-10	400	1⅜x3	4.23
4-07	80-20-10-10	400	1⅜x3½	3.03
4-08	100-40-10-10	400	1⅜x4	3.66
4-09	5-5-5-5	450	1⅜x2	1.80
4-10	10-10-10-10	450	1⅜x2	2.01
4-13	20-10-10-10	450	1⅜x2½	2.22
4-14	20-20-20-20	450	1⅜x3	2.82
4-15	30-15-15-15	450	1⅜x3	2.67
4-15-10	30-20-20-10	450	1⅜x3	4.14
4-15-20	30-30-15-10	450	1⅜x3	4.23
4-15-30	30-30-20-20	450	1⅜x3	3.12
4-15-40	30-30-30-15	450	1⅜x4	4.77
4-16	35-35-10-5	450	1⅜x3½	2.79
4-17	40-10-10-10	450	1⅜x3	2.49
4-18	40-20-10-10	450	1⅜x3	2.67
4-18-10	40-35-10-10	450	1⅜x3	2.88
4-18-20	40-40-5-5	450	1⅜x4	2.82
4-18-30	40-40-20-20	450	1⅜x4	3.33
4-18-40	40-40-30-30	450	1⅜x4	3.63
4-18-45	40-40-40-40	450	1⅜x4	3.87
4-18-50	60-20-20-20	450	1⅜x4	3.39
4-18-60	60-30-10-2	450	1⅜x3	3.06
4-18-75	70-10-10-5	450	1⅜x3	4.26
4-18-80	80-10-10-10	450	1⅜x4	3.03
4-19	10-10-10-10	475	1⅜x2	3.15
4-19-10	20-20-10-10	475	1⅜x2½	2.61
4-19-20	20-20-20-20	475	1⅜x3	3.12
4-19-40	40-10-10-10	475	1⅜x3	4.17
4-19-50	40-20-10-10	475	1⅜x3	3.06
4-20	10-10-10-10	500	1⅜x2	2.10
4-20-50	40-40-8-8	500	1⅜x4	3.42
4-20-75	750-600-350/4	16/11.5 RMS	1⅜x2	3.36
4-20-77	750-750-350/4	16/11.5 RMS	1⅜x2	3.45
4-21	30-20-20/200	150/10	1⅜x2	2.82
4-22	40-40-20/200	150/10	1⅜x2	1.95
4-23	60-40-20/200	150/10	1⅜x2	2.10
4-23-50 AFHS	80-80-10/200	150/10	1⅜x2½	3.51
4-23-70	200-30-10/100	150/10	1⅜x3½	2.46
†4-23-72 PWH	290-30-10/100	150/10	1⅜x3½	2.70
4-23-75 AFHS	50-20/150-30	150/15	1⅜x2	1.92
4-25	20-20-20/20	150/25	1⅜x2	2.61

†—Special construction for printed wiring.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

© U.C.P., Inc.

Net

AEROVOX Capacitors

ELECTROLYTICS — (Continued)

QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
4-25-70	20-20/160-40	150/25	1⅜x2	1.92
4-26	30-30-30/40	150/25	1⅜x2	1.86
4-27	40-20-20/20	150/25	1⅜x2	1.77
4-28	40-40-30/20	150/25	1⅜x2	1.86
4-29	40-40-40/20	150/25	1⅜x2	1.89
4-30	40-40/40-40	150/25	1⅜x2	2.73
4-31	40-40-40/100	150/25	1⅜x2	3.00
4-32	40-40-40/160	150/25	1⅜x2	2.13
4-33	40-40/100-100	150/25	1⅜x2	3.00
4-33-20	40-40/200-100	150/25	1⅜x2	3.18
4-33-50 AFHS	50-20-20/200	150/25	1⅜x2	2.10
4-34	50-30-30/100	150/25	1⅜x2	2.07
†4-34-50 PWH	50-40-10/50	150/25	1⅜x2	1.89
4-35	50-50-50/20	150/25	1⅜x2	2.13
4-35-15	60-20-10/20	150/25	1⅜x2	2.79
4-35-25	60-40-20/20	150/25	1⅜x2	2.88
4-35-50 AFHS	60-60-10/60	150/25	1⅜x2	3.15
4-35-75 AFHS	70-40-40/25	150/25	1⅜x2½	3.09
4-36	75-75-75/30	150/25	1⅜x3	3.87
4-37	80-40-40/20	150/25	1⅜x2	3.13
4-37-10	80-40-40/40	150/25	1⅜x2½	2.16
4-38	80-40-40/100	150/25	1⅜x2½	2.25
†4-38-20 PWH	100-40-10/50	150/25	1⅜x2	2.22
4-38-30	100-90-60/200	150/25	1⅜x3	2.97
4-38-75	125-125-40/100	150/25	1⅜x3	4.35
4-38-90 AFHS	140-40/50-30	150/50	1⅜x3	3.51
4-38-95 AFHS	200-200-100/10	150/75	1⅜x4	3.57
4-39	40-20-10/20	200/25	1⅜x2	2.88
4-39-50 AFHS	200-200-100/10	200/75	1⅜x4	4.71
4-40	40-20-10/20	250/25	1⅜x2	2.04
4-41	100-40-10/100	250/50	1⅜x3½	3.09
4-42	80-60-40/20	250/150	1⅜x3½	4.59
4-43	10-10-10/20	300/25	1⅜x2	1.77
4-44	40-20-20/25	300/25	1⅜x2	2.40
4-44-20	40-30-20/50	300/25	1⅜x2½	3.72
4-45	40-40-20/20	300/25	1⅜x3	2.64
4-46	60-40-20/50	300/25	1⅜x3	2.79
4-46-20	60-30-10/60	300/50	1⅜x2½	2.52
4-46-30	100-80-20/50	300/50	1⅜x3½	3.66
4-46-35	150-30-30/150	300/50	1⅜x4	3.66
4-46-50	10/200-140-30	300/150	1⅜x4	3.06
4-46-60	10/200-200-30	300/150	1⅜x4	3.21
4-47	40-40-40/20	300/150	1⅜x3	2.94
4-47-25 AFHS	80-20-20/200	300/150	1⅜x3½	3.51
4-47-50 AFHS	100-10/200-30	300/150	1⅜x4	3.54
4-47-60 AFHS	140-10/200-60	300/150	1⅜x4	3.84
4-47-80 AFHS	120-40-40/10	300/250	1⅜x4	3.69
†4-47-90 PWHS	200/50-20-2	320/300	1⅜x4½	3.93
4-48	10-10-10/20	350/25	1⅜x2	2.67
4-49	20-10-5/20	350/25	1⅜x2	1.86
4-49-25	30-10-5/200	350/25	1⅜x2	2.28
4-50	30-20-20/20	350/25	1⅜x2½	3.69
4-50-60	40-10/100-25	350/25	1⅜x2	3.36
4-50-90	40-20-5/10	350/25	1⅜x2½	3.42
4-51	40-20-20/25	350/25	1⅜x2½	3.81
4-52	40-40-20/20	350/25	1⅜x3	2.82
4-52-05	40-40-30/10	350/25	1⅜x3	2.97
4-53	40-40-40/40	350/25	1⅜x3	3.12
4-53-40	60-5/100-40	350/25	1⅜x2½	2.28
4-53-90	120-20-10/50	350/25	1⅜x3	3.36
4-53-95 AFHS	150-100-20/100	350/25	1⅜x5	4.92
4-54	15-15-15/50	350/50	1⅜x2	3.96
4-55	40-30-10/50	350/50	1⅜x3	2.64
4-56	40-40-40/150	350/50	1⅜x3½	3.42
4-56-05 AFHS	50-40-20/100	350/50	1⅜x3	5.52
4-56-20	60-5/50-20	350/50	1⅜x2½	2.19
4-56-30	60-25-25/100	350/50	1⅜x3	4.62
4-56-40	70-40-10/50	350/50	1⅜x4	3.15
4-56-45 AFHS	80-40-40/100	350/50	1⅜x4	3.75
4-56-60	100-10-10/20	350/50	1⅜x3	3.09
4-56-65	100-20/50-30	350/50	1⅜x3½	4.89
4-56-75	100-40-30/50	350/50	1⅜x4	3.93
4-56-80	100-80-10/20	350/50	1⅜x4	3.96
4-56-85	140-20-10/100	350/50	1⅜x4	3.69
4-56-88	200-10/20-5	350/50	1⅜x4	3.39
4-56-90	90-30-5/100	350/75	1⅜x3½	3.69
4-56-92	20-10-5/60	350/200	1⅜x2½	3.27
4-56-93	20/100-100-20	350/200	1⅜x4	4.62

QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
4-56-93.4	30-10-5/100	350/200	1⅜x2½	2.64
4-56-93.5	30-20-5/100	350/200	1⅜x3	2.82
4-56-94	10-10/10-10	350/300	1⅜x2	2.79
4-56-94.4 AFHS	80/80-10-10	350/300	1⅜x3½	3.42
4-56-94.8	130-20-10/40	350/300	1⅜x4	5.88
4-56-94.9 AFHS	140/100-20-20	350/300	1⅜x4½	4.62
4-56-95 AFHS	160/60-10-4	350/300	1⅜x4	3.84
4-56-96	10-10/25-25	400/25	1⅜x2	2.52
4-57	20-20-20/20	400/25	1⅜x2½	2.31
4-57-40	80-40-10/20	400/25	1⅜x4	3.18
4-57-50	80-40-30/40	400/25	1⅜x4	3.57
4-57-55	90-40-10/40	400/25	1⅜x4	5.22
4-57-75	40-40-40/150	400/50	1⅜x4	5.13
4-57-85	80-20-10/100	400/50	1⅜x4	4.71
4-57-90 AFHS	100-10/30-20	400/50	1⅜x3	3.06
4-57-92	20-20/100-100	400/100	1⅜x3	3.12
4-57-93 AFHS	80-40-10/100	400/200	1⅜x3½	3.78
4-57-95	80-40/40-40	400/200	1⅜x4	5.40
4-58	40-10/80-10	400/250	1⅜x3½	4.23
4-58-50	80/40-20-10	400/300	1⅜x4	4.98
†4-58-65 PWH	40/30-20-20	400/350	1⅜x3	2.97
4-58-75	80-40/40-20	400/350	1⅜x4	3.87
4-59	10-10-10/20	450/25	1⅜x2	1.89
4-60	10-10-10/25	450/25	1⅜x2	2.82
4-61	10-10-10/100	450/25	1⅜x2	3.00
4-62	10-10-10/150	450/25	1⅜x2½	3.33
4-63	10-10/20-20	450/25	1⅜x2	2.67
4-65	20-10-10/100	450/25	1⅜x2	3.33
4-66	20-15/20-20	450/25	1⅜x2	2.13
4-67	20-20-20/20	450/25	1⅜x2½	2.49
4-68	30-15-15/40	450/25	1⅜x2½	3.72
4-69	30-20-20/20	450/25	1⅜x3	3.96
4-70	30-30-10/20	450/25	1⅜x3	3.90
4-70-10	30-30-10/125	450/25	1⅜x3	2.70
4-71	30-30-20/20	450/25	1⅜x3	4.17
4-71-25	30-30/125-125	450/25	1⅜x3	4.35
4-72	40-10-10/250	450/25	1⅜x3	2.79
4-73	40-10-10/300	450/25	1⅜x3	4.35
4-74	40-15-10/25	450/25	1⅜x3	3.63
4-75	40-20-10/20	450/25	1⅜x3	3.81
4-76	40-20-20/20	450/25	1⅜x3	2.76
4-77	40-20-20/40	450/25	1⅜x3	2.79
4-78	40-30-10/20	450/25	1⅜x3	2.70
4-78-10	40-40-10/20	450/25	1⅜x3½	2.82
4-79	40-40-20/20	450/25	1⅜x3½	3.00
4-79-10	40-40-40/40	450/25	1⅜x4	3.30
4-79-20	60-40-40/10	450/25	1⅜x4	3.60
4-79-30	60-50-5/20	450/25	1⅜x4	3.21
4-79-40	80-40-40/40	450/25	1⅜x4	3.87
4-80	20-20-20/100	450/50	1⅜x3	2.73
4-81	30-30-15/30	450/50	1⅜x3	2.73
4-82	30-30-15/100	450/50	1⅜x3½	4.41
4-83	40-20-10/100	450/50	1⅜x3½	2.76
4-84	40-40-10/20	450/50	1⅜x3	2.82
4.85	40-40/30-10	450/50	1⅜x3	4.05
4-85-25	40-40-10/50	450/50	1⅜x4	2.88
4-86	60-10-10/20	450/50	1⅜x3	4.08
4-86-20	60-30-30/150	450/50	1⅜x4	5.52
4-86-25	60-40-10/25	450/50	1⅜x4	3.15
4-87	40-40-10/100	450/100	1⅜x3½	3.21
4-88	60-10-10/20	450/150	1⅜x3	2.76
4-88-20	35-35-10/10	450/200	1⅜x3½	4.14
4-88-40	40-40-30/10	450/200	1⅜x4	4.80
4-88-50	40-40/100-60	450/200	1⅜x4	3.63
4-88-60	40-20-10/100	450/250	1⅜x4	3.51
4-88-70	60-10-10/40	450/250	1⅜x3½	4.44
4-88-80	10/100-20-20	450/300	1⅜x3	3.15
4-89	20-20/30-30	450/300	1⅜x3	4.05
4-90	20-20/20-10	450/350	1⅜x3	3.72
4-91	20-20/30-30	450/350	1⅜x3	4.53
4-91-50	40-10-10/40	450/350	1⅜x3	2.85
4-92	40-10/35-10	450/350	1⅜x3	4.14
4-92-50	40-20-20/20	450/350	1⅜x3	4.50
4-92-75	40-20/80-10	450/350	1⅜x4	5.22
4-93	40-40/30-30	450/350	1⅜x4	3.54
4-93-40	5/80-40-25	450/400	1⅜x4	3.57
4-93-45	10/80-40-25	450/400	1⅜x4	3.63
4-93-50	60/40-20-20	450/400	1⅜x4	5.22

†—Special construction for printed wiring.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net

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AEROVOX Capacitors

ELECTROLYTICS — (Continued)

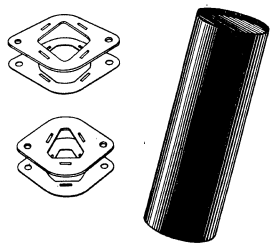
QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
4-93-75	30-30-10/20	475/25	1⅜x3	4.08
4-94	40-20-10/10	475/25	1⅜x3	4.35
4-94-50	20/80-20-10	475/300	1⅜x3½	3.00
4-94-60	50-30/20-20	475/300	1⅜x4	5.13
4-94-70	10/130-20-10	475/350	1⅜x4	3.60
4-94-75	20/60-40-10	475/350	1⅜x3½	4.68
4-94-85	30/130-10-10	475/350	1⅜x4	3.84
4-94-90	10/80-40-40	475/450	1⅜x4	3.99
4-95	20-20-10/10	500/300	1⅜x2½	2.58
4-96	50-30-10/20	500/300	1⅜x4	3.36
4-96-20	5/25-25/100	75/25/15	1⅜x2	2.37
4-96-50	40-40/50/80	250/150/50	1⅜x2½	3.69
4-96-75	80-8/40/50	250/150/50	1⅜x2½	2.91
4-96-90	10/10/100-20	250/200/25	1⅜x2	2.61
4-97	100/40/80-20	300/50/25	1⅜x2½	4.08
4-97-30	80-5/60/20	300/150/25	1⅜x3	2.58
4-97-40	20/150-150/100	300/150/50	1⅜x3½	3.18
4-97-75	100-40/125/50	300/150/50	1⅜x4	5.49
4-97-90	150-20/10/250	300/250/50	1⅜x4	3.63
4-97-92 PWH	20-4/20/100	350/25/6	1⅜x2	2.43
4-97-95	100-60/100/100	350/150/10	1⅜x4½	4.11
4-98	20/150-80/20	350/150/25	1⅜x3	4.08
4-98-50	60/60-30/160	350/150/25	1⅜x3	4.14
4-98-70 AFHS	60-20/80/100	350/150/50	1⅜x3½	4.41
4-99	15/80-40/200	350/200/25	1⅜x3	4.05
4-99-25	20/160-60/40	350/200/25	1⅜x2½	3.60
4-99-50	80-20/20/200	350/200/50	1⅜x3½	4.86
4-99-55	100-100/60/100	350/200/50	1⅜x4½	4.89
†4-99-60 PWH	100-60/60/40	350/200/75	1⅜x4	3.96
4-99-75	20/100-100/10	350/200/100	1⅜x4	4.50
4-99-80	80-60/60/10	350/200/150	1⅜x4	5.13
4-99-90	60-40/60/20	350/250/150	1⅜x4	3.24
4-99-93	50-30/8/20	350/250/200	1⅜x2½	3.99
4-99-95	40-20/10/20	350/300/25	1⅜x2	3.54
4-100	40/40-20/20	350/300/25	1⅜x3	4.05
4-100-08	160/30-30/20	350/300/50	1⅜x4	3.48
4-100-10	30-30/40/100	350/300/75	1⅜x3	3.12
4-100-20 AFHS	100-60/40/40	350/300/75	1⅜x4	4.08
4-100-25	50-25/100/20	400/50/25	1⅜x3	4.17
4-100-40	80-40/100/20	400/50/25	1⅜x4	5.04
4-100-45	20-10/10/25	400/100/25	1⅜x2	2.79
4-100-50	10-10/40/10	400/200/50	1⅜x2	2.88
4-100-65 AFHS	40-40/80/80	400/250/50	1⅜x4	4.95
4-100-75	40/120-10/150	400/250/50	1⅜x4	3.54
4-100-90	80-10/80/100	400/250/50	1⅜x4	3.48
4-101	5-5/50/80	400/300/250	1⅜x3	4.17
4-102	10/50-30/30	400/350/25	1⅜x3	3.96
4-102-15	50/60-40/20	400/350/25	1⅜x4	3.69
4-102-25	80/40-10/10	400/350/25	1⅜x4	4.77
4-102-40	20/40/100-10	400/350/50	1⅜x3	3.78
4-102-50	20/50-40/80	400/350/50	1⅜x3	3.00
4-102-75	30/60-20/100	400/350/50	1⅜x4	4.50
4-103	60-40/40/10	400/350/50	1⅜x3½	5.16
4-103-40	100-10/20/20	400/350/50	1⅜x4	3.27
4-104	40/10/80-10	400/350/250	1⅜x3	4.17
4-104-50	60-10/80/10	400/350/250	1⅜x4	5.25
4-105-10	10-10/20/60	450/150/25	1⅜x2	2.82
4-105-30	20-20/60/100	450/150/25	1⅜x2½	2.55
4-105-60	40-40/125/125	450/150/25	1⅜x4	3.42
4-106	40/40/30-10	450/150/50	1⅜x3	3.36
4-107	10-10/60/100	450/200/50	1⅜x3	2.31
4-107-50	10/80-40/100	450/200/50	1⅜x3	3.81
4-108	20/80-20/50	450/200/50	1⅜x3	2.49
4-108-10	35-25/20/100	450/200/50	1⅜x3	2.79
4-108-30	40/40-40/20	450/250/25	1⅜x3	4.08
4-108-40	60/80-40/20	450/250/150	1⅜x4	3.39
4-108-50	10-10/10/50	450/300/25	1⅜x2	2.82
4-108-60	25/100-10/60	450/300/50	1⅜x3	3.18
4-108-70	40/40-40/20	450/300/150	1⅜x3	2.94
4-108-90	10/100-20/20	450/300/200	1⅜x3	3.03
4-109	10/60-40/25	450/350/25	1⅜x3½	2.76
4-110	10/100-10/20	450/350/25	1⅜x3½	3.15
4-111	20/15-15/20	450/350/25	1⅜x2	3.42
4-111-50	20/80-50/100	450/350/50	1⅜x4	3.60
4-111-60	50/25-25/100	450/350/50	1⅜x3	4.80
4-112	30/40-40/10	450/350/200	1⅜x3½	4.62
4-112-05 AFHS	10/140/100-20	450/350/300	1⅜x4½	4.50
4-112-10	20/20/50-20	450/400/50	1⅜x3½	3.24

QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
4-112-20	80/40-10/150	450/400/50	1⅜x4	5.67
4-112-50	80/10/40-30	450/400/300	1⅜x4	3.48
4-112-75	10/100-10/100	475/300/25	1⅜x3½	2.94
4-112-80	10/140-4/100	475/300/50	1⅜x3	3.48
4-113	15-15/80/40	475/300/50	1⅜x3	2.88
4-113-10	10/20/100-50	475/350/25	1⅜x2	2.07
4-113-20	10/30-5/80	475/350/50	1⅜x2½	3.33
4-113-40	40-10/4/40	475/350/300	1⅜x3	2.97
4-113-50	10/80-40/100	475/400/50	1⅜x4	3.48
4-113-60	10/50-30/30	475/450/25	1⅜x3	2.85
4-113-80	20-10/20/100	475/450/25	1⅜x2½	2.52
4-114	10-5/80/40	475/450/50	1⅜x3½	4.44
4-114-50	10/40-10/100	475/450/50	1⅜x2½	2.58
4-114-55	10/10-4/20	500/300/25	1⅜x2	1.74
4-114-60	10/100-30/100	500/300/25	1⅜x3½	4.68
4-114-75	30/10/150-30	500/450/50	1⅜x3	2.52
4-114-90	100/60/10/20	300/200/150/50	1⅜x3	3.21
4-115	120/20/100/20	300/250/50/25	1⅜x4	4.53
4-116	200/20/100/20	300/250/50/25	1⅜x4	3.48
4-116-50	40/100/100/25	350/250/50/25	1⅜x3½	4.80
4-117	20/40/10/250	350/300/150/50	1⅜x3	4.14
4-117-25	20/150/10/250	350/300/250/50	1⅜x4	3.66
4-117-40	20/10/10/20	400/350/200/25	1⅜x2	1.92
4-117-44	40/80/100/25	400/350/200/50	1⅜x4½	3.57
4-117-45	40/80/100/100	400/350/200/50	1⅜x4½	5.76
4-117-47	20/10/80/20	400/350/300/25	1⅜x3	3.96
4-117-48	40/30/10/20	400/350/300/25	1⅜x2	3.81
4-117-49 AFHS	20/160/50/50	450/250/75/50	1⅜x4	3.09
4-117-50	10/10/60/100	450/300/200/50	1⅜x3	3.42
4-117-60	10/40/40/100	450/300/250/50	1⅜x3½	3.96
4-117-75	30/40/50/200	450/300/250/150	1⅜x4	5.40
4-117-90	10/40/100/100	450/350/250/50	1⅜x3	3.33
4-117-95	30/25/50/200	450/400/250/150	1⅜x4	5.13
4-118	80/10/30/40	450/400/300/150	1⅜x4	4.71
4-118-50	5/60/50/20	450/400/350/25	1⅜x3	4.53
4-118-90	40/40/50/80	475/250/150/50	1⅜x3½	3.00
4-119	20/40/100/80	475/300/50/25	1⅜x3	2.70
4-120	10/40/80/100	475/350/200/100	1⅜x3½	4.32
4-120-10	20/40/80/100	475/350/200/100	1⅜x4	3.27
4-120-20	10/40/80/100	475/350/300/100	1⅜x4	3.33
4-120-50	10/40/100/10	475/400/50/25	1⅜x2½	3.60
4-120-75	10/40/4/100	475/400/350/50	1⅜x2½	2.43
4-120-90	10/10/20/200	475/450/150/50	1⅜x2½	2.25
4-121	10/10/80/50	475/450/200/50	1⅜x2½	3.45
4-121-50	25/20/20/100	475/450/300/50	1⅜x3	2.76
4-122	25/20/40/100	475/450/300/50	1⅜x3½	4.44
4-123	10/60/30/125	475/450/400/50	1⅜x4	3.27

AFH HARDWARE



METAL WASHERS

Cat. No.	Size	Net Price★
MW-1	¾" d.	.04
MW-2	1" d.	.04
MW-3	1⅜" d.	.04
MW-4	1" in 1⅜" hole mounting	.04

BAKELITE WASHERS

Cat. No.	Size	Net Price★
BW-1	¾" d.	.04
BW-2	1" d.	.04
BW-3	1⅜" d.	.04
BW-4	1" in 1⅜" hole mounting	.04

INSULATING TUBES

Cat. No.	Size	Net Price★
TU-1	1 x 2	.04
TU-2	1 x 2½	.04
TU-3	1 x 3	.04
TU-4	1 x 3½	.04
TU-5	1 x 4	.04
TU-6	1⅜ x 2	.04
TU-7	1⅜ x 2½	.04
TU-8	1⅜ x 3	.04
TU-9	1⅜ x 3½	.04
TU-10	1⅜ x 4	.04
TU-11	1⅜ x 4½	.04

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

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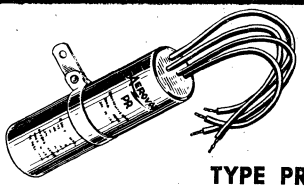
AEROVOX Capacitors



ELECTROLYTICS — (Continued)

TYPE PR WAX-FILLED TUBULAR CAPACITORS

Wax-filled electrolytic tubulars in wax-impregnated cardboard tubes. Sections manufactured to same high standards as more expensive metal-cased units. These units are made for exact duplicate replacements in television receivers and antenna rotating devices. Tolerances meet RETMA standards and are manufactured for operating temperatures of 0-65°C. PR numbers designate replacements for Television Receivers. XA numbers designate replacements for rotators.

TYPE PR SINGLES

PR No.	Capacity	Voltage	Size	Net Price★
XA-4283	70	50 (VAC)	7/8x3	.95
*XA-4098A	70	50 (VAC)	7/8x3	.92
XA-10001	100	50 (VAC)	1x2 7/8	1.20
PR 1-050	100	150	1x3 1/2	1.11
PR 1-075	200	200	1 3/8x3 3/8	1.74
PR 1-100	140	300	1 3/8x3 3/8	1.89

TYPE PR DUALS

PR No.	Capacity	Voltage	Size	Net Price★
PR 2-020	200-20	8	1/2x1 1/4	.93
□PR 2-030	50-30	150	1x2 1/2	1.68
□PR 2-035	50-50	150	1x2 1/2	1.74
□PR 2-040	80-30	150	1x2 1/2	1.77
□PR 2-045	100-50	150	1x3	1.92
††PR 2-050	120-120	150	1 1/8x4 7/8	1.98
PR 2-100	200-5	150	1x4	1.62
PR 2-120	250-50	150	1 3/8x3 1/4	2.22
PR 2-200	120-80	200	1 3/8x3	2.31
PR 2-275	200-5	200	1 1/8x4 1/8	2.13
PR 2-300	150-100	300	1 3/8x4 1/2	3.21
PR 2-400	140-5	350	1 1/4x4 1/8	2.49
PR 2-600	40/125	200/40	1x3 1/4	1.44
PR 2-700	50/75	250/50	1 1/8x2 3/4	1.44
PR 2-725	5/25	300/25	3/4x1 7/8	.87
PR 2-755	200/100	300/50	1 1/4x4 5/8	2.67
PR 2-790	100/150	350/250	1 3/8x3 1/2	3.36
PR 2-800	20/100	450/25	1 1/4x2 3/4	1.35

TYPE PR TRIPLES

PR No.	Capacity	Voltage	Size	Net Price★
PR 3-005	100-100-65	8	5/8x1 13/16	1.23
PR 3-010	150-150-150	150	1 3/8x4 1/4	2.91
PR 3-012	250-200-10	150	1 3/8x4 3/8	2.76
PR 3-020	60-60-60	300	1 3/8x3 1/2	2.82
PR 3-025	60-60-4	350	1 3/8x3 1/4	2.31
PR 3-030	80-40-20	350	1 3/8x3 1/2	2.82
†PR 3-035	30-10-10	450	1 3/8x3 1/2	1.89
PR 3-043	250-120/50	150/25	1 3/8x3 7/8	2.64
PR 3-045	100-10/20	300/25	1 1/8x3 1/2	2.25
PR 3-046	100-100/200	300/25	1 1/2x4 1/2	3.48
PR 3-046-50	120-40/100	300/50	1 3/4x3 3/4	2.91
PR 3-047	100-60/100	300/50	1 3/8x4	2.97
PR 3-048	100/200-40	300/200	1 3/8x4 1/2	3.69
PR 3-050	10-10/100	350/50	1 1/4x2 1/2	1.50
PR 3-053	100-10/50	350/50	1 3/8x3 1/2	2.67
PR 3-054	10/200-100	400/150	1 3/8x3 1/2	2.46
PR 3-055	20-10/150	450/50	1 3/8x3	1.86
PR 3-060	20/200-5	450/200	1 1/4x4 1/8	2.70

TYPE PR TRIPLES (Continued)

PR No.	Capacity	Voltage	Size	Net Price★
PR 3-065	5/80-40	450/400	1 3/8x4 1/4	2.73
PR 3-070	150/100/80	150/50/25	1 3/8x3	2.01
PR 3-080	80/10/100	300/250/50	1 3/8x3 1/2	2.16
PR 3-085	20/60/100	350/200/25	1 3/8x3	2.13
PR 3-090	30/40/125	350/200/25	1 3/8x2 1/4	1.98
PR 3-100	140/5/200	350/300/200	1 1/2x4 5/8	4.02
PR 3-125	100/40/40	350/300/250	1 3/8x3 3/4	3.27
PR 3-150	30/50/100	450/150/25	1 3/8x2 1/2	1.89
PR 3-160	25/100/100	450/150/50	1 3/8x3	2.28

TYPE PR QUADS

PR No.	Capacity	Voltage	Size	Net Price★
PR 4-125	40-40-40-4	150	1x3	1.83
PR 4-175	20-20-20-10	450	1 3/8x3 1/2	2.55
PR 4-185	40-20-20-10	450	1 3/8x3 3/4	2.82
PR 4-200	40-40-20-20	450	1 1/2x4 5/8	3.27
PR 4-220	40-20-20/100	150/25	1 1/16x2 7/8	1.83
PR 4-225	40-10-10/200	150/35	1 1/8x3	2.01
PR 4-250	100-80-20/50	300/50	1 3/8x4 1/4	3.60
PR 4-275	140-4/50-4	300/150	1 3/8x3 1/2	2.94
PR 4-280	140-5/200-30	300/150	1 1/2x4	3.63
PR 4-285	140-10-5/200	300/150	1 1/2x4 3/8	3.60
PR 4-295	80-40-10/40	300/250	1 3/8x4	3.09
PR 4-300	120-40-40/10	300/250	1 3/8x4 1/4	3.72
PR 4-325	150-100-20/100	350/50	1 1/2x4 3/4	5.01
PR 4-350	15-15/150-150	350/150	1 3/8x4 1/4	3.12
PR 4-450	80-60-20/40	350/300	1 3/8x4 5/8	3.72
PR 4-500	10-10-10/150	450/50	1 1/4x3 3/4	2.16
PR 4-550	100-40/40/25	300/50/25	1 3/8x3 1/4	3.03
PR 4-600	140/5/200-30	350/300/200	1 1/2x4 5/8	4.59
PR 4-700	80-10/40/100	400/300/50	1 3/8x4	3.27
PR 4-800	10/80/40-40	450/300/250	1 3/8x3 1/2	2.97
PR 4-850	40/100/100/25	350/250/50/25	1 3/8x3 1/4	3.15
PR 4-875	140/5/200/100	350/300/200/150	1 1/2x4 5/8	4.92
PR 4-900	20/120/40/100	450/300/250/50	1 3/8x4 1/4	3.60

TYPE PR QUINTS

PR No.	Capacity	Voltage	Size	Net Price★
PR 5-500	40-20-20-20/50	300/75	1 3/8x3	3.00

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

†Separate negative furnished for two 10 mfd sections. *5" leads. No bracket. ‡Separate sections. □Special construction for printed wiring.

TYPE XPP — MINIATURIZED METAL-CASED ELECTROLYTICS

OPERATING TEMPERATURE RANGE — minus 20°C to plus 65°C.
CAPACITANCE AT 25°C — minus 10%—plus 250%.
RC PRODUCT AT 25°C — 120 CPS: 500 maximum.
RC product (rated capacitance in mfd. x equivalent series resistance in ohms).
MAXIMUM LEAKAGE:
.15 microamperes/mfd/volt: below 10 volt rating.
.10 microamperes/mfd/volt: above 10 volt rating.

Miniature hermetically-sealed, metal cased, tubular aluminum electrolytic capacitors.

For use in all transistorized assemblies such as personal portable radios, hearing aids, instruments and many other miniaturized electronic apparatus.

Cap. Mfds.	3VDCW Type No.	Size	Net Price★	6VDCW Type No.	Size	Net Price★	10VDCW Type No.	Size	Net Price★	12VDCW Type No.	Size	Net Price★	15VDCW Type No.	Size	Net Price★	25VDCW Type No.	Size	Net Price★
1	XPP-3001	A	.75	XPP-6001	A	.75	XPP-10001	A	.75	XPP-12001	A	.75	XPP-15001	A	.75	XPP-25001	B	.75
2	XPP-3002	A	.75	XPP-6002	A	.75	XPP-10002	A	.75	XPP-12002	A	.75	XPP-15002	A	.75	XPP-25002	B	.78
3	XPP-3003	A	.75	XPP-6003	A	.75	XPP-10003	B	.75	XPP-12003	B	.75	XPP-15003	C	.75	XPP-25003	C	.78
4	XPP-3004	A	.75	XPP-6004	B	.75	XPP-10004	B	.75	XPP-12004	B	.75	XPP-15004	C	.78	XPP-25004	C	.78
5	XPP-3005	A	.75	XPP-6005	B	.75	XPP-10005	B	.75	XPP-12005	B	.81	XPP-15005	C	.84	XPP-25005	C	.84
6	XPP-3006	A	.75	XPP-6006	B	.75	XPP-10006	C	.75	XPP-12006	C	.81	XPP-15006	C	.84	XPP-25006	C	.84
8	XPP-3008	B	.75	XPP-6008	C	.81	XPP-10008	C	.81	XPP-12008	C	.81	XPP-15008	C	.84	XPP-25008	E	.87
10	XPP-3010	C	.75	XPP-6010	C	.81	XPP-10010	C	.81	XPP-12010	C	.81	XPP-15010	C	.84	XPP-25010	E	.87
15	XPP-3015	C	.75	XPP-6015	C	.81	XPP-10015	C	.81	XPP-12015	C	.84	XPP-15015	D	.87	XPP-25015	F	.87
20	XPP-3020	C	.75	XPP-6020	D	.81	XPP-10020	D	.81	XPP-12020	D	.84	XPP-15020	E	.87	XPP-25020	F	.90
25	XPP-3025	C	.75	XPP-6025	D	.81	XPP-10025	E	.81	XPP-12025	E	.84	XPP-15025	E	.87	XPP-25025	F	.93
30	XPP-3030	D	.75	XPP-6030	E	.84	XPP-10030	E	.84	XPP-12030	E	.87	XPP-15030	F	.90			
40	XPP-3040	D	.75	XPP-6040	E	.84	XPP-10040	E	.84	XPP-12040	F	.87	XPP-15040	F	.93			
50	XPP-3050	D	.75	XPP-6050	E	.84	XPP-10050	E	.90	XPP-12050	F	.93	XPP-15050	F	.96			
60	XPP-3060	E	.75	XPP-6060	F	.84												
100	XPP-3100	F	.84															

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Size			
A	3/16x5/8	D	.265x7/8
B	3/16x3/4	E	3/8x3/4
C	.265x3/4	F	3/8x7/8

Net

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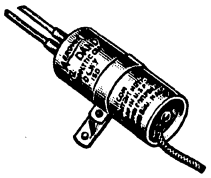
AEROVOX Capacitors



ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES QUADS

Metal Can Tublular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized units)

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium.
Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers. Also listed are Types PRSB—separate section, dual units for use in specialized applications.
Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.
Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct 1/16" from diameter and 1/4" from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.
Tolerance and surge voltage are in accordance with EIA Specification RS-154. **See page 346 for PRS Kit. AK-500.**

TYPE PRS — SINGLES

PRS No.	Cap. Mfd.	Size	Net Price★
		4V	
1050	2000	1 1/16 x 2 3/4	1.38
		6V	
1100	100	5/16 x 1 3/8	.72
1110	250	11/16 x 1 3/4	.81
1120	500	13/16 x 1 3/4	.93
1130	1000	15/16 x 2 1/4	1.14
1140	1500	1 1/16 x 2 1/4	1.26
1145	2000	1 1/16 x 2 3/4	1.38
		10V	
1147	2000	1 1/16 x 2	1.47
		12V	
1150	100	11/16 x 1 1/4	.72
1160	250	11/16 x 2	.87
1170	500	13/16 x 2	1.02
1180	1000	15/16 x 2 1/4	1.35
		15V	
1200	100	11/16 x 1 1/2	.75
1210	250	11/16 x 2	.93
1220	500	15/16 x 2 1/4	1.05
1230	1000	1 1/16 x 2 1/4	1.38
		25V	
1250	10	5/16 x 1 1/4	.60
1255	16	5/16 x 1 1/4	.60
1260	25	5/16 x 1 1/4	.60
1265	50	5/16 x 1 1/4	.66
1270	100	11/16 x 1 3/4	.81
1280	250	13/16 x 1 3/4	1.02
1290	500	1 1/16 x 2 1/4	1.38
1295	1000	1 1/16 x 2 1/2	1.98
		50V	
1300	2	5/16 x 1 1/4	.54
1310	5	5/16 x 1 1/4	.60
1320	10	5/16 x 1 1/4	.60
1330	20	5/16 x 1 1/4	.60
1340	25	5/16 x 1 1/4	.63
1350	50	11/16 x 1 1/2	.72
1360	100	11/16 x 1 3/4	.84
1370	150	13/16 x 1 3/4	.93
1380	250	15/16 x 1 3/4	1.05
1390	500	1 1/16 x 2 1/4	1.44
		150V	
1400	4	5/16 x 1 1/4	.60
1405	8	5/16 x 1 1/4	.63
1410	10	5/16 x 1 3/8	.63
1420	12	5/16 x 1 3/8	.66
1430	16	11/16 x 1 1/2	.69
1440	20	11/16 x 1 3/4	.72
1450	24	11/16 x 1 3/4	.75
1460	30	13/16 x 1 1/2	.78
1470	40	13/16 x 1 3/4	.81
1480	50	15/16 x 1 3/4	.84
1490	60	15/16 x 1 3/4	.90
1500	80	15/16 x 1 3/4	.96
1510	100	15/16 x 2 1/4	1.05
1520	150	1 1/16 x 2 1/4	1.14
1530	200	1 1/16 x 3	1.32
1540	300	1 1/16 x 4	1.53
		250V	
1550	4	11/16 x 1 1/4	.60
1555	8	11/16 x 1 1/2	.69
1560	12	11/16 x 1 3/4	.75
1565	16	13/16 x 1 1/2	.78
1570	20	13/16 x 1 1/2	.81
1575	30	13/16 x 2 1/4	.87
1580	40	13/16 x 2 1/4	.93
1585	50	15/16 x 2 1/4	1.02
1590	60	15/16 x 2 1/4	1.08
1595	100	1 1/16 x 3 1/4	1.47

TYPE PRS—SINGLES (cont.)

PRS No.	Cap. Mfd.	Size	Net Price★
		350V	
1600	4	11/16 x 1 1/2	.63
1610	8	11/16 x 1 3/4	.72
1620	10	13/16 x 1 3/4	.75
1630	12	13/16 x 1 3/4	.78
1640	16	13/16 x 1 3/4	.84
1650	24	13/16 x 2	.93
1660	30	13/16 x 2 1/4	.99
1670	40	15/16 x 2 1/4	1.05
1680	50	1 1/16 x 2 1/4	1.11
1690	60	1 1/16 x 2 1/2	1.17
		450V	
1700	1	5/16 x 1 1/4	.66
1705	2	5/16 x 1 1/4	.69
1710	4	11/16 x 1 1/2	.69
1715	8	11/16 x 1 7/8	.75
1720	10	11/16 x 1 7/8	.78
1725	12	13/16 x 1 7/8	.81
1730	16	13/16 x 2	.84
1735	20	13/16 x 2 1/4	.93
1740	30	15/16 x 2 1/4	1.02
1750	40	15/16 x 2 3/4	1.08
1760	50	15/16 x 3 1/2	1.26
1770	60	1 1/16 x 3 1/4	1.41
1780	80	1 1/16 x 3 3/4	1.68
1790	100	1 1/16 x 4	1.92
		500V	
1800	4	11/16 x 2	.72
1805	8	13/16 x 1 3/4	.78
1810	10	15/16 x 1 3/4	.81
1815	12	15/16 x 2 1/4	.84
1820	16	1 1/16 x 2 1/4	.90
1830	20	1 1/16 x 2 1/4	.96
1840	30	1 1/16 x 2 3/4	1.05
		600V	
1845	4	7/8 x 2 3/4	1.44
1850	8	15/16 x 3 1/16	1.71
1860	10	15/16 x 3 1/16	1.77
1870	12	1 1/16 x 3 1/16	1.89
1880	16	1 1/16 x 3 5/16	2.07
1890	20	1 1/16 x 3 5/16	2.13
		700V	
1900	8	15/16 x 3 1/16	1.74
1905	10	1 1/16 x 3 1/16	1.83
1910	12	1 1/16 x 3 5/16	1.95
1915	16	1 1/16 x 3 5/16	2.10

TYPE PRS — DUALS

			15V	
2020	500-150		13/16 x 1 3/4	1.62
			25V	
2050	10-10		11/16 x 1 1/4	.84
2075	20-20		11/16 x 1 1/4	.84
			150V	
2150	8-8		11/16 x 1 3/4	.90
2155	16-8		11/16 x 2 1/4	.93
2160	20-10		13/16 x 1 1/2	.93
2165	20-20		13/16 x 1 3/4	.99
2170	30-20		15/16 x 1 3/4	1.02
2175	30-30		15/16 x 1 3/4	1.08
2180	40-20		15/16 x 1 3/4	1.05
2190	40-30		15/16 x 2 1/4	1.08
2195	40-40		15/16 x 2 1/4	1.08
2200	50-30		15/16 x 2 1/4	1.17
2210	50-50		15/16 x 2 1/4	1.26
2220	80-20		15/16 x 2 1/4	1.29
2230	80-40		15/16 x 2 3/4	1.32
2240	80-50		1 1/16 x 2 3/4	1.41

TYPE PRS—DUALS (cont.)

PRS No.	Cap. Mfd.	Size	Net Price★
		200V	
2245	100-100	1 1/16 x 3 1/4	1.92
		200V	
2250	8-8	11/16 x 1 3/4	.90
2260	16-8	11/16 x 2 1/4	.96
2280	16-16	13/16 x 1 3/4	1.02
2290	30-30	15/16 x 2 1/4	1.29
		250V	
2300	10-10	13/16 x 1 3/4	.99
2320	16-16	13/16 x 2 1/4	1.02
2330	20-20	15/16 x 2 1/4	1.11
2340	30-30	15/16 x 2 1/4	1.35
		300V	
2345	50-10	1 1/16 x 2 1/4	1.50
		450V	
2350	8-8	13/16 x 2 1/4	1.02
2360	10-10	15/16 x 2 1/4	1.11
2370	16-8	15/16 x 2 1/4	1.20
2380	16-16	1 1/16 x 2 1/4	1.35
2390	20-20	15/16 x 3	1.50
2400	30-30	1 1/16 x 3 1/4	1.80
2410	40-20	1 1/16 x 3 1/4	1.77
2420	40-40	1 1/16 x 4	2.01
2430	50-30	1 1/16 x 4	2.04

TYPE PRS — TRIPLES

			15V	
3200	500-100-100		15/16 x 1 13/16	1.80
			150V	
3500	20-20-20		15/16 x 1 3/4	1.51
3550	30-20-10		15/16 x 1 3/4	1.51
3555	30-25-20		1 1/16 x 1 3/4	1.51
3560	30-30-20		1 1/16 x 1 3/4	1.58
3570	30-30-30		15/16 x 2 1/4	1.58
3600	40-20-20		15/16 x 2 1/4	1.58
3625	40-30-20		15/16 x 2 1/4	1.58
3650	40-40-20		1 1/16 x 2 1/4	1.63
3675	40-40-40		1 1/16 x 2 1/4	1.67
3700	50-30-10		15/16 x 2 1/4	1.58
3750	50-30-20		1 1/16 x 2 1/2	1.63
3800	80-40-20		1 1/16 x 2 1/2	1.74
3825	80-50-20		1 1/16 x 2 3/4	1.74
			450V	
3900	10-10-10		1 1/16 x 2 3/4	1.67

TYPE PRS — MULTIPLE VOLTAGES

PRS No.	Cap. Mfd.	VCDW	Size	Net Price★
4150	40-40/250	150/10	1 1/16 x 2 1/4	1.71
4200	20-20/20	150/25	1 3/16 x 1 3/4	1.48
4300	30-20/20	150/25	1 5/16 x 1 3/4	1.50
4350	30-20/100	150/25	1 5/16 x 2 1/4	1.58
4400	40-20/20	150/25	1 5/16 x 1 3/4	1.53
4425	40-30/20	150/25	1 5/16 x 2 1/4	1.55
4450	40-40/20	150/25	1 5/16 x 2 1/4	1.59
4475	40-40/100	150/25	1 1/16 x 2 1/4	1.67
4500	50-30/20	150/25	1 1/16 x 1 3/4	1.59
4525	50-30/100	150/25	1 1/16 x 2 1/4	1.67
4550	50-30/250	150/25	1 1/16 x 2 3/4	1.81
4575	50-50/20	150/25	1 1/16 x 2 1/4	1.66
4600	80-20/100	150/25	1 1/16 x 2 1/4	1.69
4650	80-40/20	150/25	1 1/16 x 2 1/4	1.69
4700	20-20/20	450/25	1 1/16 x 2 3/4	1.86
*4800	20/100	475/50	1 x 2 11/16	1.56

*No Tube

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE PRS — AC Rated

PRS No.	Cap. Mfd.	Size	Net Price★
		10 VAC	
6200	8	13/16 x 1 1/2	.75
		25 VAC	
6400	20	15/16 x 1 1/2	.75
		50 VAC	
6500	30	7/8 x 1 5/8	.84
6550	60	3/4 x 2 5/8	.93

NP-PRS — NON-POLARIZED

		3 VNP	
7050	1000	1 1/16 x 2 1/4	1.29
		6 VNP	
7100	500	15/16 x 2 1/4	1.11
		10 VNP	
7200	25	7/16 x 1 1/4	.69
7220	50	13/16 x 1 1/2	.72
7240	450	1 1/16 x 1 3/4	1.20
7245	500	1 1/16 x 1 3/4	1.20
		15 VNP	
7250	500	1 1/16 x 2 1/4	1.31
7275	1000	1 1/16 x 3 3/4	1.74
		25 VNP	
7300	2	13/16 x 1 1/2	.69
7315	10	11/16 x 1 3/4	.75
7330	50	13/16 x 1 1/2	.84
7340	100	15/16 x 1 3/4	1.02
		30 VNP	
7350	20	13/16 x 1 1/2	.75
		50 VNP	
7400	2	13/16 x 1 1/4	.69
7405	4	13/16 x 1 1/4	.75
		150 VNP	
7450	40	1 1/16 x 2 1/4	1.02
		200 VNP	
7500	2	11/16 x 1 1/4	.75
		300 VNP	
7525	1	5/16 x 1 1/4	.75
		350 VNP	
7550	5	15/16 x 1 3/4	.78
7555	10	1 1/16 x 2	.93
7560	20	1 1/16 x 2 1/4	1.09
		400 VNP	
7650	10	1 1/16 x 2	.93
		450 VNP	
7750	4	15/16 x 1 1/2	.84

TYPE PRS — B

			150V	
5200	20-20		1 x 2 1/2	1.23
5250	40-20		1 x 3	1.32
			250V	
5300	16-8		1 x 2 1/2	1.26
5400	16-16		1 x 3	1.32
			450V	
5500	8-8		1 x 3	1.29
5600	16-8		1 1/8 x 3 1/2	1.47
5700	16-16		1 3/8 x 3 1/2	1.68

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Net

AEROVOX Capacitors

ELECTROLYTICS — (Continued)

TYPE PTT-PWE TUBULAR PLASTIC-CASED ELECTROLYTICS

Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly MINIATURE electrolytic tubualr that will handle full sized loads. Aerovox Type PTT-PWE units feature "Polycap" cases that are the next best thing to metal cans for maximum protection against humidity. Advanced construction technicues assure long capacitor life. Units are rated for operation at temperatures from —30°C to +65°C.

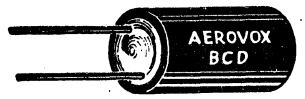
Cap.	PTT #	Size	PWE #	Net Price★
	3 VDCW			
1	PTT 1	A	PWE 3001	.75
2	PTT 2	A	PWE 3002	.75
3	PTT 3	A	PWE 3003	.75
5	PTT 4	A	PWE 3005	.75
8	PTT 5	A	PWE 3008	.75
10	PTT 6	A	PWE 3010	.75
15	PTT 7	A	PWE 3015	.75
20	PTT 8	A	PWE 3020	.75
25	PTT 9	A	PWE 3025	.75
30	PTT 10	A	PWE 3030	.75
40	PTT 11	A	PWE 3040	.75
50	PTT 12	B	PWE 3050	.75
100	PTT 13	C	PWE 3100	.84
200	PTT 14	E	PWE 3200	.87
250	PTT 15	F	PWE 3250	.96
300	PTT 16	G	PWE 3300	.99
500	PTT 17	K	PWE 3500	1.05
	6 VDCW			
1	PTT 18	A	PWE 6001	.75
2	PTT 19	A	PWE 6002	.75
3	PTT 20	A	PWE 6003	.75
5	PTT 21	A	PWE 6005	.75
8	PTT 22	A	PWE 6008	.75
10	PTT 23	A	PWE 6010	.75
15	PTT 24	A	PWE 6015	.75
20	PTT 25	A	PWE 6020	.75
25	PTT 26	B	PWE 6025	.75
30	PTT 27	B	PWE 6030	.75
40	PTT 28	C	PWE 6040	.75
50	PTT 29	C	PWE 6050	.75
100	PTT 30	E	PWE 6100	.90
200	PTT 31	F	PWE 6200	.96
250	PTT 32	H	PWE 6250	1.02
300	PTT 33	K	PWE 6300	1.05
	10 VDCW			
1	PTT 34	A	PWE 10001	.75
2	PTT 35	A	PWE 10002	.75
3	PTT 36	A	PWE 10003	.75
5	PTT 37	A	PWE 10005	.75
8	PTT 38	A	PWE 10008	.75
10	PTT 39	A	PWE 10010	.75
15	PTT 40	A	PWE 10015	.75
20	PTT 41	B	PWE 10020	.75
25	PTT 42	C	PWE 10025	.75
30	PTT 43	C	PWE 10030	.75
40	PTT 44	C	PWE 10040	.75
50	PTT 45	D	PWE 10050	.75
100	PTT 46	E	PWE 10100	.90
200	PTT 47	K	PWE 10200	.99
	12 VDCW			
1	PTT 48	A	PWE 12001	.75
2	PTT 49	A	PWE 12002	.75
3	PTT 50	A	PWE 12003	.75
5	PTT 51	A	PWE 12005	.75
8	PTT 52	A	PWE 12008	.75
10	PTT 53	A	PWE 12010	.75
15	PTT 54	B	PWE 12015	.75
20	PTT 55	C	PWE 12020	.75
25	PTT 56	C	PWE 12025	.75
30	PTT 57	C	PWE 12030	.75
	12VDCW (Continued)			
40	PTT 58	C	PWE 12040	.75
50	PTT 59	E	PWE 12050	.75
100	PTT 60	H	PWE 12100	.90
	15 VDCW			
1	PTT 61	A	PWE 15001	.75
2	PTT 62	A	PWE 15002	.75
3	PTT 63	A	PWE 15003	.75
5	PTT 64	A	PWE 15005	.75
8	PTT 65	A	PWE 15008	.75
10	PTT 66	B	PWE 15010	.75
15	PTT 67	B	PWE 15015	.75
20	PTT 68	C	PWE 15020	.75
25	PTT 69	C	PWE 15025	.75
30	PTT 70	C	PWE 15030	.75
40	PTT 71	C	PWE 15040	.75
50	PTT 72	E	PWE 15050	.75
100	PTT 73	H	PWE 15100	.90
	25 VDCW			
1	PTT 74	A	PWE 25001	.75
2	PTT 75	A	PWE 25002	.75
3	PTT 76	A	PWE 25003	.75
5	PTT 77	A	PWE 25005	.75
8	PTT 78	A	PWE 25008	.75
10	PTT 79	B	PWE 25010	.75
15	PTT 80	C	PWE 25015	.75
20	PTT 81	C	PWE 25020	.75
25	PTT 82	C	PWE 25025	.75
30	PTT 83	D	PWE 25030	.75
40	PTT 84	D	PWE 25040	.81
50	PTT 85	E	PWE 25050	.84
100	PTT 86	J	PWE 25100	1.02
	50 VDCW			
1	PTT 87	A	PWE 50001	.75
2	PTT 88	A	PWE 50002	.75
3	PTT 89	A	PWE 50003	.75
5	PTT 90	B	PWE 50005	.75
8	PTT 91	C	PWE 50008	.75
10	PTT 92	C	PWE 50010	.75
15	PTT 93	D	PWE 50015	.75
20	PTT 94	D	PWE 50020	.75
25	PTT 95	F	PWE 50025	.81
30	PTT 96	H	PWE 50030	.81
40	PTT 97	K	PWE 50040	.87
50	PTT 98	K	PWE 50050	.90

SIZE CHART

A	¼ x ¾
B	¼ x ⅞
C	⅜ x ¾
D	⅜ x ⅞
E	⅜ x 1
F	⅜ x 1¼
G	⅜ x 1⅜
H	⅜ x 1½
J	⅜ x 1¾
K	⅜ x 2

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE B C D UPRIGHT MOUNTING PLASTIC CASED ELECTROLYTICS



"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.
Small size and type of mounting make these units ideal for use in any printed wiring circuit.
Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.
High purity foil insures long life and low leakage.
Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.
Positive lead is identified by a + (plus) mark on case.

Cap. Mfds.	BCD No.	Size	Net Price★
	3VDCW		
1	3001	A	.87
2	3002	A	.87
3	3003	A	.87
4	3004	A	.87
5	3005	A	.87
6	3006	A	.87
8	3008	A	.87
10	3010	A	.87
15	3015	A	.87
20	3020	A	.87
25	3025	A	.87
35	3035	A	.90
50	3050	A	.93
75	3075	A	1.02
100	3100	B	1.05
150	3150	C	1.05
200	3200	C	1.08
250	3250	D	1.17
300	3300	D	1.20
	5VNP		
5	5005	B	1.08
	6VDCW		
1	6001	A	.87
2	6002	A	.87
3	6003	A	.87
4	6004	A	.87
5	6005	A	.87
6	6006	A	.87
8	6008	A	.87
10	6010	A	.87
15	6015	A	.87
20	6020	A	.87
25	6025	A	.87
35	6035	A	.90
50	6050	A	.93
75	6075	B	1.02
100	6100	C	1.05
150	6150	D	1.14
200	6200	D	1.17
100-30	6x10030	E	1.17
	10 VNP		
5	10005	G	1.11
	10VDCW		
10	10010	A	.87
25	10025	A	.90
50	10050	B	.96
80	10080	C	1.02
100	10100	C	1.08
190	10190	E	1.17
50-30	10x5030	D	1.05
50-50	10x5050	D	1.11
80-50	10x8050	D	1.17
80-80	10x8080	D	1.20
	12VDCW		
1	12001	A	.87
2	12002	A	.87
3	12003	A	.87
4	12004	A	.87
5	12005	A	.90
6	12006	A	.90
8	12008	A	.90
10	12010	A	.90
15	12015	A	.93
20	12020	A	.93
25	12025	A	.93
35	12035	A	.93
50	12050	B	.99
75	12075	C	1.05
100	12100	D	1.14

Cap. Mfds.	BCD No.	Size	Net Price★
	12VDCW (Continued)		
150	12150	E	1.17
250	12250	K	1.26
500	12500	F	1.32
	15VDCW		
1	15001	A	.87
2	15002	A	.87
3	15003	A	.87
4	15004	A	.87
5	15005	A	.90
6	15006	A	.90
8	15008	A	.90
10	15010	A	.90
15	15015	A	.93
20	15020	A	.93
25	15025	A	.93
35	15035	B	.93
50	15050	C	.99
75	15075	D	1.08
100	15100	D	1.17
	18 VDCW		
100	18100	H	1.17
	20 VDCW		
200	20200	J	1.26
	25VDCW		
1	25001	A	.90
2	25002	A	.90
3	25003	A	.93
4	25004	A	.99
5	25005	A	.99
6	25006	A	.99
8	25008	A	.99
10	25010	B	.99
15	25015	B	.99
20	25020	B	.99
25	25025	B	.99
35	25035	C	1.05
50	25050	D	1.05
75	25075	D	1.17
	50 VDCW		
1	50001	A	.90
2	50002	A	.90
3	50003	A	.93
4	50004	A	.99
5	50005	A	.99
6	50006	A	.99
8	50008	A	.99
10	50010	B	.99
15	50015	C	.99
20	50020	C	.99
25	50025	D	.99

SIZE CODE

A—⅜ x ⅝	
B—⅜ x ¾	
C—⅞ x ¾	
D—½ x ¾	
E—½ x ⅞	
F—⅝ x 1⅜	
G—½ x 1⅛	
H—⅝ x ¾	
J—⅝ x 1⅛	
K—½ x 1¼	

LEAD SPACING

Diameter	Spacing
⅜	.187
⅞	.250
½	.312

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net
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AEROVOX Capacitors

ELECTROLYTICS — (Continued)

Type SRE 'Bantam" Metal Tubular Electrolytics

Although smaller than the PRS the SRE handles full size loads at operating temperature range of 0°C to 85°C at rated voltage. Sealed in aluminum cans and furnished with a cardboard insulating sleeve. Negative grounded to can. If required without tube specify type SREN.

Cap.	Size	Net Price★
	3V	
25	⅜ x 1	.51
50	⅜ x 1	.57
100	⅜ x 1	.66
200	⅜ x 1⅝	.69
300	½ x 1⅛	.78
500	½ x 1⅝	.84
	6V	
5	⅜ x 1	.48
25	⅜ x 1	.51
50	⅜ x 1	.57
100	½ x 1⅛	.72
250	½ x 1⅝	.81
	12V	
50	⅜ x 1⅛	.60
100	½ x 1	.72
200	½ x 1⅝	.81
	15V	
100	½ x 1⅛	.75
	25V	
5	⅜ x 1	.60
10	⅜ x 1	.60
20	⅜ x 1	.60
25	⅜ x 1	.60
	25V (Continued)	
50	½ x 1	.66
100	½ x 1⅝	.81
	50V	
1	⅜ x 1	.54
2	⅜ x 1	.54
5	⅜ x 1	.60
10	⅜ x 1	.60
15	⅜ x 1⅛	.60
25	½ x 1	.63
	70V	
10	⅜ x 1	.63
	150V	
5	⅜ x 1	.60
10	⅜ x 1⅝	.63
15	½ x 1⅛	.69
20	½ x 1⅝	.72
25	½ x 1⅝	.75

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE G Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size ⅞—16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

Cap. Mfd.	Size—DxH	Net Price★
	SINGLE TYPE G450	
	450 525V.	
	VDCW Surge Peak	
10	1⅜ x 2¼	2.54
20	1⅜ x 2¼	2.64
40	1⅜ x 2¾	2.83
80	1⅜ x 4¼	3.31
	SINGLE TYPE G500	
	500 550V.	
	VDCW Surge Peak	
10	1⅜ x 2¼	2.60
	DUAL TYPE G-450	
	450 525V.	
	VDCW Surge Peak	
10-10	1⅜ x 2¼	3.05
20-20	1⅜ x 2¾	3.26

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE FF Photo-Flash Capacitors

Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Furnished in molded black plastic container with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

Type Number	Cap. Mfd.	Working Voltage	Surge Voltage	Watt Secs.	Size	Net Price★
FF-1	300	450	525	30	2 1/16 x 4⅜	8.85
FF-2	525	450	525	53	2 1/16 x 4⅜	13.02

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE AEP Plug-in Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.

For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type C151's, 2's and 3's, as listed in MIL Specification C62A.

Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

Type	Capacity Mfd.	VDCW	Diam. x Hght.	Net Price★
	SINGLE ELEMENT UNITS			
AEP400P	2000	15	1⅜ x 2½	3.43
AEP5A	25	25	1 3/32 x 2½	2.29
AEP4D	20	150	1 3/32 x 2½	2.29
AEP8D	40	150	1 3/32 x 2½	2.33
AEP2J	10	450	1 3/32 x 2½	2.34
AEP3J	15	450	1 3/32 x 2½	2.39
AEP4J	20	450	1 3/32 x 2½	2.44
AEP6J	30	450	1 3/32 x 2½	2.53
AEP8J	40	450	1 3/32 x 2½	2.77
AEP16J	80	450	1⅜ x 3½	3.25
AEP2L	10	600	1⅜ x 4¼	2.84
	DUAL ELEMENT UNITS			
AEP44D	20-20	150	1 3/32 x 2½	2.46
AEP88D	40-40	150	1 3/32 x 2½	2.54
AEP22J	10-10	450	1 3/32 x 2½	2.57
AEP44J	20-20	450	1⅜ x 2½	2.90
AEP88J	40-40	450	1⅜ x 3	3.31
	TRIPLE ELEMENT UNITS			
AEP444D	20-20-20	150	1 3/32 x 2½	2.61
AEP88D4A	40-40/20	150/25	1 3/32 x 2½	2.67
AEP222J	10-10-10	450	1 3/32 x 2½	2.78
AEP22J4A	10-10/20	450/25	1 3/32 x 2½	2.69
AEP44J4A	20-20/20	450/25	1⅜ x 2½	3.03
AEP444J	20-20-20	450	1⅜ x 3	3.29
AEP822J	40-10-10	450	1⅜ x 3	3.23
	QUADRUPLE ELEMENT UNITS			
AEPG444D4A	20-20-20/20	150/25	1⅜ x 2½	2.87
AEPG2222J	10-10-10-10	450	1⅜ x 2½	3.11
AEPG444J4A	20-20-20/20	450/25	1⅜ x 3	3.34

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE GL

These ever-popular inverted-mounting, aluminum can units, are furnished with the same high purity materials as the more expensive type E and G. Two separate color-coded leads 4" long for each section. Inverted chassis mounting can be made, using palnut and threaded neck. Threaded neck size ⅝—18.

SINGLE ELEMENT

Cap. Mfd.	Size—DxH	Net Price★
	TYPE GL600	
	600 VDCW 750V. Surge Peak	
4	1⅜ x 4	1.71
8	1⅜ x 4½	1.85
16	1⅜ x 4½	2.37
	TYPE GL475	
	475 VDCW 550V. Surge Peak	
8	1⅜ x 3	1.52
12	1⅜ x 3	1.61
16	1⅜ x 3	1.66
	TYPE GL450	
	450 VDCW 525V. Surge Peak	
4	1⅜ x 3	1.50
8	1⅜ x 3	1.54
10	1⅜ x 3	1.56
12	1⅜ x 3	1.58
16	1⅜ x 3	1.62
20	1⅜ x 3	1.66
30	1⅜ x 3	1.76
40	1⅜ x 3	1.86
80	1⅜ x 4	2.46

DUAL ELEMENT

Cap. Mfd.	Size—DxH	Net Price★
	TYPE GL475	
8-8	1⅜ x 4	1.76
	TYPE GL450	
8-8	1⅜ x 4	1.73
10-10	1⅜ x 4	1.77
12-12	1⅜ x 4	1.81
16-8	1⅜ x 4	1.81
16-16	1⅜ x 4	1.90
20-20	1⅜ x 4	1.98

TRIPLE ELEMENT

	TYPE GL450	
8-8-8	1⅜ x 4	1.93
10-10-10	1⅜ x 4	1.98

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

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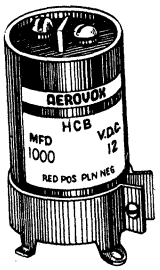
AEROVOX Capacitors

ELECTROLYTICS — (Continued)



TYPES HCB and NPB
High Capacity/Low Voltage Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

Both types feature heavy-duty, moisture resistant bakelite cases which eliminate the need for outer cardboard insulating tubes. Operating temperature range from —40°C to +85°C. Capacitance tolerance up to 150 VDCW —10% +100%, over 150 VDCW —10% +50%. High capacity etched plate construction assures long trouble-free operation. Units supplied with wrap around—footed brackets for vertical mtg.—horizontal mtg. available on Special Order.

TYPE HCB

Capacity MFD	Size	Net Price★
	6 VDCW—8V Surge	
12000	1 13/16 x 4 3/8	8.16
	12 VDCW—18V Surge	
500	1 7/16 x 2 3/4	2.70
1000	1 7/16 x 2 3/4	2.94
2000	1 7/16 x 2 3/4	3.36
3000	1 7/16 x 3 3/8	3.96
4000	1 7/16 x 3 3/8	4.60
6000	1 13/16 x 3 3/8	5.20
10000	1 13/16 x 4 3/8	7.82
	18 VDCW—25V Surge	
500	1 7/16 x 2 3/4	2.89
1000	1 7/16 x 2 3/4	3.31
1500	1 7/16 x 2 3/4	3.39
2000	1 7/16 x 2 3/4	3.47
4000	1 13/16 x 3 3/8	5.37
6000	1 13/16 x 3 3/8	5.62
	25 VDCW—40V Surge	
500	1 7/16 x 2 3/4	2.89
1000	1 7/16 x 2 3/4	3.19
1250	1 7/16 x 3 3/8	3.43
2000	1 7/16 x 3 3/8	4.15
3000	1 13/16 x 3 3/8	4.88
4000	1 13/16 x 3 3/8	5.58
6000	1 13/16 x 4 3/8	7.12

HCB (Continued)

Capacity MFD	Size	Net Price★
	50 VDCW—75V Surge	
500	1 7/16 x 3 3/8	3.33
1000	1 7/16 x 3 3/8	4.25
2000	1 13/16 x 3 3/8	5.06
3000	1 13/16 x 4 3/8	7.00
4000	2 1/16 x 4 3/8	7.32

TYPE NPB

MFD Capacity	Size	Net Price★
	125 VNP—175V Surge	
200	1 7/16 x 3 3/8	4.04
300	1 13/16 x 3 3/8	4.87
500	1 13/16 x 4 3/8	6.30
	300 VNP—375V Surge	
15	1 7/16 x 2 3/4	2.87
100	1 13/16 x 3 3/8	6.13
200	2 1/16 x 4 3/8	7.00
	450 VNP—525V Surge	
50	1 13/16 x 3 3/8	6.30
100	2 1/16 x 4 3/8	7.70

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 249

TYPE E
Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.

These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

SINGLE ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	450 VDCW	
10	1 x 2 1/4	1.87
20	1 x 2 3/4	1.97
40	1 3/8 x 2 3/4	2.37
80	1 3/8 x 4 1/4	2.82
	250 VDCW	
500	2 x 4 1/8	4.27
	50 VDCW	
10	1 x 1 3/4	1.77
25	1 x 1 3/4	1.79
	25 VDCW	
10	1 x 1 3/4	1.77
25	1 x 1 3/4	1.78
	1 VNP	
1250	1 3/8 x 2 1/4	3.10

DUAL ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	450 VDCW	
10-10	1 3/8 x 2 1/4	2.43
20-20	1 3/8 x 2 3/4	2.64

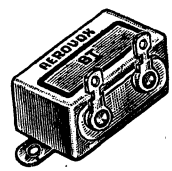
TRIPLE ELEMENT

	450 VDCW	
10-10-10	1 3/8 x 2 1/4	2.92
	350/50 VDCW	
30-30/50	1 3/8 x 4 1/4	3.14

QUADRUPLE ELEMENT

	350/150 VDCW	
20-10/5-5	1 3/8 x 4 1/4	3.03

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249



TYPE BT
Drawn-Case "Bathtub" Electrolytic Capacitors

Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

Capacity Mfd.	L x W x H	Net Price★
	TYPE BT500 500 VDCW	
4	2 x 2 x 1 1/8	2.87
8	2 x 1 3/4 x 1 1/8	2.94
	TYPE BT450 450 VDCW	
8	1 3/4 x 1 x 1	2.64
12	1 3/4 x 1 1/4 x 1	2.70
16	2 x 1 3/4 x 1	3.03
	TYPE BT350 350 VDCW	
8	1 3/4 x 1 x 7/8	2.58
12	1 3/4 x 1 x 7/8	2.65
16	1 3/4 x 1 x 1	2.72
20	1 3/4 x 1 1/4 x 1 1/8	2.75
	TYPE BT150 150 VDCW	
8	1 3/4 x 1 x 7/8	2.44
12	1 3/4 x 1 x 7/8	2.47
16	1 3/4 x 1 x 7/8	2.50
24	1 3/4 x 1 x 7/8	2.55
30	1 3/4 x 1 x 1	2.58
40	1 3/4 x 1 x 1	2.61
	TYPE BT50 50 VDCW	
10	1 3/4 x 1 x 7/8	2.41
25	1 3/4 x 1 x 7/8	2.43
50	1 3/4 x 1 x 7/8	2.53
	TYPE BT25 25 VDCW	
10	1 3/4 x 1 x 7/8	2.41
25	1 3/4 x 1 x 7/8	2.43
50	1 3/4 x 1 x 7/8	2.47

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net
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AEROVOX Capacitors

ELECTROLYTICS — (Continued)

TYPE QE
Energy Storage and Computer Grade Electrolytics

Precisely engineered for high reliability and long operating life, QE capacitors have a life expectancy of greater than 10 years when operated within ratings. Units are rated for operation at temperatures from —20°C to +85°C. Manufactured in drawn aluminum cases in four diameters and one standard 4½" height to facilitate bus bar connections for purposes of ganging units in banks. Units find wide application in computers, power supplies, telephone networks and industrial electronic equipment.

MAXIMUM RATINGS IN MFD

VDCW	Surge	A—1 1/16" Diameter	B—2 1/16" Diameter	C—2 5/16" Diameter	D—3 1/16" Diameter
5	7	8,500	25,000	45,000	65,000
10	13	6,500	17,000	32,000	40,000
15	20	6,000	15,000	25,000	36,000
25	40	4,000	8,000	15,000	25,000
35	45	2,000	5,000	8,000	12,000
50	65	1,750	4,250	7,000	10,000
75	100	1,000	2,500	4,250	6,000
100	135	675	1,950	3,500	4,500
150	185	600	1,250	2,400	3,250
200	250	300	900	1,450	2,250
250	300	250	700	1,250	2,000
300	350	200	575	1,050	1,600
350	400	170	450	750	1,200
400	475	150	350	625	1,000
450	525	125	300	550	850

All units are 4½ inches in height over insulating tube. Diameters measured over insulating tube. Bare can size is obtained by subtracting 1/16" from diameter and 3/8" from height.

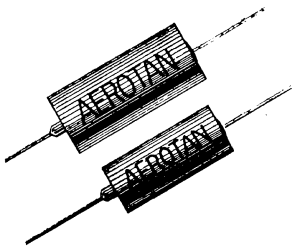
STOCK LISTING*

Cat. No.	VDCW	Cap. Mfd.	Size	Net Price★
QE15A-6	15	6,000	A	4.98
QE15B-13P5	15	13,500	B	7.86
QE15C-22	15	22,000	C	11.61
QE15D-33	15	33,000	D	13.26
QE25C-15	25	15,000	C	12.00
QE25D-25	25	25,000	D	13.20
QE35A-2	35	2,000	A	4.20
QE35B-5	35	5,000	B	6.90
QE35C-8	35	8,000	C	10.05
QE35D-12	35	12,000	D	12.45
QE50A-1P75	50	1,750	A	4.44
QE50C-5P5	50	5,500	C	9.00
QE50C-6P5	50	6,500	C	10.05
QE50D-9	50	9,000	D	12.00
QE150A-P4	150	400	A	3.96
QE150A-P5	150	500	A	4.53
QE250C-1	250	1,000	C	11.55
QE350C-P7	350	700	C	10.65
QE350D-1	350	1,000	D	13.80
QE450A-P125	450	125	A	5.61

*For values other than those shown above, contact your authorized Aerovox Distributor or Aerovox Corporation, Distributor Division, New Bedford, Mass.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

"AEROTAN" SOLID TANTALUM CAPACITORS
Type ST12 (uninsulated) Type ST13 (insulated)



Aerotan capacitors are solid electrolyte units featuring sintered tantalum anodes and hermetically sealed in metal cases. The use of a semiconductor electrolyte provides an assembly that is completely dry with absolute freedom from corrosion or electrolyte leakage. All Aerotan units offer excellent stability, high reliability, rugged construction, subminiature sizes and long shelf life. Units are designed to meet all the requirements of MIL-C-26655A (proposed). Continuous operation over the temperature range of —80° to +125°C. Voltage ratings of 6, 10, 15, 20 and 35 VDC are for +65°C operation. Standard tolerance ±20%. Also available at ±10%.

SURGE VOLTAGE

Rated Voltage	65°C Surge Voltage	85°C Surge Voltage	125°C Surge Voltage
6 VDC	8 VDC	8 VDC	5 VDC
10 VDC	12 VDC	12 VDC	9 VDC
15 VDC	17 VDC	16 VDC	12 VDC
20 VDC	23 VDC	21 VDC	16 VDC
35 VDC	41 VDC	35 VDC	24 VDC

CASE SIZES

Case Size	ST12 Dimensions Uninsulated Case		ST13 Dimensions Insulated Case		Lead Diam.
	L±.031"	D +.016" —.010"	L±.031"	D +.016" —.010"	+.005" —.001"
A	.250"	.125"	.322"	.135"	.020"
B	.438"	.175"	.510"	.185"	.020"
C	.650"	.279"	.722"	.289"	.025"
D	.750"	.341"	.822"	.351"	.025"

INSULATED TYPE ST13

CAP. MFD.	6 VDCW	Net Price★	10 VDCW	Net Price★	15 VDCW	Net Price★	20 VDCW	Net Price★	35 VDCW	Net Price★
1.0	A	1.51	A	1.51	A	1.51	A	1.51	A	1.51
1.2	A	1.51	A	1.51	A	1.51	A	1.51	A	1.51
1.5	A	1.51	A	1.51	A	1.51	A	1.51	B	1.57
1.8	A	1.51	A	1.51	A	1.51	A	1.51	B	1.57
2.2	A	1.51	A	1.51	A	1.51	A	1.51	B	1.57
2.7	A	1.51	A	1.51	A	1.51	B	1.57	B	1.57
3.3	A	1.51	A	1.51	A	1.51	B	1.57	B	1.57
3.9	A	1.51	A	1.51	B	1.57	B	1.57	B	1.57
4.7	A	1.51	A	1.51	B	1.57	B	1.57	B	1.57
5.6	A	1.51	B	1.57	B	1.57	B	1.57	B	1.57
6.8	A	1.51	B	1.57	B	1.57	B	1.57	B	1.57
8.2	B	1.57	B	1.57	B	1.57	B	1.57	C	2.57
10.	B	1.57	B	1.57	B	1.57	B	1.57	C	2.57
12.	B	1.57	B	1.57	B	1.57	B	1.57	C	2.57
15.	B	1.57	B	1.57	B	1.57	B	1.57	C	2.57
18.	B	1.57	B	1.57	B	1.57	C	2.57	C	2.57
22.	B	1.57	B	1.57	B	1.57	C	2.57	C	2.57
27.	B	1.57	B	1.57	C	2.57	C	2.57	D†	4.75
33.	B	1.57	B	1.57	C	2.57	C	2.57	D†	4.75
39.	B	1.57	B	1.57	C	2.57	C	2.57	D†	4.75
47.	B	1.57	C	2.57	C	2.57	C	2.57	D†	4.75
56.	B	1.57	C	2.57	C	2.57	D	4.75		
68.	C	2.57	C	2.57	C	2.57	D	4.75		
82.	C	2.57	C	2.57	D	4.75	D	4.75		
100.	C	2.57	C	2.57	D	4.75	D	4.75		
120.	C	2.57	C	2.57	D	4.75				
150.	C	2.57	D	4.75	D	4.75				
180.	C	2.57	D	4.75						
220.	D	4.75	D	4.75						
270.	D	4.75								
330.	D	4.75								

†To be released at a later date.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

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AEROVOX Capacitors

PAPER CAPACITORS

BI-ELECTRIC® MYLAR* PAPER BYPASS TUBULARS

Radial Lead Mounting

Two famous dielectrics . . . quality kraft tissue and Mylar* film . . . are combined with Aerolene impregnant and exclusive "Polycap"® plastic case to bring you a truly superior bypass capacitor. The advanced construction techniques presented in "Bi-Electric" capacitors offer distinct advantages over other radial lead types. "Polycap"® case provides a solid uniform coating from end-to-end. Controlled end-fills provide sealed protection, and leads cannot crack end-fill or pull-out when leads are extended for axial mounting. Standard capacitance tolerance is ±10%. Operating temperature range is —30°C to +100°C.

* DuPont Trademark

Capacity Mfd.	Cat #	Size	Net Price★
	200 VDCW		
.01	BE2S1	11/32 x 11/16	.150
.015	BE2S15	3/8 x 11/16	.150
.02	BE2S2	7/16 x 27/32	.150
.022	BE2S22	7/16 x 27/32	.150
.047	BE2S47	7/16 x 27/32	.180
.05	BE2S5	15/32 x 1 1/8	.180
.1	BE2P1	17/32 x 1 5/32	.210
.15	BE2P15	9/16 x 1 5/32	.240
.2	BE2P2	5/8 x 1 5/16	.270
.22	BE2P22	5/8 x 1 5/16	.270
.25	BE2P25	11/16 x 1 5/16	.270
.33	BE2P33	11/16 x 1 5/16	.300
.47	BE2P47	3/4 x 1 5/16	.360
.5	BE2P5	3/4 x 1 5/16	.360
	400 VDCW		
.01	BE4S1	3/8 x 11/16	.150
.015	BE4S15	7/16 x 27/32	.150
.02	BE4S2	7/16 x 27/32	.180
.022	BE4S22	7/16 x 27/32	.180
.025	BE4S25	7/16 x 27/32	.180
.03	BE4S3	7/16 x 27/32	.180
.033	BE4S33	7/16 x 27/32	.180
.04	BE4S4	15/32 x 1 1/8	.210
.047	BE4S47	15/32 x 1 1/8	.210
.05	BE4S5	15/32 x 1 1/8	.210
.068	BE4S68	1/2 x 1 1/8	.240
.1	BE4P1	9/16 x 1 5/32	.240
.15	BE4P15	5/8 x 1 5/16	.300
.2	BE4P2	11/16 x 1 5/16	.330
.22	BE4P22	11/16 x 1 5/16	.360
.25	BE4P25	11/16 x 1 5/16	.360
.33	BE4P33	3/4 x 1 5/16	.420
	600 VDCW		
.001	BE6D1	11/32 x 11/16	.150
.0012	BE6D12	11/32 x 11/16	.150
.0015	BE6D15	11/32 x 11/16	.150
.0018	BE6D18	11/32 x 11/16	.150
.002	BE6D2	11/32 x 11/16	.150
.0022	BE6D22	11/32 x 11/16	.150
.0025	BE6D25	3/8 x 11/16	.150
.003	BE6D3	3/8 x 11/16	.150
.0033	BE6D33	3/8 x 11/16	.150
.0039	BE6D39	3/8 x 11/16	.150
.004	BE6D4	13/32 x 11/16	.150
.0047	BE6D47	13/32 x 11/16	.150
.005	BE6D5	13/32 x 27/32	.150
.006	BE6D6	13/32 x 27/32	.150
.0068	BE6D68	13/32 x 27/32	.180
.007	BE6D7	13/32 x 27/32	.180
.0075	BE6D75	13/32 x 27/32	.180
.008	BE6D8	13/32 x 27/32	.180
.0082	BE6D82	13/32 x 27/32	.180
.01	BE6S1	13/32 x 27/32	.180
.015	BE6S15	15/32 x 13/16	.180
.018	BE6S18	17/32 x 7/8	.180
.02	BE6S2	17/32 x 7/8	.180
.022	BE6S22	17/32 x 7/8	.180
.025	BE6S25	15/32 x 1 5/32	.210
.027	BE6S27	15/32 x 1 5/32	.210
.03	BE6S3	15/32 x 1 5/32	.210
.033	BE6S33	15/32 x 1 5/32	.210
.039	BE6S39	15/32 x 1 5/32	.210
.04	BE6S4	17/32 x 1 5/32	.210
.047	BE6S47	17/32 x 1 5/32	.240
.05	BE6S5	17/32 x 1 5/32	.240
.056	BE6S56	17/32 x 1 5/32	.240
.06	BE6S6	5/8 x 1 5/16	.240
.068	BE6S68	5/8 x 1 5/16	.270
.075	BE6S75	5/8 x 1 5/16	.270
.1	BE6P1	5/8 x 1 5/16	.270
.15	BE6P15	11/16 x 1 5/16	.330
.2	BE6P2	3/4 x 1 5/16	.360
.22	BE6P22	3/4 x 1 11/16	.360
	1000 VDCW		
.001	BE10D1	11/32 x 11/16	.180
.0012	BE10D12	11/32 x 11/16	.180
.0015	BE10D15	11/32 x 11/16	.180
.0018	BE10D18	11/32 x 11/16	.180
.002	BE10D2	3/8 x 11/16	.180
.0022	BE10D22	3/8 x 11/16	.180
.0033	BE10D33	13/32 x 27/32	.180
.0047	BE10D47	13/32 x 27/32	.210
.0068	BE10D68	15/32 x 13/16	.210
.01	BE10S1	17/32 x 7/8	.240
.018	BE10S18	15/32 x 1 5/32	.240
.025	BE10S25	17/32 x 1 5/32	.240
.027	BE10S27	17/32 x 1 5/32	.240
.033	BE10S33	5/8 x 1 5/16	.300
.039	BE10S39	5/8 x 1 5/16	.300
.047	BE10S47	5/8 x 1 5/16	.300
.056	BE10S56	11/16 x 1 5/16	.330
.068	BE10S68	11/16 x 1 5/16	.330
.075	BE10S75	11/16 x 1 5/16	.360
.1	BE10P1	3/4 x 1 5/16	.360

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE V84C—V161

AEROFILM® (MYLAR*) CAPACITORS

V84C-V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C. Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is ±20% but also available in ±5% and ±10%.

Cap. Mfd.	Size	Net Price★
	200 VDCW	
.0047	9/32 x 15/16	.150
.0068	9/32 x 15/16	.150
.01	9/32 x 15/16	.150
.015	9/32 x 15/16	.150
.022	5/16 x 1	.150
.033	5/16 x 1	.150
.047	5/16 x 1 1/16	.150
.05	5/16 x 1 1/16	.150
.068	11/32 x 1 1/16	.180
.1	3/8 x 1 1/4	.210
.15	13/32 x 1 1/4	.240
.22	1/2 x 1 1/4	.240
.25	1/2 x 1 1/4	.270
.33	1/2 x 1 1/2	.330
.47	9/16 x 1 1/2	.390
.68	19/32 x 1 3/4	.510
1.0	13/16 x 1 7/8	.570
	400 VDCW	
.0015	9/32 x 15/16	.150
.0022	9/32 x 15/16	.150
.0033	9/32 x 15/16	.150
.0047	9/32 x 15/16	.150
.0068	9/32 x 15/16	.150
.01	5/16 x 1	.150
.015	5/16 x 1	.150
.02	5/16 x 1 1/16	.150
.022	11/32 x 1 1/16	.150
.03	3/8 x 1 1/16	.180
.033	3/8 x 1 1/16	.180
.047	3/8 x 1 1/4	.180
.05	3/8 x 1 1/4	.180
.068	7/16 x 1 1/4	.210
.1	1/2 x 1 1/4	.210
.15	9/16 x 1 1/2	.360
.22	9/16 x 1 1/2	.390
.25	9/16 x 1 3/4	.390
.33	5/8 x 1 3/4	.510
.47	11/16 x 2	.660
.5	11/16 x 2	.690
.68	25/32 x 2	.870
1.0	7/8 x 2 1/8	1.050
	600 VDCW	
.001	9/32 x 15/16	.150
.0015	9/32 x 15/16	.150
.002	9/32 x 15/16	.150
.0022	9/32 x 15/16	.150
.003	9/32 x 15/16	.150
.0033	9/32 x 15/16	.150
.004	5/16 x 1	.150
.0047	5/16 x 1	.150
.005	5/16 x 1	.150
.0068	5/16 x 1	.180
.01	11/32 x 1 1/16	.180
.015	3/8 x 13/16	.180
.02	3/8 x 13/16	.180
.022	13/32 x 13/16	.180
.03	7/16 x 13/16	.210
.033	7/16 x 13/16	.210
.04	1/2 x 1 1/4	.240
.047	1/2 x 1 1/4	.240
.05	1/2 x 1 1/4	.240
.068	1/2 x 1 1/2	.270
.075	1/2 x 1 1/2	.270
.1	9/16 x 1 1/2	.300
.15	5/8 x 1 5/8	.390
.2	23/32 x 1 5/8	.480
.22	3/4 x 1 5/8	.510
.25	3/4 x 1 3/4	.540
.33	13/16 x 1 7/8	.780
.47	7/8 x 2 1/8	.840
.5	7/8 x 2 1/8	.870

*Dupont trademark

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net

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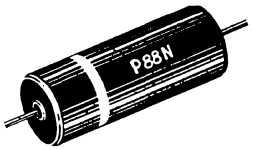
AEROVOX Capacitors

PAPER CAPACITORS (cont.)



TYPE P88N
†DURANITE
Duranite Blue Molded Tubular Capacitors

Toughest capacitors ever offered for radio-electronic equipment, DURANITE capacitors. Design, impregnant, processing, and casing insure glove-fitting contact and seal throughout. DURANITE provides a permanent, non-varying, rock-hard casing, does not dry out, does not develop cracks or fissures. Pig-tail leads firmly imbedded, won't pull out, won't work loose. Moisture-proof; operate from sub-zero to over 212°F. Exposure to temperatures of 250°F. will not impair life or performance, no deterioration on the shelf. A white band around one end of the capacitor identifies the outside foil.

Cap. Mfd.	200 V Size	200 V Net Price★	400 V Size	400 V Net Price★	600 V Size	600 V Net Price★	1000 V Size	1000 V Net Price★
.0004					A	.150		
.0005					A	.150		
.001	A	.150	A	.150	A	.150	A	.300
.0015	A	.150	A	.150	A	.150	A	.300
.002	A	.150	A	.150	A	.150	A	.300
.0022	A	.150	A	.150	A	.150	A	.300
.003	A	.150	A	.150	A	.150	B	.300
.0033	A	.150	A	.150	A	.150	B	.300
.004	A	.150	A	.150	A	.150	B	.300
.0047	A	.150	A	.150	A	.150	B	.300
.005	A	.150	A	.150	A	.150	B	.300
.006	A	.150	A	.150	B	.150	B	.300
.0068	A	.150	A	.150	B	.150	B	.300
.007	A	.150	A	.150	B	.150	B	.300
.0075	A	.150	A	.150	B	.180	B	.300
.008	A	.150	A	.150	B	.180	B	.300
.01	A	.150	A	.150	B	.180	B	.300
.015	A	.150	B	.150	B	.180	D	.300
.02	B	.150	B	.180	D	.180	E	.300
.022	B	.150	B	.180	D	.180	E	.300
.025	B	.150	B	.180	D	.210	E	.300
.03	B	.150	B	.180	D	.210	E	.300
.038	B	.150	B	.180	E	.210	E	.360
.04	B	.150	D	.180	E	.210	F	.360
.047	B	.180	D	.180	E	.210	F	.360
.05	B	.180	D	.180	E	.240	F	.360
.06	D	.180	E	.180	F	.240	F	.360
.068	D	.180	E	.210	F	.240	F	.420
.075	D	.180	E	.210	F	.270		
.1	D	.210	E	.210	F	.270		
.15	E	.210	F	.240	F	.360		
.2	F	.240	F	.270	G	.390		
.22	F	.240	F	.270	G	.420		
.25	F	.270	F	.300	G	.450		
.27	F	.270	G	.330	H	.480		
.33	F	.300	G	.360	H	.570		
.47	F	.360	G	.450	H	.750		
.5	F	.360	G	.450		.750		
1.0	H	.630	H	.750				

Size	Length x Dia.	Size	Length x Dia.
A	1⅛ x 11/32	E	1⅝ x 1⅞2
B	1⅜ x 1⅝2	F	2 x 3⅛2
		G	2¼ x ¾
D	1⅜ x 1⅝2	H	2½ x 1

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Type VBC Vibrator Buffer Capacitors

These units are heavy-duty, Hyvol M impregnated, vibrator buffer capacitors in ceramic tubes, specifically designed for severe-service auto-radio applications.

Type	Cap. Mfd.	Size	Net Price★
VBC-2	.001	⅜ x 1¼	.300
VBC-3	.002	⅜ x 1½	.300
VBC-4	.0022	⅜ x 1½	.300
VBC-5	.003	⅜ x 1½	.300
VBC-6	.0033	7/16 x 1½	.300
VBC-7	.004	7/16 x 1½	.300
VBC-8	.0047	7/16 x 1½	.300
VBC-9	.005	1⅝2 x 1½	.300
VBC-22	.006	1⅜2 x 1½	.300
VBC-23	.0068	1⅞2 x 1½	.300
VBC-24	.007	1⅞2 x 1½	.330
VBC-25	.0075	1⅞2 x 1½	.330
VBC-26	.008	1⅞2 x 1½	.330
VBC-27	.01	9/16 x 1½	.330
VBC-28	.015	⅝ x 1¾	.330
VBC-29	.02	⅝ x 2	.330
VBC-32	.025	11/16 x 2	.330
VBC-33	.03	¾ x 2	.390
VBC-34	.05	13/16 x 2	.480
VBC-35	.015-.015	13/16 x 2	.480
VBC-45	.007-3000 WVDC	11/16 x 2	.390
	Vibrator "HASH" Capacitor VHC36		
	.5 Mfd. 100 Volts WVDC	13/16 x 1⅛	.300

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors

Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space

Aerolene impregnated and assembled into a Polycap® case, Autopass capacitors are then sealed with a thermo-setting end-seal. The end-seal surface is below the outside edges of the plastic case, permitting the capacitor to be mounted flush against the mounting surface. The leads of these capacitors are stiff, and critical spacing is closely held to facilitate their use in mechanized assemblies. Outside foil is identified by wire lead nearest to edge of case or by a paint stripe on the case nearest the outside foil.

Cap.	200	Net Price★	400	Net Price★	600	Net Price★
.001	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0015	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0022	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0033	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0047	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0068	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1⅜	.210
.01	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1⅜	.240
.015	⅜ x 1	.210	⅜ x 1⅜	.210	7/16 x 1⅜	.240
.022	⅜ x 1⅜	.210	7/16 x 1⅜	.210	7/16 x 1⅜	.240
.033	⅜ x 1⅜	.210	7/16 x 1⅜	240	½ x 1¼	.270
.047	7/16 x 1⅜	.210	½ x 1¼	.240	½ x 1½	.270
.068	7/16 x 1⅜	.240	½ x 1½	.240	⅝ x 1⅞	.300
.1	½ x 1¼	.240	⅝ x 1¼	.270	⅝ x 1⅞	.330
.15	⅝ x 1¼	.270	⅝ x 1⅞	.300	¾ x 1⅞	.420
.22	⅝ x 1⅞	.300	⅝ x 1⅞	.360	¾ x 2⅝2	.540
.33	⅝ x 1⅞	.330	¾ x 1⅞	.420	⅞ x 2 1⅞2	.690
.47	¾ x 1⅞	.390				
1.0	⅞ x 2 1⅞2	.630				

Standard Tolerance ±20%. Also available in 10% on special order.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AEROVOX Capacitors

PAPER (Contd)

TYPE P84CM DURAMIC® Ceramic-Cased Tubular Capacitors

New ceramic (dense steatite) encased paper tubular for performance above that of conventional paper tubulars. New thermosetting end-seals for exceptional humidity protection—250 hour humidity test as per REC-118. Firmly imbedded terminals will not work loose or pull out. Operating temps are —55°C to +85°C. Meets all requirements of EIA Spec. REC-118, hi-temp range, class M.

As present stocks of values below 2500 VDCW are depleted they will be replaced by other standard types V84C-V161, Bi-Electrics, or VBC's.

Cap. Mfd.	200 VDCW Size Dia. x Lgth.	Net Price★	400 VDCW Size Dia. x Lgth.	Net Price★	600 VDCW Size Dia. x Lgth.	Net Price★	1000 VDCW Size Dia. x Lgth.	Net Price★	1600 VDCW Size Dia. x Lgth.	Net Price★
.0001										
.00025										
.0005					5/16 x 1	.150			5/16 x 1	.390
.001					5/16 x 1	.150	5/16 x 1	.180	3/8 x 1 1/4	.390
.0015					5/16 x 1	.150	5/16 x 1	.180	3/8 x 1 1/4	.390
.002					5/16 x 1	.150	5/16 x 1	.180	3/8 x 1 1/4	.390
.0022					5/16 x 1	.150	5/16 x 1	.180	3/8 x 1 1/4	.390
.003					5/16 x 1	.150	5/16 x 1	.180	7/16 x 1 1/4	.390
.0033					5/16 x 1	.150	5/16 x 1	.180	7/16 x 1 1/4	.390
.004					5/16 x 1	.150	3/8 x 1 1/4	.180	7/16 x 1 1/4	.390
.0047					5/16 x 1	.150	3/8 x 1 1/4	.210	7/16 x 1 1/4	.390
.005					5/16 x 1	.150	3/8 x 1 1/4	.210	7/16 x 1 1/2	.390
.006					5/16 x 1	.150	3/8 x 1 1/4	.210	17/32 x 1 5/16	.390
.0068			5/16 x 1	.150	3/8 x 1 1/4	.180	3/8 x 1 1/4	.210	17/32 x 1 5/16	.390
.007					3/8 x 1 1/4	.180			17/32 x 1 9/16	.420
.0075					3/8 x 1 1/4	.180	3/8 x 1 1/4	.240	17/32 x 1 9/16	.420
.008			5/16 x 1	.150	3/8 x 1 1/4	.180			17/32 x 1 9/16	.420
.01	5/16 x 1	.150	5/16 x 1	.150	3/8 x 1 1/4	.180	7/16 x 1 1/4	.240	17/32 x 1 9/16	.420
.015	3/8 x 1 1/4	.150	3/8 x 1 1/4	.150	3/8 x 1 1/4	.180	7/16 x 1 1/4	.240	5/8 x 1 7/8	.420
.02	3/8 x 1 1/4	.150	3/8 x 1 1/4	.150	7/16 x 1 1/4	.180	17/32 x 1 5/16	.240	5/8 x 1 7/8	.420
.022	3/8 x 1 1/4	.150	3/8 x 1 1/4	.150	7/16 x 1 1/4	.180	17/32 x 1 5/16	.240	3/4 x 2	.420
.025							17/32 x 1 9/16	.240		
.03	3/8 x 1 1/4	.150	7/16 x 1 1/4	.180	17/32 x 1 5/16	.210	5/8 x 1 7/8	.270	3/4 x 2	.420
.033	3/8 x 1 1/4	.150	7/16 x 1 1/4	.180	17/32 x 1 5/16	.210	5/8 x 1 7/8	.300	3/4 x 2	.420
.04					17/32 x 1 9/16	.240	5/8 x 1 7/8	.300		
.047	7/16 x 1 1/4	.180	7/16 x 1 1/2	.180	17/32 x 1 5/16	.240	5/8 x 1 7/8	.300	13/16 x 2 1/4	.420
.05	7/16 x 1 1/4	.180	7/16 x 1 1/2	.180	17/32 x 1 5/16	.240	5/8 x 1 7/8	.300	13/16 x 2 1/4	.420
.06							11/16 x 1 7/8	.330		
.068	17/32 x 1 5/16	.180	17/32 x 1 5/16	.210	9/16 x 1 7/8	.240	3/4 x 2	.330	1 x 2 1/4	.450
.075					5/8 x 1 7/8	.270	3/4 x 2	.360		
.1	17/32 x 1 5/16	.210	17/32 x 1 5/16	.210	5/8 x 1 7/8	.270	13/16 x 2 1/4	.360	1 x 2 7/8	.480
.15	17/32 x 1 3/4	.210	5/8 x 1 7/8	.240	3/4 x 2	.300	1 x 2 1/4	.360		
.2	5/8 x 1 7/8	.240	5/8 x 1 7/8	.240	13/16 x 2 1/4	.390	1 x 2 1/4	.390		
.22	5/8 x 1 7/8	.240	5/8 x 1 7/8	.270	13/16 x 2 1/4	.420	1 x 2 7/8	.420		
.25	5/8 x 1 7/8	.270	3/4 x 2	.300	7/8 x 2 1/4	.450	1 x 2 7/8	.450		
.33	3/4 x 2	.300	3/4 x 2	.390	1 x 2 1/4	.600				
.47	13/16 x 2 1/4	.360	13/16 x 2 1/4	.450	1 x 2 7/8	.720				
.5	13/16 x 2 1/4	.390	13/16 x 2 1/4	.480	1 x 2 7/8	.750				
.68	15/16 x 2	.450	1 x 2 1/4	.510	*1 5/16 x 3	.780				
1.0	1 x 2 1/4	.570	1 x 2 7/8	.750	**1 9/16 x 3					

Cap. Mfd.	2500 VDCW Size Dia. x Lgth.	Net Price★	6000 VDCW Size Dia. x Lgth.	Net Price★	10,000 VDCW Size Dia. x Lgth.	Net Price★	12,500 VDCW Size Dia. x Lgth.	Net Price★	15,000 VDCW Size Dia. x Lgth.	Net Price★
.0001	3/8 x 1 1/2	.570	3/8 x 1 3/4	.660	7/16 x 2 1/4	.690			17/32 x 2 1/2	1.05
.00025	3/8 x 1 1/2	.570	3/8 x 1 3/4	.660	11/16 x 2 1/4	.690	11/16 x 2 1/4	.960	3/4 x 2 1/2	1.05
.0005	3/8 x 1 1/2	.570	7/16 x 1 3/4	.660	11/16 x 2 1/4	.690			7/8 x 2 1/2	1.14
.001	3/8 x 1 1/2	.570	17/32 x 1 3/4	.720	15/16 x 2 1/4	.690			*1 x 2 1/2	1.17
.003	7/16 x 1 1/2	.570	5/8 x 2 1/8	.750	1 x 2 3/4	.780			*1 1/4 x 3	1.26
.005	17/32 x 1 5/16	.600	3/4 x 2 1/8	.750	*1 x 3	.900			*1 3/8 x 3 1/4	1.38
.01	5/8 x 1 7/8	.630	15/16 x 2 1/8	.930	*1 3/8 x 3	1.08				
.03	13/16 x 2	.750	*1 3/16 x 2 5/8	1.47						
.05	25/32 x 2 5/8	.870	*1 3/16 x 3 1/8	1.80						
.1	*1 x 2 5/8	1.11								
.15	*1 x 3 1/8	1.17								

* Will be furnished in cardboard tube Type P84M. ** Will be furnished in cardboard tube Type P84K.

SPECIAL CLOSE TOLERANCE UNITS FOR HORIZONTAL OSCILLATOR CIRCUIT.
P84CM — Tolerance ± 10%

Cap. Mfd.	600 VDCW Size Dia. x Lgth.	Net Price★	1000 VDCW Size Dia. x Lgth.	Net Price★
.0012	5/16 x 1	.170	5/16 x 1	.200
.0039	5/16 x 1	.200		
.0082	3/8 x 1 1/4	.200		
.018	7/16 x 1 1/4	.200	1/2 x 1 1/2	.260
.025	7/16 x 1 5/8	.230	17/32 x 1 5/16	.300
.027	7/16 x 1 1/2	.230	17/32 x 1 5/16	.300
.033	17/32 x 1 5/16	.230	17/32 x 1 7/8	.330
.039	17/32 x 1 5/16	.260	9/16 x 1 7/8	.330
.057	9/16 x 1 5/8	.260	11/16 x 1 7/8	.370

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Net

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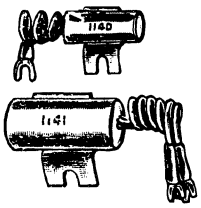
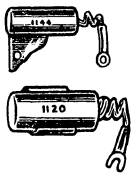
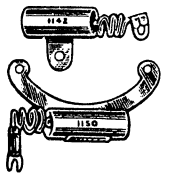
AEROVOX Capacitors

AUTO-RADIO CAPACITORS







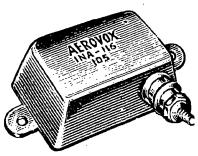
Type	Cap. Mfd.	Net Price
SINGLE ELEMENT		
Car Generators		
Type 1120	1.0	.54
Type 1140	0.5	.39
DUAL ELEMENT		
Type 1141	0.5-0.5	.90
Ford Auto Radios		
Type 1144	0.5	.48
For 1936 Models		
Type 1150	0.5	.60

Type	Cap. Mfd.	Net Price
Motorola Auto Radios		
Type 1466	.0008	.54
Ammeter Condenser		
Type 1160	0.5	.54
Gas Gage Filter Condenser		
Type 1143-G	0.05	.54
Oil Gage Filter Condenser		
Type 1142-O	0.25	.54

Note: All auto radio capacitors subject to Federal Excise Tax.

FILTERS

R-F NOISE CAPACITANCE SUPPRESSORS

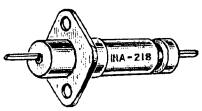


BYPASS
INA-116, INA-117, INA-118

These radio-noise suppression capacitors have been especially designed for use in aircraft, vehicular and industrial electric and electronic fields.

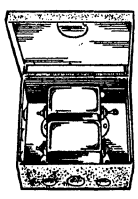
Primary application of the INA-116, INA-117, and INA-118, is as r-f bypass capacitors from line to ground in low voltage DC supply lines. These units are rated at full 150 VDC over temperature range of —55°C. to +71°C. and 60 VDC from —55°C. to +95°C.

Types INA-218, INA-219, INA-220 and INA-221 are feed-thru capacitors in which the effective section inductance is minimized by the so-called "duct-type" design. Significant reductions can often be realized in size, weight and in some instances, overall cost by the use of feed-thru capacitors as compared to the conventional r-f suppression filter designs. The feed-thru capacitors listed below may be used with good characteristics to 1000 megacycles. Operating temperature range is —55°C. to +85°C.

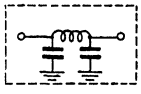


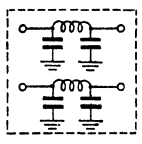
FEED-THRU
INA-218, INA-219, INA-220, INA-221

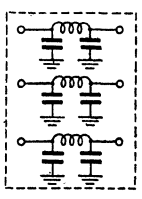
Type	Maximum Voltage	Nom. Cap. Rating (Mfd.)	Case Size	Mounting Centers	Net Price
INA-117	150 VDC	2.0	1¾ x 1 x ¾	2⅛	3.60
INA-116	150 VDC	4.0	1¾ x 1 x ⅞	2⅛	4.50
INA-118	150 VDC	10.0	2 x 2 x ⅞	2⅜	6.00
INA-218	115 VAC - 200 VDC	.01	7/16 x 1	1 3/16	3.69
INA-219	115 VAC - 200 VDC	.05	7/16 x 2 3/16	1 3/16	3.69
INA 220	115 VAC - 200 VDC	.1	¾ x 1	1⅛	4.08
INA-221	115 VAC - 200 VDC	.25	¾ x 1 7/16	1⅛	4.50



HEAVY DUTY INDUSTRIAL FILTERS







Current Rating	One Circuit		
Amps	Type	L x W x D	Net Price
5	INB-104	4½ x 5 x 3	10.80
10	INB-100	4½ x 5 x 3	12.30
30	INB-101	6 x 6 x 4	22.35
60	INB-121	6 x 6 x 4	27.76
100	INB-123	9 x 9 x 4	66.01
200	INB-125	9 x 9 x 4	120.02

Two Circuit		
Type	L x W x D	Net Price
INB-105	6 x 6 x 3	18.30
INB-102	6 x 6 x 3	21.30
INB-103	6 x 9 x 4	40.96
INB-122	6 x 9 x 4	51.76
INB-118	12 x 9 x 4	126.03
INB-126	12 x 9 x 4	225.05

Three Circuit		
Type	L x W x D	Net Price
INB-106	4½ x 9 x 3	25.81
INB-107	4½ x 9 x 3	30.31
INB-108	6 x 12 x 4	59.56
INB-119	6 x 12 x 4	75.77
INB-124	16 x 12 x 4	186.04
INB-127	16 x 12 x 4	330.07

†When present stocks are depleted these units will be subject to factory delivery cycle.

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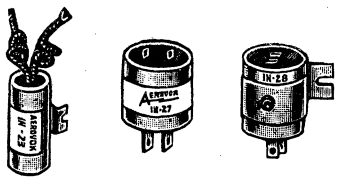
AEROVOX Capacitors

FILTERS (Cont'd)

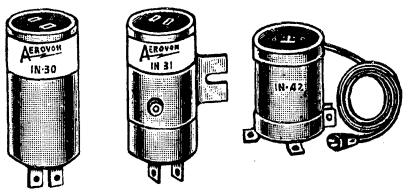
INTERFERENCE FILTERS



TYPE IN-23. Especially used for neon sign fixtures. Convenient mounting bracket. One filter for each fixture. Flexible leads. Also used on small motors. Size: 1 x 2⅛ inches.
Net Price .63

TYPE IN-27. Simple, inexpensive, plug-in unit where interference is slight. Size: 1⅜ x 1½ inches.
Net Price .90

TYPE IN-28. For use where ground is at considerable distance. Most efficient when mounted on appliance. Bracket supplied. Size: 1⅜ x 2 inches.
Net Price 1.20



TYPE IN-29. Effective plug-in unit for local noise sources of variable character but strong intensity. Especially suited for shavers and other vibrating devices. Sizes: 1⅜ x 3 inches.
Net Price 1.08

TYPE IN-30. Similar to IN-29 but with greater inductance to handle more severe noise interference. Size: 1⅜ x 3 inches.
Net Price 1.50

TYPE IN-31. Bracket mounted unit with high inductance. Size: 1⅜ x 3 inches.
Net Price 1.80

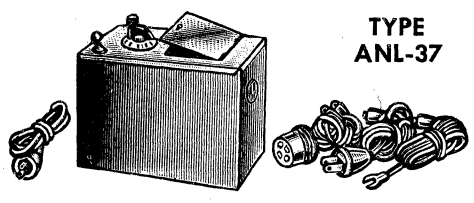
TYPE IN-42. Heavy duty unit for serious interference from power transmission lines, etc. Plugs into outlet. Appliance or radio plugs into receptacle in filter. Mounting ring provided. Rating: 110/220V AC; 6 amps. Size: 2½ inch dia. x 3¾ inch.
Net Price 4.50

TYPE IN-105. Low-impedance delta connected capacitor for fluorescent light fixture in bathtub case size 1¾" x 1" x ¾" high.
Net Price 1.05

TYPE IN-106. Best filter for fluorescents. Balanced network. Especially suited for radio and television salesrooms. One unit per fixture in series where power leads enter. Metal container with four stranded wire leads. Rating: 125V AC or DC; 2.6 amps. Size: 1⅞" x 3" x 1⅜" high.
Net Price 2.28

INTERFERENCE ANALYZER

TYPE ANL-37



The Aerovox Filter Selector eliminates the guess work in determining the proper filter to use. Plugs between interfering device and outlet. Adjust selector switch until noise is eliminated or minimized. Dial then indicates type filter (IN27 thru IN42) to be used.

Unit in handsome, sturdy metal cabinet. Compartment contains necessary attachment plugs and clips. Size: 5½ x 5½ x 8 inches.
Net Price 17.50

†UHF-INTERFERENCE FILTERS

These latest filter units provide maximum attenuation from 150 KC well up into the UHF range. And they are extra-rugged, extra-compact, extra-efficient, by any comparison with previous filters.

Primary applications are in r.f. noise suppression work in military or commercial aircraft and for vehicular low-voltage DC applications. Also, for special applications such as battery or low-voltage DC filters, for shield room applications, and for critical equipment.

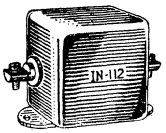
Available in seven standard types meeting a wide variety of applications. For extraordinary requirements, special filters can be developed and built to your order.

Type	Amps	VDC	L x W x H	Net Price
IN 148	2.0	150	1¾" x 1" x ⅞"	6.60
IN 150	3.0	150	1 13/16" x 1" x 1"	11.25
IN 151	5.0	150	1 13/16" x 1¼" x 1"	8.40
IN 152	10.0	150	2 1/16" x 1¼" x 1"	14.67
IN 153	25.0	150	2" x 2" x 1 3/16"	8.31
IN 156	40.0	150	5 1/16" x 1 13/32" x 1 1/16"	32.67
IN 154	100.0	150	3 1/16" x 2⅛" x 2⅞"	48.60

†BUILT-IN FILTERS

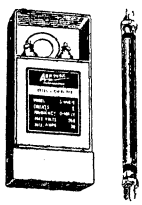
High attenuaton type, hermetically sealed units for use where severe interference is encountered and dependability is required. For permanently mounted applications. Aerovox special "Pi type" construction insures efficient radio noise reduction over low frequency broadcast shortwave, and television bands. Suitable for Army-Navy or aircraft equipment where immersion and severe humidity tests must be met.

For single wire unbalanced applications. For two filtering use one filter in each line. Filter case must be securely bonded to the filter appliance and ground for maximum efficiency. These filters when used on high voltage AC should be used only on permanently grounded equipment.



Type	Maximum Voltage	Maximum Amperes	L x W x H	Net Price
IN 110	250 VAC	5	2" x 2" x 1"	4.50
IN 111	250 VAC	10	2" x 2" x 1¼"	7.50
IN 112	250 VAC	30	3 1/16" x 2⅛" x 2⅞"	13.20

SCREEN ROOM FILTERS



Screen room filters comply with rigid specifications set up by the designers of the most advanced type screen rooms. All have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements plus high attenuation assure you of the finest equipment specially designed for screen room use. These filters are hermetically sealed and terminals at both ends are shielded using knock-outs for ¾" and 1" conduit.

1¼" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room.

Part No.	Curr. (Amps.)	Cir-cuits	CPS	Attenuation vs. Frequency	Size L x W x D	Net Price
*S-1076-1	50	1	0-60	100 db from 14 kc to 1000 mc	20" x 3⅝" x 3⅝"	95.00
*S-1076-2	50	2	0-60	100 db from 14 kc to 1000 mc	20" x 7 1/16" x 3⅝"	190.00
*S-1076-3	50	3	0-60	100 db from 14 kc to 1000 mc	20⅛" x 10⅞" x 3 1/16"	285.00
S-1142-1	30	1	0-400	100 db from 150 kc to 1000 mc	10⅛" x 2⅞" x 2 1/16"	36.50
S-1142-2	30	2	0-400	100 db from 150 kc to 1000 mc	10⅛" x 4¾" x 2 1/16"	48.50
S-1142-3	30	3	0-400	100 db from 150 kc to 1000 mc	10⅛" x 7" x 2 1/16"	62.50
S-1302-1	100	1	0-60	100 db from 200 kc to 1000 mc	14" x 4⅜" x 4⅜"	70.00
*S-1303-1	60	1	0-1000	100 db from 100 kc to 1000 mc	20" x 3⅝" x 3⅝"	100.00
S-1304-1	80	1	0-60	100 db from 14 kc to 1000 mc	22" x 4⅜" x 4⅜"	105.00
S-1305-1	100	1	0-1000	100 db from 100 kc to 1000 mc	22" x 4⅜" x 4⅜"	120.00
S-1361-1	100	1	0-60	100 db from 14 kc to 1000 mc	22" x 4⅜" x 4⅜"	130.00
S-1432-1	100	1	0-60	100 db from 100 kc to 1000 mc	22" x 4⅜" x 4⅜"	95.00
S-1455-1	100	1	0-60	100 db from 150 kc to 1000 mc	22" x 4⅜" x 4⅜"	90.00
					Overall L. Overall D.	
S-1468-A	50	1	0-1000	>60 db/1000 mc to 10000 mc	10¾" ⅞"	70.00
S-1468-B	100	1	0-1000	>60 db/1000 mc to 10000 mc	10¾" ⅞"	80.00

*250VAC/DC. All others 500VAC/DC.

†When present stocks are depleted these units will be subject to factory delivery cycle.

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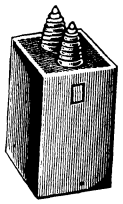
AEROVOX Capacitors

TYPE JP20†

High Voltage Transmitter Capacitors



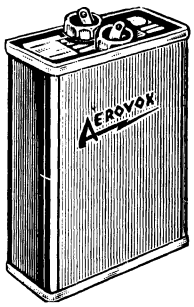
PAPER OIL

High quality oil capacitors for communications, electronic and general DC applications in industrial equipment. Single or parallel grouped from 6000 to 50,000 VDCW. Heavy duty, highest quality precision construction thruout. Aerovox Hyvol impregnated. Hermetically sealed for long life under exacting operating conditions. Single units rated at 30 KV or less normally supplied with capacitor element insulated from ground. Units built to order. Submit full application information when ordering.

SIZE: HEIGHT x WIDTH x DEPTH

Capacity Mfd.	6000 VDCW	Net Price	7500 VDCW	Net Price	10,000 VDCW	Net Price	12,500 VDCW	Net Price
.5			11 x 8 x 4	66.00			11 x 8 x 4	183.00
1.0			11 x 8 x 4	108.00	11 x 8 x 4	216.00	11 x 12 x 4	234.00
1.5								
2.0	11 x 8 x 4	150.00	11 x 8 x 4	165.00	11 x 12 x 4	276.00	13 x 12 x 6	291.00
4.0	11 x 12 x 4	183.00	13 x 12 x 4	249.00	13 x 12 x 6	336.00		
5.0	11 x 12 x 4	207.00			13 x 12 x 6	369.00	15 x 12 x 9½	552.00
6.0	13 x 12 x 4	234.00	13 x 12 x 6	300.00				
10.0	13 x 12 x 6	291.00						

Capacity Mfd.	15,000 VDCW	Net Price	20,000 VDCW	Net Price	25,000 VDCW	Net Price	37,500 VDCW	Net Price	50,000 VDCW	Net Price
.1							13 x 13½ x 4		13 x 13½ x 4	
.2					11 x 12 x 4	216.00	13 x 13½ x 6		15 x 13½ x 8½	
.25	11 x 8 x 4	174.00	11 x 8 x 4	207.00	11 x 12 x 4	291.00	15 x 13½ x 8½		15 x 15½ x 15	
.5	11 x 12 x 4	207.00	11 x 12 x 4	267.00	11 x 12 x 6	318.00	15 x 13½ x 15			
1.0	13 x 12 x 4	291.00	13 x 12 x 6	360.00	15 x 12 x 9½	474.00				
1.5			15 x 12 x 9½	483.00						
2.0	15 x 12 x 9½	384.00	15 x 12 x 9½	576.00						
3.0	15 x 12 x 9½	525.00					Prices on request		Prices on request	
4.0			15 x 14 x 16	1011.00						



For high-speed flash photography, flash signaling equipment, pulsing and other energy storage uses

TYPE PX—Energy Storage Capacitors

VDC Peak	Nominal Cap. Mfd.	Type No.	Net Price
	22.5 Watt Seconds		
1500	20	PX10D1	9.00
	50.0 Watt Seconds		
2000	28	PX14D3	13.20
	75.0 Watt Seconds		
2500	24	PX14D2	13.20
3000	16	PX18D1	15.00
	100.0 Watt Seconds		
2500	30	PX15D1	22.20
4000	12.5	PX20D1	14.40
Size: Depth x Width x Height			
	PX10D1	2½" x 3¾" x 4⅝"	
	PX15D1	4⁹⁄₁₆" x 3¾" x 6½"	
	ALL OTHERS	4⁹⁄₁₆" x 3¾" x 4⅝"	

TYPE JP12†

Vertical-Mounting Oil-Impregnated Oil-Filled

High-voltage, inverted or vertical, immersion-proof unit suitable for such high-voltage circuit applications as in television, cathode-ray tube power supplies, high-voltage rectifiers, or as a high-voltage by-pass capacitor.

Cap. Mfd.	Hght. x Dia.	Net Price	Cap. Mfd.	Hght. x Dia.	Net Price	Cap. Mfd.	Hght. x Dia.	Net Price
	2000 VDCW			4000 VDCW			7500 VDCW	
1.0	3¾ x 2¼	9.20	.05	2¾ x 2¼	13.80	.01	3¼ x 2¼	13.80
2.0	5¼ x 2¼	15.59	.1	3¾ x 2¼	15.20	.02	3¾ x 2¼	15.20
			.25	5¼ x 2¼	16.55	.03	3¾ x 2¼	16.55
	3000 VDCW					.05	4¼ x 2¼	18.40
.05	2¼ x 2¼	10.60		6000 VDCW		.1	4¾ x 2¼	22.94
.1	2¼ x 2¼	11.50	03	2¾ x 2¼	14.70			
.25	3¼ x 2¼	13.80	.05	3¾ x 2¼	16.55			
.5	3¾ x 2½	16.55	.1	4¾ x 2½	18.40			
1.0	5¼ x 2½	22.04						

Delivery on items listed on this page are subject to availability of raw materials and manufacturing cycles.

†When present stocks are depleted these units will be subject to factory delivery cycle.

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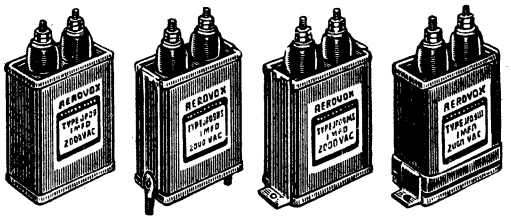
AEROVOX Capacitors

INDUSTRIAL SECTION — STANDARD TYPES

TYPE JPO9

PAPER CAPACITORS



JP09 JP09MSB JP09MS JP09MB

Immersion-proof units in sturdy, rectangular metal cans. High-voltage, screw-type, pillar terminals fitted with soldering lugs. Use of HYVOL allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¼ " x 3 7/16" and 3¼ " x 4 9/16" where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

CAP.	SIZE	Net Price★
	600 V	
.5	1 1/16 x 1 13/16 x 2 1/4	2.41
1.0	1 1/16 x 1 13/16 x 2 1/4	2.57
2.0	1 1/16 x 1 13/16 x 2 7/8	3.12
3.0	1 1/16 x 1 13/16 x 3 7/8	3.69
4.0	1 13/16 x 2 1/2 x 3 1/2	4.25
5.0	1 1/16 x 1 13/16 x 4 3/4	4.63
6.0	1 13/16 x 2 1/2 x 4 3/4	5.00
8.0	1 1/4 x 3 3/4 x 3 7/8	6.16
10.0	1 1/4 x 3 3/4 x 4 3/4	6.63
12.0	1 1/2 x 3 3/4 x 4 3/4	7.47
15.0	1 3/4 x 3 3/4 x 4 3/4	8.70
	1000 V	
.1	1 1/16 x 1 13/16 x 1 5/8	2.15
.25	1 1/16 x 1 13/16 x 2 1/4	2.50
.5	1 1/16 x 1 13/16 x 2 1/4	2.56
1.0	1 1/16 x 1 13/16 x 2 1/4	2.79
2.0	1 1/16 x 1 13/16 x 3 7/8	3.53
3.0	1 13/16 x 2 1/2 x 3 1/2	4.16
4.0	1 13/16 x 2 1/2 x 4 3/4	4.79
5.0	1 1/4 x 3 3/4 x 3 7/8	5.34
6.0	1 1/4 x 3 3/4 x 4 3/4	5.89
8.0	1 1/4 x 3 3/4 x 4 3/4	6.91
10.0	1 3/4 x 3 3/4 x 4 3/4	7.94
12.0	2 1/4 x 3 3/4 x 3 7/8	8.71
15.0	2 1/2 x 3 3/4 x 4 3/4	10.47
	1500 V	
.5	1 1/16 x 1 13/16 x 2 7/8	3.12
1.0	1 1/16 x 1 13/16 x 3 7/8	3.34
2.0	1 13/16 x 2 1/2 x 4 1/4	4.27
3.0	1 13/16 x 2 1/2 x 4 3/4	5.24
4.0	1 1/4 x 3 3/4 x 4 3/4	6.21
5.0	1 3/4 x 3 3/4 x 4 3/4	7.07
6.0	1 3/4 x 3 3/4 x 4 3/4	7.94
8.0	2 1/2 x 3 3/4 x 4 3/4	9.92
10.0	3 1/16 x 3 3/4 x 4 3/4	11.44
12.0	3 1/16 x 3 3/4 x 4 3/4	13.17
15.0	3 3/4 x 4 9/16 x 4 3/4	15.79
	2000 V	
.1	1 1/16 x 1 13/16 x 2 1/8	3.63
.25	1 1/16 x 1 13/16 x 2 1/8	3.81
.5	1 1/16 x 1 13/16 x 2 7/8	4.06
1.0	1 13/16 x 2 1/2 x 3 1/2	4.58
2.0	1 1/4 x 3 3/4 x 4 1/4	5.70
3.0	1 1/4 x 3 3/4 x 4 3/4	6.80
4.0	2 1/4 x 3 3/4 x 3 7/8	7.90
5.0	2 1/4 x 3 3/4 x 4 3/4	8.99
6.0	3 1/16 x 3 3/4 x 4 1/2	10.09
8.0	3 1/16 x 3 3/4 x 4 3/4	11.77
10.0	3 3/4 x 4 9/16 x 4 3/4	13.77
12.0	3 3/4 x 4 9/16 x 5 1/2	16.01
15.0	3 3/4 x 4 9/16 x 6 1/2	19.36
	2500 V	
.5	1 3/16 x 2 1/2 x 3 1/2	5.43
1.0	1 3/4 x 3 3/4 x 3 1/4	6.45
2.0	1 3/4 x 3 3/4 x 4 3/4	8.63
4.0	3 3/4 x 4 9/16 x 4	12.73
10.0	3 3/4 x 4 9/16 x 6 3/8	24.51
	3000 V	
.1	1 3/16 x 2 1/2 x 2	6.95
.25	1 3/16 x 2 1/2 x 2 1/2	7.39
.5	1 3/16 x 2 1/2 x 3 7/8	8.09
1.0	2 1/4 x 3 3/4 x 3 7/8	9.56
2.0	3 1/16 x 3 3/4 x 4 1/8	12.45
4.0	3 3/4 x 4 9/16 x 4 3/4	17.62
	4000 V	
.1	2 1/4 x 3 3/4 x 2 3/4	7.23
.25	2 1/4 x 3 3/4 x 2 3/4	7.85
.5	2 1/4 x 3 3/4 x 3 7/8	9.04
1.0	2 1/4 x 3 3/4 x 5 1/8	11.34
2.0	3 3/4 x 4 9/16 x 5 1/8	12.55
4.0	3 3/4 x 4 9/16 x 8 1/2	17.62
	5000 V	
.1	2 1/4 x 3 3/4 x 2 3/4	7.44
.25	2 1/4 x 3 3/4 x 3 7/8	8.22
.5	2 1/4 x 3 3/4 x 4 1/2	9.81
1.0	3 3/4 x 4 9/16 x 4 3/8	13.55
2.0	3 3/4 x 4 9/16 x 6	20.50
	6000 V	
.1	2 1/4 x 3 3/4 x 3 3/8	10.76
.25	2 1/4 x 3 3/4 x 4 1/2	13.16
1.0	3 3/4 x 4 9/16 x 7 1/2	19.49
	7500 V	
.1	2 1/4 x 3 3/4 x 3 7/8	13.45
.25	3 3/4 x 4 9/16 x 3 7/8	14.17
.5	3 3/4 x 4 9/16 x 5 1/8	15.99

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, *Add'l. for Brkts.

TYPE JP10

Cylindrical hermetically sealed can with screwbase molded cover for vertical mounting. These units are Hyvol impregnated and filled for long life and safe operation at temperatures from —55 to +85°C.

Standard units have two terminals, case floating.

Standard tolerance +20% —10%. Other tolerances available on request.

CAPACITY	600 V D C W SIZE	Net Price★	1000 V D C W SIZE	Net Price★	1500 V D C W SIZE	Net Price★
.5					1 1/2 x 2 3/8	3.77
1.0			1 1/2 x 2 7/8	3.82	1 1/2 x 3 7/8	4.12
2.0	1 1/2 x 2 7/8	3.57	1 1/2 x 4 1/2	4.53		
4.0	1 1/2 x 4 1/2	4.82				

★Request O.E.M. prices in the following quantities: 10 to 99

TYPE JP16M and JP16MCT

Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. JP16MCT is standard; JP16M is available in 400 and 600 volts. Operating temperature —55 to +85°C. Dual units have two terminals, case grounded. Standard tolerance +20 —10%. CP06S and CP06F brackets available for JP16M. Base Size 1 5/16 x 1 1/16.

SINGLE CAPACITY	400 VDCW HEIGHT JP416M, JP416MCT	Net Price★	600 VDCW HEIGHT JP616M, JP616MCT	Net Price★	1000 VDCW HEIGHT JP1016MCT	Net Price★	DUAL CAPACITY	600 VDCW HEIGHT JP616M JP616MCT	Net Price★
.05			1 1/16	1.76	1 3/8	1.83	2 x .05	1 3/8	2.06
.1	1 1/16	1.80	1 3/8	1.85	1 3/8	1.89	2 x .1	1 3/8	2.13
.25	1 3/8	1.87	1 5/8	1.91	2	1.94	2 x .25	2	2.30
.5	1 5/8	1.91	2	1.96	2 1/4	2.13	2 x .5	2 1/4	2.64
1.0	2	2.16	2 1/4	2.20					

Prices shown are for type JP16MCT. For prices on JP16M deduct .07 ea.

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

Net

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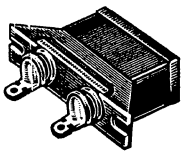
AEROVOX Capacitors

INDUSTRIAL SECTION—STANDARD TYPES (Continued)



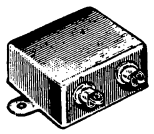
TYPE JP18MCB

Similar to JP16M in construction and electrical characteristics. Because of the difference in the base size type JP18MCB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where JP16M's do not fit. Operating temperature range −55 to +85°C. Standard tolerance +20 −10%.

Capacity	400 VDCW JP418MCB Height	Net Price★	600 VDCW JP618MCB Height	Net Price★	1000 VDCW JP1018MCB Height	Net Price★	Capacity	400 VDCW JP418MCB Height	Net Price★	600 VDCW JP618MCB Height	Net Price★	1000 VDCW JP1018MCB Height	Net Price★	Capacity	400 VDCW JP418MCB Height	Net Price★	600 VDCW JP618MCB Height	Net Price★	1000 VDCW JP1018MCB Height	Net Price★
.01					1 1/16	2.02	2 x .01					1 1/16	2.46	3 x .01					1 1/16	2.94
.02					1 1/16	2.06	2 x .02					1 1/16	2.49	3 x .02					1 1/16	3.05
.05	1	2.02	1 1/16	2.07	1 1/16	2.11	2 x .05	1	2.47	1 1/16	2.52	1 1/2	2.58	3 x .05	1 1/8	2.97	1 1/2	3.04	1 1/2	3.09
.1	1	2.09	1 1/16	2.14	1 1/2	2.18	2 x .1	1 1/4	2.54	1 1/2	2.59	2	2.68	3 x .1	1 3/8	3.04	1 1/2	3.11	2 1/2	3.21
.25	1 1/4	2.17	1 1/2	2.21	2	2.25	2 x .25	1 1/2	2.72	2	2.78	2 1/4	2.85	3 x .25	2	3.27	2 1/4	3.33		
.5	1 1/2	2.24	2	2.29	2 1/2	2.44	2 x .5	2 1/4	2.98	2 1/4	3.05									
1.0	2	2.48	2 3/4	2.53										BASE SIZE 1 1/4 x 9/16						

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

TYPE JP30M
Bathtub Case



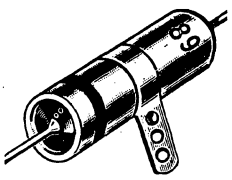
High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M impregnated for operation at temperatures from —55 to +85°C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% —10%.

Capacity	400 VDCW JP430M Size	Net Price★	600 VDCW JP630M Size	Net Price★	1000 VDCW JP1030M Size	Net Price★	Capacity	400 VDCW JP430M Size	Net Price★	600 VDCW JP630M Size	Net Price★	1000 VDCW JP1030M Size	Net Price★
.05	1 3/4 x 1 x 3/4	1.65	1 3/4 x 1 x 3/4	1.73	1 3/4 x 1 x 3/4	1.80	2 x .05	1 3/4 x 1 x 3/4	2.29	1 3/4 x 1 x 3/4	2.37	1 3/4 x 1 x 3/4	2.47
.1	1 3/4 x 1 x 3/4	1.72	1 3/4 x 1 x 3/4	1 78	1 3/4 x 1 x 7/8	1.89	2 x .1	1 3/4 x 1 x 3/4	2.37	1 3/4 x 1 x 3/4	2.44	1 3/4 x 1 x 7/8	2.51
.25	1 3/4 x 1 x 3/4	1.82	1 3/4 x 1 x 13/16	1.85	1 3/4 x 1 x 7/8	1.93	2 x .25	1 3/4 x 1 x 13/16	2.42	1 3/4 x 1 x 1	2.51	2 x 1 3/4 x 7/8	2.76
.5	1 3/4 x 1 x 7/8	1.97	1 3/4 x 1 x 1	1.98	2 x 1 3/4 x 7/8	2.06	2 x .5	2 x 2 x 1 1/8	2.77	2 x 1 3/4 x 7/8	2.82	2 x 2 x 1 3/16	3.57
.75	2 1/16 x 1 1/4 x 7/8	2.13	2 1/16 x 1 1/4 x 7/8*	2.14	2 x 1 3/4 x 7/8	2.44	2 x 1.0	2 x 2 x 1 1/8	3.42	2 x 2 x 1 3/16	3.44		
1.0	2 x 1 3/4 x 7/8	2.29	2 x 1 3/4 x 1	2.30	2 x 2 x 1 1/8	2.82	3 x .05	1 3/4 x 1 x 3/4	2.66	1 3/4 x 1 x 13/16	2.71	1 3/4 x 1 x 13/16	2.81
2.0	2 x 2 x 1 1/8	2.97	2 x 2 x 1 3/16	3.06			3 x .1	1 3/4 x 1 x 13/16	2.75	1 3/4 x 1 x 13/16	2.78	2 x 1 3/4 x 7/8	3.09
							3 x .25	2 x 1 3/4 x 7/8	3.01	2 x 1 3/4 x 7/8	3.09	2 x 2 x 1 1/8	3.85
							3 x .5	2 x 2 x 1	3.71	2 x 2 x 1 3/16	3.81		

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

* Also available with top terminals, size 2 x 1¾ x ⅞, Type JP30MT.

TYPE JP89M



Immersion-proof, oil-impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high-voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket (Type P89M). All sizes shown are can sizes. For size over insulating sleeve add 1/16" to diameter and 3/16" to length.

Available in the following style variations:

JP89M —with cardboard insulating sleeve, radial mtg. bracket.
JP89MA —with cardboard insulating sleeve and tangential mounting bracket.
JP89MAP—with plastic insulating sleeve and tangential mtg. bracket.
JP89MAY—without insulating sleeve but with tangential mounting bracket.
JP89MP —with plastic insulating sleeve, radial mtg. bracket.
JP89MX —without mounting bracket but with cardboard insulating sleeve.
JP89MXP—without mounting bracket but with plastic insulating sleeve.
JP89MXY—without insulating sleeve or mtg. bracket.
JP89MY —without insulating sleeve but with radial mounting bracket.

Voltage	Capacity	Can Size	Net Price★	Voltage	Capacity	Can Size	Net Price★	Voltage	Capacity	Can Size	Net Price★
400V	.01	3/8 x 1 3/16	.82	1000V	.03	5/16 x 1 9/16	.93	2500V	.02	3/4 x 2	1.52
400V	.02	1/2 x 1 3/16	.83	1000V	.05	3/8 x 1 9/16	.98	2500V	.03	3/4 x 2 1/4	1.53
400V	.05	1/2 x 1 7/16	.90	1000V	.1	11/16 x 1 13/16	1.05	2500V	.05	7/8 x 2 1/2	1.58
400V	.1	5/8 x 1 11/16	.97	1000V	.25	7/8 x 2 5/16	1.33	2500V	.1	1 x 3	1.68
400V	.25	13/16 x 2 1/16	1.22	2000V	.001	1/4 x 1 5/8	1.38	3000V	.005	7/8 x 1 5/8	1.53
400V	.5	1 x 2 1/16	1.57	2000V	.005	3/4 x 1 5/8	1.42	3000V	.01	7/8 x 1 3/4	1.55
600V	.001	3/8 x 1 3/16	.81	2000V	.01	3/4 x 1 5/8	1.43	3000V	.02	7/8 x 2	1.57
600V	.005	3/8 x 1 5/16	.81	2000V	.015	3/4 x 1 3/4	1.43	3000V	.03	1 x 2 1/4	1.58
600V	.01	7/16 x 1 5/16	.82	2000V	.02	3/4 x 1 7/8	1.45	3000V	.05	1 x 2 1/2	1.63
600V	.02	7/16 x 1 7/16	.83	2000V	.03	3/4 x 1 7/8	1.47	3000V	.1	1 1/8 x 2 3/4	1.73
600V	.05	9/16 x 1 7/16	.90	2000V	.04	3/4 x 2 1/4	1.48	4000V	.05	1 1/8 x 3 1/4	2.28
600V	.1	5/8 x 1 13/16	.97	2000V	.05	7/8 x 2 1/4	1.52	4000V	.1	1 1/8 x 4 1/4	2.43
600V	.25	3/4 x 2 5/16	1.22	2000V	.1	1 x 2 1/2	1.62	6000V	.005	1 x 2 1/2	2.48
600V	.5	1 5/16 x 2 3/8	1.57	2500V	.005	1/4 x 1 5/8	1.48	6000V	.01	1 x 3 1/4	2.52
1000V	.01	7/16 x 1 5/16	.90	2500V	.01	3/4 x 1 3/4	1.50	6000V	.05	1 1/8 x 5	2.65

ALL TYPES ON THIS PAGE AVAILABLE IN CLOSER TOLERANCE ON SPECIAL ORDER

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

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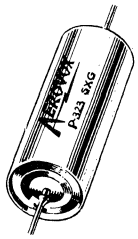
AEROVOX Capacitors

INDUSTRIAL SECTION—STANDARD TYPES (Continued)

PAPER SUB-MINIATURES



Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. Especially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long life operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hyvol "S" a special, high-temperature-operating, stable, liquid impregnant for operation at elevated temperature. These units are capable of withstanding a voltage breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature shall be plus 25°C. plus or minus 10°C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1000 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. to +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes extended foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order on P123S, SX, etc. and request prices.

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Price★
100 Volts								
.001	.175 x ¾	1.92	.237 x 13/16	1.99	.175 x ¾	2.00	.237 x 11/16	2.06
.0015	.175 x ¾	1.92	.237 x 13/16	1.99	.175 x ¾	2.00	.237 x 11/16	2.06
.0022	.175 x ¾	1.92	.237 x 13/16	1.99	.175 x ¾	2.00	.237 x 11/16	2.06
.0033	.175 x ¾	1.94	.237 x 13/16	2.00	.175 x ¾	2.02	.237 x 13/16	2.09
.0047	.175 x ¾	1.94	.237 x 13/16	2.00	.175 x ¾	2.02	.237 x 13/16	2.09
.0068	.175 x ¾	1.94	.237 x 13/16	2.00	.195 x ¾	2.02	.257 x 13/16	2.09
.01	.175 x ¾	1.96	.237 x 13/16	2.02	.235 x ¾	2.08	.297 x 13/16	2.14
.015	.175 x ¾	1.96	.237 x 13/16	2.02	.235 x ¾	2.10	.297 x 13/16	2.16
.022	.195 x ¾	1.98	.257 x 13/16	2.04	.312 x ⅞	2.17	.374 x 15/16	2.23
.033	.235 x ¾	2.00	.297 x 13/16	2.07	.312 x ⅞	2.18	.374 x 15/16	2.25
.047	.312 x ⅞	2.09	.374 x 15/16	2.16	.312 x ⅞	2.20	.374 x 15/16	2.27
.068	.312 x ⅞	2.11	.374 x 15/16	2.18	.400 x ⅞	2.23	.462 x 15/16	2.29
.1	.312 x ⅞	2.15	.374 x 15/16	2.21	.400 x ⅞	2.25	.462 x 15/16	2.31
.15	.400 x ⅞	2.17	.462 x 15/16	2.23	.400 x 1⅛	2.30	.462 x 13/16	2.36
.22	.400 x 1⅛	2.21	.462 x 13/16	2.28	.400 x 1⅜	2.39	.462 x 17/16	2.46
.33	.400 x 1⅜	2.32	.462 x 17/16	2.38	.562 x 1⅛	2.59	.624 x 13/16	2.67
.47	.562 x 1⅛	2.50	.624 x 13/16	2.59	.562 x 1⅜	2.72	.624 x 17/16	2.80
.68	.562 x 1⅜	2.65	.624 x 17/16	2.74	.562 x 1⅝	2.88	.624 x 111/16	2.97
1.0	.562 x 1⅞	2.82	.624 x 115/16	2.90	.670 x 1⅝	3.22	.732 x 111/16	3.30
200 Volts								
.001	.235 x ¾	1.99	.297 x 13/16	2.06	.235 x ¾	2.07	.297 x 13/16	2.14
.0015	.235 x ¾	1.99	.297 x 13/16	2.06	.235 x ¾	2.07	.297 x 13/16	2.14
.0022	.235 x ¾	1.99	.297 x 13/16	2.06	.235 x ¾	2.07	.297 x 13/16	2.14
.0033	.235 x ¾	2.03	.297 x 13/16	2.10	.235 x ¾	2.11	.297 x 13/16	2.17
.0047	.235 x ¾	2.03	.297 x 13/16	2.10	.235 x ¾	2.11	.297 x 13/16	2.17
.0068	.235 x ¾	2.03	.297 x 13/16	2.10	.235 x ¾	2.11	.297 x 13/16	2.17
.01	.235 x ¾	2.05	.297 x 13/16	2.12	.312 x ⅞	2.20	.374 x 15/16	2.26
.015	.235 x ¾	2.05	.297 x 13/16	2.12	.312 x ⅞	2.22	.374 x 15/16	2.28
.022	.235 x ¾	2.05	.297 x 13/16	2.12	.312 x ⅞	2.24	.374 x 15/16	2.31
.033	.312 x ⅞	2.14	.374 x 15/16	2.20	.312 x ⅞	2.26	.374 x 15/16	2.32
.047	.312 x ⅞	2.18	.374 x 15/16	2.24	.400 x ⅞	2.30	.462 x 15/16	2.36
.068	.312 x ⅞	2.20	.374 x 15/16	2.27	.400 x ⅞	2.32	.462 x 15/16	2.39
.1	.400 x ⅞	2.22	.462 x 15/16	2.28	.400 x 1⅛	2.33	.462 x 13/16	2.40
.15	.400 x 1⅛	2.26	.462 x 13/16	2.32	.400 x 1⅜	2.46	.462 x 17/16	2.52
.22	.400 x 1⅜	2.38	.462 x 17/16	2.45	.562 x 1⅛	2.63	.624 x 13/16	2.71
.33	.562 x 1⅛	2.55	.624 x 13/16	2.63	.562 x 1⅜	2.78	.624 x 17/16	2.86
.47	.562 x 1⅜	2.70	.624 x 17/16	2.78	.562 x 1⅝	2.95	.624 x 111/16	3.04
.68	.562 x 1⅞	2.86	.624 x 115/16	2.95	.670 x 1⅜	3.20	.732 x 111/16	3.28
1.0	.670 x 1⅜	3.16	.732 x 115/16	3.24	.750 x 2⅛	3.36	.812 x 29/16	3.46
300 Volts								
.001	.235 x ¾	2.03	.297 x 13/16	2.09	.235 x ¾	2.10	.297 x 13/16	2.17
.0015	.235 x ¾	2.03	.297 x 13/16	2.09	.235 x ¾	2.10	.297 x 13/16	2.17
.0022	.235 x ¾	2.03	.297 x 13/16	2.09	.235 x ¾	2.10	.297 x 13/16	2.17
.0033	.235 x ¾	2.06	.297 x 13/16	2.12	.235 x ¾	2.14	.297 x 13/16	2.21
.0047	.235 x ¾	2.06	.297 x 13/16	2.12	.235 x ¾	2.14	.297 x 13/16	2.21
.0068	.235 x ¾	2.06	.297 x 13/16	2.12	.312 x ⅞	2.14	.374 x 15/16	2.21
.01	.235 x ¾	2.09	.297 x 13/16	2.16	.312 x ⅞	2.24	.374 x 15/16	2.30
.015	.235 x ¾	2.09	.297 x 13/16	2.16	.312 x ⅞	2.26	.374 x 15/16	2.32
.022	.312 x ⅞	2.15	.374 x 15/16	2.22	.312 x ⅞	2.29	.374 x 15/16	2.35

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Price★
300 Volts (cont.)								
.033	.312 x ⅞	2.17	.374 x 15/16	2.23	.400 x ⅞	2.31	.462 x 15/16	2.38
.047	.312 x ⅞	2.20	.374 x 15/16	2.27	.400 x ⅞	2.33	.462 x 15/16	2.40
.068	.400 x ⅞	2.25	.462 x 15/16	2.31	.400 x 1⅛	2.36	.462 x 13/16	2.42
.1	.400 x 1⅛	2.28	.462 x 13/16	2.33	.400 x 1⅜	2.42	.462 x 17/16	2.49
.15	.400 x 1⅜	2.36	.462 x 17/16	2.42	.562 x 1⅛	2.63	.624 x 13/16	2.71
.22	.562 x 1⅛	2.55	.624 x 13/16	2.63	.562 x 1⅜	2.78	.624 x 17/16	2.86
.33	.562 x 1⅜	2.70	.624 x 17/16	2.78	.562 x 1⅝	2.92	.624 x 111/16	3.00
.47	.562 x 1⅞	2.82	.624 x 115/16	2.90	.670 x 1⅝	3.22	.732 x 111/16	3.30
.68	.670 x 1⅞	3.12	.732 x 115/16	3.20	.750 x 2⅛	3.35	.812 x 29/16	3.45
1.0	.750 x 2⅛	3.37	.812 x 29/16	3.47	1.000 x 2⅛	3.60	1.062 x 29/16	3.70
400 Volts								
.001	.235 x ¾	2.07	.297 x 13/16	2.13	.235 x ¾	2.14	.297 x 13/16	2.21
.0015	.235 x ¾	2.07	.297 x 13/16	2.13	.235 x ¾	2.14	.297 x 13/16	2.21
.0022	.235 x ¾	2.07	.297 x 13/16	2.13	.235 x ¾	2.14	.297 x 13/16	2.21
.0033	.235 x ¾	2.10	.297 x 13/16	2.16	.235 x ¾	2.18	.297 x 13/16	2.24
.0047	.235 x ¾	2.10	.297 x 13/16	2.16	.312 x ⅞	2.28	.374 x 15/16	2.34
.0068	.235 x ¾	2.10	.297 x 13/16	2.16	.312 x ⅞	2.28	.374 x 15/16	2.35
.01	.235 x ¾	2.13	.297 x 13/16	2.19	.312 x ⅞	2.30	.374 x 15/16	2.36
.015	.312 x ⅞	2.18	.374 x 15/16	2.24	.312 x ⅞	2.30	.374 x 15/16	2.36
.022	.312 x ⅞	2.19	.374 x 15/16	2.26	.400 x ⅞	2.36	.462 x 15/16	2.42
.033	.312 x ⅞	2.23	.374 x 15/16	2.30	.400 x ⅞	2.38	.462 x 15/16	2.44
.047	.400 x ⅞	2.28	.462 x 15/16	2.35	.400 x 1⅛	2.41	.462 x 13/16	2.47
.068	.400 x 1⅛	2.32	.462 x 13/16	2.38	.400 x 1⅜	2.48	.462 x 17/16	2.54
.1	.400 x 1⅜	2.41	.462 x 17/16	2.47	.562 x 1⅛	2.63	.624 x 13/16	2.71
.15	.562 x 1⅛	2.55	.624 x 13/16	2.64	.562 x 1⅜	2.78	.624 x 17/16	2.86
.22	.562 x 1⅜	2.70	.624 x 17/16	2.78	.562 x 1⅝	2.91	.624 x 111/16	2.99
.33	.562 x 1⅞	2.84	.624 x 115/16	2.92	.670 x 1⅝	3.22	.732 x 111/16	3.30
.47	.670 x 1⅞	3.12	.732 x 115/16	3.20	.750 x 2⅛	3.39	.812 x 29/16	3.49
.68	.750 x 2⅛	3.34	.812 x 29/16	3.44	.750 x 2⅜	3.53	.812 x 27/16	3.63
1.0	1.000 x 1⅞	3.76	1.062 x 115/16	3.86	1.000 x 2⅝	4.04	1.062 x 211/16	4.14
600 Volts								
.001	.235 x ¾	2.08	.297 x 13/16	2.15	.235 x ¾	2.17	.297 x 13/16	2.23
.0015	.235 x ¾	2.08	.297 x 13/16	2.15	.235 x ¾	2.17	.297 x 13/16	2.23
.0022	.235 x ¾	2.08	.297 x 13/16	2.15	.235 x ¾	2.17	.297 x 13/16	2.23
.0033	.235 x ¾	2.14	.297 x 13/16	2.20	.312 x ⅞	2.28	.374 x 15/16	2.34
.0047	.235 x ¾	2.14	.297 x 13/16	2.20	.312 x ⅞	2.28	.374 x 15/16	2.35
.0068	.235 x ¾	2.14	.297 x 13/16	2.20	.312 x ⅞	2.30	.374 x 15/16	2.36
.01	.312 x ⅞	2.18	.374 x 15/16	2.24	.312 x ⅞	2.31	.374 x 15/16	2.38
.015	.312 x ⅞	2.21	.374 x 15/16	2.27	.400 x ⅞	2.39	.462 x 15/16	2.45
.022	.312 x ⅞	2.24	.374 x 15/16	2.31	.400 x ⅞	2.41	.462 x 15/16	2.47
.033	.400 x ⅞	2.32	.462 x 15/16	2.38	.400 x 1⅛	2.42	.462 x 13/16	2.49
.047	.400 x 1⅛	2.34	.462 x 13/16	2.40	.400 x 1⅜	2.52	.462 x 17/16	2.58
.068	.400 x 1⅜	2.44	.462 x 17/16	2.51	.562 x 1⅛	2.68	.624 x 13/16	2.76
.1	.562 x 1⅛	2.59	.624 x 13/16	2.68	.562 x 1⅜	2.77	.624 x 17/16	2.86
.15	.562 x 1⅜	2.70	.624 x 17/16	2.78	.562 x 1⅝	2.96	.624 x 111/16	3.04
.22	.562 x 1⅞	2.88	.624 x 115/16	2.97	.670 x 1⅝	3.28	.732 x 111/16	3.37
.33	.670 x 1⅞	3.20	.732 x 115/16	3.29	.750 x 2⅛	3.46	.812 x 29/16	3.56
.47	.750 x 2⅛	3.40	.812 x 29/16	3.50	.750 x 2⅜	3.59	.812 x 2⅞	3.69
.68	1.000 x 1⅞	3.58	1.062 x 115/16	3.69	1.000 x 2⅛	3.91	1.062 x 29/16	4.01
1.0	1.000 x 2⅜	4.33	1.062 x 27/16	4.43	1.000 x 2⅝	4.48	1.062 x 211/16	4.58

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

Net

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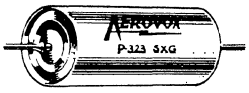
AEROVOX Capacitors



INDUSTRIAL SECTION—STANDARD TYPES (Continued)

PAPER SUB-MINIATURES (Continued)

Suffix	Description
G	One end grounded
—	Omit G, both ends insulated
GP	Grounded and plastic sleeve
P	Insulated with plastic sleeve
GT	Grounded with threaded neck mounting
T	Insulated with threaded neck mounting
GE	Grounded with axial threaded stud
GR	Grounded with two radial threaded studs
R	Insulated with two radial threaded studs
GV	Grounded with side vertical bracket
V	Insulated with side vertical bracket
GB	Grounded with tangential bracket
B	Insulated with tangential bracket
GL	Grounded with tab terminal
L	Insulated with tab terminal

*Style variations and ratings listed below are standard. All others available on special order.

Capacity	P323SG	Net Price★	P323SGP	Net Price★	P323SXG	Net Price★	P323SXGP	Net Price★
100 Volts								
.01	—		—		.235 x 11/16	1.42	.297 x 3/4	1.48
.015	—		—		.235 x 11/16	1.44	.297 x 3/4	1.50
.022	—		—		.312 x 13/16	1.51	.374 x 7/8	1.57
.033	.235 x 11/16	1.34	.297 x 3/4	1.41	.312 x 13/16	1.52	.374 x 7/8	1.59
.047	.312 x 13/16	1.43	.374 x 7/8	1.50	.312 x 13/16	1.54	.374 x 7/8	1.61
.068	.312 x 13/16	1.45	.374 x 7/8	1.52	.400 x 13/16	1.57	.462 x 7/8	
.1	.312 x 13/16	1.49	.374 x 7/8	1.55	.400 x 13/16	1.59	.462 x 7/8	1.65
.15	.400 x 13/16	1.51	.462 x 7/8	1.57	.400 x 1 1/16	1.64	.462 x 1 1/8	1.70
.22	.400 x 1 1/16	1.55	.462 x 1 1/8	1.62	.400 x 1 5/16	1.73	.462 x 1 3/8	1.80
.33	.400 x 1 5/16	1.66	.462 x 1 3/8	1.72	.562 x 1 1/16	1.93	.624 x 1 1/8	2.01
.47	.562 x 1 1/16	1.84	.624 x 1 1/8	1.93	.562 x 1 5/16	2.06	.624 x 1 3/8	2.14
.68	.562 x 1 5/16	1.99	.624 x 1 3/8	2.08	.562 x 1 9/16	2.22	.624 x 1 5/8	2.31
1.0	.562 x 1 13/16	2.16	.624 x 1 7/8	2.24	.670 x 1 9/16	2.56	.732 x 1 5/8	2.64
200 Volts								
.001	.235 x 11/16	1.33	.297 x 3/4	1.40	.235 x 11/16	1.41	.297 x 3/4	1.48
.0015	.235 x 11/16	1.33	.297 x 3/4	1.40	.235 x 11/16	1.41	.297 x 3/4	1.48
.0022	.235 x 11/16	1.33	.297 x 3/4	1.40	.235 x 11/16	1.41	.297 x 3/4	1.48
.0033	.235 x 11/16	1.37	.297 x 3/4	1.44	.235 x 11/16	1.45	.297 x 3/4	1.51
.0047	.235 x 11/16	1.37	.297 x 3/4	1.44	.235 x 11/16	1.45	.297 x 3/4	1.51
.0068	.235 x 11/16	1.37	.297 x 3/4	1.44	.235 x 11/16	1.45	.297 x 3/4	1.51
.01	.235 x 11/16	1.39	.297 x 3/4	1.46	.312 x 13/16	1.54	.374 x 7/8	1.60
.015	.235 x 11/16	1.39	.297 x 3/4	1.46	.312 x 13/16	1.56	.374 x 7/8	1.62
.022	.235 x 11/16	1.39	.297 x 3/4	1.46	.312 x 13/16	1.58	.374 x 7/8	1.65
.033	.312 x 13/16	1.48	.374 x 7/8	1.54	.312 x 13/16	1.60	.374 x 7/8	1.66
.047	.312 x 13/16	1.52	.374 x 7/8	1.58	.400 x 13/16	1.64	.462 x 7/8	1.70
.068	.312 x 13/16	1.54	.374 x 7/8	1.61	.400 x 13/16	1.66	.462 x 7/8	1.73
.1	.400 x 13/16	1.56	.462 x 7/8	1.62	.400 x 1 1/16	1.67	.462 x 1 1/8	1.74
.15	.400 x 1 1/16	1.60	.462 x 1 1/8	1.66	.400 x 1 5/16	1.80	.462 x 1 3/8	1.86
.22	.400 x 1 5/16	1.72	.462 x 1 3/8	1.79	.562 x 1 1/16	1.97	.624 x 1 1/8	2.05
.33	.562 x 1 1/16	1.89	.624 x 1 1/8	1.97	.562 x 1 5/16	2.12	.624 x 1 3/8	2.20
.47	.562 x 1 5/16	2.04	.624 x 1 3/8	2.12	.562 x 1 9/16	2.29	.624 x 1 5/8	2.38
.68	.562 x 1 13/16	2.20	.624 x 1 7/8	2.29	.670 x 1 9/16	2.54	.732 x 1 5/8	2.62
1.0	.670 x 1 13/16	2.50	.732 x 1 7/8	2.58	.750 x 2 1/16	2.70	.812 x 2 1/8	2.80
300 Volts								
.001	.235 x 11/16	1.37	.297 x 3/4	1.43	.235 x 11/16	1.44	.297 x 3/4	1.51
.0015	.235 x 11/16	1.37	.297 x 3/4	1.43	.235 x 11/16	1.44	.297 x 3/4	1.51
.0022	.235 x 11/16	1.37	.297 x 3/4	1.43	.235 x 11/16	1.44	.297 x 3/4	1.51
.0033	.235 x 11/16	1.40	.297 x 3/4	1.46	.235 x 11/16	1 48	.297 x 3/4	1.55
.0047	.235 x 11/16	1.40	.297 x 3/4	1.46	.235 x 11/16	1.48	.297 x 3/4	1.55
.0068	.235 x 11/16	1.40	.297 x 3/4	1.46	.312 x 13/16	1.48	.374 x 7/8	1.55
.01	.235 x 11/16	1.43	.297 x 3/4	1.50	.312 x 13/16	1.58	.374 x 7/8	1.64
.015	.235 x 11/16	1.43	.297 x 3/4	1.50	.312 x 13/16	1.60	.374 x 7/8	1.66
300 Volts (Cont.)								
.022	.312 x 13/16	1.49	.374 x 7/8	1.56	.312 x 13/16	1.63	.374 x 7/8	1.69
.033	.312 x 13/16	1.51	.374 x 7/8	1.57	.400 x 13/16	1.65	.462 x 7/8	1.72
.047	.312 x 13/16	1.54	.374 x 7/8	1.61	.400 x 13/16	1.67	.462 x 7/8	1.74
400 Volts								
.001	.235 x 11/16	1.41	.297 x 3/4	1.47	.235 x 11/16	1.48	.297 x 3/4	1.55
.0015	.235 x 11/16	1.41	.297 x 3/4	1.47	.235 x 11/16	1.48	.297 x 3/4	1.55
.0022	.235 x 11/16	1.41	.297 x 3/4	1.47	.235 x 11/16	1.48	.297 x 3/4	1.55
.0033	.235 x 11/16	1.44	.297 x 3/4	1.50	.235 x 11/16	1.52	.297 x 3/4	1.58
.0047	.235 x 11/16	1.44	.297 x 3/4	1.50	.312 x 13/16	1.62	.374 x 7/8	1.68
.0068	.235 x 11/16	1.44	.297 x 3/4	1.50	.312 x 13/16	1.62	.374 x 7/8	1.69
.01	.235 x 11/16	1.47	.297 x 3/4	1.53	.312 x 13/16	1.64	.374 x 7/8	1.70
.015	.312 x 13/16	1.52	.374 x 7/8	1.58	.312 x 13/16	1.64	.374 x 7/8	1.70
.022	.312 x 13/16	1.53	.374 x 7/8	1.60	.400 x 13/16	1.70	.462 x 7/8	1.76
.033	.312 x 13/16	1.57	.374 x 7/8	1.64	.400 x 13/16	1.72	.462 x 7/8	1.78
.047	.400 x 13/16	1.62	.462 x 7/8	1.69	.400 x 1 1/16	1.75	.462 x 1 1/8	1.81
.068	.400 x 1 1/16	1.66	.462 x 1 1/8	1.72	.400 x 1 5/16	1.82	.462 x 1 3/8	1.88
.1	.400 x 1 5/16	1.75	.462 x 1 3/8	1.81	.562 x 1 1/16	1.97	.624 x 1 1/8	2.05
.15	.562 x 1 1/16	1.89	.624 x 1 1/8	1.98	.562 x 1 5/16	2.12	.624 x 1 3/8	2.20
.22	.562 x 1 5/16	2.04	.624 x 1 3/8	2.12	.562 x 1 9/16	2.25	.624 x 1 5/8	2.33
.33	.562 x 1 13/16	2.18	.624 x 1 7/8	2.26	.670 x 1 9/16	2.56	.732 x 1 5/8	2.64
.47	.670 x 1 13/16	2.46	.732 x 1 7/8	2.54	750 x 2 1/16	2.73	.812 x 2 1/8	2.83
.68	.750 x 2 1/16	2.68	.812 x 2 1/8	2.78	.750 x 2 5/16	2.87	.812 x 2 3/8	2.97
1.0	1.000 x 1 13/16	3.10	1.062 x 1 7/8	3.20	1.000 x 2 5/16	3.38	1.062 x 2 5/8	3.48
600 Volts								
.001	.235 x 11/16	1.42	.297 x 3/4	1.49	.235 x 11/16	1.51	.297 x 3/4	1.57
.0015	.235 x 11/16	1.42	.297 x 3/4	1.49	.235 x 11/16	1.51	.297 x 3/4	1.57
.0022	.235 x 11/16	1.42	.297 x 3/4	1.49	.235 x 11/16	1.51	.297 x 3/4	1.57
.0033	.235 x 11/16	1.48	.297 x 3/4	1.54	.312 x 13/16	1.62	.374 x 7/8	1.68
.0047	.235 x 11/16	1.48	.297 x 3/4	1.54	.312 x 13/16	1.62	.374 x 7/8	1.69
.0068	.235 x 11/16	1.48	.297 x 3/4	1.54	.312 x 13/16	1.64	.374 x 7/8	1.70
.01	.312 x 13/16	1.52	.374 x 7/8	1.58	.312 x 13/16	1.65	.374 x 7/8	1.72
.015	.312 x 13/16	1.55	.374 x 7/8	1.61	.400 x 13/16	1.73	.462 x 7/8	1.79
.022	.312 x 13/16	1.58	.374 x 7/8	1.65	.400 x 13/16	1.75	.462 x 7/8	1.81
.033	.400 x 13/16	1.66	.462 x 7/8	1.72	.400 x 1 1/16	1.76	.462 x 1 1/8	1.83
.047	.400 x 1 1/16	1.68	.462 x 1 1/8	1.74	.400 x 1 5/16	1.86	.462 x 1 3/8	1.92
.068	.400 x 1 5/16	1.78	.462 x 1 3/8	1.85	.562 x 1 1/16	2.02	.624 x 1 1/8	2.10
.1	.562 x 1 1/16	1.93	.624 x 1 1/8	2.02	.562 x 1 5/16	2.11	.624 x 1 3/8	2.20
.15	.562 x 1 5/16	2.04	.624 x 1 3/8	2.12	.562 x 1 9/16	2.30	.624 x 1 5/8	2.38
.22	.562 x 1 13/16	2.22	.624 x 1 7/8	2.31	.670 x 1 9/16	2.62	.732 x 1 5/8	2.71
.33	.670 x 1 13/16	2.54	.732 x 1 7/8	2.63	.750 x 2 1/16	2.80	812 x 2 1/8	2.90
.47	.750 x 2 1/16	2.74	.812 x 2 1/8	2.84	.750 x 2 5/16	2.93	.812 x 2 5/8	3.03
.68	1.000 x 1 13/16	2.92	1.062 x 1 7/8	3.02	1.000 x 2 1/16	3.25	1.062 x 2 1/8	3.35
1.0	1.000 x 2 5/16	3.67	1.062 x 2 3/8	3.77	1.000 x 2 5/16	3.82	1.062 x 2 5/8	3.92

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

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AEROVOX Capacitors

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

METALLIZED-PAPER CAPACITORS

TYPE P8292ZN Plastic-Cased, Metallized-Paper Tubulars

Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of —30°C to +100°C at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion and assembly equipment. Standard tolerance on these units is ±20%. Available in closer tolerances upon request at an additional charge. Mechanical Tolerances—±1/16" on length and diameter.

Cap. Mfd.	200 VDCW D x L	Catalog Number	Net Price★	400 VDCW D x L	Catalog Number	Net Price★	600 VDCW D x L	Catalog Number	Net Price★
.01	1/4 x 19/32	P8292ZN6	.44	5/16 x 23/32	P8292ZN15	.44	3/8 x 23/32	P8292ZN24	.45
.02	1/4 x 21/32	P8292ZN7	.44	3/8 x 23/32	P8292ZN16	.45	3/8 x 23/32	P8292ZN25	.47
.03	5/16 x 23/32	P8292ZN8	.45	3/8 x 23/32	P8292ZN17	.45	7/16 x 23/32	P8292ZN26	.50
.05	5/16 x 23/32	P8292ZN9	.45	7/16 x 23/32	P8292ZN18	.47	1/2 x 23/32	P8292ZN27	.53
.1	3/8 x 23/32	P8292ZN10	.47	7/16 x 1 5/32	P8292ZN19	.51	7/16 x 1 5/32	P8292ZN28	.59
.25	1/2 x 23/32	P8292ZN11	.68	9/16 x 1 5/32	P8292ZN20	.74	5/8 x 1 5/32	P8292ZN29	.92
.5	7/16 x 1 5/32	P8292ZN12	.80	5/8 x 1 5/32	P8292ZN21	.95	11/16 x 1 13/32	P8292ZN30	1.15
1.0	9/16 x 1 5/32	P8292ZN13	1.07	11/16 x 1 13/32	P8292ZN22	1.32	13/16 x 2	P8292ZN31	1.43
2.0	5/8 x 1 21/32	P8292ZN14	1.46	7/8 x 2 3/8	P8292ZN23	1.86	1 x 2 3/8	P8292ZN32	2.03

TYPE P83Z Microminiatures

Ultra-small, new metallized-paper dielectric capacitor particularly applicable in the electronic field to replace the low capacity paper units now being used. Hyvol K impregnated in humidity resistant molded thermo-plastic cases.

Standard Tolerance ±25%

Capacity Mfd.	Voltage	Case Size (Inches) Dia. x Lgth.	Net Price★
.004	200 VDC	3/16 x 7/16	.21
.005	200 VDC	3/16 x 7/16	.21
.01	200 VDC	3/16 x 7/16	.21
.02	200 VDC	1/4 x 9/16	.27
.04	200 VDC	1/4 x 9/16	.27
.002	400 VDC	3/16 x 7/16	.21
.003	400 VDC	3/16 x 7/16	.27
.008	400 VDC	1/4 x 9/16	.27
.01	400 VDC	1/4 x 9/16	.27

Capacity Mfd.	Voltage	Case Size (Inches) Dia. x Lgth.	Net Price★
.0005	600 VDC	3/16 x 7/16	.21
.0008	600 VDC	3/16 x 7/16	.21
.001	600 VDC	3/16 x 7/16	.21
.002	600 VDC	1/4 x 9/16	.27
.0022	600 VDC	1/4 x 9/16	.27
.0047	600 VDC	1/4 x 9/16	.27
.005	600 VDC	1/4 x 9/16	.27

Operating temperature range —15°C to +85°C without derating.

TYPE P89ZXY Hermetically Sealed Tubulars

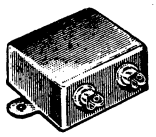
Hermetically sealed metallized paper capacitors. Sealed in metal cases with rubber bakelite end seals. Impregnated with Hyvol K or Hyvol M, these units are manufactured for operating temperature of —55°C. to +70°C. without voltage derating and operation up to 95°C. ambient with derating.
Standard units are furnished without insulating tube or bracket (P89ZXY).
Standard tolerance ±20%. Also available in ±10% and ±5% on special order.

Style Variations

- P89Z —with cardboard insulating sleeve and radial mounting bracket.
- P89ZXP—without mounting bracket but with plastic insulating sleeve.
- P89ZXY—without insulating sleeve or mounting bracket.
- P89ZY —without insulating sleeve but with radial mounting bracket.

Cap. Mfd.	Size 150 VDC	Net Price★	Size 200 VDC	Net Price★	Size 400 VDC	Net Price★	Size 600 VDC	Net Price★
.01							3/8 x 1	1.30
.02							3/8 x 1	1.30
.03					3/8 x 1	1.27	7/16 x 1	1.30
.05			3/8 x 1	1.22	7/16 x 1	1.27	1/2 x 1	1.35
.1			7/16 x 1	1.27	7/16 x 1 5/16	1.35	1/2 x 1 1/2	1.40
.25			1/2 x 1	1.40	5/8 x 1 5/16	1.57	5/8 x 1 5/8	1.73
.5			1/2 x 1 5/16	1.53	5/8 x 2	1.76	3/4 x 2	1.94
1.0			5/8 x 1 1/2	1.81	3/4 x 2 1/2	2.21	13/16 x 2 1/2	2.54
2.0			5/8 x 2	2.24	1 x 2 1/2	3.19	1 1/4 x 2 1/2	3.66
3.0	3/4 x 2	2.97						
4.0	13/16 x 2	3.51						
6.0	1 x 2	4.62						

TYPE P30Z Bathtub Case



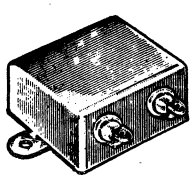
Aerolite Metallized-Paper capacitors. Hyvol K or M impregnated in bathtub, hermetically-sealed metal cases. Meets rigid MIL requirements for moisture immersion and vibration testing.

Standard Tolerance ±20%

Cap Mfd.	Volts	Size	Net Price★
4.0	150	1 3/4 x 1 x 7/8	3.65
6.0	150	2 x 1 3/4 x 7/8	4.27
8.0	150	2 x 2 x 1 3/16	4.99
10.0	150	2 x 2 x 1 1/8	5.79
12.0	150	2 x 2 x 1 1/8	6.52
.5	200	1 3/4 x 1 x 3/4	2.14
1.0	200	1 3/4 x 1 x 3/4	2.56
2.0	200	1 3/4 x 1 x 3/4	3.23
.25	400	1 3/4 x 1 x 3/4	2.12

Cap. Mfd.	Volts	Size	Net Price★
.5	400	1 3/4 x 1 x 3/4	2.28
1.0	400	1 3/4 x 1 x 7/8	2.66
2.0	400	2 x 1 3/4 x 7/8	3.44
4.0	400	2 x 2 x 1 1/8	4.67
.1	600	1 3/4 x 1 x 3/4	2.07
.25	600	1 3/4 x 1 x 3/4	2.16
.5	600	1 3/4 x 1 x 3/4	2.30
1.0	600	1 3/4 x 1 1/4 x 7/8	2.96
2.0	600	2 x 2 x 1	3.55

TYPE P30ZN High Temperature Bathtub Case



AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cases hermetically sealed. Operating temperature range —65°C. to +125°C. at full rating. Standard Tolerance ±20%.

Capacity	150 V	Net Price★	200 V	Net Price★	400 V	Net Price★	600 V	Net Price★
.1			1 3/4 x 1 x 3/4	2.15	1 3/4 x 1 x 3/4	2.30	1 3/4 x 1 x 3/4	2.37
.25			1 3/4 x 1 x 3/4	2.39	1 3/4 x 1 x 3/4	2.42	1 3/4 x 1 x 3/4	2.46
.5			1 3/4 x 1 x 3/4	2.44	1 3/4 x 1 x 3/4	2.58	1 3/4 x 1 x 3/4	2.60
1.0			1 3/4 x 1 x 3/4	2.86	1 3/4 x 1 x 7/8	2.96	1 3/4 x 1 1/4 x 1/8	3.26
2.0			1 3/4 x 1 x 3/4	3.53	2 x 1 3/4 x 1 5/16	3.74	2 x 2 x 7/8	3.85
3.0	1 3/4 x 1 x 3/4	3.29			2 x 1 3/4 x 1 5/16	4.21	2 x 2 x 1 1/8	5.45
4.0	1 3/4 x 1 x 3/4	3.95			2 x 2 x 1	4.97	2 x 2 x 1 1/4	6.53
5.0	1 3/4 x 1 x 3/4	4.39			2 x 2 x 1 1/4	5.99		
6.0	1 3/4 x 1 1/4 x 7/8	4.57						
8.0	2 x 1 3/4 x 3/4	5.29						
10.0	2 x 1 3/4 x 3/4	6.09						
12.0	2 x 2 x 7/8	6.82						
15.0	2 x 2 x 1	8.25						

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

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AEROVOX Capacitors

INDUSTRIAL SECTION—STANDARD TYPES METALLIZED-PAPER (Continued)

TYPES P123ZG† P123ZNG

Metal-Cased Capacitors

Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. Designed to meet critical operating temperatures and the need for increased reliability in the electronic field.
The P123ZG is manufactured to meet operating temperature range of −55°C. to +70°C. without derating and up to 100°C. with derating to 75%.
The P123ZNG—Aerolene impregnated—is similar to the P123ZG, with the additional feature that it will operate up to temperatures of 100°C., at full voltage rating and 125°C. with voltage derating to 75%.
P123ZG and P123ZNG are case grounded. P123Z and P123ZN are case insulated. Standard tolerance .01 mfd and lower ±25%, .015 mfd and up ±20%. Also available in ±10% and ±5% on special order.
Suffix P denotes plastic tube; B denotes mtg. bracket (not available with plastic tube); T denotes threaded neck terminal

Capacity	P123ZN	Net Price★	P123ZNP	Net Price★	P123ZNG	Net Price★	P123ZNGP	Net Price★
				150 Volts				
3.0	.670 x 1 7/8	3.62	.732 x 1 13/16	3.66	.670 x 1 13/16	3.27	.732 x 1 7/8	3.31
4.0	.750 x 1 7/8	3.89	.812 x 1 13/16	3.95	.750 x 1 13/16	3.54	.812 x 1 7/8	3.60
5.0	1.000 x 1 7/8	4.10	1.062 x 1 13/16	4.16	1.000 x 1 13/16	3.75	1.062 x 1 7/8	3.81
6.0	1.000 x 1 7/8	4.31	1.062 x 1 13/16	4.37	1.000 x 1 13/16	3.96	1.062 x 1 7/8	4.02
				200 Volts				
.0005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.001	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.002	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.003	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.01	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.015	.195 x 5/16	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.02	.195 x 5/16	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.022	.195 x 5/16	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.033	.235 x 5/8	1.38	.297 x 11/16	1.41	.235 x 9/16	1.03	.297 x 5/8	1.06
.04	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.047	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.05	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.068	.312 x 13/16	1.45	.374 x 7/8	1.48	.312 x 3/4	1.10	.374 x 13/16	1.13
.1	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
15	.312 x 1 1/8	1.49	.374 x 13/16	1.52	.312 x 1 1/16	1.14	.374 x 1 1/8	1.17
.2	.312 x 1 1/8	1.50	.374 x 13/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.18
.22	.312 x 1 1/8	1.50	.374 x 13/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.18
.25	.312 x 1 1/8	1.62	.374 x 13/16	1.65	.312 x 1 1/16	1.27	.374 x 1 1/8	1.30
.33	.400 x 1 1/8	1.62	.462 x 13/16	1.65	.400 x 1 1/16	1.27	.462 x 1 1/8	1.30
.47	.400 x 1 1/8	1.71	.462 x 13/16	1.74	.400 x 1 1/16	1.36	.462 x 1 1/8	1.39
.5	.400 x 1 1/8	1.73	.462 x 13/16	1.76	.400 x 1 1/16	1.38	.462 x 1 1/8	1.41
.68	.500 x 1 1/8	1.78	.562 x 13/16	1.82	.500 x 1 1/16	1.43	.562 x 1 1/8	1.47
1.0	.562 x 1 1/8	1.92	.624 x 13/16	1.96	.562 x 1 1/16	1.57	.624 x 1 1/8	1.61
1.5	.562 x 1 5/8	2.73	.624 x 1 11/16	2.77	.562 x 1 9/16	2.38	.624 x 1 5/8	2.42
2.0	.562 x 1 7/8	2.73	.624 x 1 15/16	2.77	.562 x 1 13/16	2.38	.624 x 1 7/8	2.42
				400 Volts				
.0005	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.001	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.002	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.003	.235 x 5/8	1.39	.297 x 11/16	1.42	.235 x 9/16	1.04	.297 x 5/8	1.07
.005	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.07
.01	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.015	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.02	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.10
.022	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.11
.033	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.11
.04	.312 x 1 1/8	1.43	.374 x 13/16	1.46	.312 x 1 1/16	1.08	.374 x 1/8	1.11
.047	.312 x 1 1/8	1.43	.374 x 13/16	1.46	.312 x 1 1/16	1.08	.374 x 1/8	1.11
.05	.312 x 1 1/8	1.43	.374 x 13/16	1.46	.312 x 1 1/16	1.08	.374 x 1/8	1.11
.068	.312 x 1 1/8	1.53	.374 x 13/16	1.56	.312 x 1 1/16	1.18	.374 x 1 1/8	1.21
.1	.400 x 1 1/8	1.55	.462 x 13/16	1.58	.400 x 1 1/16	1.20	.462 x 1 1/8	1.23
.15	.500 x 1 1/8	1.63	.562 x 13/16	1.67	.500 x 1 1/16	1.28	.562 x 1 1/8	1.32
.2	.500 x 1 1/8	1.64	.562 x 13/16	1.68	.500 x 1 1/16	1.29	.562 x 1 1/8	1.33
.22	.500 x 1 1/8	1.64	.562 x 13/16	1.68	.500 x 1 1/16	1.29	.562 x 1 1/8	1.33
.25	.500 x 1 1/8	1.81	.562 x 13/16	1.85	.500 x 1 1/16	1.46	.562 x 1 1/8	1.50
.33	.562 x 1 1/8	1.81	.624 x 1 7/16	1.85	.562 x 1 5/16	1.46	.624 x 1 1/16	1.50
.47	.562 x 1 1/8	1.94	.624 x 1 11/16	1.98	.562 x 1 5/16	1.59	.624 x 1 5/8	1.63
.5	.562 x 1 1/8	2.14	.624 x 1 11/16	2.18	.562 x 1 5/16	1.79	.624 x 1 5/8	1.83
.68	.670 x 1 5/8	2.17	.732 x 1 11/16	2.21	.670 x 1 5/16	1.82	.732 x 1 5/8	1.86
1.0	.670 x 2 1/8	2.31	.732 x 2 3/16	2.35	.670 x 2 1/16	1.95	.732 x 2 1/8	2.00
1.5	.750 x 2 3/8	3.00	.812 x 2 7/16	3.06	.750 x 2 5/16	2.65	.812 x 2 3/8	2.71
2.0	1.000 x 1 7/8	3.51	1.062 x 1 13/16	3.57	1.000 x 1 13/16	3.16	1.062 x 1 7/8	3.22
				600 Volts				
.0005	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1.08
.001	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.08
.002	.235 x 5/8	1.40	.297 x 3/4	1.43	.235 x 9/16	1.05	.297 x 5/8	1.08
.003	.235 x 5/8	1.43	.297 x 3/4	1.46	.235 x 9/16	1.08	.297 x 5/8	1.11
.005	.235 x 5/8	1.45	.297 x 3/4	1.48	.235 x 9/16	1.10	.297 x 5/8	1.13
.01	.235 x 13/16	1.45	.297 x 7/8	1.48	.235 x 3/4	1.10	.297 x 13/16	1.13
.015	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.02	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.022	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
.033	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1.16
.04	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1.17
047	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.17
.05	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.18
.068	.400 x 1 1/8	1.55	.462 x 13/16	1.60	.400 x 1 1/16	1.22	.462 x 1 1/8	1.18
.1	.400 x 1 1/8	1.61	.462 x 13/16	1.64	.400 x 1 1/16	1.26	.462 x 1 1/8	1.25
.15	.500 x 1 1/8	1.75	.562 x 13/16	1.79	.500 x 1 1/16	1.40	.562 x 1 1/8	1.30
.2	.562 x 1 1/8	1.85	.624 x 1 7/16	1.85	.562 x 1 5/16	1.50	.624 x 1 1/8	1.54
.22	.562 x 1 1/8	1.88	.624 x 1 7/16	1.92	.562 x 1 5/16	1.53	.624 x 1 1/8	1.57
.25	.562 x 1 1/8	1.91	.624 x 1 7/16	1.95	.562 x 1 5/16	1.56	.624 x 1 1/8	1.60
.33	.562 x 1 1/8	2.09	.624 x 1 11/16	2.13	.562 x 1 5/16	1.74	.624 x 1 5/8	1.78
.47	.670 x 1 1/8	2.21	.732 x 1 11/16	2.25	.670 x 1 5/16	1.86	.732 x 1 1/8	1.90
.5	.670 x 1 1/8	2.33	.732 x 1 15/16	2.37	.670 x 1 13/16	1.98	.732 x 1 1/8	2.02
.68	.670 x 1 1/8	2.35	.732 x 1 15/16	2.39	.670 x 1 13/16	2.00	.732 x 1 1/8	2.04
1.0	.750 x 2 3/8	2.49	.812 x 2 7/16	2.55	.750 x 2 5/16	2.14	.812 x 2 3/8	2.20
1.5	1.000 x 1 7/8	3.01	1.062 x 1 13/16	3.07	1.000 x 1 13/16	2.66	1.062 x 1 7/8	2.72
2.0	1.000 x 2 3/8	3.54	1.062 x 2 7/16	3.60	1.000 x 2 5/16	3.19	1.062 x 2 3/8	3.25

In P 123ZN series the following additional EIA values are available in 200, 400 and 600 volts:

.012	.039	.12	.39
.018	.056	.18	.56
.027	.082	.27	.82

Contact factory for sizes and prices.

Capacity	P123Z	Net Price★	P123ZP	Net Price★	P123ZG	Net Price★	P123ZGP	Net Price★
				200 Volts				
.0005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.001	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.002	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.003	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.01	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.015	.195 x 9/16	1.36	.257 x 5/8	1.39	.195 x 1/2	1.01	.257 x 9/16	1.04
.02	.195 x 9/16	1.36	.257 x 5/8	1.39	.195 x 1/2	1.01	.257 x 9/16	1.04
.022	.195 x 9/16	1.36	.257 x 5/8	1.39	.195 x 1/2	1.01	.257 x 9/16	1.04
.033	.235 x 5/8	1.38	.297 x 11/16	1.41	.235 x 9/16	1.03	.297 x 5/8	1.06
.04	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.10
.047	.235 x 23/32	1.42	.297 x 23/32	1.45	.235 x 23/32	1.07	.297 x 23/32	1.10
.05	.235 x 23/32	1.42	.297 x 23/32	1.45	.235 x 23/32	1.07	.297 x 23/32	1.10
.068	.312 x 25/32	1.45	.374 x 23/32	1.48	.312 x 23/32	1.10	.374 x 25/32	1.13
.1	.312 x 25/32	1.48	.374 x 23/32	1.51	.312 x 23/32	1.13	.374 x 25/32	1.16
.15	.312 x 13/32	1.49	.374 x 13/32	1.52	.312 x 1 1/32	1.14	.374 x 13/32	1.17
.2	.312 x 13/32	1.50	.374 x 13/32	1.53	.312 x 1 1/32	1.15	.374 x 13/32	1.18
.22	.312 x 13/32	1.50	.374 x 13/32	1.53	.312 x 1 1/32	1.15	.374 x 13/32	1.18
.25	.312 x 13/32	1.62	.374 x 13/32	1.65	.312 x 1 1/32	1.27	.374 x 13/32	1.30
.33	.400 x 13/32	1.62	.462 x 13/32	1.65	.400 x 1 1/32	1.27	.462 x 13/32	1.30
.47	.400 x 13/32	1.71	.462 x 13/32	1.74	.400 x 1 1/32	1.36	.462 x 13/32	1.39
.5	.400 x 13/32	1.73	.462 x 13/32	1.76	.400 x 1 1/32	1.38	.462 x 13/32	1.41
.68	.562 x 13/32	1.78	.624 x 13/32	1.82	.562 x 1 1/32	1.43	.624 x 13/32	1.47
1.0	.562 x 19/32	1.92	.624 x 1 11/32	1.96	.562 x 1 7/32	1.57	.624 x 17/32	1.61
1.5	.562 x 1 25/32	2.73	.624 x 1 27/32	2.77	.562 x 1 23/32	2.38	.624 x 1 25/32	2.42
2.0	.562 x 1 25/32	2.73	.624 x 1 27/32	2.77	.562 x 1 23/32	2.38	.624 x 1 25/32	2.42
				400 Volts				
.0005	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.001	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.002	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.003	.235 x 5/8	1.39	.297 x 11/16	1.42	.235 x 9/16	1.04	.297 x 5/8	1.07
.005	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.07
.01	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.10
.015	.235 x 23/32	1.42	.297 x 23/32	1.45	.235 x 23/32	1.07	.297 x 25/32	1.10
.02	.235 x 25/32	1.42	.297 x 23/32	1.45	.235 x 23/32	1.07	.297 x 25/32	1.10
.022	.312 x 25/32	1.43	.374 x 23/32	1.46	.312 x 23/32	1.08	.374 x 25/32	1.11
.033	.312 x 25/32	1.43	.374 x 23/32	1.46	.312 x 23/32	1.08	.374 x 25/32	1.11
.04	.312 x 25/32	1.43	.374 x 23/32	1.46	.312 x 23/32	1.08	.374 x 25/32	1.11
.047	.400 x 25/32	1.43	.462 x 23/32	1.46	.400 x 23/32	1.08	.462 x 25/32	1.11
.05	.400 x 25/32	1.43	.462 x 23/32	1.46	.400 x 23/32	1.08	.462 x 25/32	1.11
.068	.400 x 13/32	1.53	.462 x 13/32	1.56	.400 x 1 1/32	1.18	.462 x 13/32	1.21
.1	.400 x 13/32	1.55	.462 x 13/32	1.58	.400 x 1 1/32	1.20	.462 x 13/32	1.23
.15	.500 x 13/32	1.63	.562 x 13/32	1.67	.500 x 1 1/32	1.28	.562 x 13/32	1.32
.2	.500 x 13/32	1.64	.562 x 13/32	1.68	.500 x 1 1/32	1.29	.562 x 13/32	1.33
.22	.562 x 13/32	1.64	.624 x 13/32	1.68	.562 x 1 1/32	1.29	.624 x 13/32	1.33
.25	.562 x 13/32	1.81	.624 x 13/32	1.85	.562 x 1 1/32	1.46	.624 x 13/32	1.50
.33	.562 x 19/32	1.81	.624 x 1 11/32	1.85	.562 x 1 7/32	1.46	.624 x 19/32	1.50
.47	.562 x 1 25/32	1.94	.624 x 1 27/32	1.98	.562 x 1 23/32	1.59	.624 x 1 25/32	1.63
.5	.562 x 1 25/32	2.14	.624 x 1 27/32	2.18	.562 x 1 23/32	1.79	.624 x 1 25/32	1.83
.68	.670 x 1 25/32	2.17	.732 x 1 27/32	2.21	.670 x 1 23/32	1.82	.732 x 1 25/32	1.86
1.0	.670 x 29/32	2.31	.732 x 2 11/32	2.35	.670 x 27/32	1.96	.732 x 29/32	2.00
				600 Volts				
.0005	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1.08
.001	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1.08
.002	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.08
.003	.235 x 5/8	1.43	.297 x 11/16	1.46	.235 x 9/16	1.08	.297 x 5/8	1.11
.005	.235 x 5/8	1.45	.297 x 11/16	1.48	.235 x 9/16	1.10	.297 x 5/8	1.13
.01	.312 x 25/32	1.45	.374 x 23/32	1.48	.312 x 23/32	1.10	.374 x 25/32	1.13
.015	.312 x 25/32	1.46	.374 x 23/32	1.49	.312 x 23/32	1.11	.374 x 25/32	1.14
.02	.312 x 25/32	1.46	.374 x 23/32	1.49	.312 x 23/32	1.11	.374 x 25/32	1.14
.022	.312 x 25/32	1.48	.374 x 23/32	1.51	.312 x 23/32	1.13	.374 x 25/32	1.16
.033	.400 x 25/32	1.48	.462 x 23/32	1.51	.400 x 23/32	1.13	.462 x 25/32	1.16
.04	.400 x 25/32	1.49	.462 x 23/32	1.52	.400 x 23/32	1.14	.462 x 25/32	1.17
.047	.400 x 25/32	1.50	.462 x 23/32	1.53	.400 x 23/32	1.15	.462 x 25/32	1.18
.05	.400 x 25/32	1.50	.462 x 23/32	1.53	.400 x 23/32	1.15	.462 x 25/32	1.18
.068	.400 x 13/32	1.57	.462 x 13/32	1.60	.400 x 1 1/32	1.22	.462 x 13/32	1.25
.1	.500 x 13/32	1.61	.562 x 13/32	1.64	.500 x 1 1/32	1.26	.562 x 13/32	1.30
.15	.500 x 13/32	1.75	.562 x 13/32	1.79	.500 x 1 1/32	1.40	.562 x 13/32	1.44
.2	.562 x 19/32	1.85	.624 x 1 11/32	1.89	.562 x 1 7/32	1.50	.624 x 19/32	1.54
.22	.562 x 19/32	1.88	.624 x 1 11/32	1.92	.562 x 1 7/32	1.53	.624 x 19/32	1.57
.25	.562 x 1 13/32	1.91	.624 x 1 15/32	1.95	.562 x 1 11/32	1.56	.624 x 1 13/32	1.60
.33	.562 x 1 25/32	2.09	.624 x 1 27/32	2.13	.562 x 1 23/32	1.74	.624 x 1 25/32	1.78
.47	.670 x 1 25/32	2.21	.732 x 1 27/32	2.25	.670 x 1 23/32	1.86	.732 x 1 25/32	1.90
.5	.670 x 1 25/32	2.33	.732 x 1 27/32	2.37	.670 x 1 23/32	1.98	.732 x 1 25/32	2.02
.68	.670 x 29/32	2.35	.732 x 2 11/32	2.39	.670 x 27/32	2.00	.732 x 29/32	2.04
1.0	.750 x 29/32	2.49	.812 x 2 11/32	2.55	.750 x 27/32	2.14	.812 x 29/32	2.20

†When present stocks are depleted the P123Z, ZG, ZP, ZGP will be subject to factory delivery cycles. Types P123ZN, ZNG, ZNP, ZNGP are recommended as replacements for all applications.

★Request O.E.M. Prices in the following quantities: 25 to 99, 100 to 999.

AEROVOX Capacitors

INDUSTRIAL SECTION—STANDARD TYPES (Continued)
METALLIZED-PAPER

TYPE P123ZNN

Designed For Low Voltage Operation.

Temperature Range —55°C To +100°C.

Type P123ZNN capacitors are specifically designed for transistor applications and miniaturized circuits. They provide the smallest units available for this type of construction. Operating temperature range of these capacitors is —55°C to +100°C. Aerovox's special type solid impregnant allows use of these units at any voltage up to rated voltage.

50 VDCW

Capacity Mfd.	P123ZNN Case Floating Size	Net Price★	P123ZNNP Case Floating Plastic Insulating Sleeve Size	Net Price★	P123ZNNG Case Grounded Size	Net Price★	P123ZNNGP Case Grounded Plastic Insulating Sleeve Size	Net Price★
.047	.195 x 13/16	2.11	.257 x 7/8	2.19	.195 x 3/4	1.31	.257 x 13/16	1.39
.068	.195 x 13/16	2.13	.257 x 7/8	2.21	.195 x 3/4	1.33	.257 x 13/16	1.41
.1	.195 x 15/16	2.15	.257 x 1	2.23	.195 x 7/8	1.35	.257 x 15/16	1.43
.15	.235 x 15/16	2.18	.297 x 1	2.26	.235 x 7/8	1.38	.297 x 15/16	1.46
.22	.312 x 13/16	2.22	.374 x 7/8	2.30	.312 x 3/4	1.42	.374 x 13/16	1.50
.33	.312 x 1 1/8	2.27	.374 x 1 3/16	2.35	.312 x 1 1/16	1.47	.374 x 1 1/8	1.55
.47	.312 x 1 3/16	2.34	.374 x 1 1/4	2.42	.312 x 1 1/8	1.54	.374 x 1 3/16	1.62
.68	.400 x 1 1/8	2.54	.462 x 1 3/16	2.62	.400 x 1 1/16	1.73	.462 x 1 1/8	1.81
1.0	.400 x 1 5/16	2.75	.462 x 1 3/8	2.83	.400 x 1 1/4	1.95	.462 x 1 5/16	2.03
1.5	.500 x 1 1/8	3.08	.562 x 1 3/16	3.16	.500 x 1 1/16	2.28	.562 x 1 1/8	2.36
2.0	.562 x 1 5/16	3.41	.624 x 1 3/8	3.49	.562 x 1 1/4	2.61	.624 x 1 5/16	2.69
3.0	.562 x 1 7/16	3.86	.624 x 1 1/2	3.94	.562 x 1 3/8	3.06	.624 x 1 7/16	3.14
4.0	.670 x 1 7/16	4.31	.732 x 1 1/2	4.39	.670 x 1 3/8	3.51	.732 x 1 7/16	3.59

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 999

TYPE P323ZN

125°C, Metal-Cased, Metallized-Paper Tubulars Similar to CH04 and CH05 — MIL-C-18312A

Miniature, hermetically-sealed in metal cases with glass terminal end-seal, Type P323ZN units are designed for operation at temperatures from —55°C to +125°C WITHOUT DERATING for voltage. They will meet all the requirements for minimum size, light weight and high temperature in present day electronic equipments. Designed for long life, rugged duty and high reliability operation in critical military and premium priced commercial electronic assemblies.

150 VDCW

Capacity Mfd.	P323ZN Case Floating Size*	Net★	P323ZNP Case Floating Plastic Insulating Sleeve Size*	Net★	P323ZNG Case Grounded Size*	Net★	P323ZNGP Case Grounded Plastic Insulating Sleeve Size*	Net★
*3.0	.670 x 1 7/8	4.26	.732 x 1 15/16	4.34	.670 x 1 13/16	3.91	.732 x 1 7/8	3.99
*4.0	.750 x 1 7/8	5.09	.812 x 1 15/16	5.17	.750 x 1 13/16	4.73	.812 x 1 7/8	4.81
5.0	1.000 x 1 7/8	5.61	1.062 x 1 15/16	5.69	1.000 x 1 13/16	5.26	1.062 x 1 7/8	5.34
*6.0	1.000 x 1 7/8	6.03	1.062 x 1 15/16	6.11	1.000 x 1 13/16	5.68	1.062 x 1 7/8	5.76
8.0	1.000 x 2 1/4	6.23	1.062 x 2 3/16	6.31	1.000 x 2 1/16	5.87	1.062 x 2 1/8	5.95
10.0	1.000 x 2 3/8	7.97	1.062 x 2 1/4	8.05	1.000 x 2 5/16	7.62	1.062 x 2 3/16	7.70
12.0	1.000 x 2 7/8	8.87	1.062 x 2 15/16	8.95	1.000 x 2 13/16	8.52	1.062 x 2 7/8	8.60

200 VDCW

.01	.175 x 1/2	1.51	.237 x 5/8	1.59	.175 x 7/16	1.16	.237 x 1/2	1.24
.012	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.015	.195 x 5/8	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x 5/8	1.24
.018	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.022	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.027	.235 x 5/8	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x 5/8	1.24
.033	.235 x 3/4	1.53	.297 x 13/16	1.61	.235 x 11/16	1.18	.297 x 3/4	1.26
.039	.235 x 13/16	1.53	.297 x 7/8	1.61	.235 x 3/4	1.18	.297 x 13/16	1.26
.047	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.056	.235 x 13/16	1.57	.297 x 7/8	1.65	.235 x 3/4	1.22	.297 x 13/16	1.30
.068	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.082	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
* .1	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.12	.312 x 1 1/8	1.63	.374 x 13/16	1.71	.312 x 1 1/16	1.28	.374 x 1 1/8	1.36
.15	.312 x 1 1/8	1.67	.374 x 13/16	1.75	.312 x 1 1/16	1.32	.374 x 1 1/8	1.40
.18	.312 x 1 1/8	1.67	.374 x 13/16	1.75	.312 x 1 1/16	1.32	.374 x 1 1/8	1.40
* .22	.312 x 1 1/8	1.67	.374 x 13/16	1.75	.312 x 1 1/16	1.32	.374 x 1 1/8	1.40
.27	.400 x 1 1/8	1.67	.462 x 13/16	1.75	.400 x 1 1/16	1.32	.462 x 1 1/8	1.40
.33	.400 x 1 1/8	1.82	.462 x 13/16	1.90	.400 x 1 1/16	1.47	.462 x 1 1/8	1.55
.39	.400 x 1 1/8	1.82	.462 x 13/16	1.90	.400 x 1 1/16	1.47	.462 x 1 1/8	1.55
* .47	.500 x 1 1/8	1.93	.562 x 13/16	2.01	.500 x 1 1/16	1.58	.562 x 1 1/8	1.66
.56	.500 x 1 1/8	1.93	.562 x 13/16	2.01	.500 x 1 1/16	1.58	.562 x 1 1/8	1.66
.68	.500 x 1 1/8	2.00	.562 x 13/16	2.08	.500 x 1 1/16	1.65	.562 x 1 1/8	1.73
.82	.562 x 1 1/8	2.00	.624 x 13/16	2.08	.562 x 1 1/16	1.65	.624 x 1 1/8	1.73
*1.0	.562 x 1 1/8	2.15	.624 x 13/16	2.23	.562 x 1 1/16	1.80	.624 x 1 1/8	1.88
*1.5	.562 x 1 5/8	3.22	.624 x 1 11/16	3.30	.562 x 1 5/8	2.87	.624 x 1 5/8	2.95
*2.0	.670 x 1 5/8	3.90	.732 x 1 11/16	3.98	.670 x 1 5/8	3.55	.732 x 1 5/8	3.63

Foot Note: Values marked are those listed in specification MIL-C-18312A.

400 VDCW

Capacity Mfd.	P323ZN Case Floating Size*	Net★	P323ZNP Case Floating Plastic Insulating Sleeve Size*	Net★	P323ZNG Case Grounded Size*	Net★	P323ZNGP Case Grounded Plastic Insulating Sleeve Size*	Net★
.001	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0022	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.0047	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.01	.235 x 3/4	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x 3/4	1.29
.012	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.015	.235 x 13/16	1.56	.297 x 7/8	1.64	.235 x 3/4	1.21	.297 x 13/16	1.29
.018	.312 x 13/16	1.60	.374 x 7/8	1.68	.312 x 3/4	1.25	.374 x 13/16	1.33
* .022	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.027	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.033	.312 x 13/16	1.61	.374 x 7/8	1.69	.312 x 3/4	1.26	.374 x 13/16	1.34
.039	.312 x 1 1/8	1.61	.374 x 13/16	1.69	.312 x 1 1/16	1.26	.374 x 1 1/8	1.34
* .047	.312 x 1 1/8	1.61	.374 x 13/16	1.69	.312 x 1 1/16	1.26	.374 x 1 1/8	1.34
.056	.312 x 1 1/8	1.64	.374 x 13/16	1.72	.312 x 1 1/16	1.29	.374 x 1 1/8	1.37
.068	.400 x 1 1/8	1.69	.462 x 13/16	1.77	.400 x 1 1/16	1.34	.462 x 1 1/8	1.42
.082	.400 x 1 1/8	1.70	.462 x 13/16	1.78	.400 x 1 1/16	1.35	.462 x 1 1/8	1.43
* .1	.400 x 1 1/8	1.74	.462 x 13/16	1.82	.400 x 1 1/16	1.39	.462 x 1 1/8	1.47
.12	.500 x 1 1/8	1.79	.562 x 13/16	1.87	.500 x 1 1/16	1.44	.562 x 1 1/8	1.52
.15	.500 x 1 1/8	1.84	.562 x 13/16	1.92	.500 x 1 1/16	1.49	.562 x 1 1/8	1.57
.18	.500 x 1 1/8	1.88	.562 x 13/16	1.96	.500 x 1 1/16	1.53	.562 x 1 1/8	1.61
* .22	.562 x 1 1/8	1.91	.624 x 13/16	1.99	.562 x 1 1/16	1.56	.624 x 1 1/8	1.64
.27	.562 x 1 1/8	1.97	.624 x 13/16	2.05	.562 x 1 1/16	1.62	.624 x 1 1/8	1.70
.33	.562 x 1 5/8	2.11	.624 x 1 7/16	2.19	.562 x 1 5/16	1.76	.624 x 1 5/8	1.84
.39	.562 x 1 5/8	2.19	.624 x 1 11/16	2.27	.562 x 1 5/16	1.84	.624 x 1 5/8	1.92
* .47	.670 x 1 5/8	2.34	.732 x 1 11/16	2.42	.670 x 1 5/16	1.99	.732 x 1 5/8	2.07
.56	.670 x 1 5/8	2.49	.732 x 1 11/16	2.57	.670 x 1 5/16	2.14	.732 x 1 5/8	2.22
.68	.670 x 1 7/8	2.68	.732 x 1 15/16	2.76	.670 x 1 13/16	2.33	.732 x 1 7/8	2.41
.82	.750 x 1 7/8	2.85	.812 x 1 15/16	2.93	.750 x 1 13/16	2.50	.812 x 1 7/8	2.58
*1.0	.750 x 1 7/8	2.94	.812 x 1 15/16	3.02	.750 x 1 13/16	2.59	.812 x 1 7/8	2.67
1.5	1.000 x 1 7/8	3.90	1.062 x 1 15/16	3.98	1.000 x 1 13/16	3.55	1.062 x 1 7/8	3.63
2.0	1.000 x 2 1/8	4.86	1.062 x 2 3/16	4.94	1.000 x 2 1/16	4.51	1.062 x 2 1/8	4.59

600 VDCW

.001	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0022	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
.0047	.235 x 3/4	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x 3/4	1.35
* .01	.312 x 13/16	1.62	.374 x 7/8	1.70	.312 x 3/4	1.27	.374 x 13/16	1.35
.012	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.015	.312 x 13/16	1.63	.374 x 7/8	1.71	.312 x 3/4	1.28	.374 x 13/16	1.36
.018	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
* .022	.312 x 13/16	1.64	.374 x 7/8	1.72	.312 x 3/4	1.29	.374 x 13/16	1.37
.027	.312 x 1 1/8	1.64	.374 x 13/16	1.72	.312 x 1 1/16	1.29	.374 x 1 1/8	1.37
.033	.312 x 1 1/8	1.64	.374 x 13/16	1.72	.312 x 1 1/16	1.29	.374 x 1 1/8	1.37
.039	.400 x 1 1/8	1.64	.462 x 13/16	1.72	.400 x 1 1/16	1.29	.462 x 1 1/8	1.37
* .047	.400 x 1 1/8	1.66	.462 x 13/16	1.74	.400 x 1 1/16	1.31	.462 x 1 1/8	1.39
.056	.400 x 1 1/8	1.70	.462 x 13/16	1.78	.400 x 1 1/16	1.35	.462 x 1 1/8	1.43
.068	.400 x 1 1/8	1.77	.462 x 13/16	1.85	.400 x 1 1/16	1.42	.462 x 1 1/8	1.50
.082	.500 x 1 1/8	1.79	.562 x 13/16	1.87	.500 x 1 1/16	1.43	.562 x 1 1/8	1.51
* .1	.500 x 1 1/8	1.79	.562 x 13/16	1.87	.500 x 1 1/16	1.43	.562 x 1 1/8	1.51
.12	.500 x 1 1/8	1.90	.562 x 13/16	1.98	.500 x 1 1/16	1.55	.562 x 1 1/8	1.63
.15	.500 x 1 1/8	2.00	.562 x 13/16	2.08	.500 x 1 1/16	1.65	.562 x 1 1/8	1.73
.18	.562 x 1 1/8	2.09	.624 x 13/16	2.17	.562 x 1 1/16	1.74	.624 x 1 1/8	1.82
* .22	.562 x 1 1/8	2.16	.624 x 13/16	2.24	.562 x 1 1/16	1.81	.624 x 1 1/8	1.89
.27	.562 x 1 5/8	2.34	.624 x 1 11/16	2.42	.562 x 1 5/16	1.99	.624 x 1 5/8	2.07
.33	.562 x 1 5/8	2.46	.624 x 1 11/16	2.54	.562 x 1 5/16	2.11	.624 x 1 5/8	2.19
.39	.670 x 1 5/8	2.57	.732 x 1 11/16	2.65	.670 x 1 5/16	2.22	.732 x 1 5/8	2.30
* .47	.670 x 1 7/8	2.68	.732 x 1 15/16	2.76	.670 x 1 13/16	2.33	.732 x 1 7/8	2.41
.56	.670 x 1 7/8	2.79	.732 x 1 15/16	2.87	.670 x 1 13/16	2.44	.732 x 1 7/8	2.52
.68	.670 x 1 7/8	2.94	.732 x 1 15/16	3.02	.670 x 1 13/16	2.59	.732 x 1 7/8	2.67
.82	1.000 x 1 7/8	3.35	1.062 x 1 15/16	3.43	1.000 x 1 13/16	2.99	1.062 x 1 7/8	3.07
*1.0	1.000 x 1 7/8	3.42	1.062 x 1 15/16	3.50	1.000 x 1 13/16	3.07	1.062 x 1 7/8	3.15
1.5	1.000 x 2 1/8	4.19	1.062 x 2 3/16	4.27	1.000 x 2 1/16	3.83	1.062 x 2 1/8	3.91
2.0	1.000 x 2 3/8	5.16	1.062 x 2 7/16	5.24	1.000 x 2 5/16	4.81	1.062 x 2 3/8	4.89

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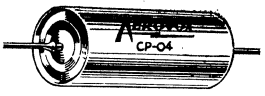
AEROVOX Capacitors

INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C



TYPES CP04 and CP05 — Characteristics K Vibration Grades 1 and 3

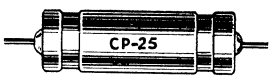
Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Also available in ±20% (M). Specify Vibration Grade when ordering.

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.033	100V	CP04A1KB333K—	2.00	CP04A3KB333K—	1.34	CP05A1KB333K —	2.07	CP05A3KB333K—	1.41
.1	100V	CP04A1KB104K—	2.15	CP04A3KB104K—	1.49	CP05A1KB104K —	2.21	CP05A3KB104K—	1.55
.15	100V	CP04A1KB154K—	2.17	CP04A3KB154K—	1.51	CP05A1KB154K —	2.23	CP05A3KB154K—	1.57
.22	100V	CP04A1KB224K—	2.21	CP04A3KB224K—	1.55	CP05A1KB224K —	2.28	CP05A3KB224K—	1.62
.33	100V	CP04A1KB334K—	2.32	CP04A3KB334K—	1.66	CP05A1KB334K —	2.38	CP05A3KB334K—	1.72
.47	100V	CP04A1KB474K—	2.50	CP04A3KB474K—	1.84	CP05A1KB474K —	2.59	CP05A3KB474K—	1.93
.68	100V	CP04A1KB684K—	2.65	CP04A3KB684K—	1.99	CP05A1KB684K —	2.74	CP05A3KB684K—	2.08
1.0	100V	CP04A1KB105K—	2.82	CP04A3KB105K—	2.16	CP05A1KB105K —	2.90	CP05A3KB105K—	2.24
.015	200V	CP04A1KC153K—	2.05	CP04A3KC153K—	1.39	CP05A1KC153K —	2.12	CP05A3KC153K—	1.46
.022	200V	CP04A1KC223K—	2.05	CP04A3KC223K—	1.39	CP05A1KC223K —	2.12	CP05A3KC223K—	1.46
.047	200V	CP04A1KC473K—	2.18	CP04A3KC473K—	1.52	CP05A1KC473K —	2.24	CP05A3KC473K—	1.58
.068	200V	CP04A1KC683K—	2.20	CP04A3KC683K—	1.54	CP05A1KC683K —	2.27	CP05A3KC683K—	1.61
.1	200V	CP04A1KC104K—	2.22	CP04A3KC104K—	1.56	CP05A1KC104K —	2.28	CP05A3KC104K—	1.62
.15	200V	CP04A1KC154K—	2.26	CP04A3KC154K—	1.60	CP05A1KC154K —	2.32	CP05A3KC154K—	1.66
.22	200V	CP04A1KC224K—	2.38	CP04A3KC224K—	1.72	CP05A1KC224K —	2.45	CP05A3KC224K—	1.79
.33	200V	CP04A1KC334K—	2.55	CP04A3KC334K—	1.89	CP05A1KC334K —	2.63	CP05A3KC334K—	1.97
.47	200V	CP04A1KC474K—	2.70	CP04A3KC474K—	2.04	CP05A1KC474K —	2.78	CP05A3KC474K—	2.12
.68	200V	CP04A1KC684K—	2.86	CP04A3KC684K—	2.20	CP05A1KC684K —	2.95	CP05A3KC684K—	2.29
1.0	200V	CP04A1KC105K—	3.16	CP04A3KC105K—	2.50	CP05A1KC105K —	3.24	CP05A3KC105K—	2.58
.01	400V	CP04A1KE103K—	2.13	CP04A3KE103K—	1.47	CP05A1KE103K —	2.19	CP05A3KE103K—	1.53
.033	400V	CP04A1KE333K—	2.23	CP04A3KE333K—	1.57	CP05A1KE333K —	2.30	CP05A3KE333K—	1.64
.047	400V	CP04A1KE473K—	2.28	CP04A3KE473K—	1.62	CP05A1KE473K —	2.35	CP05A3KE473K—	1.69
.068	400V	CP04A1KE683K—	2.32	CP04A3KE683K—	1.66	CP05A1KE683K —	2.38	CP05A3KE683K—	1.72
.1	400V	CP04A1KE104K—	2.41	CP04A3KE104K—	1.75	CP05A1KE104K —	2.47	CP05A3KE104K—	1.81
.15	400V	CP04A1KE154K—	2.55	CP04A3KE154K—	1.89	CP05A1KE154K —	2.64	CP05A3KE154K—	1.98
.22	400V	CP04A1KE224K—	2.70	CP04A3KE224K—	2.04	CP05A1KE224K —	2.78	CP05A3KE224K—	2.12
.33	400V	CP04A1KE334K—	2.84	CP04A3KE334K—	2.18	CP05A1KE334K —	2.92	CP05A3KE334K—	2.26
.47	400V	CP04A1KE474K—	3.12	CP04A3KE474K—	2.46	CP05A1KE474K —	3.20	CP05A3KE474K—	2.54
.68	400V	CP04A1KE684K—	3.34	COP4A3KE684K—	2.68	CP05A1KE684K —	3.44	CP05A3KE684K—	2.78
1.0	400V	CP04A1KE105K—	3.76	CP04A3KE105K—	3.10	CP05A1KE105K —	3.86	CP05A3KE105K—	3.20
.001	600V	CP04A1KF102K—	2.08	CP04A3KF102K—	1.42	CP05A1KF102K —	2.15	CP05A3KF102K—	1.49
.0015	600V	CP04A1KF152K—	2.08	CP04A3KF152K—	1.42	CP05A1KF152K —	2.15	CP05A3KF152K—	1.49
.0022	600V	CP04A1KF222K—	2.08	CP04A3KF222K—	1.42	CP05A1KF222K —	2.15	CP05A3KF222K—	1.49
.0033	600V	CP04A1KF332K—	2.14	CP04A3KF332K—	1.48	CP05A1KF332K —	2.20	CP05A3KF332K—	1.54
.0047	600V	CP04A1KF472K—	2.14	CP04A3KF472K—	1.48	CP05A1KF472K —	2.20	CP05A3KF472K—	1.54
.0068	600V	CP04A1KF682K—	2.14	CP04A3KF682K—	1.48	CP05A1KF682K —	2.20	CP05A3KF682K—	1.54
.01	600V	CP04A1KF103K—	2.18	CP04A3KF103K—	1.52	CP05A1KF103K —	2.24	CP05A3KF103K—	1.58
.015	600V	CP04A1KF153K—	2.21	CP04A3KF153K—	1.55	CP05A1KF153K —	2.27	CP05A3KF153K—	1.61
.022	600V	CP04A1KF223K—	2.24	CP04A3KF223K—	1.58	CP05A1KF223K —	2.31	CP05A3KF223K—	1.65
.033	600V	CP04A1KF333K—	2.32	CP04A3KF333K—	1.66	CP05A1KF333K —	2.38	CP05A3KF333K—	1.72
.047	600V	CP04A1KF473K—	2.34	CP04A3KF473K—	1.68	CP05A1KF473K —	2.40	CP05A3KF473K—	1.74
.068	600V	CP04A1KF683K—	2.44	CP04A3KF683K—	1.78	CP05A1KF683K —	2.51	CP05A3KF683K—	1.85
.1	600V	CP04A1KF104K—	2.59	CP04A3KF104K—	1.93	CP05A1KF104K —	2.68	CP05A3KF104K—	2.02
.15	600V	CP04A1KF154K—	2.70	CP04A3KF154K—	2.04	CP05A1KF154K —	2.78	CP05A3KF154K—	2.12
.22	600V	CP04A1KF224K—	2.88	CP04A3KF224K—	2.22	CP05A1KF224K —	2.97	CP05A3KF224K—	2.31
.33	600V	CP04A1KF334K—	3.20	CP04A3KF334K—	2.54	CP05A1KF334K —	3.29	CP05A3KF334K—	2.63
.47	600V	CP04A1KF474K—	3.40	CP04A3KF474K—	2.74	CP05A1KF474K —	3.50	CP05A3KF474K—	2.84
.68	600V	CP04A1KF684K—	3.58	CP04A3KF684K—	2.92	CP05A1KF684K —	3.69	CP05A3KF684K—	3.02

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.

MIL-C-25A †

TYPES CP-25, CP26, CP27, CP28, CP29



Oil impregnated and filled hermetically sealed tubular capacitors for use in bypass and coupling applications in transmitters and test equipment. Available in 5 case styles, with plastic insulating sleeve and either radial or soldered tangential bracket. Case is floating, but can be furnished grounded on special order. Standard tolerance ±20% tolerance (M).

CAPACITY	VOLTAGE	P89MXY	Net Price★	P89MXP	Net Price★	P89MY	Net Price★	P89MP	Net Price★	P89MAY	Net Price★
.1	200V	CP25A1EC104K	.89	CP26A1EC104K	1.05	CP27A1EC104K	.93	CP28A1EC104K	1.10	CP29A1EC104K	1.10
.25	200V	CP25A1EC254K	1.14	CP26A1EC254K	1.35	CP27A1EC254K	1.18	CP28A1EC254K	1.40	CP29A1EC254K	1.35
.5	200V	CP25A1EC504K	1.50	CP26A1EC504K	1.80	CP27A1EC504K	1.55	CP28A1EC504K	1.84	CP29A1EC504K	1.72
.003	600V	CP25A1EF302K	.75	CP26A1EF302K	.90	CP27A1EF302K	.80	CP28A1EF302K	.94	CP29A1EF302K	.97
.006	600V	CP25A1EF602K	.76	CP26A1EF602K	.91	CP27A1EF602K	.80	CP28A1EF602K	.95	CP29A1EF602K	.97
.01	600V	CP25A1EF103K	.76	CP26A1EF103K	.91	CP27A1EF103K	.80	CP28A1EF103K	.95	CP29A1EF103K	.97
.02	600V	CP25A1EF203K	.77	CP26A1EF203K	.92	CP27A1EF203K	.82	CP28A1EF203K	.96	CP29A1EF203K	.97
.05	600V	CP25A1EF503K	.83	CP26A1EF503K	1.00	CP27A1EF503K	.88	CP28A1EF503K	1.04	CP29A1EF503K	1.05
.1	600V	CP25A1EF104K	.90	CP26A1EF104K	1.07	CP27A1EF104K	.94	CP28A1EF104K	1.11	CP29A1EF104K	1.11
.25	600V	CP25A1EF254K	1.16	CP26A1EF254K	1.45	CP27A1EF254K	1.20	CP28A1EF254K	1.50	CP29A1EF254K	1.37
.5	600V	CP25A1EF504K	1.51	CP26A1EF504K	1.81	CP27A1EF504K	1.56	CP28A1EF504K	1.85	CP29A1EF504K	1.73
.003	1000V	CP25A1EG302K	.81	CP26A1EG302K	.98	CP27A1EG302K	.86	CP28A1EG302K	1.02	CP29A1EG302K	1.03
.006	1000V	CP25A1EG602K	.83	CP26A1EG602K	1.00	CP27A1EG602K	.88	CP28A1EG602K	1.04	CP29A1EG602K	1.05
.01	1000V	CP25A1EG103K	.83	CP26A1EG103K	1.00	CP27A1EG103K	.88	CP28A1EG103K	1.04	CP29A1EG103K	1.05

† These values no longer listed in MIL-C-25C. They will not be restocked when present inventories are depleted.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499.

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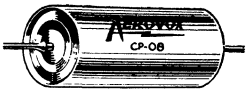
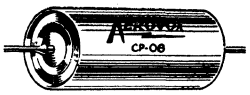
AEROVOX Capacitors



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C

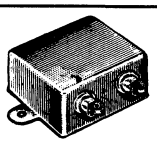


TYPES CP08 and CP09 — Caracteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is ±10% (K). Also available in ±20% (M). Specify Vibration Grade when ordering.

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
				NO TUBE				PLASTIC TUBE	
CAPACITY	VOLTAGE	Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.01	100V	CP08A1KB103K —	2.08	CP08A3KB103K—	1.42	CP09A1KB103K —	2.14	CP09A3KB103K—	1.48
.015	100V	CP08A1KB153K —	2.10	CP08A3KB153K—	1.44	CP09A1KB153K —	2.16	CP09A3KB153K—	1.50
.047	100V	CP08A1KB473K —	2.20	CP08A3KB473K—	1.54	CP09A1KB473K —	2.27	CP09A3KB473K—	1.61
.1	100V	CP08A1KB104K —	2.25	CP08A3KB104K—	1.59	CP09A1KB104K —	2.31	CP09A3KB104K—	1.65
.15	100V	CP08A1KB154K —	2.30	CP08A3KB154K—	1.64	CP09A1KB154K —	2.36	CP09A3KB154K—	1.70
.22	100V	CP08A1KB224K —	2.39	CP08A3KB224K—	1.73	CP09A1KB224K —	2.46	CP09A3KB224K—	1.80
.33	100V	CP08A1KB334K —	2.59	CP08A3KB334K—	1.93	CP09A1KB334K —	2.67	CP09A3KB334K—	2.01
.47	100V	CP08A1KB474K —	2.72	CP08A3KB474K—	2.06	CP09A1KB474K —	2.80	CP09A3KB474K—	2.14
.68	100V	CP08A1KB684K —	2.88	CP08A3KB684K—	2.22	CP09A1KB684K —	2.97	CP09A3KB684K—	2.31
1.0	100V	CP08A1KB105K —	3.22	CP08A3KB105K—	2.56	CP09A1KB105K —	3.30	CP09A3KB105K—	2.64
.0047	200V	CP08A1KC472K —	2.11	CP08A3KC472K—	1.45	CP09A1KC472K —	2.17	CP09A3KC472K—	1.51
.0068	200V	CP08A1KC682K —	2.11	CP08A3KC682K—	1.45	CP09A1KC682K —	2.17	CP09A3KC682K—	1.51
.022	200V	CP08A1KC223K —	2.24	CP08A3KC223K—	1.58	CP09A1KC223K —	2.31	CP09A3KC223K—	1.65
.033	200V	CP08A1KC333K —	2.26	CP08A3KC333K—	1.60	CP09A1KC333K —	2.32	CP09A3KC333K—	1.66
.047	200V	CP08A1KC473K —	2.30	CP08A3KC473K—	1.64	CP09A1KC473K —	2.36	CP09A3KC473K—	1.70
.068	200V	CP08A1KC683K —	2.32	CP08A3KC683K—	1.66	CP09A1KC683K —	2.39	CP09A3KC683K—	1.73
.1	200V	CP08A1KC104K —	2.33	CP08A3KC104K—	1.67	CP09A1KC104K —	2.40	CP09A3KC104K—	1.74
.15	200V	CP08A1KC154K —	2.46	CP08A3KC154K—	1.80	CP09A1KC154K —	2.52	CP09A3KC154K—	1.86
.22	200V	CP08A1KC224K —	2.63	CP08A3KC224K—	1.97	CP09A1KC224K —	2.71	CP09A3KC224K—	2.05
.33	200V	CP08A1KC334K —	2.78	CP08A3KC334K—	2.12	CP09A1KC334K —	2.86	CP09A3KC334K—	2.20
.47	200V	CP08A1KC474K —	2.95	CP08A3KC474K—	2.29	CP09A1KC474K —	3.04	CP09A3KC474K—	2.38
.68	200V	CP08A1KC684K —	3.20	CP08A3KC684K—	2.54	CP09A1KC684K —	3.28	CP09A3KC684K—	2.62
1.0	200V	CP08A1KC105K —	3.36	CP08A3KC105K—	2.70	CP09A1KC105K —	3.46	CP09A3KC105K—	2.80
.0033	400V	CP08A1KE332K —	2.18	CP08A3KE332K—	1.52	CP09A1KE332K —	2.24	CP09A3KE332K—	1.58
.015	400V	CP08A1KE153K —	2.30	CP08A3KE153K—	1.64	CP09A1KE153K —	2.36	CP09A3KE153K—	1.70
.033	400V	CP08A1KE333K —	2.38	CP08A3KE333K—	1.72	CP09A1KE333K —	2.44	CP09A3KE333K—	1.78
.047	400V	CP08A1KE473K —	2.41	CP08A3KE473K—	1.75	CP09A1KE473K —	2.47	CP09A3KE473K—	1.81
.068	400V	CP08A1KE683K —	2.48	CP08A3KE683K—	1.82	CP09A1KE683K —	2.54	CP09A3KE683K—	1.88
.1	400V	CP08A1KE104K —	2.63	CP08A3KE104K—	1.97	CP09A1KE104K —	2.71	CP09A3KE104K—	2.05
.15	400V	CP08A1KE154K —	2.78	CP08A3KE154K—	2.12	CP09A1KE154K —	2.86	CP09A3KE154K—	2.20
.22	400V	CP08A1KE224K —	2.91	CP08A3KE224K—	2.25	CP09A1KE224K —	2.99	CP09A3KE224K—	2.33
.33	400V	CP08A1KE334K —	3.22	CP08A3KE334K—	2.56	CP09A1KE334K —	3.30	CP09A3KE334K—	2.64
.47	400V	CP08A1KE474K —	3.39	CP08A3KE474K—	2.73	CP09A1KE474K —	3.49	CP09A3KE474K—	2.83
.001	600V	CP08A1KF102K —	2.17	CP08A3KF102K—	1.51	CP09A1KF102K —	2.23	CP09A3KF102K—	1.57
.0015	600V	CP08A1KF152K —	2.17	CP08A3KF152K—	1.51	CP09A1KF152K —	2.23	CP09A3KF152K—	1.57
.0022	600V	CP08A1KF222K —	2.17	CP08A3KF222K—	1.51	CP09A1KF222K —	2.23	CP09A3KF222K—	1.57
.0033	600V	CP08A1KF332K —	2.28	CP08A3KF332K—	1.62	CP09A1KF332K —	2.34	CP09A3KF332K—	1.68
.0047	600V	CP08A1KF472K —	2.28	CP08A3KF472K—	1.62	CP09A1KF472K —	2.35	CP09A3KF472K—	1.69
0068	600V	CP08A1KF682K —	2.30	CP08A3KF682K—	1.64	CP09A1KF682K —	2.36	CP09A3KF682K—	1.70
.01	600V	CP08A1KF103K —	2.31	CP08A3KF103K—	1.65	CP09A1KF103K —	2.38	CP09A3KF103K—	1.72
.015	600V	CP08A1KF153K —	2.39	CP08A3KF153K—	1.73	CP09A1KF153K —	2.45	CP09A3KF153K—	1.79
.022	600V	CP08A1KF223K —	2.41	CP08A3KF223K—	1.75	CP09A1KF223K —	2.47	CP09A3KF223K—	1.81
033	600V	CP08A1KF333K —	2.42	CP08A3KF333K—	1.76	CP09A1KF333K —	2.49	CP09A3KF333K—	1.83
.047	600V	CP08A1KF473K —	2.52	CP08A3KF473K—	1.86	CP09A1KF473K —	2.58	CP09A3KF473K—	1.92
.068	600V	CP08A1KF683K —	2.68	CP08A3KF683K—	2.02	CP09A1KF683K —	2.76	CP09A3KF683K—	2.10
.1	600V	CP08A1KF104K —	2.77	CP08A3KF104K—	2.11	CP09A1KF104K —	2.86	CP09A3KF104K—	2.20
.15	600V	CP08A1KF154K —	2.96	CP08A3KF154K—	2.30	CP09A1KF154K —	3.04	CP09A3KF154K—	2.38
.22	600V	CP08A1KF224K —	3.28	CP08A3KF224K—	2.62	CP09A1KF224K —	3.37	CP09A3KF224K—	2.71
.33	600V	CP08A1KF334K —	3.46	CP08A3KF334K—	2.80	CP09A1KF334K —	3.56	CP09A3KF334K—	2.90
.47	600V	CP08A1KF474K —	3.59	CP08A3KF474K—	2.93	CP09A1KF474K —	3.69	CP09A3KF474K—	3.03

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.



TYPES CP53, CP54, CP55

Oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on side (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	JP30M, SIDE TERM.	★Net Price	JP30MT, TOP TERM.	★Net Price	JP30MB, BOTTOM TERM.	★Net Price
2.0	100V	CP53B1EB205K	2.64				
4.0	100V	CP53B1EB405K	3.26				
1.0	200V	CP53B1EC105K	2.27				
2.0	200V	CP53B1EC205K	2.90				
.5	400V	CP53B1EE504K*	2.02	CP54B1EE504K*	2.02		
3X.5	400V	CP53B5EE504V	3.82				
.05	600V	CP54B1EF503K†	1.79	CP54B1EF503K†	1.79	CP55B1EF503K†	1.79
.1	600V	CP53B1EF104K†	1.85	CP54B1EF104K†	1.85	CP55B1EF104K†	1.85
.25	600V	CP53B1EF254K	1.91	CP54B1EF254K	1.91	CP55B1EF254K	1.91
.5	600V	CP53B1EF504K	2.06	CP54B1EF504K	2.06	CP55B1EF504K	2.06
1.0	600V	CP53B1EF105K	2.41	CP54B1EF105K	2.41	CP55B1EF105K	2.41
2.0	600V	CP53B1EF205K	3.22	CP54B1EF205K	3.22	CP55B1EF205K	3.22
2X.05	600V	CP53B4EF503V	2.47	CP54B4EF503V	2.47	CP55B4EF503V	2.47
2X.1	600V	CP53B4EF104V	2.51	CP54B4EF104V	2.51	CP55B4EF104V	2.51
2X.25	600V	CP53B4EF254V	2.59	CP54B4EF254V	2.59	CP55B4EF254V	2.59
2X.5	600V	CP53B4EF504V	2.95	CP54B4EF504V	2.95	CP55B4EF504V	2.95
2X1.0	600V	CP53B4EF105V	3.49	CP54B4EF105V	3.59	CP55B4EF105V	3.49
3X.05	600V	CP53B5EF503V†	2.82	CP54B5EF503V†	2.82	CP55B5EF503V†	2.82
3X.1	600V	CP53B5EF104V	2.87	CP54B5EF104V	2.87	CP55B5EF104V	2.87
3X.25	600V	CP53B5EF254V	3.17	CP54B5EF254V	3.17	CP55B5EF254V	3.17
3X.5	600V	CP53B5EF504V	3.88	CP54B5EF504V	3.88	CP55B5EF504V	3.88
.05	1000V	CP53B1EG503K	1.84				
.1	1000V	CP53B1EG104K	1.95				
.25	1000V	CP53B1EG254K	2.02				
.5	1000V	CP53B1EG504K	2.16				
1.0	1000V	CP53B1EG105K	2.90				
2X.05	1000V	CP53B4EG503V	2.53				
2X.1	1000V	CP53B4EG104V	2.53				
2X.25	1000V	CP53B4EG254V	2.83				
2X.5	1000V	CP53B4EG504V	3.71				
3X.05	1000V	CP53B5EG503V	2.94				
3X.1	1000V	CP53B5EG104V	3.21				
3X.25	1000V	CP53B5EG254V	3.92				

CHARACTERISTIC F

CAP.	VOLT.	JP30J SIDE TERM.	★Net Price
8.0	100V	CP53B1FB805K	4.86
10.0	100V	CP53B1FB106K	6.05

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.

*Will be supplied in "K" characteristic when present stock is depleted. †These values no longer listed in MIL-C-25C. They will not be restocked when present inventories are depleted.

Net

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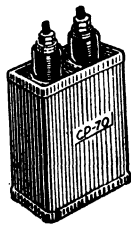
AEROVOX Capacitors



INDUSTRIAL SECTION — MIL TYPES

TYPE CP70 MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals

Oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance ±10% (K). Also available in ±20% tolerance (M). MIL-C-25C mounting brackets are also available, for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.

Capacity	Voltage	CHAR. E JP09M Porc. Term	Case Size and Brkt. Desig.	Net Price★	CHAR. F JP09M Porc. Term	Case Size and Brkt. Desig.	Net Price★	CHAR. E JP09MR Rivet Term	Case Size and Brkt. Desig.	Net Price★	CHAR. F JP09MR Rivet Term	Case Size and Brkt. Desig.	Net Price★
.5	600V	CP70E1EF504K*	A2	2.92									
1.0	600V	CP70E1EF105K	A2	3.62				CP70B1EF105K	A2	3.06			
2.0	600V	CP70E1EF205K	A4	4.29	CP70E1FF205K	A3	4.09	CP70B1EF205K	A4	3.96	CP70B1FF205K	A3	3.77
4.0	600V	CP70E1EF405K	B4	5.68	CP70E1FF405K	B3	5.58	CP70B1EF405K	B4	5.52	CP70B1FF405K	B3	5.26
6.0	600V	CP70E1EF605K	C2	6.86	CP70E1FF605K	B6	6.55	CP70B1EF605K	C2	6.54	CP70B1FF605K	B6	6.23
8.0	600V	CP70E1EF805K	C3	8.43	CP70E1FF805K	C2	8.07	CP70B1EF805K	C3	7.89	CP70B1FF805K	C2	7.75
10.0	600V	CP70E1EF106K	D3	9.11	CP70E1FF106K	C4	8.69	CP70B1EF106K	D3	8.78	CP70B1FF106K	C4	8.37
.1	1000V	CP70E1EG104K	A1	2.70									
.25	1000V	CP70E1EG254K	A2	3.06									
.5	1000V	CP70E1EG504K	A2	3.24									
1.0	1000V	CP70E1EG105K	A3	4.14	CP70E1FG105K	A2	3.84	CP70B1EG105K	A3	3.68			
2.0	1000V	CP70E1EG205K	A6	5.41	CP70E1FG205K	A5	4.87	CP70B1EG205K	A6	4.73	CP70B1FG205K	A5	4.51
4.0	1000V	CP70E1EG405K	C2	6.84	CP70E1FG405K	B6	6.56	CP70B1EG405K	C2	6.38	CP70B1FG405K	B6	6.22
6.0	1000V	CP70E1EG605K	D3	8.46	CP70E1FG605K	C4	8.09	CP70B1EG605K	D3	8.13	CP70B1FG605K	C4	7.75
8.0	1000V	CP70E1EG805K	D5	9.05				CP70B1EG805K	D5	8.93	CP70B1FG805K	D2	9.15
10.0	1000V	CP70E1EG106K	E5	10.99	CP70E1FG106K	D5	10.91	CP70B1EG106K	E5	10.82	CP70B1FG106K	D5	10.08
12.0	1000V	CP70E1EG126K	E6	11.89				CP70B1EG126K	E6	11.75	CP70B1FG126K	E4	11.69
15.0	1000V	CP70E1EG156K	G2	13.15	CP70E1FG156K	F1	13.09	CP70B1EG156K	G2	13.01	CP70B1FG156K	F1	12.95
.5	1500V	CP70E1EH504K	A3	3.95				CP70B1EH504K	A3	3.46			
1.0	1500V	CP70E1EH105K	A6	4.64	CP70E1FH105K	A5	4.37	CP70B1EH105K	A6	4.23			
2.0	1500V	CP70E1EH205K	B6	6.54	CP70E1FH205K	B5	5.57	CP70B1EH205K	B6	5.51	CP70B1FH205K	B5	5.25
4.0	1500V	CP70E1EH405K	D4	8.77	CP70E1FH405K	C4	8.14	CP70B1EH405K	D4	8.20	CP70B1FH405K	C4	7.82
6.0	1500V	CP70E1EH605K	E5	10.66	CP70E1FH605K	D5	10.40	CP70B1EH605K	E5	10.53	CP70B1FH605K	D5	10.09
8.0	1500V	CP70E1EH805K	F2	13.66	CP70E1FH805K	F1	12.99	CP70B1EH805K	F2	12.92	CP70B1FH805K	F1	12.66
10.0	1500V	CP70E1EH106K	G4	15.64	CP70E1FH106K	G2	15.06	CP70B1EH106K	G4	13.79	CP70B1FH106K	G2	14.66
12.0	1500V	CP70E1EH126K	J3	17.01	CP70E1FH126K	G2	16.97	CP70B1EH126K	J3	16.89	CP70B1FH126K	G2	16.84
15.0	1500V	CP70E1EH156K	J6	18.74	CP70E1FH156K	J3	18.68	CP70B1EH156K	J6	18.61	CP70B1FH156K	J3	18.56
.1	2000V	CP70E1EJ104K*	B1	4.13									
.25	2000V	CP70E1EJ254K	B1	4.47									
.5	2000V	CP70E1EJ504K	B2	4.64									
1.0	2000V	CP70E1EJ105K	B6	5.67	CP70E1FJ105K	B3	5.62						
2.0	2000V	CP70E1EJ205K	C4	6.71	CP70E1FJ205K	C3	6.65						
4.0	2000V	CP70E1EJ405K	E6	9.45	CP70E1FJ405K	E3	9.40						
6.0	2000V				CP70E1FJ605K	G1	12.24						
10.0	2000V				CP70E1FJ106K	J3	17.64						
12 0	2000V				CP70E1FJ126K	J5	20.50						
15.0	2000V				CP70E1FJ156K	J7	22.04						
.1	2500V	CP70E1EK104K	B1	6.50									
.5	2500V	CP70E1EK504K	B4	6.99	CP70E1FK504K	B3	6.93						
1.0	2500V	CP70E1EK105K	D2	7.97	CP70E1FK105K	D1	7.90						
2.0	2500V	CP70E1EK205K	E5	12.88	CP70E1FK205K	D5	12.82						
4.0	2500V	CP70E1EK405K	J2	17.96									
10.0	2500V	CP70E1EK106K	J10	40.72									
.1	3000V	CP70E1EL104K	B2	8.30									
.25	3000V	CP70E1EL254K	B3	8.79									
.5	3000V	CP70E1EL504K	B6	9.76									
1.0	3000V	CP70E1EL105K	E4	12.06									
2.0	3000V	CP70E1EL205K	G2	15.01	CP70E1FL205K	G1	11.45						
4.0	3000V	CP70E1EL405K	J7	22.05	CP70E1FL405K	J3	21.99						
.1	4000V	CP70E1EM104K	E1	10.99									
.25	4000V				CP70E1FM254K	E1	11.08						
.5	4000V				CP70E1FM504K	E3	12.15						
1.0	4000V				CP70E1FM105K	E6	15.27						
2.0	4000V				CP70E1FM205K	J4	21.56						
4.0	4000V	CP70E1EM405K	J11	39.44	CP70E1FM405K	J10	35.62						
.1	5000V	CP70E1EN104K	E1	11.41									
.25	5000V	CP70E1EN254K	E3	12.72									
.5	5000V	CP70E1EN504K	E6	15.44	CP70E1FN504K	E4	13.38						
1.0	5000V				CP70E1FN105K	J2	17.95						
2.0	5000V				CP70E1FN205K	J6	28.86						
.1	6000V	CP70D1EP104K	E3	13.68	CP70D1FP104K	E2	12.65						
.25	6000V	CP70D1EP254K	E5	16.50	CP70D1FP254K	E4	14.22						
.5	6000V	CP70D1EP504K	J3	20.58									
1.0	6000V				CP70D1FP105K	J9	29.51						
.1	7500V				CP70D1FR104K	E3	13.46						
.25	7500V				CP70D1FR254K	J1	16.80						
.5	7500V				CP70D1FR504K	J4	23.69						

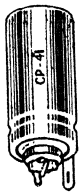
*No longer listed in MIL-C-25C. Will not be restocked when present inventories are depleted.

A1	1 13/16 x 1 1/16 x 1 5/8	E2	3 3/4 x 2 1/4 x 3 3/8
A2	1 13/16 x 1 1/16 x 2 1/4	E3	3 3/4 x 2 1/4 x 4 1/4
A3	1 13/16 x 1 1/16 x 2 7/8	E4	3 3/4 x 2 1/4 x 4 1/2
A4	1 13/16 x 1 1/16 x 3 1/4	E5	3 3/4 x 2 1/4 x 4 3/4
A5	1 13/16 x 1 1/16 x 3 7/8	E6	3 3/4 x 2 1/4 x 5 1/8
A6	1 13/16 x 1 1/16 x 4 3/4	F1	3 3/4 x 2 1/2 x 4 3/4
B1	2 1/2 x 1 3/16 x 2 1/2	F2	3 3/4 x 2 1/2 x 5 3/4
B2	2 1/2 x 1 3/16 x 2 7/8	G1	3 3/4 x 3 1/16 x 4 1/2
B3	2 1/2 x 1 3/16 x 3 1/2	G2	3 3/4 x 3 3/16 x 4 3/4
B4	2 1/2 x 1 3/16 x 3 7/8	G4	3 3/4 x 3 3/16 x 5 1/2
B5	2 1/2 x 1 3/16 x 4 1/4	J1	4 1/16 x 3 3/4 x 3 7/8
B6	2 1/2 x 1 3/16 x 4 3/4	J2	4 1/16 x 3 3/4 x 4 3/8
C2	3 3/4 x 1 1/4 x 3 7/8	J3	4 1/16 x 3 3/4 x 4 3/4
C3	3 3/4 x 1 1/4 x 4 1/4	J4	4 1/16 x 3 3/4 x 5 1/8
C4	3 3/4 x 1 1/4 x 4 3/4	J5	4 1/16 x 3 3/4 x 5 1/2
D1	3 3/4 x 1 3/4 x 3 1/4	J6	4 1/16 x 3 3/4 x 6
D2	3 3/4 x 1 3/4 x 3 7/8	J7	4 1/16 x 3 3/4 x 6 1/2
D3	3 3/4 x 1 3/4 x 4	J9	4 1/16 x 3 3/4 x 7 1/2
D4	3 3/4 x 1 3/4 x 4 1/4	J10	4 1/16 x 3 3/4 x 8 1/2
D5	3 3/4 x 1 3/4 x 4 3/4	J11	4 1/16 x 3 3/4 x 9 3/8
E1	3 3/4 x 2 1/4 x 2 3/4		

If MIL brackets are required with units, specify CP07S (spade) or CP07F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CP07SA2 brackets.

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, Add'l for Brkts.



TYPE CP41 — Characteristics E and F

Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug, nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance ±10% (K). Also available in ±20% (M).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

CAPACITY	VOLTAGE	CHAR. E JP10M	Net Price★	CHAR. F JP10M	Net Price★
2.0	600V	CP41B1EF205K	4.82	CP41B1FF205K	4.82
4.0	600V	CP41B1EF405K	5.67	CP41B1FF405K	5.67
1.0	1000V	CP41B1EG105K	5.27	CP41B1FG105K	5.27
2.0	1000V	CP41B1EG205K	5.57	CP41B1FG205K	5.57
.5	1500V			CP41B1FH504K	4.62
1.0	1500V			CP41B1FH105K	6.42

★Request O.E.M. prices in the following quantities: 10 to 99.

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AEROVOX Capacitors

INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C

CP63, CP65 — Characteristic E

Compact, oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual section has case grounded. Channel brackets attached. Standard tolerance on single section units, ±10% (K), on multiple section units +20 —10% (V).

Cap.	Voltage	JP16MCT Top Term.	Net Price★	JP16MCB Bottom Term.	Net Price★
* .1	400V	CP63B1EE104K	1.90	CP65B1EE104K	1.90
* .25	400V	CP63B1EE254K	1.94		
1.0	400V	CP63B1EE105K	2.21		
.05	600V	CP63B1EF503K	1.83	CP65B1EF503K	1.83
† .1	600V	CP63B1EF104K	1.94	CP65B1EF104K	1.94
.25	600V	CP63B1EF254K	2.00	CP65B1EF254K	2.00
.5	600V	CP63B1EF504K	2.07	CP65B1EF504K	2.07
1.0	600V	CP63B1EF105K	2.31	CP65B1EF105K	2.31
†2X.05	600V	CP63B6EF503V	2.44	CP65B6EF503V	2.44
2X.1	600V	CP63B6EF104V	2.51	CP65B6EF104V	2.51
2X.25	600V	CP63B6EF254V	2.66	CP65B6EF254V	2.66
2X.5	600V	CP63B6EF504V	2.81	CP65B6EF504V	2.81
.01	1000V	CP63B1EG103K	1.87	CP65B1EG103K	1.87
.02	1000V	CP63B1EG203K	1.87	CP65B1EG203K	1.87
.05	1000V	CP63B1EG503K	1.90	CP65B1EG503K	1.90
.1	1000V	CP63B1EG104K	1.98		
.25	1000V	CP63B1EG254K	1.99		
.5	1000V	CP63B1EG504K	2.20		

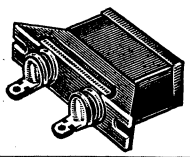
★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.

*Will be supplied in "K" characteristic when present stocks are depleted.
†These values no longer listed in MIL-C-25C. They will not be stocked when present inventories are depleted.

†CP90, CP91 — Characteristic E

New MIL-C-25C type designations for variations of capacitor formerly listed as CP61. Base size CP90— 1 5/16 x 1 1/16, CP91— 1 5/16 x 5/8. Brackets must be ordered separately and are not interchangeable. Specify CP090 or CP091. Add S for Spade; F for Footed.

Cap.	Voltage	†JP16M No Brackets	Net Price★	JP16M Special No Brackets	Net Price★
* .1	400V	CP90B1EE104K	1.82	CP91B1EE104K	1.82
* .25	400V	CP90B1EE254K	1.87	CP91B1EE254K	1.87
1.0	400V	CP90B1EE105K	2.13	CP91B1EE105K	2.13
.05	600V	CP90B1EF503K	1.75	CP91B1EF503K	1.75
† .1	600V	CP90B1EF104K	1.87	CP91B1EF104K	1.87
.25	600V	CP90B1EF254K	1.92	CP91B1EF254K	1.92
.5	600V	CP90B1EF504K	1.99	CP91B1EF504K	1.99
1.0	600V	CP90B1EF105K	2.23	CP91B1EF105K	2.23
2X.05	600V	CP90B6EF503V	2.36	CP91B6EF503V	2.36
2X.1	600V	CP90B6EF104V	2.44	CP91B6EF104V	2.44
2X.25	600V	CP90B6EF254V	2.58	CP91B6EF254V	2.58
2X.5	600V	CP90B6EF504V	2.73	CP91B6EF504V	2.73
.01	1000V	CP90B1EG103K	1.79	CP91B1EG103K	1.79
.02	1000V	CP90B1EG203K	1.79	CP91B1EG203K	1.79
.05	1000V	CP90B1EG503K	1.82	CP91B1EG503K	1.82
.1	1000V	CP90B1EG104K	1.91	CP91B1EG104K	1.91
.25	1000V	CP90B1EG254K	1.92	CP91B1EG254K	1.92
.5	1000V	CP90B1EG504K	2.12	CP91B1EG504K	2.12



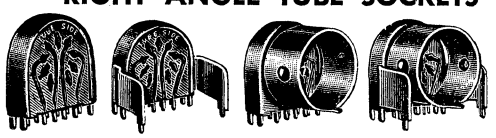
TYPES CP67, CP69 — Characteristics E

Oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of 1¾ x 5/16 permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units ±10% (K), on multiple section units +20 —10% (V).

Capacity	Voltage	JP18MCT Top Terminal	Net Price★	JP18MCB Bottom Terminal	Net Price★
.05	600V	CP67B1EF503K	2.13	CP69B1EF503K	2.13
.1	600V	CP67B1EF104K	2.23	CP69B1EF104K	2.23
.25	600V	CP67B1EF254K	2.30	CP69B1EF254K	2.30
.5	600V	CP67B1EF504K	2.40	CP69B1EF504K	2.40
1.0	600V	CP67B1EF105K	2.63	CP69B1EF105K	2.63
2X.05	600V	CP67B4EF503V	2.64	CP69B4EF503V	2.64
2X.1	600V	CP67B4EF104V	2.69	CP69B4EF104V	2.69
2X.25	600V	CP67B4EF254V	2.90	CP69B4EF254V	2.90
2X.5	600V	CP67B4EF504V	3.25	CP69B4EF504V	3.25
3X.05	600V	CP67B5EF503V	3.15	CP69B5EF503V	3.15
3X.1	600V	CP67B5EF104V	3.24	CP69B5EF104V	3.24
3X.25	600V	CP67B5EF254V	3.52	CP69B5EF254V	3.52
.01	1000V	CP67B1EG103K	2.14	CP69B1EG103K	2.14
.02	1000V	CP67B1EG203K	2.16	CP69B1EG203K	2.16
.05	1000V	CP67B1EG503K	2.20	CP69B1EG503K	2.20
.1	1000V			CP69B1EG104K	2.27
.25	1000V			CP69B1EG254K	2.36
.5	1000V			CP69B1EG504K	2.53
2X.01	1000V			CP69B4EG103V	2.54
2X.02	1000V			CP69B4EG203V	2.61
2X.05	1000V			CP69B4EG503V	2.69
2X.1	1000V			CP69B4EG104V	2.78
2X.25	1000V			CP69B4EG254V	2.96
3X.01	1000V			CP69B5EG103V	3.12
3X.02	1000V			CP69B5EG203V	3.15
3X.05	1000V			CP69B5EG503V	3.25
3X.1	1000V			CP69B5EG104V	3.37

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.

**RIGHT ANGLE TUBE SOCKETS



Type A Type AX Type B Type BX

Ordering Example: RA7A = (Type 7 Pin Socket)

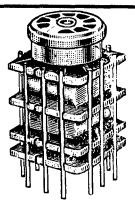
Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Long terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.
Type AX — for special applications (military and commercial) where extra strength and rigidity are required.
Type B — same as Type A except tube shield shell added.
Type BX — same as Type AX except tube shield shell added.

RA 7 — 7 pin right angle tube socket. RA 9 — 9 pin right angle tube socket

Cat. No.	Net Price★
RA7A	.83
RA7AX	.85
RA7B	.90
RA7BX	1.08
RA9A	.99
RA9AX	1.01
RA9B	1.06
RA9BX	1.24

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 499.



MODULIZED STANDARD CIRCUITS

Modules are comprised of uniformly standard, stacked steatite wafers combining the required resistive, capacity and inductive components to form a completely reliable, ruggedly compact electronic circuit.

Based on a study conducted by the National Bureau of Standards, the modules listed below were chosen as representative of circuits appearing in both military and commercial equipment. In all cases, similar functional circuits have been in use for at least 10 years without major improvement. Accessories, such as the twelve position bread board*, the individual module mounting socket† and mounting socket and banana plugs are available to facilitate the inter-connecting of standard circuit modules to form complete electronic sub-assemblies.

Part No.	Description	Net Price★
A1001	— Linear Amplifier, Low Level.	5.25
A1002	— Linear Amplifier, Intermediate.	5.25
A1003	— Linear Amplifier, Phase inverter-driver.	4.25
C1002	— Flip-flop, 1 megacycle.	14.55
G1001	— PRF Multivibrator.	5.10
P1001	— Video Limiter.	8.25
P1002	— Low-level Cathode Follower.	7.90
P1003	— Common Cathode Mixer or Dual Cathode Follower.	8.25
P1004	— Cascade Intermediate Video Amplifier.	10.60
P1005	— Triode Video Driver Amplifier.	13.15
P1006	— Dual High Level Cathode Follower.	5.40
R1001	— DC Regulator Plus or minus 300V.	21.10
R1002	— DC Regulator, Plus or Minus 150V.	10.70
T1001	— Variable Time Delay Monostable Multivibrator.	8.75
T1002	— Phantastron Delay.	5.10

	Net Price★		Net Price★
*MBB-12	18.00	†MBB-1	1.50

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499.

Net
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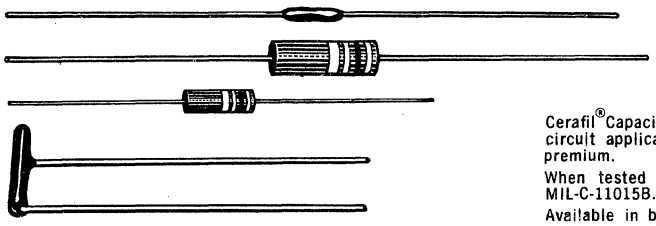
AEROVOX Capacitors

INDUSTRIAL CERAMIC CAPACITORS



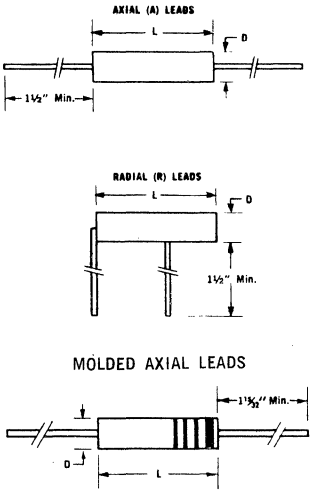
CERAFIL® ULTRAMINIATURE CAPACITORS
DIPPED—RADIAL & AXIAL LEADS
MOLDED—AXIAL LEADS

Cerafil® Capacitors, the smallest ceramic capacitors available anywhere for airborne transistorized circuit applications, and other critical requirements where space and weight are at an absolute premium.

When tested using Cerafil® ratings Cerafil® units will meet or surpass the requirements of MIL-C-11015B.

Available in both radial and axial leads in dipped type. Available in axial leads in molded type,

CAP. (Mfd.)	†DIMENSIONS		DIPPED AXIAL LEADS		DIPPED RADIAL LEADS		DIMENSIONS		MOLDED AXIAL LEADS	
	Diam.	Lgth.	PART NUMBER	Net Price★	PART NUMBER	Net Price★	Diam.	Lgth.	PART NUMBER	Net Price★
.00001	.090	.320	C80V 100AM	.52	C80V100RM	.57	.087	.315	MC80V100AM	.47
.000022	.090	.320	C80V 220AM	.52	C80V220RM	.57	.087	.315	MC80V220AM	.47
.000033	.090	.320	C80V 330AM	.52	C80V330RM	.57	.087	.315	MC80V330AM	.47
.000047	.090	.320	C80V 470AM	.52	C80V470RM	.57	.087	.315	MC80V470AM	.47
.0001	.090	.320	C80V 101AM	.52	C80V101RM	.57	.087	.315	MC80V101AM	.47
.00022	.090	.320	C80V 221AM	.52	C80V221RM	.57	.087	.315	MC80V221AM	.47
.00033	.090	.320	C80V 331AM	.52	C80V331RM	.57	.087	.315	MC80V331AM	.47
.00047	.090	.320	C80V 471AM	.52	C80V471RM	.57	.087	.315	MC80V471AM	.47
.001	.090	.320	C80V 102AM	.46	C80V102RM	.51	.087	.315	MC80V102AM	.41
.005	.120	.500	C80V 502AM	.76	C80V502RM	.84	.117	.495	MC80V502AM	.68
.01	.180	.500	C80V 103AM	1.07	C80V103RM	1.19	.157	.495	MC80V103AM	.90
.02	.200	.500	C80V 203AM	1.83	C80V203RM	2.03	.197	.495	MC80V203AM	1.65
.05	.240	.650	C80V 503AM	3.05	C80V503RM	3.38	.237	.645	MC80V503AM	2.75
.1	.310	.750	C80V 104AM	5.48	C80V104RM	6.08	.277	.745	MC80V104AM	4.93



†Overall length may exceed dimensions shown by as much as 1/16" due to deposit of insulating material on leads.

ELECTRICAL SPECIFICATIONS

1. VOLTAGE — 100 VDCW; 300 VDCT.
2. CAPACITY TOLERANCE — ±20%
3. INSULATION RESISTANCE — 100 mfd.—megohms or 10,000 megohms whichever is smaller.
4. TEMPERATURE COEFFICIENT — (—55°C to +85°C). No voltage +10% to —15%. 100 volts applied — +10% to —35%.
5. POWER FACTOR — 2.5% maximum.
6. OPERATING TEMPERATURE — —55°C to 85°C at 100 volts —55°C to 125°C at 50 volts

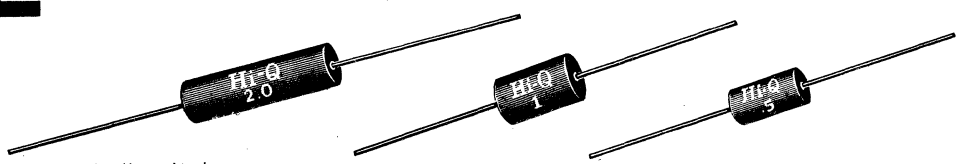
MECHANICAL SPECIFICATIONS

1. All dimensions in inches.
2. LEADS — Tinned Copper. Below .01 mfd. — #26 gauge. .01 mfd. and above — #22 gauge.
3. LEAD LENGTHS — See drawings.
4. MARKING — Color code. No code for temperature coefficient; no code for lead disignation since it is obvious.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499.

CEROL®

HIGH CAPACITY, HIGH RELIABILTY, ROLLED CERAMIC CAPACITORS



CEROL® capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high frequencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at VDC —55°C to 85°C and at 50 VDC —55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015B.

SPECIFICATIONS

Cap. Tol. = ±20%
P.F. = 2% Max.
T.C. (0 Voltage) = + 15% —25% over temperature range of —55°C. to 125°C.
T.C. (100 V. applied) = + 15% —35% over temperature range of —55°C to +85°C.
Working Voltage = 100 VDC at 85°C. derate to 50 VDC at 125°C.
Test Voltage = 300 VDC
Insulation Resistance = 100 Meg.—Mfd. minimum
Series Resistance .25 ohms at 8 to 10 mc.
Other requirements per MIL-C-11015B
Leads axial #22 gauge 1½" ±⅛" long

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499.

STOCK VALUES FOR CEROL CAPACITORS TYPE CR90

Part Number	Cap. Mfd.	D Max. in.	L Max. in.	Net Price★	Color Code
CR90V104AM	.1	.210	.690	4.50	Brown, Black, Yellow & Black
CR90V254AM	.25	.260	.690	6.00	Red Green, Yellow & Black
CR90V504AM	.5	.350	.690	9.75	Green, Black, Yellow & Black
CR90V105AM	1.0	.480	.690	15.00	Brown, Black, Green, Black
CR90V205AM	2.0	.400	1.44	22.50	Red, Black, Green, Black

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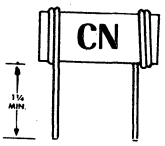
Net

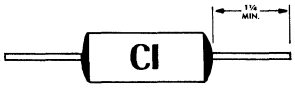
AEROVOX Capacitors

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars

NPO





Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

UNINSULATED TYPE CN					INSULATED TYPE CI			
Cap.	MIL No.	Net Price★	EIA No.	Net Price★	MIL No.	Net Price★	EIA No.	Net Price★
.3	CC20CK0R3C	.30	RICC20COK308C	.30	CC21CK0R3C	.30	RICC21COK308C	.30
.5	CC20CK0R5C	.30	RICC20COK508C	.30	CC21CK0R5C	.30	RICC21COK508C	.30
.68	CC20CKR68C	.30	RICC20COK688C	.30	CC21CKR68C	.30	RICC21COK688C	.30
.75	CC20CKR75C	.30	RICC20COK758C	.30	CC21CKR75C	.30	RICC21COK758C	.30
1.0	CC20CK010C	.30	RICC20COK109C	.30	CC21CK010C	.30	RICC21COK109C	.30
1.2	CC20CK1R2C	.30	RICC20COK129C	.30	CC21CK1R2C	.30	RICC21COK129C	.30
1.5	CC20CK1R5C	.30	RICC20COK159C	.30	CC21CK1R5C	.30	RICC21COK159C	.30
2.0	CC20CK020C	.30	RICC20COK209C	.30	CC21CK020C	.30	RICC21COK209C	.30
2.2	CC20CK2R2C	.30	RICC20COK229C	.30	CC21CK2R2C	.30	RICC21COK229C	.30
3.0	CC20CJ030C	.30	RICC20COJ309C	.30	CC21CJ030C	.30	RICC21COJ309C	.30
4.0	CC20CH040C	.30	RICC20COH409C	.30	CC21CH040C	.30	RICC21COH409C	.30
5.0	CC20CH050C	.30	RICC20COH509C	.30	CC21CH050C	.30	RICC21COH509C	.30
6.0	CC20CH060C	.30	RICC20COH609C	.30	CC21CH060C	.30	RICC21COH609C	.30
6.2	CC20CH6R2C	.30	RICC20COH629C	.30	CC21CH6R2C	.30	RICC21COH629C	.30
7.0	CC20CH070C	.30	RICC20COH709C	.30	CC21CH070C	.30	RICC21COH709C	.30
8.0	CC20CH080C	.30	RICC20COH809C	.30	CC21CH080C	.30	RICC21COH809C	.30
9.0	CC20CH090C	.30	RICC20COH909C	.30	CC21CH090C	.30	RICC21COH909C	.30
10.0	CC20CH100C	.30	RICC20COH100C	.30	CC21CH100C	.30	RICC21COH100C	.30
12.0	CC20CH120G	.30	RICC20COH120G	.30	CC21CH120G	.30	RICC21COH120G	.30
15.0	CC20CH150G	.30	RICC20COH150G	.30	CC21CH150G	.30	RICC21COH150G	.30
18.0	CC20CH180G	.30	RICC20COH180G	.30	CC21CH180G	.30	RICC21COH180G	.30
20.0	CC20CH200G	.30	RICC20COH200G	.30	CC21CH200G	.30	RICC21COH200G	.30
22.0	CC20CH220G	.30	RICC20COH220G	.30	CC21CH220G	.30	RICC21COH220G	.30
24	CC25CH240G	.30	RICC25COH240G	.30	CC26CH240G	.30	RICC26COH240G	.30
27	CC25CH270G	.30	RICC25COH270G	.30	CC26CH270G	.30	21CC26COH270G	.30
30	CC25CH300G	.30	RICC25COH300G	.30	CC26CH300G	.30	RICC26COH300G	.30
33	CC25CH330G	.30	RICC25COH330G	.30	CC26CH330G	.30	RICC26COH330G	.30
36	CC25CH360J	.30	RICC25COH360J	.30	CC26CH360J	.30	RICC26COH360J	.30
39	CC25CH390J	.30	RICC25COH390J	.30	CC26CH390J	.30	RICC26COH390J	.30
43	CC25CH430J	.30	RICC25COH430J	.30	CC36CH430J	.30	RICC36COH430J	.30
47	CC25CH470J	.30	RICC25COH470J	.30	CC36CH470J	.30	RICC36COH470J	.30
51	CC25CH510J	.30	RICC25COH510J	.30	CC36CH510J	.30	RICC36COH510J	.30
56	CC32CG560J	.30	RICC32COG560J	.30	CC36CG560J	.30	RICC36COG560J	.30
62	CC32CG620J	.30	RICC32COG620J	.30	CC36CG620J	.30	RICC36COG620J	.30
68	CC32CG680J	.30	RICC32COG680J	.30	CC36CG680J	.30	RICC36COG680J	.30
75	CC32CG750J	.30	RICC32COG750J	.30	CC36CG750J	.30	RICC36COG750J	.30
82	CC32CG820J	.30	RICC32COG820J	.30	CC36CG820J	.30	RICC36COG820J	.30
91	CC32CG910J	.30	RICC32COG910J	.30	CC36CG910J	.30	RICC36COG910J	.30
100	CC32CG101G	.30	RICC32COG101G	.30	CC36CG101J	.30	RICC36COG101J	.30
110	CC32CG111G	.30	RICC32COG111G	.30	CC36CG111J	.60	RICC36COG111J	.60
120	CC35CG121G	.45	RICC35COG121G	.45	CC36CG121J	.60	RICC36COG121J	.60
130	CC35CG131G	.45	RICC35COG131G	.45	CC36CG131J	.60	RICC36COG131J	.60
150	CC35CG151G	.45	RICC35COG151G	.45	CC36CG151J	.60	RICC36COG151J	.60
160	CC45CG161G	.60	RICC45COG161G	.60				
180	CC45CG181G	.60	RICC45COG181G	.60				
200	CC45CG201G	.60	RICC45COG201G	.60				
220	CC45CG221G	.60	RICC45COG221G	.60				
240	CC45CG241G	.60	RICC45COG241G	.60				
270	CC45CG271F	.90	RICC45COG271F	.90				
300	CC45CG301F	.90	RICC45COG301F	.90				

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Net

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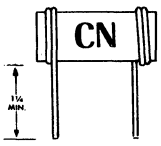
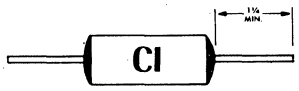
AEROVOX Capacitors

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars

N750





UNINSULATED TYPE CN					INSULATED TYPE CI			
Cap.	MIL No.	Net Price★	EIA No.	Net Price★	Mil No.	Net Price★	EIA No.	Net Price★
.5	CC20UKOR5C	.30	RICC20U2K508C	.30				
.75	CC20UKR75C	.30	RICC20U2K758C	.30	CC21UKR75C	.30	RICC21U2K758C	.30
1.0	CC20UK010C	.30	RICC20U2K109C	.30	CC21UK010C	.30	RICC21U2K109C	.30
1.5	CC20UK1R5C	.30	RICC20U2K159C	.30	CC21UK1R5C	.30	RICC21U2K159C	.30
2.0	CC20UK020C	.30	RICC20U2K209C	.30	CC21UK020C	.30	RICC21U2K209C	.30
5.0	CC20UJ050C	.30	RICC20U2J509C	.30	CC21UJ050C	.30	RICC21U2J509C	.30
10.0	CC20UJ100C	.30	RICC20U2J100C	.30	CC21UJ100C	.30	RICC21U2J100C	.30
12.0	CC20UJ120G	.30	RICC20U2J120G	.30	CC21UJ120G	.30	RICC21U2J120G	.30
15.0	CC20UP150G	.30	RICC20U2J150G	.30	CC21UJ150G	.30	RICC21U2J150G	.30
18.0	CC20UJ180G	.30	RICC20U2J180G	.30	CC21UJ180G	.30	RICC21U2J180G	.30
20.0	CC20UJ200G	.30	RICC20U2J200G	.30	CC21UJ200G	.30	RICC21U2J200G	.30
22.0	CC20UJ220G	.30	RICC20U2J220G	.30	CC21UJ220G	.30	RICC21U2J220G	.30
24.0	CC20UJ240G	.30	RICC20U2J240G	.30	CC21UJ240G	.30	RICC21U2J240G	.30
27.0	CC20UJ270G	.30	RICC20U2J270G	.30	CC21UJ270G	.30	RICC21U2J270G	.30
30.0	CC20UJ300G	.30	RICC20U2J300G	.30	CC21UJ300G	.30	RICC21U2J300G	.30
33.0	CC20UJ330G	.30	RICC20U2J330G	.30	CC21UJ330G	.30	RICC21U2J330G	.30
36.0	CC20UJ360J	.30	RICC20U2J360J	.30	CC21UJ360J	.30	RICC21U2J360J	.30
39.0	CC20UJ390J	.30	RICC20U2J390J	.30	CC21UJ390J	.30	RICC21U2J390J	.30
43.0	CC20UJ430J	.30	RICC20U2J430J	.30	CC21UJ430J	.30	RICC21U2J430J	.30
47.0	CC20UJ470J	.30	RICC20U2J470J	.30	CC21UJ470J	.30	RICC21U2J470J	.30
51.0	CC20UJ510J	.30	RICC20U2J510J	.30	CC21UJ510J	.30	RICC21U2J510J	.30
56.0	CC20UJ560J	.30	RICC20U2J560J	.30	CC21UJ560J	.30	RICC21U2J560J	.30
62.0	CC20UJ620J	.30	RICC20U2J620J	.30	CC21UJ620J	.30	RICC21U2J620J	.30
68.0	CC25UJ680J	.30	RICC25U2J680J	.30	CC26UJ680J	.30	RICC26U2J680J	.30
75.0	CC25UJ750J	.30	RICC25U2J750J	.30	CC26UJ750J	.30	RICC26U2J750J	.30
82.0	CC25UJ820J	.30	RICC25U2J820J	.30	CC26UJ820J	.30	RICC26U2J820J	.30
91.0	CC25UJ910J	.30	RICC25U2J910J	.30	CC26UJ910J	.30	RICC26U2J910J	.30
100.0	CC25UJ101G	.30	RICC25U2J101G	.30	CC26UJ101J	.30	RICC26U2J101J	.30
110	CC25UJ111G	.30	RICC25U2J111G	.30	CC26UJ111J	.30	RICC26U2J111J	.30
120	CC25UJ121G	.30	RICC25U2J121G	.30	CC26UJ121J	.30	RICC26U2J121J	.30
130	CC25UJ131G	.30	RICC25U2J131G	.30	CC36UJ131J	.30	RICC36U2J131J	.30
150	CC25UJ151G	.30	RICC25U2J151G	.30	CC36UJ151J	.30	RICC36U2J151J	.30
160	CC32UJ161G	.30	RICC32U2J161G	.30	CC36UJ161J	.30	RICC36U2J161J	.30
180	CC32UJ181G	.30	RICC32U2J181G	.30	CC36UJ181J	.60	RICC36U2J181J	.60
200	CC32UJ201G	.30	RICC32U2J201G	.30	CC36UJ201J	.60	RICC36U2J201J	.60
220	CC32UJ221G	.30	RICC32U2J221G	.30	CC36UJ221J	.60	RICC36U2J221J	.60
240	CC32UJ241G	.30	RICC32U2J241G	.30	CC36UJ241J	.60	RICC36U2J241J	.60
270	CC35UJ271F	.90	RICC35U2J271F	.90	CC36UJ271J	.60	RICC36U2J271J	.60
300	CC35UJ301F	.90	RICC35U2J301F	.90	CC36UJ301J	.60	RICC36U2J301J	.60
330	CC35UJ331F	.90	RICC35U2J331F	.90	CC36UJ331F	.60	RICC36U2J331F	.60
360	CC35UJ361F	.90	RICC35U2J361F	.90	CC36UJ361J	.60	RICC36U2J361J	.60
390	CC45UJ391F	.90	RICC45U2J391F	.90				
430	CC45UJ431F	.90	RICC45U2J431F	.90				
470	CC45UJ471F	.90	RICC45U2J471F	.90				

SIZE

Type Designation		Max. Size
MIL	EIA	
CC20	RICC20	.200 x .400
CC21	RICC21	.250 x .562
CC25	RICC25	.200 x .655
CC26	RICC26	.250 x .812
CC32	RICC32	.250 x .860
CC35	RICC35	.255 x 1.090
CC36	RICC36	.340 x 1.328
CC45	RICC45	.340 x 1.890

TOLERANCE

Letter Descrip.	Tolerance
C	±.25 mmf.
F	±1%
G	±2%
J	±5%

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 249

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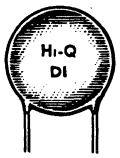
Net

AEROVOX Capacitors

COMMERCIAL CERAMIC CAPACITORS

General Purpose Bypass Coupling Disks
Type DI — Net Price .15★



These industrial ceramic disks capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash-tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.

Cap. mmf	Size	Tolerance
2.2	DI-1	±.5 mmf.
3.3	DI-1	±.5 mmf.
4.7	DI-1	±.5 mmf.
5.0	DI-1	±10%
6.0	DI-1	±10%
6.5	DI-1	±10%
7.5	DI-1	±10%
8.0	DI-1	±10%
8.2	DI-1	±10%
10	DI-1	±10%
12	DI-1	±10%
15	DI-1	±10%
18	DI-1	±10%
20	DI-1	±10%
22	DI-1	±10%
24	DI-1	±10%
25	DI-1	±10%
27	DI-1	±10%
30	DI-1	±10%
33	DI-1	±10%
39	DI-1	±10%
47	DI-1	±10%
50	DI-1	±10%
51	DI-1	±10%
56	DI-1	±10%
68	DI-1	±10%
75	DI-1	±10%
82	DI-1	±10%
91	DI-1	±10%
100	DI-1	±10%
120	DI-1	±10%
130	DI-1	±10%
150	DI-1	±10%
180	DI-1	±10%
200	DI-1	±10%
220	DI-1	±10%
240	DI-1	±10%
250	DI-1	±10%
270	DI-1	±10%
300	DI-1	±10%
330	DI-1	±10%
350	DI-1	±10%
360	DI-1	±10%
390	DI-1	±10%
400	DI-1	±10%
470	DI-1	±10%

Cap. mmf	Size	Tolerance	Mil Equivalent
470	DI-1	+100-20%	AXCK60Y471Z
500	DI-1	±10%	
510	DI-1	±10%	
560	DI-1	±10%	
600	DI-2	±10%	
680	DI-2	±10%	
680	DI-1	+100-20%	AXCK60Y681Z
750	DI-2	±10%	
800	DI-2	±10%	
820	DI-2	±10%	
820	DI-1	+100-20%	AXCK60Y821Z
910	DI-2	±10%	
1000	DI-2	±10%	
1000	DI-2	+100-20%	AXCK61Y102Z
1200	DI-3	±10%	
1300	DI-3	±10%	
1500	DI-3	±10%	
1500	DI-3	+100-20%	AXCK61Y152Z
1600	DI-4	±10%	
1800	DI-4	±10%	
2000	DI-4	±10%	
2200	DI-4	±20%	
2200	DI-4	+100-20%	AXCK62Y222Z
2500	DI-4	±20%	
2700	DI-4	±20%	
3000	DI-4	±20%	
3300	DI-4	±20%	
3300	DI-4	+100-20%	AXCK62Y332Z
3900	DI-2	GMV	
4000	DI-2	GMV	
4300	DI-2	GMV	
4700	DI-4	±20%	
4700	DI-4	+100-20%	AXCK62Y472Z
5000	DI-3	GMV	
5600	DI-3	GMV	
6800	DI-3	GMV	
7500	DI-4	GMV	
8200	DI-4	GMV	
10000	DI-5	±20%	
10000	DI-5	+100-20%	AXCK63Y103Z

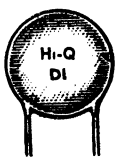
TUBULAR and DISK CAPACITOR SIZES

SI TUBULAR

Designation	Size
SI-1	.234 x .437
SI-2	.234 x .687
SI-3	.312 x 1.250
SI-4	.375 x 1.093
SI-5	.375 x 1.600
SI-6	.375 x 1.968
SI-7	.275 x .875
SI-13	.234 x .468
SI-19	.312 x .937
SI-22	.280 x .750
SI-27	.275 x .500

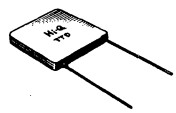
CI TUBULAR

Designation	Size
CI-1	.250 x .562
CI-2	.250 x .812
CI-3	.340 x 1.320



DI DISK

Designation	Diameter
DI-0	1/4
DI-1	5/16
DI-2	3/8
DI-3	7/16
DI-4	19/32
DI-5	11/16
DI-6	3/4
DI-7	29/32



Type TTD
Transistor Disks

These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements. Units are rated at 100 VDCW ±20% standard tolerance.

Capacity	Length & Width	Thickness	List Price
.005	.280	.125	.40
.01	.340	.125	.40
.02	.430	.125	.50
.025	.465	.125	.50
.03	.465	.125	.50
.05	.535	.125	.60
.1	.700	.125	.90

Net
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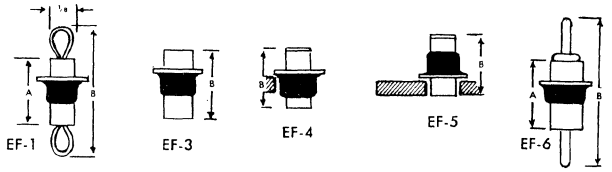
AEROVOX Capacitors

INDUSTRIAL CERAMIC CAPACITORS (cont.)



Eyelet Feed-Thru Capacitors

Net Price .30★

Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

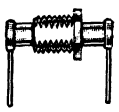
Style	Capacity in mmf	D.C. Working Voltage	A ±.010	B Approx.	Barrel of Eyelet ±.005
EF-1	5 - 1500	500	.375	.750	.140
EF-2	5 - 1500	500	.437	.937	.140
EF-3	5 - 1500	500	.....	.375	.140
EF-4	50 - 500	250	.....	.250	*.154
EF-5	50 - 500	250	.....	.250	*.140
EF-6	5 - 1500	500	.375	.875	.140
EF-7	5 - 800	500	.375	.775	.210
EF-8	5 - 1000	500	.437	.875	.210

*Recommended hole size

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Feed-Thru Capacitors

FEED-THRU TYPE CFC



FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

Net Price .90★

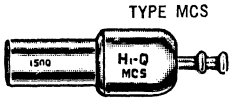
Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28
	1000 mmf.	12-28
	1500 mmf.	12-28
CF-1	1500 mmf.	¼-28
Tolerance ±20%		

Type	Cap. Mmfd.	Thread
CF-2	1800 mmf.	5/16-24
	2300 mmf.	5/16-24
	3000 mmf.	5/16-24
CF-3	4000 mmf.	5/16-24
CF-4	7000 mmf.	5/16-24

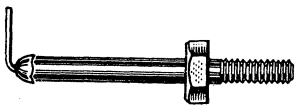
★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Stand-Off Capacitors

TYPE MCS



TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

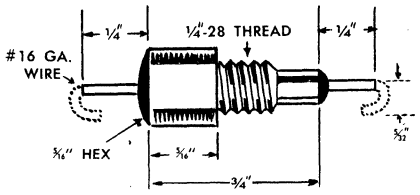
The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

500 VDCW Net Price .90★

Type	Capacity Mmfd.
CS-1A	50
CS-1A	100
CS-1B	500
CS-1B	1000
CS-1B	1500
CS-2	3000
CS-3	4000

Type	Capacity Mmfd.
CS-4	7500
CIS-1	50
CIS-1	100
CIS-1	500
CIS-1	1000
CIS-2	1500
MCS	1500

Radial leads only
Tolerance ±10% up to and including 500 mmf.
±20% above 500 mmf.



BLF

FRACTIONAL TOLERANCES ±1/32

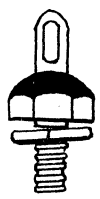
Heavy Duty Feed-Thru Capacitors

Type BLF-ICC

These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is ±10% except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of ±20%.

Capacity	Part Number	Net Price★
10	AXCK70AX100K	1.20
33	AXCK70AX330K	1.20
47	AXCK70AX470K	1.20
68	AXCK70AX680K	1.20
100	AXCK70AX101K	1.20
470	AXCK70AX471K	1.20
680	AXCK70AX681K	1.20
1000	AXCK70AW102M	1.20
1500	AXCK70AW152M	1.20

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999



DS-C

Disk Stand-Off Capacitors

Type DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a stand-off capacitor. These stock units are furnished with captive lock washers, are rated at 350 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion 5/16" long, #6-32 thread.

Capacity	Net Price★
470	.90
1000	.90

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

AEROVOX Capacitors

Hi-Q DISK CAPACITORS

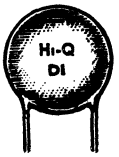
DISK CAPACITORS
Bypass and Coupling

BPD-GMV CAPACITOR
Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price★	Type	Cap. Mfd.	Dia.	Net Price★
BPD	.00001	5/16	.15	BPD	.0033	7/16	.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	29/32	.24
BPD	.0001	5/16	.15	BPD	.02	29/32	.36
BPD	.00012	5/16	.15	BPD	.03	29/32	.39
BPD	.00015	5/16	.15	BPD	.05*	29/32	.42
BPD	.0002	5/16	.15	**DUALS and TRIPLES**			
BPD	.00027	5/16	.15	BPD2-2 x .001		7/16	.24
BPD	.00033	5/16	.15	BPD2-2 x .0015		19/32	.24
BPD	.00047	5/16	.15	BPD2-2 x .002		19/32	.24
BPD	.0005	5/16	.15	BPD2-2 x .0022		19/32	.24
BPD	.00068	5/16	.15	BPD2-2 x .003		3/4	.27
BPD	.0008	5/16	.15	BPD2-2 x .004		3/4	.27
BPD	.001	5/16	.15	BPD2-2 x .0047		3/4	.27
BPD	.0015	5/16	.15	BPD2-2 x .01		3/4	.30
BPD	.002	3/8	.15	BPD2-2 x .02		29/32	.42
BPD	.0022	3/8	.15	BPD3-3 x .0015		3/4	.30
BPD	.0025	3/8	.15	BPD3-3 x .002		3/4	.30

* .05MFD can be supplied in 500VDCW only.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.



DI-DISK CAPACITORS
General Purpose

Stock Items 1000 VDCW

Type	Cap. Mmfd.	Dia.	Net Price★	Type	Cap. Mmfd.	Dia.	Net Price★
DI	3.3	5/16	.15	DI	250	5/16	.15
DI	5	5/16	.15	DI	270	5/16	.15
DI	6.8	5/16	.15	DI	300	5/16	.15
DI	8.2	5/16	.15	DI	330	5/16	.15
DI	10	5/16	.15	DI	390	5/16	.15
DI	12	5/16	.15	DI	470	5/16	.15
DI	15	5/16	.15	DI	500	5/16	.15
DI	18	5/16	.15	DI	560	5/16	.15
DI	20	5/16	.15	DI	680	5/16	.15
DI	22	5/16	.15	DI	750	3/8	.15
DI	25	5/16	.15	DI	820	3/8	.15
DI	27	5/16	.15	DI	1000	3/8	.15
DI	30	5/16	.15	DI	1200	7/16	.15
DI	33	5/16	.15	DI	1500	7/16	.15
DI	39	5/16	.15	DI	1800	19/32	.15
DI	47	5/16	.15	DI	2000	19/32	.15
DI	50	5/16	.15	DI	2200	19/32	.15
DI	56	5/16	.15	DI	2500	19/32	.15
DI	68	5/16	.15	DI	2700	19/32	.15
DI	82	5/16	.15	DI	3000	11/16	.15
DI	100	5/16	.15	DI	3300	11/16	.15
DI	120	5/16	.15	DI	4000	11/16	.15
DI	150	5/16	.15	DI	4700	3/4	.15
DI	180	5/16	.15	DI	5000	3/4	.15
DI	200	5/16	.15	DI	5600	3/4	.18
DI	220	5/16	.15	DI	6800	29/32	.18
				DI	7500	29/32	.18
				DI	10000	29/32	.18

Standard tolerance ±10%.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

Hi-VOLTAGE DISK CAPACITORS
General Purpose

Hi-Q high voltage disk capacitors are available in many capacities and voltage ratings. These types offer many possible uses in TV circuits where voltages above 500 are necessary. They are the ideal units for dependable day-after-day service. Hi-Q has available numerous combinations of capacity, working voltages and physical sizes. These units are manufactured to specific tolerances as listed.

1500 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-15	4.7	7/16	.21
HVD-15	6.8	7/16	.21
HVD-15	10	7/16	.21
HVD-15	15	7/16	.21
HVD-15	22	7/16	.21
HVD-15	33	7/16	.21
HVD-15	39	7/16	.21
HVD-15	47	7/16	.21
HVD-15	56	7/16	.21
HVD-15	68	7/16	.21
HVD-15	82	7/16	.21
HVD-15	100	7/16	.21
HVD-15	120	7/16	.21
HVD-15	150	7/16	.21
HVD-15	180	7/16	.21
HVD-15	220	7/16	.21
HVD-15	270	7/16	.21
HVD-15	330	7/16	.21
HVD-15	390	9/16	.21
HVD-15	470	9/16	.21
HVD-15	560	9/16	.21
HVD-15	680	9/16	.21

1500 VDCW—(Cont'd)

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-15	820	9/16	.21
HVD-15	1000	9/16	.21
HVD-15	1200	9/16	.21
HVD-15	1500	11/16	.21
HVD-15	2200	11/16	.21
HVD-15	3300	11/16	.21
HVD-15	4700	15/16	.24
HVD-15	5600	15/16	.24

3000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-30	4.7	9/16	.24
HVD-30	6.8	9/16	.24
HVD-30	10	9/16	.24
HVD-30	15	9/16	.24
HVD-30	22	9/16	.24
HVD-30	33	9/16	.24
HVD-30	39	9/16	.24
HVD-30	47	9/16	.24
HVD-30	56	9/16	.24
HVD-30	68	9/16	.24
HVD-30	82	9/16	.24

3000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-30	100	9/16	.24
HVD-30	120	9/16	.24
HVD-30	150	9/16	.24
HVD-30	180	9/16	.24
HVD-30	220	9/16	.24
HVD-30	270	9/16	.24
HVD-30	330	9/16	.24
HVD-30	**390**	**9/16**	.24
HVD-30	470	9/16	.24
HVD-30	560	9/16	.24
HVD-30	680	9/16	.24
HVD-30	820	9/16	.24
HVD-30	1000	9/16	.24
HVD-30	1200	9/16	.24
HVD-30	1500	9/16	.24
HVD-30	2200	9/16	.24
HVD-30	3300	11/16	.24

6000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-60	4.7	11/16	.39
HVD-60	6.8	11/16	.39

6000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-60	10	11/16	.39
HVD-60	15	11/16	.39
HVD-60	18	11/16	.39
HVD-60	22	11/16	.39
HVD-60	30	11/16	.39
HVD-60	33	11/16	.39
HVD-60	**39**	**11/16**	.39
HVD-60	47	11/16	.39
HVD-60	56	11/16	.39
HVD-60	68	11/16	.39
HVD-60	82	11/16	.39
HVD-60	100	11/16	.39
HVD-60	120	11/16	.39
HVD-60	150	11/16	.39
HVD-60	**180**	**11/16**	.39
HVD-60	220	11/16	.39
HVD-60	270	11/16	.39
HVD-60	330	11/16	.39
HVD-60	**390**	**11/16**	.39
HVD-60	470	11/16	.39

Tolerance ±20% up to .001 mfd.
+80% —20% over .001 mfd.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

VIBRATOR BUFFER CAPACITORS — DAC

Vibrator Buffer Capacitors — ceramic disks for use as buffers in car radios and similar equipment, compact, easily assembled, ¼ the size of previous paper tubular types rated for 1600 VDCW GMV. For use as replacements only when original equipment uses ceramic buffer.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

1600 VDCW — GMV

Type	Capacity Mfd.	Diameter	Net Price★
DAC-2	.001	11/16	.30
DAC-3	.002	11/16	.30
DAC-4	.0022	11/16	.30
DAC-5	.003	11/16	.30
DAC-6	.0033	11/16	.30
DAC-7	.004	15/16	.30
DAC-8	.0047	15/16	.30

Type	Capacity Mfd.	Diameter	Net Price★
DAC-9	.005	15/16	.30
DAC-22	.006	15/16	.30
DAC-23	.0068	1	.30
DAC-24	.007	1	.30
DAC-25	.0075	1	.30
DAC-26	.008	1	.30
DAC-27	.01	1	.30

Net

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AEROVOX Capacitors

COMMERCIAL TUBULAR CERAMIC CAPACITORS

TEMPERATURE COMPENSATING TUBULAR CAPACITORS

N750-S1† 500 VDCW

★Net Price — .30

Type	Capacity Mmfd.	Size
N750-SI	3.3	SI-1
N750-SI	5	SI-1
N750-SI	10	SI-1
N750-SI	12	SI-1
N750-SI	15	SI-1
N750-SI	18	SI-1
N750-SI	20	SI-1
N750-SI	22	SI-1
N750-SI	24	SI-1
N750-SI	25	SI-1
N750-SI	27	SI-1
N750-SI	30	SI-1
N750-SI	33	SI-1
N750-SI	36	SI-1
N750-SI	39	SI-1
N750-SI	43	SI-1
N750-SI	47	SI-1
N750-SI	50	SI-1
N750-SI	51	SI-1
N750-SI	56	SI-1
N750-SI	62	SI-1
N750-SI	68	SI-1
N750-SI	75	SI-13
N750-SI	82	SI-13

Type	Capacity Mmfd.	Size
N750-SI	91	SI-2
N750-SI	100	SI-2
N750-SI	110	SI-2
N750-SI	120	SI-7
N750-SI	130	SI-2
N750-SI	150	SI-7
N750-SI	160	SI-7
N750-SI	180	SI-7
N750-SI	200	SI-7
N750-SI	220	SI-7
N750-SI	240	SI-7
N750-SI	270	SI-7
N750-SI	300	SI-19
N750-SI	330	SI-3
N750-SI	360	SI-3
N750-SI	390	SI-3
N750-SI	430	SI-4
N750-SI	470	SI-4
N750-SI	510	SI-4
N750-SI	560	SI-5
N750-SI	620	SI-5
N750-SI	680	SI-5
N750-SI	750	SI-5

Standard Tolerance — up to 10 mmf. ±.5 mmf., above 10 mmf. ±10%

NPO-S1† — 500 VDCW

★Net Price — .30

Type	Capacity Mmfd.	Size
NPO-SI	.5	SI-1
NPO-SI	.68	SI-1
NPO-SI	1.0	SI-1
NPO-SI	1.5	SI-1
NPO-SI	2	SI-1
NPO-SI	2.2	SI-1
NPO-SI	3.0	SI-1
NPO-SI	3.3	SI-1
NPO-SI	4.7	SI-1
NPO-SI	5.0	SI-1
NPO-SI	6.8	SI-1
NPO-SI	8.2	SI-1
NPO-SI	10	SI-1
NPO-SI	12	SI-1
NPO-SI	15	SI-1
NPO-SI	18	SI-1
NPO-SI	20	SI-1
NPO-SI	22	SI-1
NPO-SI	24	SI-13
NPO-SI	25	SI-13
NPO-SI	27	SI-13
NPO-SI	30	SI-13
NPO-SI	33	SI-13
NPO-SI	36	SI-2

Type	Capacity Mmfd.	Size
NPO-SI	39	SI-2
NPO-SI	43	SI-2
NPO-SI	47	SI-2
NPO-SI	50	SI-2
NPO-SI	51	SI-2
NPO-SI	56	SI-7
NPO-SI	62	SI-7
NPO-SI	68	SI-7
NPO-SI	75	SI-7
NPO-SI	82	SI-7
NPO-SI	91	SI-7
NPO-SI	100	SI-7
NPO-SI	110	SI-19
NPO-SI	120	SI-19
NPO-SI	130	SI-3
NPO-SI	150	SI-3
NPO-SI	160	SI-4
NPO-SI	175	SI-4
NPO-SI	180	SI-4
NPO-SI	220	SI-5
NPO-SI	240	SI-5
NPO-SI	270	SI-5

NO80† — 500 VDCW

★Net Price — .30

Type	Capacity Mmfd.	Size
N080-SI	10	SI-1
N080-SI	22	SI-1
N080-SI	33	SI-13

Type	Capacity Mmfd.	Size
N080-SI	47	SI-27
N080-SI	62	SI-27

N330† — ±500ppm

★Net Price — .30

Deflection Yoke Capacitor for silvered mica capacitor replacement

Type	Capacity Mmfd.	Type	Size
N330-SI	47±10%	1500 VDCW	SI-2
N330-SI	56±10%	1500 VDCW	SI-2

Standard Tolerance — up to 10 mmf. ±.5% mmf., above 10 mmf. ±10%
When ordering the above units, designate type and MMFD fully.
†These types will be discontinued when present stocks are depleted.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

GENERAL PURPOSE TUBULARS

The items listed below fall into two type categories. The type SI or "Dog Bone" Durez coated tubular, and the CI which is an insulated tubular made in a ceramic tube.

500 VDCW

★Net Price — .15

Cap. Mmfd.	Size		Cap. Mmfd.	Size		Cap. Mmfd.	Size	
5	SI-1	CI-1	120	SI-1	CI-1	1800	SI-2	CI-2
10	SI-1	CI-1	150	SI-1	CI-1	2000	SI-2	CI-2
12	SI-1	CI-1	180	SI-1	CI-1	2200	SI-7	CI-3
15	SI-1	CI-1	200	SI-1	CI-1	2400	SI-7	CI-3
18	SI-1	CI-1	220	SI-1	CI-1	2500	SI-7	CI-3
20	SI-1	CI-1	240	SI-1	CI-1	2700	SI-7	CI-3
22	SI-1	CI-1	250	SI-1	CI-1	3000	SI-19	CI-3
24	SI-1	CI-1	270	SI-1	CI-1	3300	SI-19	CI-3
25	SI-1	CI-1	300	SI-1	CI-1	4000	SI-19	CI-3
27	SI-1	CI-1	330	SI-1	CI-1	4700	SI-3	CI-3
30	SI-1	CI-1	360	SI-1	CI-1	5000	SI-3	CI-3
33	SI-1	CI-1	390	SI-1	CI-1	5100	SI-3	CI-3
39	SI-1	CI-1	470	SI-1	CI-1	5600	SI-3	CI-3
47	SI-1	CI-1	500	SI-1	CI-1	6000	SI-3	CI-3
50	SI-1	CI-1	510	SI-1	CI-1	6800	SI-4	
51	SI-1	CI-1	560	SI-1	CI-1	7500	SI-4	
56	SI-1	CI-1	680	SI-1	CI-1	10,000	SI-5	
68	SI-1	CI-1	750	SI-1	CI-1	15,000	SI-6	
75	SI-1	CI-1	820	SI-1	CI-2	17,500	SI-6	
82	SI-1	CI-1	910	SI-1	CI-2	20,000	SI-5 GMV	
91	SI-1	CI-1	1000	SI-1	CI-2	25,000	SI-5 GMV	
100	SI-1	CI-1	1200	SI-2	CI-2	30,000	SI-6 GMV	
110	SI-1	CI-1	1500	SI-2	CI-2	33,000	SI-6 GMV	

Standard Tolerance ±20%

SI-TV† Hi-VOLTAGE—600 VDCW

★Net Price — .60

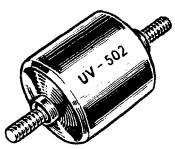
Cap. Mmfd.	Size	Cap. Mmfd.	Size	Cap. Mmfd.	Size
4.7	SI-22	20	SI-22	40	SI-3
8.2	SI-22	22	SI-22	47	SI-3
12	SI-22	24	SI-3	50	SI-3
15	SI-22	27	SI-3	60	SI-3
18	SI-22	30	SI-3		

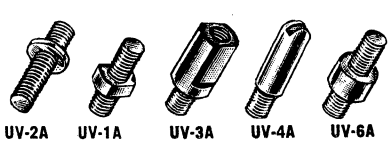
★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

HIGH VOLTAGE "CARTWHEELS"

Hi-Q high voltage "cartwheels" are thoroughly tested units capable of assuring dependable service while withstanding high voltages. This new universal type (UV) offers interchangeable terminals in 5 styles for use in filter and by-pass applications in TV high voltage power supplies.

Terminal Hardware





UV-2A UV-1A UV-3A UV-4A UV-6A

Type	Voltage	Cap. Mmfd.	Net Price★
UV-501	10,000 VDCW	500 mmf.	.84
UV-502	20,000 VDCW	500 mmf.	1.11
UV-503	30,000 VDCW	500 mmf.	2.70

STOCK ITEMS

Type	Net Price★
UV-1A	.06
UV-2A	.06
UV-3A	.06

STOCK ITEMS—TERMINAL HARDWARE

Type	Net Price★
UV-4A	.06
UV-6A	.06

★Request O.E.M. prices in the following quantities: 25 and up

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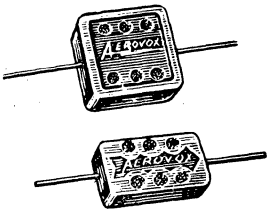
AEROVOX Capacitors



MICAS

MIL Types CM15, CM20, CM30, CM35

AEROVOX Types 1459, 1468, 1469, 1467, 1464

Compact, precision-made mica dielectric capacitors made in accordance with specification MIL-C-5B. Units are furnished color coded and tested to meet all MIL requirements for "N" temperature rating and all vibration grades of this specification. Types 1467 and 1468 are stacked mica and foil units molded in yellow bakelite. Types 1459, 1464 and 1469 are silvered mica molded in red bakelite. TYPE 1459 MINATURE MICA IS THE LATEST EDITION TO THIS MOLDED MICA LINE.

Type CM-15 (500 VDCW)

1459

Cap. Mmf.	Type Designation	Net★ Price
1	CM-15C-010	.24
2	CM-15C-020	.24
3	CM-15C-030	.24
5	CM-15C-050	.24
10	CM-15C-100	.24
12	CM-15C-120	.24
15	CM-15C-150	.24
18	CM-15C-180	.24
20	CM-15C-200	.24
22	CM-15C-220	.24
24	CM-15E-240	.24
27	CM-15E-270	.24
30	CM-15E-300	.24
33	CM-15E-330	.24
36	CM-15E-360	.24
39	CM-15E-390	.24
43	CM-15E-430	.24
47	CM-15E-470	.24
50	CM-15E-500	.24
51	CM-15E-510	.24
56	CM-15E-560	.24
62	CM-15E-620	.24
68	CM-15E-680	.24
75	CM-15E-750	.24
82	CM-15E-820	.27
91	CM-15E-910	.27
100	CM-15E-101	.27
110	CM-15E-111	.27
120	CM-15E-121	.27
130	CM-15E-131	.27
150	CM-15E-151	.27
160	CM-15E-161	.30
180	CM-15E-181	.30
200	CM-15E-201	.30
220	CM-15E-221	.33
240	CM-15E-241	.33
250	CM-15E-251	.33
270	CM-15E-271	.36
300	CM-15E-301	.36
330	CM-15E-331	.39
360	CM-15E-361	.42
390	CM-15E-391	.42
430*	CM-15E-431	.45
470*	CM-15E-471	.48
500*	CM-15E-501	.48
510*	CM-15E-511	.48

NOTES

In mica and foil construction the standard tolerance is +20%. Also available in ±10% and ±5%. Closest available tolerance up to and including 10 mmf. is ±1 mmf.; above 10 mmf. ±2% or ±2 mmf., whichever is greater.

In silver mica the standard tolerance is ±5%. Also available in ±2% and ±1%. Closest available tolerance up to 10 mmf. is ±½ mmf.; 10 mmf. and up ±1% or ± 1 mmf., whichever is greater.

Type CM-20 (500 VDCW)

1468LS

Cap. Mmf.	Type Designation	Net★ Price
1	CM-20B-010	.18
5	CM-20B-050	.18
10	CM-20B-100	.18
12	CM-20B-120	.18
15	CM-20B-150	.18
18	CM-20B-180	.18
20	CM-20B-200	.18
22	CM-20B-220	.18
24	CM-20B-240	.18
25	CM-20B-250	.18
27	CM-20B-270	.18
30	CM-20B-300	.18
33	CM-20B-330	.12
36	CM-20B-360	.12
39	CM-20B-390	.12
40	CM-20B-400	.12
43	CM-20B-430	.12
47	CM-20B-470	.12
50	CM-20B-500	.12
51	CM-20B-510	.12
56	CM-20B-560	.12
62	CM-20B-620	.12
68	CM-20B-680	.12
75	CM-20B-750	.12
82	CM-20B-820	.12
91	CM-20B-910	.12
100	CM-20B-101	.12
110	CM-20B-111	.12
120	CM-20B-121	.12
130	CM-20B-131	.15
150	CM-20B-151	.15
160	CM-20B-161	.15
180	CM-20B-181	.15
200	CM-20B-201	.15
220	CM-20B-221	.15
240	CM-20B-241	.18
250	CM-20B-251	.18
270	CM-20B-271	.18
300	CM-20B-301	.18
330	CM-20B-331	.18
350	CM-20B-351	.18
360	CM-20B-361	.18
390	CM-20B-391	.18
400	CM-20B-401	.18
430	CM-20B-431	.18
470	CM-20B-471	.18
500	CM-20B-501	.18
510	CM-20B-511	.18
560	CM-20B-561	.21
600	CM-20B-601	.21
620	CM-20B-621	.21
680	CM-20B-681	.21
750	CM-20B-751	.21
800	CM-20B-801	.24
820	CM-20B-821	.24
900	CM-20B-901	.27
910	CM-20B-911	.27
1000	CM-20B-102	.27

1469

Cap. Mmf.	Type Designation	Net★ Price
5	CM-20C-050	.24
10	CM-20C-100	.24
12	CM-20C-120	.24
15	CM-20C-150	.24
18	CM-20C-180	.24
20	CM-20C-200	.24
22	CM-20C-220	.24
24	CM-20C-240	.24
25	CM-20C-250	.24
27	CM-20C-270	.24
30	CM-20C-300	.24
33	CM-20C-330	.24
36	CM-20C-360	.24
39	CM-20C-390	.24
40	CM-20C-400	.24
43	CM-20C-430	.24
47	CM-20C-470	.24
50	CM-20C-500	.24
51	CM-20C-510	.24
56	CM-20C-560	.24
62	CM-20C-620	.24
68	CM-20C-680	.24
70	CM-20C-700	.24
75	CM-20C-750	.24
82	CM-20C-820	.24
91	CM-20C-910	.24
100	CM-20C-101	.24
110	CM-20C-111	.27
120	CM-20C-121	.27
130	CM-20C-131	.27
150	CM-20C-151	.27
160	CM-20C-161	.27
180	CM-20C-181	.27
200	CM-20D-201	.27
220	CM-20D-221	.27
240	CM-20D-241	.33
250	CM-20D-251	.33
270	CM-20D-271	.33
300	CM-20D-301	.33
330	CM-20D-331	.33
350	CM-20D-351	.33
360	CM-20D-361	.33
390	CM-20D-391	.39
400	CM-20D-401	.39
430	CM-20D-431	.39
470	CM-20D-471	.42
500	CM-20D-501	.42
510	CM-20D-511	.42
560	CM-20D-561	.45
620	CM-20D-621	.45
680	CM-20D-681	.48
750	CM-20D-751	.48
820	CM-20D-821	.51
910	CM-20D-911	.51
1000	CM-20D-102	.54

Nominal Size All CM30 Units — 53/64 x 53/64 x 9/32
Nominal Size All CM35 Units — 53/64 x 53/64 x 21/64
Nominal Size All CM20 Units — 45/64 x 23/64 x 3/16
Nominal Size All CM15 Units — 1/2 x 9/32 x 5/16

*Capacities are 300 WV. Type Designation 1467XLS and 1464X.

★Request O.E.M. Prices in the following quantities: 50 to 99, 100 and up.

Type CM-30 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net★ Price
470	CM-30B-471	.18
500	CM-30B-501	.18
510	CM-30B-511	.18
560	CM-30B-561	.18
620	CM-30B-621	.18
680	CM-30B-681	.18
750	CM-30B-751	.18
820	CM-30B-821	.18
910	CM-30B-911	.18
1000	CM-30B-102	.21
1100	CM-30B-112	.21
1200	CM-30B-122	.21
1300	CM-30B-132	.21
1500	CM-30B-152	.24
1600	CM-30B-162	.24
1800	CM-30B-182	.27
2000	CM-30B-202	.27
2200	CM-30B-222	.27
2400	CM-30B-242	.30
2500	CM-30B-252	.30
2700	CM-30B-272	.30
3000	CM-30B-302	.36
3300	CM-30B-332	.36
3600	CM-30B-362	.36
3900	CM-30B-392	.39
4000	CM-30B-402	.39
4300	CM-30B-432	.39
4700	CM-30B-472	.39
5000	CM-30B-502	.42
5100	CM-30B-512	.42
5600	CM-30B-562	.42
6000	CM-30B-602	.54
6200	CM-30B-622	.54
6800	CM-30B-682	.54
7000	CM-30B-702	.54
7500	CM-30B-752	.60
8000	CM-30B-802	.60
8200	CM-30B-822	.60
9000	CM-30B-902	.66
9100	CM-30B-912	.66
10000	CM-30B-103	.72

1464

Cap. Mmf.	Type Designation	Net★ Price
470	CM-30D-471	.42
510	CM-30D-511	.42
560	CM-30D-561	.45
620	CM-30D-621	.45
680	CM-30D-681	.48
750	CM-30D-751	.48
800	CM-30D-801	.51
820	CM-30D-821	.51
900	CM-30D-901	.54
910	CM-30D-911	.54
1000	CM-30D-102	.60
1100	CM-30D-112	.60
1200	CM-30D-122	.69
1300	CM-30D-132	.69
1500	CM-30D-152	.75
1600	CM-30D-162	.75
1800	CM-30D-182	.75
2000	CM-30D-202	.81
2200	CM-30D-222	.81
2400	CM-30D-242	.96
2500	CM-30D-252	.96
2700	CM-30D-272	1.08
3000	CM-30D-302	1.14
3300	CM-30D-332	1.14
3600	CM-30D-362	1.20
3900	CM-30D-392	1.20
4000	CM-30D-402	1.20
4300	CM-30D-432	1.26
4700	CM-30D-472	1.26
5000	CM-30D-502	1.29
5100	CM-30D-512	1.29
5600	CM-30D-562	1.35
6200	CM-30D-622	1.44
6800	CM-30D-682	1.50
7500	CM-30D-752	1.50
8200	CM-30D-822	1.50
9100	CM-30D-912	1.50

Type CM-35 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net★ Price
3600	CM-35B-362	.36
3900	CM-35B-392	.39
4000	CM-35B-402	.39
4300	CM-35B-432	.39
4700	CM-35B-472	.39
5000	CM-35B-502	.42
5100	CM-35B-512	.42
5600	CM-35B-562	.42
6200	CM-35B-622	.54
6800*	CM-35B-682	.57
7000*	CM-35B-702	.57
7500*	CM-35B-752	.60
8000*	CM-35B-802	.69
8200*	CM-35B-822	.69
9100*	CM-35B-912	.69
10000*	CM-35B-103	.84
12000*	CM-35B-123	.96
13000*	CM-35B-133	1.02
14000*	CM-35B-143	1.08
15000*	CM-35B-153	1.20

1464

Cap. Mmf.	Type Designation	Net★ Price
3600	CM-35D-362	1.20
3900	CM-35D-392	1.20
4000	CM-35D-402	1.20
4300	CM-35D-432	1.26
4700	CM-35D-472	1.26
5000	CM-35D-502	1.29
5100	CM-35D-512	1.29
5600	CM-35D-562	1.35
6000	CM-35D-602	1.44
6200	CM-35D-622	1.44
6800*	CM-35D-682	1.59
7000*	CM-35D-702	1.59
7500*	CM-35D-752	1.68
8000*	CM-35D-802	1.80
8200*	CM-35D-822	1.80
9100*	CM-35D-912	1.92
10000*	CM-35D-103	2.10

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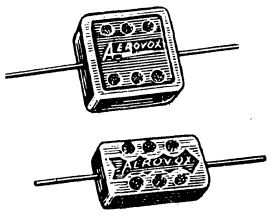
AEROVOX Capacitors

RECEIVING MICA CAPACITORS — (Continued)



Type 1468LS-HV and 1467LS-HV

Designed especially for television, low power transmitters and power amplifier applications, these capacitors feature the highest voltages ever before available in these case sizes. They are furnished in silvered mica but molded in yellow Bakelite. As stock is replenished they will be molded in red Bakelite. Standard Tolerance is plus and minus 20% and they are tested to meet EIA standards. Units are marked with capacity and working voltage and are tested at double the rated voltage to insure long life.

Type 1468LS-HV			Type 1467LS-HV		
Cap. Mmfd.	1000 VDCW 2000 VDCT Net Price★	1500 VDCW 3000 VDCT Net Price★	Cap. Mmfd.	1000 VDCW 2000 VDCT Net Price★	1500 VDCW 3000 VDCT Net Price★
5	.18	.18	430		.39
10	.18	.18	470		.39
12	.18	.18	500		.42
15	.18	.18	510		.45
18	.18	.18	560		.45
20	.18	.18	620		.45
22	.18	.18	680	.36	.45
24	.18	.18	750	.36	.48
25	.18	.18	820	.36	.48
27	.18	.18	910	.36	.51
30	.18	.18	1000	.36	.54
33	.18	.18	1100	.36	.57
36	.18	.18	1200	.39	.66
39	.18	.18	1300	.39	.69
43	.18	.18	1500	.42	.72
47	.18	.18	1600	.48	.78
50	.18	.18	1800	.48	.87
51	.18	.18	2000	.48	.90
56	.18	.18	2200	.57	1.02
62	.18	.18	2400	.60	1.08
68	.18	.18	2500	.60	
75	.18	.18	2700	.63	
82	.18	.21	3000	.66	
91	.21	.21	3300	.72	
100	.21	.21	3600	.78	
110	.21	.21	3900	.78	
120	.21	.21	4000	.78	
130	.21	.21	4300	.90	
150	.21	.21	4700	.96	
160	.21	.24	5000	.96	
180	.21	.24	5100	1.02	
200	.24	.24			
220	.24	.30			
240	.24	.30			
250	.24	.30			
270	.24	.30			
300	.27	.30			
330	.27	.30			
350	.27	.30			
360	.27	.33			
390	.27	.33			
400	.30	.33			
430	.30				
470	.30				
500	.30				
510	.30				
560	.33				
620	.33				

★Request O.E.M. prices in the following quantities: 50 to 99, 100 and up

DIPPED, SILVERED MICA CAPACITORS
TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-5B Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

• High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test as outlined in MIL-C-5B. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 meghoms at 125°C.

Capacitors will be marked with capacity and tolerance. In addition voltage rating wil be marked on all units other than 500 volts rating.

Cap. Mmf.	Type Designation	Net Price★
5	ADM-15-050	.17
10	ADM-15-100	.17
12	ADM-15-120	.17
15	ADM-15-150	.17
18	ADM-15-180	.17
20	ADM-15-200	.17
22	ADM-15-220	.17
24	ADM-15-240	.17
27	ADM-15-270	.17
30	ADM-15-300	.17
33	ADM-15-330	.17
36	ADM-15-360	.17
39	ADM-15-390	.17
43	ADM-15-430	.17
47	ADM-15-470	.17
50	ADM-15-500	.17
51	ADM-15-510	.17
56	ADM-15-560	.17
62	ADM-15-620	.17
68	ADM-15-680	.17
75	ADM-15-750	.17
82	ADM-15-820	.17
91	ADM-15-910	.17
100	ADM-15-101	.17
110	ADM-15-111	.20
120	ADM-15-121	.20
130	ADM-15-131	.20
150	ADM-15-151	.20
160	ADM-15-161	.23
180	ADM-15-181	.23
200	ADM-15-201	.23
220	ADM-15-221	.26
240	ADM-15-241	.26
250	ADM-15-251	.26
270	ADM-15-271	.30
300	ADM-15-301	.30
330	ADM-15-331	.33
360	ADM-15-361	.33
390	ADM-15-391	.36
430	*ADM-15-431	.36
470	*ADM-15-471	.40
500	*ADM-15-501	.40
510	*ADM-15-511	.40
560		
620		
680		
750		
820		
910		
1000		
1100		
1200		
1300		
1500		
1600		
1800		
2000		
2200		
2400		
2500		
2700		
3000		
3300		
3600		
3900		
4300		
4700		
5000		
5100		
5600		
6200		
6800		
7500		
8200		
9100		
10000		
12000		
13000		
15000		

Type Designation	Net Price★
ADM-19-101	.17
ADM-19-111	.20
ADM-19-121	.20
ADM-19-131	.20
ADM-19-151	.20
ADM-19-161	.20
ADM-19-181	.20
ADM-19-201	.20
ADM-19-221	.20
ADM-19-241	.23
ADM-19-251	.23
ADM-19-271	.26
ADM-19-301	.26
ADM-19-331	.26
ADM-19-361	.30
ADM-19-391	.30
ADM-19-431	.30
ADM-19-471	.33
ADM-19-501	.33
ADM-19-511	.33
ADM-19-561	.36
ADM-19-621	.36
ADM-19-681	.40
ADM-19-751	.40
ADM-19-821	.40
ADM-19-911	.43
ADM-19-102	.46
ADM-19-112	.46
ADM-19-122	.50
ADM-19-132	.53
ADM-19-152	.56
ADM-19-162	.59
ADM-19-182	.66
ADM-19-202	.73
ADM-19-222	.79
*ADM-19-242	.86
*ADM-19-252	.89
*ADM-19-272	.92
*ADM-19-302	.99

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C". from 22 to 150 mmf. Characteristic "E". from 160 mmf. and up Characteristic "F"
ADM-19—All capacities listed "F" Characteristic.
ADM-20—All capacities listed "F" Characteristic.
ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance ±5%

Minimum tolerance for capacitances up to and including 10 mmf. is ± ½ mmf., for all other capacitances ± 1% or 1 mmf. whichever is greater.

Sizes	L	W	T
ADM-15	1 5/32	5/16	7/32 max.
ADM-19	2 1/32	1 3/32	7/32 max.
ADM-20	3/4	1 3/32	7/32 max.
ADM-30	2 5/32	2 7/32	5/16 max.

Type Designation	Net Price★
ADM-20-681	.33
ADM-20-751	.33
ADM-20-821	.33
ADM-20-911	.36
ADM-20-102	.40
ADM-20-112	.40
ADM-20-122	.43
ADM-20-132	.46
ADM-20-152	.50
ADM-20-162	.53
ADM-20-182	.59
ADM-20-202	.63
ADM-20-222	.69
ADM-20-242	.73
ADM-20-252	.78
ADM-20-272	.79
ADM-20-302	.86
ADM-20-332	.92
ADM-20-362	.99
ADM-20-392	1.06
*ADM-20-432	1.06
*ADM-20-472	1.12
*ADM-20-502	1.16
*ADM-20-512	1.19

Type Designation	Net Price★
ADM-30-432	1.06
ADM-30-472	1.12
ADM-30-502	1.16
ADM-30-512	1.16
ADM-30-562	1.19
ADM-30-622	1.25
ADM-30-682	1.39
ADM-30-752	1.52
ADM-30-822	1.65
ADM-30-912	1.78
ADM-30-103	1.98
*ADM-30-123	2.11
*ADM-30-133	2.31
*ADM-30-153	2.54

★Request O.E.M. prices in the following quantities: 50 to 99, 100 and up

* All items asterisked are rated at 300 VDCW.

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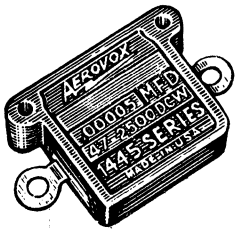
AEROVOX Capacitors

TRANSMITTING MICA CAPACITORS

TYPES 1445, 1446 and 1447

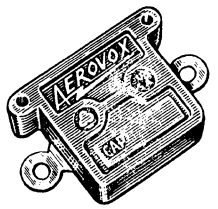


Designed with insulated mounting holes 1 5/16" apart independent of soldering lugs. Used to shunt meter windings.
Size: 1⅛" x 1⅝" x 1 1/32"
Standard Tolerance ±10%
±5% and ±2% tolerance are available on special order.
Meter Mounting Bracket E available. Specify when ordering.
These units are equivalent to case styles CM45 and CM50 of specification MIL-C5B.

TYPE 1445 600 VDCW 1000 VDCT		TYPE 1446 1200 VDCW 2500 VDCT		TYPE 1447 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net Price	Cap. Mfd.	Net Price	Cap. Mfd.	Net Price
.00005	.72	.00005	.96	.00005	1.14
.0001	.72	.0001	.96	.000075	1.14
.00015	.72	.00015	.96	.0001	1.14
.0002	.72	.0002	.96	.00015	1.14
.00025	.72	.00025	.96	.0002	1.14
.0003	.72	.0003	.96	.00025	1.32
.00035	.72	.00035	.96	.0003	1.35
.0004	.72	.0004	.96	.00035	1.35
.0005	.72	.0005	.96	.0004	1.38
.001	.72	.001	1.08	.0005	1.44
.0015	.72	.0015	1.38	.001	1.68
.002	.78	.002	1.44	.0015	2.13
.0025	.78	.0025	1.68	.002*	2.49
.003	.87	.003	1.83	.0025*	2.76
.004	.90	.004*	1.83	.003*	2.94
.005	.93	.005*	1.98	.004*	3.39
.006	1.08	.006*	1.98	.005*	3.84
.008	1.14	.008*	2.31		
.01	1.29	.01*	3.06		
.015*	1.59	.015*	3.60		
.02*	1.83				
.025*	2.16				
.03*	2.67				
.04*	3.39				

*Thickness 7/16"

TYPES 1455†, 1456† and 1457†

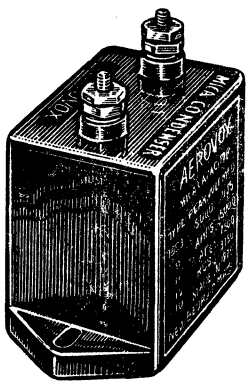


Same as Types 1445-47 except for sizes and capacitance ranges. Distance between mounting holes is 1½".
Size: 1¼" x 1 25/32" x 1 1/32"
Standard Tolerance ±10%
±5% and ±2% tolerance are available on special order.
Meter Mounting Bracket E available. Specify when ordering.

TYPE 1455 600 VDCW 1000 VDCT		TYPE 1456 1200 VDCW 2500 VDCT		TYPE 1457 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net Price	Cap. Mfd.	Net Price	Cap. Mfd.	Net Price
.00005	.72	.00005	.96	.00005	1.14
.0001	.72	.0001	.96	.000075	1.14
.00015	.72	.00015	.96	.0001	1.14
.0002	.72	.0002	.96	.00015	1.14
.00025	.72	.00025	.96	.0002	1.14
.0003	.72	.0003	.96	.00025	1.32
.00035	.72	.00035	.96	.0003	1.35
.0004	.72	.0004	.96	.00035	1.35
.0005	.72	.0005	.96	.0004	1.38
.001	.72	.001	1.08	.0005	1.44
.0015	.72	.0015	1.38	.001	1.68
.002	.78	.002	1.44	.0015	2.13
.0025	.78	.0025	1.68	.002	2.49
.003	.87	.003	1.83	.0025	2.76
.004	.90	.004	1.83	.003	2.94
.005	.93	.005	1.98		
.006	1.08	.006	1.98		
.008	1.14	.008	2.31		
.01	1.29	.01	3.06		
.015	1.59				
.02	1.83				
.025	2.16				
.03	2.67				

†To be discontinued when present stocks are depleted. Replace with 1445, 1446 and 1447

TYPES 1991 thru 1996
Porcelain-Cased Capacitors



Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.
Size: 4" overall by 3" high; 2½" between mounting holes.
Standard Tolerance ±10%

Cap. Mfd.	DC Voltage Rating	Type	Maximum Current Capacity—Amperes 15 mc	7.5 mc	3750 kc	1875 kc	Net Price
.00005	12,500	1996	3	2.5	1.5	1	10.80
.0001	12,500	1996	5	4	3	2	10.80
.00025	12,500	1996	7	8	6	4	10.80
.0005	12,500	1996	8	9	8	7	10.80
	7,000	1994	7	8	6	4	8.91
.001	12,500	1996	9	10	11	12	10.80
	7,000	1994	8	9	10	8	9.66
	3,500	1992	8	9	8	5	9.51
.0015	12,500	1996	9	10	11	12	12.66
	7,000	1994	9	9	10	8	10.59
	5,000	1993	8	9	9	7	10.59
	3,500	1992	8	9	8	5	9.51
	2,000	1991	7	8	8	5	9.51
.002	12,500	1996	9	12	13	15	15.00
	10,000	1995	9	10	11	12	13.83
	7,000	1994	9	9	10	10	12.66
	5,000	1993	8	9	9	8	11.88
	3,500	1992	8	8	9	7	11.16
	2,000	1991	7	8	8	6	11.16
.003	12,500	1996	9	12	13	15	18.60
	10,000	1995	9	11	12	13	16.20
	7,000	1994	9	10	10	10	13.80
	5,000	1993	8	9	9	9	12.78
	3,500	1992	8	9	9	8	11.88
	2,000	1991	7	8	8	7	11.88
.005	10,000	1995	10	13	14	15	19.47
	7,000	1994	9	11	12	11	18.39
	5,000	1993	9	11	12	10	12.93
	3,500	1992	9	10	11	9	12.78
	2,000	1991	8	9	10	8	12.78
.01	7,000	1994	10	13	15	15	20.37
	5,000	1993	10	13	15	15	19.89
	3,500	1992	10	13	14	14	19.47
	2,000	1991	10	13	14	14	19.47
.02	3,500	1992	10	14	16	17	19.47
	2,000	1991	10	13	15	15	18.12
.05	3,500	1992	10	14	17	18	22.56
	2,000	1991	10	14	16	17	19.47
.1	2,000	1991	10	14	17	18	22.56

Net
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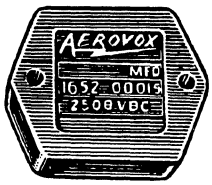
AEROVOX Capacitors

TRANSMITTING MICA CAPACITORS — (Continued)

TYPES 1650L, 1651L, 1652L, 1653L and 1654L

Heaviest-duty molded in bakelite mica capacitors of the AEROVOX line. Threaded mounting holes for roundhead screw terminals or plain holes available. Add suffix "A" for plain holes.



TYPE 1650L
600 VDCW — 1000 VDCT
350 VACW — 700 VACT

	Net Price
.0005	.87
.0001	.87
.00025	.87
.003	.87
.00035	.87
.0004	.87
.0005	.87
.001	.87
.0015	.87
.002	.99
.0025	1.02
.003	1.11
.004	1.20
.005	1.26
.006	1.32
.008	1.47
.01	1.68
.015	1.83
.02	2.13
.025	2.61
.03	2.73
.04*	3.51
.05*	4.26
.06*	4.83

TYPE 1651L
1200 VDCW — 2500 VDCT
875 VACW — 1750 VACT

	Net Price
.00005	.96
.0001	.96
.00025	.96
.0003	.96
.00035	.96
.0004	.96
.0005	.96
.001	1.14
.0015	1.35
.002	1.50
.0025	1.68
.003	1.77
.004	1.86
.005	1.98
.006	2.07
.008	2.46
.01	2.82
.015	3.48
.02*	4.23
.025*	4.74
.03*	4.86

TYPE 1652L
2500 VDCW — 5000 VDCT
1750 VACW — 3500 VACT

	Net Price
.00005	1.14
.000075	1.14
.0001	1.14
.00015	1.20
.0002	1.26
.00025	1.29
.0003	1.32
.00035	1.35
.0004	1.50
.0005	1.53
.001	1.74
.0015	2.34
.002	2.55
.0025	2.76
.003	3.06
.004	3.39
.005	3.72
.006	3.81
.008*	4.11
.01*	4.38

TYPE 1653L
3750 VDCW — 7500 VDCT
2625 VACW — 5250 VACT

	Net Price
.00005	1.98
.000075	2.19
.0001	2.28
.00015	2.49
.0002	2.58
.00025	2.85
.0003	2.94
.00035	3.45
.0004	3.54
.0005	3.90
.001	4.62
.0015	6.06
.002*	6.90
.0025*	7.74
.003*	8.55

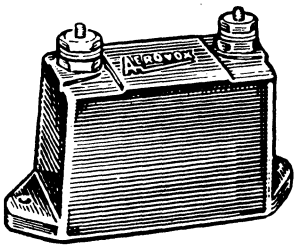
TYPE 1654L
5000 VDCW — 10,000 VDCT
3500 VACW — 7000 VACT

	Net Price
.00005	2.25
.000075	2.49
.0001	2.79
.00015	3.03
.0002	3.75
.00025	4.08
.0003	4.29
.00035	4.50
.0004	4.62
.0005	5.94
.001*	7.50

These units are equivalent to case styles CM55, CM56, CM60, and CM61 or specification MIL-C-5B.
Standard tolerance ±10%.
±5% Tolerance available on special order.
±2% Tolerance available on special order.
Nominal Size: 1¾" x 1⅝" x 7/16"
*Thickness ¾"

TYPES 1550L, 1570L and 1590L Potted Transmitting Capacitors

These potted transmitting capacitors in thermo-setting case materials have greater load-carrying capacity than molded-in-thermo-setting case material capacitors. Types 1550 to 1590, inclusive, not only have high voltage rating but afford higher current ratings than equivalent capacitances in thermo-setting case material units. Because of their construction they are made with higher capacitance stability. Furnished only in low-loss thermo-setting case material as standard. Bakelite cased mica stack capacitors. These units have highest quality mica sections stacked for greater load carrying capacity. The sections are potted in low-loss bakelite cases and permanently clamped with non-magnetic material.



TYPE 1570L (Similar to CM65)

Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1570LS-204	.00005	3500	1.3	.6	.15	.05	10.17
1570LS-210	.0001	3500	2.0	.9	.3	.1	10.17
1570LS-214	.00015	3500	2.2	1.0	.45	.15	10.17
1570LS-217	.0002	3500	2.6	1.2	.6	.25	10.17
1570LS-219	.00025	3500	2.9	1.6	.7	.25	10.17
1570LS-221	.0003	3500	3.2	1.9	.8	.3	10.17
1570LS-223	.0004	3500	3.6	2.0	.9	.4	10.17
1570LS-226	.0005	3500	3.75	2.0	1.0	.5	10.17
1570LS-228	.0006	3500	4.1	2.0	1.2	.6	10.17
1570LS-232	.0008	3500	4.6	2.5	1.5	.7	10.17
1570LS-234	.001	3500	4.9	3.0	1.6	.8	10.17
1570LS-236	.0015	3500	5.8	3.5	2.0	1.0	10.17
1570LS-237	.002	3500	6.3	4.0	2.5	1.3	10.17
1570LS-240	.003	2500	7.1	5.0	3.0	1.5	10.17
1570LS-242	.004	2500	7.6	6.0	3.5	1.6	10.17
1570LS-245	.005	2500	8.5	6.5	4.0	2.0	10.17
1570LS-248	.006	2500	9.0	7.5	4.5	2.2	10.17
1570LS-254	.008	1500	10.0	8.0	5.0	2.3	10.17
1570LS-257	.01	1500	10.0	10.0	6.0	2.5	10.17
1570LS-260	.02	1500	11.0	10.0	7.0	3.0	11.37
1570LS-268	.05	500	8.5	7.5	6.0	3.8	11.37
1570LS-273	.1	250	11.0	12.0	10.0	6.0	12.12

Type 1570L also manufactured in case style CM65 of Spec. MIL-C-5B. Prices on request.

TYPE 1550L (Similar to CM70)

Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1550LS-200	.00005	6000	1.5	.7	.2	.07	13.94
1550LS-201	.0001	6000	2.5	1.3	.35	.1	13.94
1550LS-202	.00015	6000	3.0	1.7	.5	.16	13.94
1550LS-203	.0002	6000	3.5	1.8	.7	.3	13.94
1550LS-204	.00025	6000	5.0	2.5	1.0	.3	13.94
1550LS-206	.0003	6000	5.0	2.5	1.0	.4	13.94
1550LS-208	.0004	6000	5.0	2.7	1.1	.5	13.94
1550LS-210	.0005	6000	5.0	3.0	1.6	.75	13.94
1550LS-212	.0006	6000	5.1	3.1	1.7	.8	13.94
1550LS-215	.00075	6000	5.5	3.5	2.1	1.0	13.94
1550LS-216	.0008	6000	6.0	4.0	2.1	1.0	13.94
1550LS-218	.001	6000	7.0	4.0	2.2	1.0	13.94
1550LS-220	.0015	6000	9.0	5.1	3.0	1.6	13.94
1550LS-221	.002	6000	9.0	6.0	4.0	1.9	13.94
1550LS-222	.002	3000	6.0	4.6	3.0	1.1	11.74
1550LS-223	.0025	5000	9.0	6.0	4.0	2.0	13.94
1550LS-225	.003	3000	6.5	6.0	4.1	1.6	12.95
1550LS-228	.004	3000	10.0	6.5	4.5	2.0	13.94
1550LS-230	.005	3000	10.0	6.8	5.0	2.5	13.94
1550LS-235	.0075	3000	11.0	8.0	6.5	2.9	13.94
1550LS-236	.008	3000	11.0	9.0	6.8	3.0	13.94
1550LS-238	.01	2000	11.0	10.0	8.0	4.0	13.94
1550LS-239	.015	2000	11.5	11.0	9.0	5.0	13.94
1550LS-240	.02	2000	12.5	11.0	10.5	7.0	13.94
1550LS-241	.03	2000	13.0	16.0	13.0	7.0	13.94
1550LS-242	.04	1500	13.0	16.0	13.0	7.5	13.94
1550LS-243	.05	1500	14.0	16.0	13.0	7.5	13.94
1550LS-244	.1	1000	16.0	18.0	14.0	9.0	19.27
1550LS-247	.25	250	16.0	18.0	14.0	12.0	22.25

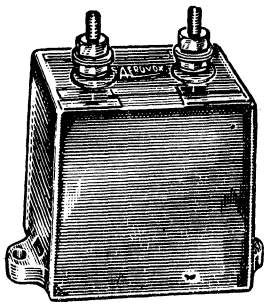
Type 1550L also manufactured in case style CM70 of Spec. MIL-C-5B. Prices on request

±2% Tolerance Available on Special Order.

AEROVOX Capacitors

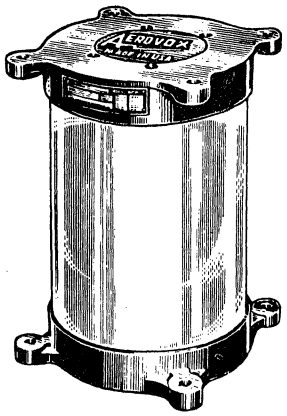
TRANSMITTING MICA CAPACITORS — (Continued)

TYPE 1590L — POTTED TRANSMITTING CAPACITORS



Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1590L-200	.00025	8000	7.0	5.0	2.0	.6	31.07
1590L-201	.0005	8000	8.5	6.0	3.0	1.0	31.07
1590L-203	.001	8000	10.0	8.5	4.5	2.0	34.67
1590L-205	.002	8000	12.0	11.0	8.0	4.0	34.67
1590L-207	.003	8000	15.0	15.0	11.0	5.0	36.84
1590L-209	.004	8000	16.0	16.0	12.0	6.0	39.41
1590L-211	.005	8000	16.0	16.0	13.0	7.0	42.74
1590L-213	.006	8000	16.0	18.0	13.0	7.0	42.74
1590L-217	.01	8000	17.0	21.0	15.0	9.0	48.54
1590L-218	.01	6000	16.0	20.0	15.0	8.0	46.13
1590L-219	.02	5000	18.0	22.0	18.0	12.0	48.54
1590L-220	.03	4000	18.0	23.0	20.0	13.0	48.54
1590L-222	.05	4000	18.0	25.0	23.0	15.0	54.44
1590L-223	.05	2000	18.0	25.0	22.0	12.0	51.68
1590L-224	.1	2000	18.0	28.0	23.0	15.0	42.84
1590L-226	.2	600	18.0	28.0	23.0	15.0	34.67
1590L-227	.25	600	18.0	28.0	23.0	15.0	39.14
1590L-228	.3	600	18.0	28.0	23.0	15.0	42.36
1590L-230	.5	600	18.0	28.0	23.0	15.0	46.38
1590L-233	1.0	600	18.0	28.0	23.0	15.0	71.16

Standard Tolerance ±5%
Also Available in ±2% on Special Order.



TYPES 1940, 1950, 1960, 1970 and 1980

Stack-Mounting Transmitting Capacitors

These stack-mounting transmitting mica capacitors are especially intended for various applications such as grid, plate blocking, coupling, tank, and by-passing functions for higher-powered installations. They are made with a special cylindrical low-loss, glazed ceramic case providing a long creepage path between terminals. They are designed to eliminate corona losses, inside and outside alike, and also provide uniform voltage gradient. The cast-aluminum terminal ends provide low contact resistance between units. These units are conservatively rated to withstand surge voltages above their rated values. They have extremely low power factor so that they can handle large KVA loads without overheating.

TYPE 1940

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1940-236	.000075	35000	371.39
1940-203	.0001	35000	371.39
1940-204	.00015	35000	403.66
1940-205	.0002	35000	403.66
1940-206	.00025	35000	403.66
1940-207	.0003	35000	403.66
1940-208	.00035	35000	403.66
1940-209	.0004	35000	403.66
1940-210	.0005	35000	435.44
1940-211	.0006	35000	435.44
1940-212	.0007	35000	435.44
1940-213	.0008	35000	435.44
1940-214	.001	35000	449.27
1940-215	.00125	35000	449.27
1940-216	.0015	35000	449.27
1940-217	.002	30000	430.55
1940-218	.0025	25000	438.27
1940-219	.003	25000	454.51
1940-220	.004	20000	476.16
1940-221	.005	20000	476.16
1940-222	.006	15000	476.16
1940-223	.007	15000	476.16
1940-224	.008	15000	476.16
1940-225	.01	15000	476.16
1940-237	.02	12000	476.16
1940-238	.03	10000	476.16
1940-239	.04	7500	476.16
1940-240	.05	6000	476.16
1940-241	.06	6000	476.16
1940-242	.07	6000	476.16
1940-243	.08	6000	476.16
1940-244	.1	5000	476.16

TYPE 1950 (Similar to CM75)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1950-202	.00005	6000	30.56
1950-204	.0001	6000	32.27
1950-207	.0002	6000	32.52
1950-209	.0003	6000	35.59
1950-212	.0005	6000	37.16
1950-216	.001	6000	37.16
1950-218	.002	6000	39.26
1950-220	.003	6000	40.34
1950-222	.005	6000	40.34
1950-226	.01	5000	41.07
1950-228	.02	3000	41.07
1950-231	.05	1500	43.13

TYPE 1960 (Similar to CM80)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1960-202	.00005	15,000	52.33
1960-203	.0001	15,000	52.33
1960-204	.00015	12,500	52.33
1960-205	.0002	12,500	52.33
1960-209	.0005	12,500	52.33
1960-212	.0008	10,000	52.33
1960-213	.001	10,000	52.33
1960-214	.0015	10,000	52.33
1960-215	.002	10,000	52.33
1960-218	.004	8,000	52.33
1960-219	.005	8,000	52.33
1960-223	.01	7,000	55.49
1960-224	.015	5,000	55.49
1960-225	.02	4,000	55.49

TYPE 1970 (Similar to CM85)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1970-202	.00005	20,000	88.90
1970-203	.0001	20,000	96.95
1970-204	.00015	20,000	104.77
1970-205	.0002	20,000	104.77
1970-210	.0005	20,000	109.91
1970-213	.0008	20,000	109.91
1970-214	.001	20,000	112.71
1970-216	.0015	20,000	114.67
1970-217	.002	15,000	114.67
1970-220	.004	12,000	120.91
1970-221	.005	10,000	120.91
1970-225	.01	10,000	120.91
1970-227	.02	6,000	120.91

TYPE 1980 (Similar to CM90)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1980-202	.00005	35,000	134.48
1980-203	.0001	35,000	168.22
1980-204	.00015	35,000	168.22
1980-207	.0003	35,000	177.02
1980-209	.0004	35,000	177.02
1980-210	.0005	35,000	177.02
1980-213	.0008	30,000	177.02
1980-214	.001	25,000	183.12
1980-217	.002	20,000	183.12
1980-220	.004	20,000	187.52
1980-221	.005	20,000	193.77
1980-224	.008	15,000	207.82
1980-225	.01	15,000	217.84
1980-230	.05	5,000	217.84

All units also manufactured in equivalent MIL-C-5B case styles. Prices on request.
Standard tolerance for all units is plus and minus 5%.
Also Available in ±2% on Special Order.

Net

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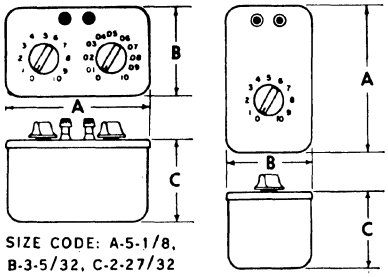
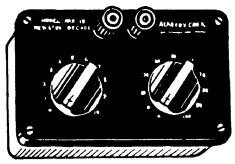
AEROVOX Capacitors



SIZE CODE: A-5-1/8, B-3-5/32, C-2-27/32

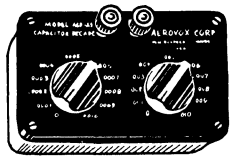
AEROVOX DECADE BOXES

RESISTANCE



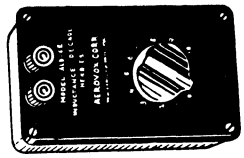
ARD

CAPACITANCE



ACD

INDUCTANCE



ALD

Laboratory quality Standards in capacitance, resistance and inductance at a price far below that of equivalent quality Standards. Available in ten units: three resistance decades, three capacitance decades and four inductance decades. Housed in a seamless, drawn steel case coated with grey enamel. Panels are black with the markings engraved in white.

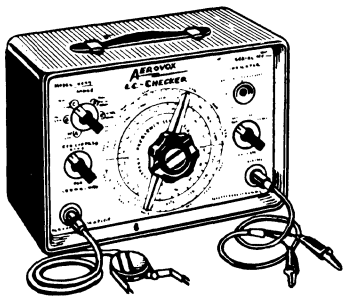
All ratings are maximum and no guarantee can be enforced if ratings are exceeded in any way. Overload can change accuracy or cause actual burn-outs.

Multiple dial units have the highest value multipliers on the left-hand side so that readings are in order exactly as they should be read.

	PART NO.	TYPE	DIELECTRIC	DIALS	RANGE	STEPS	ACCURACY ± 1st Dial	ACCURACY ± 2nd Dial	RATING 1st Dial	RATING 2nd Dial	Net Price
RESISTANCE	ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	.5 Amp.	13.75
	ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	13.75
	ARD-31	R	Carbon Deposited	2	0 to 1.1 meg.	10 K ohms	1%	1%	5 Ma.	2 Ma.	13.75
CAPACITANCE	ACD-13	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	13.15 13.15
	ACD-23	C	Oil-Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	15.60 15.60
	ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	—	600 VDC 220 VAC	—	25.40
INDUCTANCE	ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	—	250 MaDC	—	29.90
	ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	—	79 MaDC	—	29.90
	ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	—	25 MaDC	—	29.90
	ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	—	8 MaDC	—	29.90

AEROVOX L-C CHECKER—MODEL 97

Net Price: $69.95



A versatile instrument for testing capacitance in circuit **without removing either lead of the capacitor from the circuit.**

Incorporates latest design and printed-circuit techniques to provide the service technician with the most efficient, versatile L-C checker available.

Features include: extended frequency range from 74 kc min. to 44 mc max.; recessed front panel has large, easy-to-read dial with indicator; attractive grey finish; weighs only 8½ lbs.; size 13" x 8½" x 6" deep; complete with test cords and probes.

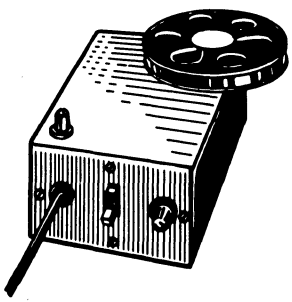
1. Checking capacitors in circuit for values of capacitance and relative Q at radio frequency.
2. Checking capacitor insulation resistance (leakage).
3. Checking alignment of radio frequency and intermediate frequency circuits of domestic, marine, and short-wave receivers.
4. Tracking super-het oscillators.
5. Checking alignment of FM-I.F. channels and independent alignment of FM-I.F. transformers.
6. Checking resonant absorption troubles in "all wave" receiver circuits, locating dead spots, etc.
7. Location of resonant points in shorted windings (unused coils) in multi-range oscillators, etc.
8. Checking natural resonant points of r.f. chokes to make sure they are beyond circuit operating range.
9. Checking natural period of antennae and transmission lines.
10. Checking quartz crystals for true or false frequency, operation at harmonics and activity.
11. Checking transmitter buffer, amplifier and tank circuits for parasitic current loops with power off for safety.
12. Tuning of wave traps and filters for harmonic supression.

Professional Heavy Duty

AEROVOX TYPE 710 DEGAUSSER

Net Price: $49.95

- Erases magnetic tape without rewinding
- Assures clean, noise-free erasures
- Ideal for instrumentation use
- Improves quality of new tape
- Will erase up to 1" width tapes
- Handles up to 7" and 10" spools
- Heavy gauge steel construction
- Complete with rubber feet, screw-in fuse and 6' rubber covered line cord



SPECIFICATIONS

Operating Voltage — 110-130 volts, 60 cycles AC

Current Consumption — 10 Amps

Switch — Heavy-duty on-off

Fuse — Screw-in type

Construction — Heavy gauge steel, gray baked enamel finish

Weight — Approximately 15½ lbs.

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It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The *Radio-Electronic* **MASTER**

ARCO electronics inc.

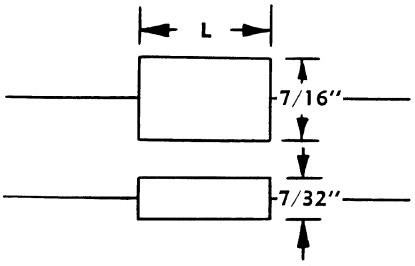
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES CM-19, CM-20 CM-30, CM-35

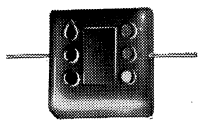
MOLDED FOIL MICA

TYPE CM-19 & 20



L—CM-19—11/16": CM-20—25/32"

CM-19



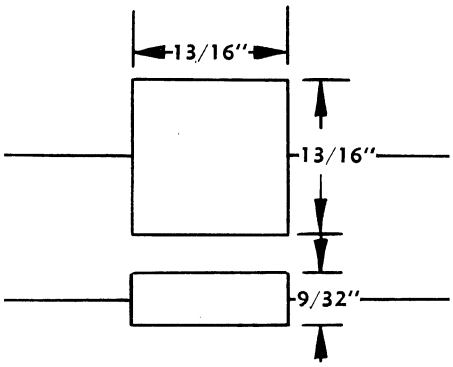
CM-30

500 VDCW

Cap. Mmf.	Type Designation	List Price Tolerance "M" ±20%	"K" ±10%	"J" ±5%
5	CM-20B-050	$0.30	$0.33	
10	CM-20B-100	.30	.33	$0.38
12	CM-20B-120	.30	.33	.38
15	CM-20B-150	.30	.33	.38
18	CM-20B-180	.30	.33	.38
20	CM-20B-200	.30	.33	.38
22	CM-20B-220	.30	.33	.38
24	CM-20B-240	.30	.33	.38
27	CM-20B-270	.30	.33	.38
30	CM-20B-300	.30	.33	.38
33	CM-20B-330	.20	.22	.25
36	CM-20B-360	.20	.22	.25
39	CM-20B-390	.20	.22	.25
43	CM-20B-430	.20	.22	.25
47	CM-20B-470	.20	.22	.25
50	CM-20B-500	.20	.22	.25
51	CM-20B-510	.20	.22	.25
56	CM-20B-560	.20	.22	.25
62	CM-20B-620	.20	.22	.25
68	CM-20B-680	.20	.22	.25
75	CM-20B-750	.20	.22	.25
82	CM-20B-820	.20	.22	.25
91	CM-20B-910	.20	.22	.25
100	CM-20B-101	.20	.22	.25
110	CM-20B-111	.20	.22	.25
120	CM-20B-121	.20	.22	.25
130	CM-20B-131	.25	.28	.31
150	CM-20B-151	.25	.28	.31
160	CM-20B-161	.25	.28	.31
180	CM-20B-181	.25	.28	.31
200	CM-20B-201	.25	.28	.31
220	CM-20B-221	.25	.28	.31
240	CM-20B-241	.30	.33	.38
250	CM-20B-251	.30	.33	.38
270	CM-20B-271	.30	.33	.38
300	CM-20B-301	.30	.33	.38
330	CM-20B-331	.30	.33	.38
360	CM-20B-361	.30	.33	.38
390	CM-20B-391	.30	.33	.38
430	CM-20B-431	.30	.33	.38
470	CM-20B-471	.30	.33	.38
500	CM-20B-501	.30	.33	.38
510	CM-20B-511	.30	.33	.38
560	CM-20B-561	.35	.39	.44
620	CM-20B-621	.35	.39	.44
680	CM-20B-681	.35	.39	.44
750	CM-20B-751	.35	.39	.44
820	CM-20B-821	.40	.44	.50
910	CM-20B-911	.45	.50	.56
1000	CM-20B-102	.45	.50	.56
1100	CM-20B-112	.50	.55	.63
1200	CM-20B-122	.50	.55	.63
1300	CM-20B-132	.50	.55	.63
1500	CM-20B-152	.60	.66	.75
1600	CM-20B-162	.60	.66	.75
1800	CM-20B-182	.70	.77	.88
2000	CM-20B-202	.75	.83	.94
2200	CM-20B-222	.80	.88	1.00
2400	CM-20B-242	.85	.94	1.06
2500	CM-20B-252	.90	.99	1.13
2700	CM-20B-272	$0.95	$1.05	$1.19
3000	CM-20B-302	1.00	1.10	1.25
3300	CM-20B-332	1.05	1.16	1.31
3600*	CM-20B-362	1.00	1.10	1.25
3900*	CM-20B-392	1.05	1.16	1.31
4300*	CM-20B-432	1.10	1.21	1.38
4700*	CM-20B-472	1.20	1.32	1.50
5000*	CM-20B-502	1.25	1.38	1.56
5100*	CM-20B-512	1.25	1.38	1.56

Capacities from 5 mmf. to 2700 mmf. can be supplied in CM-19 cases.

TYPE CM-30



T—CM-30—9/32"; CM-35—11/32"

500 VDCW

Cap. Mmf.	Type Designation	List Price Tolerance "M" ±20%	"K" ±10%	"J" ±5%
510	CM-30-B-511	$0.30	$0.36	$0.39
560	CM-30-B-561	.30	.36	.39
620	CM-30-B-621	.30	.36	.39
680	CM-30-B-681	.30	.36	.39
750	CM-30-B-751	.30	.36	.39
820	CM-30-B-821	.30	.36	.39
910	CM-30-B-911	.30	.36	.39
1000	CM-30-B-102	.35	.39	.44
1100	CM-30-B-112	.35	.39	.44
1200	CM-30-B-122	.35	.39	.44
1300	CM-30-B-132	.35	.39	.44
1500	CM-30-B-152	.40	.44	.50
1600	CM-30-B-162	.40	.44	.50
1800	CM-30-B-182	.45	.50	.56
2000	CM-30-B-202	.45	.50	.56
2200	CM-30-B-222	.45	.50	.56
2400	CM-30-B-242	.50	.55	.63
2500	CM-30-B-252	.50	.55	.63
2700	CM-30-B-272	.50	.55	.63
3000	CM-30-B-302	.60	.66	.75
3300	CM-30-B-332	.60	.66	.75
3600	CM-30-B-362	.60	.66	.75
3900	CM-30-B-392	.65	.75	.85
4300	CM-30-B-432	.65	.75	.85
4700	CM-30-B-472	.65	.75	.85
5000	CM-30-B-502	.70	.81	.91
5100	CM-30-B-512	.70	.81	.91
5600	CM-30-B-562	.70	.81	.91
6200	CM-30-B-622	.90	1.04	1.17

TYPE CM-35

6800*	CM-35-B-682	$0.95	$1.05	$1.19
7500*	CM-35-B-752	1.00	1.10	1.25
8200*	CM-35-B-822	1.15	1.27	1.44
9100*	CM-35-B-912	1.15	1.27	1.44
10000*	CM-35-B-103	1.40	1.54	1.75
12000*	CM-35-B-123	1.60	1.76	2.00
15000*	CM-35-B-153	2.00	2.20	2.50
6800	VCM-35-B-682	1.05	1.16	1.31
7500	VCM-35-B-752	1.15	1.27	1.44
8200	VCM-35-B-822	1.30	1.43	1.62
9100	VCM-35-B-912	1.30	1.43	1.62
10000	VCM-35-B-103	1.55	1.71	1.94

All capacities marked with * are 300WV.

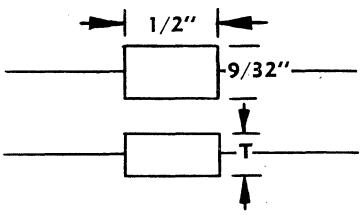
ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
CM-15
CM-19, CM-20

MOLDED SILVERED MICA

TYPE CM-15

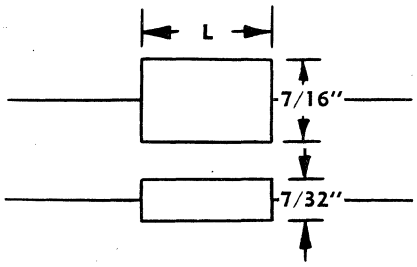


T—from 1-300 mmf. 3/16"
T—from 301-510 mmf. 7/32"

CM-15

CM-19

TYPE CM-19 & 20



L—CM-19—11/16": CM-20—25/32"

500 VDCW

Cap. Mmf.	Designation Type	List Price Tolerance 5% "J"	2% "G"	1% "F"
1	CM-15-C-010†	$0.40		
2	CM-15-C-020†	.40		
3	CM-15-C-030†	.40		
5	CM-15-C-050†	.40		
10	CM-15-C-100	.40		
12	CM-15-C-120	.40		
15	CM-15-C-150	.40		
18	CM-15-C-180	.40		
20	CM-15-C-200	.40		
22	CM-15-C-220	.40		
24	CM-15-E-240	.40		
27	CM-15-E-270	.40	$0.46	
30	CM-15-E-300	.40	.46	
33	CM-15-E-330	.40	.46	
36	CM-15-E-360	.40	.46	
39	CM-15-E-390	.40	.46	
43	CM-15-E-430	.40	.46	
47	CM-15-E-470	.40	.46	
50	CM-15-E-500	.40	.46	$0.50
51	CM-15-E-510	.40	.46	.50
56	CM-15-E-560	.40	.46	.50
62	CM-15-E-620	.40	.46	.50
68	CM-15-E-680	.40	.46	.50
75	CM-15-E-750	.40	.46	.50
82	CM-15-E-820	.45	.52	.56
91	CM-15-E-910	.45	.52	.56
100	CM-15-E-101	.45	.52	.56
110	CM-15-E-111	.45	.52	.56
120	CM-15-E-121	.45	.52	.56
130	CM-15-E-131	.45	.52	.56
150	CM-15-E-151	.45	.52	.56
160	CM-15-E-161	.50	.58	.63
180	CM-15-E-181	.50	.58	.63
200	CM-15-E-201	.50	.58	.63
220	CM-15-E-221	.55	.63	.69
240	CM-15-E-241	.55	.63	.69
250	CM-15-E-251	.55	.63	.69
270	CM-15-E-271	.60	.69	.75
300	CM-15-E-301	.60	.69	.75
330	CM-15-E-331	.65	.75	.81
360	CM-15-E-361	.70	.81	.88
390	CM-15-E-391	.70	.81	.88
430*	CM-15-E-431	.75	.86	.94
470*	CM-15-E-471	.80	.92	1.00
500*	CM-15-E-501	.80	.92	1.00
510*	CM-15-E-511	.80	.92	1.00
560**	CM-15-E-561J	.85	.98	1.06
620**	CM-15-E-621J	.90	1.04	1.13
680**	CM-15-E-681J	.95	1.09	1.19
750**	CM-15-E-751J	1.00	1.15	1.25
820**	CM-15-E-821J	1.05	1.21	1.31

NOTES—*300 VDCW—**100 VDCW.
†Closest Tolerance ±0.5 mmf.

SPECIFICATIONS NOTES:
±½% tolerance available above 100 mmf. at double ±5% list price.
CM15, available "F" characteristic above 33 mmf.
CM19, 20 available "E" characteristic above 33 mmf.
CM19, 20 available "F" characteristic above 56 mmf.
Silvered Molded Mica Types CM-25 and CM-40 are also available. Immediate delivery is offered on most values.

500 VDCW

Cap. Mmf.	Type Designation	List Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
5	CM-20C-050	$0.40		
10	CM-20C-100	.40		
12	CM-20C-120	.40		
15	CM-20C-150	.40		
18	CM-20C-180	.40		
20	CM-20C-200	.40		
22	CM-20C-220	.40		
24	CM-20C-240	.40		
27	CM-20C-270	.40	$0.46	
30	CM-20C-300	.40	.46	
33	CM-20C-330	.40	.46	
36	CM-20C-360	.40	.46	
39	CM-20C-390	.40	.46	
43	CM-20C-430	.40	.46	
47	CM-20C-470	.40	.46	
50	CM-20C-500	.40	.46	$0.50
51	CM-20C-510	.40	.46	.50
56	CM-20C-560	.40	.46	.50
62	CM-20C-620	.40	.46	.50
68	CM-20C-680	.40	.46	.50
75	CM-20C-750	.40	.46	.50
82	CM-20C-820	.40	.46	.50
91	CM-20C-910	.40	.46	.50
100	CM-20C-101	.40	.46	.50
110	CM-20C-111	.45	.52	.56
120	CM-20C-121	.45	.52	.56
130	CM-20C-131	.45	.52	.56
150	CM-20C-151	.45	.52	.56
160	CM-20C-161	.45	.52	.56
180	CM-20C-181	.45	.52	.56
200	CM-20D-201	.45	.52	.56
220	CM-20D-221	.45	.52	.56
240	CM-20D-241	.55	.63	.69
250	CM-20D-251	.55	.63	.69
270	CM-20D-271	.55	.63	.69
300	CM-20D-301	.55	.63	.69
330	CM-20D-331	.55	.63	.69
360	CM-20D-361	.55	.63	.69
390	CM-20D-391	.65	.75	.81
430	CM-20D-431	.65	.75	.81
470	CM-20D-471	.70	.81	.88
500	CM-20D-501	.70	.81	.88
510	CM-20D-511	.70	.81	.88
560	CM-20D-561	.75	.86	.94
620	CM-20D-621	.75	.86	.94
680	CM-20D-681	.80	.92	1.00
750	CM-20D-751	.80	.92	1.00
820	CM-20D-821	.85	.98	1.06
910	CM-20D-911	.85	.98	1.06
1000	CM-20E-102	.90	1.04	1.13
1100	CM-20E-112	.90	1.04	1.13
1200	CM-20E-122	1.00	1.15	1.25
1300	CM-20E-132	1.00	1.15	1.25
1500	CM-20E-152	1.10	1.27	1.38
1600	CM-20E-162	1.10	1.27	1.38
1800	CM-20E-182	1.20	1.38	1.50
2000	CM-20E-202	1.30	1.50	1.63
2200	CM-20E-222	1.40	1.61	1.75
2400	CM-20E-242	1.45	1.67	1.81
2500	CM-20E-252	1.50	1.73	1.88

40% Discount Applies To The Above Prices.
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Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
CM-19, CM-20, CM-30
CM-35, CM-42

MOLDED SILVERED MICA

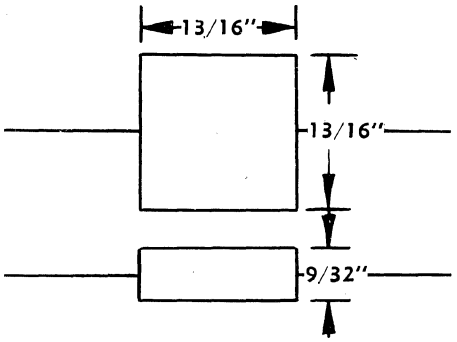
TYPE CM-19 & 20

500 VDCW

Cap. Mmf.	Type Designation	List Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
2700	CM-20E-272	1.60	1.84	2.00
3000	CM-20E-302	1.80	2.07	2.25
3300	CM-20E-332	1.90	2.19	2.38
3600*	CM-20E-362	1.90	2.19	2.38
3900*	CM-20E-392	2.00	2.30	2.50
4300*	CM-20E-432	2.10	2.42	2.63
4700*	CM-20E-472	2.20	2.53	2.75
5000*	CM-20E-502	2.30	2.65	2.88
5100*	CM-20E-512	2.30	2.65	2.88

Capacities from 5 mmf. to 2700 mmf. can be supplied in CM-19 cases.

TYPE CM-30



500 VDCW

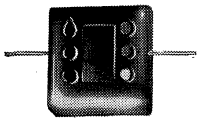
Cap. Mmf.	Type Designation	List Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	$0.70	$0.81	$0.88
560	CM-30-E-561	.75	.86	.94
620	CM-30-E-621	.75	.86	.94
680	CM-30-E-681	.80	.92	1.00
750	CM-30-E-751	.80	.92	1.00
820	CM-30-E-821	.85	.98	1.06
910	CM-30-E-911	.90	1.04	1.13
1000	CM-30-E-102	1.00	1.15	1.25
1100	CM-30-E-112	1.00	1.15	1.25
1200	CM-30-E-122	1.15	1.32	1.44
1300	CM-30-E-132	1.15	1.32	1.44
1500	CM-30-E-152	1.25	1.44	1.56
1600	CM-30-E-162	1.25	1.44	1.56
1800	CM-30-E-182	1.25	1.44	1.56
2000	CM-30-E-202	1.35	1.55	1.69
2200	CM-30-E-222	1.35	1.55	1.69
2400	CM-30-E-242	1.60	1.84	2.00
2500	CM-30-E-252	1.60	1.84	2.00
2700	CM-30-E-272	1.80	2.07	2.25
3000	CM-30-E-302	1.90	2.19	2.38
3300	CM-30-E-332	1.90	2.19	2.38
3600	CM-30-E-362	2.00	2.30	2.50
3900	CM-30-E-392	2.00	2.30	2.50
4300	CM-30-E-432	2.10	2.42	2.63
4700	CM-30-E-472	2.10	2.42	2.63
5000	CM-30-E-502	2.15	2.47	2.69
5100	CM-30-E-512	2.15	2.47	2.69
5600	CM-30-E-562	2.25	2.59	2.81
6200	CM-30-E-622	2.40	2.76	3.00

NOTE:—All above "SILVERED MICA" units can be supplied in "F" Characteristic at no extra cost. For ±½% Tolerance double the 5% List prices.

All Type CM-42 units can be supplied in "F" characteristic at no extra cost. For ±½% Tolerance double the 1% list price.

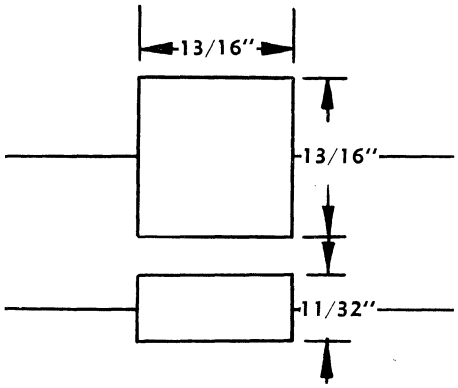
Silvered Molded Mica Types CM-25 and CM-40 are also available. Immediate delivery is offered on most values.

CM-30



CM-42

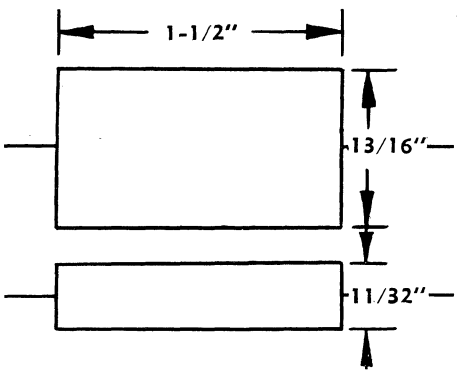
TYPE CM-35



500 VDCW

Cap. Mmf.	Type Designation	List Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	$2.65	$3.05	$3.31
7500*	CM-35-E-752	2.80	3.22	3.50
8200*	CM-35-E-822	3.00	3.45	3.75
9100*	CM-35-E-912	3.20	3.68	4.00
10000*	CM-35-E-103	3.50	4.03	4.38
12000*	CM-35-E-123	4.25	4.89	5.31
15000*	CM-35-E-153	5.00	5.75	6.25
6800	VCM-35-E-682	2.90	3.34	3.62
7500	VCM-35-E-752	3.05	3.51	3.81
8200	VCM-35-E-822	3.30	3.80	4.13
9100	VCM-35-E-912	3.50	4.03	4.38
10000	VCM-35-E-103	3.85	4.43	4.81

TYPE CM-42



500 VDCW

12000	CM-42-E-123	3.90	4.49	4.88
13000	CM-42-E-133	4.20	4.83	5.25
15000	CM-42-E-153	4.80	5.52	6.00
16000	CM-42-E-163	5.10	5.87	6.38
18000	CM-42-E-183	5.70	6.56	7.13
20000	CM-42-E-203	6.30	7.25	7.88
22000	CM-42-E-223	6.90	7.94	8.63
24000	CM-42-E-243	7.50	8.63	9.38
25000	CM-42-E-253	7.80	8.97	9.75
27000*	CM-42-E-273	7.50	8.63	9.38
30000*	CM-42-E-303	7.80	8.97	9.75
33000*	CM-42-E-333	8.50	9.78	10.63
36000*	CM-42-E-363	9.50	10.93	11.88
39000*	CM-42-E-393	10.50	12.08	13.13

All capacities marked with * are 300WV.

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ELMENCO CAPACITORS

Type VCM-20

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. EL-MENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to RMA Standards. All units are wax-dipped for protection against salt water immersion.

VCM-20 HI-VOLTAGE MOLDED SILVER MICA

CHARACTERISTICS "B" - "C" & "D"

		2000 VOLTS DC TEST 1000 VOLTS DC WKG. TOLERANCE . . . . . LIST PRICE					3000 VOLTS DC TEST 1500 VOLTS DC WKG. TOLERANCE . . . . . LIST PRICE					5000 VOLTS DC TEST 2500 VOLTS DC WKG. TOLERANCE . . . . . LIST PRICE				
Cap. Mmf.	Type Designation	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
5	VCM-20-050	$0.30	$0.35	$0.45								$0.35	$0.40			
10	VCM-20-100	.30	.35	.45					$0.50			.35	.40	$0.50		
12	VCM-20-120	.30	.35	.45			USE		.50			.35	.40	.50		
15	VCM-20-150	.30	.35	.45			2500		.50			.35	.40	.50		
18	VCM-20-180	.30	.35	.45			WV		.50			.35	.40	.50		
20	VCM-20-200	.30	.35	.45			UNITS		.50			.35	.40	.50		
22	VCM-20-220	.30	.35	.45					.50			.35	.40	.50		
24	VCM-20-240	.30	.35	.45					.50			.35	.40	.50		
27	VCM-20-270	.30	.35	.45	$0.52				.50	$0.58		.35	.40	.50	$0.58	
30	VCM-20-300	.30	.35	.45	.52		$0.35	$0.40	.50	.58		.40	.46	.60	.69	
33	VCM-20-330	.30	.35	.45	.52		.35	.40	.50	.58		.40	.46	.60	.69	
36	VCM-20-360	.30	.35	.45	.52		.35	.40	.50	.58		.40	.46	.60	.69	
39	VCM-20-390	.30	.35	.45	.52		.35	.40	.50	.58		.40	.46	.60	.69	
43	VCM-20-430	.30	.35	.45	.52		.35	.40	.50	.58		.40	.46	.60	.69	
47	VCM-20-470	.30	.35	.45	.52		.35	.40	.55	.63		.40	.46	.70	.81	
50	VCM-20-500	.30	.35	.45	.52	$0.56	.35	.40	.55	.63	$0.69	.40	.46	.70	.81	$0.88
51	VCM-20-510	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.40	.46	.70	.81	.88
56	VCM-20-560	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.40	.46	.70	.81	.88
62	VCM-20-620	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.40	.46	.70	.81	.88
68	VCM-20-680	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.45	.52	.80	.92	1.00
75	VCM-20-750	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.50	.58	.90	1.04	1.13
82	VCM-20-820	.30	.35	.45	.52	.56	.35	.40	.55	.63	.69	.50	.58	.90	1.04	1.13
91	VCM-20-910	.35	.40	.50	.58	.63	.40	.46	.60	.69	.75	.50	.58	.90	1.04	1.13
100	VCM-20-101	.35	.40	.50	.58	.63	.40	.46	.60	.69	.75	.55	.66	1.00	1.15	1.25
110	VCM-20-111	.35	.40	.50	.58	.63	.40	.46	.60	.69	.75	.60	.72	1.10	1.27	1.38
120	VCM-20-121	.35	.40	.50	.58	.63	.40	.46	.60	.69	.75	.60	.72	1.20	1.38	1.50
130	VCM-20-131	.35	.40	.50	.58	.63	.40	.46	.60	.69	.75	.60	.72	1.20	1.38	1.50
150	VCM-20-151	.35	.40	.50	.58	.63	.40	.46	.70	.81	.88	.65	.78	1.30	1.50	1.63
160	VCM-20-161	.35	.40	.55	.63	.69	.40	.46	.70	.81	.88	.70	.84	1.40	1.61	1.75
180	VCM-20-181	.35	.40	.55	.63	.69	.40	.46	.70	.81	.88	.70	.84	1.40	1.61	1.75
200	VCM-20-201	.40	.46	.55	.63	.69	.45	.52	.80	.92	1.00	.80	.96	1.60	1.84	2.00
220	VCM-20-221	.40	.46	.60	.69	.75	.45	.52	.80	.92	1.00	.85	1.02	1.60	1.84	2.00
240	VCM-20-241	.40	.46	.60	.69	.75	.45	.52	.80	.92	1.00					
250	VCM-20-251	.40	.46	.65	.75	.81	.55	.66	1.00	1.15	1.25					
270	VCM-20-271	.40	.46	.65	.75	.81	.55	.66	1.00	1.15	1.25					
300	VCM-20-301	.45	.52	.70	.81	.88	.60	.72	1.10	1.27	1.38					
330	VCM-20-331	.45	.52	.70	.81	.88	.60	.72	1.10	1.27	1.38					
360	VCM-20-361	.45	.52	.70	.81	.88	.60	.72	1.15	1.32	1.44					
390	VCM-20-391	.45	.52	.70	.81	.88	.65	.78	1.15	1.32	1.44					
430	VCM-20-431	.50	.58	.75	.86	.94	.65	.78	1.20	1.38	1.50					
470	VCM-20-471	.50	.58	.75	.86	.94	.70	.84	1.25	1.44	1.56					
500	VCM-20-501	.50	.58	.75	.86	.94	.70	.84	1.30	1.50	1.63					
510	VCM-20-511	.50	.58	.75	.86	.94	.70	.84	1.30	1.50	1.63					
560	VCM-20-561	.55	.66	.80	.92	1.00	.80	.96	1.35	1.55	1.69					
620	VCM-20-621	.55	.66	.85	.98	1.06										
680	VCM-20-681	.60	.72	.90	1.04	1.13										
750	VCM-20-751	.60	.72	.95	1.09	1.19										
820	VCM-20-821	.65	.78	1.00	1.15	1.25										
910	VCM-20-911	.70	.84	1.05	1.21	1.31										
1000	VCM-20-102	.75	.90	1.10	1.27	1.38										
1100	VCM-20-112	.80	.92	1.20	1.38	1.50										
1200	VCM-20-122	.85	.98	1.25	1.44	1.56										
1300	VCM-20-132	.90	1.04	1.30	1.50	1.63										

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

40% Discount Applies To The Above Prices.

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ELMENCO CAPACITORS

Types VCM-35 & 42

VCM-35 & 42 HI-VOLTAGE REGULAR FOIL MICA

VCM-35 & 42 HI-VOLTAGE SILVERED MICA

		"B" CHARACTERISTIC						"C" - "D" - "E" - "F" CHARACTERISTIC								
		2000VDC Test 1000VDC Wkg. List Price		3000VDC Test 1500VDC Wkg. List Price		5000VDC Test 2500VDC Wkg. List Price		2000VDC Test 1000VDC Wkg. List Price			3000VDC Test 1500VDC Wkg. List Price			5000VDC Test 2500VDC Wkg. List Price		
Cap. Mmf.	Type Designation	"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%
240	VCM-35-241					$0.60	$0.69							$1.20	$1.38	$1.50
250	VCM-35-251					.60	.69							1.20	1.38	1.50
270	VCM-35-271					.60	.69							1.20	1.38	1.50
300	VCM-35-301					.65	.75							1.30	1.50	1.63
330	VCM-35-331					.65	.75							1.30	1.50	1.63
360	VCM-35-361					.75	.86							1.50	1.73	1.88
390	VCM-35-391					.80	.92							1.60	1.84	2.00
430	VCM-35-431					.80	.92							1.60	1.84	2.00
470	VCM-35-471					.80	.92							1.60	1.84	2.00
500	VCM-35-501					.85	.98							1.70	1.96	2.13
510	VCM-35-511					.85	.98							1.70	1.96	2.13
560	VCM-35-561					.90	1.04							1.80	2.07	2.25
620	VCM-35-621			$0.75	$0.86						$1.50	$1.73	$1.88			
680	VCM-35-681			.75	.86						1.50	1.73	1.88			
750	VCM-35-751			.75	.86						1.50	1.73	1.88			
820	VCM-35-821			.85	.98						1.70	1.96	2.13			
910	VCM-35-911			.90	1.04						1.80	2.07	2.25			
1000	VCM-35-102			.90	1.04						1.80	2.07	2.25			
1100	VCM-35-112	$0.60	$0.69	.95	1.09			$1.20	$1.38	$1.50	1.90	2.19	2.38			
1200	VCM-35-122	.65	.75	1.10	1.27			1.30	1.50	1.63	2.20	2.53	2.75			
1300	VCM-35-132	.65	.75	1.15	1.32			1.30	1.50	1.63	2.30	2.65	2.88			
1500	VCM-35-152	.75	.86	1.30	1.50			1.50	1.73	1.88	2.60	2.99	3.25			
1600	VCM-35-162	.80	.92	1.30	1.50			1.60	1.84	2.00	2.60	2.99	3.25			
1800	VCM-35-182	.80	.92	1.45	1.67			1.60	1.84	2.00	2.90	3.34	3.63			
2000	VCM-35-202	.85	.98	1.60	1.84			1.70	1.96	2.13	3.20	3.68	4.00			
2200	VCM-35-222	.95	1.09	1.70	1.96			1.90	2.19	2.38	3.40	3.91	4.25			
2400	VCM-35-242	1.05	1.21	1.80	2.07			2.10	2.42	2.63	3.60	4.14	4.50			
2700	VCM-35-272	1.05	1.21	2.00	2.30			2.10	2.42	2.63	4.00	4.60	5.00			
3000	VCM-35-302	1.15	1.32	2.20	2.53			2.30	2.65	2.88	4.40	5.06	5.50			
3300	VCM-35-332	1.20	1.38	2.30	2.65			2.40	2.76	3.00	4.60	5.29	5.75			
3600	VCM-35-362	1.35	1.55					2.70	3.10	3.38						
3900	VCM-35-392	1.40	1.61					2.80	3.22	3.50						
4300	VCM-35-432	1.50	1.73					3.00	3.45	3.75						
4700	VCM-35-472	1.65	1.90					3.30	3.80	4.13						
5000	VCM-35-502	1.75	2.00					3.40	3.91	4.25						
5100	VCM-35-512	1.75	2.00					3.40	3.91	4.25						
5600	VCM-35-562	2.00	2.30					3.80	4.37	4.75						
6200	VCM-42-622	2.10	2.42					4.30	4.95	5.38						
6800	VCM-42-682	2.20	2.53					4.60	5.29	5.75						
7500	VCM-42-752	2.30	2.65					4.90	5.64	6.13						
8200	VCM-42-822	2.40	2.76					5.30	6.10	6.63						
9100	VCM-42-912	2.60	2.99					5.80	6.67	7.25						
10000	VCM-42-103	2.80	3.22					6.30	7.25	7.88						
12000	VCM-42-123	3.00	3.45					7.30	8.40	9.13						
13000	VCM-42-133	3.50	4.03					8.00	9.20	10.00						
15000	VCM-42-153	4.00	4.60					9.00	10.35	11.25						
16000	VCM-42-163	4.50	5.18					9.60	11.04	12.00						

NOTE:—All above units can be supplied in characteristic "C"-"D"-"E"-"F" at the above list prices.

WHEN ORDERING PLEASE SPECIFY WORKING VOLTAGE RATING

REGULAR FOIL MICA
Designate VCM-35B

SILVERED MICA
Designate VCM-35C-D-E or F

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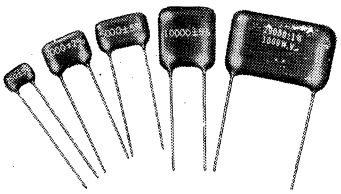
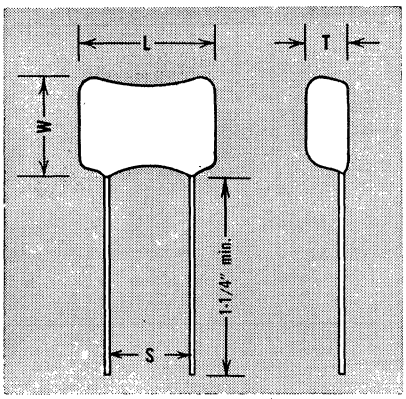
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

DUR-MICA CASE SIZES

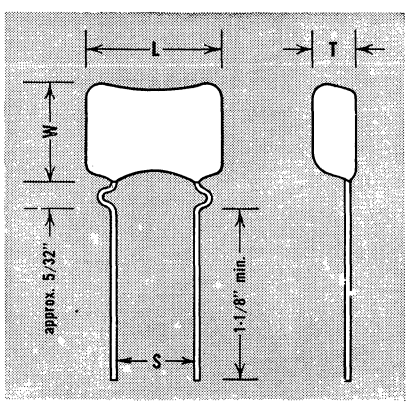




	DM-15	DM-16	DM-19	DM-20	DM-30	DM-40	DM-42	DM-43
S ± 1/32	15/64	1/2	11/32	7/16	7/16	19/32	1-1/16	1-11/16
LEAD WIRE GAGE	#22	#22	#20	#20	#18	#18	#18	#18

Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.



Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM15 and DM16. Crimped lead gage of DM15 and DM16 is #20.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/16 to 3/32 from one of the capacitor surfaces.

The "W" dimension specifies the distance from the top of the capacitor to the point where the visible dip-coat ends on the leads. However, for reliable lead attachment, another 5/64 lead length should be allowed for resinous coating before solder connection is made.

Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZES — DUR-MICA SERIES

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM-15	10	500	.446	.351	.163
	40	500	.448	.355	.166
	100	500	.451	.360	.175
	200	500	.457	.372	.190
	400	500	.470	.395	.220
	400	300	.457	.365	.190
	600	300	.463	.371	.204
	820	300	.470	.378	.220
DM-16	430	500	.726	.378	.196
	600	500	.731	.388	.210
	720	500	.736	.395	.220
	720	300	.723	.365	.190
	900	300	.726	.368	.197
	1100	300	.730	.372	.206
	1300	300	.733	.375	.214
DM-19	100	500	.622	.476	.178
	200	500	.624	.478	.180
	500	500	.628	.482	.186
	1000	500	.636	.490	.197
	2000	500	.652	.506	.219
	3000	500	.668	.520	.240
	3000	300	.655	.510	.223
	4000	300	.665	.520	.240
DM-20	200	500	.722	.463	.181
	600	500	.726	.469	.189
	1000	500	.730	.475	.196
	2000	500	.740	.490	.215
	3000	500	.750	.505	.234
	4300	500	.760	.525	.258
	4300	300	.750	.511	.233
	5000	300	.755	.520	.242
	6200	300	.763	.533	.258
DM-30	3000	500	.757	.845	.238
	5000	500	.765	.855	.253
	7000	500	.773	.865	.268
	10000	500	.783	.879	.290
	10000	300	.780	.855	.273
	15000	300	.798	.868	.302
	20000	300	.815	.880	.330
DM-40	3000	500	.927	.659	.220
	5000	500	.938	.682	.247
	10000	500	.965	.740	.315
	10000	300	.962	.693	.263
	15000	300	.990	.725	.305
DM-42	10000	500	1.385	.833	.237
	20000	500	1.406	.851	.287
	30000	500	1.426	.868	.337
	40000	500	1.446	.886	.384
	40000	300	1.431	.880	.357
	50000	300	1.446	.918	.396
	63000	300	1.466	.963	.442
DM-43	50000	500	2.056	.873	.352
	60000	500	2.069	.884	.381
	75000	500	2.089	.901	.428
	75000	300	2.069	.912	.391
	90000	300	2.084	.948	.425
	100000	300	2.092	.964	.443

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ELMENCO CAPACITORS

TYPES DM-15, DM-16 DM-19, DM-20

DUR-MICA

TYPE DM-10 500VDCW

(SCDM 10 values and prices the same)

Cap. Mmf.	Type Designation	List Price Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	DM-10-010†	$0.30			
2	DM-10-020†	.30			
3	DM-10-030†	.30			
5	DM-10-050	.30			
10	DM-10-100	.30	$0.33		
12	DM-10-120	.35	.39		
15	DM-10-150	.35	.39		
18	DM-10-180	.35	.39		
20	DM-10-200	.35	.39		
22	DM-10-220	.35	.39		
24	DM-10-240	.35	.39		
27	DM-10-270	.35	.39	$0.46	
30	DM-10-300	.35	.39	.46	
33	DM-10-330	.35	.39	.46	
36	DM-10-360	.35	.39	.46	
39	DM-10-390	.35	.39	.46	
43	DM-10-430	.35	.39	.46	
47	DM-10-470	.40	.44	.52	
50	DM-10-500	.40	.44	.52	$0.64
51	DM-10-510	.40	.44	.52	.64
56	DM-10-560	.40	.44	.52	.64
62	DM-10-620	.40	.44	.52	.64
68	DM-10-680	.40	.44	.52	.64
75	DM-10-750	.40	.44	.52	.64
82	DM-10-820	.40	.44	.52	.64
91	DM-10-910	.40	.44	.52	.64
100	DM-10-101	.40	.44	.52	.64
110	DM-10-111	.40	.44	.52	.64
120	DM-10-121	.45	.50	.59	.72
130	DM-10-131	.45	.50	.59	.72
150	DM-10-151	.50	.55	.65	.80
160	DM-10-161	.55	.61	.72	.88
180	DM-10-181	.60	.66	.78	.96
200	DM-10-201	.60	.66	.78	.96
220	DM-10-221	.65	.72	.85	1.04
240	DM-10-241	.70	.77	.91	1.12
250	DM-10-251	.70	.77	.91	1.12
270*	DM-10-271	.70	.77	.91	1.12
300*	DM-10-301	.75	.83	.98	1.20
330**	DM-10-331	.75	.83	.98	1.20
360**	DM-10-361	.80	.88	1.04	1.28
390**	DM-10-391	.85	.94	1.11	1.36

TYPE DM-15 500VDCW

1	DM-15-010†	$0.25			
2	DM-15-020†	.25			
3	DM-15-030†	.25			
5	DM-15-050†	.25			
10	DM-15-100	.25	$0.28		
12	DM-15-120	.25	.28		
15	DM-15-150	.25	.28		
18	DM-15-180	.25	.28		
20	DM-15-200	.25	.28		
22	DM-15-220	.25	.28		
24	DM-15-240	.25	.28		
27	DM-15-270	.25	.28	$0.33	
30	DM-15-300	.25	.28	.33	
33	DM-15-330	.25	.28	.33	
36	DM-15-360	.25	.28	.33	
39	DM-15-390	.25	.28	.33	
43	DM-15-430	.25	.28	.33	
47	DM-15-470	.25	.28	.33	
50	DM-15-500	.25	.28	.33	$0.40
51	DM-15-510	.25	.28	.33	.40
56	DM-15-560	.25	.28	.33	.40
62	DM-15-620	.25	.28	.33	.40
68	DM-15-680	.25	.28	.33	.40
75	DM-15-820	.25	.28	.33	.40
82	DM-15-820	.25	.28	.33	.40
91	DM-15-910	.25	.28	.33	.40
100	DM-15-101	.25	.28	.33	.40
110	DM-15-111	.30	.33	.39	.48
120	DM-15-121	.30	.33	.39	.48
130	DM-15-131	.30	.33	.39	.48
150	DM-15-151	.30	.33	.39	.48
160	DM-15-161	.35	.39	.46	.56
180	DM-15-181	.35	.39	.46	.56
200	DM-15-201	.35	.39	.46	.56
220	DM-15-221	.40	.44	.52	.64
240	DM-15-241	.40	.44	.52	.64
250	DM-15-251	.40	.44	.52	.64
270	DM-15-271	.45	.50	.59	.72
300	DM-15-301	.45	.50	.59	.72
330	DM-15-331	.50	.55	.65	.80
360	DM-15-361	.50	.55	.65	.80
390	DM-15-391	.55	.61	.72	.88
430*	DM-15-431	.55	.61	.72	.88
470*	DM-15-471	.60	.66	.78	.96
500*	DM-15-501	.60	.66	.78	.96
510*	DM-15-511	.60	.66	.78	.96
560*	DM-15-561	.65	.72	.85	1.04
620*	DM-15-621	.70	.77	.91	1.12
680*	DM-15-681	.75	.83	.98	1.20
750*	DM-15-751	.80	.88	1.04	1.28
820*	DM-15-821	.85	.94	1.11	1.36
910**	DM-15-911	.95	1.05	1.24	1.43
1000**	DM-15-102	1.00	1.10	1.30	1.60

NOTE

Characteristics on above units are as follows:
DM-15 "C" Characteristic from 1 to 20 Mmf.
DM-15 "E" Characteristic from 22 to 51 Mmf.
DM-15 "F" Characteristic from 56 and up.
†Minimum Tolerance ± 0.5 Mmf.

TYPE DM-19 500VDCW

Cap. Mmf.	Type Designation	List Price Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
100	DM-19-101	$0.25	$0.28	$0.30	$0.38
110	DM-19-111	.30	.33	.36	.45
120	DM-19-121	.30	.33	.36	.45
130	DM-19-131	.30	.33	.36	.45
150	DM-19-151	.30	.33	.36	.45
160	DM-19-161	.30	.33	.36	.45
180	DM-19-181	.30	.33	.36	.45
200	DM-19-201	.30	.33	.36	.45
220	DM-19-221	.30	.33	.36	.45
240	DM-19-241	.35	.39	.42	.53
250	DM-19-251	.35	.39	.42	.53
270	DM-19-271	.40	.44	.48	.60
300	DM-19-301	.40	.44	.48	.60
330	DM-19-331	.40	.44	.48	.60
360	DM-19-361	.45	.50	.54	.68
390	DM-19-391	.45	.50	.54	.68
430	DM-19-431	.45	.50	.54	.68
470	DM-19-471	.50	.55	.60	.75
500	DM-19-501	.50	.55	.60	.75
510	DM-19-511	.50	.55	.60	.75
560	DM-19-561	.55	.61	.66	.83
620	DM-19-521	.55	.61	.66	.83
680	DM-19-681	.60	.66	.72	.90
750	DM-19-751	.60	.66	.72	.90
820	DM-19-821	.60	.66	.72	.90
910	DM-19-911	.65	.72	.78	.98
1000	DM-19-102	.70	.77	.84	1.05
1100	DM-19-112	.70	.77	.84	1.05
1200	DM-19-122	.75	.83	.90	1.13
1300	DM-19-132	.80	.88	.96	1.20
1500	DM-19-152	.85	.94	1.02	1.28
1600	DM-19-162	.90	.99	1.08	1.35
1800	DM-19-182	1.00	1.10	1.20	1.50
2000	DM-19-202	1.10	1.21	1.32	1.65
2200	DM-19-222	1.20	1.32	1.44	1.80
2400	DM-19-242	1.30	1.43	1.56	1.95
2500	DM-19-252	1.35	1.49	1.62	2.03
2700	DM-19-272	1.40	1.54	1.68	2.10
3000	DM-19-302	1.50	1.65	1.80	2.25
3300	DM-19-332	1.60	1.76	1.92	2.40
3600	DM-19-362	1.70	1.87	2.04	2.55
3900	DM-19-392	1.80	1.98	2.16	2.70
4300	DM-19-432	1.90	2.09	2.28	2.85
4700	DM-19-472	2.00	2.20	2.40	3.00
5000	DM-19-502	2.10	2.31	2.52	3.15
5100	DM-19-512	2.10	2.31	2.52	3.15
5600*	DM-19-562	2.20	2.42	2.64	3.30
6200*	DM-19-622	2.30	2.53	2.76	3.45
6800**	DM-19-682	2.30	2.53	2.76	3.45
7500**	DM-19-752	2.40	2.64	2.88	3.60
8200**	DM-19-822	2.50	2.75	3.00	3.75

TYPE DM-20 500VDCW

680	DM-20-681	$0.50	$0.55	$0.60	$0.75
750	DM-20-751	.50	.55	.60	.75
820	DM-20-821	.50	.55	.60	.75
910	DM-20-911	.55	.61	.66	.83
1000	DM-20-102	.60	.66	.72	.90
1100	DM-20-112	.60	.66	.72	.90
1200	DM-20-122	.65	.72	.78	.98
1300	DM-20-132	.70	.77	.84	1.05
1500	DM-20-152	.75	.83	.90	1.13
1600	DM-20-162	.80	.88	.96	1.20
1800	DM-20-182	.90	.99	1.08	1.35
2000	DM-20-202	.95	1.05	1.14	1.43
2200	DM-20-222	1.05	1.16	1.26	1.58
2400	DM-20-242	1.10	1.21	1.32	1.65
2500	DM-20-252	1.10	1.21	1.32	1.65
2700	DM-20-272	1.20	1.32	1.44	1.80
3000	DM-20-302	1.30	1.43	1.56	1.95
3300	DM-20-332	1.40	1.54	1.68	2.10
3600	DM-20-362	1.50	1.65	1.80	2.25
3900	DM-20-392	1.60	1.76	1.92	2.40
4300	DM-20-432	1.70	1.87	2.04	2.55
4700	DM-20-472	1.80	1.98	2.16	2.70
5000	DM-20-502	1.90	2.09	2.28	2.85
5100	DM-20-512	1.95	2.15	2.34	2.93
5600	DM-20-562	2.00	2.20	2.40	3.00
6200*	DM-20-622	2.00	2.20	2.40	3.00
6800*	DM-20-682	2.10	2.31	2.52	3.15
7500**	DM-20-752	2.20	2.42	2.64	3.30
8200**	DM-20-822	2.40	2.64	2.88	3.60
9100**	DM-20-912	2.70	2.97	3.24	4.05
10000**	DM-20-103	3.00	3.30	3.60	4.50

Notes: Higher DM-20 values are available on special order as follows:
up to 10,000 mmf. at 500VDCW
up to 12,000 mmf. at 300VDCW
up to 18,000 mmf. at 100VDCW
Characteristics of DM-19 and DM-20 are as follows:
C characteristic 1 to 180 mmf.
E characteristic 200 to 510 mmf.
F characteristic 560 and up.
For ±½% double the list price of the 5% units.

Lower values less than above listing use DM-15 prices.

All capacities marked with * are 300VDCW.

All capacities marked with ** are 100VDCW.

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40% Discount Applies To The Above Prices.

ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES DM-30, DM-40, DM-42 DM-43, SCDM-15

DUR-MICA

TYPE DM-30 500VDCW

Cap. Mmf.	Type Designation	List Price Tolerance ±10% "K"	±5% "J"	±2% "G"	±1% "F"
4300	DM-30-432	$1.60	$1.76	$1.92	$2.08
4700	DM-30-472	1.70	1.87	2.04	2.21
5000	DM-30-502	1.75	1.93	2.10	2.28
5100	DM-30-512	1.75	1.93	2.10	2.28
5600	DM-30-562	1.80	1.98	2.16	2.34
6200	DM-30-622	1.90	2.09	2.28	2.47
6800	DM-30-682	2.10	2.31	2.52	2.73
7500	DM-30-752	2.30	2.53	2.76	2.99
8200	DM-30-822	2.50	2.75	3.00	3.25
9100	DM-30-912	2.70	2.97	3.24	3.51
10000	DM-30-103	3.00	3.30	3.60	3.90
12000	DM-30-123	3.50	3.85	4.20	4.55
13000	DM-30-133	3.75	4.13	4.50	4.88
15000	DM-30-153	4.25	4.68	5.10	5.53
16000	DM-30-163	4.50	4.95	5.40	5.85
18000	DM-30-183	5.00	5.50	6.00	6.50
20000	DM-30-203	5.50	6.05	6.60	7.15
22000*	DM-30-223	5.70	6.27	6.84	7.41
24000"	DM-30-243	6.15	6.77	7.38	8.00
25000*	DM-30-253	6.40	7.04	7.68	8.32
27000*	DM-30-273	6.85	7.54	8.22	8.91
30000**	DM-30-303	7.50	8.25	9.00	9.75
33000**	DM-30-333	8.25	9.08	9.90	10.73
36000**	DM-30-363	9.00	9.90	10.80	11.70

TYPE DM-40 500VDCW

This case size series is available, but it is not carried as a standard stock item as yet. Add 15% to list prices for DM-30 values with comparable specifications to determine the DM-40 list price. Delivery time is four weeks.

TYPE DM-42 500VDCW

CAP. MMF.	TYPE DESIGNATION	LIST PRICE TOLERANCE ±5% "J"	±2% "G"	±1% "F"
10000	DM-42-103	$3.30	$3.80	$4.13
12000	DM-42-123	3.90	4.49	4.88
13000	DM-42-133	4.20	4.83	5.25
15000	DM-42-153	4.80	5.52	6.00
16000	DM-42-163	5.10	5.87	6.38
18000	DM-42-183	5.70	6.56	7.13
20000	DM-42-203	6.30	7.25	7.88
22000	DM-42-223	6.90	7.94	8.63
24000	DM-42-243	7.50	8.63	9.38
25000	DM-42-253	7.80	8.97	9.75
27000	DM-42-273	8.40	9.66	10.50
30000	DM-42-303	9.30	10.70	11.63
33000	DM-42-333	10.20	11.73	12.75
36000	DM-42-363	11.10	12.77	13.88
39000	DM-42-393	12.00	13.80	15.00
43000	DM-42-433	13.00	14.95	16.25
47000	DM-42-473	11.00	12.65	13.75
50000	DM-42-503	12.80	14.72	16.00
51000	DM-42-513	13.10	15.07	16.38
56000*	DM-42-563	14.20	16.33	17.75
62000*	DM-42-623	15.60	17.94	19.50
68000**	DM-42-683	17.00	19.55	21.25
75000**	DM-42-753	18.70	21.51	23.38
82000**	DM-42-823	20.40	23.46	25.50

TYPE DM-43 500 VDCW

47000	DM-43-473	$14.20	$16.33	$17.75
50000	DM-43-503	14.50	16.68	18.13
51000	DM-43-513	14.80	17.02	18.50
56000	DM-43-563	16.20	18.63	20.25
62000	DM-43-623	17.90	20.58	22.38
68000	DM-43-683	19.50	22.43	24.38
75000*	DM-43-753	16.00	18.40	20.00
82000*	DM-43-823	17.50	20.13	21.88
91000*	DM-43-913	19.00	21.85	23.75
100000*	DM-43-104	21.00	24.15	26.25
110000**	DM-43-114	17.00	19.55	21.25
120000**	DM-43-124	18.50	21.28	23.13
130000**	DM-43-134	20.00	23.00	25.00

All capacities marked with * are 300WV.
All capacities marked with ** are 100WV.

SCDM15 capacitors are units which have been given a single protective resin coat rather than the full series of dips to which standard units are subjected. There is a marked difference in size of these thin-coated capacitors, but there is a sacrifice in moisture resistance as a result. SCDM15 units are therefore recommended for applications requiring extreme miniaturization such as military and transistor filter, networks, and delay lines. However, for long term high reliability of operation, the capacitors should receive additional environmental protection such as encapsulation, circuit potting, or hermetic sealing.

	Cap.	Volt	L	W	T
Type SCDM-15 Case Sizes:*	10	500	.415	.267	.144
	40	500	.417	.268	.146
	100	500	.419	.271	.148
	200	500	.423	.275	.152
	400	500	.430	.283	.160
	400	300	.425	.277	.156
	600	300	.430	.282	.162
	820	300	.437	.287	.169
	1000	100	.442	.290	.174

* Please refer to DM-15 case size information on page 6 which is equally applicable to SCDM-15 units.

TYPE SCDM-15 500VDCW

CAP. MMF.	TYPE DESIGNATION	LIST PRICE TOLERANCE ±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	SCDM-15-010†	$0.25			
2	SCDM-15-020†	.25			
3	SCDM-15-030†	.25			
5	SCDM-15-050†	.25			
10	SCDM-15-100		$0.28		
12	SCDM-15-120		.28		
15	SCDM-15-150		.28		
18	SCDM-15-180		.28		
20	SCDM-15-200		.28		
22	SCDM-15-220		.28		
24	SCDM-15-240		.28		
27	SCDM-15-270		.28	$0.33	
30	SCDM-15-300		.28	.33	
33	SCDM-15-330		.28	.33	
36	SCDM-15-360		.28	.33	
39	SCDM-15-390		.28	.33	
43	SCDM-15-430		.28	.33	
47	SCDM-15-470		.28	.33	
50	SCDM-15-500		.28	.33	$0.40
51	SCDM-15-510		.28	.33	.40
56	SCDM-15-560		.28	.33	.40
62	SCDM-15-620		.28	.33	.40
68	SCDM-15-680		.28	.33	.40
75	SCDM-15-750		.28	.33	.40
82	SCDM-15-820		.28	.33	.40
91	SCDM-15-910		.28	.33	.40
100	SCDM-15-101		.28	.33	.40
110	SCDM-15-111		.33	.39	.48
120	SCDM-15-121		.33	.39	.48
130	SCDM-15-131		.33	.39	.48
150	SCDM-15-151		.33	.39	.48
160	SCDM-15-161		.39	.46	.56
180	SCDM-15-181		.39	.46	.56
200	SCDM-15-201		.39	.46	.56
220	SCDM-15-221		.44	.52	.64
240	SCDM-15-241		.44	.52	.64
250	SCDM-15-251		.44	.52	.64
270	SCDM-15-271		.50	.59	.72
300	SCDM-15-301		.50	.59	.72
330	SCDM-15-331		.55	.65	.80
360	SCDM-15-361		.55	.65	.80
390	SCDM-15-391		.61	.72	.88
430*	SCDM-15-431		.61	.72	.88
470*	SCDM-15-471		.66	.78	.96
500*	SCDM-15-501		.66	.78	.96
510*	SCDM-15-511		.66	.78	.96
560*	SCDM-15-561		.72	.85	1.04
620*	SCDM-15-621		.77	.91	1.12
680*	SCDM-15-681		.83	.98	1.20
750*	SCDM-15-751		.88	1.04	1.28
820*	SCDM-15-821		.94	1.11	1.36
910**	SCDM-15-911		1.05	1.24	1.43
1000**	SCDM-15-102		1.10	1.30	1.60

Characteristics on above units are as follows:
SCDM-15 "C" Characteristic from 1 to 20 Mmf.
SCDM-15 "E" Characteristic from 22 to 51 Mmf.
SCDM-15 "F" Charactersitic from 56 and up.
† Minimum Tolerance ± 0.5 Mmf.

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ELMENCO CAPACITORS

TYPES VDM-20, VDM-30 VDM-42, VDM-43 HVDM-42, HVDM-43

HIGH VOLTAGE DUR-MICA

A new line of ELMENCO Silvered Hi-Voltage Dur-Mica capacitors is now available to complement the similar values in the molded configuration. These high voltage capacitors afford the same facility of use in low power applications by providing reliable operation in a small case size. Elmenco Dur-Mica capacitors may be substituted for similarly rated molded units normally supplied in the larger CM45, CM50, CM55, and CM60 case sizes.
The Dur-Mica design provides advantage of higher temperature operation (125° C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCW.
All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

VDM-20 HI-VOLTAGE
TOLERANCE ± 5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
5	VDM-20-050K			.40
10	VDM-20-100J	**USE**	**USE**	.40
12	VDM-20-120J	**2500V**	**2500V**	.40
15	VDM-20-150J			.40
18	VDM-20-180J		.40	.45
20	VDM-20-200J		.40	.45
22	VDM-20-220J		.40	.45
24	VDM-20-240J		.40	.45
27	VDM-20-270J	**USE**	.40	.45
30	VDM-20-300J	**1500V**	.40	.45
33	VDM-20-330J		.40	.50
36	VDM-20-360J		.40	.50
39	VDM-20-390J		.40	.50
43	VDM-20-430J	.40	.45	.50
47	VDM-20-470J	.40	.45	.55
50	VDM-20-500J	.40	.45	.55
51	VDM-20-510J	.40	.45	.55
56	VDM-20-560J	.40	.45	.55
62	VDM-20-620J	.40	.45	.60
68	VDM-20-680J	.40	.45	.60
75	VDM-20-750J	.40	.45	.60
82	VDM-20-820J	.40	.50	.65
91	VDM-20-910J	.40	.50	.70
100	VDM-20-110J	.45	.50	.70
110	VDM-20-111J	.45	.50	.75
120	VDM-20-121J	.45	.50	.75
130	VDM-20-131J	.45	.55	.80
150	VDM-20-151J	.45	.55	.85
160	VDM-20-161J	.50	.60	.95
180	VDM-20-181J	.50	.60	.95
200	VDM-20-201J	.50	.60	1.05
220	VDM-20-221J	.50	.65	1.10
240	VDM-20-241J	.50	.65	1.15
250	VDM-20-251J	.50	.70	1.20
270	VDM-20-271J	.50	.70	1.25
300	VDM-20-301J	.55	.75	1.35
330	VDM-20-331J	.55	.80	1.45
360	VDM-20-361J	.55	.80	1.55
390	VDM-20-391J	.60	.85	
430	VDM-20-431J	.60	.90	
470	VDM-20-471J	.60	.95	
500	VDM-20-501J	.65	1.00	
510	VDM-20-511J	.65	1.00	
560	VDM-20-561J	.65	1.15	
620	VDM-20-621J	.70	1.15	
680	VDM-20-681J	.75	1.20	
750	VDM-20-751J	.75	1.30	
820	VDM-20-821J	.80	1.40	
910	VDM-20-911J	.85	1.50	
1000	VDM-20-102J	.90	1.60	
1100	VDM-20-112J	.95	1.75	
1200	VDM-20-122J	1.00	1.85	
1300	VDM-20-132J	1.05	2.00	
1500	VDM-20-152J	1.10		
1600	VDM-20-162J	1.15		
1800	VDM-20-182J	1.25		
2000	VDM-20-202J	1.40		
2200	VDM-20-222J	1.50		
2400	VDM-20-242J	1.60		
2700	VDM-20-272J	1.75		
3000	VDM-20-302J	1.90		

NOTE: All above units can be supplied in characteristic "C"-"D"-"E"-"F" at above list prices.

VDM-30 HI-VOLTAGE
TOLERANCE ± 5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
390	VDM-30-391J			1.25
430	VDM-30-431J			1.35
470	VDM-30-471J			1.45
500	VDM-30-501J			1.60
510	VDM-30-511J			1.60
560	VDM-30-561J			1.70
620	VDM-30-621J		**USE**	1.80
680	VDM-30-681J		**CASE**	2.00
750	VDM-30-751J		**VDM20**	2.10
820	VDM-30-821J	**USE**		2.35
910	VDM-30-911J	**CASE**		2.55
1000	VDM-30-102J	**VDM20**		2.75
1100	VDM-30-112J			3.00
1200	VDM-30-122J			3.20
1300	VDM-30-132J			3.40
1500	VDM-30-152J		1.75	4.00
1600	VDM-30-162J		1.80	4.20
1800	VDM-30-182J		2.00	4.60
2000	VDM-30-202J		2.20	5.25
2200	VDM-30-222J		2.30	5.60
2400	VDM-30-242J		2.50	6.10
2700	VDM-30-272J		2.75	6.75
3000	VDM-30-302J		3.00	
3300	VDM-30-332J	2.15	3.35	
3600	VDM-30-362J	2.35	3.65	
3900	VDM-30-392J	2.50	3.90	
4300	VDM-30-432J	2.70	4.20	
4700	VDM-30-472J	3.00	4.60	
5000	VDM-30-502J	3.15	4.85	
5100	VDM-30-512J	3.15	5.00	
5600	VDM-30-562J	3.45	5.50	
6200	VDM-30-622J	3.75	6.00	
6800	VDM-30-682J	4.20		
7500	VDM-30-752J	4.50		
8200	VDM-30-822J	5.00		
9100	VDM-30-912J	5.40		
10000	VDM-30-103J	6.00		

VDM-42 HI-VOLTAGE

3000	VDM-42-302J			4.80
3300	VDM-42-332J			5.00
3600	VDM-42-362J			5.40
3900	VDM-42-392J			5.85
4300	VDM-42-432J		**USE**	6.50
4700	VDM-42-472J	**USE**	**VDM30** **CASE**	6.90
5000	VDM-42-502J	**VDM30**		7.30
5100	VDM-42-512J	**CASE**		7.30
5600	VDM-42-562J			7.95
6200	VDM-42-622J			8.80
6800	VDM-42-682J		5.50	9.65
7500	VDM-42-752J		5.85	10.50
8200	VDM-42-822J		6.40	11.30
9100	VDM-42-912J		7.00	12.55
10000	VDM-42-103J		7.50	13.65
12000	VDM-42-123J	5.70	8.85	
13000	VDM-42-133J	6.25	9.50	
15000	VDM-42-153J	6.95	10.85	
16000	VDM-42-163J	7.50	11.60	
18000	VDM-42-183J	8.20	12.95	
20000	VDM-42-203J	9.10		
22000	VDM-42-223J	10.00		
24000	VDM-42-243J	10.70		
25000	VDM-42-253J	11.20		
27000	VDM-42-273J	11.70		
30000	VDM-42-303J	12.15		

Above prices are for Standard 5% Tolerance. Add 15% for 2% Tolerance; Add 25% for 1% Tolerance; Add 100% for ½% Tolerance. Minimum Tolerance ± 0.5 mmf.

VDM-43 HI-VOLTAGE
TOLERANCE ± 5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
12000	VDM-43-123J		**USE**	16.20
13000	VDM-43-133J		**VDM42**	17.20
15000	VDM-43-153J		**CASE**	19.70
20000	VDM-43-203J	**USE**	14.00	
22000	VDM-43-223J	**VDM42**	15.50	
24000	VDM-43-243J	**CASE**	16.50	
25000	VDM-43-253J		17.50	
27000	VDM-43-273J		18.50	
30000	VDM-43-303J		20.00	
33000	VDM-43-333J	13.85		
36000	VDM-43-363J	15.20		
39000	VDM-43-393J	19.50		
43000	VDM-43-433J	18.00		
47000	VDM-43-473J	19.50		

SPECIAL HVDM-42 & HVDM-43 5000WV UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST 5000 VOLTS DC WKG.
5	HVDM-42-050K	1.90
10	HVDM-42-100J	1.90
12	HVDM-42-120J	1.90
15	HVDM-42-150J	1.90
18	HVDM-42-180J	1.90
20	HVDM-42-200J	1.90
22	HVDM-42-220J	1.90
24	HVDM-42-240J	1.90
27	HVDM-42-270J	1.90
30	HVDM-42-300J	2.25
33	HVDM-42-330J	2.25
36	HVDM-42-360J	2.25
39	HVDM-42-390J	2.25
43	HVDM-42-430J	2.25
47	HVDM-42-470J	2.25
50	HVDM-42-500J	2.25
51	HVDM-42-510J	2.25
56	HVDM-42-560J	2.25
62	HVDM-42-620J	2.60
68	HVDM-42-680J	2.60
75	HVDM-42-750J	2.60
82	HVDM-42-820J	2.60
91	HVDM-42-910J	2.95
100	HVDM-42-101J	2.95
110	HVDM-42-111J	2.95
120	HVDM-42-121J	3.30
130	HVDM-42-131J	3.30
150	HVDM-42-151J	3.65
160	HVDM-42-161J	3.65
180	HVDM-42-181J	4.00
200	HVDM-42-201J	4.35
220	HVDM-42-221J	4.35
240	HVDM-42-241J	4.70
250	HVDM-42-251J	4.70
270	HVDM-42-271J	5.05
300	HVDM-42-301J	5.40
330	HVDM-42-331J	5.75
360	HVDM-42-361J	6.10
390	HVDM-42-391J	6.45
430	HVDM-42-431J	7.15
470	HVDM-42-471J	7.40
500	HVDM-42-501J	7.75
510	HVDM-42-511J	8.10
560	HVDM-42-561J	8.45
620	HVDM-42-621J	9.50
680	HVDM-43-681J	11.25
750	HVDM-43-751J	12.25
820	HVDM-43-821J	13.25
910	HVDM-43-911J	14.25

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

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ELMENCO CAPACITORS

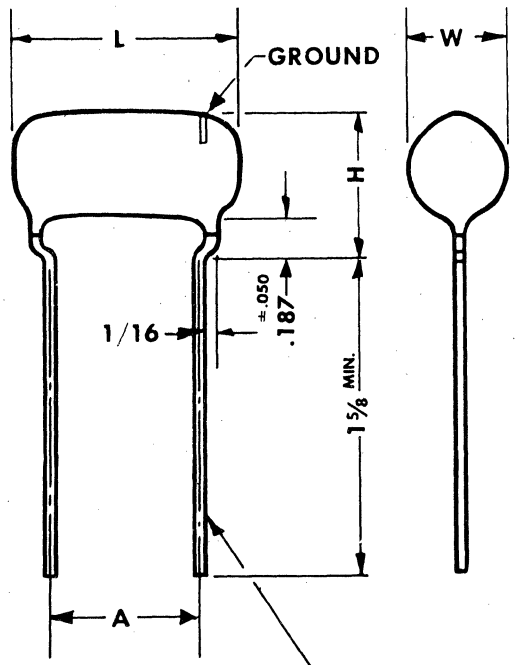
TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

The new Elmenco Type MPD (ARCO dp) capacitors are dip-coated tubular Mylar*-paper dielectric capacitors. They represent a double breakthrough in capacitor design by combining missile and computer quality with commercial radio-TV cost. The "dp" series is designed for near universal use from TV by-pass to critical industrial applications requiring stringent electrical and environmental characteristics. New high levels of ruggedness, stability, and reliability have been achieved, yet these new Elmenco capacitors are miniaturized for transistor circuitry.

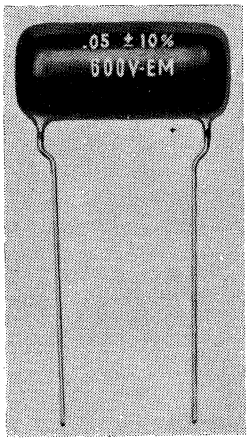
Elmenco Type MPD capacitors are non-inductively wound and vacuum dipped to obtain solid impregnation and a rugged, moisture-proof coat. New fabricating techniques realize the full potential of the dielectric materials utilizing most of the low-cost procedures of the exclusive Elmenco dip-coat process. The result is a product of electrical excellence with high reliability in operation at 110°C. without derating. The specifications listed on this and following pages well-illustrate the inherent quality of these capacitors.

NOTE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.



CASE SIZE	1	2	3	4	5	6
DIM. "A" ± 1/32	1/4	7/16	23/32	27/32	1 3/32	1 27/32

NOTE: The 1DP-1 100VDCW dp capacitors up through .015 mfd. value have straight leads spaced ½" apart.



ACTUAL SIZE

SPECIFICATIONS

Tolerance ± 10%.

VOLTAGE RATINGS:	100VDCW, 200VDCW, 400VDCW, 600VDCW, 1600VDCW, (1000VDCW upon request).
INSULATION RESISTANCE:	@ 25°C.: 5000 megohm-microfarads or 100,000 megohms minimum, whichever is the lesser. F @ 125°C.: 70 megohm-microfarads or 1400 megohms minimum, whichever is the lesser.
POWER FACTOR:	1.0% maximum at 1kc.
TEMPERATURE RANGE:	—55°C. to +125°C. with no voltage derating.
CAPACITANCE CHANGE VS. TEMPERATURE:	From 25°C. to —55° (—9.0% max.) From 25°C. to +125°C. (+12.0% max.)

LONG TERM OPERATING STABILITY AT FULL RATED VOLTAGE AND RATED TEMPERATURE EXTREMES IS ± 2% MAXIMUM.

Part Numbers:

The part numbers indicated in the table of values on page 385 are constructed as follows:

6 DP - 2 - 103

- 6 — Voltage Rating (in 100's of volts DCW)
- DP — Type Designation
- 2 — Case Size
- 103 — Cap. Value (2 sig. figs. & dec. mult.)

The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating. Case dimensions are shown in the table of values listing on page 365.

* Reg. Du Pont Trademark

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ELMENCO CAPACITORS

TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

100VDCW

Cap Mfd.	Part No.	L	W	H	List Price
.005	1DP-1-502	11/16	5/16	1/2	$0.35
.006	1DP-1-602	11/16	5/16	1/2	.35
.0068	1DP-1-682	11/16	5/16	1/2	.35
.0075	1DP-1-752	11/16	5/16	1/2	.35
.01	1DP-1-103	11/16	5/16	1/2	.35
.015	1DP-1-153	23/32	11/32	17/32	.35
.02	1DP-1-203	23/32	11/32	19/32	.35
.022	1DP-1-223	23/32	11/32	19/32	.35
.025	1DP-1-253	23/32	11/32	19/32	.35
.03	1DP-1-303	23/32	3/8	5/8	.35
.033	1DP-1-333	23/32	3/8	5/8	.35
.04	1DP-1-403	23/32	3/8	5/8	.40
.047	1DP-2-473	7/8	11/32	19/32	.40
.05	1DP-2-503	7/8	11/32	19/32	.40
.056	1DP-2-563	7/8	3/8	5/8	.40
.068	1DP-2-683	7/8	13/32	5/8	.40
.075	1DP-2-753	7/8	13/32	5/8	.40
.1	1DP-2-104	29/32	7/16	11/16	.45
.15	1DP-3-154	1-1/4	7/16	11/16	.45
.2	1DP-3-204	1-9/32	1/2	23/32	.50
.22	1DP-3-224	1-9/32	1/2	23/32	.50
.25	1DP-3-254	1-9/32	17/32	3/4	.55
.33	1DP-4-334	1-3/8	9/16	13/16	.65
.47	1DP-4-474	1-3/8	21/32	29/32	.80
.5	1DP-4-504	1-3/8	21/32	29/32	.80
.68	1DP-5-684	1-9/16	11/16	15/16	1.10
1.0	1DP-5-105	1-9/16	3/4	1	1.60

200VDCW

Cap Mfd.	Part No.	L	W	H	List Price
.1	2DP-3-104	1-7/32	1/2	23/32	$0.45
.15	2DP-3-154	1-1/4	9/16	25/32	.50
.2	2DP-4-204	1-11/32	5/8	7/8	.55
.22	2DP-4-224	1-11/32	5/8	7/8	.60
.25	2DP-4-254	1-11/32	21/32	7/8	.60
.33	2DP-5-334	1-9/16	21/32	7/8	.70
.47	2DP-5-474	1-9/16	3/4	1	.85
.5	2DP-5-504	1-9/16	25/32	1	.85

400VDCW

Cap. Mfd.	Part No.	L	W	H	List Price
.01	4DP-1-103	23/32	3/8	5/8	$0.35
.015	4DP-1-153	23/32	7/16	21/32	.35
.02	4DP-2-203	7/8	13/32	5/8	.35
.022	4DP-2-223	7/8	13/32	5/8	.40
.025	4DP-2-253	7/8	7/16	21/32	.40
.03	4DP-2-303	7/8	15/32	21/32	.40
.033	4DP-2-333	7/8	15/32	21/32	.40
.04	4DP-3-403	1-3/16	7/16	21/32	.40
.047	4DP-3-473	1-3/16	7/16	21/32	.40
.05	4DP-3-503	1-3/16	7/16	21/32	.40
.056	4DP-3-563	1-3/16	15/32	11/16	.40
.068	4DP-3-683	1-3/16	1/2	23/32	.50
.075	4DP-3-753	1-1/4	17/32	3/4	.50
.1	4DP-3-104	1-1/4	19/32	27/32	.50
.15	4DP-4-154	1-11/32	5/8	7/8	.55
.2	4DP-5-204	1-9/16	5/8	7/8	.65
.22	4DP-5-224	1-9/16	21/32	7/8	.65
.25	4DP-5-254	1-9/16	11/16	15/16	.70
.27	4DP-5-274	1-9/16	11/16	15/16	.70
.33	4DP-5-334	1-9/16	3/4	15/16	1.00
.47	4DP-6-474	2-3/8	13/16	1-1/16	1.40
.5	4DP-6-504	2-3/8	13/16	1-1/16	1.40

Reg. Du Pont Trademark

600VDCW

Cap. Mfd.	Part No.	L	W	H	List Price
.001	6DP-1-102	11/16	11/32	17/32	$0.35
.0012	6DP-1-122	11/16	11/32	17/32	.35
.0015	6DP-1-152	11/16	11/32	17/32	.35
.002	6DP-1-202	11/16	11/32	17/32	.35
.0022	6DP-1-222	11/16	11/32	17/32	.35
.0025	6DP-1-252	11/16	11/32	17/32	.35
.0027	6DP-1-272	11/16	11/32	17/32	.35
.003	6DP-1-302	11/16	11/32	17/32	.35
.0033	6DP-1-332	11/16	11/32	17/32	.35
.0039	6DP-1-392	11/16	11/32	9/16	.35
.004	6DP-1-402	11/16	11/32	9/16	.35
.0047	6DP-1-472	23/32	3/8	19/32	.35
.005	6DP-1-562	23/32	3/8	19/32	.35
.0056	6DP-1-562	23/32	3/8	19/32	.35
.006	6DP-1-602	23/32	3/8	5/8	40
.0068	6DP-1-682	23/32	13/32	21/32	.40
.0075	6DP-2-752	7/8	11/32	9/16	.40
.008	6DP-2-802	7/8	11/32	9/16	.40
.0082	6DP-2-822	7/8	11/32	9/16	.40
.01	6DP-2-103	7/8	3/8	19/32	.40
.012	6DP-2-123	7/8	3/8	19/32	.40
.015	6DP-2-153	7/8	13/32	5/8	.40
.02	6DP-2-203	7/8	7/16	21/32	.40
.022	6DP-2-223	7/8	15/32	21/32	.40
.025	6DP-2-253	7/8	1/2	11/16	.45
.027	6DP-3-273	1-3/16	7/16	21/32	.45
.03	6DP-3-303	1-3/16	7/16	21/32	.45
.033	6DP-3-333	1-3/16	7/16	21/32	.45
.039	6DP-3-393	1-3/16	15/32	11/16	.45
.04	6DP-3-403	1-3/16	15/32	11/16	.45
.047	6DP-3-473	1-3/16	1/2	23/32	.50
.05	6DP-3-503	1-3/16	1/2	23/32	.50
.056	6DP-3-563	1-3/16	17/32	3/4	.50
.06	6DP-3-603	1-3/16	17/32	3/4	.55
.068	6DP-4-683	1-11/32	17/32	13/16	.55
.075	6DP-4-753	1-11/32	17/32	13/16	.55
.082	6DP-4-823	1-11/32	9/16	27/32	.55
.1	6DP-4-104	1-11/32	5/8	7/8	.55
.15	6DP-5-154	1-9/16	21/32	7/8	.70
.2	6DP-5-204	1-9/16	23/32	15/16	.80
.22	6DP-5-224	1-9/16	25/32	1	.80
.25	6DP-5-254	1-9/16	13/16	1-1/6	.85
.33	6DP-6-334	2-3/8	3/4	1	1.15
.47	6DP-6-474	2-3/8	7/8	1-1/8	1.60
.5	6DP-6-504	2-3/8	7/8	1-1/8	1.60

1600VDCW

Cap. Mfd.	Part No.	L	W	H	List Price
.001	16DP-2-102	7/8	11/32	9/16	$0.55
.0015	16DP-2-152	7/8	11/32	9/16	.55
.0018	16DP-2-182	7/8	3/8	19/32	.55
.002	16DP-2-202	7/8	3/8	19/32	.55
.0022	16DP-2-222	7/8	3/8	19/32	.55
.0025	16DP-2-252	7/8	13/32	5/8	.55
.003	16DP-2-302	7/8	7/16	21/32	.55
.0033	16DP-2-332	7/8	7/16	21/32	.55
.004	16DP-2-402	7/8	15/32	21/32	.55
.0047	16DP-2-472	7/8	1/2	23/32	.55
.005	16DP-2-502	7/8	17/32	3/4	.60
.006	16DP-3-602	1-3/16	7/16	21/32	.60
.007	16DP-3-702	1-3/16	15/32	11/16	.60
.0075	16DP-3-752	1-3/16	1/2	23/32	.60
.008	16DP-3-802	1-3/16	17/32	3/4	.60
.01	16DP-3-103	1-3/16	17/32	3/4	.60
.015	16DP-4-153	1-11/32	9/16	27/32	.65
.02	16DP-4-203	1-11/32	21/32	7/8	.70
.022	16DP-4-223	1-9/16	5/8	7/8	.70
.025	16DP-5-253	1-9/16	21/32	7/8	.70
.03	16DP-5-303	1-9/16	11/16	15/16	.70
.033	16DP-5-333	1-9/16	23/32	15/16	.70
.04	16DP-5-403	1-9/16	3/4	1	.75
.047	16DP-5-473	1-9/16	13/16	1-1/16	.80
.05	16DP-5-503	1-9/16	13/16	1-1/16	.80

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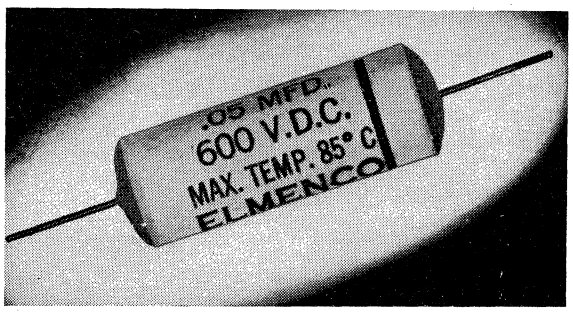
ELMENCO CAPACITORS

TYPE CP

STEATITE TUBULAR CAPACITORS CP TYPE



El-Menco CP type paper tubular capacitors are sealed into Steatite Tubes which serve to insulate the capacitor electrically as well as against moisture and heat. The capacitor insert is impregnated with Mineral Oil, thereby assuring long life at 85° C operating conditions. This feature insures successful operation at the high ambient temperatures existing in small, compact enclosures.

The Non-Inductively wound paper and foil units are sealed in the Ceramic Tubes by means of baked Synthetic Resin End Fills which cannot melt at any conceivable operating temperature. The end fills will not dissolve in wax, permitting the capacitors to be potted without damage to the insert. Leads are of tinned copper 2¼" long.

MINERAL OIL IMPREGNATION NON INDUCTIVE WINDING SYNTHETIC RESIN END SEALS — STEATITE CASE

The Steatite tube and baked synthetic resin end-fill provide a seal which rivals that of hermetically sealed construction, resulting in a dependability and longevity previously unequalled. Whether in operation or on the shelf, this paper tubular capacitor will maintain its excellent characteristics for years.

DIMENSIONS FOR CP TYPE CAPACITORS

	Max. Diameter	Max. Length
CP-1	23/64"	1-1/8"
CP-2	27/64"	1-3/8"
CP-3	31/64"	1-3/8"
CP-4	9/16"	1-5/8"
CP-5	3/4"	2"
CP-6	51/64"	2"
CP-7	1"	2-7/8"

Part numbers can be read as follows: First one or two numbers indicate voltage rating in hundreds of volts. CP indicates type of capacitor. Next number between the dashes indicates case size. Last three digits indicate capacity, the first two being significant figures and the last the decimal multiplier.

Cap. Mfd.	Part No.	List Price
200VDCW		
.02	2CP-1-203	$0.25
.022	2CP-1-223	0.25
.05	2CP-3-503	0.30
.1	2CP-4-104	0.35
.15	2CP-4-154	0.40
.2	2CP-5-204	0.45
.22	2CP-5-224	0.45
.25	2CP-5-254	0.45
.33	2CP-6-334	0.55
.47	2CP-6-474	0.70
.5	2CP-6-504	0.70
400VDCW		
.01	4CP-1-103	$0.25
.015	4CP-2-153	0.25
.02	4CP-2-203	0.25
.022	4CP-2-223	0.30
.025	4CP-3-253	0.30
.03	4CP-3-303	0.30
.033	4CP-3-333	0.30
.04	4CP-4-403	0.30
.047	4CP-4-473	0.30
.05	4CP-4-503	0.30
.056	4CP-4-563	0.30
.068	4CP-4-683	0.35
.075	4CP-4-753	0.35
.1	4CP-4-104	0.35
.15	4CP-5-154	0.45
.2	4CP-6-204	0.55
.22	4CP-6-224	0.55
.25	4CP-6-254	0.55
.33	4CP-7-334	0.70
.47	4CP-7-474	0.80
.5	4CP-7-504	0.90

Cap. Mfd.	Part No.	List Price
600VDCW		
.001	6CP-1-102	$0.25
.0012	6CP-1-122	0.25
.0015	6CP-1-152	0.25
.002	6CP-1-202	0.25
.0022	6CP-1-222	0.25
.0025	6CP-1-252	0.25
.0027	6CP-1-272	0.25
.003	6CP-1-302	0.25
.0033	6CP-1-332	0.25
.0039	6CP-1-392	0.25
.004	6CP-1-402	0.25
.0047	6CP-1-472	0.25
.005	6CP-1-502	0.25
.0056	6CP-1-562	0.25
.006	6CP-2-602	0.25
.0068	6CP-2-682	0.30
.0075	6CP-2-752	0.30
.008	6CP-2-802	0.30
.0082	6CP-2-822	0.30
.01	6CP-2-103	0.30
.012	6CP-2-123	0.30
.015	6CP-2-153	0.30
.02	6CP-3-203	0.30
.022	6CP-3-223	0.30
.025	6CP-3-253	0.35
.03	6CP-4-303	0.35
.033	6CP-4-333	0.35
.04	6CP-4-403	0.35
.047	6CP-4-473	0.40
.05	6CP-4-503	0.40
.056	6CP-4-563	0.40
.06	6CP-5-603	0.45
.068	6CP-5-683	0.45

Cap. Mfd.	Part No.	List Price
600VDCW		
.075	6CP-5-753	0.45
.082	6CP-5-823	0.45
.1	6CP-5-104	0.45
.15	6CP-5-154	0.55
.2	6CP-6-204	0.65
.22	6CP-6-224	0.70
.25	6CP-6-254	0.70
.33	6CP-7-334	0.95
.47	6CP-7-474	1.25
.5	6CP-7-504	1.25
1000VDCW		
.001	10CP-1-102	$0.40
.0015	10CP-1-152	0.40
.002	10CP-1-202	0.40
.0022	10CP-1-222	0.40
.0025	10CP-1-252	0.40
.003	10CP-1-302	0.40
.0033	10CP-2-332	0.40
.004	10CP-2-402	0.40
.0047	10CP-2-472	0.40
.005	10CP-2-502	0.40
.006	10CP-2-602	0.40
.0068	10CP-2-682	0.40
.0075	10CP-2-752	0.40
.01	10CP-2-103	0.45
.015	10CP-3-153	0.45
.02	10CP-4-203	0.45
.022	10CP-4-223	0.45
.025	10CP-4-253	0.45
.03	10CP-4-303	0.45
.033	10CP-5-333	0.55
.04	10CP-5-403	0.55
.047	10CP-5-473	0.55

Cap. Mfd.	Part No.	List Price
1000VDCW		
.05	10CP-5-503	0.55
.056	10CP-5-563	0.60
.068	10CP-5-683	0.65
.075	10CP-6-753	0.65
.1	10CP-6-104	0.70
1600VDCW		
.001	16CP-2-102	$0.50
.0015	16CP-2-152	0.50
.002	16CP-2-202	0.50
.0022	16CP-2-222	0.50
.0025	16CP-3-252	0.50
.003	16CP-3-302	0.50
.0033	16CP-3-332	0.50
.004	16CP-3-402	0.50
.0047	16CP-3-472	.50
.005	16CP-3-502	.50
.006	16CP-4-602	0.55
.0068	16CP-4-682	0.55
.007	16CP-4-702	0.55
.0075	16CP-4-752	0.55
.008	16CP-4-802	0.55
.01	16CP-4-103	0.55
.015	16CP-5-153	0.60
.02	16CP-5-203	0.65
.022	16CP-5-223	0.65
.025	16CP-5-253	0.65
.03	16CP-5-303	0.65
.033	16CP-5-333	0.65
.04	16CP-6-403	0.70
.047	16CP-6-473	0.70
.05	16CP-6-503	0.70

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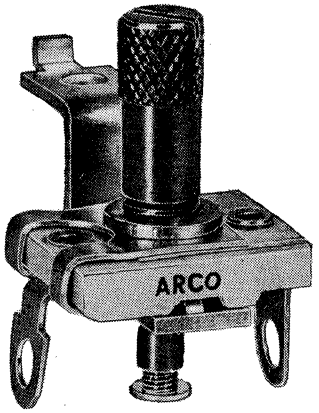
ELMENCO CAPACITORS

TYPES S46, L30

VARIABLE COMPRESSION MICA CAPACITORS



TYPE S46

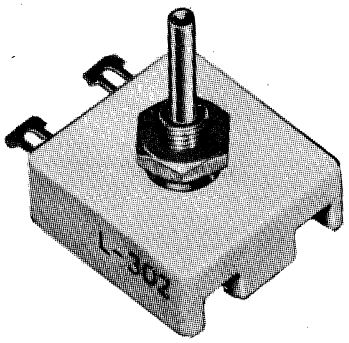
List Price:
Add 45¢ to the list price of trimmer alone

A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

To specify precede trimmer part number with the letter "S".

For example:

Type 460 trimmer will be ordered as S-460.



TYPE - L30

List Price:
Add 10¢ to the list price of padder alone

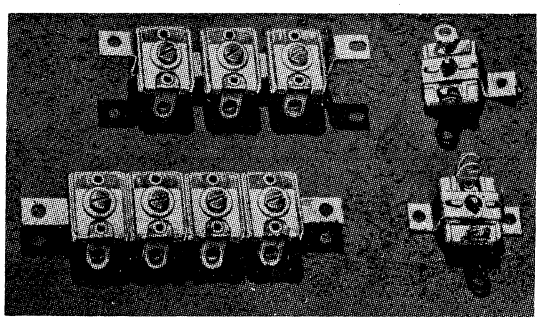
The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

●

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each list.

The two new assemblies shown at left have been developed due to increasing demands for miniaturized tuning devices. However, certain precautions must be taken in design so that these variable mica capacitors are not used in circuits for which they are not adapted. These assemblies are highly stable for components of their design, but they do not match the stability of the air dielectric tuners. Short term drift of the mica trimmers and padders after tuning is negligible. Long term drift at one setting due to changes in atmospheric conditions and physical motion should be well within ± 2%.

It should also be remembered that variable compression type mica capacitors do not have linear variation with adjustment. Rate of change of capacity decreases per turn as the screw is withdrawn. For example, a 306 padder will reduce to half the nominal maximum value within one opening turn. Those with a greater number of plates require further screw disengagement for a similar percentage reduction in capacity value. On the other hand, a 302 padder will reach one-half the nominal maximum in less than one-half turn open. Type 46 trimmers operate in much the same way. Detailed information on specific sizes is available upon request.



Mounting brackets as illustrated above can be supplied for all types of trimmers in flat "Z" (single mounting hole with or without non-rotational stop), and "U" (dual mounting hole) configurations.

	List Price
Bracket for mounting 1 Trimmer	$0.15
Bracket for mounting 2 Trimmers	.18
Bracket for mounting 3 Trimmers	.21
Bracket for mounting 4 Trimmers	.24
Bracket for mounting 5 Trimmers	.27
Bracket for mounting 6 Trimmers	.30

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ELMENCO CAPACITORS

TYPES 46, 40, PC46 42

TRIMMERS

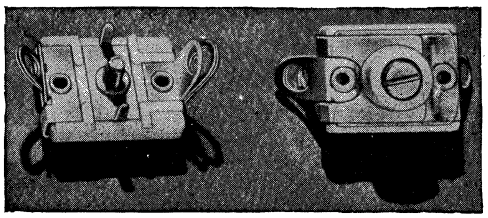
El-Menco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

Trimmers shown here are standard sizes and capacities.

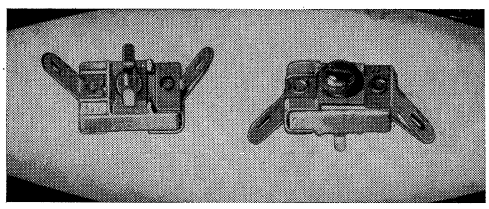
Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER ¾" x ⅝"

TYPE 46—STANDARD TRIMMER

TYPE 46W NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
460	1¼ Pl.	15	1.5	$0.40
461	1¾ Pl.	30	2.7	.40
462	2 Pl.	80	5	.45
463	3 Pl.	180	9	.50
464	4 Pl.	280	25	.55
465	5 Pl.	380	50	.60
466	6 Pl.	480	80	.65
467	7 Pl.	580	110	.75
468	8 Pl.	680	140	.80
469	9 Pl.	780	170	.85
4610	10 Pl.	900	190	.90
4611	11 Pl.	1000	210	.95
4612	12 Pl.	1100	240	1.00
4613	13 Pl.	1200	300	1.10
4614	14 Pl.	1300	340	1.20
4615	15 Pl.	1400	390	1.30

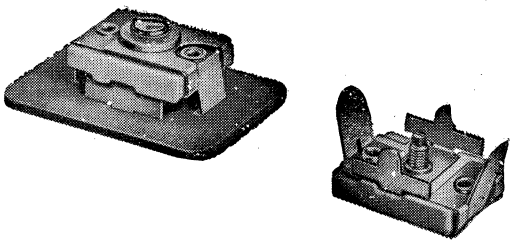


TYPE 40 MINIATURE TRIMMER ⅜" x 9/16"

TYPE 40—MINIATURE TRIMMER

TYPE 40 NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
400	1⅛ Pl.	7	0.9	$0.40
402	2 Pl.	20	1.5	.45
403	3 Pl.	35	3	.50
404	4 Pl.	60	8	.55

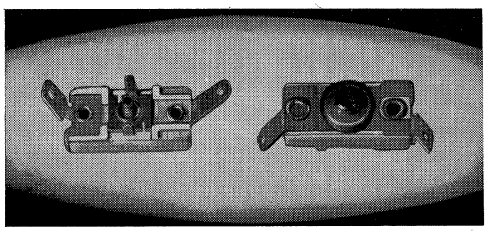
TYPE PC46
PRINTED CIRCUIT TRIMMERS



The Elmenco Type 46 trimmer series has been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped-in" the circuit and firmly held until soldered.

This printed circuit trimmer, available at present only in the Type 46 style, is identified by the prefix letter "PC". All capacitance ranges listed for Type 46 are available, designated as part numbers PC460 through PC468.

For list price add $0.05 to list price of standard Type 46 trimmer.



TYPE 42 MIDGET TRIMMER ⅜" x ¾"

TYPE 42—MIDGET TRIMMER

TYPE 42 NUMBER PART	PLATES NUMBER OF	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
420	1⅛ Pl.	12	1	$0.40
421	1¾ Pl.	25	2	.40
422	2 Pl.	40	4	.45
423	3 Pl.	100	7	.50
424	4 Pl.	150	14	.55
425	5 Pl.	200	24	.60
426	6 Pl.	250	37	.65
427	7 Pl.	300	55	.75
428	8 Pl.	350	70	.80
429	9 Pl.	400	90	.85

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ELMENCO CAPACITORS

TYPES CCD, 3CCD 6CCD, CCS

CERAMIC DISC

MINIATURE GENERAL PURPOSE

Elmenco Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a ±10% tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, Elmenco CCD units fill the bill with dependability and economy. The 'space-saving' size of Elmenco discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000VDCW (Type 3CCD) and 6000-VDCW (Type 6CCD) disc ceramics are supplied in tolerance of ±20%.

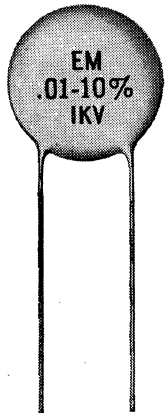
TYPE CCD

(ELMENCO Type GP)

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	List Price	Cap. mmf.	Part Number	List Price
5	CCD-050	$0.25	390	CCD-391	$0.25
10	CCD-100	0.25	400	CCD-401	0.25
12	CCD-120	0.25	470	CCD-471	0.25
15	CCD-150	0.25	500	CCD-501	0.25
18	CCD-180	0.25	560	CCD-561	0.25
20	CCD-200	0.25	680	CCD-681	0.25
22	CCD-220	0.25	750	CCD-751	0.25
25	CCD-250	0.25	800	CCD-801	0.25
27	CCD-270	0.25	820	CCD-821	0.25
30	CCD-300	0.25	1000	CCD-102	0.25
33	CCD-330	0.25	1200	CCD-122	0.25
39	CCD-390	0.25	1500	CCD-152	0.25
47	CCD-470	0.25	2000	CCD-202	0.25
50	CCD-500	0.25	2200	CCD-222	0.25
56	CCD-560	0.25	2500	CCD-252	0.25
68	CCD-680	0.25	2700	CCD-272	0.25
75	CCD-750	0.25	3000	CCD-302	0.25
82	CCD-820	0.25	3300	CCD-332	0.25
91	CCD-910	0.25	3900	CCD-392	0.25
100	CCD-101	0.25	4700	CCD-472	0.25
120	CCD-121	0.25	5000	CCD-502	0.30
150	CCD-151	0.25	5600	CCD-562	0.30
180	CCD-181	0.25	6800	CCD-682	0.30
200	CCD-201	0.25	8200	CCD-822	0.30
220	CCD-221	0.25	10000	CCD-103	0.30
250	CCD-251	0.25	*15000	CCD-153	0.30
270	CCD-271	0.25	*20000	CCD-203	0.30
300	CCD-301	0.25	*30000	CCD-303	0.50
330	CCD-331	0.25			

*500 VDCW, ± 20% Tolerance



TYPE 3CCD

(ELMENCO Type GP)

High Voltage — ± 20% Tolerance

3000 VDCW

Cap. mmf.	Part Number	List Price	Cap. mmf.	Part Number	List Price
4.7	3CCD-4R7	$0.40	180	3CCD-181	$0.40
6.8	3CCD-6R8	0.40	220	3CCD-221	0.40
10	3CCD-100	0.40	270	3CCD-271	0.40
15	3CCD-150	0.40	330	3CCD-331	0.40
22	3CCD-220	0.40	390	3CCD-391	0.40
27	3CCD-270	0.40	470	3CCD-471	0.40
33	3CCD-330	0.40	560	3CCD-561	0.40
39	3CCD-390	0.40	680	3CCD-681	0.40
47	3CCD-470	0.40	820	3CCD-821	0.40
56	3CCD-560	0.40	1000	3CCD-102	0.40
68	3CCD-680	0.40	2000	3CCD-202	0.40
82	3CCD-820	0.40	5000	3CCD-502	0.40
100	3CCD-101	0.40			
120	3CCD-121	0.40			
150	3CCD-151	0.40			

TYPE 6CCD

(ELMENCO Type GP)

High Voltage — ± 20% Tolerance

6000 VDCW

Cap. mmf.	Part Number	List Price	Cap. mmf.	Part Number	List Price
4.7	6CCD-4R7	$0.50	82	6CCD-820	$0.50
6.8	6CCD-6R8	0.50	100	6CCD-101	0.50
10	6CCD-100	0.50	120	6CCD-121	0.50
15	6CCD-150	0.50	150	6CCD-151	0.50
22	6CCD-220	0.50	220	6CCD-221	0.50
27	6CCD-270	0.50	330	6CCD-331	0.50
33	6CCD-330	0.50	470	6CCD-471	0.50
47	6CCD-470	0.50			
56	6CCD-560	0.50			
68	6CCD-680	0.50			

TEMPERATURE STABLE

This new ELMENCO ceramic capacitor maintains excellent capacitance stability with wide temperature variation. The graph illustrates typical percentage variation of capacity value with temperature. The operating temperature range has been extended to −55°C. to +125°C. without derating of the 1000VDCW specification. Standard tolerance is ±10%. The combined small size, low cost, and high stability represents another significant advance in the quality line of ELMENCO capacitors. All units are marked "TS" for identification.

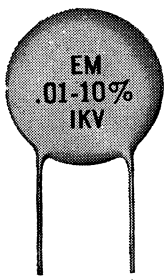
TYPE CCS

(ELMENCO Type TS)

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	List Price	Cap. mmf.	Part Number	List Price
150	CCS-151	$0.30	820	CCS-821	$0.35
180	CCS-181	0.30	1000	CCS-102	0.35
200	CCS-201	0.30	1200	CCS-122	0.35
220	CCS-221	0.30	1500	CCS-152	0.35
250	CCS-251	0.30	1800	CCS-182	0.35
270	CCS-271	0.30	2000	CCS-202	0.35
300	CCS-301	0.30	2200	CCS-222	0.35
330	CCS-331	0.30	2500	CCS-252	0.40
390	CCS-391	0.30	2700	CCS-272	0.40
470	CCS-471	0.30	3000	CCS-302	0.40
500	CCS-501	0.30	3300	CCS-332	0.40
560	CCS-561	0.30	3900	CCS-392	0.40
620	CCS-621	0.30	4700	CCS-472	0.40
680	CCS-681	0.30			
750	CCS-751	0.30			

LOOK for the "EM" brand on all ELMENCO disc ceramic capacitors



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ELMENCO CAPACITORS

TYPE CCTO, CCTN
NPO - TYPE CCTO
N750 - TYPE CCTN
VARIABLE CERAMIC
TRIMMER - FEED
THRU CERAMICS

TEMPERATURE COMPENSATING

TYPE CCTO

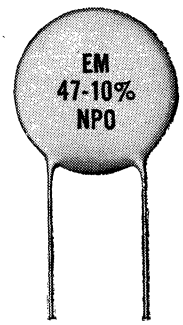
Elmenco Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire Elmenco ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

NPO-TYPE CCTO

(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	List Price
*2.2	CCTO-2R2	$0.50
*3.3	CCTO-3R3	0.50
*4.7	CCTO-4R7	0.50
5.0	CCTO-050	0.50
6.8	CCTO-6R8	0.50
10	CCTO-100	0.50
12	CCTO-120	0.50
15	CCTO-150	0.50
18	CCTO-180	0.50
20	CCTO-200	0.50
22	CCTO-220	0.50
24	CCTO-240	0.50
27	CCTO-270	0.50
30	CCTO-300	0.50
33	CCTO-330	0.50
36	CCTO-360	0.50
39	CCTO-390	0.50
47	CCTO-470	0.50
51	CCTO-510	0.55
56	CCTO-560	0.55
68	CCTO-680	0.55
75	CCTO-750	0.55
82	CCTO-820	0.55
100	CCTO-101	0.55

* ±.5 mmf. tolerance



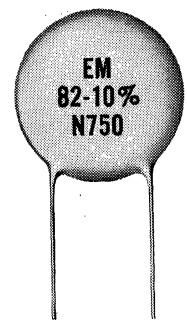
TYPE CCTN

Another member of the Elmenco temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of —750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

N750-TYPE CCTN

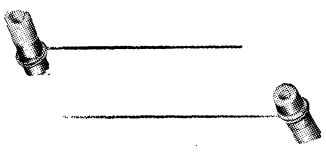
(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	List Price
5	CCTN-050	$0.50
10	CCTN-100	0.50
15	CCTN-150	0.50
22	CCTN-220	0.50
27	CCTN-270	0.50
33	CCTN-330	0.50
39	CCTN-390	0.50
47	CCTN-470	0.50
56	CCTN-560	0.50
62	CCTN-620	0.50
68	CCTN-680	0.50
75	CCTN-750	0.50
82	CCTN-820	0.50
100	CCTN-101	0.50
120	CCTN-121	0.50
150	CCTN-151	0.50
200	CCTN-201	0.50
220	CCTN-221	0.50
270	CCTN-271	0.50
300	CCTN-301	0.50



NOTE: In addition to the NPO and N750 standard stock ratings, a wide assortment of other negative temperature coefficient ratings are available to special order. N030, N080, N150, N220, N330, N470, N1500, N2100, N3300, N4100, N4700, and N5600 ratings are included. Specifications and prices will be supplied upon request.

VARIABLE CERAMIC TRIMMER

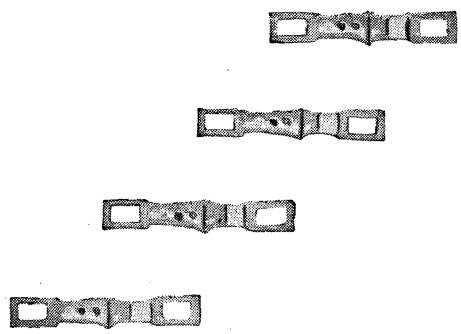


Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes 5/8" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	LIST PRICE
CV-1	0.5 - 3	$0.35
CV-2	1 - 4	.35
CV-3	2 - 6	.35

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot RMA coded and rated at 500VDCW.



PART No.	CAP. (MMF) (Guar. Min. Val.)	LIST PRICE
CCF-501	500	$0.40
CCF-102	1000	.40
CCF-152	1500	.40
CCF-202	2000	.40

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EL-MENCO CAPACITORS

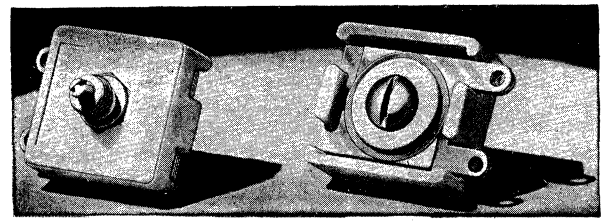
TYPES 30, 30M

Single and Dual PADDERS

EL-MENCO PADDING CONDENSERS have been acclaimed by engineers as the finest development in adjustable mica condensers.

The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.



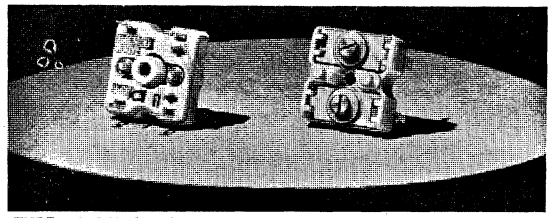
TYPE 30 AND TYPE 30-M PADDER 7/8" x 15/16"

TYPE 30

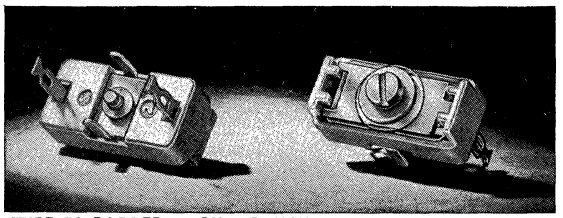
500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2½ Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
302	2 Pl.	130	15	$0.80
303	3 Pl.	340	65	.85
304	4 Pl.	550	100	.90
305	5 Pl.	760	190	1.00
306	6 Pl.	970	275	1.10
307	7 Pl.	1180	350	1.20
308	8 Pl.	1390	450	1.25
309	9 Pl.	1600	550	1.35
310	10 Pl.	1890	650	1.45
311	11 Pl.	2110	780	1.55
312	12 Pl.	2330	880	1.65
313	13 Pl.	2605	1150	1.75
314	14 Pl.	2830	1300	1.85
315	15 Pl.	3055	1400	1.95

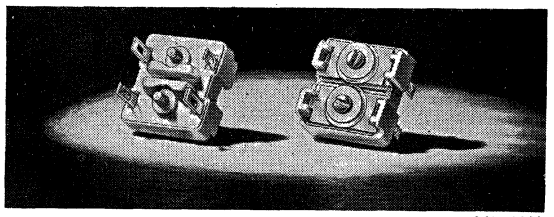
Screw is insulated from top plate my mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.



TYPE 50 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding 1-1/16" x 1-1/16")



TYPE 58 PADDER 1" x 15/32" 175VDCW



TYPE 60 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding ¾" x ¾")

TYPE 30-M

1000 Volts DC Flash-Test — 500 Working Volts DC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2½ Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
302-M	2 Pl.	120	15	$0.80
303-M	3 Pl.	320	65	.90
304-M	4 Pl.	500	100	.95
305-M	5 Pl.	690	180	1.05
306-M	6 Pl.	880	265	1.15
307-M	7 Pl.	1070	340	1.25
308-M	8 Pl.	1260	425	1.30
309-M	9 Pl.	1415	525	1.40
310-M	10 Pl.	1600	615	1.50
311-M	11 Pl.	1785	730	1.60
312-M	12 Pl.	1970	800	1.70
313-M	13 Pl.	2155	1000	1.80
314-M	14 Pl.	2340	1100	1.90
315-M	15 Pl.	2525	1200	2.00

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
502	2 Pl.	80	7.5	$0.85
503	3 Pl.	160	19	1.00
504	4 Pl.	240	50	1.15

◀TYPE 50 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding $1\frac{1}{16}$" x $1\frac{1}{16}$".

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
582	2 Pl.	80	7.5	$0.55
583	3 Pl.	160	19	.60
584	4 Pl.	240	50	.65

◀TYPE 58 Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE: At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE: At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE
602	2 Pl.	55	7	$0.80
603	3 Pl.	100	15	.95
604	4 Pl.	160	35	1.10
605	5 Pl.	220	60	1.25

◀TYPE 60 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding ¾" x ¾".

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ELMENCO CAPACITORS

CM-15, CM-20, CM-30 Mica Capacitor Kits

ARCO CM-15 MINIATURE MICA CAPACITOR KIT #1

THESE MINIATURES FIT INTO THE SMALLEST AREA CAPACITOR SIZE (9/32" x ½" x 3/16")

SPECIAL KIT LIST PRICE

ONLY **$90.00**

FOR EXPERIMENTAL WORK

DON'T GET CAUGHT SHORT!

ALWAYS HAVE THE CORRECT CAPACITY ON HAND!

This Handy Kit consists of 46 most commonly used Capacitors . . . per MIL-C-5 specifications . . . five of each capacity as listed on page 356 packed in individual tuck boxes, of 5 each properly identified for permanent use.

•

The complete set of capacitors amounts to $111.50 at list prices. You get the entire set *for only* $90.00.

COMPARE THE COST!

THESE KITS CONTAIN FIVE EACH OF THE FOLLOWING ELMENCO MICA CAPACITORS (500 V D C W)

CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM30 Cap. mmf.	CM30 Cap. mmf.
5	39	120	390	1100	3600
10	43	130	430	1200	3900
12	47	150	470	1300	4300
15	51	160	510	1500	4700
18	56	180	560	1600	5100
20	62	200	620	1800	5600
22	68	220	680	2000	6200
24	75	240	750	2200	CM35
27	82	270	820	2400	6800*
30	91	300	910	2700	7500*
33	100	330	1000	3000	8200*
36	110	360		3300	9100*
*300VDCW		*PER MIL-C-5 SPECIFICATIONS*			10000*

MIL-C-5

ARCO SILVERED MICA KIT #3

SPECIAL KIT LIST PRICE

$325

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$385**

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

MIL-C-5

ARCO REG. FOIL MICA KIT #2

This kit contains the complete range of ELMENCO regular foil molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of the letter "B" characteristics and letter "K" (10%) tolerance and are MIL color coded.

SPECIAL KIT LIST PRICE

$140

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$158.40**

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ELMENCO CAPACITORS

DM-15 KIT #10 & 11
DM-15
STOCK PACKAGE

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES • EXPERIMENTAL LABS SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability... provides maximum protection at environmental extremes of moisture and temperature.

ARCO DM-15 KIT #10

This handy kit consists of five of each DM-15 capacity as listed. All are 500 VDCW and ±5% tolerance...packed in individual transparent plastic snap boxes, properly identified for ease of handling.

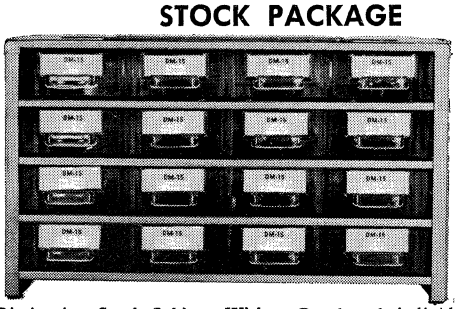
SPECIAL KIT LIST PRICE $95.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$103.31**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	91	DM-15-910
2	DM-15-020†	100	DM-15-101
3	DM-15-030†	110	DM-15-111
5	DM-15-050†	120	DM-15-121
10	DM-15-100	130	DM-15-131
12	DM-15-120	150	DM-15-151
15	DM-15-150	160	DM-15-161
18	DM-15-180	180	DM-15-181
20	DM-15-200	200	DM-15-201
22	DM-15-220	220	DM-15-221
24	DM-15-240	240	DM-15-241
27	DM-15-270	250	DM-15-251
30	DM-15-300	270	DM-15-271
33	DM-15-330	300	DM-15-301
36	DM-15-360	330	DM-15-331
39	DM-15-390	360	DM-15-361
43	DM-15-430	390	DM-15-391
47	DM-15-470	430*	DM-15-431
50	DM-15-500	470*	DM-15-471
51	DM-15-510	500*	DM-15-501
56	DM-15-560	510*	DM-15-511
62	DM-15-620	560*	DM-15-561
68	DM-15-680	620*	DM-15-621
75	DM-15-750	680*	DM-15-681
82	DM-15-820	750*	DM-15-751
		820*	DM-15-821

* All capacitors marked with * are 300WV.
† Minimum tolerance ±0.5 mmf.

ARCO MINIATURE DM-15 CAPACITOR STOCK PACKAGE

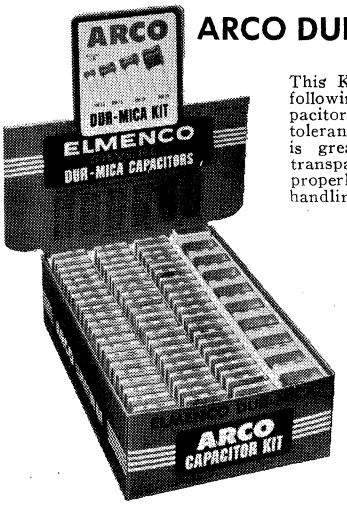


SPECIAL LIST PRICE $596

Distinctive Steel Cabinet With Plastic Pull-Out Drawers Supplied FREE With DM-15 Package.

Purchased individually the total list price value of the capacitors contained in this package would be — **$715**

A complete stock of DM-15 capacitors (fifty-one items) totaling 2100 capacitors; fifty each of the most used values and 25 each of the others. Capacity range is 1-820 mmf., tolerance ±5% or ±0.5 mmf., whichever is greater.



ARCO DUR-MICA KIT #11

This Kit contains five each of the following listed DUR-MICA capacitors, all 500 VDCW and ±5% tolerance; or ±0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

SPECIAL KIT LIST PRICE $250.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$286.35**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM15-020M	360	DM19-361J
5	DM15-050K	390	DM19-391J
10	DM15-100J	430	DM19-431J
12	DM15-120J	470	DM19-471J
15	DM15-150J	510	DM19-511J
18	DM15-180J	560	DM19-561J
20	DM15-200J	620	DM19-621J
22	DM15-220J	680	DM20-681J
24	DM15-240J	750	DM20-751J
27	DM15-270J	820	DM20-821J
30	DM15-300J	910	DM20-911J
33	DM15-330J	1000	DM20-102J
36	DM15-360J	1100	DM20-112J
39	DM15-390J	1200	DM20-122J
43	DM15-430J	1300	DM20-132J
47	DM15-470J	1500	DM20-152J
51	DM15-510J	1600	DM20-162J
56	DM15-560J	1800	DM20-182J
62	DM15-620J	2000	DM20-202J
68	DM15-680J	2200	DM20-222J
75	DM15-750J	2400	DM20-242J
82	DM15-820J	2700	DM20-272J
91	DM15-910J	3000	DM20-302J
100	DM15-101J	3300	DM20-332J
110	DM15-111J	3600	DM20-362J
120	DM15-121J	3900	DM20-392J
130	DM15-131J	4300	DM20-432J
150	DM15-151J	4700	DM30-472J
160	DM19-161J	5100	DM30-512J
180	DM19-181J	5600	DM30-562J
200	DM19-201J	6200	DM30-622J
220	DM19-221J	6800	DM30-682J
240	DM19-241J	7500	DM30-752J
270	DM19-271J	8200	DM30-822J
300	DM19-301J	9100	DM30-912J
330	DM19-331J	10000	DM30-103J

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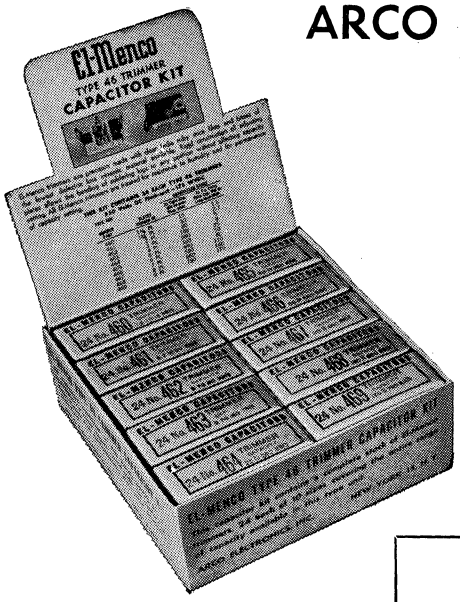
40% Discount Applies To The Above Prices.

ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

EL-MENCO CAPACITORS

TYPES 46 TRIMMER 30 & 30M PADDER KITS

ARCO TYPE 46 TRIMMER KIT #5



This Kit Contains 24 of Each Trimmer Listed Below

TYPE 46W PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At A Turns Open Cap. Will Be Less Than MMF.
460	1¼ Pl.	15	1.5
461	1¾ Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

The total list price for all units included in the kit is $142.80.

Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$120.00

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of El-Menco trimmers and padders available for immediate use.

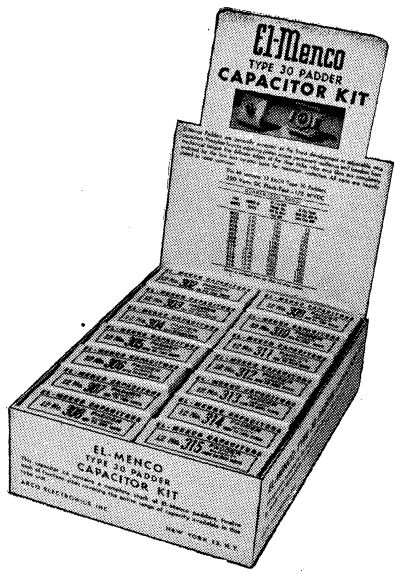
ARCO TYPE 30 PADDER KIT #6

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $223.80.

Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$195.00



ARCO TYPE 30M PADDER KIT #6M

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $231.60

Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE
$200.00

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turns Open Cap. Will Be Less Than MMF.
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

40% Discount Applies To The Above Prices.
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ARCO electronics inc. — Arcolytic — TUBULAR ELECTROLYTIC CAPACITORS

ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Higher reliability because of practically no impurities in the foil.
- Maximum operating temperature: 85°C. (Type CTW: 75°C.)
- Perfect replacement electrolytic for all types entertainment units.
- Extended shelf and and operating life at both normal and eleveated tempertaures.
- Built and tested to meet EIA specification RS-154.

Type CTA Single and multiple section tubular electrolytics in drawn aluminum cans with cardboard sleeves. Single section units have bare wire leads with negative grounded to can. Multiple units have a common negative grounded to can, and all leads have vari-colored insulated wire for ease of identification.

Type CTW Same as type CTA except that these are multiple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTA-1050	50	6	½ x 1¼	.95
CTA-1055	100	6	½ x 1¼	1.20
CTA-1060	250	6	⅝ x 1¾	1.35
CTA-1065	500	6	¾ x 1¾	1.55
CTA-1070	1000	6	¾ x 2¼	1.90
CTA-1075	1500	6	1 x 2¼	2.10
CTA-1080	2000	6	1 x 2¾	2.30
CTA-1085	100	15	⅝ x 1¼	1.25
CTA-1090	250	15	⅝ x 1¾	1.55
CTA-1095	500	15	¾ x 2¼	1.75
CTA-1100	1000	15	⅞ x 2¼	2.30
CTA-1105	2	25	½ x 1¼	.90
CTA-1110	5	25	½ x 1¼	1.00
CTA-1115	10	25	½ x 1¼	1.00
CTA-1125	50	25	½ x 1¼	1.00
CTA-1120	25	25	⅝ x 1¼	1.10
CTA-1130	100	25	⅝ x 1¾	1.35
CTA-1135	250	25	⅞ x 2¼	1.70
CTA-1140	500	25	1 x 2¼	2.30
CTA-1145	1	50	½ x 1¼	.90
CTA-1150	2	50	½ x 1¼	.90
CTA-1155	5	50	½ x 1¼	1.00
CTA-1160	10	50	½ x 1¼	1.00
CTA-1165	20	50	⅝ x 1¼	1.00
CTA-1170	25	50	⅝ x 1¼	1.05
CTA-1175	50	50	⅝ x 1¾	1.20
CTA-1180	100	50	¾ x 1¾	1.40
CTA-1185	150	50	¾ x 1¾	1.55
CTA-1190	250	50	⅞ x 1¾	1.75
CTA-1195	500	50	1 x 2¼	2.40
CTA-1200	4	150	½ x 1¼	1.00
CTA-1205	5	150	½ x 1¼	1.00
CTA-1210	8	150	⅝ x 1¼	1.05
CTA-1215	10	150	⅝ x 1¼	1.05
CTA-1220	12	150	⅝ x 1¼	1.10
CTA-1225	16	150	⅝ x 1¾	1.15
CTA-1230	20	150	⅝ x 1¾	1.20
CTA-1235	25	150	⅝ x 1¾	1.25
CTA-1240	30	150	¾ x 1¾	1.30
CTA-1245	40	150	¾ x 1¾	1.35
CTA-1250	50	150	⅞ x 1¾	1.40
CTA-1255	60	150	⅞ x 1¾	1.50
CTA-1260	80	150	¾ x 2¼	1.60
CTA-1265	100	150	1 x 2¼	1.75
CTA-1270	150	150	1¼ x 2¼	1.90
CTW-1275	200	150	1¼ x 2¾	2.20
CTW-1280	250	150	1¼ x 3¼	2.55
CTW-1285	300	150	1¼ x 3¾	2.55
CTW-1290	150	200	1 x 3¾	2.55
CTW-1295	200	200	1¼ x 3¾	2.90
CTA-1300	4	250	⅝ x 1¼	1.00
CTA-1305	8	250	⅝ x 1¼	1.15
CTA-1310	10	250	⅝ x 1¾	1.20
CTA-1315	12	250	⅝ x 1¾	1.25
CTA-1320	16	250	⅞ x 1¾	1.30
CTA-1325	20	250	¾ x 1¾	1.35
CTA-1330	30	250	¾ x 2¼	1.45
CTA-1335	40	250	¾ x 2¼	1.55
CTA-1340	50	250	⅞ x 2¼	1.70
CTA-1345	60	250	⅞ x 2¼	1.80
CTA-1350	100	250	1 x 2¾	2.45
CTW-1355	140	300	1 x 3¾	3.15
CTA-1360	4	350	⅝ x 1¼	1.05
CTA-1365	8	350	⅝ x 1¾	1.20
CTA-1370	10	350	⅝ x 1¾	1.25
CTA-1375	12	350	¾ x 1¾	1.30
CTA-1380	16	350	¾ x 1¾	1.40
CTA-1385	20	350	⅞ x 1¾	1.45
CTA-1390	30	350	⅞ x 2¼	1.65
CTA-1395	40	350	1 x 2¼	1.75
CTA-1398	60	350	1 x 2¾	1.95
CTA-1400	1	450	½ x 1¼	1.10
CTA-1405	2	450	½ x 1¼	1.10
CTA-1410	4	450	⅝ x 1¼	1.15
CTA-1415	8	450	⅝ x 1¾	1.25
CTA-1420	10	450	¾ x 1¾	1.30
CTA-1425	12	450	¾ x 1¾	1.35
CTA-1430	16	450	⅞ x 1¾	1.40
CTA-1435	20	450	⅞ x 2¼	1.55
CTA-1440	30	450	1 x 2¼	1.70
CTA-1445	40	450	1 x 2¾	1.80
CTA-1450	50	450	1 x 3¼	2.10
CTA-1455	60	450	1 x 3¼	2.35
CTA-1460	80	450	1 x 3¾	2.80
CTA-1465	100	450	1¼ x 3¾	3.20
CTA-1470	8	500	¾ x 1¾	1.30
CTA-1475	10	500	⅞ x 1¾	1.35
CTA-1480	16	500	⅞ x 2¼	1.50
CTA-1485	20	500	1 x 2¼	1.60
CTA-1490	30	500	1 x 2¾	1.75
CTA-1500	8	600	1 x 2¾	2.10
CTA-1505	10	600	1 x 2¾	2.20
CTA-1510	16	600	1 x 3¾	2.55
CTA-1515	20	600	1 x 3¾	2.70
CTA-1520	8	700	1 x 2¾	2.35
CTA-1525	10	700	1 x 2¾	2.45
CTA-1530	16	700	1 x 3¾	2.65

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTA-2030	10-10	50-50	⅝ x 1¾	1.40
CTA-2035	8-8	150-150	⅝ x 1¾	1.50
CTA-2040	16-16	150-150	¾ x 1¾	1.80
CTA-2045	20-12	150-150	¾ x 1¾	1.60
CTA-2050	20-20	150-150	¾ x 1¾	1.65
CTA-2055	30-20	150-150	⅞ x 1¾	1.70
CTA-2060	30-30	150-150	⅞ x 1¾	1.80
CTA-2065	40-20	150-150	⅞ x 1¾	1.75
CTA-2070	40-30	150-150	⅞ x 2¼	1.80
CTA-2075	40-40	150-150	⅞ x 2¼	1.85
CTA-2080	50-30	150-150	⅞ x 2¼	1.95
CTA-2085	50-50	150-150	⅞ x 2¼	2.10
CTA-2090	80-30	150-150	1 x 2¼	2.20
CTA-2100	80-40	150-150	1 x 2¾	2.20
CTA-2105	80-50	150-150	1 x 2¾	2.35
CTW-2110	100-100	150-150	1 x 3¾	3.20
CTW-2115	250-50	150-150	1¼ x 3¾	3.70
CTW-2120	200-5	150-150	1 x 3¾	2.65
CTW-2125	250-200	150-150	1¼ x 4¾	4.20
CTA-2130	20-20	250-250	⅞ x 2¼	1.85
CTA-2135	40-10	250-250	⅞ x 2¼	2.05
CTA-2140	80-10	250-250	1 x 3¼	2.55
CTW-2145	120-80	250-250	1¼ x 3¾	4.00
CTW-2150	140-5	350-350	1¼ x 4¼	4.15
CTW-2155	80-100	450-50	1¼ x 4¼	3.70

* Preferred Type

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ARCO electronics inc. — Arcolytic — TUBULAR ELECTROLYTIC CAPACITORS

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTA-2160	8-8	450-450	7/8 x 2 1/4	1.70
CTA-2165	10-10	450-450	1 x 2 1/4	1.85
CTA-2170	16-8	450-450	1 x 2 1/4	2.00
CTA-2175	20-20	450-450	1 x 2 3/4	2.50
CTA-2180	30-30	450-450	1 x 3 1/4	3.00
CTA-2185	40-40	450-450	1 x 3 3/4	3.40
CTA-2190	50-30	450-450	1 x 3 3/4	3.40

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTA-3050	20-20-20	150-150-150	7/8 x 1 3/4	2.20
CTA-3055	30-30-30	150-150-150	7/8 x 2 1/4	2.35
CTA-3060	40-30-20	150-150-150	7/8 x 2 1/4	2.35
CTA-3063	40-40-20	150-150-150	1 x 2 1/4	2.35
CTA-3065	40-40-40	150-150-150	1 x 2 1/4	2.45
CTA-3070	50-30-20	150-150-150	1 x 2 1/4	2.45
CTA-3075	80-40-20	150-150-150	1 x 2 3/4	2.75
CTW-3078	150-150-150	150-150-150	1 3/8 x 4 1/4	4.85
CTW-3080	250-200-10	150-150-150	1 1/4 x 4 1/4	4.60
CTA-3085	60-40-250	150-150-15	1 x 3 1/4	2.60
CTA-3090	80-30-300	150-150-15	1 x 3 3/4	2.90
CTA-3095	20-20-20	150-150-25	7/8 x 1 3/4	2.05
CTA-3100	40-20-20	150-150-25	1 x 1 3/4	2.15
CTA-3105	40-30-20	150-150-25	7/8 x 2 1/4	2.20
CTA-3110	40-40-20	150-150-25	1 x 2 1/4	2.25
CTA-3115	40-40-100	150-150-25	1 x 2 1/4	2.45
CTA-3120	50-30-20	150-150-25	1 x 2 1/4	2.35
CTA-3125	50-30-100	150-150-25	1 x 2 1/4	2.55
CTA-3130	50-30-250	150-150-25	1 x 3	3.10
CTA-3135	50-50-20	150-150-25	1 x 2 1/4	2.50
CTA-3140	80-20-100	150-150-25	1 x 2 3/4	2.75
CTA-3145	80-40-20	150-150-25	1 x 2 3/4	2.65
CTW-3150	250-120-50	150-150-25	1 3/8 x 4	4.35
CTW-3153	120-40-100	300-250-50	1 3/8 x 4 1/4	4.95
CTW-3155	60-60-60	300-300-300	1 3/8 x 3 1/2	4.70
CTW-3160	80-40-100	300-300-50	1 3/8 x 3 1/2	4.25
CTW-3165	100-60-100	300-300-50	1 3/8 x 4 1/4	4.95
CTW-3168	120-40-10	300-300-250	1 3/8 x 3 1/2	4.85
CTW-3170	60-60-4	350-350-350	1 3/8 x 3 1/4	3.85
CTW-3175	140-5-200	350-350-200	1 1/2 x 4 3/4	6.70

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTW-3178	10-20-100	400-150-150	1 1/4 x 4 3/4	4.10
CTW-3180	5-80-40	450-400-400	1 3/4 x 4 1/4	4.55
CTA-3185	20-20-20	450-450-25	1 1/4 x 3	2.90
CTA-3190	40-40-20	450-450-25	1 x 3 3/4	3.80

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTW-4050	40-20-20-100	150-150-150-25	1 x 3 1/4	3.10
CTW-4055	150-100-20-100	300-300-300-50	1 1/2 x 4 3/4	6.95
CTW-4060	120-40-40-10	300-300-300-250	1 1/4 x 4 3/4	6.20
CTW-4065	140-5-200-100	350-300-200-150	1 1/2 x 4 3/4	8.20
CTW-4070	140-5-200-30	350-300-200-200	1 1/2 x 4 3/4	7.65
CTW-4075	80-60-40-20	350-350-300-150	1 1/4 x 4 3/4	5.90
CTW-4085	80-10-40-100	400-400-300-50	1 3/8 x 4 1/4	5.45
CTW-4090	10-80-40-100	450-300-250-50	1 3/8 x 4 1/4	4.80
CTW-4095	20-120-40-100	450-300-250-50	1 1/4 x 4 3/4	6.15
CTW-4100	10-80-40-40	450-300-300-250	1 3/8 x 4 1/4	4.95
CTW-4105	20-20-20-10	450-450-450-450	1 3/8 x 3 3/4	4.25
CTW-4110	40-20-20-10	450-450-450-450	1 1/4 x 4 1/4	4.70
CTW-4115	40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	5.45

FIVE LEADS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTW-5050	40-20-20-20-50	300-300-300-300-75	1 3/8 x 4 1/4	5.00

PRINTED CIRCUIT

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
APC-2100	50-30	150-150	1 x 2 1/2	2.60
APC-2105	50-50	150-150	1 x 2 1/2	2.70
APC-2110	80-30	150-150	1 x 3	2.75
APC-2115	100-50	150-150	1 x 3 1/2	2.95

ANTENNA ROTAR CAPACITOR

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CRA-1000	70	50 VAC	7/8 x 3	1.25
CRA-1050	120	50 VAC	1 x 2 3/4	1.65

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTP-1250	140	150	1 x 2 1/2	2.15
CTP-1350	375	165	1 3/8 x 3 1/2	3.00
CTP-1450	160	200	1 3/8 x 3	2.90
CTP-1550	50	350	1 x 2	2.10
CTP-1650	20	450	1 x 2	1.80

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTP-2150	250-250	16-16	1 x 2	2.75
CTP-2275	500-100	16-16	1 x 2	3.10
CTP-2350	800-250	16-16	1 x 2 1/2	3.35
CTP-2360	500-200	18-18	1 x 2	3.35
CTP-2475	50-30	150-150	1 x 2	2.00
CTP-2550	80-30	150-150	1 x 2	2.25
CTP-2625	80-40	150-150	1 x 3	2.30
CTP-2700	200-5	150-150	1 3/8 x 2 1/2	2.70
CTP-2775	2-20	300-25	1 x 2	1.45
CTP-2850	10-10	300-50	1 x 2	1.60
CTP-2875	150-100	300-150	1 3/8 x 4	4.50
CTP-2890	10-10	300-300	1 3/8 x 2	1.75

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTP-3130	250-250-50	16-16-16	1 x 2	3.25
CTP-3160	500-250-50	16-16-16	1 x 2	3.50
CTP-3190	500-250-250	16-16-16	1 x 2	4.10
CTP-3220	70-30-100	150-150-10	1 x 2	2.80
CTP-3250	40-30-250	150-150-10	1 x 2 1/2	3.10

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTP-3280	80-60-250	150-150-10	1 x 2 1/2	3.40
CTP-3310	80-60-400	150-150-10	1 x 3	3.65
CTP-3340	90-40-400	150-150-10	1 x 3	3.50
CTP-3370	40-20-20	150-150-25	1 x 2 1/2	2.30
CTP-3400	80-20-20	150-150-25	1 x 2	2.70
CTP-3430	70-30-20	150-150-25	1 x 2 1/2	2.70
CTP-3460	30-30-30	150-150-150	1 x 2	2.50
CTP-3490	40-40-20	150-150-150	1 x 2 1/2	2.50
CTP-3510	40-40-30	150-150-150	1 x 2 1/2	2.70
CTP-3540	50-30-20	150-150-150	1 x 2	2.60
CTP-3570	50-40-30	150-150-150	1 x 2 1/2	2.70
CTP-3600	60-60-40	150-150-150	1 3/8 x 2	3.10
CTP-3630	70-15-15	150-150-150	1 x 2	2.70
CTP-3660	80-60-10	150-150-150	1 x 3	2.95
CTP-3690	10-10-20	300-50-25	1 x 2	2.10
CTP-3720	150-60-200	300-200-150	1 3/8 x 4	5.95
CTP-3750	60-10-25	300-300-25	1 3/8 x 2	3.05
CTP-3780	150-100-30	300-300-300	1 3/8 x 4	6.35
CTP-3810	125-5-100	350-150-10	1 3/8 x 3 1/2	4.60
CTP-3830	40-30-20	400-350-300	1 3/8 x 2 1/2	3.95

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTP-4100	290-30-10-100	150-150-150-10	1 3/8 x 3 1/2	4.50
CTP-4200	50-40-10-50	150-150-150-25	1 3/8 x 2	3.15
CTP-4300	100-40-10-50	150-150-150-25	1 3/8 x 2	3.70
CTP-4400	60-60-40-10	150-150-150-150	1 3/8 x 2	3.65
CTP-4500	100-60-60-40	350-350-200-75	1 3/8 x 4	6.55
CTP-4600	40-20-10-100	350-350-350-50	1 3/8 x 2 1/2	4.35
CTP-4700	40-30-20-20	400-350-350-350	1 3/8 x 2 1/2	4.95

* Preferred Type

40% Discount Applies To The Above Prices

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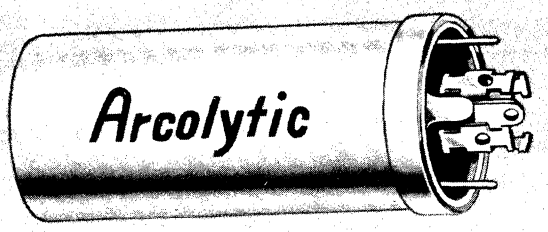
ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS



ARCOLYTIC TWIST MOUNTS

- Made with 99.99% pure aluminum foil.
- Hermetically sealed in aluminum cans.
- Designed for high temperature operation: 85°C.
- Made to withstand high surge voltages and high ripple currents.
- Greater shelf and operating life because only premium grade ingredients are used.
- Built and tested to meet EIA specification RS-154.
- Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-1050	.5 @ 15.75 KC	3 N.P.	1 x 2	2.65
CTM-1059	1 OHM @ 60 CPS	3 N.P.	1⅜ x 2½	4.00
CTM-1068	10 OHM @ 30 CPS	3 N.P.	1⅜ x 2	2.75
CTM-1077	1000	6	1⅜ x 2	2.40
*CTM-1086	2000	6	1⅜ x 2	2.55
CTM-1095	1000	10	1 x 2½	3.20
CTM-1104	3000	10	1⅜ x 3	3.65
*CTM-1113	225	15	¾ x 2	1.75
*CTM-1122	1000	15	1 x 2½	2.55
CTM-1131	1500	15	1 x 3	3.45
*CTM-1140	2000	15	1⅜ x 2	3.45
*CTM-1149	3000	15	1⅜ x 3	3.50
CTM-1158	4000	15	1⅜ x 3½	3.75
CTM-1167	25	25	¾ x 2	1.55
CTM-1176	40	25	¾ x 2	1.35
CTM-1185	50	25	1 x 2	1.70
CTM-1194	100	25	¾ x 2	2.00
*CTM-1203	500	25	1 x 2	2.55
*CTM-1212	1000	25	1⅜ x 2	3.55
CTM-1221	4	50	¾ x 2	1.55
CTM-1230	25	50	¾ x 2	1.70
*CTM-1239	100	50	¾ x 2	1.65
*CTM-1248	150	50	¾ x 2½	1.80
*CTM-1257	250	50	1 x 2½	2.00
*CTM-1266	500	50	1⅜ x 2½	2.65
*CTM-1275	1000	50	1⅜ x 3½	3.75
*CTM-1284	1500	50	1⅜ x 4	3.85
CTM-1293	10	150	1 x 2	1.65
CTM-1302	20	150	1 x 2	1.80
CTM-1311	25	150	1 x 2	1.90
*CTM-1320	30	150	1 x 2	1.55
CTM-1329	40	150	1 x 2	2.00
*CTM-1338	50	150	1 x 2	1.65
CTM-1347	60	150	1 x 2	2.20
*CTM-1356	80	150	1 x 2½	1.85
CTM-1365	80	150	1⅜ x 2	2.30
*CTM-1374	100	150	1 x 2½	2.00
CTM-1383	110	150	1 x 3	2.70
*CTM-1392	120	150	1 x 2½	2.15
*CTM-1401	120	150	1⅜ x 2½	2.15
*CTM-1410	140	150	1 x 3	2.15
*CTM-1419	150	150	1 x 3	2.15
*CTM-1428	150	150	1⅜ x 3	2.15
*CTM-1437	200	150	1⅜ x 3½	2.45
*CTM-1446	300	150	1⅜ x 3½	2.80
*CTM-1455	375	165	1⅜ x 3½	4.65
CTM-1464	40	200	1 x 2	2.15
*CTM-1473	125	200	1⅜ x 2½	2.80
*CTM-1482	160	200	1⅜ x 3	3.15
CTM-1491	500	200	1⅜ x 4	6.60
*CTM-1500	15	250	1 x 2	1.95
CTM-1509	20	250	1 x 2	1.60
CTM-1518	30	250	1 x 2	2.15
*CTM-1527	40	250	1 x 2	1.80
CTM-1536	50	250	1 x 2½	2.45
CTM-1545	60	250	1 x 3	2.55
CTM-1554	80	250	1 x 3½	2.70
*CTM-1563	100	250	1 x 3	2.70
*CTM-1572	150	250	1⅜ x 2½	3.10
*CTM-1581	200	250	1⅜ x 3½	3.65
CTM-1590	15	300	1 x 2	2.00
CTM-1599	30	300	1 x 2	2.20
CTM-1608	50	300	1 x 2½	2.55
CTM-1617	60	300	1 x 3	2.65
*CTM-1626	80	300	1 x 3½	2.55
*CTM-1635	100	300	1 x 4	2.90
*CTM-1644	125	300	1⅜ x 3½	3.50
*CTM-1653	150	300	1⅜ x 3½	3.50
*CTM-1662	250	300	1⅜ x 4	5.55
CTM-1651	10	350	1 x 2	1.90
CTM-1660	15	350	1 x 2	2.05
CTM-1669	20	350	1 x 2	2.20
*CTM-1678	30	350	1 x 2	1.90
*CTM-1687	40	350	1 x 2	2.00
*CTM-1696	50	350	1 x 2	2.10
*CTM-1705	60	350	1 x 3	2.20
*CTM-1714	80	350	1⅜ x 2	2.85
*CTM-1723	125	350	1⅜ x 3½	3.95
CTM-1732	140	350	1⅜ x 4	4.95
*CTM-1741	150	350	1⅜ x 4	3.95
CTM-1750	320	350	1⅜ x 4	6.75
CTM-1759	10	400	1 x 2	1.90
CTM-1768	20	400	1 x 2	2.20
CTM-1777	40	400	1⅜ x 2	3.15
CTM-1786	50	400	1⅜ x 2½	2.75
CTM-1795	80	400	1⅜ x 3	3.70
CTM-1804	100	400	1⅜ x 3	4.25
*CTM-1813	4	450	1 x 2	1.40
*CTM-1822	10	450	1 x 2	1.55
*CTM-1831	15	450	1 x 2	1.70
*CTM-1840	20	450	1 x 2	1.80
CTM-1849	25	450	1 x 2½	2.40
*CTM-1858	30	450	1 x 2½	1.95
*CTM-1867	40	450	1 x 3	2.05
*CTM-1876	50	450	1 x 3	2.35
*CTM-1885	60	450	1⅜ x 2½	2.60
*CTM-1894	80	450	1⅜ x 2½	3.05
*CTM-1903	100	450	1⅜ x 3	3.45
*CTM-1912	125	450	1⅜ x 4	3.85
CTM-1921	20	475	1 x 2½	2.30
CTM-1930	30	475	1 x 3	2.50
*CTM-1939	40	475	1⅜ x 2	2.50
CTM-1948	90	475	1⅜ x 3½	4.40
*CTM-1957	10	500	1 x 2	1.70
*CTM-1966	20	500	1 x 2½	1.85
*CTM-1975	30	500	1 x 3	2.00
*CTM-1984	40	500	1 x 3½	2.50
*CTM-1993	80	500	1⅜ x 3	3.20
CTM-1995	90	500	1⅜ x 3½	3.50
CTM-1997	15	525	1⅜ x 3	2.30

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-2050	(.5 OHM @ 15.75 K 2.5 OHM) @ 60 CPS	6 N.P.-6 N.P.	1⅜ x 2	4.5
CTM-2054	1000-500	10-6	1⅜ x 2	4.9
*CTM-2058	250-1000	10-10	1⅜ x 2	2.8
CTM-2062	200-40	15-15	1 x 2	2.0
*CTM-2066	1000-1000	15-15	1 x 3½	4.4
*CTM-2070	1000-1000	15-15	1⅜ x 2½	4.4
CTM-2074	250-250	16-16	1 x 2	3.4
CTM-2078	500-100	16-16	1 x 2	3.9
CTM-2082	20-20	25-25	1 x 2	1.8
CTM-2086	40-40	25-25	1 x 2	2.0
*CTM-2090	100-70	25-25	1 x 2	1.8
CTM-2094	150-50	25-25	1 x 2	2.4
CTM-2098	500-500	25-25	1⅜ x 2	5.5
CTM-2101	1000-500	25-25	1⅜ x 2	6.8
*CTM-2106	50-50	50-50	1 x 2	1.7
CTM-2110	100-25	50-50	1 x 2	2.3
*CTM-2114	100-100	50-50	1 x 2	2.1
*CTM-2118	50-500	150-5	1 x 3	2.4
CTM-2122	40-20	150-25	1 x 2	2.1
CTM-2126	40-150	150-25	1 x 2	2.5

* Preferred Type

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-2130	50-150	150-25	1 x 2½	2.75
*CTM-2134	150-100	150-25	1⅜ x 2½	2.70
CTM-2138	40-20	150-50	1 x 2	2.55
*CTM-2142	150-50	150-50	1 x 3	2.80
*CTM-2146	150-100	150-50	1⅜ x 2½	3.25
CTM-2150	20-10	150-150	1 x 2	2.00
*CTM-2154	20-20	150-150	1 x 2	1.70
CTM-2158	30-15	150-150	1 x 2	2.20
CTM-2162	30-20	150-150	1 x 2	2.20
*CTM-2166	30-30	150-150	1 x 2	1.85
*CTM-2170	40-20	150-150	1 x 2	1.85
*CTM-2174	40-30	150-150	1 x 2	1.85
*CTM-2178	40-40	150-150	1 x 2½	1.90
*CTM-2182	50-30	150-150	1 x 2½	2.00
*CTM-2186	50-50	150-150	1 x 2½	2.15
CTM-2190	60-20	150-150	1 x 2	2.50
*CTM-2194	60-60	150-150	1 x 3½	2.35
*CTM-2198	70-30	150-150	1 x 2½	2.20
*CTM-2202	75-75	150-150	1 x 3	2.60
*CTM-2206	80-40	150-150	1⅜ x 2½	2.30
*CTM-2210	80-50	150-150	1 x 2½	2.40
CTM-2214	80-60	150-150	1 x 3	3.00
*CTM-2218	80-80	150-150	1⅜ x 2	2.65
*CTM-2222	100-30	150-150	1 x 2½	2.80
CTM-2226	100-100	150-150	1⅜ x 2½	4.05
*CTM-2230	125-100	150-150	1⅜ x 2½	3.35
*CTM-2234	150-80	150-150	1⅜ x 2½	3.05
CTM-2238	150-150	150-150	1⅜ x 3	4.40
*CTM-2242	200-5	150-150	1⅜ x 2½	2.70
*CTM-2246	200-125	150-150	1⅜ x 3½	3.75
*CTM-2250	200-150	150-150	1⅜ x 4	3.75
*CTM-2254	200-200	150-150	1⅜ x 4	4.00
CTM-2258	60-125	200-25	1 x 3	3.00
CTM-2262	30-10	200-50	1 x 2	2.30
CTM-2266	100-100	200-50	1⅜ x 2½	3.55
CTM-2270	40-40	200-200	1 x 3	2.90
*CTM-2274	60-60	200-200	1 x 3	3.40
*CTM-2278	60-60	200-200	1⅜ x 2	3.40
*CTM-2282	100-100	200-200	1⅜ x 3	3.50
*CTM-2286	200-5	200-200	1⅜ x 2½	2.80
CTM-2290	40-350	250-15	1⅜ x 2	3.45
CTM-2294	40-25	250-25	1 x 2½	2.50
CTM-2298	50-100	250-50	1⅜ x 2	3.25
CTM-2302	80-100	250-50	1⅜ x 2½	3.55
*CTM-2306	100-150	250-50	1⅜ x 3	3.65
CTM-2310	40-25	250-150	1 x 2½	3.45
CTM-2314	10-10	250-250	1 x 2	2.15
*CTM-2318	20-20	250-250	1 x 2	1.90
CTM-2322	30-30	250-250	1 x 2½	2.75
CTM-2326	40-20	250-250	1 x 3	2.75
*CTM-2330	40-40	250-250	1 x 2	2.50
CTM-2334	150-40	250-250	1⅜ x 3	4.80
*CTM-2338	150-150	250-250	1⅜ x 4	5.15
*CTM-2342	200-200	250-250	1⅜ x 4	6.05
*CTM-2346	35-500	300-6	1 x 2½	2.80
CTM-2350	20-20	300-25	1 x 2	2.30
CTM-2354	20-100	300-25	1 x 2½	3.40
*CTM-2358	10-40	300-50	1 x 2	1.70
CTM-2362	80-100	300-50	1⅜ x 3	3.95
CTM-2366	60-200	300-150	1⅜ x 3	4.65
CTM-2370	80-100	300-150	1⅜ x 2½	4.55
CTM-2374	60-10	300-200	1 x 3½	3,15
CTM-2378	100-100	300-200	1 x 4	4.25
CTM-2382	20-60	300-250	1 x 3½	3.45
CTM-2386	10-10	300-300	1 x 2	2.20
CTM-2390	15-15	300-300	1 x 2	2.40
*CTM-2394	40-30	300-300	1 x 3	2.65
CTM-2398	40-40	300-300	1⅜ x 2½	3.75
CTM-2402	50-50	300-300	1⅜ x 2½	4.20
CTM-2406	60-20	300-300	1⅜ x 2½	3.50
CTM-2410	60-60	300-300	1⅜ x 2½	4.25
CTM-2414	75-75	300-300	1⅜ x 3	4.75
CTM-2418	80-40	300-300	1⅜ x 2½	4.45
CTM-2422	80-60	300-300	1⅜ x 3½	4.65
*CTM-2426	80-80	300-300	1⅜ x 3	4.05
*CTM-2430	120-20	300-300	1⅜ x 3½	4.00
*CTM-2434	120-40	300-300	1⅜ x 3½	4.35
CTM-2438	150-100	300-300	1⅜ x 3½	6.75
*CTM-2442	200-80	300-300	1⅜ x 4	5.25
CTM-2446	20-20	350-25	1 x 2	2.40
CTM-2450	40-20	350-25	1 x 2½	2.95
CTM-2454	80-100	350-50	1⅜ x 3	5.65
CTM-2458	20-100	350-75	1 x 2½	2.80
CTM-2462	5-75	350-150	1 x 2½	2.65
CTM-2466	40-10	350-200	1⅜ x 2	3.05
CTM-2470	20-30	350-250	1 x 3	2.90
CTM-2474	40-10	350-250	1 x 3	3.05
CTM-2478	60-80	350-250	1⅜ x 3½	4.30
CTM-2482	20-10	350-300	1 x 2	2.55
CTM-2486	30-30	350-300	1 x 3½	3.30
CTM-2490	60-20	350-300	1⅜ x 2½	3.55
*CTM-2494	15-15	350-350	1 x 2	2.25
CTM-2498	20-20	350-350	1 x 3	2.90
CTM-2502	30-20	350-350	1 x 3½	3.25
*CTM-2506	30-30	350-350	1 x 3	2.90
*CTM-2510	50-30	350-350	1⅜ x 2½	3.15
*CTM-2514	60-30	350-350	1⅜ x 3	3.15
CTM-2518	80-4	350-350	1⅜ x 2½	4.00
*CTM-2522	80-20	350-350	1⅜ x 3	3.50
*CTM-2526	80-40	350-350	1⅜ x 3	4.10
*CTM-2530	80-80	350-350	1⅜ x 4	4.70
*CTM-2534	90-40	350-350	1⅜ x 3	4.30
CTM-2538	100-40	350-350	1⅜ x 3	5.75
*CTM-2542	100-60	350-350	1⅜ x 3½	4.80
*CTM-2546	100-100	350-350	1⅜ x 4	6.15
*CTM-2550	160-10	350-350	1⅜ x 3	4.30
CTM-2554	50-50	385-385	1⅜ x 3	4.55
*CTM-2558	35-100	400-50	1 x 3	2.60
CTM-2562	40-100	400-50	1⅜ x 2	3.40
*CTM-2566	100-30	400-50	1⅜ x 3	3.90
*CTM-2570	80-80	400-200	1⅜ x 3½	3.95
CTM-2574	60-80	400-250	1⅜ x 4	4.90
CTM-2578	4-140	400-300	1⅜ x 3	3.60
CTM-2582	100-80	400-350	1⅜ x 4	6.80
CTM-2586	15-15	400-400	1 x 2½	2.80
CTM-2590	30-10	400-400	1 x 3	2.95
CTM-2594	60-60	400-400	1⅜ x 4	5.50
CTM-2598	75-75	400-400	1⅜ x 4	6.05
CTM-2602	80-10	400-400	1⅜ x 3½	4.25
CTM-2606	80-20	400-400	1⅜ x 3	4.55
CTM-2610	80-40	400-400	1⅜ x 4	5.15
*CTM-2614	80-60	400-400	1⅜ x 3	4.70
*CTM-2618	120-40	400-400	1⅜ x 4	5.25
CTM-2622	10-20	450-25	1 x 2	1.70
CTM-2626	10-50	450-25	1 x 2½	2.15
CTM-2630	20-20	450-25	1 x 2	2.50
CTM-2634	20-100	450-25	1 x 2½	2.75
CTM-2638	40-20	450-25	1 x 3	3.05
CTM-2642	80-10	450-25	1⅜ x 3	4.25
CTM-2646	80-20	450-25	1⅜ x 3	4.25
CTM-2650	10-100	450-50	1 x 2½	2.55
CTM-2654	30-25	450-50	1 x 2½	2.90
CTM-2658	40-50	450-50	1 x 3½	3.75
*CTM-2662	40-100	450-50	1 x 3½	2.80
*CTM-2666	50-100	450-50	1⅜ x 2½	3.00
*CTM-2668	80-50	450-50	1⅜ x 3	3.50
CTM-2670	80-100	450-50	1⅜ x 3	3.75
CTM-2674	10-50	450-100	1⅜ x 2	2.55
CTM-2678	20-100	450-100	1⅜ x 2	3.65
CTM-2682	30-40	450-150	1⅜ x 2	3.65
*CTM-2686	30-200	450-150	1⅜ x 3	3.50
CTM-2690	40-150	450-150	1⅜ x 3	4.30
CTM-2694	80-50	450-150	1⅜ x 3	4.70
CTM-2698	80-60	450-150	1⅜ x 3½	5.20
CTM-2702	80-40	450-200	1⅜ x 3	4.75
*CTM-2706	20-50	450-250	1 x 3	2.80
CTM-2710	20-150	450-250	1⅜ x 3	4.80
CTM-2714	40-10	450-300	1 x 3	2.60
CTM-2718	10-100	450-350	1⅜ x 3½	5.00
CTM-2722	20-80	450-350	1⅜ x 3½	4.55
CTM-2726	25-15	450-350	1 x 3	3.20
*CTM-2730	40-10	450-350	1⅜ x 2	2.60
CTM-2734	40-20	450-350	1⅜ x 2½	3.55
CTM-2738	40-40	450-350	1⅜ x 3	4.15
CTM-2742	30-20	450-400	1 x 3	3.40
*CTM-2746	5-5	450-450	1 x 2	1.70
*CTM-2750	10-10	450-450	1 x 2	1.90
CTM-2754	15-10	450-450	1 x 2½	2.80
*CTM-2758	15-15	450-450	1 x 2½	2.25
*CTM-2762	20-10	450-450	1 x 2½	2.25
*CTM-2766	20-20	450-450	1 x 3	2.55
*CTM-2770	30-10	450-450	1 x 3	2.40
CTM-2774	30-10	450-450	1⅜ x 2	3.00
CTM-2778	30-15	450-450	1⅜ x 2	3.30
*CTM-2782	30-30	450-450	1⅜ x 2½	3.05
CTM-2786	40-5	450-450	1 x 3	3.20
CTM-2790	40-15	450-450	1⅜ x 2½	3.50
*CTM-2794	40-20	450-450	1⅜ x 2½	3.25
*CTM-2798	40-40	450-450	1⅜ x 3	3.45
CTM-2802	50-40	450-450	1⅜ x 3	4.50
*CTM-2806	50-50	450-450	1⅜ x 3	3.85
*CTM-2810	60-20	450-450	1⅜ x 3	3.55
*CTM-2814	60-40	450-450	1⅜ x 3½	3.95
*CTM-2818	60-60	450-450	1⅜ x 3½	4.50
*CTM-2822	80-10	450-450	1⅜ x 3	3.60
*CTM-2826	80-20	450-450	1⅜ x 3	3.90
*CTM-2830	80-30	450-450	1⅜ x 4	4.20
*CTM-2834	80-40	450-450	1⅜ x 3½	5.05
*CTM-2838	80-80	450-450	1⅜ x 4½	6.60
*CTM-2842	100-40	450-450	1⅜ x 4	4.85

* Preferred Type

40% Discount Applies To The Above Prices

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-2846	10-20	475-25	1 x 2	2.15
CTM-2850	30-100	475-50	1⅜ x 3½	3.40
CTM-2854	75-50	475-50	1⅜ x 3	4.55
CTM-2858	40-80	475-200	1⅜ x 2½	4.55
CTM-2862	80-80	475-250	1⅜ x 4	4.65
CTM-2866	20-100	475-300	1⅜ x 3½	4.95
*CTM-2870	20-100	475-400	1⅜ x 4	4.50
CTM-2874	40-40	475-400	1⅜ x 3	4.70
*CTM-2878	15-15	475-475	1 x 2½	2.35
*CTM-2882	30-10	475-475	1 x 3	2.60
*CTM-2886	40-10	475-475	1⅜ x 2½	3.10
CTM-2890	40-40	475-475	1⅜ x 3	5.40
CTM-2894	60-40	475-475	1⅜ x 4	5.70
CTM-2898	80-40	475-475	1⅜ x 4	6.30
*CTM-2902	80-50	475-475	1⅜ x 4	5.20
CTM-2906	80-50	500-50	1⅜ x 3½	4.75
CTM-2910	60-80	500-150	1⅜ x 3	4.70
CTM-2914	40-50	500-200	1⅜ x 3	4.20
CTM-2918	15-20	500-300	1 x 2½	2.90
CTM-2922	20-100	500-300	1⅜ x 3	4.90
CTM-2926	40-40	500-400	1⅜ x 3	4.70
CTM-2930	4-4	500-500	1 x 2½	2.15
*CTM-2934	10-10	500-500	1 x 2½	1.95
*CTM-2938	20-20	500-500	1⅜ x 2½	2.85
*CTM-2942	30-10	500-500	1⅜ x 3	2.60
*CTM-2946	30-30	500-500	1⅜ x 3	3.25
CTM-2950	40-25	500-500	1⅜ x 3	4.55
*CTM-2954	40-40	500-500	1⅜ x 3	4.30
*CTM-2958	60-40	500-500	1⅜ x 3½	4.60

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-3020	1500-1500-1500	3-3-3	1 x 3½	9.00
CTM-3022	200-200-30	10-10-10	1 x 2	3.40
CTM-3024	400-100-100	16-16-16	1 x 2	3.00
CTM-3026	500-100-100	16-16-16	1 x 2	3.50
CTM-3028	500-500-100	16-16-16	1 x 2	3.90
CTM-3030	40-500-500	25-10-10	1 x 2½	5.05
*CTM-3032	20-20-20	25-25-25	1 x 2	1.95
CTM-3034	40-40-40	25-25-25	1 x 2	3.20
CTM-3036	30-30-30	50-50-50	1 x 2	3.25
CTM-3038	20-250-100	150-15-15	1⅜ x 2	4.35
CTM-3040	40-25-130	150-25-15	1 x 3	4.95
CTM-3042	50-100-20	150-50-25	1 x 3	4.30
CTM-3044	100-50-25	150-50-25	1 x 3	4.50
*CTM-3046	15-15-1200	150-150-2	1 x 2	3.15
CTM-3048	30-20-100	150-150-6	1 x 2	3.60
CTM-3050	20-20-100	150-150-10	1 x 2	3.55
CTM-3052	20-20-250	150-150-10	1 x 2	3.90
CTM-3054	30-30-200	150-150-10	1 x 2	3.75
*CTM-3056	40-20-150	150-150-10	1 x 2	2.40
CTM-3058	40-20-200	150-150-10	1 x 2½	3.75
CTM-3060	40-20-250	150-150-10	1 x 2½	4.05
CTM-3062	40-40-100	150-150-10	1 x 2½	3.75
CTM-3064	40-40-250	150-150-10	1 x 2½	5.65
CTM-3066	50-30-100	150-150-10	1 x 2½	4.05
CTM-3068	80-20-200	150-150-10	1⅜ x 2	4.30
*CTM-3070	80-30-300	150-150-10	1⅜ x 2	3.15
CTM-3072	80-60-250	150-150-10	1 x 2½	4.80
CTM-3074	90-40-400	150-150-10	1⅜ x 2½	5.25
CTM-3076	100-20-200	150-150-10	1⅜ x 2½	4.95
*CTM-3078	100-80-200	150-150-10	1⅜ x 2½	3.60
CTM-3080	60-40-400	150-150-15	1⅜ x 2	4.80
CTM-3082	80-20-100	150-150-15	1⅜ x 2	4.20
CTM-3084	20-20-20	150-150-25	1 x 2	3.30
CTM-3086	20-20-200	150-150-25	1 x 3	3.90
CTM-3088	30-20-20	150-150-25	1 x 2	3.40
CTM-3090	30-30-20	150-150-25	1 x 2	3.45
*CTM-3092	40-20-20	150-150-25	1 x 2½	2.30
CTM-3094	40-20-100	150-150-25	1 x 2½	3.75
CTM-3096	40-20-200	150-150-25	1 x 2	2.70
*CTM-3098	40-40-20	150-150-25	1 x 2	2.40
*CTM-3100	40-40-200	150-150-25	1 x 3	2.80
*CTM-3102	40-40-250	150-150-25	1 x 3	3.15
*CTM-3104	50-30-20	150-150-25	1 x 2½	2.50
*CTM-3106	50-30-100	150-150-25	1 x 3	2.70
CTM-3108	50-30-200	150-150-25	1⅜ x 2	4.35
CTM-3110	50-30-300	150-150-25	1 x 3	5.10
CTM-3112	50-50-20	150-150-25	1 x 3	2.65
CTM-3114	50-50-200	150-150-25	1 x 3	4.60
CTM-3116	60-20-20	150-150-25	1 x 2	3.85
*CTM-3118	60-40-200	150-150-25	1 x 3	3.05
CTM-3120	60-60-100	150-150-25	1⅜ x 2	4.60
CTM-3122	80-20-20	150-150-25	1 x 3	4.00
CTM-3124	80-30-300	150-150-25	1⅜ x 2	5.50
*CTM-3126	80-40-20	150-150-25	1 x 2½	2.80
*CTM-3128	80-40-300	150-150-25	1⅜ x 2½	3.70
CTM-3130	120-60-20	150-150-25	1⅜ x 2½	5.05
CTM-3132	300-80-200	150-150-50	1⅜ x 4	4.95
CTM-3134	10-10-10	150-150-150	1 x 2	3.10
*CTM-3136	20-20-20	150-150-150	1 x 2	2.30
*CTM-3138	30-30-10	150-150-150	1 x 2	2.85
*CTM-3140	40-20-10	150-150-150	1 x 2	2.35
*CTM-3142	40-20-20	150-150-150	1 x 2	2.40
*CTM-3144	40-30-20	150-150-150	1 x 2	2.50
*CTM-3146	40-40-40	150-150-150	1 x 3½	2.60
CTM-3148	50-20-20	150-150-150	1 x 2½	3.85
*CTM-3150	50-40-10	150-150-150	1 x 2½	2.55
CTM-3152	50-50-10	150-150-150	1⅜ x 2	4.05
*CTM-3154	50-50-50	150-150-150	1 x 3	3.00
CTM-3156	50-50-50	150-150-150	1⅜ x 3	4.50
*CTM-3158	60-40-20	150-150-150	1 x 3	2.75
CTM-3160	60-40-30	150-150-150	1⅜ x 2	4.20
CTM-3162	60-50-50	150-150-150	1⅜ x 2	4.65
*CTM-3164	70-15-15	150-150-150	1 x 2½	2.70
*CTM-3166	70-40-40	150-150-150	1 x 3	4.05
CTM-3168	80-20-20	150-150-150	1 x 3½	4.20
*CTM-3170	80-30-10	150-150-150	1 x 3	2.75
*CTM-3172	80-40-20	150-150-150	1 x 3	2.90
CTM-3174	80-50-50	150-150-150	1 x 3	4.90
CTM-3176	80-80-80	150-150-150	1⅜ x 3	5.65
*CTM-3178	100-30-10	150-150-150	1 x 3	3.05
*CTM-3180	120-80-40	150-150-150	1⅜ x 3½	3.80
*CTM-3182	120-120-40	150-150-150	1⅜ x 3	4.05
CTM-3184	150-50-25	150-150-150	1⅜ x 3	5.40
*CTM-3186	200-100-60	150-150-150	1⅜ x 3½	4.55
CTM-3188	200-140-60	150-150-150	1⅜ x 4	6.70
*CTM-3190	200-150-150	150-150-150	1⅜ x 4	7.50
*CTM-3192	300-100-80	150-150-150	1⅜ x 4	7.75
CTM-3194	80-40-50	200-100-50	1⅜ x 2½	4.60
CTM-3196	40-40-20	200-150-25	1 x 3	3.90
*CTM-3198	60-200-140	200-150-150	1⅜ x 4	4.80
CTM-3200	20-20-20	200-200-25	1 x 2	3.45
CTM-3202	30-20-20	200-200-25	1 x 2	3.85
CTM-3204	30-20-40	200-200-25	1 x 2	3.85
*CTM-3206	60-5-20	200-200-50	1 x 2½	2.50
*CTM-3208	60-5-100	200-200-50	1 x 2½	2.90
*CTM-3210	80-10-20	200-200-50	1 x 3	2.80
CTM-3212	80-40-100	200-200-50	1⅜ x 3	5.25
CTM-3214	90-90-20	200-200-50	1⅜ x 3	5.70
CTM-3216	100-10-40	200-200-50	1⅜ x 2	4.75
*CTM-3218	30-20-40	200-200-150	1 x 2½	2.70
CTM-3220	20-20-20	200-200-200	1 x 2½	3.75
CTM-3222	30-20-20	200-200-200	1 x 2½	4.05
CTM-3224	40-40-20	200-200-200	1 x 2½	4.55
CTM-3226	50-30-30	200-200-200	1⅜ x 2	4.75
*CTM-3228	250-200-10	200-200-200	1⅜ x 4	6.70
CTM-3230	40-40-20	250-150-25	1⅜ x 2	4.05
*CTM-3232	80-40-50	250-150-50	1⅜ x 2½	2.35
CTM-3234	15-20-20	250-150-150	1 x 2	3.60
CTM-3236	60-40-20	250-200-25	1⅜ x 2	4.95
*CTM-3238	15-15-20	250-250-25	1 x 2	2.35
CTM-3240	20-15-20	250-250-25	1 x 2½	3.55
*CTM-3242	30-30-20	250-250-25	1 x 3	2.80
CTM-3244	60-60-25	250-250-25	1 x 3½	5.70
CTM-3246	70-70-20	250-250-50	1⅜ x 3	5.85
*CTM-3248	90-90-20	250-250-50	1⅜ x 3	4.60
CTM-3250	40-20-10	250-250-150	1⅜ x 2	4.15
CTM-3252	40-40-10	250-250-200	1⅜ x 2	4.45
CTM-3254	80-80-60	250-250-200	1⅜ x 3½	6.75
CTM-3256	15-15-10	250-250-250	1 x 2	3.70
CTM-3258	20-20-10	250-250-250	1 x 2	3.75
*CTM-3260	20-20-20	250-250-250	1 x 2	2.60
CTM-3262	30-15-10	250-250-250	1 x 2½	4.05
CTM-3264	30-15-15	250-250-250	1 x 2	4.15
CTM-3266	30-20-10	250-250-250	1 x 2	4.05
CTM-3268	40-20-10	250-250-250	1 x 2½	4.30
*CTM-3270	40-20-20	250-250-250	1 x 3½	2.90
*CTM-3272	80-10-10	250-250-250	1 x 3	3.20
*CTM-3274	80-80-60	250-250-250	1⅜ x 3	4.90
*CTM-3276	10-500-500	300-15-15	1⅜ x 2½	3.90
CTM-3278	20-10-10	300-75-25	1⅜ x 3	3.55
CTM-3280	100-60-20	300-150-25	1⅜ x 3	6.30
CTM-3282	140-200-100	300-150-50	1⅜ x 4	8.60
*CTM-3284	20-150-80	300-150-150	1⅜ x 3	3.95
*CTM-3286	60-200-30	300-150-150	1⅜ x 4	6.50
CTM-3288	100-150-30	300-150-150	1⅜ x 4	7.45
*CTM-3290	100-200-30	300-150-150	1⅜ x 4	5.20
*CTM-3292	100-200-60	300-150-150	1⅜ x 4	5.00
CTM-3294	20-80-10	300-250-200	1⅜ x 2½	5.20
CTM-3296	16-20-20	300-250-250	1 x 3	3.90
CTM-3298	40-80-40	300-250-250	1⅜ x 3	6.30
CTM-3300	60-30-30	300-250-250	1⅜ x 2½	5.65
*CTM-3302	100-60-20	300-250-250	1⅜ x 4	4.90
*CTM-3304	200-60-20	300-250-250	1⅜ x 4	5.50
CTM-3306	20-20-20	300-300-25	1 x 2½	4.15
CTM-3308	40-15-20	300-300-25	1 x 3	4.45

* Preferred Type

ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-3310	40-20-20	300-300-25	1⅜ x 2	4.65
CTM-3312	140-10-100	300-300-25	1⅜ x 3½	6.70
CTM-3314	30-30-25	300-300-50	1 x 3	4.35
*CTM-3316	100-10-60	300-300-50	1⅜ x 2½	4.05
CTM-3318	125-20-20	300-300-50	1⅜ x 3	6.70
CTM-3320	125-20-100	300-300-50	1⅜ x 3	7.35
CTM-3322	125-60-40	300-300-50	1⅜ x 4	7.35
*CTM-3324	140-100-60	300-300-50	1⅜ x 4	6.05
*CTM-3326	140-100-100	300-300-50	1⅜ x 4	8.40
*CTM-3328	200-20-10	300-300-100	1⅜ x 4	4.90
CTM-3330	40-40-20	300-300-150	1⅜ x 2	5.40
CTM-3332	140-10-200	300-300-150	1⅜ x 4	5.50
CTM-3334	10-10-15	300-300-250	1 x 2	3.70
*CTM-3336	10-10-10	300-300-300	1 x 2	2.40
*CTM-3338	60-20-10	300-300-300	1⅜ x 2	3.45
CTM-3340	80-20-10	300-300-300	1⅜ x 2½	5.70
*CTM-3342	80-40-40	300-300-300	1⅜ x 2½	4.75
CTM-3344	100-40-20	300-300-300	1⅜ x 3½	5.50
*CTM-3346	120-50-40	300-300-300	1⅜ x 4	5.85
*CTM-3348	150-100-10	300-300-300	1⅜ x 4	6.35
CTM-3350	160-60-20	300-300-300	1⅜ x 4	8.20
CTM-3352	200-140-20	300-300-300	1⅜ x 4	10.60
CTM-3354	30-25-100	350-25-6	1 x 2½	2.80
CTM-3356	5-100-40	350-25-25	1 x 2	3.50
CTM-3358	40-100-25	350-50-25	1⅜ x 2	4.80
CTM-3360	10-50-100	350-100-75	1 x 3	4.30
*CTM-3362	20-50-100	350-100-75	1 x 3	3.10
CTM-3364	10-10-250	350-150-15	1 x 2½	4.15
*CTM-3366	10-50-100	350-150-50	1 x 3½	2.85
CTM-3368	60-200-30	350-150-150	1⅜ x 4	4.40
CTM-3370	40-80-500	350-200-25	1⅜ x 3½	7.60
*CTM-3372	125-5-100	350-200-75	1⅜ x 3½	5.30
CTM-3374	50-10-500	350-250-5	1⅜ x 2½	5.55
CTM-3376	50-10-1000	350-250-5	1⅜ x 2½	6.10
CTM-3378	20-30-20	350-250-25	1 x 3	4.20
CTM-3380	30-20-100	350-250-50	1 x 3	4.90
CTM-3382	100-40-5	350-250-50	1⅜ x 2½	4.85
CTM-3384	30-20-10	350-250-250	1 x 3½	4.50
CTM-3386	10-80-25	350-300-25	1⅜ x 3	5.10
*CTM-3388	30-30-20	350-300-25	1 x 3	3.15
CTM-3390	30-50-20	350-300-25	1⅜ x 2½	5.40
CTM-3392	10-40-5	350-300-150	1 x 2½	4.30
CTM-3394	20-40-10	350-300-150	1 x 3½	4.75
CTM-3396	40-20-10	350-300-200	1⅜ x 2	4.95
CTM-3398	100-40-40	350-300-250	1⅜ x 3½	4.85
CTM-3400	10-10-1400	350-350-3	1⅜ x 3	4.90
*CTM-3402	15-10-20	350-350-25	1 x 2½	2.50
CTM-3404	15-15-20	350-350-25	1 x 2½	4.05
CTM-3406	20-5-30	350-350-25	1 x 2	3.70
*CTM-3408	20-5-100	350-350-25	1 x 3	2.60
*CTM-3410	20-10-20	350-350-25	1 x 2½	2.55
*CTM-3412	20-20-20	350-350-25	1 x 2½	2.80
CTM-3414	30-10-20	350-350-25	1 x 2½	4.60
*CTM-3416	30-20-20	350-350-25	1 x 2½	3.10
CTM-3418	30-20-40	350-350-25	1 x 3	4.75
*CTM-3420	30-30-20	350-350-25	1⅜ x 2	3.40
CTM-3422	40-5-30	350-350-25	1⅜ x 2	4.35
CTM-3424	40-40-50	350-350-25	1⅜ x 2½	5.65
CTM-3426	60-10-25	350-350-25	1⅜ x 2½	4.50
CTM-3428	90-40-50	350-350-25	1⅜ x 3½	7.35
CTM-3430	100-20-20	350-350-25	1⅜ x 3½	7.10
*CTM-3432	200-10-50	350-350-50	1⅜ x 4	5.25
CTM-3434	10-5-30	350-350-50	1 x 2	3.30
CTM-3436	10-5-150	350-350-50	1 x 3	4.05
*CTM-3438	20-5-150	350-350-50	1 x 3	2.95
CTM-3440	20-10-100	350-350-50	1⅜ x 2½	2.90
CTM-3442	70-40-50	350-350-50	1⅜ x 3½	6.50
CTM-3444	80-10-40	350-350-50	1⅜ x 3	5.70
CTM-3446	80-10-100	350-350-50	1⅜ x 3	6.15
CTM-3448	100-20-50	350-350-50	1⅜ x 3	6.95
CTM-3450	80-40-400	350-350-50	1⅜ x 4	5.65
CTM-3452	150-4-30	350-350-50	1⅜ x 3½	4.75
CTM-3454	30-20-100	350-350-75	1⅜ x 2½	6.00
CTM-3456	40-20-10	350-350-100	1⅜ x 2	4.30
CTM-3458	30-20-100	350-350-150	1⅜ x 2½	4.00
CTM-3460	40-20-10	350-350-150	1 x 3	4.80
CTM-3462	40-40-100	350-350-200	1⅜ x 4	7.45
*CTM-3464	80-40-100	350-350-200	1⅜ x 4	5.45
*CTM-3466	100-60-20	350-350-200	1⅜ x 4	5.50
*CTM-3468	20-10-5	350-350-250	1 x 2½	2.55
CTM-3470	30-10-20	350-350-250	1 x 3	4.60
CTM-3472	20-20-10	350-350-350	1 x 3	4.45
*CTM-3474	30-20-10	350-350-350	1 x 2½	3.25
CTM-3476	50-50-50	350-350-350	1⅜ x 3½	7.30
CTM-3478	60-20-10	350-350-350	1⅜ x 4	4.00
*CTM-3480	60-40-20	350-350-350	1⅜ x 4	4.25
CTM-3482	60-40-40	350-350-350	1⅜ x 4	7.05
*CTM-3484	60-50-50	350-350-350	1⅜ x 4	4.90
CTM-3486	80-40-40	350-350-350	1⅜ x 4	7.95
*CTM-3488	80-60-60	350-350-350	1⅜ x 4	5.55

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
*CTM-3490	90-40-20	350-350-350	1⅜ x 4	5.25
CTM-3492	100-20-20	350-350-350	1⅜ x 4	5.15
CTM-3494	100-40-10	350-350-350	1⅜ x 4	5.25
CTM-3496	100-100-10	350-350-350	1⅜ x 4	6.80
CTM-3498	120-40-40	350-350-350	1⅜ x 4	9.30
CTM-3500	140-140-20	350-350-350	1⅜ x 4	7.65
CTM-3502	20-50-50	400-10-10	1 x 2	3.55
CTM-3504	40-200-60	400-200-200	1⅜ x 4	8.30
CTM-3506	10-5-40	400-300-25	1 x 2	3.30
CTM-3508	60-40-20	400-300-25	1⅜ x 3½	6.30
CTM-3510	80-20-10	400-300-300	1⅜ x 3½	6.40
CTM-3512	10-50-30	400-350-25	1 x 3½	4.65
CTM-3514	100-10-200	400-350-25	1⅜ x 3	4.90
CTM-3516	80-20-100	400-350-50	1⅜ x 3½	6.75
CTM-3518	100-10-20	400-350-50	1⅜ x 3½	6.75
CTM-3520	20-15-10	400-350-350	1 x 3	4.45
CTM-3522	10-20-20	400-350-350	1 x 3	4.00
CTM-3524	15-15-40	400-400-25	1 x 3	4.20
*CTM-3526	20-20-20	400-400-25	1 x 3	2.85
CTM-3528	30-10-20	400-400-25	1 x 3	4.25
CTM-3530	20-10-40	400-400-50	1 x 3	4.00
CTM-3532	30-10-150	400-400-50	1⅜ x 2½	5.10
CTM-3534	80-40-100	400-400-50	1⅜ x 4	7.50
*CTM-3536	80-40-150	400-400-50	1⅜ x 4	5.25
*CTM-3538	100-10-20	400-400-50	1⅜ x 3½	4.50
CTM-3540	20-20-20	400-400-100	1 x 3	4.45
CTM-3542	20-10-10	400-400-350	1 x 3	4.05
CTM-3544	20-10-40	400-400-350	1 x 3	5.10
*CTM-3546	20-20-10	400-400-350	1 x 3	3.00
*CTM-3548	60-30-20	400-400-350	1⅜ x 3	4.55
*CTM-3550	80-20-10	400-400-350	1⅜ x 3	4.30
*CTM-3552	100-10-80	400-400-350	1⅜ x 4	6.10
CTM-3554	10-10-10	400-400-400	1 x 2½	2.40
CTM-3556	40-10-10	400-400-400	1 x 3	3.15
*CTM-3558	90-10-5	400-400-400	1⅜ x 3	4.40
CTM-3560	100-30-20	400-400-400	1⅜ x 4	8.25
CTM-3562	10-20-10	450-25 25	1 x 2	3.25
CTM-3564	30-20-20	450-25-25	1 x 3	4.15
CTM-3566	30-100-25	450-25-25	1⅜ x 2	4.45
CTM-3568	10-100-20	450-50-25	1 x 3	3.85
CTM-3570	80-100-20	350-50-50	1⅜ x 3	6.40
CTM-3572	10-50-100	450-150-25	1 x 3	4.15
*CTM-3574	40-40-130	450-150-50	1⅜ x 3	3.70
CTM-3576	40-50-100	450-150-50	1⅜ x 2½	5.50
*CTM-3578	10-50-100	450-150-75	1 x 3	3.25
CTM-3580	20-50-100	450-150-75	1⅜ x 2	5.10
CTM-3582	40-90-50	450-150-150	1⅜ x 3	4.00
CTM-3584	20-80-50	450-200-50	1⅜ x 2½	5.10
*CTM-3586	10-100-200	450-200-25	1 x 3½	3.60
*CTM-3588	10-100-100	450-200-50	1 x 3½	3.55
*CTM-3590	20-60-100	450-250-25	1⅜ x 2½	3.65
CTM-3592	10-60-60	450-250-250	1⅜ x 4	6.00
CTM-3594	10-80-80	450-250-250	1⅜ x 4	4.15
CTM-3596	20-40-10	450-250-250	1⅜ x 2	4.75
CTM-3598	20-60-40	450-250-250	1⅜ x 3	5.95
*CTM-3600	80-40-40	450-250-250	1⅜ x 4	4.80
*CTM-3602	10-40-10	450-300-150	1⅜ x 2	3.10
CTM-3604	30-10-10	450-300-150	1⅜ x 2	4.45
CTM-3606	5-80-40	450-300-300	1⅜ x 3	4.15
CTM-3608	10-100-20	450-300-300	1⅜ x 3	6.50
CTM-3610	20-15-10	450-300-300	1⅜ x 3	4.30
CTM-3612	10-10-20	450-350-25	1 x 2½	3.45
CTM-3614	10-10-50	450-350-25	1 x 3	3.60
*CTM-3616	30-15-40	450-350-25	1⅜ x 2	3.20
*CTM-3618	30-40-50	450-350-25	1 x 4	3.70
CTM-3620	20-80-100	450-350-50	1⅜ x 3½	6.75
CTM-3622	80-50-100	450-350-200	1⅜ x 4	5.85
CTM-3624	15-20-20	450-350-250	1⅜ x 2	4.45
CTM-3626	20-15-10	450-350-300	1 x 3	4.60
CTM-3628	40-50-50	450-350-300	1⅜ x 4	7.30
CTM-3630	20-15-15	450-350-350	1 x 3	4.90
*CTM-3632	20-40-10	450-350-350	1⅜ x 2½	3.50
*CTM-3634	20-80-10	450-350-350	1⅜ x 3	4.25
*CTM-3636	40-80-40	450-350-350	1⅜ x 3½	5.40
CTM-3638	50-80-10	450-350-350	1⅜ x 3½	7.35
CTM-3640	60-20-20	450-350-350	1⅜ x 3½	6.45
CTM-3642	60-40-20	450-350-350	1⅜ x 3½	6.90
CTM-3644	10-30-150	450-400-5	1 x 3	4.50
CTM-3646	30-50-40	450-400-25	1⅜ x 3	5.85
*CTM-3648	60-80-20	450-400-250	1⅜ x 4	5.45
CTM-3650	10-30-30	450-400-300	1⅜ x 2½	5.05
CTM-3652	10-30-40	450-400-300	1⅜ x 2½	5.50
CTM-3654	4-40-40	450-400-300	1⅜ x 2½	6.90
*CTM-3656	10-10-10	450-450-25	1 x 2½	2.40
*CTM-3658	10-10-20	450-450-25	1 x 2½	2.40
CTM-3660	15-15-20	450-450-25	1 x 3	4.05
*CTM-3662	15-15-40	450-450-25	1 x 2½	2.75
*CTM-3664	20-10-20	450-450-25	1 x 3	2.70
CTM-3666	20-15-20	450-450-25	1 x 3½	4.35
CTM-3668	20-20-20	450-450-25	1 x 3	3.05

* Preferred Type

40% Discount Applies To The Above Prices

© U.C.P., Inc.

ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-3670	30-30-20	450-450-25	1⅜ x 2½	3.55
CTM-3672	30-30-125	450-450-25	1⅜ x 3	3.95
CTM-3674	40-20-20	450-450-25	1⅜ x 2½	3.50
CTM-3676	40-40-20	450-450-25	1⅜ x 3	3.90
CTM-3678	40-40-40	450-450-25	1⅜ x 3	3.95
CTM-3680	80-10-125	450-450-25	1⅜ x 3½	4.45
CTM-3682	80-40-100	450-450-25	1⅜ x 4	5.05
CTM-3684	10-10-40	450-450-50	1 x 2½	2.50
CTM-3686	20-10-50	450-450-50	1 x 3	2.85
CTM-3688	20-20-100	450-450-50	1⅜ x 2½	5.25
CTM-3690	30-10-150	450-450-50	1⅜ x 2½	3.50
CTM-3692	30-15-150	450-450-50	1⅜ x 3	3.70
CTM-3694	30-30-40	450-450-50	1⅜ x 3	5.50
CTM-3696	35-25-150	450-450-50	1⅜ x 3	3.95
CTM-3698	40-10-40	450-450-50	1⅜ x 2½	4.90
CTM-3700	40-10-100	450-450-50	1⅜ x 3	4.30
CTM-3702	40-30-25	450-450-50	1⅜ x 2½	5.65
CTM-3704	40-40-100	450-450-50	1⅜ x 3½	4.30
CTM-3706	60-40-75	450-450-50	1⅜ x 4	4.65
CTM-3708	80-20-100	450-450-50	1⅜ x 4	4.80
CTM-3710	80-50-50	450-450-50	1⅜ x 4	7.80
CTM-3712	30-30-125	450-450-75	1⅜ x 3	6.75
CTM-3714	10-10-50	450-450-100	1⅜ x 2	4.00
CTM-3716	30-20-30	450-450-150	1⅜ x 2½	5.25
CTM-3718	40-40-40	450-450-150	1⅜ x 3½	4.15
CTM-3720	40-10-80	450-450-200	1⅜ x 3	3.90
CTM-3722	40-10-100	450-450-200	1⅜ x 3½	4.15
CTM-3724	40-40-60	450-450-200	1⅜ x 3½	4.45
CTM-3726	40-40-100	450-450-200	1⅜ x 4	4.95
CTM-3728	15-10-120	450-450-300	1⅜ x 3½	7.05
CTM-3730	15-15-10	450-450-300	1 x 3½	4.30
CTM-3732	15-5-15	450-450-350	1 x 3	4.30
CTM-3734	20-20-60	450-450-350	1⅜ x 3½	7.60
CTM-3736	40-10-10	450-450-350	1⅜ x 3	4.95
CTM-3738	40-40-60	450-450-350	1⅜ x 4	7.35
CTM-3740	40-40-80	450-450-350	1⅜ x 4	5.55
CTM-3742	50-5-50	450-450-350	1⅜ x 3½	4.25
CTM-3744	60-20-40	450-450-350	1⅜ x 4	7.35
CTM-3746	10-10-10	450-450-450	1 x 3	2.60
CTM-3748	15-15-10	450-450-450	1 x 3½	4.45
CTM-3750	15-15-15	450-450-450	1 x 3	3.10
CTM-3752	20-10-10	450-450-450	1 x 3	2.90
CTM-3754	20-20-20	450-450-450	1⅜ x 2½	3.60
CTM-3756	30-10-10	450-450-450	1⅜ x 2	3.15
CTM-3758	30-20-20	450-450-450	1⅜ x 3	3.85
CTM-3760	30-30-10	450-450-450	1⅜ x 3	5.65
CTM-3762	30-30-30	450-450-450	1⅜ x 3½	4.35
CTM-3764	40-10-10	450-450-450	1⅜ x 3	3.35
CTM-3766	40-30-20	450-450-450	1⅜ x 3	4.30
CTM-3768	40-40-10	450-450-450	1⅜ x 2½	4.15
CTM-3770	40-40-20	450-450-450	1⅜ x 3	4.45
CTM-3772	40-40-40	450-450-450	1⅜ x 3½	4.90
CTM-3774	50-30-30	450-450-450	1⅜ x 3½	7.15
CTM-3776	50-40-30	450-450-450	1⅜ x 3½	4.90
CTM-3778	60-10-10	450-450-450	1⅜ x 3	5.85
CTM-3780	60-20-20	450-450-450	1⅜ x 3	4.60
CTM-3782	60-30-10	450-450-450	1⅜ x 3	4.50
CTM-3784	60-40-20	450-450-450	1⅜ x 3½	5.00
CTM-3786	80-40-10	450-450-450	1⅜ x 4	7.60
CTM-3788	80-40-20	450-450-450	1⅜ x 4	5.40
CTM-3790	20-50-20	475-50-25	1 x 3	2.75
CTM-3792	80-80-50	475-150-50	1⅜ x 4	4.85
CTM-3794	10-100-40	475-200-50	1⅜ x 2½	5.05
CTM-3796	40-40-100	475-250-50	1⅜ x 3	6.45
CTM-3798	40-40-100	475-250-100	1⅜ x 3	6.15
CTM-3800	40-40-10	475-250-250	1⅜ x 3½	6.00
CTM-3802	20-20-40	475-300-25	1⅜ x 2	4.65
CTM-3804	40-40-100	475-300-50	1⅜ x 3½	6.75
CTM-3806	40-80-10	475-300-300	1⅜ x 3½	7.20
CTM-3808	10-100-25	475-350-25	1⅜ x 3	5.55
CTM-3810	10-4-100	475-350-50	1 x 2½	3.90
CTM-3812	20-10-5	475-350-150	1 x 2½	4.20
CTM-3814	10-4-40	475-350-250	1⅜ x 2	2.75
CTM-3816	20-20-10	475-350-350	1 x 3	4.80
CTM-3818	40-40-25	475-400-50	1⅜ x 3	6.45
CTM-3820	10-45-100	475-450-50	1⅜ x 3	5.50
CTM-3822	40-40-20	475-450-50	1⅜ x 3	6.60
*CTM-3824	10-40-100	475-450-200	1⅜ x 3	4.20
CTM-3826	40-20-20	475-450-450	1⅜ x 3	6.75
*CTM-3828	40-80-10	475-450-450	1⅜ x 4	5.50
CTM-3830	40-40-500	475-475-10	1⅜ x 3½	8.20
CTM-3832	10-10-5	475-475-25	1 x 2½	3.70
CTM-3834	10-10-100	475-475-25	1 x 3	4.00
CTM-3836	20-10-20	475-475-25	1 x 3	4.35
CTM-3838	10-10-150	475-475-50	1 x 3	4.50
CTM-3840	20-10-20	475-475-50	1 x 3	4.45
CTM-3842	20-10-100	475-475-50	1⅜ x 2	3.25
CTM-3844	25-10-20	475-475-50	1 x 3	4.45
*CTM-3846	20-10-100	475-475-400	1⅜ x 4	5.25
CTM-3848	20-20-60	475-475-400	1⅜ x 3½	7.20

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
*CTM-3850	20-20-60	475-475-450	1⅜ x 4	4.85
CTM-3852	10-10-10	475-475-475	1 x 3	4.05
CTM-3854	30-30-10	475-475-475	1⅜ x 3	6.00
CTM-3856	30-30-20	475-475-475	1⅜ x 3	4.45
CTM-3858	40-10-10	475-475-475	1⅜ x 3	5.80
CTM-3860	40-20-20	475-475-475	1⅜ x 3	7.15
*CTM-3862	40-30-10	475-475-475	1⅜ x 3	4.50
*CTM-3864	40-30-30	475-475-475	1⅜ x 4	5.15
CTM-3866	40-35-10	475-475-475	1⅜ x 3	6.85
CTM-3868	10-80-10	500-150-150	1 x 3½	4.30
CTM-3870	10-100-40	500-200-50	1⅜ x 2½	5.05
CTM-3872	40-40-100	500-250-50	1⅜ x 3	6.45
CTM-3874	20-20-40	500-300-25	1⅜ x 2	4.65
CTM-3876	20-40-100	500-300-25	1⅜ x 2½	5.40
CTM-3878	5-100-200	500-300-150	1⅜ x 4	7.75
CTM-3880	40-40-25	500-400-50	1⅜ x 3	6.45
CTM-3882	20-40-100	500-450-25	1⅜ x 3	5.70
CTM-3884	80-20-100	500-450-50	1⅜ x 4	7.65
CTM-3886	10-40-40	500-450-450	1⅜ x 3½	6.25
CTM-3888	30-20-20	500-500-25	1⅜ x 2½	5.35
CTM-3890	10-10-100	500-500-50	1 x 3½	4.30
*CTM-3892	20-10-100	500-500-50	1 x 4	3.30
CTM-3894	30-10-20	500-500-50	1⅜ x 2½	4.65
*CTM-3896	40-40-100	500-500-200	1⅜ x 4	5.80
CTM-3898	10-10-5	500-500-350	1 x 2½	3.75
*CTM-3900	20-20-60	500-500-400	1⅜ x 3½	4.80
*CTM-3902	10-10-10	500-500-500	1 x 3	2.70
CTM-3904	30-20-20	500-500-500	1⅜ x 3	4.20
*CTM-3906	40-10-10	500-500-500	1⅜ x 3	3.90
*CTM-3908	40-40-10	500-500-500	1⅜ x 3½	5.05

QUADRUPLE UNITS

CTM-4020	40-40-40-40	25-25-25-25	1⅜ x 2	4.15
CTM-4022	5-5-25-100	75-75-25-15	1⅜ x 2	4.00
*CTM-4025	50-20-150-30	150-150-15-15	1⅜ x 2	3.15
CTM-4028	40-40-50-200	150-150-25-10	1⅜ x 2	4.75
*CTM-4031	20-20-160-40	150-150-25-25	1⅜ x 2	3.20
CTM-4034	40-40-100-100	150-150-25-25	1⅜ x 2	5.05
CTM-4037	40-40-200-100	150-150-25-25	1⅜ x 2	5.35
*CTM-4040	50-40-160-40	150-150-25-25	1⅜ x 2	3.55
CTM-4043	80-20-160-40	150-150-25-25	1⅜ x 2	5.55
CTM-4047	80-30-100-40	150-150-25-25	1⅜ x 2	5.20
CTM-4050	40-40-100-100	150-150-50-50	1⅜ x 2	5.55
CTM-4052	30-20-20-200	150-150-150-10	1⅜ x 2	4.65
*CTM-4055	40-40-20-200	150-150-150-10	1⅜ x 2	3.20
CTM-4058	50-30-25-200	150-150-150-10	1⅜ x 2	5.05
*CTM-4061	60-40-20-200	150-150-150-10	1⅜ x 2	3.45
CTM-4064	80-80-10-200	150-150-150-10	1⅜ x 2½	5.85
*CTM-4067	200-30-10-100	150-150-150-10	1⅜ x 3½	4.10
*CTM-4070	290-30-10-100	150-150-150-10	1⅜ x 3½	4.50
CTM-4073	60-20-20-1000	150-150-150-15	1⅜ x 2½	7.00
CTM-4076	20-20-20-20	150-150-150-25	1⅜ x 2	4.35
CTM-4079	30-20-20-100	150-150-150-25	1⅜ x 2	4.75
*CTM-4082	30-30-30-40	150-150-150-25	1⅜ x 2	3.10
*CTM-4085	40-20-20-20	150-150-150-25	1⅜ x 2	2.95
CTM-4088	40-30-20-100	150-150-150-25	1⅜ x 2	4.80
*CTM-4092	40-40-30-20	150-150-150-25	1⅜ x 2	3.10
CTM-4095	40-40-30-120	150-150-150-25	1⅜ x 2	5.25
*CTM-4098	40-40-40-20	150-150-150-25	1⅜ x 2	3.15
CTM-4101	40-40-40-100	150-150-150-25	1⅜ x 2	5.05
*CTM-4104	40-40-40-160	150-150-150-25	1⅜ x 2	3.55
*CTM-4107	50-20-20-200	150-150-150-25	1⅜ x 2	3.50
CTM-4110	50-30-30-100	150-150-150-25	1⅜ x 2	3.40
*CTM-4113	50-50-50-20	150-150-150-25	1⅜ x 2	3.55
CTM-4116	50-50-50-100	150-150-150-25	1⅜ x 2	5.65
CTM-4118	60-30-10-60	150-150-150-25	1⅜ x 2	4.60
CTM-4120	60-40-20-20	150-150-150-25	1⅜ x 2	4.95
CTM-4122	60-60-10-60	150-150-150-25	1⅜ x 2	5.25
CTM-4124	70-40-40-25	150-150-150-25	1⅜ x 2½	5.20
CTM-4126	80-40-30-100	150-150-150-25	1⅜ x 2½	5.55
*CTM-4128	80-40-40-20	150-150-150-25	1⅜ x 2	3.55
*CTM-4130	80-40-40-40	150-150-150-25	1⅜ x 2½	3.60
*CTM-4132	80-40-40-100	150-150-150-25	1⅜ x 2½	3.75
CTM-4134	80-50-50-25	150-150-150-25	1⅜ x 2½	5.70
CTM-4136	80-60-40-100	150-150-150-25	1⅜ x 2½	5.95
*CTM-4138	100-90-60-200	150-150-150-25	1⅜ x 3	4.95
CTM-4140	125-125-40-100	150-150-150-25	1⅜ x 3	7.45
CTM-4143	250-200-10-25	150-150-150-50	1⅜ x 4	5.35
*CTM-4146	200-200-100-10	150-150-150-75	1⅜ x 4	5.95
*CTM-4148	40-40-40-30	150-150-150-150	1⅜ x 2	3.30
CTM-4150	50-40-30-30	150-150-150-150	1⅜ x 2	5.10
CTM-4152	50-50-50-50	150-150-150-150	1⅜ x 2½	5.85
CTM-4154	80-50-20-20	150-150-150-150	1⅜ x 2½	5.55
*CTM-4156	100-80-60-40	150-150-150-150	1⅜ x 3	4.65
*CTM-4159	200-200-60-30	175-175-175-175	1⅜ x 4	5.55
*CTM-4163	250-200-10-10	175-175-150-150	1⅜ x 4	5.50
CTM-4165	40-20-10-20	200-200-200-25	1⅜ x 2	4.80

* Preferred Type

ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
CTM-4167	60-20-5-50	200-200-200-50	1⅜ x 3	5.25
CTM-4170	40-40-50-80	250-250-150-150	1⅜ x 2½	6.15
*CTM-4173	100-40-10-100	250-250-250-50	1⅜ x 3½	5.15
CTM-4176	80-60-40-20	250-250-250-150	1⅜ x 4	7.65
CTM-4178	40-40-20-20	250-250-250-250	1⅜ x 2½	6.00
CTM-4180	100-40-80-20	300-50-25-25	1⅜ x 3	6.85
*CTM-4183	20-150-150-100	300-150-150-30	1⅜ x 4	5.30
*CTM-4185	10-200-140-30	300-150-150-150	1⅜ x 3½	5.10
*CTM-4188	10-200-200-30	300-150-150-150	1⅜ x 4	5.35
*CTM-4190	100-60-10-20	300-200-150-50	1⅜ x 3½	4.85
CTM-4193	120-20-20-100	300-250-25-30	1⅜ x 3½	7.90
CTM-4195	200-20-100-20	300-250-50-25	1⅜ x 4	5.80
CTM-4198	40-40-40-40	300-250-250-25	1⅜ x 2½	6.60
CTM-4200	80-5-60-20	300-300-150-25	1⅜ x 3	4.35
CTM-4203	100-40-125-50	300-300-150-50	1⅜ x 4	9.30
*CTM-4205	140-10-10-100	300-300-150-50	1⅜ x 3½	5.05
*CTM-4208	100-10-200-30	300-300-150-150	1⅜ x 4	5.90
*CTM-4210	140-10-200-30	300-300-150-150	1⅜ x 4	6.25
*CTM-4213	140-10-200-60	300-300-150-150	1⅜ x 4½	6.40
*CTM-4215	150-20-10-250	300-300-250-50	1⅜ x 4	6.05
CTM-4218	10-10-10-20	300-300-300-25	1⅜ x 2	4.45
CTM-4220	40-30-20-50	300-300-300-25	1⅜ x 2½	6.25
*CTM-4223	60-40-20-50	300-300-300-25	1⅜ x 3½	4.70
CTM-4225	30-30-15-30	300-300-300-50	1⅜ x 3	5.50
CTM-4228	60-30-10-60	300-300-300-50	1⅜ x 2½	6.30
*CTM-4230	150-30-30-150	300-300-300-50	1⅜ x 4	6.10
*CTM-4233	40-40-40-20	300-300-300-150	1⅜ x 3	4.90
*CTM-4235	120-40-40-10	300-300-300-250	1⅜ x 4	6.30
*CTM-4238	40-20-10-10	300-300-300-300	1⅜ x 2	3.95
*CTM-4240	40-40-20-10	300-300-300-300	1⅜ x 3½	4.55
*CTM-4243	40-40-30-20	300-300-300-300	1⅜ x 3	4.85
*CTM-4245	60-40-10-10	300-300-300-300	1⅜ x 2½	4.55
*CTM-4248	100-40-20-20	300-300-300-300	1⅜ x 4	8.70
CTM-4250	100-50-10-5	300-300-300-300	1⅜ x 4	7.75
*CTM-4253	140-100-20-20	300-300-300-300	1⅜ x 4½	7.10
*CTM-4255	150-100-10-10	300-300-300-300	1⅜ x 4	6.65
CTM-4258	150-150-30-30	300-300-300-300	1⅜ x 4½	7.70
*CTM-4260	200-20-20-20	300-300-300-300	1⅜ x 4	6.15
CTM-4263	20-150-80-20	350-150-150-25	1⅜ x 3	6.85
CTM-4265	60-60-30-160	350-150-150-25	1⅜ x 3	6.85
CTM-4268	40-50-20-80	350-150-150-50	1⅜ x 3	6.10
CTM-4270	20-60-160-40	350-200-25-25	1⅜ x 2	6.00
CTM-4273	15-80-40-200	350-200-200-25	1⅜ x 3	6.75
CTM-4275	20-100-100-10	350-200-200-100	1⅜ x 4	7.50
CTM-4278	20-100-100-20	350-200-200-200	1⅜ x 4	7.75
CTM-4280	20-40-10-250	350-300-150-50	1⅜ x 3	6.90
CTM-4283	140-10-10-100	350-300-150-50	1⅜ x 4	5.75
*CTM-4285	20-150-10-250	350-300-150-50	1⅜ x 4	6.10
CTM-4288	40-40-20-20	350-300-300-25	1⅜ x 3½	6.75
*CTM-4290	160-30-30-20	350-300-300-50	1⅜ x 4	5.80
*CTM-4293	30-30-50-100	350-300-300-75	1⅜ x 3	5.25
CTM-4295	40-80-10-10	350-300-300-300	1⅜ x 3	5.35
*CTM-4298	140-100-20-20	350-300-300-300	1⅜ x 4½	7.70
*CTM-4300	160-30-10-4	350-300-300-300	1⅜ x 3½	6.05
*CTM-4303	160-60-10-4	350-300-300-300	1⅜ x 4	6.30
*CTM-4305	40-10-100-25	350-350-25-25	1⅜ x 2	3.75
*CTM-4308	60-4-100-40	350-350-25-25	1⅜ x 2½	3.80
CTM-4310	100-4-50-50	350-350-50-25	1⅜ x 3½	7.50
CTM-4313	200-10-4-20	350-350-50-25	1⅜ x 4	8.70
CTM-4315	60-5-50-20	350-350-50-50	1⅜ x 2½	3.65
CTM-4318	100-20-50-30	350-350-50-50	1⅜ x 3½	8.15
*CTM-4320	60-20-80-100	350-350-150-50	1⅜ x 4	4.90
CTM-4323	60-10-100-100	350-350-150-10	1⅜ x 4	6.00
*CTM-4325	100-60-100-100	350-350-150-10	1⅜ x 4½	6.80
CTM-4328	15-15-150-150	350-350-150-150	1⅜ x 3½	6.95
CTM-4330	40-20-10-20	350-350-200-25	1⅜ x 2	5.85
CTM-4333	40-20-100-10	350-350-200-50	1⅜ x 3	7.15
CTM-4335	80-20-20-100	350-350-200-50	1⅜ x 3½	7.50
CTM-4338	80-20-20-200	350-350-200-50	1⅜ x 3½	8.10
*CTM-4340	60-40-60-20	350-350-200-150	1⅜ x 3½	5.05
CTM-4343	80-60-60-10	350-350-200-150	1⅜ x 4	8.40
CTM-4345	50-30-8-20	350-350-250-200	1⅜ x 2½	6.75
CTM-4348	15-15-15-15	350-350-300-25	1⅜ x 2	5.20
CTM-4350	35-35-10-20	350-350-300-25	1⅜ x 2½	6.25
CTM-4353	100-80-10-20	350-350-300-50	1⅜ x 4	6.60
CTM-4355	100-60-40-40	350-350-300-75	1⅜ x 4	6.80
CTM-4358	10-10-10-10	350-350-300-300	1⅜ x 2	4.65
CTM-4360	10-10-10-20	350-350-350-25	1⅜ x 2	4.45
*CTM-4363	20-10-5-10	350-350-350-25	1⅜ x 2	3.10
*CTM-4365	30-10-5-200	350-350-350-25	1⅜ x 2	3.80
CTM-4368	30-20-20-20	350-350-350-25	1⅜ x 2½	6.15
CTM-4370	40-20-5-10	350-350-350-25	1⅜ x 2½	5.70
CTM-4373	40-20-20-25	350-350-350-25	1⅜ x 2½	6.40
CTM-4375	40-25-25-20	350-350-350-25	1⅜ x 3	7.00
*CTM-4378	40-40-20-20	350-350-350-25	1⅜ x 3	4.65
*CTM-4380	40-40-30-10	350-350-350-25	1⅜ x 3	4.95
*CTM-4383	40-40-40-40	350-350-350-25	1⅜ x 3	5.20
*CTM-4385	120-20-10-50	350-350-350-25	1⅜ x 3	5.60
CTM-4388	15-15-15-50	350-350-350-50	1⅜ x 2	5.65
CTM-4390	40-30-10-50	350-350-350-50	1⅜ x 3	6.60

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
*CTM-4393	40-40-40-150	350-350-350-50	1⅜ x 4	5.65
CTM-4395	50-40-20-100	350-350-350-50	1⅜ x 3	7.75
CTM-4398	50-40-40-160	350-350-350-50	1⅜ x 4	8.65
CTM-4400	60-25-25-100	350-350-350-50	1⅜ x 3½	7.75
*CTM-4403	60-30-30-150	350-350-350-50	1⅜ x 3	5.50
*CTM-4405	70-40-10-50	350-350-350-50	1⅜ x 3	5.25
*CTM-4408	100-10-10-20	350-350-350-50	1⅜ x 3½	5.15
*CTM-4410	100-20-10-20	350-350-350-50	1⅜ x 3½	5.40
*CTM-4413	100-40-30-50	350-350-350-50	1⅜ x 4	6.55
CTM-4415	140-20-10-100	350-350-350-50	1⅜ x 4	9.25
*CTM-4418	90-30-5-100	350-350-350-75	1⅜ x 3½	6.15
CTM-4420	80-60-40-20	350-350-350-150	1⅜ x 4	9.15
CTM-4424	20-10-5-60	350-350-350-200	1⅜ x 2½	5.55
CTM-4428	30-10-5-100	350-350-350-200	1⅜ x 2½	4.55
CTM-4432	30-20-5-100	350-350-350-200	1⅜ x 3	4.75
CTM-4439	80-40-10-100	350-350-350-200	1⅜ x 3½	7.40
CTM-4443	130-20-10-40	350-350-350-300	1⅜ x 4	9.85
CTM-4446	35-30-20-10	350-350-350-350	1⅜ x 3	6.90
*CTM-4449	40-20-20-10	350-350-350-350	1⅜ x 2½	4.35
CTM-4453	40-25-25-10	350-350-350-350	1⅜ x 2½	5.90
*CTM-4456	40-40-40-40	350-350-350-350	1⅜ x 4	6.00
*CTM-4459	80-60-40-20	350-350-350-350	1⅜ x 4	6.40
*CTM-4461	90-40-30-30	350-350-350-350	1⅜ x 4	6.85
CTM-4464	100-20-10-5	350-350-350-350	1⅜ x 3½	7.90
*CTM-4467	100-40-10-10	350-350-350-350	1⅜ x 3½	6.00
*CTM-4469	100-40-25-25	350-350-350-350	1⅜ x 4	6.55
CTM-4471	50-20-100-25	400-200-150-25	1⅜ x 2½	7.00
CTM-4473	20-20-10-40	400-250-250-25	1⅜ x 2½	5.00
*CTM-4475	40-120-10-150	400-250-250-50	1⅜ x 4	5.90
CTM-4477	10-100-10-100	400-300-75-25	1⅜ x 2½	7.00
CTM-4479	30-40-50-200	400-300-250-150	1⅜ x 4	9.00
CTM-4481	20-30-20-20	400-300-300-25	1⅜ x 2½	5.70
CTM-4483	80-40-20-10	400-300-300-300	1⅜ x 4	8.30
CTM-4485	20-40-100-10	400-350-50-50	1⅜ x 3	6.30
CTM-4487	20-10-10-20	400-350-200-25	1⅜ x 2	4.80
*CTM-4489	40-80-100-25	400-350-200-50	1⅜ x 3½	5.90
CTM-4491	40-10-80-10	400-350-250-250	1⅜ x 4	7.00
CTM-4493	80-40-20-20	400-350-300-300	1⅜ x 3½	6.40
CTM-4495	10-50-30-30	400-350-350-25	1⅜ x 3	6.60
CTM-4497	35-25-25-20	400-350-350-25	1⅜ x 2½	6.80
CTM-4499	80-40-10-10	400-350-350-25	1⅜ x 4	7.90
*CTM-4501	20-50-40-80	400-350-350-50	1⅜ x 3	5.00
CTM-4503	30-60-20-100	400-350-350-50	1⅜ x 4	7.50
CTM-4505	40-80-10-100	400-350-350-200	1⅜ x 4	8.50
CTM-4507	40-100-20-10	400-350-350-350	1⅜ x 4	6.50
CTM-4509	10-10-25-25	400-400-25-25	1⅜ x 2	4.20
CTM-4511	20-5-20-20	400-400-25-25	1⅜ x 2	4.60
CTM-4513	20-20-40-10	400-400-25-25	1⅜ x 2½	7.60
CTM-4515	50-25-100-20	400-400-50-25	1⅜ x 3	7.00
*CTM-4517	50-40-100-100	400-400-50-25	1⅜ x 4	5.10
CTM-4519	80-40-100-20	400-400-50-25	1⅜ x 4	8.40
*CTM-4521	100-10-30-20	400-400-50-50	1⅜ x 3½	5.10
CTM-4523	20-10-10-25	400-400-100-25	1⅜ x 2	4.60
*CTM-4525	20-20-100-100	400-400-100-100	1⅜ x 3	5.20
*CTM-4527	20-10-20-25	400-400-200-25	1⅜ x 2	3.30
CTM-4529	10-10-40-10	400-400-200-50	1⅜ x 2	4.80
CTM-4531	40-30-80-10	400-400-200-200	1⅜ x 3½	7.40
CTM-4533	80-10-80-100	400-400-250-50	1⅜ x 4	5.80
CTM-4535	40-10-80-10	400-400-250-250	1⅜ x 3½	7.00
CTM-4537	5-5-50-80	400-400-300-250	1⅜ x 3	7.00
*CTM-4539	50-20-20-25	400-400-350-25	1⅜ x 3	4.40
CTM-4541	60-40-40-10	400-400-350-50	1⅜ x 3½	8.60
CTM-4543	100-10-20-20	400-400-350-50	1⅜ x 4	5.40
CTM-4544	20-20-20-20	400-400-400-25	1⅜ x 2½	5.80
CTM-4545	60-30-30-150	400-400-400-25	1⅜ x 4	8.70
*CTM-4547	80-40-10-20	400-400-400-25	1⅜ x 4	5.30
*CTM-4549	80-40-30-40	400-400-400-25	1⅜ x 4	5.95
CTM-4551	90-40-10-40	400-400-400-25	1⅜ x 4	8.70
CTM-4553	40-40-40-150	400-400-400-50	1⅜ x 4	8.55
*CTM-4555	90-20-10-50	400-400-400-50	1⅜ x 4	5.40
CTM-4557	80-20-10-100	400-400-400-50	1⅜ x 4	7.90
*CTM-4559	80-40-30-4	400-400-400-350	1⅜ x 4	5.90
CTM-4561	30-30-20-20	400-400-400-400	1⅜ x 3	7.30
CTM-4563	40-35-10-10	400-400-400-400	1⅜ x 3	6.70
CTM-4565	50-40-30-20	400-400-400-400	1⅜ x 4	5.65
CTM-4567	80-10-10-10	400-400-400-400	1⅜ x 3½	7.05
*CTM-4569	80-25-10-10	400-400-400-400	1⅜ x 4	5.25
*CTM-4571	100-40-10-10	400-400-400-400	1⅜ x 4	6.10
CTM-4574	40-40-30-10	450-150-50-50	1⅜ x 3	5.65
CTM-4577	10-80-40-100	450-200-200-50	1⅜ x 3	6.40
*CTM-4579	20-80-20-50	450-200-200-50	1⅜ x 3	4.10
CTM-4582	60-40-10-80	450-250-150-50	1⅜ x 3½	7.20
CTM-4585	40-40-40-20	450-250-250-25	1⅜ x 3	6.70
*CTM-4588	60-80-40-20	450-250-250-150	1⅜ x 4	5.65
*CTM-4591	10-100-10-100	450-300-75-25	1⅜ x 3	4.75
CTM-4594	10-10-60-100	450-300-200-50	1⅜ x 3	5.70
CTM-4597	10-40-40-100	450-300-250-50	1⅜ x 3½	6.60
CTM-4600	30-40-50-200	450-300-250-150	1⅜ x 4	9.00
*CTM-4603	25-100-10-60	450-300-300-50	1⅜ x 3	5.30
*CTM-4606	40-40-40-20	450-300-300-150	1⅜ x 3	4.90

* Preferred Type

40% Discount Applies To The Above Prices

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ARCO electronics inc. — Arcolytic — TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price
*CTM-4609	10-100-20-20	450-300-300-200	1⅜ x 3	5.05
CTM-4612	10-100-20-20	450-300-300-300	1⅜ x 3	7.90
CTM-4615	10-40-80-10	450-350-200-200	1⅜ x 3½	7.05
*CTM-4618	10-40-100-100	450-350-250-50	1⅜ x 3	5.55
CTM-4621	40-30-15-50	450-350-300-50	1⅜ x 3	6.55
CTM-4624	10-140-20-10	450-350-300-300	1⅜ x 4	8.95
CTM-4627	10-100-10-20	450-350-350-25	1⅜ x 3	7.80
*CTM-4630	10-60-40-25	450-350-350-25	1⅜ x 4	4.60
CTM-4633	20-15-15-20	450-350-350-25	1⅜ x 2½	5.70
*CTM-4636	20-80-50-100	450-350-350-50	1⅜ x 4	6.00
CTM-4639	30-40-40-10	450-350-350-200	1⅜ x 3½	7.75
CTM-4642	80-10-30-40	450-400-300-150	1⅜ x 4	7.90
*CTM-4645	80-10-40-30	450-400-300-300	1⅜ x 4	5.80
CTM-4648	5-60-50-20	450-400-350-25	1⅜ x 3½	7.60
CTM-4651	10-40-30-40	450-400-400-25	1⅜ x 3	6.60
CTM-4654	80-40-10-150	450-400-400-50	1⅜ x 4	9.00
CTM-4657	10-40-40-100	450-400-400-50	1⅜ x 3½	7.30
CTM-4660	60-40-20-20	450-400-400-100	1⅜ x 4	8.70
CTM-4664	10-10-20-20	450-450-25-25	1⅜ x 2	4.45
CTM-4666	20-10-100-50	450-450-25-25	1⅜ x 2	5.35
*CTM-4669	20-15-20-20	450-450-25-25	1⅜ x 2	3.45
*CTM-4672	30-30-125-125	450-450-25-25	1⅜ x 3	4.85
CTM-4675	30-10-150-30	450-450-50-50	1⅜ x 3	6.15
*CTM-4678	20-20-60-100	450-450-150-25	1⅜ x 2½	4.25
*CTM-4681	40-40-125-125	450-450-150-25	1⅜ x 4	5.70
*CTM-4684	10-10-60-100	450-450-200-50	1⅜ x 3	3.85
*CTM-4687	35-25-20-100	450-450-200-50	1⅜ x 3	4.65
CTM-4690	40-40-100-60	450-450-200-200	1⅜ x 4	6.05
CTM-4693	10-10-10-50	450-450-300-25	1⅜ x 2	4.75
CTM-4696	40-40-10-50	450-450-300-50	1⅜ x 3½	7.05
CTM-4699	20-20-30-30	450-450-300-300	1⅜ x 3½	6.75
CTM-4702	20-5-50-20	450-450-350-25	1⅜ x 2½	6.85
CTM-4705	20-20-30-30	450-450-350-350	1⅜ x 3	7.60
CTM-4708	40-10-35-10	450-450-350-350	1⅜ x 3½	6.90
CTM-4710	40-20-80-10	450-450-350-350	1⅜ x 4	8.70
*CTM-4712	40-40-30-30	450-450-350-350	1⅜ x 4	5.90
*CTM-4714	10-10-10-20	450-450-450-25	1⅜ x 2	3.15
CTM-4716	10-10-10-100	450-450-450-25	1⅜ x 2	4.90
CTM-4718	15-10-10-20	450-450-450-25	1⅜ x 3	4.95
CTM-4720	20-10-10-100	450-450-450-25	1⅜ x 2	5.55
*CTM-4722	20-20-20-20	450-450-450-25	1⅜ x 2½	4.15
CTM-4724	30-15-15-40	450-450-450-25	1⅜ x 2½	6.25
CTM-4726	30-20-20-20	450-450-450-25	1⅜ x 3	6.60
CTM-4728	30-30-10-20	450-450-450-25	1⅜ x 3	6.55
*CTM-4730	30-30-10-125	450-450-450-25	1⅜ x 3	4.70
CTM-4732	30-30-20-20	450-450-450-25	1⅜ x 3	7.00
CTM-4734	40-10-10-250	450-450-450-25	1⅜ x 3	7.05
CTM-4736	40-15-10-25	450-450-450-25	1⅜ x 3	6.15
CTM-4738	40-20-10-20	450-450-450-25	1⅜ x 3	6.40
*CTM-4740	40-20-20-20	450-450-450-25	1⅜ x 3	4.60
*CTM-4742	40-20-20-40	450-450-450-25	1⅜ x 3	4.65
*CTM-4744	40-30-10-20	450-450-450-25	1⅜ x 3½	4.50
*CTM-4746	40-40-10-20	450-450-450-25	1⅜ x 3½	4.70
*CTM-4748	40-40-20-20	450-450-450-25	1⅜ x 3½	5.00
*CTM-4750	40-40-40-40	450-450-450-25	1⅜ x 3	5.50
CTM-4752	50-40-5-20	450-450-450-25	1⅜ x 3	7.20
*CTM-4754	60-40-40-10	450-450-450-25	1⅜ x 4	6.00
*CTM-4756	60-50-5-20	450-450-450-25	1⅜ x 4	5.35
*CTM-4758	80-40-40-40	450-450-450-25	1⅜ x 4	6.45
CTM-4760	10-10-10-150	450-450-450-25	1⅜ x 2½	5.55
*CTM-4762	20-20-20-100	450-450-450-25	1⅜ x 2½	4.55
*CTM-4764	30-30-15-30	450-450-450-25	1⅜ x 3	4.55
CTM-4766	30-30-15-100	450-450-450-25	1⅜ x 3½	7.35
*CTM-4768	40-20-10-100	450-450-450-25	1⅜ x 3½	4.60
*CTM-4770	40-40-10-25	450-450-450-25	1⅜ x 3	4.70
*CTM-4772	40-40-10-50	450-450-450-25	1⅜ x 4	4.80
*CTM-4774	60-40-10-25	450-450-450-25	1⅜ x 4	5.25
*CTM-4776	40-40-10-100	450-450-450-100	1⅜ x 3½	5.55
CTM-4778	10-10-10-10	450-450-450-150	1⅜ x 2	4.75
*CTM-4780	60-10-10-20	450-450-450-150	1⅜ x 3	4.55
CTM-4782	35-35-10-10	450-450-450-200	1⅜ x 3½	6.90
CTM-4785	40-10-10-100	450-450-450-200	1⅜ x 4	7.35
CTM-4788	40-40-30-10	450-450-450-200	1⅜ x 4	8.05
CTM-4790	30-10-10-10	450-450-450-250	1⅜ x 2½	5.80
CTM-4792	40-10-10-40	450-450-450-250	1⅜ x 3½	6.70
*CTM-4794	40-20-10-100	450-450-450-250	1⅜ x 4	5.85
CTM-4796	60-10-10-40	450-450-450-250	1⅜ x 3½	7.30
*CTM-4798	40-10-10-40	450-450-450-350	1⅜ x 3	4.75
CTM-4800	40-20-20-20	450-450-450-350	1⅜ x 3	7.50
CTM-4802	40-40-10-10	450-450-450-350	1⅜ x 3½	7.20
*CTM-4804	5-5-5-5	450-450-450-450	1⅜ x 2	3.00
*CTM-4806	10-10-10-10	450-450-450-450	1⅜ x 2	3.35
*CTM-4808	20-10-10-10	450-450-450-450	1⅜ x 2½	3.70
*CTM-4810	20-20-20-20	450-450-450-450	1⅜ x 3	4.70
CTM-4812	25-20-20-20	450-450-450-450	1⅜ x 3½	7.30
*CTM-4814	30-15-15-15	450-450-450-450	1⅜ x 3	4.45
CTM-4816	30-20-20-10	450-450-450-450	1⅜ x 3	6.90
CTM-4818	30-30-15-10	450-450-450-450	1⅜ x 3½	7.05
*CTM-4820	30-30-20-20	450-450-450-450	1⅜ x 3	5.20
CTM-4822	30-30-30-15	450-450-450-450	1⅜ x 4	7.95

Catalog No.	Capacity MF.	WVDC	Diam. x Length	List Price
*CTM-4824	35-35-10-5	450-450-450-450	1⅜ x 3½	4.60
*CTM-4826	40-10-10-10	450-450-450-450	1⅜ x 3	4.10
CTM-4828	40-20-20-10	450-450-450-450	1⅜ x 3	7.20
*CTM-4830	40-35-10-10	450-450-450-450	1⅜ x 3	4.80
*CTM-4832	40-40-4-4	450-450-450-450	1⅜ x 3½	4.65
*CTM-4834	40-40-20-20	450-450-450-450	1⅜ x 4	5.55
*CTM-4836	40-40-30-30	450-450-450-450	1⅜ x 4	6.05
*CTM-4838	40-40-40-40	450-450-450-450	1⅜ x 4	6.45
*CTM-4840	60-20-20-20	450-450-450-450	1⅜ x 4	5.65
*CTM-4842	60-30-10-2	450-450-450-450	1⅜ x 3	5.10
CTM-4844	70-10-10-5	450-450-450-450	1⅜ x 3	7.15
*CTM-4846	80-10-10-10	450-450-450-450	1⅜ x 4	5.05
*CTM-4848	40-40-50-80	475-250-150-50	1⅜ x 3½	5.00
*CTM-4850	20-40-100-80	475-300-50-25	1⅜ x 3	4.45
*CTM-4852	10-100-10-100	475-300-300-25	1⅜ x 3½	4.90
*CTM-4854	20-80-20-10	475-300-300-300	1⅜ x 3½	5.00
*CTM-4856	20-140-20-10	475-300-300-300	1⅜ x 4	6.00
CTM-4858	10-20-100-25	475-350-25-25	1⅜ x 2	3.45
CTM-4860	10-40-80-100	475-350-200-100	1⅜ x 3½	7.20
*CTM-4862	20-40-80-100	475-350-200-100	1⅜ x 4	5.45
*CTM-4864	10-40-80-100	475-350-300-100	1⅜ x 4	5.55
*CTM-4866	10-30-5-80	475-350-350-50	1⅜ x 2½	5.55
*CTM-4868	10-140-4-100	475-350-350-50	1⅜ x 4	5.85
*CTM-4870	10-130-20-10	475-350-350-350	1⅜ x 4	6.00
CTM-4872	20-60-40-10	475-350-350-350	1⅜ x 3½	7.80
*CTM-4874	30-130-10-10	475-350-350-350	1⅜ x 4	6.40
CTM-4876	10-40-100-10	475-400-50-25	1⅜ x 2½	6.00
*CTM-4878	10-40-4-100	475-400-350-50	1⅜ x 2½	4.05
*CTM-4880	10-80-40-100	475-400-400-50	1⅜ x 4	5.80
*CTM-4882	5-70-25-5	475-400-400-400	1⅜ x 3½	5.05
CTM-4884	10-10-80-50	475-450-200-60	1⅜ x 3	5.80
CTM-4886	25-20-20-100	475-450-300-50	1⅜ x 3	6.90
CTM-4888	25-20-40-100	475-450-300-50	1⅜ x 3½	7.45
*CTM-4890	10-60-30-125	475-450-400-50	1⅜ x 4	5.55
*CTM-4892	10-50-30-30	475-450-450-25	1⅜ x 3	4.75
*CTM-4894	10-40-10-100	475-450-450-50	1⅜ x 2½	4.30
*CTM-4896	15-15-80-40	475-475-300-50	1⅜ x 3	4.80
CTM-4898	50-30-20-20	475-475-300-300	1⅜ x 4	8.55
*CTM-4900	40-10-4-40	475-475-350-300	1⅜ x 3	4.95
CTM-4902	40-10-40-10	475-475-350-350	1⅜ x 3	5.50
*CTM-4904	20-10-20-100	475-475-450-25	1⅜ x 2½	4.20
CTM-4906	10-5-80-40	475-475-450-50	1⅜ x 3½	7.35
CTM-4908	30-30-10-20	475-475-475-25	1⅜ x 3	6.85
CTM-4910	40-20-10-10	475-475-475-25	1⅜ x 3	7.30
CTM-4912	80-30-10-20	475-475-475-25	1⅜ x 4	8.65
*CTM-4914	20-20-10-10	475-475-475-300	1⅜ x 2½	4.30
*CTM-4916	50-30-10-20	475-475-475-300	1⅜ x 3½	5.60
CTM-4918	10-10-10-10	475-475-475-475	1⅜ x 2	5.25
*CTM-4920	20-20-10-10	475-475-475-475	1⅜ x 2½	4.35
*CTM-4922	20-20-20-20	475-475-475-475	1⅜ x 3	5.10
CTM-4924	40-10-10-10	475-475-475-475	1⅜ x 3	7.00
*CTM-4926	40-20-10-10	475-475-475-475	1⅜ x 3	5.10
CTM-4928	10-10-4-20	500-300-300-25	1⅜ x 2	2.90
CTM-4930	10-100-30-100	500-300-300-25	1⅜ x 3½	7.80
CTM-4932	5-100-10-200	500-300-300-150	1⅜ x 4	8.80
CTM-4934	20-80-20-10	500-300-300-300	1⅜ x 3½	7.50
*CTM-4936	30-10-150-30	500-450-50-50	1⅜ x 3	4.20
*CTM-4938	10-10-10-10	500-500-500-500	1⅜ x 2	3.50
*CTM-4940	40-40-8-8	500-500-500-500	1⅜ x 4	5.70

INSULATING TUBES FOR TWIST MOUNT CAPACITORS

Cat. No.	CTM Dimensions	List Price
TMT	1 x 2	.10
TMT	1 x 2½	.10
TMT	1 x 3	.10
TMT	1 x 3½	.10
TMT	1 x 4	.10
TMT	1⅜ x 2	.10
TMT	1⅜ x 2½	.10
TMT	1⅜ x 3	.10
TMT	1⅜ x 3½	.10
TMT	1⅜ x 4	.10

BAKELITE MOUNTING PLATES FOR CTM CAPACITORS

BMP	1	.10
BMP	1⅜	.10

METAL MOUNTING PLATES FOR CTM CAPACITORS

MMP	1	.10
MMP	1⅜	.10

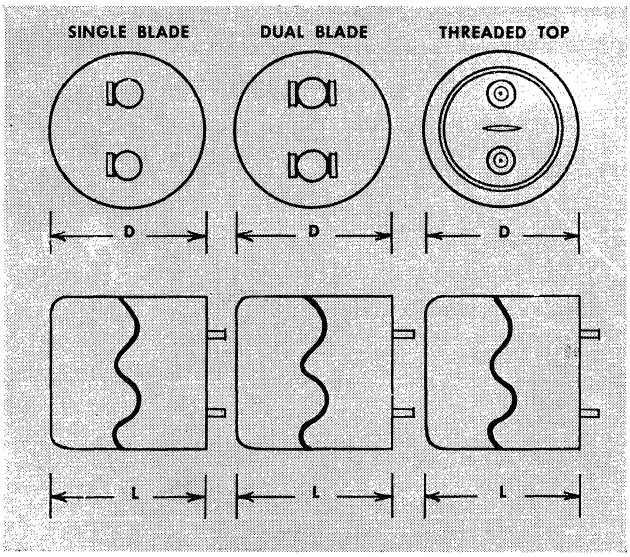
* Preferred Type

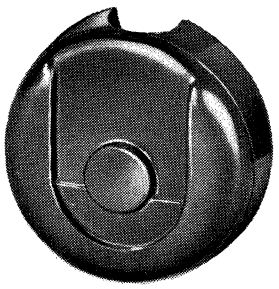
ARCO electronics inc.
Great Neck, New York
Branches: Dallas 7, Los Angeles 35

Arcolytic

TYPE CMB

MOTOR START A. C. ELECTROLYTIC CAPACITORS
in molded plastic case





DIMENSIONS IN INCHES

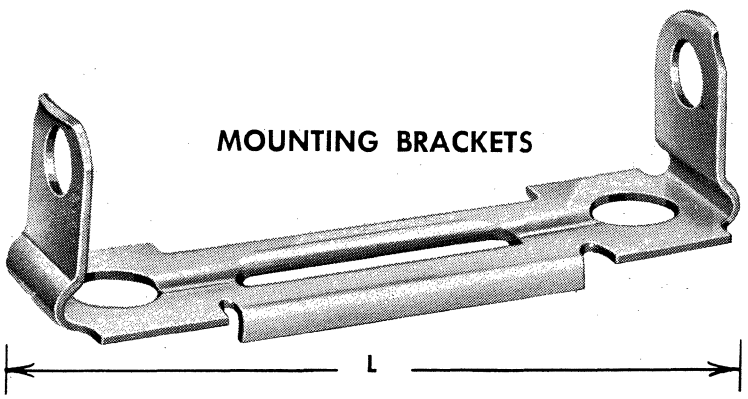
Case	D	L
A	1 7/16	2 3/4
B	1 7/16	3 3/8
C	1 13/16	3 3/8
D	1 13/16	4 3/8
E	2 1/16	4 3/8
F	2 9/16	4 3/8

END CAPS

Part No.	Diameter
AMC-1	1 7/16
AMC-2	1 13/16
AMC-3	2 1/16
AMC-4	2 9/16

Available in 3 Standard Sizes

Part No.	Length	Size of Capacitor
AMB-1	3 1/2	1 7/16 x 2 3/4
AMB-2	4 1/8	1 7/16 x 3 3/8 1 13/16 x 3 3/8
AMB-2	5 1/8	1 13/16 x 4 3/8 2 1/16 x 4 3/8 2 9/16 x 4 3/8



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ARCO electronics inc.
Great Neck, New York
Branches: Dallas 7, Los Angeles 35

Arcolytic

TYPE CMB

MOTOR START A. C. ELECTROLYTIC CAPACITORS in molded plastic case

GENERAL DESCRIPTION

ARCO Type CMB A.C. Motor Start Electrolytic Capacitors are designed to provide high capacitance under heavy current conditions for short, widely-spaced periods of time. The use of high purity aluminum foil and other premium ingredients combined with conservative design insures long term reliable service. Particular attention is paid to the assurance of permanence of capacitance setting during long periods of idleness, low power factor, and resistance to sudden voltage surges in excess of rated voltage. Type CMB capacitors exceed published N.E.M.A. specifications for this style component.

The shock-resistant molded phenolic case affords excellent physical and moisture protection. Accessory parts include snap-on mounting brackets and molded phenolic end caps for added protection against dirt and moisture. Three styles of terminal are available:

1. Single blade with eyelet (TYPE CMB)
2. Dual blade with eyelet to facilitate multiple connections. (TYPE CMBD)
3. Molded phenolic top with 10-32 threaded female terminals. TYPE CMBT)

SPECIFICATIONS

A.C. VOLTAGE RATINGS:
110, 125, 165, 220, 250, and 330 volts.
A momentary overload of 125% of rated voltage is allowed.

TEMPERATURE RANGE:
—30°C. to +65°C.
All specifications apply to operation at maximum 65°C. However, 85°C. operation can be reliably obtained with proper derating of either duty cycle, voltage, or both. It is the amount of heat generated while in operaton that governs reliability of this style capacitor. At —30°C. capacitance value is significantly lower and power factor higher. However, the heat generated upon application of A.C. voltage speedily restores these measurements to normal values for proper performance.

DUTY CYCLE:
At maximum rated voltage and temperature, it is recommended that there be no more than 20 starts per hour, evenly spaced, each no more than three seconds in duration.

POWER FACTOR:
Power factor will not exceed 10% when measured at a frequency of 60 cycles per second at 25°C.
All other operating and test characteristics conform to the current N.E.M.A. specifications covering A.C. electrolytic motor start capacitors.

STANDARD NEMA RATINGS

TYPE CMB

110 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-25	CMB-11-21	A
25-30	CMB-11-25	A
30-36	CMB-11-30	A
36-43	CMB-11-36	A
43-53	CMB-11-43	A
47-56	CMB-11-47	A
53-64	CMB-11-53	A
64-77	CMB-11-64	A
72-88	CMB-11-72	A
88-108	CMB-11-88	A
108-130	CMB-11-108	B
124-149	CMB-11-124	B
130-156	CMB-11-130	B
145-175	CMB-11-145	B
161-193	CMB-11-161	C
189-227	CMB-11-189	C
216-259	CMB-11-216	C
233-280	CMB-11-233	C
243-292	CMB-11-243	C
270-324	CMB-11-270	C
340-408	CMB-11-340	D
378-440	CMB-11-378	D
400-480	CMB-11-400	D
430-516	CMB-11-430	E
460-552	CMB-11-460	E
540-648	CMB-11-540	E
645-720	CMB-11-645	E
590-708	CMB-11-590	F
720-800	CMB-11-720	F

125 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-25	CMB-12-21	A
25-30	CMB-12-25	A
30-36	CMB-12-30	A
36-43	CMB-12-36	A
43-53	CMB-12-43	A
47-56	CMB-12-47	A
53-64	CMB-12-53	A
64-77	CMB-12-64	A
72-88	CMB-12-72	A
88-108	CMB-12-88	A
108-130	CMB-12-108	B
124-419	CMB-12-124	B
130-156	CMB-12-130	B
145-175	CMB-12-145	B
161-193	CMB-12-161	C
189-227	CMB-12-189	C
216-259	CMB-12-216	C
233-280	CMB-12-233	C
243-292	CMB-12-243	C
270-324	CMB-12-270	C
340-408	CMB-12-340	D
378-440	CMB-12-378	D
400-480	CMB-12-400	D
430-516	CMB-12-430	E
460-552	CMB-12-460	E
540-648	CMB-12-540	E
645-720	CMB-12-645	F
720-800	CMB-12-720	F

165 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-25	CMB-16-21	A
25-30	CMB-16-25	A
30-36	CMB-16-30	A
36-43	CMB-16-36	A
43-53	CMB-16-43	A
47-56	CMB-16-47	A
53-64	CMB-16-53	B
64-77	CMB-16-64	B
72-88	CMB-16-72	B
88-108	CMB-16-88	C
108-130	CMB-16-108	C
124-149	CMB-16-124	C
130-156	CMB-16-130	C
145-175	CMB-16-145	C
161-193	CMB-16-161	D
189-227	CMB-16-189	D
216-259	CMB-16-216	D
233-280	CMB-16-233	E
243-292	CMB-16-243	E
270-324	CMB-16-270	E
340-408	CMB-16-340	F
378-440	CMB-16-378	F
400-480	CMB-16-400	F

220 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-25	CMB-22-21	A
25-30	CMB-22-25	A
30-36	CMB-22-30	A
36-43	CMB-22-36	B
43-53	CMB-22-43	B
47-56	CMB-22-47	B
53-64	CMB-22-53	C
64-77	CMB-22-64	C
72-88	CMB-22-72	C
88-108	CMB-22-88	D
108-130	CMB-22-108	D
124-149	CMB-22-124	D
130-156	CMB-22-130	E
145-175	CMB-22-145	E
161-193	CMB-22-161	E
189-225	CMB-22-189	E

250 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-25	CMB-25-21	A
25-30	CMB-25-25	B
30-36	CMB-25-30	C
36-43	CMB-25-36	C
43-53	CMB-25-43	C
47-56	CMB-25-47	C
53-64	CMB-25-53	D
64-77	CMB-25-64	D
72-88	CMB-25-72	D
88-108	CMB-25-88	E
108-130	CMB-25-108	E
124-149	CMB-25-124	E
130-156	CMB-25-130	F
145-175	CMB-25-145	F
161-193	CMB-25-161	F
180-225	CMB-25-180	F

330 VOLTS A-C

MFD	CAT. NO.	CASE SIZE
21-35	CMB-33-21	C
25-30	CMB-33-25	C
30-36	CMB-33-30	C
36-43	CMB-33-36	C
43-53	CMB-33-43	D
47-56	CMB-33-47	D
53-64	CMB-33-53	D
64-77	CMB-33-64	E
72-88	CMB-33-72	F
88-108	CMB-33-88	F
108-130	CMB-33-108	F
124-149	CMB-33-124	F
135-155	CMB-33-135	F

NOTE: For dual blade construction, add "D" to designation letters. Example: CMBD
For molded phenolic top with female threaded 10-32nd terminals, add "T" to designation letters.

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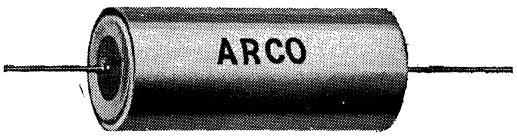
ARCO electronics inc.

GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

PLASTIC FILM CAPACITORS

TYPES PT, PJ

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.



SPECIFICATIONS:

DISSIPATION FACTOR: .02% max. at 25°C. .04% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads min. for 100DCW and 200VDCW units; 10^6 megohm-microfarads for 400-VDCW and higher ratings (at 25°C.)
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C. This specification may be tightened if required for specific values.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% ±¼% also available.

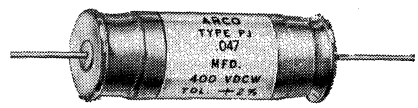
TYPE PT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
1PT-102J	.001	⅞ x .312	3.17
*1PT-202J	.002	⅞ x .312	3.17
1PT-222J	.0022	⅞ x .312	3.17
1PT-272J	.0027	⅞ x .312	3.17
*1PT-332J	.0033	⅞ x .312	3.17
1PT-392J	.0039	⅞ x .312	3.17
*1PT-472J	.0047	⅞ x .312	3.17
*1PT-502J	.005	⅞ x .312	3.17
*1PT-682J	.0068	⅞ x .312	3.17
1PT-822J	.0082	⅞ x .312	3.17
*1PT-103J	.01	⅞ x .312	3.17
1PT-123J	.012	⅞ x .312	3.19
*1PT-153J	.015	⅞ x .312	3.20
*1PT-203J	.02	⅞ x .312	3.22
*1PT-223J	.022	⅞ x .312	3.24
1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
1PT-823J	.082	1⅛ x .400	3.71
*1PT-104J	.1	1⅛ x .500	3.89
1PT-124J	.12	1⅛ x .500	4.10
*1PT-154J	.15	1⅞ x .500	4.38
*1PT-204J	.2	1⅞ x .500	4.90
*1PT-224J	.22	1⅞ x .500	5.04
1PT-274J	.27	1⅞ x .562	5.43
*1PT-334J	.33	1 13/16 x .562	5.85
1PT-394J	.39	1 13/16 x .562	6.30
1PT-474J	.47	1⅞ x .670	6.86
*1PT-504J	.5	1⅞ x .670	7.18
200 VDCW			
2PT-102J	.001	⅞ x .312	3.17
*2PT-202J	.002	⅞ x .312	3.17
2PT-222J	.0022	⅞ x .312	3.17
2PT-272J	.0027	⅞ x .312	3.17
*2PT-332J	.0033	⅞ x .312	3.17
2PT-392J	.0039	⅞ x .312	3.17
*2PT-472J	.0047	⅞ x .312	3.17
*2PT-502J	.005	⅞ x .312	3.17
*2PT-682J	.0068	⅞ x .312	3.17
2PT-822J	.0082	⅞ x .312	3.17
2PT-103J	.01	⅞ x .312	3.17
2PT-123J	.012	1 x .312	3.20
2PT-153J	.015	1 x .312	3.24
2PT-203J	.02	1 x .400	3.31
2PT-223J	.022	1 x .400	3.32
2PT-273J	.027	1 x .400	3.35
2PT-333J	.033	1⅛ x .400	3.40
2PT-393J	.039	1⅛ x .400	3.44
2PT-473J	.047	1⅛ x .400	3.50
2PT-503J	.05	1⅛ x .500	3.64
2PT-683J	.068	1⅞ x .500	3.99
2PT-823J	.082	1⅞ x .500	4.31
2PT-104J	.1	1⅞ x .500	4.66
2PT-124J	.12	1⅞ x .562	4.97
2PT-154J	.15	1⅞ x .562	5.43
2PT-204J	.2	1 13/16 x .562	6.16
2PT-224J	.22	1⅞ x .670	6.44
2PT-274J	.27	1⅞ x .670	7.11
2PT-334J	.33	1⅞ x .750	7.88
2PT-394J	.39	1 15/16 x 1.00	8.65
2PT-474J	.47	1 15/16 x 1.00	9.70
2PT-504J	.5	1 15/16 x 1.00	10.22
400 VDCW			
4PT-102J	.001	⅞ x .312	3.17
*4PT-202J	.002	⅞ x .312	3.17
4PT-222J	.0022	⅞ x .312	3.17
4PT-272J	.0027	⅞ x .312	3.11
*4PT-332J	.0033	⅞ x .312	3.17
4PT-392J	.0039	⅞ x .312	3.17
*4PT-472J	.0047	⅞ x .312	3.17
*4PT-502J	.005	⅞ x .312	3.17
*4PT-682J	.0068	⅞ x .312	3.22
4PT-822J	.0082	⅞ x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	1 x .400	3.48
*4PT-223J	.022	1 x .400	3.50
4PT-273J	.027	1⅛ x .400	3.57
*4PT-333J	.033	1⅛ x .400	3.68
4PT-393J	.039	1⅛ x .500	3.75
*4PT-473J	.047	1⅞ x .500	3.89
*4PT-503J	.05	1⅞ x .500	3.96
4PT-683J	.068	1 1/16 x .500	4.34
4PT-823J	.082	1⅞ x .562	4.65
*4PT-104J	.1	1 13/16 x .562	5.04
4PT-124J	.12	1 13/16 x .562	5.46
*4PT-154J	.15	1⅞ x .670	6.06
*4PT-204J	.2	1⅞ x .750	7.07
4PT-224J	.22	1⅞ x .750	7.42
4PT-274J	.27	1 15/16 x 1.00	8.30
*4PT-334J	.33	1 15/16 x 1.00	9.38
4PT-394J	.39	1 15/16 x 1.00	10.43
600 VDCW			
6PT-102J	.001	⅞ x .312	3.17
*6PT-202J	.002	⅞ x .312	3.17
6PT-222J	.0022	⅞ x .312	3.17
6PT-272J	.0027	⅞ x .312	3.17
*6PT-332J	.0033	⅞ x .312	3.19
6PT-392J	.0039	⅞ x .312	3.22
6PT-472J	.0047	⅞ x .312	3.27
*6PT-502J	.005	⅞ x .312	3.28
6PT-682J	.0068	⅞ x .312	3.33
6PT-822J	.0082	1 x .312	3.37
*6PT-103J	.01	1 x .400	3.41
6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	1⅛ x .400	3.68
6PT-223J	.022	1⅛ x .400	3.75
6PT-273J	.027	1⅛ x .500	3.89
6PT-333J	.033	1⅞ x .500	4.06
6PT-393J	.039	1⅞ x .500	4.17
6PT-473J	.047	1⅞ x .562	4.31
*6PT-503J	.05	1⅞ x .562	4.38
6PT-683J	.068	1 13/16 x .562	5.22
6PT-823J	.082	1⅞ x .670	5.60
*6PT-104J	.1	1⅞ x .750	6.09
6PT-124J	.12	1⅞ x .750	6.65
6PT-154J	.15	1 15/16 x .750	7.49
*6PT-204J	.2	1 15/16 x .750	8.58
6PT-224J	.22	1 15/16 x .750	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.
* The starred items are stock items available for immediate delivery.
NOTE: The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changed for different tolerances.

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
10PT-102J	.001	⅞ x .312	3.17
10PT-152J	.0015	⅞ x .312	3.17
10PT-202J	.002	⅞ x .312	3.17
10PT-222J	.0022	⅞ x .312	3.19
10PT-272J	.0027	⅞ x .312	3.21
10PT-332J	.0033	⅞ x .312	3.24
10PT-392J	.0039	⅞ x .312	3.27
10PT-472J	.0047	⅞ x .312	3.31
10PT-502J	.005	⅞ x .312	3.34
10PT-682J	.0068	1 x .312	3.40
10PT-822J	.0082	1 x .400	3.44
10PT-103J	.01	1 x .400	3.50
10PT-153J	.015	1⅛ x .400	3.68
10PT-203J	.02	1⅛ x .500	3.85
10PT-223J	.022	1⅞ x .500	3.92
10PT-273J	.027	1⅞ x .500	4.10
10PT-333J	.033	1⅞ x .500	4.27
10PT-393J	.039	1⅞ x .562	4.41
10PT-473J	.047	1 13/16 x .562	4.62
10PT-503J	.05	1⅞ x .670	4.69
10PT-683J	.068	1⅞ x .750	5.64
10PT-823J	.082	1 15/16 x 1.00	6.23
10PT-104J	.1	1 15/16 x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.



SPECIFICATIONS:

DISSIPATION FACTOR: .02% max. at 25°C. .04% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads at 25°C.
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% also available.

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
1PJ-102J	.001	11/16 x 9/32	1.49
*1PJ-202J	.002	11/16 x 9/32	1.49
1PJ-222J	.0022	11/16 x 9/32	1.49
1PJ-272J	.0027	11/16 x 9/32	1.49
*1PJ-332J	.0033	11/16 x 9/32	1.49
1PJ-392J	.0039	11/16 x 9/32	1.49
*1PJ-472J	.0047	11/16 x 9/32	1.49
*1PJ-502J	.005	11/16 x 9/32	1.49
*1PJ-682J	.0068	11/16 x 9/32	1.49
1PJ-822J	.0082	11/16 x 9/32	1.49
*1PJ-103J	.01	11/16 x 9/32	1.49
1PJ-123J	.012	11/16 x 5/16	1.51
*1PJ-153J	.015	11/16 x 5/16	1.51
*1PJ-203J	.02	11/16 x 5/16	1.53
*1PJ-223J	.022	11/16 x 5/16	1.54
1PJ-273J	.027	⅞ x 5/16	1.56
*1PJ-333J	.033	⅞ x 5/16	1.60
1PJ-393J	.039	⅞ x 3/8	1.63
*1PJ-473J	.047	⅞ x 3/8	1.67
*1PJ-503J	.05	⅞ x 3/8	1.69
*1PJ-683J	.068	⅞ x 13/32	1.83
1PJ-823J	.082	1 x 3/8	1.94
*1PJ-104J	.1	1 x 13/32	2.09
1PJ-124J	.12	1 x 13/32	2.28
*1PJ-154J	.15	1¼ x 5/16	2.54
*1PJ-204J	.2	1¼ x ½	2.99
*1PJ-224J	.22	1¼ x ½	3.12
1PJ-274J	.27	1¼ x 9/16	3.43
*1PJ-334J	.33	1⅝ x 17/32	3.82
1PJ-394J	.39	1⅝ x 9/16	4.20
1PJ-474J	.47	1⅝ x ⅝	4.69
*1PJ-504J	.5	1⅝ x ⅝	4.97

Net
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ARCO electronics inc.

Great Neck, New York
Branches: Dallas 7, Los Angeles 35

PLASTIC FILM CAPACITORS

TYPES PJ, MT

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
2PJ-102J	.001	11/16 x 9/32	1.49
2PJ-202J	.002	11/16 x 9/32	1.49
2PJ-222J	.0022	11/16 x 9/32	1.49
2PJ-272J	.0027	11/16 x 9/32	1.49
2PJ-332J	.0033	11/16 x 9/32	1.49
2PJ-392J	.0039	11/16 x 9/32	1.49
2PJ-472J	.0047	11/16 x 9/32	1.49
2PJ-502J	.005	11/16 x 9/32	1.49
2PJ-682J	.0068	11/16 x 9/32	1.49
2PJ-822J	.0082	11/16 x 5/16	1.49
2PJ-103J	.01	11/16 x 5/16	1.49
2PJ-123J	.012	7/8 x 5/16	1.54
2PJ-153J	.015	7/8 x 5/16	1.54
2PJ-203J	.02	7/8 x 3/8	1.60
2PJ-223J	.022	7/8 x 3/8	1.61
2PJ-273J	.027	7/8 x 3/8	1.65
2PJ-333J	.033	1 x 3/8	1.68
2PJ-393J	.039	1 x 3/8	1.72
2PJ-473J	.047	1 x 7/16	1.77
2PJ-503J	.05	1 x 7/16	1.88
2PJ-683J	.068	1 1/4 x 7/16	2.21
2PJ-823J	.082	1 1/4 x 1/2	2.52
2PJ-104J	.1	1 1/4 x 1/2	2.78
2PJ-124J	.12	1 1/4 x 17/32	3.05
2PJ-154J	.15	1 1/4 x 9/16	3.44
2PJ-204J	.2	1 5/8 x 9/16	4.09
2PJ-224J	.22	1 5/8 x 5/8	4.34
2PJ-274J	.27	1 3/4 x 11/16	4.90
2PJ-334J	.33	1 3/4 x 3/4	5.56
400 VDCW			
4PJ-102J	.001	11/16 x 9/32	1.49
*4PJ-202J	.002	11/16 x 9/32	1.49
4PJ-222J	.0022	11/16 x 9/32	1.49
4PJ-272J	.0027	11/16 x 9/32	1.49
*4PJ-332J	.0033	11/16 x 9/32	1.49
4PJ-392J	.0039	11/16 x 9/32	1.49
*4PJ-472J	.0047	11/16 x 9/32	1.49
*4PJ-502J	.005	11/16 x 9/32	1.49
*4PJ-682J	.0068	11/16 x 5/16	1.53
4PJ-822J	.0082	11/16 x 5/16	1.56
*4PJ-103J	.01	7/8 x 5/16	1.60
*4PJ-153J	.015	7/8 x 11/32	1.68
*4PJ-203J	.02	7/8 x 3/8	1.75
*4PJ-223J	.022	7/8 x 3/8	1.77
4PJ-273J	.027	1 x 3/8	1.84
*4PJ-333J	.033	1 x 13/32	1.92
4PJ-393J	.039	1 x 7/16	2.00
*4PJ-473J	.047	1 1/4 x 7/16	2.10
*4PJ-503J	.05	1 1/4 x 7/16	2.16
4PJ-683J	.068	1 1/4 x 1/2	2.49
4PJ-823J	.082	1 1/4 x 9/16	2.77
*4PJ-104J	.1	1 5/8 x 17/32	3.12
4PJ-124J	.12	1 5/8 x 9/16	3.47
*4PJ-154J	.15	1 5/8 x 5/8	3.99
*4PJ-204J	.2	1 3/4 x 11/16	4.90
4PJ-224J	.22	1 3/4 x 11/16	5.18
4PJ-274J	.27	1 3/4 x 3/4	5.95
600 VDCW			
6PJ-102J	.001	11/16 x 9/32	1.49
*6PJ-202J	.002	11/16 x 9/32	1.49
6PJ-222J	.0022	11/16 x 9/32	1.49
6PJ-272J	.0027	11/16 x 9/32	1.49
*6PJ-332J	.0033	11/16 x 9/32	1.50
6PJ-392J	.0039	11/16 x 9/32	1.53
6PJ-472J	.0047	11/16 x 5/16	1.56
*6PJ-502J	.005	11/16 x 5/16	1.59
6PJ-682J	.0068	11/16 x 5/16	1.62
6PJ-822J	.0082	7/8 x 5/16	1.66
*6PJ-103J	.01	7/8 x 11/32	1.70
6PJ-153J	.015	7/8 x 3/8	1.81
*6PJ-203J	.02	1 x 3/8	1.92
6PJ-223J	.022	1 x 13/32	1.97
6PJ-273J	.027	1 x 7/16	2.11
6PJ-333J	.033	1 1/4 x 7/16	2.25
6PJ-393J	.039	1 1/4 x 1/2	2.35
6PJ-473J	.047	1 1/4 x 9/16	2.48
*6PJ-503J	.05	1 1/4 x 9/16	2.55
6PJ-683J	.068	1 5/8 x 9/16	3.26
6PJ-823J	.082	1 5/8 x 5/8	3.57
*6PJ-104J	.1	1 3/4 x 11/16	4.03
6PJ-124J	.12	1 3/4 x 3/4	4.52
1000 VDCW			
10PJ-102J	.001	11/16 x 9/32	1.49
10PJ-152J	.0015	11/16 x 9/32	1.49
10PJ-202J	.002	11/16 x 9/32	1.49
10PJ-222J	.0032	11/16 x 9/32	1.50
10PJ-272J	.0027	11/16 x 9/32	1.52
10PJ-332J	.0033	11/16 x 5/16	1.55
10PJ-392J	.0039	11/16 x 5/16	1.58
10PJ-472J	.0047	11/16 x 5/16	1.61
10PJ-502J	.005	11/16 x 5/16	1.63
10PJ-682J	.0068	7/8 x 5/16	1.68
10PJ-822J	.0082	7/8 x 11/32	1.72
10PJ-103J	.01	7/8 x 3/8	1.78
10PJ-153J	.015	1 x 3/8	1.93
10PJ-203J	.02	1 x 7/16	2.08
10PJ-223J	.022	1 1/4 x 13/32	2.14
10PJ-273J	.027	1 1/4 x 7/16	2.30
10PJ-333J	.033	1 1/4 x 1/2	2.45
10PJ-393J	.039	1 1/4 x 9/16	2.57
10PJ-473J	.047	1 5/8 x 9/16	2.74
10PJ-503J	.05	1 5/8 x 5/8	2.82
10PJ-683J	.068	1 3/4 x 3/4	3.64

HERMETICALLY SEALED MYLAR* DIELECTRIC TYPE MT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
2MT-102J	.001	1 x .235	3.50
2MT-202J	.002	1 x .235	3.50
2MT-222J	.0022	1 x .235	3.50
2MT-272J	.0027	1 x .235	3.50
2MT-332J	.0033	1 x .235	3.50
2MT-392J	.0039	1 x .235	3.50
2MT-472J	.0047	1 x .235	3.50
2MT-502J	.005	1 x .235	3.50
2MT-682J	.0068	1 x .235	3.50
2MT-822J	.0082	1 x .235	3.50
2MT-103J	.01	1 x .235	3.50
2MT-123J	.012	1 x .235	3.50
2MT-153J	.015	1 x .235	3.50
2MT-183J	.018	1 x .235	3.50
2MT-223J	.022	1 x .235	3.50
2MT-273J	.027	1 x .235	3.57
2MT-333J	.033	1 x .235	3.57
2MT-393J	.039	1 x .312	3.64
2MT-473J	.047	1 x .312	3.64
2MT-563J	.056	1 x .312	3.64
2MT-683J	.068	1 x .312	3.71
2MT-823J	.082	1 x .312	3.71
2MT-104J	.1	1 x .400	3.78
2MT-124J	.12	1 x .400	3.85
2MT-154J	.15	1 x .400	3.92
2MT-184J	.18	1 1/8 x .500	3.99
2MT-224J	.22	1 1/8 x .500	4.10
2MT-274J	.27	1 1/8 x .562	4.20
2MT-334J	.33	1 1/8 x .562	4.31
2MT-394J	.39	1 1/16 x .500	4.41
2MT-474J	.47	1 1/16 x .500	4.59
2MT-564J	.56	1 1/16 x .562	4.69
2MT-684J	.68	1 1/16 x .670	4.80
2MT-824J	.82	1 1/16 x .670	4.90
2MT-105J	1.0	1 7/8 x .670	5.04
2MT-125J	1.2	1 7/8 x .750	5.32
2MT-155J	1.5	1 7/8 x .700	5.67
2MT-185J	1.8	1 15/16 x 1.000	6.09
2MT-225J	2.2	1 15/16 x 1.000	6.93

*DuPont Trademark

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
400 VDCW			
4MT-102J	.001	1 x .235	3.85
4MT-202J	.002	1 x .235	3.85
4MT-222J	.0022	1 x .235	3.85
4MT-272J	.0027	1 x .235	3.85
4MT-332J	.0033	1 x .235	3.85
4MT-392J	.0039	1 x .235	3.85
4MT-472J	.0047	1 x .235	3.85
4MT-502J	.005	1 x .235	3.85
4MT-682J	.0068	1 x .235	3.85
4MT-822J	.0082	1 x .235	3.85
4MT-103J	.01	1 x .235	3.85
4MT-123J	.012	1 x .235	3.89
4MT-153J	.015	1 x .312	3.89
4MT-183J	.018	1 x .312	3.92
4MT-223J	.022	1 x .312	3.96
4MT-273J	.027	1 x .312	3.99
4MT-333J	.033	1 x .312	4.03
4MT-393J	.039	1 x .400	4.06
4MT-473J	.047	1 x .400	4.10
4MT-563J	.056	1 x .400	4.13
4MT-683J	.068	1 1/8 x .500	4.17
4MT-823J	.082	1 1/8 x .500	4.20
4MT-104J	.1	1 1/8 x .562	4.27
4MT-124J	.12	1 1/8 x .562	4.34
4MT-154J	.15	1 1/16 x .500	4.41
4MT-184J	.18	1 1/16 x .562	4.48
4MT-224J	.22	1 1/16 x .562	4.62
4MT-274J	.27	1 1/16 x .670	4.73
4MT-334J	.33	1 1/8 x .670	4.83
4MT-394J	.39	1 1/8 x .670	4.97
4MT-474J	.47	1 1/8 x .670	5.14
4MT-564J	.56	1 1/8 x .750	5.67
4MT-684J	.68	1 15/16 x 1.000	5.39
4MT-824J	.82	1 15/16 x 1.000	5.53
4MT-105J	1.0	1 15/16 x 1.000	5.67
600 VDCW			
6MT-102J	.001	1 x .312	4.31
6MT-202J	.002	1 x .312	4.31
6MT-222J	.0022	1 x .312	4.31
6MT-272J	.0027	1 x .312	4.31
6MT-332J	.0033	1 x .312	4.31
6MT-392J	.0039	1 x .312	4.31
6MT-472J	.0047	1 x .312	4.31
6MT-502J	.005	1 x .312	4.31
6MT-822J	.0082	1 x .312	4.31
6MT-682J	.0068	1 x .312	4.31
6MT-103J	.01	1 x .312	4.31
6MT-123J	.012	1 x .312	4.34
6MT-153J	.015	1 x .312	4.38
6MT-183J	.018	1 x .400	4.41
6MT-223J	.022	1 x .400	4.45
6MT-273J	.027	1 x .400	4.48
6MT-333J	.033	1 x .400	4.55
6MT-393J	.039	1 1/8 x .500	4.59
6MT-473J	.047	1 1/8 x .562	4.62
6MT-563J	.056	1 1/8 x .562	4.66
6MT-683J	.068	1 1/8 x .562	4.69
6MT-823J	.082	1 1/16 x .500	4.73
6MT-104J	.1	1 1/16 x .562	4.80
6MT-124J	.12	1 15/16 x .562	4.90
6MT-154J	.15	1 15/16 x .562	4.97
6MT-184J	.18	1 7/16 x .670	5.04
6MT-224J	.22	1 7/8 x .670	5.22
6MT-274J	.27	1 7/16 x .750	5.32
6MT-334J	.33	1 7/8 x .750	5.46
6MT-394J	.39	1 15/16 x 1.000	5.60
6MT-474J	.47	1 15/16 x 1.000	5.81
6MT-564J	.56	1 15/16 x 1.000	5.95

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changes for different tolerances.

* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

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ASTRON capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

MINIMITE* TYPE MM

Miniature Metal-Cased Tubular Electrolytics

"SM" Safety Margin Construction*

- Hermetically sealed aluminum-cased tubulars. Small and light. Ideal for under-chassis mounting in compact, tight assemblies.
- Designed to withstand high surge voltages and high ripple currents. Stable capacitance characteristics. Long service life.
- Exceptionally low leakage. Terminal tab connections provide permanent low-resistance contact for life of the unit.
- Outer insulating tube. Duals have centered mounting strap, and 3 leads (common negative).

SINGLE MINIMITE (2 leads)

Cat. No.	Cap. Mf.	WVDC	†Dia x L.	Sugg. Resale Price
MM-50-3	50	3	½x1-1/16	.57
MM-500-3	500	3	⅝x1⅝	.93
MM-50-6	50	6	½x1-1/16	.57
MM-100-6	100	6	½x1-1/16	.72
MM-500-6	500	6	¾x1⅝	.93
MM-1000-6	1000	6	⅞x2 1/16	1.14
MM-100-10	100	10	⅝x1-1/16	.75
MM-100-15	100	15	⅝x1-1/16	.75
MM-250-15	250	15	⅝x1⅝	.75
MM-500-15	500	15	⅞x2 1/16	1.05
MM-1000-15	1000	15	1 x2 1/16	1.38
MM-10-25	10	25	½x1 1/16	.60
MM-25-25	25	25	½x1 1/16	.60
MM-50-25	50	25	⅝x1 1/16	.66
MM-100-25	100	25	⅝x1⅝	.81
MM-250-25	250	25	⅞x1⅝	1.02
MM-500-25	500	25	1 x2¾	1.44
MM-2-50	2	50	½x1-1/16	.54
MM-4-50	4	50	½x1 1/16	.57
MM-10-50	10	50	½x1 1/16	.60
MM-25-50	25	50	⅝x1 1/16	.60
MM-50-50	50	50	⅝x1⅝	.72
MM-100-50	100	50	¾x1⅝	.84
MM-4-150	4	150	½x1 1/16	.60
MM-8-150	8	150	½x1⅝	.63
MM-10-150	10	150	½x1⅝	.69
MM-16-150	16	150	⅝x1⅝	.69
MM-20-150	20	150	⅝x1⅝	.72
MM-30-150	30	150	¾x1⅝	.78
MM-40-150	40	150	¾x1⅝	.81
MM-50-150	50	150	⅞x1⅝	.84
MM-80-150	80	150	⅞x2 1/16	.96
MM-100-150	100	150	⅞x2⅜	1.05
MM-150-150	150	150	1 x2⅜	1.14
MM-200-150	200	150	1⅛x3	1.23
MM-8-250	8	250	⅝x1⅝	.69
MM-16-250	16	250	¾x1⅝	.78
MM-20-250	20	250	¾x1⅝	.81
MM-40-250	40	250	⅞x1¾	.93
MM-8-350	8	350	⅝x1⅝	.72
MM-10-350	10	350	¾x1⅝	.75
MM-20-350	20	350	⅞x1⅝	.87
MM-4-450	4	450	⅝x1⅜	.69
MM-8-450	8	450	¾x1⅜	.75
MM-10-450	10	450	¾x1⅝	.78
MM-12-450	12	450	⅞x1⅝	.81
MM-16-450	16	450	⅞x1¾	.84
MM-20-450	20	450	⅞x2 1/16	.93
MM-30-450	30	450	1 x2⅜	1.02
MM-40-450	40	450	1 x2 1/16	1.08
MM-50-450	50	450	1 x3	1.23
MM-60-450	60	450	1⅛x3	1.38
MM-80-450	80	450	1⅛x3¾	1.68
MM-8-500	8	500	⅞x2 1/16	.78
MM-16-500	16	500	1 x2⅜	.90
MM-20-500	20	500	1 x2⅜	.96

††DUAL MINIMITE (3 leads, Common Negative)

MM-2x20-150	20+20	150	¾x1⅝*	.93
MM-2x30-150	30+30	150	⅞x1⅝*	1.08
MM-2x40-150	40+40	150	⅞x2 1/16*	1.11
MM-5030-150	50+30	150	⅞x2 1/16*	1.17
MM-2x50-150	50+50	150	⅞x2⅜*	1.06
MM-8040-150	80+40	150	1 x2⅜*	1.32
MM-2x8-450	8+8	450	⅞x2 1/16*	1.02
MM-2x10-450	10+10	450	⅞x2 1/16*	1.11
MM-168-450	16+8	450	1 x2 1/16*	1.17
MM-2x16-450	16+16	450	1 x2 1/16*	1.35
MM-2x20-450	20+20	450	1 x2 1/16*	1.50
MM-2x40-450	40+40	450	1⅛x3¾*	2.04

†Dimensions are for metal tubes. Add 1/16" to diameter and ⅛" to length for dimensions over cardboard insulating tubes.

††Supplied with radial mounting strap.

*TRADE MARK

TYPE ET

Subminiature Electrolytics

"SM" Safety Margin Construction*

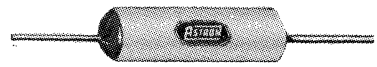
- Industry's widest range of values.
- Conservative ratings in subminiature cases.
- Hermetically sealed for reliable operation in all climates.
- Dependable 85°C. operation.
- Stable capacitance characteristics due to extremely pure foil and special high-gain etch process.
- Exceptionally low leakage current.
- Low-resistance terminal tab connection.

Cat. No.	Rating Cap.	Volts	Size	Sugg. Resale Price
ET-25-3	25	3	⅜x1 1/16	.51
ET-50-3	50	3	⅜x1 1/16	.57
ET-100-3	100	3	⅜x1 1/16	.66
ET-150-3	150	3	⅜x1⅝	.66
ET-200-3	200	3	⅜x1⅝	.75
ET-300-3	300	3	⅜x1⅝	.78
ET-5-6	5	6	⅜x1 1/16	.48
ET-25-6	25	6	⅜x1 1/16	.51
ET-50-6	50	6	⅜x1 1/16	.57
ET-75-6	75	6	⅜x1 1/16	.60
ET-100-6	100	6	⅜x1⅝	.72
ET-125-6	125	6	⅜x1⅝	.72
ET-50-15	50	15	⅜x1 1/16	.60
ET-100-15	100	15	⅜x1⅝	.75
ET-5-25	5	25	⅜x1 1/16	.60
ET-10-25	10	25	⅜x1 1/16	.60
ET-20-25	20	25	⅜x1 1/16	.60
ET-25-25	25	25	⅜x1 1/16	.60
ET-50-25	50	25	⅜x1⅝	.66
ET-1-50	1	50	⅜x1 1/16	.54
ET-2-50	2	50	⅜x1 1/16	.54
ET-4-50	4	50	⅜x1 1/16	.60
ET-5-50	5	50	⅜x1 1/16	.60
ET-10-50	10	50	⅜x1 1/16	.60
ET-15-50	15	50	⅜x1 1/16	.60
ET-20-50	20	50	⅜x1 1/16	.63
ET-25-50	25	50	⅜x1⅝	.63
ET-10-90	10	90	⅜x1⅝	.66
ET-5-100	5	100	⅜x1 1/16	.60
ET-10-100	10	100	⅜x1⅝	.60
ET-1-150	1	150	⅜x1 1/16	.60
ET-2-150	2	150	⅜x1 1/16	.60
ET-4-150	4	150	⅜x1 1/16	.60
ET-5-150	5	150	⅜x1 1/16	.60
ET-8-150	8	150	⅜x1⅝	.63
ET-10-150	10	150	⅜x1⅝	.63
ET-12-150	12	150	⅜x1⅝	.66
ET-4-250	4	250	⅜x1⅝	.60

*TRADE MARK

TYPE EK

Miniature Ceramic Cased Electrolytics



Astron Type EK ceramic cased subminiature electrolytics are small capacitors, designed for all industrial and commercial applications. Using a steatite case, they are second only to hermetically sealed metal cased units in moisture and humidity resistance. High capacity, low voltage and extremely small size are the features that make the Astron EK highly suitable for application in transistorized circuitry and miniature electronic instruments and equipment.

Cat. No.	WVDC	Cap. Mf.	Dia. x L.	Sugg. Resale Price
EK-2-1	1	2	.180x½	$1.25
EK-5-3	3	5	.180x½	1.25
EK-10-3	3	10	.180x½	1.25
EK-35-3	3	35	.270x¾	1.25
EK-40-3	3	40	.270x¾	1.25
EK-50-3	3	50	.270x¾	1.25
EK-75-3	3	75	.359x⅝	1.50
EK-90-3	3	90	.325x¾	1.50
EK-5-6	6	5	.180x½	1.25
EK-10-6	6	10	.180x⅝	1.25
EK-20-6	6	20	.250x⅝	1.25
EK-25-6	6	25	.250x¾	1.25
EK-50-6	6	50	.325x¾	1.50
EK-65-6	6	65	.325x¾	1.50
EK-10-8	8	10	.250x⅝	1.35
EK-10-10	10	10	.250x⅝	1.35
EK-15-10	10	15	.270x¾	1.35
EK-25-10	10	25	.325x⅝	1.35
EK-50-10	10	50	.325x¾	1.50
EK-65-10	10	65	.375x¾	1.50
EK-80-10	10	80	.375x¾	1.50
EK-100-10	10	100	.375x1	1.70
EK-5-12	12	5	.180x⅝	1.35
EK-20-12	12	20	.325x¾	1.35
EK-6-15	15	6	.180x⅝	1.35
EK-20-15	15	20	.325x¾	1.50
EK-30-15	15	30	.325x¾	1.50
EK-1-16	16	1	.180x½	1.50
EK-10-16	16	10	.270x¾	1.35
EK-12-16	16	12	.270x¾	1.35
EK-10-20	20	10	.250x¾	1.35
EK-12-20	20	12	.250x¾	1.35
EK-4-25	25	4	.250x⅝	1.35
EK-10-25	25	10	.270x¾	1.45
EK-10-30	30	10	.270x¾	1.45
EK-4-50	50	4	.250x¾	1.65

Note: Other ratings available on request.

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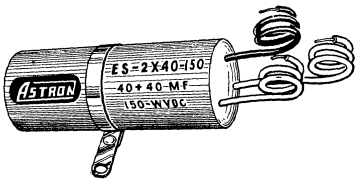
ASTRON capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

TYPE ES

Cardboard-Cased Electrolytics



- Dual and triple-section units. Can be used in place of costlier metal-can types of equal rating in television, radio, radio-phonos and other equipment. 65°C. operation.
- Sections wrapped in plastic film. Lasting protection from moisture, humidity, severest climatic conditions. High-melting-point wax fill.
- Centered radial mounting strap. Plastic insulated wire leads, 6" long. Color coding on tubes.
- Overall wax coating for added protection against moisture and humidity.

DUAL UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	D. x L.	Resale Price Sugg.
ESD-140	10+10/50	⅝x2⅜	.84
ESD-150	8+8/150	⅝x2⅜	.87
ESD-155	20+20/150	¾x2½	.99
ESD-156	30+20/150	¾x2½	1.02
ESD-160	30+30/150	⅞x2½	1.08
ESD-163	40+20/150	⅞x2½	1.05
ESD-165	40+40/150	1 x2½	1.11
ESD-170	50+30/150	1 x2½	1.17
ESD-175	50+50/150	1 x3	1.26
ESD-190	80+40/150	1⅛x3	1.35
ESD-250	16+16/250	⅞x2½	1.08
ESD-255	20+20/250	⅞x2½	1.11
ESD-450	8+8/450	1 x2½	1.02
ESD-455	20+20/450	1⅛x3¼	1.50
ESD-475	40+40/450	1⅜x3½	2.04

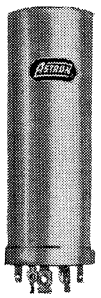
TRIPLE UNITS (Common Negative)

Cat. No.	Cap. Mf./WVDC	D. x L.	Price
EST-555	20+20+20/150	1 x2½	1.32
EST-560	40+20+20/150	1 x2½	1.35
EST-570	40+30+20/150	1 x2½	1.41
EST-575	40+40+20/150	1 x3	1.41
EST-580	40+40+40/150	1 x3¼	1.47
EST-585	60+40+20/150	1 x3¼	1.44
EST-595	80+40+20/150	1⅛x3¼	1.50
EST-610	40+10/150+ 20/25	1 x2½	1.17
EST-620	40+30/150+ 20/25	1 x2½	1.38
EST-625	40+40/150+ 40/25	1 x3¼	1.44
EST-640	50+30/150+100/25	1 x3¼	1.50
EST-645	40+ 40/25	⅝x1⅞	2.10
EST-655	50+30/150+200/10	1 x3¼	1.58

TYPE EY

Twist-Prong Electrolytics

"SM"* Safety Margin Construction



- Widest choice of singles, and dual, triple and quadruple capacitance-voltage combinations in smallest practical aluminum can sizes.
- Ideal for replacement in television, rado and other high quality electronic equipment where high ripple and high surge voltages are encountered.
- Hermetically sealed. Designed for 85°C. operation.
- Quick, easy, firm mounting through chassis slots or slotted plates for insulated or grounded connection. Mounting prong ring serves as common negative terminal.
- Terminal coding clearly stamped on container.
- Individually packaged for the service trade, including metal and phenolic mounting plates.

SINGLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYS-90	2000/6	1⅜x2	1.53
EYS-100	1000/15	1 x3	1.53
EYS-105	2000/15	1⅜x3	2.07
EYS-108	3000/15	1⅜x3	2.09
EYS-115	100/25	1 x2	.96
EYS-120	500/25	1 x3	1.53
EYS-125	1000/25	1⅜x3	2.13
EYS-130	500/50	1⅜x2½	1.59
EYS-131	1000/50	1⅜x3	2.25
EYS-133	1500/50	1⅜x4	2.25
EYS-135	50/150	1 x2	.99
EYS-140	80/150	1 x2	1.11
EYS-145	100/150	1 x2	1.20
EYS-150	120/150	1 x2½	1.26
EYS-151	120/150	1⅜x3	1.26
EYS-155	140/150	1 x3	1.29
EYS-160	150/150	1 x3	1.29
EYS-161	200/150	1⅜x2½	1.47
EYS-162	300/150	1⅜x3	1.68
EYS-165	15/250	1 x2	.93
EYS-170	30/250	1 x2	1.02
EYS-175	40/250	1 x2	1.08
EYS-180	60/250	1 x2½	1.23
EYS-185	80/250	1 x3	1.29
EYS-186	100/250	1 x2½	1.61
EYS-190	150/250	1⅜x2½	1.86
EYS-1901	200/250	1⅜x3	2.38
EYS-1902	80/300	1 x3	1.53
EYS-191	100/300	1⅜x2½	1.73
EYS-193	150/300	1⅜x3	2.10
EYS-195	30/350	1 x2	1.14
EYS-200	40/350	1 x2½	1.20
EYS-205	50/350	1 x3	1.26
EYS-215	80/350	1⅜x2½	1.71
EYS-220	125/350	1⅜x3	2.19
EYS-222	150/350	1⅜x3½	2.37
EYS-225	80/400	1⅜x2½	1.77
EYS-230	10/450	1 x2	.93
EYS-235	20/450	1 x2	1.05
EYS-240	30/450	1 x2½	1.17
EYS-245	40/450	1 x3	1.23
EYS-246	50/450	1 x3½	1.41
EYS-247	60/450	1⅜x2½	1.55
EYS-250	80/450	1⅜x3	1.83
EYS-251	100/450	1⅜x3	2.07
EYS-253	125/450	1⅜x4	2.55
EYS-255	30/475	1 x3	1.20
EYS-260	40/475	1⅜x2	1.50
EYS-265	90/475	1⅜x3½	2.00
EYS-266	10/500	1 x2	.95
EYS-267	20/500	1 x2½	1.11

SINGLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYS-268	30/500	1 x3	1.20
EYS-269	40/500	1 x3½	1.50
EYS-270	80/500	1⅜x3½	1.91
EYS-271	90/500	1⅜x3½	.96

DUAL UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYD-500	1000-1000/15	1⅜x3	2.64
EYD-505	150-50/25	1 x2	1.05
EYD-506	50-50/50	1 x2	1.02
EYD-507	100-25/50	1 x2	1.11
EYD-508	20-20/150	1 x2	1.02
EYD-510	30-30/150	1 x2	1.05
EYD-511	40-20/150	1 x2	1.08
EYD-512	40-30/150	1 x2	1.12
EYD-513	40-40/150	1 x2	1.14
EYD-514	50-30/150	1 x2	1.20
EYD-515	50-50/150	1 x2½	1.17
EYD-5151	60-60/150	1 x2½	1.42
EYD-5152	75-75/150	1 x3	1.56
EYD-5153	80-40/150	1 x2½	1.38
EYD-5154	80-80/150	1⅜x2	1.66
EYD-516	125-100/150	1⅜x2½	2.10
EYD-517	200-5/150	1⅜x2½	1.65
EYD-520	200-200/150	1⅜x3½	2.40
EYD-525	20-20/250	1 x2	1.14
EYD-530	40-40/250	1 x2½	1.50
EYD-532	150-150/250	1⅜x4	3.10
EYD-533	200-200/250	1⅜x4½	3.66
EYD-540	80-80/300	1⅜x3½	2.43
EYD-545	120-20/300	1⅜x3	2.28
EYD-547	120-40/300	1⅜x3½	2.61
EYD-550	15-15/350	1 x2	1.35
EYD-555	20-20/350	1 x2½	1.41
EYD-556	30-30/350	1 x3	1.74
EYD-557	50-30/350	1⅜x2½	1.90
EYD-558	80-20/350	1⅜x2½	2.10
EYD-559	80-40/350	1⅜x3	2.38
EYD-560	80-80/350	1⅜x3½	2.82
EYD-5601	90-40/350	1⅜x3	2.58
EYD-561	100-100/350	1⅜x4	3.70
EYD-562	160-10/350	1⅜x3½	2.58
EYD-563	40-10/400	1⅜x2½	1.50
EYD-5631	80-60/400	1⅜x3½	2.92
EYD-564	5-5/450	1 x2	.96
EYD-565	10-10/450	1 x2	1.14
EYD-566	15-15/450	1 x2½	1.36
EYD-567	20-10/450	1 x2½	1.36
EYD-575	20-20/450	1 x3	1.53
EYD-576	30-10/450	1 x3	1.50
EYD-580	30-30/450	1⅜x2½	1.83
EYD-581	40-20/450	1⅜x2½	1.80
EYD-585	40-40/450	1⅜x3	2.07
EYD-586	50-50/450	1⅜x3	2.32

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

DUAL UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYD-587	60-20/450	1⅜x3	2.14
EYD-588	60-40/450	1⅜x3	2.37
EYD-590	80-10/450	1⅜x3	2.16
EYD-592	80-20/450	1⅜x3	2.34
EYD-600	80-40/450	1⅜x4	2.61
EYD-601	100-40/450	1⅜x4	2.92
EYD-602	15-15/475	1 x2½	1.42
EYD-603	30-10/475	1⅜x2	1.56
EYD-604	40-10/475	1⅜x2½	1.86
EYD-605	40-40/475	1⅜x3½	2.58
EYD-6051	80-50/475	1⅜x4	3.12
EYD-606	10-10/500	1 x2½	1.17
EYD-610	20-20/500	1⅜x2½	1.71
EYD-611	30-10/500	1⅜x2½	1.56
EYD-615	40-40/500	1⅜x4	2.64
EYD-616	60-40/500	1⅜x3½	2.76
EYD-617	100/400 30/50	1⅜x2½	1.86
EYD-620	250/10 1000/6	1⅜x2	1.71
EYD-621	50/150 500/5	1 x2½	1.48
EYD-622	150/150 100/25	1⅜x2½	1.62
EYD-623	100/250 150/50	1⅜x3	2.19
EYD-624	35/300 500/6	1 x2½	1.68
EYD-625	20/350 30/250	1 x2½	1.38
EYD-630	60/350 80/250	1⅜x3	2.07
EYD-633	80/350 100/50	1⅜x3	2.37
EYD-6331	35/400 100/50	1 x3	1.56
EYD-634	10/450 20/25	1 x2	1.02
EYD-635	20/450 20/25	1 x2½	1.20
EYD-640	20/450 100/100	1⅜x2½	1.59
EYD-644	20/450 50/250	1 x3	1.68
EYD-645	20/450 80/350	1⅜x3	2.19
EYD-650	30/450 40/150	1⅜x2	1.50
EYD-651	30/450 200/150	1⅜x3	2.10
EYD-655	40/450 20/25	1 x3½	1.44
EYD-660	40/450 10/350	1⅜x2½	1.56
EYD-661	50/450 100/50	1⅜x2½	1.80
EYD-665	80/450 50/50	1⅜x3	2.10
EYD-666	80/450 100/50	1⅜x3½	2.26
EYD-670	20/475 100/300	1⅜x3½	2.37
EYD-671	20/475 100/400	1⅜x4	2.70
EYD-675	40/500 50/200	1⅜x3½	2.01

TRIPLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-999	20-20-20/25	1 x2	1.17
EYT-1000	40-40-40/25	1 x2	1.29
EYT-1001	20-20-20/150	1 x2	1.38
EYT-1005	40-20-20/150	1 x2	1.44
EYT-1007	40-30-20/150	1 x2	1.50
EYT-1010	40-40-40/150	1 x2½	1.56
EYT-1012	50-40-10/150	1 x2½	1.53
EYT-1015	50-50-50/150	1 x3	1.80
EYT-1016	60-40-20/150	1 x2½	1.65
EYT-1017	70-15-15/150	1 x2½	1.62
EYT-1018	80-40-20/150	1 x3	1.74
EYT-1019	120-80-40/150	1⅜x2½	2.28
EYT-10191	120-120-40/150	1⅜x3	2.44
EYT-10192	200-100-60/150	1⅜x3½	2.74
EYT-10193	200-150-150/150	1⅜x4	4.50
EYT-10194	20-20-20/250	1 x2	1.56
EYT-1020	40-20-10/250	1 x2½	1.71
EYT-1021	40-20-20/250	1 x2½	1.74
EYT-1022	80-80-60/250	1⅜x3½	2.94
EYT-1023	60-20-10/300	1⅜x2	2.07
EYT-1024	80-40-40/300	1⅜x3	2.86
EYT-10241	120-50-40/300	1⅜x4	3.40
EYT-10242	20-20-10/350	1 x2½	2.68
EYT-10243	30-20-10/350	1 x3	1.96
EYT-1025	60-40-20/350	1⅜x3	2.55
EYT-1026	60-50-50/350	1⅜x3½	2.94
EYT-10261	80-60-60/350	1⅜x4	3.34
EYT-10262	90-40-20/350	1⅜x3½	3.16
EYT-10263	100-100-10/350	1⅜x4	3.30
EYT-1027	40-40-20/400	1⅜x3	2.25
EYT-1028	30-50-4/400	1⅜x2½	2.31
EYT-1029	80-20-10/400	1⅜x3	2.58
EYT-10291	90-10-5/400	1⅜x3	2.64
EYT-1030	10-10-10/450	1 x3	1.56
EYT-10301	15-15-15/450	1 x3	1.86
EYT-1035	20-10-10/450	1 x3	1.77
EYT-1040	20-20-20/450	1⅜x3	2.16
EYT-1041	30-20-20/450	1⅜x3	2.31
EYT-1045	30-30-30/450	1⅜x3½	2.61
EYT-1046	40-10-10/450	1⅜x2½	2.16
EYT-1047	40-30-20/450	1⅜x3	2.58
EYT-1050	40-40-10/450	1⅜x3½	2.49
EYT-1051	40-40-20/450	1⅜x3½	2.68
EYT-1055	40-40-40/450	1⅜x4	2.94
EYT-1056	50-40-30/450	1⅜x3½	2.94
EYT-1057	60-20-20/450	1⅜x3½	2.76
EYT-1058	60-40-20/450	1⅜x3½	3.00
EYT-1060	60-30-10/450	1⅜x3½	2.70
EYT-1065	80-40-20/450	1⅜x4½	3.24
EYT-1070	10-10-10/475	1 x3	1.62
EYT-1075	30-30-20/475	1⅜x3½	2.64
EYT-1078	40-10-10/475	1⅜x3½	2.34
EYT-10781	40-30-10/475	1⅜x3	2.70
EYT-1079	40-30-30/475	1⅜x3½	3.10
EYT-1080	10-10-10/500	1 x3½	1.62
EYT-1081	30-20-20/500	1⅜x3	2.52
EYT-1082	40-10-10/500	1⅜x3	2.34
EYT-1083	40-40-10/500	1⅜x3½	3.04
EYT-1085	40-20/150 20/25	1 x2	1.38
EYT-1087	40-20/150 100/25	1 x2½	1.50
EYT-1088	40-20/150 200/25	1 x2½	1.62
EYT-10882	40-40/150 20/25	1 x2	1.44
EYT-10883	40-40/150 250/25	1 x3	1.89
EYT-10884	50-30/150 20/25	1 x2	1.50
EYT-1089	50-30/150 30/25	1 x2	1.56
EYT-10891	50-30/150 100/25	1 x2½	1.62
EYT-1090	50-50/150 20/25	1 x2½	1.62
EYT-10901	80-30/150 300/10	1⅜x2	1.89
EYT-10902	80-40/150 20/25	1 x2½	1.68
EYT-1091	80-40/150 300/25	1⅜x2½	2.22
EYT-1093	100-80/150 200/10	1⅜x2½	2.16
EYT-1095	120-60/150 20/25	1⅜x2½	1.98
EYT-1097	30-20/200 40/25	1 x2	1.68
EYT-10971	30-20/200 40/150	1 x2½	1.62
EYT-1098	60-5/200 20/50	1 x2½	1.50
EYT-1100	100-10/200 40/50	1⅜x2	1.86
EYT-1101	15-15/250 20/25	1 x2	1.41
EYT-1102	30-30/250 20/25	1 x2½	1.68
EYT-1105	40-20/250 10/150	1 x2½	1.65
EYT-1110	70-70/250 20/50	1⅜x2½	2.34
EYT-1112	90-90/250 20/50	1⅜x3	2.76
EYT-1113	10-10/300 10/15	1 x2	1.41
EYT-1115	10-10/300 15/250	1 x2	1.47
EYT-1117	100-10/300 60/50	1⅜x2½	2.43
EYT-11191	200-20/300 10/100	1⅜x4	2.94
EYT-1120	10-5/350 150/50	1 x3	1.62
EYT-1121	15-10/350 20/25	1 x2	1.50
EYT-1122	20-5/350 100/25	1 x2½	1.56
EYT-1123	20-5/350 150/50	1 x3	1.78
EYT-1124	20-10/350 20/25	1 x2	1.53
EYT-1125	15-15/350 20/25	1 x2½	1.50
EYT-11251	20-10/350 5/250	1 x2	1.53
EYT-1126	20-20/350 20/25	1 x2½	1.68
EYT-1130	30-20/350 20/25	1 x3	1.86
EYT-1131	30-20/350 100/150	1⅜x2½	2.40
EYT-1135	30-30/350 20/25	1⅜x2	2.04
EYT-1140	30-30/350 50/50	1⅜x2½	2.10
EYT-1145	40-20/350 10/100	1⅜x2	1.68
EYT-1150	40-40/350 50/25	1⅜x2½	2.22
EYT-1151	20-20/400 10/350	1 x3	1.80
EYT-1153	40-10/400 200/50	1⅜x3½	2.22
EYT-11531	60-30/400 20/350	1⅜x3	2.74
EYT-11532	80-40/400 150/50	1⅜x3½	3.10
EYT-11533	100-10/400 20/50	1⅜x3½	2.70
EYT-1154	100-10/400 80/350	1⅜x4	3.66
EYT-1155	10-10/450 20/25	1 x2½	1.44
EYT-1160	10-10/450 40/50	1 x2½	1.65
EYT-1162	15-15/450 40/25	1 x2½	1.65
EYT-1163	20-10/450 20/25	1 x2½	1.62
EYT-1165	20-10/450 50/50	1 x3	1.71
EYT-1170	20-20/450 20/25	1 x3½	1.86
EYT-1175	20-20/450 60/350	1⅜x3½	2.40
EYT-1177	30-10/450 150/50	1⅜x2½	1.50
EYT-1180	30-30/450 20/25	1⅜x2½	2.10
EYT-1185	30-30/450 40/50	1⅜x3	2.19
EYT-1186	30-30/450 125/25	1⅜x3	2.38
EYT-1188	40-10/450 100/50	1⅜x3	2.58
EYT-1190	40-10/450 80/200	1⅜x3	2.34
EYT-1195	40-10/450 100/200	1⅜x3½	2.46
EYT-1200	40-10/450 10/350	1⅜x2½	1.98
EYT-1201	40-20/450 20/25	1⅜x2½	2.10
EYT-1205	40-20/450 25/50	1⅜x3	2.04
EYT-1210	40-40/450 20/25	1⅜x3½	2.37
EYT-1215	40-40/450 40/25	1⅜x3½	2.40
EYT-1217	40-40/450 100/50	1⅜x3½	2.58
EYT-1220	40-40/450 40/150	1⅜x3½	2.49
EYT-1221	40-40/450 60/200	1⅜x3½	2.68
EYT-1225	40-40/450 100/200	1⅜x4	2.97
EYT-12251	40-40/450 80/350	1⅜x4	3.34
EYT-12252	60-40/450 75/50	1⅜x3½	2.76
EYT-12253	80-10/450 125/25	1⅜x3½	2.64
EYT-1226	80-20/450 100/50	1⅜x4	2.88
EYT-1240	80-40/450 100/25	1⅜x4½	3.06
EYT-1241	20-10/475 100/400	1⅜x4	3.16
EYT-1245	20-20/475 60/400	1⅜x4	2.88
EYT-1250	10-10/500 4/350	1 x3	1.50
EYT-1251	20-10/500 100/50	1 x3½	1.98
EYT-1255	10-10/500 100/50	1 x3½	1.71
EYT-1260	30-10/500 20/50	1⅜x2½	1.86
EYT-1261	40-40/500 100/200	1⅜x4	3.52
EYT-1262	60/200 200-140/150	1⅜x4	2.88
EYT-1263	10/300 500-500/15	1⅜x2	2.34
EYT-1264	20/300 150-80/150	1⅜x3	2.37
EYT-1265	40/300 80/40/250	1⅜x3	2.61
EYT-1266	100/300 200-60/150	1⅜x4	3.34
EYT-12661	200/300 60-20/250	1⅜x4½	3.48
EYT-1267	60/400 20-20/350	1⅜x3	2.55
EYT-1270	80/400 20-10/300	1⅜x3½	2.55
EYT-12701	5/450 80-40/300	1⅜x3	2.49
EYT-1273	10/450 20-10/25	1 x2	1.29
EYT-12731	10/450 80-80/250	1⅜x3	2.52
EYT-1275	20/450 40-10/250	1⅜x2	1.89
EYT-1276	20/450 40-10/350	1⅜x2½	2.10
EYT-1277	20/450 80-10/350	1⅜x3	2.55
EYT-1280	30/450 100-25/25	1⅜x2	1.80
EYT-1281	40/450 90-50/150	1⅜x3	2.37
EYT-1282	80/450 40-40/250	1⅜x4	2.98
EYT-1290	40/450 90-50/150	1⅜x3½	2.40
EYT-1291	40/475 80-10/450	1⅜x3½	3.30
EYT-1292	80/250 40/150 50/50	1⅜x2½	1.41
EYT-1295	20/350 30/250 20/25	1 x2½	1.68
EYT-1300	100/300 60/150 20/25	1⅜x2½	1.71
EYT-1301	20/350 50/100 100/75	1 x3	1.86
EYT-1310	10/350 50/150 100/50	1 x3	1.71
EYT-1313	20/350 10/300 20/25	1 x2½	1.50
EYT-1315	20/350 40/300 10/150	1 x3	1.89
EYT-1320	30/350 30/300 20/25	1 x3	1.89
EYT-1321	125/350 5/200 100/75	1⅜x3½	3.18
EYT-1325	40/350 20/300 10/200	1⅜x2	1.98
EYT-1327	60/400 40/300 20/25	1⅜x3	2.52
EYT-1328	10/450 50/150 100/75	1 x3	1.96
EYT-1329	10/450 40/300 10/150	1⅜x2	1.86

Net

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ASTRON capacitors

ASTRON CORPORATION
EAST NEWARK N J

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-1330	10/450 30/400 30/300	1⅜x2½	2.01
EYT-1335	20/450 60/250 100/25	1⅜x2½	2.19
EYT-1340	20/450 80/350 100/50	1⅜x3½	2.78
EYT-1341	30/450 15/350 40/25	1⅜x2	1.44
EYT-1342	30/450 40/350 50/25	1 x4	2.22
EYT-1345	40/450 40/150 130/50	1⅜x3	2.19
EYT-13451	10/475 4/350 40/250	1⅜x2	1.80
EYT-1346	10/475 40/450 100/200	1⅜x3	2.52
EYT-1350	10/475 100/200 40/50	1⅜x2½	2.01
EYT-1351	20/475 50/50 20/25	1 x3	1.65
EYT-1352	80/475 80/150 50/50	1⅜x4	2.92
EYT-1360	20/500 20/300 40/25	1⅜x2½	1.86
EYT-1365	40/500 40/250 100/50	1⅜x3½	2.25

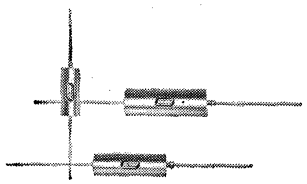
QUADRUPLE UNITS

EYQ-1998	100-80-60-40/150	1⅜x3	2.79
EYQ-1999	40-20-10-10/300	1⅜x2	2.37
EYQ-2000	40-40-20-10/300	1⅜x2½	2.73
EYQ-20004	40-40-30-20/300	1⅜x3	2.91
EYQ-20005	60-40-10-10/300	1⅜x2½	2.73
EYQ-2002	200-20-20-20/300	1⅜x4½	3.70
EYQ-2003	80-40-20-10/350	1⅜x3½	3.12
EYQ-2004	40-40-40-40/350	1⅜x3½	3.60
EYQ-2005	30-30-20-20/400	1⅜x3½	2.91
EYQ-2007	50-40-30-20/400	1⅜x4	3.39
EYQ-2010	80-10-10-10/400	1⅜x3½	2.82
EYQ-2011	80-25-10-10/400	1⅜x3½	3.03
EYQ-2012	5-5-5-5/450	1⅜x2	1.80
EYQ-2015	10-10-10-10/450	1⅜x2	2.01
EYQ-2020	20-10-10-10/450	1⅜x2½	2.22
EYQ-2025	20-20-20-20/450	1⅜x3	2.82
EYQ-2027	20-60-20-20/450	1⅜x3½	3.39
EYQ-2030	30-15-15-15/450	1⅜x3	2.67
EYQ-2035	30-30-15-10/450	1⅜x3½	2.82
EYQ-2036	30-30-20-20/450	1⅜x3½	3.12
EYQ-2037	35-35-10- 5/450	1⅜x3	2.79
EYQ-2038	40-10-10-10/450	1⅜x3	2.49
EYQ-2040	40-20-10-10/450	1⅜x3	2.67
EYQ-2041	40-35-10-10/450	1⅜x3	2.88
EYQ-2042	40-40- 4- 4/450	1⅜x3½	2.79
EYQ-2043	40-40-20-20/450	1⅜x4	3.34
EYQ-20431	40-40-30-30/450	1⅜x4	3.64
EYQ-2044	40-40-40-40/450	1⅜x4½	3.87
EYQ-20441	60-20-20-20/450	1⅜x4	3.40
EYQ-20442	60-30-10- 2/450	1⅜x3½	3.06
EYQ-20443	80-10-10-10/450	1⅜x3½	3.03
EYQ-2045	10-10-10-10/475	1⅜x2	2.10
EYQ-2048	20-20-10-10/475	1⅜x2½	2.62
EYQ-2049	20-20-20-20/475	1⅜x3	3.12
EYQ-2050	40-20-10-10/475	1⅜x3½	3.06
EYQ-2051	10-10-10-10/500	1⅜x2	2.10
EYQ-2052	40-40- 8- 8/500	1⅜x3½	3.42
EYQ-2053	30-30-30/150 40/25	1⅜x2	1.86
EYQ-2054	40-20-20/150 20/25	1⅜x2	1.77
EYQ-20541	40-40-20/150 200/10	1⅜x2	1.96
EYQ-20542	40-40-30/150 20/25	1⅜x2	1.86
EYQ-2055	40-40-40/150 20/25	1⅜x2	1.89
EYQ-2056	40-40-40/150 160/25	1⅜x2	2.13
EYQ-20561	50-20-20/150 200/25	1⅜x2	2.10
EYQ-20562	50-30-30/150 100/25	1⅜x2	2.07
EYQ-2057	50-50-50/150 20/25	1⅜x2	2.13
EYQ-2058	60-40-20/150 200/10	1⅜x2	2.10
EYQ-20581	80-40-40/150 40/25	1⅜x2	2.16
EYQ-20582	80-40-40/150 100/25	1⅜x2½	2.25
EYQ-20583	100-90-60/150 200/25	1⅜x3	2.97
EYQ-2059	200-200-100/150 10/75	1⅜x4	3.58
EYQ-2060	80-60-40/250 20/150	1⅜x3	3.06
EYQ-2065	100-40-10/250 100/50	1⅜x3	3.09
EYQ-2066	40-20-20/300 25/25	1⅜x2	2.40
EYQ-2074	40-40-10/300 20/15	1⅜x2½	2.55
EYQ-2075	40-40-40/300 20/150	1⅜x2½	2.94
EYQ-2076	60-40-20/300 50/25	1⅜x2½	2.82
EYQ-20761	120-40-40/300 10/250	1⅜x4	3.70
EYQ-20762	150-20-10/300 250/50	1⅜x4	3.64
EYQ-2077	150-40-10/300 100/50	1⅜x4	3.54
EYQ-20771	20-10- 5/350 20/25	1⅜x2	1.86
EYQ-20772	30-10- 5/350 200/25	1⅜x2	2.28
EYQ-20773	30-10- 5/350 100/200	1⅜x2½	2.64
EYQ-20774	30-20- 5/350 100/200	1⅜x3	2.82
EYQ-2080	40-20-20/350 25/25	1⅜x2½	2.55
EYQ-2081	40-40-30/350 10/25	1⅜x3	2.97
EYQ-2085	40-40-40/350 40/25	1⅜x3	3.12
EYQ-2090	40-40-40/350 150/50	1⅜x3½	3.42
EYQ-2091	90-30- 5/350 100/75	1⅜x3½	3.70
EYQ-2092	100-10-10/350 20/50	1⅜x3	3.09
EYQ-2094	100-40-30/350 50/50	1⅜x4	3.94
EYQ-20941	100-80-10/350 20/50	1⅜x4	3.96
EYQ-2095	20-20-20/400 20/25	1⅜x2½	2.31
EYQ-2096	80-40-10/400 20/25	1⅜x3½	3.18
EYQ-20961	80-40-10/400 100/200	1⅜x4	3.78
EYQ-20962	80-40-30/400 40/25	1⅜x4	3.58
EYQ-2097	80-60-15/400 60/50	1⅜x4	3.75
EYQ-2105	10-10-10/450 20/25	1⅜x2	1.89
EYQ-2110	10-10-10/450 10/150	1⅜x2	1.89
EYQ-2115	20-10-10/450 100/25	1⅜x2½	2.22
EYQ-2120	20-20-20/450 20/25	1⅜x2½	2.49
EYQ-2125	20-20-20/450 100/50	1⅜x3	2.73
EYQ-2126	30-30-10/450 125/25	1⅜x3	2.70
EYQ-2130	30-30-15/450 30/50	1⅜x3	2.49
EYQ-2135	30-30-20/450 20/25	1⅜x3½	2.79
EYQ-2140	40-10-10/450 250/25	1⅜x3½	2.55
EYQ-2145	40-10-10/450 10/350	1⅜x3	2.34
EYQ-2146	40-10-10/450 40/350	1⅜x3	2.86
EYQ-2150	40-15-10/450 20/25	1⅜x3	2.46
EYQ-2151	40-20-10/450 100/50	1⅜x3½	2.76
EYQ-2152	40-20-10/450 100/250	1⅜x4	2.52
EYQ-2153	40-20-20/450 20/25	1⅜x3½	2.76
EYQ-2155	40-20-20/450 40/25	1⅜x3½	2.79
EYQ-2160	40-30-10/450 20/25	1⅜x3	2.76
EYQ-2162	40-40-10/450 50/50	1⅜x3½	2.88
EYQ-2163	40-40-10/450 100/100	1⅜x4	3.21
EYQ-2164	40-40-20/450 20/25	1⅜x3½	3.00
EYQ-21641	40-40-40/450 40/25	1⅜x3½	3.30
EYQ-2165	40-40-40/450 25/50	1⅜x4	2.82
EYQ-2170	60-10-10/450 20/150	1⅜x3½	2.76
EYQ-2171	60-40-10/450 25/50	1⅜x3½	3.15
EYQ-2172	60-40-40/450 10/25	1⅜x4	3.60
EYQ-2173	60-50- 5/450 20/25	1⅜x3½	3.21
EYQ-2175	20-20-10/475 10/300	1⅜x3	2.58
EYQ-2180	40-20-10/475 10/25	1⅜x3½	2.91
EYQ-2181	20-20/150 160-40/25	1⅜x2	1.92
EYQ-2182	50-20/150 150-30/15	1⅜x2	1.92
EYQ-2183	100-10/300 200-30/150	1⅜x4½	3.54
EYQ-2184	60- 4/350 100-40/25	1⅜x2½	2.28
EYQ-2185	40-10/400 80-10/250	1⅜x3½	2.82
EYQ-2186	100-10/400 30-20/50	1⅜x3½	3.06
EYQ-2190	10-10/450 20-20/25	1⅜x2	1.77
EYQ-2195	20-20/450 20-20/25	1⅜x2	2.16
EYQ-2197	40-10/450 35-10/350	1⅜x4	3.30
EYQ-2198	40-40/450 100-60/200	1⅜x4	3.64
EYQ-2200	40-40/450 30-30/350	1⅜x4½	3.54
EYQ-2202	60-10/300 10/75 10/25	1⅜x2	2.16
EYQ-22021	80- 5/300 60/150 20/25	1⅜x2½	2.58
EYQ-2203	60-40/350 60/200 20/150	1⅜x3½	3.00
EYQ-22031	10-10/450 60/200 100/50	1⅜x3	2.31
EYQ-22032	20-20/450 60/150 100/25	1⅜x2½	2.55
EYQ-22033	35-25/450 20/200 100/50	1⅜x3	2.79
EYQ-22034	40-40/450 125/150 125/25	1⅜x4	3.42
EYQ-2205	10- 5/475 80/450 40/50	1⅜x4	2.97
EYQ-2210	15-15/475 80/300 40/50	1⅜x3½	2.88
EYQ-2211	20-10/475 20/450 100/25	1⅜x2½	2.52
EYQ-2212	40-10/475 4/350 40/300	1⅜x3	2.97
EYQ-2213	20/400 50-40/350 80/50	1⅜x3	3.00
EYQ-2215	10/450 120-40/300 25/25	1⅜x4	3.15
EYQ-2220	10/450 60-40/350 25/25	1⅜x3½	2.76
EYQ-2222	10/450 100-10/350 20/25	1⅜x3½	3.15
EYQ-2225	20/450 80-20/200 50/50	1⅜x3	2.49
EYQ-2227	25/450 100-10/300 50/50	1⅜x3	3.15
EYQ-22271	40/450 40-40/300 20/150	1⅜x3	2.94
EYQ-22272	60/450 80-40/250 20/150	1⅜x4	3.39
EYQ-2228	10/475 140-40/350 100/50	1⅜x4	3.18
EYQ-2229	10/475 40-10/450 100/50	1⅜x3	2.58
EYQ-2230	25/500 80-10/350 10/50	1⅜x4½	2.70
EYQ-2235	100/300 40/50 80-20/25	1⅜x3	2.70
EYQ-2236	80/450 10/400 40-30/300	1⅜x4	3.48
EYQ-2237	30/500 10/450 150-30/50	1⅜x3	2.52
EYQ-2238	10/300 200-140-30/150	1⅜x4½	3.06
EYQ-22381	10/300 200-200-30/150	1⅜x4½	3.21
EYQ-22391	160/350 60-10-4/300	1⅜x4	3.84
EYQ-22392	30/475 130-10-10/350	1⅜x4	3.84
EYQ-22393	20/300 150-150/150 100/30	1⅜x3½	3.18
EYQ-2240	120/300 20/250 100/50 20/25	1⅜x3½	3.03
EYQ-2245	200/300 20/250 100/50 20/25	1⅜x4½	3.27
EYQ-2246	20/350 150/300 10/250 250/50	1⅜x4	3.66
EYQ-2250	10/450 10/300 60/200 100/50	1⅜x2½	2.28
EYQ-2255	20/450 20/400 20/350 20/25	1⅜x3	2.28
EYQ-2260	80/450 10/400 30/300 40/150	1⅜x4½	3.15
EYQ-2261	10/475 40/350 80/300 100/100	1⅜x4	3.34
EYQ-2262	10/475 40/400 4/350 100/50	1⅜x2½	2.44
EYQ-2263	20/300 20-8-4/250	1⅜x2	1.86
EYQ-2265	10/475 10/450 80/200 50/60	1⅜x3	2.31
EYQ-2270	10/475 60/450 30/400 125/50	1⅜x4	3.27
EYQ-2275	20/475 40/300 100/50 80/25	1⅜x3	2.70
EYQ-2276	20/475 40/350 80/200 100/100	1⅜x4	3.27
EYQ-2280	25/475 20/450 40/300 100/50	1⅜x3½	2.97
EYQ-2281	40/475 40/250 50/150 80/50	1⅜x3½	3.00

ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

ACTUAL SIZE



TYPE TES

Solid Electrolyte Tantalum Capacitors

The Astron Type TES solid electrolyte tantalum capacitor is a subminiature metal cased, hermetically sealed unit, containing solid materials only. A new development in solid state technology allows the use of a semiconductor electrolyte, resulting in capacitors of improved reliability over a wide range of environmental conditions.

The tantalum oxide dielectric endows these capacitors with long shelf life and stability even at maximum rated temperature. The solid manganese dioxide electrolyte can never leak or corrode even if the seals are damaged or destroyed. The dissipation factor is low over the temperature range of −80°C. to +125°C. and the capacitor variation averages ±4% of the 25°C. value. TES capacitors are polar units. The case is the negative terminal. At 25°C., a maximum of 6% dissipation factor is allowed.

	VDC WORKING 6, 10, 15, 20, 35 VDC SURGE 8, 13, 18, 23, 40					
Partial Catalog No.	Cap. Mfd.	Case	Case	Case	Case	Case
TES-0022	.0022	A	A	A	A	A
TES-0027	.0027	A	A	A	A	A
TES-0033	.0033	A	A	A	A	A
TES-0039	.0039	A	A	A	A	A
TES-0047	.0047	A	A	A	A	A
TES-0056	.0056	A	A	A	A	A
TES-0068	.0068	A	A	A	A	A
TES-0082	.0082	A	A	A	A	A
TES-01	.01	A	A	A	A	A
TES-012	.012	A	A	A	A	A
TES-015	.015	A	A	A	A	A
TES-018	.018	A	A	A	A	A
TES-022	.022	A	A	A	A	A
TES-027	.027	A	A	A	A	A
TES-033	.033	A	A	A	A	A
TES-039	.039	A	A	A	A	A
TES-047	.047	A	A	A	A	A
TES-056	.056	A	A	A	A	A
TES-068	.068	A	A	A	A	A
TES-082	.082	A	A	A	A	A
TES-1	.1	A	A	A	A	A
TES-12	.12	A	A	A	A	A
TES-15	.15	A	A	A	A	A
TES-18	.18	A	A	A	A	A
TES-22	.22	A	A	A	A	A
TES-27	.27	A	A	A	A	A
TES-33	.33	A	A	A	A	A
TES-39	.39	A	A	A	A	A
TES-47	.47	A	A	A	A	A
TES-56	.56	A	A	A	A	A
TES-68	.68	A	A	A	A	A
TES-82	.82	A	A	A	A	A
TES-1M	1.	A	A	A	A	A
TES-1.2M	1.2	A	A	A	A	B
TES-1.5M	1.5	A	A	A	A	B
TES-1.8M	1.8	A	A	A	A	C
TES-2.2M	2.2	A	A	A	A	C
TES-2.7M	2.7	A	A	A	B	C
TES-3.3M	3.3	A	A	A	B	C
TES-3.9M	3.9	A	A	B	C	C
TES-4.7M	4.7	A	A	B	C	C
TES-5.6M	5.6	A	B	C	C	C
TES-6.8M	6.8	A	B	C	C	C
TES-8.2M	8.2	B	C	C	C	C
TES-10M	10.	B	C	C	C	D
TES-12M	12.	C	C	C	C	D
TES-15M	15.	C	C	C	C	D
TES-18M	18.	C	C	C	D	D
TES-22M	22.	C	C	C	D	D
TES-27M	27.	C	C	D	D	D
TES-33M	33.	C	C	D	D	E
TES-39M	39.	C	C	D	D	E
TES-40M	40.		C			
TES-47M	47.	C	D	D	D	E
TES-56M	56.	C	D	D	E	
TES-60M	60.	C				
TES-68M	68.	D	D	D	E	
TES-82M	82.	D	D	E	E	
TES-100M	100.	D	D	E	E	
TES-120M	120.	D	D	E		
TES-150M	150.	D	E	E		
TES-180M	180.	D	E			
TES-220M	220.	E	E			
TES-270M	270.	E				
TES-330M	330.	E				

NOTES TO STANDARD RATINGS

I — TO ORDER: Simply write the partial catalog number indicated for the listed capacitance and add the listed WVDC.

Example:

Listed Capacitance	.0068
Partial Catalog Number	TES-0068
Listed WVDC	20
Catalog (Order) Number	TES-0068-20

II — Ratings appearing in bold face are available in either ±20% or ±10% tolerance (with exception of 40M and 60M). All other ratings are available in 10% tolerance only. To designate 10% tolerance, add −10 to the catalog No. For example—TES-15M-20-10.

III — For insulating sleeve add (M) (R) designation to catalog number: Example — TESM-15M-20; TESR for rigid type.

IV — Higher capacities and voltages than those shown above will be available in the near future. Special ratings and tolerances are available on request.

DIMENSIONS — INCHES

Case	D (±.010)	X L	(±.032)	Wire Lead Gauge
A	.125		.250	24
B	.125		.375	24
C	.175		.438	24
D	.279		.650	22
E	.341		.750	22

CASE SIZES WITH MYLAR INSULATING SLEEVE

Case	D (+.016)	X L	(+.031)
A	.131	X	.322
B	.131	X	.447
C	.181	X	.510
D	.285	X	.722
E	.381	X	.822

Net

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

BLUE POINT® TYPE BP

Molded Plastic Tubulars

- A MAJOR ACHIEVEMENT in molded capacitor construction and performance. Engineered and produced exclusively by ASTRON (Pat. Pend.). Greatest protection against heat, moisture and humidity.
- Designed for continuous operation at 85°C. WITHOUT DERATING.
- Toughest shell bonded with tightest immersion-proof seal . . . unaffected by soldering iron heat. Leads cannot pull or melt out.
- Solid thermosetting impregnant. Vacuum impregnated sections—as in hermetically sealed metal case capacitors—insure uniformity and dependability of every unit.

Cat. No.	Cap. Mf.	Dia. x Length	Sugg. Resale Price
	200 VOLTS DC WORKING		
BP-2-01	.01	3/8x1	.15
BP-2-02	.02	3/8x1	.15
BP-2-022	.022	3/8x1	.15
BP-2-05	.05	3/8x1 1/4	.15
BP-2-1	.1	7/16x1 1/4	.21
BP-2-2	.2	5/8x7/8	.24
BP-2-25	.25	5/8x1 7/8	.27
BP-2-5	.5	5/8x1 7/8	.36
	400 VOLTS DC WORKING		
BP-4-01	.01	3/8x1	.15
BP-4-02	.02	3/8x1 1/4	.15
BP-4-022	.022	3/8x1 1/4	.15
BP-4-03	.03	7/16x1 1/4	.18
BP-4-033	.033	7/16x1 1/4	.18
BP-4-047	.047	7/16x1 1/4	.18
BP-4-05	.05	7/16x1 1/4	.18
BP-4-1	.1	1/2x1 5/8	.21
BP-4-2	.2	5/8x1 7/8	.24
BP-4-25	.25	5/8x1 7/8	.27
	600 VOLTS DC WORKING		
BP-6-001	.001	3/8x1	.15
BP-6-0015	.0015	3/8x1	.15
BP-6-002	.002	3/8x1	.15
BP-6-0022	.0022	3/8x1	.15
BP-6-003	.003	3/8x1	.15
BP-6-0033	.0033	3/8x1	.15
BP-6-004	.004	3/8x1	.15
BP-6-0047	.0047	3/8x1	.15
BP-6-005	.005	3/8x1	.15
BP-6-006	.006	3/8x1	.15
BP-6-01	.01	3/8x1 1/4	.18
BP-6-015	.015	3/8x1 1/4	.18
BP-6-02	.02	7/16x1 1/4	.18
BP-6-022	.022	7/16x1 1/4	.18
BP-6-03	.03	1/2x1 5/8	.21
BP-6-033	.033	1/2x1 5/8	.21
BP-6-04	.04	1/2x1 5/8	.21
BP-6-047	.047	1/2x1 5/8	.24
BP-6-05	.05	1/2x1 5/8	.24
BP-6-06	.06	5/8x1 7/8	.24
BP-6-08	.08	5/8x1 7/8	.24
BP-6-1	.1	5/8x1 7/8	.27
	1600 VOLTS DC WORKING		
BP-16-001	.001	7/16x1 1/4	.33
BP-16-002	.002	7/16x1 1/4	.33
BP-16-003	.003	7/16x1 1/4	.33
BP-16-004	.004	7/16x1 1/4	.33
BP-16-005	.005	7/16x1 1/4	.33
BP-16-006	.006	1/2x1 5/8	.33
BP-16-007	.007	1/2x1 5/8	.36
BP-16-008	.008	1/2x1 5/8	.36
BP-16-01	.01	1/2x1 5/8	.36
BP-16-015	.015	5/8x1 7/8	.36
BP-16-02	.02	5/8x1 7/8	.36
BP-16-03	.03	5/8x1 7/8	.36
BP-16-033	.033	5/8x1 7/8	.36
BP-16-04	.04	5/8x1 7/8	.36
BP-16-05	.05	5/8x1 7/8	.36

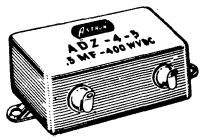
CAPACITANCE TOLERANCES

Nominal Capacitance	Capacitance Tolerance
.001 mfd — .0019 mfd	+60% −25%
.002 mfd — .009 mfd	+40% −20%
.01 mfd — .1 mfd	+20% −20%
.11 mfd — .5 mfd	+20% −10%

METEOR* TYPE ADZ

Bathtub Capacitors

125°C. Operation



MIL TYPE
CP53
CP54 Char. K
CP55

- Designed for operation at temperatures up to 125°C without voltage derating.
- Excellent capacitance stability, less than 5% change over entire range −65°C. to +125°C. achieved by use of ASTRON—developed X-250* impregnant.
- Temperature characteristics exceed MIL specifications for Characteristic K.
- Compact sizes in handy, easy-mounting bathtub cases. Glass-to-metal sealed lug-type terminals. Positive immersion proof seal.
- Standard position of terminals is on side (ASTRON Type ADZ or MIL Style CP53). Available also with terminals on top (ASTRON Type ADZT or MIL Style CP54); bottom terminals (ASTRON Type ADZB or MIL Style CP55).
- Standard Capacitance Tolerance: ±20%.

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
	200 VOLTS DC WORKING		
ADZ-2-5	.5	1 3/16x1 x 7/8	2 1/8
ADZ-2-1M	1.0	2 x1 3/4x 7/8	2 3/8
ADZ-2-2M	2.0	2 x2 x1	2 3/8
	400 VOLTS DC WORKING		
ADZ-4-05	.05	1 3/16x1 x 3/4	2 1/8
ADZ-4-1	.1	1 3/16x1 x 3/4	2 1/8
ADZ-4-25	.25	1 3/16x1 x 3/4	2 1/8
ADZ-4-5	.5	1 3/16x1 x 7/8	2 1/8
ADZ-4-1M	1.0	2 x1 3/4x 7/8	2 3/8
	600 VOLTS DC WORKING		
ADZ-6-05	.05	1 3/16x1 x 3/4	2 1/8
ADZ-6-1	.1	1 3/16x1 x 3/4	2 1/8
ADZ-6-25	.25	1 3/16x1 x 3/4	2 1/8
ADZ-6-5	.5	1 3/16x1 x1	2 1/8
ADZ-6-1M	1.0	2 x1 3/4x1	2 3/8
ADZ-6-2M	2.0	2 x2 x1 1/8†	2 3/8

CAPACITANCE TOLERANCE: ±20% (M). Other tolerances are available.

*Case ht. (C dim.) 1¼" for top terminals (ADZT) or bottom terminals (ADZB).

TYPE AXM

MIL C-25 TYPE (CP70 (B Terminal) Char. E)

Terneplate "Squeeze Seam" Case with Spade Bolt Brackets

Cat. No.	Cap. MF	L. x W. x H.
	600 VOLTS DC WORKING	
AXM 6-25	.25	1 3/16x1 1/16x1 5/8
AXM 6-5	.5	1 3/16x1 1/16x2 1/4
AXM 6-1M	1.0	1 3/16x1 1/16x2 1/4
AXM 6-2M	2.0	1 3/16x1 1/16x3 1/4
AXM 6-4M	4.0	2 1/2 x1 3/16x3 7/8
AXM 6-6M	6.0	3 3/4 x1 1/4 x3 7/8
AXM 6-8M	8.0	3 3/4 x1 1/4 x4 1/4
AXM 6-10M	10.0	3 3/4 x1 3/4 x4
	1000 VOLTS DC WORKING	
AXM 10-1	.1	1 3/16x1 1/16x1 5/8
AXM 10-25	.25	1 3/16x1 1/16x2 1/4
AXM 10-5	.5	1 3/16x1 1/16x2 1/4
AXM 10-1M	1.0	1 3/16x1 1/16x2 7/8
AXM 10-2M	2.0	1 3/16x1 1/16x4 3/4
AXM 10-4M	4.0	3 3/4 x1 1/4 x3 7/8
AXM 10-6M	6.0	3 3/4 x1 3/4 x4
AXM 10-8M	8.0	3 3/4 x1 3/4 x4 3/4

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METEOR* TYPE TQF (CP04)

Glass-to-Metal Sealed
SUBMINIATURE TUBULARS
125°C. Operation

- Inserted tab construction provides smallest paper-foil capacitors available. Ideal where resonant losses are secondary to small size.
- No voltage derating necessary over entire operating temperature range —65°C. to +125°C.
- Excellent capacitance stability over entire temperature range.
- Available in a variety of construction styles to meet your specific needs, as follows:

CP04* **CP10***
CP05* **CP11***
of
MIL C-25A

100 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-1-001	.001	.235x ¾
TQF-1-0015	.0015	.235x ¾
TQF-1-0022	.0022	.235x ¾
TQF-1-0033	.0033	.235x ¾
TQF-1-0047	.0047	.235x ¾
TQF-1-0068	.0068	.235x ¾
TQF-1-01	.01	.235x ¾
TQF-1-015	.015	.235x ¾
TQF-1-022	.022	.235x ¾
TQF-1-027	.027	.235x ¾
TQF-1-033	.033	.235x ¾
TQF-1-047	.047	.312x ⅞
TQF-1-068	.068	.312x ⅞
TQF-1-1	.1	.312x ⅞
TQF-1-15	.15	.400x ⅞
TQF-1-22	.22	.400x1⅛
TQF-1-27	.27	.400x1⅜
TQF-1-33	.33	.400x1⅜
TQF-1-47	.47	.562x1⅛
TQF-1-68	.68	.562x1⅜
TQF-1-1M	1.0	.562x1⅞

200 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-2-001	.001	.235x ¾
TQF-2-0015	.0015	.235x ¾
TQF-2-0022	.0022	.235x ¾
TQF-2-0033	.0033	.235x ¾
TQF-2-0047	.0047	.235x ¾
TQF-2-0068	.0068	.235x ¾
TQF-2-01	.01	.235x ¾
TQF-2-015	.015	.235x ¾
TQF-2-022	.022	.235x ¾
TQF-2-027	.027	.312x ⅞
TQF-2-033	.033	.312x ⅞
TQF-2-047	.047	.312x ⅞
TQF-2-068	.068	.312x ⅞
TQF-2-1	.1	.400x ⅞
TQF-2-15	.15	.400x1⅛
TQF-2-22	.22	.400x1⅜
TQF-2-27	.27	.562x1⅛
TQF-2-33	.33	.562x1⅛
TQF-2-47	.47	.562x1⅜
TQF-2-68	.68	.562x1⅞
TQF-2-1M	1.0	.670x1⅞

300 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-3-001	.001	.235x ¾
TQF-3-0015	.0015	.235x ¾
TQF-3-0022	.0022	.235x ¾
TQF-3-0033	.0033	.235x ¾
TQF-3-0047	.0047	.235x ¾
TQF-3-0068	.0068	.235x ¾
TQF-3-01	.01	.235x ¾
TQF-3-015	.015	.235x ¾
TQF-3-022	.022	.312x ⅞
TQF-3-027	.027	.312x ⅞
TQF-3-033	.033	.312x ⅞
TQF-3-047	.047	.312x ⅞
TQF-3-068	.068	.400x ⅞
TQF-3-1	.1	.400x1⅛
TQF-3-15	.15	.400x1⅜
TQF-3-22	.22	.562x1⅛
TQF-3-27	.27	.562x1⅜
TQF-3-33	.33	.562x1⅜
TQF-3-47	.47	.562x1⅞
TQF-3-68	.68	.670x1⅞
TQF-3-1M	1.0	.750x2⅛

400 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-4-001	.001	.235x ¾
TQF-4-0015	.0015	.235x ¾
TQF-4-0022	.0022	.235x ¾
TQF-4-0033	.0033	.235x ¾
TQF-4-0047	.0047	.235x ¾
TQF-4-0068	.0068	.235x ¾
TQF-4-01	.01	.235x ¾
TQF-4-015	.015	.312x ⅞
TQF-4-022	.022	.312x ⅞
TQF-4-027	.027	.312x ⅞
TQF-4-033	.033	.312x ⅞
TQF-4-047	.047	.400x ⅞
TQF-4-068	.068	.400x1⅛
TQF-4-1	.1	.400x1⅜
TQF-4-15	.15	.562x1⅛
TQF-4-22	.22	.562x1⅜
TQF-4-27	.27	.562x1⅞
TQF-4-33	.33	.562x1⅞
TQF-4-47	.47	.670x1⅞
TQF-4-56	.56	.750x2⅛
TQF-4-68	.68	.750x2⅛
TQF-4-1M	1.0	1x1⅞

600 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-6-001	.001	.235x ¾
TQF-6-0015	.0015	.235x ¾
TQF-6-0022	.0022	.235x ¾
TQF-6-0033	.0033	.235x ¾
TQF-6-0047	.0047	.235x ¾
TQF-6-0068	.0068	.235x ¾
TQF-6-01	.01	.312x ⅞
TQF-6-015	.015	.312x ⅞
TQF-6-022	.022	.312x ⅞
TQF-6-027	.027	.400x ⅞
TQF-6-033	.033	.400x ⅞
TQF-6-047	.047	.400x1⅛
TQF-6-068	.068	.400x1⅜
TQF-6-1	.1	.562x1⅛
TQF-6-15	.15	.562x1⅜
TQF-6-22	.22	.562x1⅞
TQF-6-27	.27	.670x1⅞
TQF-6-33	.33	.670x1⅞
TQF-6-47	.47	.750x2⅛
TQF-6-68	.68	1x1⅞

1000 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
TQF-10-001	.001	.400x ⅞
TQF-10-0015	.0015	.400x ⅞
TQF-10-0022	.0022	.400x ⅞
TQF-10-0033	.0033	.400x ⅞
TQF-10-0047	.0047	.400x ⅞
TQF-10-0068	.0068	.400x ⅞
TQF-10-01	.01	.400x ⅞
TQF-10-015	.015	.400x ⅞
TQF-10-022	.022	.400x1⅛
TQF-10-027	.027	.400x1⅜
TQF-10-033	.033	.400x1⅜
TQF-10-047	.047	.562x1⅛
TQF-10-068	.068	.562x1⅜
TQF-10-1	.1	.562x1⅝
TQF-10-15	.15	.670x1⅝
TQF-10-22	.22	.750x2⅛
TQF-10-27	.27	.750x2⅝
TQF-10-33	.33	.750x2⅝
TQF-10-47	.47	1.000x2⅛

VARIATIONS

CIRCUIT 1	CAPACITOR SECTION INSULATED FROM THE CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY SIZES SHOWN IN LISTINGS	Basic unit in floating construction. Sizes as shown in listings.	CP04 (1)	TQF
	Basic unit with tangential soldered-on bracket. Add suffix (A).	CP10 (1)	TQF-A
	Basic unit with soldered-on L type bracket. Add suffix (B).	—	TQF-B
	Screw neck mounting type. Available in same ratings as TQF. Minimum in case diameter .400".	CP11 (1)	TQFS
FOR INSULATED BODY ADD 1/16" TO DIAMETER AND LENGTH OF TQF SIZES LISTED	Internally insulated ("Floating" Construction) with plastic outer sleeve (P).	CP05 (1)	TQFP

CIRCUIT 3	CAPACITOR SECTION GROUNDED TO CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY DEDUCT 1/16" FROM LENGTH OF UNITS LISTED	Basic unit—Grounded construction.	CP04 (3)	TQ
	Basic TQ unit with soldered-on tangential (A) bracket.	CP10 (3)	TQ-A
	Basic TQ unit with soldered-on L type bracket (B).	—	TQ-B
	Screw neck mounting type. Available in same ratings as TQ. Minimum case diameter is .400".	CP11 (3)	TQS
	Stud base mounting type. Available in same ratings as TQ.	—	TQV
FOR INSULATED BODY ADD 1/16" TO DIAMETER OF TQF SIZES LISTED	Grounded construction, with plastic outer sleeve (P).	CP05 (3)	TQP

See complete military listings page 404

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J

METEOR* SUBMINIATURE PAPER CAPACITORS

For 125°C. Operation without voltage derating

- Amazingly small sizes, compact and light-weight units.
- Highly dependable operation at temperatures up to 125°C. **without voltage derating.**
- Exceptional capacitance stability, less than 5% change, over entire temperature range of —65°C. to +125°C. due to use of ASTRON-developed high-temperature impregnant X-250*.
- High insulation resistance, low power factor, unusually low resonance loss. High test voltage indicates extra margin of safety in operation.
- Built to exceed stringent requirements of Specification MIL-C-25A.
- Positive hermetic closure of the metal cases is assured by glass-to-metal solder seal terminals.
- Tubulars supplied in a variety of construction and mounting styles to meet your specific needs: extended foil or inserted tab; capacitor section grounded to case or insulated from case; plastic outer sleeve; with soldered-on tangential or L-type bracket; screw neck mounting style; or stud-base mounting style.

TYPE AQF (50V)

SUBMINIATURE GLASS-TO-METAL SEALED TUBULARS
For Transistorized Applications
50 Volt Rating —
Extended Foil Construction

- **SMALLER SIZE THAN LOWEST RATING AVAILABLE IN MIL-C-25A**
- **MEETS ELECTRICAL AND ENVIRONMENTAL REQUIREMENTS OF MIL-C-25A**
- **SUPPLIED TO COMPLY WITH CHARACTERISTICS E OR K OF MIL-C-25A**
- **CONTINUOUS OPERATION OVER TEMPERATURE RANGE OF —65°C. TO 125°C. WITHOUT DERATING**
- **EXCELLENT CAPACITANCE TEMPERATURE STABILITY**

Designed to fill the need for a high quality capacitor for use primarily in transistor and other low voltage applications. These capacitors offer the outstanding advantage of smaller sizes without any loss in performance or electrical and physical characteristics in accordance with MIL-C-25A.

50 VOLTS DC WORKING

AQF-.5-027	.027	.235x¾
AQF-.5-068	.068	.312x⅞
AQF-.5-1	.1	.312x⅞
AQF-.5-27	.27	.400x1⅜
AQF-.5-47	.47	.500x1¼
AQF-.5-1M	1.0	.562x1⅝
AQF-.5-2M	2.0	.750x2⅛

METEOR* TYPE AQF (CP08)

Glass-to-Metal Sealed SUBMINIATURE TUBULARS

CP08* and CP09* MIL C-25A

100 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Lgth.
AQF-1-001	.001	.235x¾
AQF-1-0015	.0015	.235x¾
AQF-1-0022	.0022	.235x¾
AQF-1-0033	.0033	.235x¾
AQF-1-0047	.0047	.235x¾
AQF-1-01	.01	.235x¾
AQF-1-015	.015	.235x¾
AQF-1-022	.022	.312x⅞
AQF-1-033	.033	.312x⅞
AQF-1-047	.047	.312x⅞
AQF-1-068	.068	.400x⅞
AQF-1-1	.1	.400x⅞
AQF-1-15	.15	.400x1⅛
AQF-1-22	.22	.400x1⅜
AQF-1-27	.27	.562x1⅛
AQF-1-33	.33	.562x1⅛
AQF-1-47	.47	.562x1⅜
AQF-1-56	.56	.562x1⅝
AQF-1-68	.68	.562x1⅝
AQF-1-1M	1.0	.670x1⅝

200 VOLTS DC WORKING

AQF-2-001	.001	.235x¾
AQF-2-0015	.0015	.235x¾
AQF-2-0022	.0022	.235x¾
AQF-2-0033	.0033	.235x¾
AQF-2-0047	.0047	.235x¾
AQF-2-0068	.0068	.235x¾
AQF-2-01	.01	.312x⅞
AQF-2-015	.015	.312x⅞
AQF-2-022	.022	.312x⅞
AQF-2-033	.033	.312x⅞
AQF-2-047	.047	.400x⅞
AQF-2-056	.056	.400x⅞
AQF-2-068	.068	.400x⅞
AQF-2-1	.1	.400x1⅛
AQF-2-15	.15	.400x1⅜
AQF-2-22	.22	.562x1⅛
AQF-2-27	.27	.562x1⅜
AQF-2-33	.33	.562x1⅜
AQF-2-47	.47	.562x1⅝
AQF-2-56	.56	.670x1⅝
AQF-2-68	.68	.670x1⅝
AQF-2-1M	1.0	.750x2⅛

300 VOLTS DC WORKING

AQF-3-001	.001	.235x¾
AQF-3-0015	.0015	.235x¾
AQF-3-0022	.0022	.235x¾
AQF-3-0033	.0033	.235x¾
AQF-3-0047	.0047	.235x¾
AQF-3-01	.01	.312x⅞
AQF-3-015	.015	.312x⅞
AQF-3-022	.022	.312x⅞
AQF-3-033	.033	.400x⅞
AQF-3-047	.047	.400x⅞
AQF-3-068	.068	.400x1⅛
AQF-3-1	.1	.400x1⅜
AQF-3-15	.15	.562x1⅛
AQF-3-22	.22	.562x1⅜
AQF-3-27	.27	.562x1⅝
AQF-3-33	.33	.562x1⅝
AQF-3-47	.47	.670x1⅝
AQF-3-56	.56	.750x2⅛
AQF-3-68	.68	.750x2⅛
AQF-3-1M	1.0	.750x2⅜

400 VOLTS DC WORKING

AQF-4-001	.001	.235x¾
AQF-4-0015	.0015	.235x¾
AQF-4-0022	.0022	.235x¾
AQF-4-0033	.0033	.235x¾
AQF-4-0047	.0047	.312x⅞
AQF-4-0068	.0068	.312x⅞
AQF-4-01	.01	.312x⅞
AQF-4-015	.015	.312x⅞
AQF-4-022	.022	.400x⅞
AQF-4-033	.033	.400x⅞
AQF-4-047	.047	.400x1⅛
AQF-4-068	.068	.400x1⅜
AQF-4-1	.1	.562x1⅛
AQF-4-15	.15	.562x1⅜
AQF-4-22	.22	.562x1⅝
AQF-4-27	.27	.670x1⅝
AQF-4-33	.33	.670x1⅝
AQF-4-47	.47	.750x2⅛

600 VOLTS DC WORKING

AQF-6-001	.001	.235x¾
AQF-6-0015	.0015	.235x¾
AQF-6-0022	.0022	.235x¾
AQF-6-0033	.0033	.312x⅞
AQF-6-0047	.0047	.312x⅞
AQF-6-0068	.0068	.312x⅞
AQF-6-01	.01	.312x⅞
AQF-6-015	.015	.400x⅞
AQF-6-022	.022	.400x⅞
AQF-6-033	.033	.400x1⅛
AQF-6-047	.047	.400x1⅜
AQF-6-068	.068	.562x1⅛
AQF-6-1	.1	.562x1⅜
AQF-6-15	.15	.562x1⅝
AQF-6-22	.22	.670x1⅝
AQF-6-27	.27	.750x2⅛
AQF-6-33	.33	.750x2⅜
AQF-6-47	.47	.750x2⅜

1000 VOLTS DC WORKING

AQF-10-001	.001	.400x⅞
AQF-10-0015	.0015	.400x⅞
AQF-10-0022	.0022	.400x⅞
AQF-10-0033	.0033	.400x⅞
AQF-10-0047	.0047	.400x⅞
AQF-10-0068	.0068	.400x⅞
AQF-10-01	.01	.400x⅞
AQF-10-015	.015	.400x1⅛
AQF-10-022	.022	.400x1⅜
AQF-10-033	.033	.562x1⅛
AQF-10-047	.047	.562x1⅜
AQF-10-068	.068	.562x1⅝
AQF-10-1	.1	.670x1⅝
AQF-10-15	.15	.670x1⅞
AQF-10-22	.22	.750x2⅛
AQF-10-33	.33	1.000x2⅛
AQF-10-47	.47	1.000x2⅜

VARIATIONS

CIRCUIT 1	CAPACITOR SECTION INSULATED FROM THE CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY SIZES SHOWN IN LISTINGS	Basic unit in floating construction. Sizes as shown in listings.	CP08 (1)	AQF
	Basic unit with tangential soldered-on bracket. Add suffix (A).	—	AQF-A
	Basic unit with soldered-on L type bracket. Add suffix (B).	—	AQF-B
	Screw neck mounting type. Available in same ratings as AQF. Minimum in case diameter .400".	—	AQFS
FOR INSULATED BODY ADD 1/16" TO DIAMETER AND LENGTH OF AQF SIZES LISTED	Internally insulated ("Floating" Construction) with plastic outer sleeve (P).	CP09 (1)	AQFP

CIRCUIT 3	CAPACITOR SECTION GROUNDED TO CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY DEDUCT 1/16" FROM LENGTH OF UNITS LISTED	Basic unit—Grounded construction.	CP08 (3)	AQ
	Basic AQ unit with soldered-on tangential (A) bracket.	—	AQ-A
	Basic AQ unit with soldered-on L type bracket (B).	—	AQ-B
	Screw neck mounting type. Available in same ratings as AQ. Minimum case diameter is .400".	—	AQS
	Stud base mounting type. Available in same ratings as AQ.	—	AQV
FOR INSULATED BODY ADD 1/16" TO DIAMETER OF AQF SIZES LISTED	Grounded construction, with plastic outer sleeve (P).	CP09 (3)	AQP

* See complete military listings page 405

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METALITE®

Metallized Paper Capacitors for 65°C. and 85°C. Operation

METALITE CAPACITORS

Feature:

- Ultra-compact sizes. Light weight. Ideal for miniaturization applications, and portable, mobile and airborne equipment.
- As much as 75% reduction in size over conventional paper-foil capacitors.
- Self-healing — the ability to withstand high dielectric stresses. METALITE capacitors can be subjected to momentary overvoltages and surges over and over again without danger of permanent failure.
- Temperature Range (Metal cased units) −65°C. to +85°C.; (cardboard cased Type ML) −55°C. to +65°C.
- Excellent RF characteristics. Low RF impedance due to small sizes and short current path. Low power factor.
- Wide variety of applications: RF and audio bypass circuits, noise suppression filters and systems, instruments, and various types of communication equipment where small size, light weight and the self-healing feature are especially desirable characteristics to meet specific circuit requirements.
- Interchangeability with standard paper-foil capacitor designs when operated within published ratings and circuit requirements.

METALITE® TYPE MQCF

85°C. Operation

Glass-to-Metal Sealed
SUBMINIATURE TUBULARS

- Smallest paper capacitor type available.
- Temperature Range —65°C. to +85°C.
- Non-inductively wound. Mineral wax impregnated and filled. Tinned, non-ferrous metal cases.
- Capacitor section grounded to case (Type MQC) with glass-to-metal terminal at one end. Available also with capacitor section insulated from case (Type MQCF) with glass-to-metal terminal at each end.
- Lead length 1¾" minimum. Standard capacitance tolerance: ±20%.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE

Glass-to-Metal Terminal at both ends Circuit 1

	TYPE & DESCRIPTION	
UNINSULATED BODY	MQCF	— Basic internally insulated unit as listed,
	MQCF-A	— with tangential (A) soldered-on bracket.
	MQCF-B	— with L-type (B) soldered on bracket.
	MQCFS	— Screw neck vertical-mounting type. Same ratings as MQC. Minimum diameter .400".
INSULATED BODY Add 1/16" to dia. and length of MQCF sizes listed.	MQCFP	— Basic internally insulated unit with plastic outer sleeve (P).

CAPACITOR SECTION GROUNDED TO CASE

Glass-to-Metal Terminal at one end Circuit 3

	TYPE & DESCRIPTION	
UNINSULATED BODY Sizes shown in listings Deduct 1/16" from length of MQCF sizes listed.	MQC	— Basic type.
	MQC-A	— with tangential (A) soldered-on bracket.
	MQC-B	— with L-type (B) soldered-on bracket.
	MQCS	— screw neck vertical-mounting type. Same ratings as MQC. Minimum dia. .400".
	MQV	— Stud base vertical-mounting type. Same ratings and sizes as Type MQC.
INSULATED BODY Add 1/16" to dia. of MQCF sizes listed.	MQCP	— Basic grounded construction as listed with plastic outer sleeve (P).

Cat. No.	Cap. Mf.	Dia. x Lgth.
150 VOLTS DC WORKING		
MQCF-1.5-4M	4.0	1x1 13/16
MQCF-1.5-6M	6.0	1x1 13/16
MQCF-1.5-8M	8.0	1x2 5/16
200 VOLTS DC WORKING		
MQCF-2-01	.01	.235x13/16
MQCF-2-02	.02	.235x13/16
MQCF-2-033	.033	.235x13/16
MQCF-2-04	.04	.235x13/16
MQCF-2-05	.05	.235x13/16
MQCF-2-1	.1	.312x13/16
MQCF-2-15	.15	.400x13/16
MQCF-2-2	.2	.400x13/16
MQCF-2-25	.25	.400x13/16
MQCF-2-33	.33	.400x1 1/8
MQCF-2-5	.5	.400x1 1/8
MQCF-2-68	.68	.562x1 5/16
MQCF-2-1M	1.0	.562x1 5/16
MQCF-2-1.5M	1.5	.562x1 13/16
MQCF-2-2M	2.0	.562x1 13/16
400 VOLTS DC WORKING		
MQCF-4-01	.01	.235x13/16
MQCF-4-02	.02	.235x13/16
MQCF-4-03	.03	.312x13/16
MQCF-4-04	.04	.312x1 1/8
MQCF-4-05	.05	.312x1 1/8
MQCF-4-1	.1	.400x1 1/8
MQCF-4-15	.15	.562x1 1/8
MQCF-4-2	.2	.562x1 1/8
MQCF-4-25	.25	.562x1 1/8
MQCF-4-33	.33	.562x1 5/16
MQCF-4-5	.5	.562x1 13/16
MQCF-4-68	.68	.670x1 13/16
MQCF-4-1M	1.0	.670x2 5/16
MQCF-4-1.5M	1.5	1x2 5/16
MQCF-4-2M	2.0	1x2 5/16
MQCF-4-4M	4.0	1 1/8x2 5/16
600 VOLTS DC WORKING		
MQCF-6-01	.01	.235x13/16
MQCF-6-015	.015	.312x13/16
MQCF-6-02	.02	.312x13/16
MQCF-6-03	.03	.312x13/16
MQCF-6-04	.04	.312x1 1/8
MQCF-6-05	.05	.312x1 1/8
MQCF-6-1	.1	.400x1 1/8
MQCF-6-15	.15	.562x1 1/8
MQCF-6-22	.22	.562x1 5/16
MQCF-6-25	.25	.562x1 5/16
MQCF-6-33	.33	.670x1 5/16
MQCF-6-5	.5	.670x1 13/16
MQCF-6-68	.68	.670x2 5/16
MQCF-6-1M	1.0	.750x2 5/16
MQCF-6-2M	2.0	1x2 5/16

STANDARD CAPACITANCE TOLERANCE: ±20%.

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

TYPE MQZF

Transistor Metallized Paper Capacitors

Catalog Number	WVDC	Cap. Mfd.	Dia. ±1/64" (Inches) D	Length ±1/32" (Inches) L
MQZF .5-047	50	.047	.195	11/16
MQZF .5-068	50	.068	.195	13/16
MQZF .5-1	50	.1	.235	11/16
MQZF .5-15	50	.15	.235	13/16
MQZF .5-22	50	.22	.235	1
MQZF .5-33	50	.33	.312	1
MQZF .5-47	50	.47	.312	1
MQZF .5-68	50	.68	.400	1
MQZF .5-1M	50	1.0	.400	1
MQZF .5-1.5M	50	1.5	.500	1-1/8
MQZF .5-2M	50	2.0	.562	1-1/8
MQZF .5-4M	50	4.0	.670	1-11/32
MQZF .5-6M	50	6.0	.670	1-15/16
MQZF .5-8M	50	8.0	.750	1-15/16

NOTE:

1. Standard MQZF is supplied in "floating" construction.
2. Grounded construction is available upon request. Specify Type MQZ. Subtract 1/16" from length of sizes listed.
3. For plastic insulating outer sleeve (P) specify MQZFP or MQZP.
   (A) For floating type add 1/16" to diameter and length of sizes listed.
   (B) For grounded units add 1/16" to diameter of sizes listed.
4. Standard tolerance of Type MQZF is ±20%; special tolerances of ±10% and ±5% available upon request. Specify by adding tolerance numerals to part number. Example: MQZF-.5-1M-10.

METALITE® TYPE MRF

Metal Cased Tubulars

85°C. Operation

- Temperature Range −65°C. to +85°C.
- Mineral wax impregnated and filled.
- Hermetically sealed. Neoprene-phenolic end discs.
- Type MRF supplied with capacitor section insulated from case. Also available with section grounded to case (Type MRG).
- Lead length 1¾" minimum.
- Standard capacitance tolerance: ±20%.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE CIRCUIT 1	
TYPE AND DESCRIPTION	
UNINSULATED BODY Sizes shown in listings	MRF — Basic type as listed. MRF-Y — with radial (Y) bracket. MRF-A — with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/16" to length and 1/16" to dia.	MRFP — Basic type, with plastic sleeve (P). MRFP-Y — with plastic sleeve (P) and radial (Y) bracket.
CAPACITOR SECTION GROUNDED TO CASE CIRCUIT 3	
TYPE AND DESCRIPTION	
UNINSULATED BODY deduct 3/32" from length shown in listings	MRG — Basic grounded section unit. MRG-Y — with radial (Y) bracket. MRG-A — with tangential (A) soldered-on bracket.
INSULATED BODY add 3/32" to length and 1/16" to dia. shown in listings	MRGP — Basic grounded section type with plastic sleeve (P). MRGP-Y — with plastic sleeve (P) and radial (Y) bracket.

Cat. No.	Cap. Mf.	Dia. x Length
150 VOLTS DC WORKING		
MRF-1.5-4M	4.0	1 x1 15/16
MRF-1.5-6M	6.0	1 x1 15/16
MRF-1.5-8M	8.0	1 1/8 x1 15/16
MRF-1.5-10M	10.0	1 1/4 x1 15/16
200 VOLTS DC WORKING		
MRF-2-05	.05	3/8 x 7/8
MRF-2-1	.1	7/16 x 7/8
MRF-2-25	.25	1/2 x 7/8
MRF-2-5	.5	1/2 x1 3/8
MRF-2-1M	1.0	.670x1 3/8
MRF-2-2M	2.0	.670x1 7/8
400 VOLTS DC WORKING		
MRF-4-03	.03	3/8 x 7/8
MRF-4-05	.05	1/2 x 7/8
MRF-4-1	.1	1/2 x1 3/8
MRF-4-25	.25	.670x1 3/8
MRF-4-5	.5	.670x1 7/8
MRF-4-1M	1.0	3/4 x2 3/8
MRF-4-2M	2.0	1 x2 7/16
MRF-4-3M	3.0	1 1/8 x2 7/16
MRF-4-4M	4.0	1 1/4 x2 7/16
600 VOLTS DC WORKING		
MRF-6-01	.01	3/8 x 7/8
MRF-6-02	.02	7/16 x 7/8
MRF-6-03	.03	7/16 x 7/8
MRF-6-05	.05	1/2 x 7/8
MRF-6-1	.1	1/2 x1 3/8
MRF-6-2	.2	.670x1 3/8
MRF-6-25	.25	.670x1 3/8
MRF-6-5	.5	.670x1 7/8
MRF-6-1M	1.0	3/4 x2 3/8
MRF-6-2M	2.0	1 1/8 x2 7/16
MRF-6-3M	3.0	1 1/4 x2 7/16

Standard capacitance tolerance: ±20%. Other tolerances are available.

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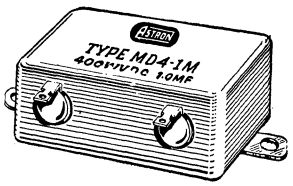
ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METALITE® TYPE MD
Bathtub Capacitors

85°C. Operation



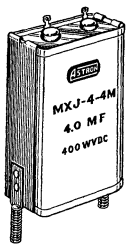
- Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- Single units have two terminals; dual units have three terminals, one terminal common negative.
- Standard position of terminals on side. Also available with terminals on top (Type MDT) or bottom (Type MDB).
- Standard capacitance tolerance: ±20%.
- Compact sizes. Light weight. Up to 75% reduction in sizes over conventional paper-foil capacitors.
- Temperature Range −65°C. to +85°C.
- Space-saving metallized paper dielectric makes possible wider choice of high capacitance ratings than ever before obtainable in bathtub cases.
- Hermetically sealed. Silicone rubber compression seal lug terminals.

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
150 VOLTS DC WORKING			
MD-1.5-4M	4.0	1¾ x1 x ⅞	2⅛
MD-1.5-6M	6.0	2 x1¾ x ⅞	2⅜
MD-1.5-8M	8.0	2 x2 x ⅞	2⅜
MD-1.5-10M	10.0	2 x2 x ⅞	2⅜
MD-1.5-12M	12.0	2 x2 x1	2⅜
MD-1.5-16M	13.0	2 x2 x1⅜	2⅜
MD-1.5-18M	18.0	2 x2 x1½	2⅜
MD-1.5-2x4M	4.0-4.0	2 x2 x ⅞	2⅜
MD-1.5-2x6M	6.0-6.0	2 x2 x1	2⅜
200 VOLTS DC WORKING			
MD-2-5	.5	1¾ x1 x ¾	2⅛
MD-2-1M	1.0	1¾ x1 x ¾	2⅛
MD-2-2M	2.0	1¾ x1 x ¾	2⅛
MD-2-2x1M	1.0-1.0	1¾ x1 x ¾	2⅛
MD-2-2x2M	2.0-2.0	1¾ x1 x ⅞	2⅛
400 VOLTS DC WORKING			
MD-4-25	.25	1¾ x1 x ¾	2⅛
MD-4-5	.5	1¾ x1 x ¾	2⅛
MD-4-1M	1.0	1¾ x1 x ⅞	2⅛
MD-4-2M	2.0	2 x1¾ x ⅞	2⅜
MD-4-4M	4.0	2 x2 x1⅛	2⅜
MD-4-6M	6.0	2 x2 x1½	2⅜
MD-4-2x5	.5-.5	1¾ x1 x ⅞	2⅛
MD-4-2x1M	1.0-1.0	2 x1¾ x ⅞	2⅜
MD-4-2x2M	2.0-2.0	2 x2 x1⅛	2⅜
600 VOLTS DC WORKING			
MD-6-1	.1	1¾ x1 x ¾	2⅛
MD-6-25	.25	1¾ x1 x ¾	2⅛
MD-6-5	.5	1¾ x1 x ¾	2⅛
MD-6-1M	1.0	1¾ x1 ¼ x ⅞	2⅛
MD-6-2M	2.0	2 x2 x1	2⅜
MD-6-3M	3.0	2 x2 x1⅜	2⅜
MD-6-4M	4.0	2 x2 x1½	2⅜
MD-6-2x25	.25-.25	1¾ x1 x ¾	2⅛
MD-6-2x5	.5-.5	1¾ x1 ¼ x ⅞	2⅛
MD-6-2x1M	1.0-1.0	2 x2 x1	2⅜

STANDARD CAPACITANCE TOLERANCE: ±20%.

METALITE® TYPE MXJ
in Terneplate Cases

85°C. Operation



Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
600 VOLTS DC WORKING			
MXJ-6-1M	1.0	1¾ x1 x1⅝	2
MXJ-6-2M	2.0	1¾ x1 x2⅜	2
MXJ-6-4M	4.0	1¾ x1 x3⅞	2
MXJ-6-6M	6.0	1¾ x1 x4¾	2
MXJ-6-8M	8.0	2½ x1 13/16 x3⅞	2¾
MXJ-6-10M	10.0	2½ x1 13/16 x4¾	2¾
MXJ-6-15M	15.0	3¾ x1¼ x4¾	4
MXJ-6-20M	20.0	3¾ x1¾ x4¼	4

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
100 VOLTS DC WORKING			
MXJ-1-100M	100.0	3¾ x1¾ x4 13/16	4

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
150 VOLTS DC WORKING			
MXJ-1.5-4M	4.0	1¾ x1 x1⅝	2
MXJ-1.5-10M	10.0	1¾ x1 x2⅝	2
MXJ-1.5-12M	12.0	1¾ x1 x2⅞	2
MXJ-1.5-15M	15.0	1¾ x1 x3⅜	2
MXJ-1.5-20M	20.0	1¾ x1 x4⅜	2
MXJ-1.5-25M	25.0	2½ x1 13/16 x3	2¾
MXJ-1.5-30M	30.0	2½ x1 13/16 x3⅞	2¾
MXJ-1.5-50M	50.0	2½ x1 13/16 x4¾	2¾
400 VOLTS DC WORKING			
MXJ-4-2M	2.0	1¾ x1 x2⅛	2
MXJ-4-4M	4.0	1¾ x1 x2⅞	2
MXJ-4-6M	6.0	1¾ x1 x3⅞	2
MXJ-4-8M	8.0	1¾ x1 x4¾	2
MXJ-4-10M	10.0	2½ x1 13/16 x3⅞	2¾
MXJ-4-20M	20.0	2½ x1 13/16 x4¾	2¾
MXJ-4-30M	30.0	3¾ x1¼ x4¾	4

TYPE E
Metal Screw-Base Electrolytics

"SM"* Safety Margin Construction

SINGLE UNITS (2 leads)

Cat. No.	Mf.	WVDC	D. x L.	Sugg. Resale Price
E-12-250	12	250	1x2½	$ .82
E-25-250	25	250	1x3½	.82
E-8-450	8	450	1⅜x3½	1.32
E-12-450	12	450	1⅜x3½	1.44
E-16-450	16	450	1⅜x3½	1.47
E-20-450	20	450	1⅜x3½	1.65
E-30-450	30	450	1⅜x3½	1.80
E-40-450	40	450	1⅜x3½	1.89

High Voltage Series Wound Units

Cat. No.	Mf.	WVDC	D. x L.	Sugg. Resale Price
E-4-600	4	600	1⅜x3½	$1.77
E-8-600	8	600	1⅜x3½	1.89
E-16-600	16	600	1⅜x3½	2.25

DUAL UNITS (4 leads) and TRIPLE UNITS (6 leads)

Cat. No.	Mf.	WVDC	D. x L.	Sugg. Resale Price
E-2x8-450	8+8	450	1⅜x3½	$1.80
E-2x16-450	16+16	450	1⅜x3½	2.13
E-3x8-450	8+8+8	450	1⅜x3½	3.00

* Trade Mark

MILITARY TYPES TO MIL C-62A

MIL TYPES, CE61, CE62, CE63, CE64

ASTRON Catalog Number	‡ASTRON Cat. No. based on Spec. JAN-C-62	Cap. Mf.	WVDC	Sugg. Resale Price
ED-100-15	AS-CE63C101E	100	15	$4.75
ED-25-25	AS-CE63C250F	25	25	4.50
ED-50-25	AS-CE63C500F	50	25	4.60
ED-75-25	AS-CE63C750F	75	25	4.75
ED-25-50	AS-CE63C250G	25	50	4.55
ED-50-50	AS-CE63C500G	50	50	4.70
ED-10-100	AS-CE63C100H	10	100	4.55
ED-25-100	AS-CE63C250H	25	100	4.75
ED-10-150	AS-CE63C100J	10	150	4.55
ED-20-150	AS-CE63C200J	20	150	4.70
ED-10-200	AS-CE63C100K	10	200	4.65
ED-15-200	AS-CE63C150K	15	200	4.75
ED-10-250	AS-CE63C100M	10	250	4.70
ED-12-250	AS-CE63C120M	12	250	4.75
ED-10-300	AS-CE63C100N	10	300	4.75
ED-8-350	AS-CE63C080P	8	350	4.70
ED-6-400	AS-CE63C060Q	6	400	4.70
ED-4-450	AS-CE63F040R	4	450	4.65

NOTE: For Jan Type CE61 — order (EDG) single terminal on side case grounded. Same list price.
For Jan Type CE62 — order (EDGT) single terminal on top case grounded. Same list price.
For Jan Type CE63 — order (ED) two terminals on side. Same list price.
For Jan Type CE64 — order (EDT) two terminal units with terminals on top. Same list price.
(All items listed are furn. in case size 1-13/16x1x⅞ in accord. with MIL-C-62)

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

NEW COMET* TYPE MBP

Molded Plastic Metallized Paper Tubulars

125°C. Operation

- First, molded plastic metallized paper tubular capacitor . . . ever!
- Tough, metallized paper capacitor sections for miniature size, self-healing characteristics, light weight and dependable operation.
- Impervious immersion-proof shell is uneffected by any heat and/or moisture condition.
- Exclusive bonded seal locks out environmental effects . . . locks in performance.
- Solid thermosetting impregnant for reliable operation over temperature range of −65°C. to ±125°C. . . . vacuum impregnation guarantees uniformity of units.
- Firmly implanted leads won't pull or melt out . . . makes soldering in tight places easy!

Cat. No.	Cap. Mf.	Dia. x Length
MBP-2-01	.01	3/8 x 1
MBP-2-02	.02	3/8 x 1
MBP-2-03	.03	3/8 x 1
MBP-2-047	.047	3/8 x 1
MBP-2-05	.05	3/8 x 1
MBP-2-1	.1	3/8 x 1
MBP-2-2	.2	3/8 x 1 1/4
MBP-2-25	.25	3/8 x 1 1/4
MBP-2-33	.33	7/16 x 1 1/4
MBP-2-47	.47	1/2 x 1 5/8
MBP-2-5	.5	1/2 x 1 5/8
MBP-2-68	.68	1/2 x 1 5/8
MBP-2-1M	1.0	5/8 x 1 7/8
MBP-2-2M	2.0	5/8 x 1 7/8
MBP-4-01	.01	3/8 x 1
MBP-4-02	.02	3/8 x 1
MBP-4-03	.03	3/8 x 1
MBP-4-047	.047	3/8 x 1 1/4
MBP-4-05	.05	3/8 x 1 1/4
MBP-4-1	.1	7/16 x 1 1/4
MBP-4-2	.2	1/2 x 1 5/8
MBP-4-25	.25	1/2 x 1 5/8
MBP-4-33	.33	5/8 x 1 7/8
MBP-4-47	.47	5/8 x 1 7/8
MBP-4-5	.5	5/8 x 1 7/8
MBP-6-01	.01	3/8 x 1
MBP-6-02	.02	3/8 x 1
MBP-6-03	.03	3/8 x 1 1/4
MBP-6-047	.047	3/8 x 1 1/4
MBP-6-05	.05	3/8 x 1 1/4
MBP-6-068	.068	7/16 x 1 1/4
MBP-6-1	.1	1/2 x 1 5/8
MBP-6-2	.2	5/8 x 1 7/8
MBP-6-25	.25	5/8 x 1 7/8

*TRADE MARK

METALITE® HY-MET* TYPE MLL

Cardboard Tubulars

85°C. Operation

- Sturdy cardboard cased units. Temperature Range −55° to +100°C. Solid thermosetting impregnant.
- Exceptional strength. Metal end caps. Units can be point-to-point connected and supported by own leads. Leads 1½" minimum length.
- Overall mineral wax coat provides added protection against moisture and humidity.
- Standard capacitance tolerance: −20% +30%.

200 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length
MLL-2-01	.01	3/8 x 5/8
MLL-2-02	.02	3/8 x 5/8
MLL-2-03	.03	3/8 x 5/8
MLL-2-05	.05	3/8 x 5/8
MLL-2-1	.1	3/8 x 5/8
MLL-2-25	.25	15/32 x 5/8
MLL-2-5	.5	15/32 x 1 1/8
MLL-2-1M	1.0	9/16 x 1 1/8
MLL-2-2M	2.0	5/8 x 1 5/8

400 VOLTS DC WORKING

MLL-4-01	.01	3/8 x 5/8
MLL-4-02	.02	3/8 x 5/8
MLL-4-03	.03	3/8 x 5/8
MLL-4-05	.05	15/32 x 5/8
MLL-4-1	.1	15/32 x 1 1/8
MLL-4-25	.25	9/16 x 1 1/8
MLL-4-5	.5	5/8 x 1 5/8
MLL-4-1M	1.0	23/32 x 2 1/8

600 VOLTS DC WORKING

MLL-6-01	.01	3/8 x 5/8
MLL-6-02	.02	3/8 x 5/8
MLL-6-03	.03	15/32 x 5/8
MLL-6-05	.05	15/32 x 5/8
MLL-6-1	.1	15/32 x 1 1/8
MLL-6-25	.25	5/8 x 1 1/8
MLL-6-5	.5	23/32 x 1 5/8
MLL-6-1M	1.0	23/32 x 2 1/8

CAPACITANCE TOLERANCE: −20% +30%.

*TRADE MARK

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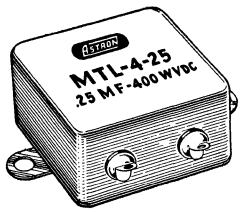
ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METALITE® HY-MET* TYPE MTL

Subminiature Bathtub Capacitors 125°C. Operation



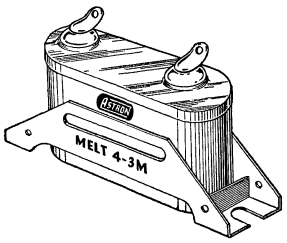
*TRADE MARK

Cat. No.	Cap. Mf.	L. x W x H.
200 VOLTS DC WORKING		
MTL-2-1	.1	1⅛x1x½
MTL-2-25	.25	1⅛x1x½
MTL-2-5	.5	1⅛x1x½
MTL-2-1M	1.0	1⅛x1x½
MTL-2-2M	2.0	1⅛x1x1 1/16
400 VOLTS DC WORKING		
MTL-4-1	.1	1⅛x1x½
MTL-4-25	.25	1⅛x1x½
MTL-4-5	.5	1⅛x1x1 1/16
600 VOLTS DC WORKING		
MTL-6-1	.1	1⅛x1x½
MTL-6-25	.25	1⅛x1x½
MTL-6-5	.5	1⅛x1x1 1/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

METALITE® HY-MET* TYPE MEL

Compact Seamless Cases
125°C. Operation



*TRADE MARK

SINGLE UNITS — 2 terminals

Cat. No.	Cap. Mf.	L. x W. x H.*
150 VOLTS DC WORKING		
MELT-1.5-3M	3.0	1.788x.619x1½
MELT-1.5-4M	4.0	1.788x.619x2
MELT-1.5-6M	6.0	1.788x.619x2½
200 VOLTS DC WORKING		
MELT-2-2M	2.0	1.788x.619x1
400 VOLTS DC WORKING		
MELT-4-5	.5	1.788x.619x1
MELT-4-1M	1.0	1.788x.619x1½
MELT-4-2M	2.0	1.788x.619x2½
MELT-4-3M	3.0	1.788x.619x2¾
600 VOLTS DC WORKING		
MELT-6-5	.5	1.788x.619x1
MELT-6-1M	1.0	1.788x.619x1¾
MELT-6-2M	2.0	1.788x.619x2¾

DUAL UNITS — 3 terminals

Cat. No.	Cap. Mf.	L. x W. x H.*
200 VOLTS DC WORKING		
MELT-2-2x1M	1.0-1.0	1.788x.619x1
MELT-2-2x2M	2.0-2.0	1.788x.619x2
400 VOLTS DC WORKING		
MELT-4-2x1M	1.0-1.0	1.788x.619x2½
600 VOLTS DC WORKING		
MELT-6-2x1M	1.0-1.0	1.788x.619x2¾

CAPACITANCE TOLERANCE: ±20%.
*Add 1/32" to height for bracket.

METALITE® HY-MET* TYPE MQLF

Glass-to-Metal Sealed
SUBMINIATURE TUBULARS
125°C. Operation

- Smallest paper capacitors available for the given ratings.
- Solid thermosetting impregnant. Temperature Range: −65°C. to +125°C.
- Tinned, non-ferrous metal cases. Hermetically sealed.
- Non-inductively wound. Capacitor section grounded to case, glass-to-metal seal terminal at one end. Available also with section insulated from case with glass-to-metal terminal at each end (Type MQLF).

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE
Glass-to-Metal Terminal at both ends Circuit 1

TYPE AND DESCRIPTION	
UNINSULATED BODY	MQLF — Basic internally insulated unit as listed. MQLF-A — with tangential (A) soldered-on bracket. Example: MQLF-2-1-A. MQLF-B — with L-type (B) soldered-on bracket. Example: MQLF-2-1-B. MQLFS — screw neck vertical-mounting type. Same ratings as MQL. Minimum diameter .400". Example: MQLFS-2-1.
INSULATED BODY Add 1/16" to dia. and length of MQLF sizes listed	MQLFP — Basic internally insulated unit with plastic outer sleeve (P). Example: MQLFP-2-1.

CAPACITOR SECTION GROUNDED TO CASE
Glass-to-Metal Terminal at one end Circuit 3

TYPE AND DESCRIPTION	
UNINSULATED BODY Sizes shown in listings Deduct 1/16" from length of MQLF sizes listed	MQL — Basic type. MQL-A — with tangential (A) soldered-on bracket. Example: MQL-2-1-A. MQL-B — with L-type (B) soldered-on bracket. Example: MQL-2-1-B. MQLS — screw neck vertical-mounting type. Same ratings as Type MQL. Minimum diameter .400". Example: MQLS-2-1. MQLV — Stud base vertical-mounting type. Same ratings and size as type MQL. Example: MQLV-2-1.
INSULATED BODY Add 1/16" to dia. of MQLF sizes listed	MQLP — Basic grounded construction as listed, with plastic outer sleeve (P). Example: MQLP-2-1.

Cat. No.	Cap Mf.	Dia. x Length
150 VOLTS DC WORKING		
MQLF-1.5-4M	4.0	1x1-13/16
MQLF-1.5-6M	6.0	1x1-13/16
MQLF-1.5-8M	8.0	1x2-5/16
200 VOLTS DC WORKING		
MQLF-2-01	.01	.235x13/16
MQLF-2-022	.022	.235x13/16
MQLF-2-033	.033	.235x13/16
MQLF-2-047	.047	.235x13/16
MQLF-2-05	.05	.235x13/16
MQLF-2-068	.068	.312x13/16
MQLF-2-1	.1	.312x13/16
MQLF-2-15	.15	.312x1⅛
MQLF-2-22	.22	.312x1⅛
MQLF-2-25	.25	.312x1⅛
MQLF-2-33	.33	.400x1⅛
MQLF-2-47	.47	.400x1⅛
MQLF-2-5	.5	.400x1⅛
MQLF-2-68	.68	.500x1⅛
MQLF-2-1M	1.0	.562x1⅛
MQLF-2-2M	2.0	.562x1-13/16
400 VOLTS DC WORKING		
MQLF-4-01	.01	.235x13/16
MQLF-4-022	.022	.235x13/16
MQLF-4-033	.033	.312x13/16
MQLF-4-047	.047	.312x1⅛
MQLF-4-05	.05	.312x1⅛
MQLF-4-068	.068	.400x1⅛
MQLF-4-1	.1	.400x1⅛
MQLF-4-22	.22	.500x1⅛
MQLF-4-25	.25	.500x1⅛
MQLF-4-33	.33	.562x1-5/16
MQLF-4-47	.47	.562x1-13/16
MQLF-4-5	.5	.562x1-13/16
MQLF-4-68	.68	.670x1-13/16
MQLF-4-1M	1.0	.670x2-5/16
MQLF-4-2M	2.0	1 x2-5/16
600 VOLTS DC WORKING		
MQLF-6-01	.01	.235x13/16
MQLF-6-022	.022	.312x13/16
MQLF-6-033	.033	.400x13/16
MQLF-6-047	.047	.400x13/16
MQLF-6-05	.05	.400x13/16
MQLF-6-068	.068	.400x1⅛
MQLF-6-1	.1	.400x1⅛
MQLF-6-15	.15	.500x1⅛
MQLF-6-22	.22	.562x1-5/16
MQLF-6-25	.25	.562x1-5/16
MQLF-6-33	.33	.562x1-13/16
MQLF-6-47	.47	.670x1-13/16
MQLF-6-5	.5	.670x1-13/16
MQLF-6-68	.68	.670x2-5/16
MQLF-6-1M	1.0	.750x2-5/16
MQLF-6-2M	2.0	1 x2-5/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

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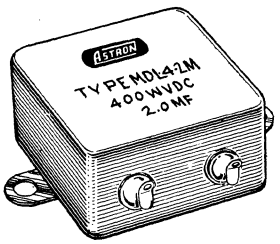
ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METALITE® HY-MET* TYPE MDL
Bathtub Capacitors

125°C. Operation



- Higher capacitance ratings than ever before offered in same size MIL Style CP53-55 cases in conventional paper-foil types.
- Solid thermosetting plastic impregnant enables operation to 125°C. Temperature Range: −65°C. to +125°C.
- Hermetically sealed. Lug type glass-to-metal sealed terminals.
- Standard position of terminals is on side. Can be supplied with top terminals (Type MDLT) or bottom terminals (Type MDLB).
- Standard capacitance tolerance: ±20%.

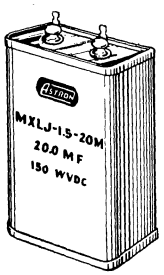
*TRADE MARK

Cat. No.	Cap. Mf.	L. x W. x H.
150 VOLTS DC WORKING		
MDL-1.5-3M	3.0	1 ¾ x1 x ⅞
MDL-1.5-4M	4.0	1 ¾ x1 x ⅞
MDL-1.5-5M	5.0	1 ¾ x1 x ⅞
MDL-1.5-6M	6.0	1 ¾ x1 ¼ x ⅞
MDL-1.5-8M	8.0	2 x1 ¾ x ¾
MDL-1.5-10M	10.0	2 x1 ¾ x ¾
MDL-1.5-12M	12.0	2 x2 x ⅞
MDL-1.5-15M	15.0	2 x2 x1
MDL-1.5-18M	18.0	2 x2 x1 ¼
MDL-1.5-20M	20.0	2 x2 x1 ½
200 VOLTS DC WORKING		
MDL-2-1	.1	1 ¾ x1 x ¾
MDL-2-25	.25	1 ¾ x1 x ¾
MDL-2-5	.5	1 ¾ x1 x ¾
MDL-2-1M	1.0	1 ¾ x1 x ¾
MDL-2-2M	2.0	1 ¾ x1 x ¾
400 VOLTS DC WORKING		
MDL-4-1	.1	1 ¾ x1 x ¾
MDL-4-25	.25	1 ¾ x1 x ¾
MDL-4-5	.5	1 ¾ x1 x ¾
MDL-4-1M	1.0	1 ¾ x1 x ⅞
MDL-4-2M	2.0	2 x1 ¾ x 13/16
MDL-4-3M	3.0	2 x1 ¾ x 15/16
MDL-4-4M	4.0	2 x2 x1
MDL-4-5M	5.0	2 x2 x1 ¼
MDL-4-6M	6.0	2 x2 x1 ½
600 VOLTS DC WORKING		
MDL-6-1	.1	1 ¾ x1 x ¾
MDL-6-25	.25	1 ¾ x1 x ¾
MDL-6-5	.5	1 ¾ x1 x ¾
MDL-6-1M	1.0	1 ¾ x1 ¼ x ⅞
MDL-6-2M	2.0	2 x2 x ⅞
MDL-6-3M	3.0	2 x2 x1 ⅛
MDL-6-4M	4.0	2 x2 x1 ⅜

STANDARD CAPACITANCE TOLERANCE: ±20%. OTHER TOLERANCES ARE AVAILABLE

METALITE® HY-MET* TYPE MXLJ
In Terneplate Cases

125°C. Operation



- Higher capacitance than ever before achieved in MIL Style CP70 cases, due to use of metallized paper sections.
- Temperature range −65°C. to +125°C. due to use of solid thermosetting impregnant.
- Hermetically sealed. Glass-to-metal sealed lug terminals.
- Exceptionally small sizes for the given ratings. Size reductions of 50% to 75% over equal ratings in conventional paper-foil units.
- Spade bolt "J" brackets supplied with each unit for convenient, rigid mounting.
- Standard capacitance tolerance: ±20%.

*TRADE MARK

Cat. No.	Cap. Mf.	L. x W. x H.
150 VOLTS DC WORKING		
MXLJ-1.5-4M	4.0	1 ¾ x1 x1 ⅝
MXLJ-1.5-10M	10.0	1 ¾ x1 x2 ⅝
MXLJ-1.5-12M	12.0	1 ¾ x1 x2 ⅞
MXLJ-1.5-15M	15.0	1 ¾ x1 x3 ⅜
MXLJ-1.5-20M	20.0	1 ¾ x1 x4 ⅜
MXLJ-1.5-25M	25.0	2 ½ x1 3/16 x3
MXLJ-1.5-30M	30.0	2 ½ x1 3/16 x3 ⅞
MXLJ-1.5-50M	50.0	2 ½ x1 3/16 x4 ¾
400 VOLTS DC WORKING		
MXLJ-4-2M	2.0	1 ¾ x1 x2 ⅛
MXLJ-4-4M	4.0	1 ¾ x1 x2 ⅞
MXLJ-4-6M	6.0	1 ¾ x1 x3 ⅞
MXLJ-4-8M	8.0	1 ¾ x1 x4 ¾
MXLJ-4-10M	10.0	2 ½ x1 3/16 x3 ⅞
MXLJ-4-20M	20.0	2 ½ x1 3/16 x4 ¾
MXLJ-4-30M	30.0	3 ¾ x1 ¼ x4 ¾
600 VOLTS DC WORKING		
MXLJ-6-1M	1.0	1 ¾ x1 x1 ⅝
MXLJ-6-2M	2.0	1 ¾ x1 x2 ⅜
MXLJ-6-4M	4.0	1 ¾ x1 x3 ⅞
MXLJ-6-6M	6.0	1 ¾ x1 x4 ¾
MXLJ-6-8M	8.0	2 ½ x1 3/16 x3 ⅞
MXLJ-6-10M	10.0	2 ½ x1 3/16 x4 ¾
MXLJ-6-15M	15.0	3 ¾ x1 ¼ x4 ¾
MXLJ-6-20M	20.0	3 ¾ x1 ¾ x4 ¼

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

FLAT MINIATURE MYLAR* DIELECTRIC CAPACITORS

Cat. No.	Cap. Mds.	L	T	W
XPF-1.5-01	.01	3/4"	5/32"	9/32"
XPF-1.5-015	.015	3/4"	3/16"	5/16"
XPF-1.5-022	.022	3/4"	1/4"	3/8"
XPF-1.5-033	.033	3/4"	7/32"	11/32"
XPF-1.5-047	.047	3/4"	1/4"	3/8"
XPF-1.5-068	.068	7/8"	7/32"	3/8"
XPF-1.5-082	.082	7/8"	1/4"	13/32"

Cat. No.	Cap. Mds.	L	T	W
XPF-1.5-1	.1	7/8"	9/32"	7/16"
XPF-1.5-15	.15	1"	5/16"	7/16"
XPF-1.5-22	.22	1 1/4"	9/32"	15/32"
XPF-1.5-33	.33	1 1/4"	3/8"	17/32"
XPF-1.5-47	.47	1 3/8"	13/32"	9/16"
XPF-1.5-68	.68	1 5/8"	7/16"	19/32"
XPF-1.5-82	.82	1 5/8"	15/32"	5/8"
XPF-1.5-1M	1.0M	1 7/8"	15/32"	5/8"

Standard Tolerance ±20%.

* Reg. Dupont Trade Mark

ROUND MINIATURE MYLAR* DIELECTRIC CAPACITORS

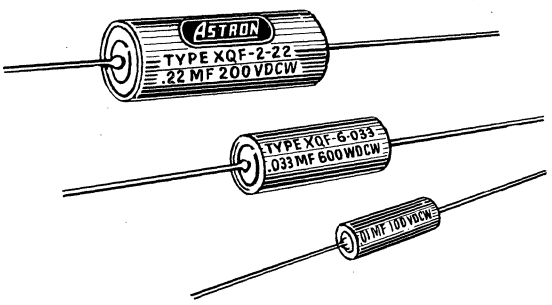
Cat. No.	Cap. Mfds.	L	Dia.
XPR-1.5-01	.01	3/4"	.230
XPR-1.5-015	.015	3/4"	.270
XPR-1.5-022	.022	3/4"	.310
XPR-1.5-033	.033	3/4"	.280
XPR-1.5-047	.047	3/4"	.330
XPR-1.5-068	.068	7/8"	.320
XPR-1.5-082	.082	7/8"	.350

Cat. No.	Cap. Mfds.	L	Dia.
XPR-1.5-1	.1	7/8"	.380
XPR-1.5-15	.15	1"	.390
XPR-1.5-22	.22	1 1/4"	.390
XPR-1.5-33	.33	1 1/4"	.460
XPR-1.5-47	.47	1 3/8"	.500
XPR-1.5-68	.68	1 5/8"	.530
XPR-1.5-82	.82	1 5/8"	.580
XPR-1.5-1M	1.0	1 7/8"	.580

Standard Tolerance ±20%.

*Reg. Dupont Trade Mark

SERIES "X" MYLAR-PLUS CAPACITORS



SERIES "X" MYLAR-PLUS CAPACITORS

Astron's new series "X" Mylar capacitors are engineered for reliable operation up to 150° without derating. These miniaturized, metal tubulars provide exceptional capacitance stability, excellent insulation resistance, power factor and long life. The XQF series are designed to meet MIL-C-25A specifications.

WVDC	Catalog Number	Cap. Mf.	Dia. x Length
50	XQF-.5-0047	.0047	.235 x 13/16
	XQF-.5-01	.01	.235 x 13/16
	XQF-.5-022	.022	.235 x 13/16
	XQF-.5-033	.033	.235 x 15/16
	XQF-.5-047	.047	.312 x 15/16
	XQF-.5-1	.1	.400 x 15/16
	XQF-.5-22	.22	.400 x 1 1/16
	XQF-.5-27	.27	.400 x 1 1/16
	XQF-.5-47	.47	.562 x 1 1/16
	XQF-.5-1M	1.0	.562 x 1 1/16
100	XQF-1-0047	.0047	.235 x 13/16
	XQF-1-01	.01	.235 x 13/16
	XQF-1-022	.022	.312 x 15/16
	XQF-1-033	.033	.312 x 15/16
	XQF-1-047	.047	.312 x 15/16
	XQF-1-1	.1	.400 x 15/16
	XQF-1-22	.22	.562 x 1 1/16
	XQF-1-27	.27	.562 x 1 1/16
	XQF-1-47	.47	.562 x 1 1/16
	XQF-1-1M	1.0	.750 x 1 1/16
200	XQF-2-0047	.0047	.235 x 13/16
	XQF-2-01	.01	.235 x 15/16
	XQF-2-022	.022	.312 x 15/16
	XQF-2-033	.033	.400 x 15/16
	XQF-2-047	.047	.400 x 1 1/16
	XQF-2-1	.1	.400 x 1 1/16
	XQF-2-22	.22	.562 x 1 1/16
	XQF-2-27	.27	.670 x 1 1/16
	XQF-2-47	.47	.750 x 1 1/16
	XQF-2-1M	1.0	1 x 2 3/16
400	XQF-4-0047	.0047	.235 x 13/16
	XQF-4-01	.01	.312 x 15/16
	XQF-4-022	.022	.312 x 1 1/16
	XQF-4-033	.033	.400 x 1 1/16
	XQF-4-047	.047	.400 x 1 1/16
	XQF-4-1	.1	.562 x 1 1/16
	XQF-4-22	.22	.670 x 1 1/16
	XQF-4-27	.27	.750 x 1 1/16
	XQF-4-47	.47	.750 x 2 3/16
600	XQF-6-0047	.0047	.235 x 15/16
	XQF-6-01	.01	.312 x 15/16
	XQF-6-022	.022	.400 x 15/16
	XQF-6-033	.033	.400 x 1 1/16
	XQF-6-047	.047	.400 x 1 1/16
	XQF-6-1	.1	.562 x 1 1/16
	XQF-6-22	.22	.750 x 1 1/16
	XQF-6-27	.27	.750 x 2 3/16
	XQF-6-47	.47	1 x 2 3/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Closer tolerances can be supplied.

Net

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

METALLIZED MYLAR* CAPACITORS

ASTRON TYPE RLR metallized Mylar* capacitors provide reliable operation even under adverse conditions in spite of their smaller size and lower cost.

Type RLR is an uncased unit, with a tough, protective Mylar* wrap and epoxy end seal . . . ideal for potted assembly, military and commercial applications.

WVDC	Catalog Number	Mfd. Cap.	Dia. x Lgth.
200	RLR 2-01	.01	.155" x 5/8"
	RLR 2-012	.012	.165" x 5/8"
	RLR 2-015	.015	.180" x 5/8"
	RLR 2-018	.018	.190" x 5/8"
	RLR 2-022	.022	.205" x 5/8"
	RLR 2-027	.027	.220" x 5/8"
	RLR 2-047	.047	.200" x 3/4"
	RLR 2-068	.068	.220" x 3/4"
	RLR 2-1	.1	.255" x 3/4"
	RLR 2-15	.15	.227" x 1 1/8"
	RLR 2-22	.22	.262" x 1 1/8"
	RLR 2-33	.33	.305" x 1 1/8"
	RLR 2-47	.47	.355" x 1 1/8"
	RLR 2-56	.56	.380" x 1 1/8"
	RLR 2-68	.68	.415" x 1 1/8"
	RLR 2-1M	1.0	.490" x 1 1/8"
	RLR 2-1.5M	1.5	.470" x 1 5/8"
	RLR 2-2M	2.0	.535" x 1 5/8"
	RLR 2-3M	3.0	.595" x 1 7/8"
	RLR 2-6M	6.0	.825" x 1 7/8"

Cap. Tolerance ±20%. * Reg. Dupont Trade Mark

MYLAR* METALLIZED CAPACITORS

ASTRON TYPE RQL combines in a miniature hermetically sealed case the outstanding attributes of reliability at high temperatures — 125°C without derating — with significant savings of space. They will find their main applications in military reliabilty equipment and in critical industrial circuits.
Type RQL Mylar* metallized capacitors are available in various military case and mounting styles.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Lgth. in inches
200	RQL 2-01	.010	.235 x 11/16
	RQL 2-012	.012	.235 x 11/16
	RQL 2-015	.015	.235 x 11/16
	RQL 2-018	.018	.235 x 11/16
	RQL 2-022	.022	.235 x 11/16
	RQL 2-027	.027	.235 x 11/16
	RQL 2-033	.033	.235 x 11/16
	RQL 2-039	.039	.312 x 13/16
	RQL 2-047	.047	.312 x 13/16
	RQL 2-056	.056	.312 x 13/16
	RQL 2-068	.068	.312 x 13/16
	RQL 2-082	.082	.312 x 13/16
	RQL 2-1	.1	.312 x 13/16
	RQL 2-12	.12	.312 x 1 1/16
	RQL 2-15	.15	.312 x 1 1/16
	RQL 2-18	.18	.400 x 13/16
	RQL 2-22	.22	.400 x 13/16
	RQL 2-27	.27	.400 x 1 1/16
	RQL 2-33	.33	.400 x 1 1/16
	RQL 2-39	.39	.500 x 1 1/16
	RQL 2-47	.47	.500 x 1 1/16
	RQL 2-56	.56	.500 x 1 1/16
	RQL 2-68	.68	.500 x 1 1/16
	RQL 2-82	.82	.562 x 1 1/16
	RQL 2-1. M	1.0	.562 x 1 3/16
	RQL 2-1.5 M	1.5	.562 x 1 9/16
	RQL 2-2. M	2.0	.670 x 1 9/16
	RQL 2-3. M	3.0	.670 x 1 13/16
	RQL 2-4. M	4.0	.750 x 1 13/16
	RQL 2-5. M	5.0	1.00 x 1 13/16
	RQL 2-6. M	6.0	1.00 x 1 13/16
	RQL 2-8. M	8.0	1.00 x 1 13/16
	RQL 2-10. M	10.0	1.00 x 2 5/16
	RQL 2-12. M	12.0	1.00 x 2 5/16
400	RQL 4-01	.010	.312 x 13/16
	RQL 4-012	.012	.312 x 13/16
	RQL 4-015	.015	.312 x 13/16
	RQL 4-018	.018	.312 x 13/16
	RQL 4-022	.022	.312 x 13/16
	RQL 4-027	.027	.312 x 1 1/16
	RQL 4-033	.033	.312 x 1 1/16
	RQL 4-039	.039	.400 x 1 1/16
	RQL 4-047	.047	.400 x 1 1/16
	RQL 4-056	.056	.400 x 1 1/16
	RQL 4-068	.068	.400 x 1 1/16

WVDC	Catalog Number	Cap. Mfd.	Dia. x Lgth. in inches
400 (cont'd)	RQL 4-082	.082	.500 x 1 1/16
	RQL 4-1	.1	.500 x 1 1/16
	RQL 4-12	.12	.500 x 1 1/16
	RQL 4-15	.15	.500 x 1 1/16
	RQL 4-18	.18	.562 x 1 3/16
	RQL 4-22	.22	.562 x 1 3/16
	RQL 4-27	.27	.562 x 1 9/16
	RQL 4-33	.33	.562 x 1 9/16
	RQL 4-39	.39	.670 x 1 9/16
	RQL 4-47	.47	.670 x 1 9/16
	RQL 4-56	.56	.670 x 1 13/16
	RQL 4-68	.68	.670 x 1 13/16
	RQL 4-82	.82	.750 x 1 13/16
	RQL 4-1. M	1.0	.750 x 1 13/16
	RQL 4-1.5 M	1.5	1.00 x 1 13/16
	RQL 4-2. M	2.0	1.00 x 1 13/16
	RQL 4-3. M	3.0	1.00 x 2 5/16
600	RQL 6-01	.010	.312 x 13/16
	RQL 6-012	.012	.312 x 13/16
	RQL 6-015	.015	.312 x 13/16
	RQL 6-018	.018	.312 x 1 1/16
	RQL 6-022	.022	.312 x 1 1/16
	RQL 6-027	.027	.312 x 1 1/16
	RQL 6-033	.033	.312 x 1 1/16
	RQL 6-039	.039	.400 x 1 1/16
	RQL 6-047	.047	.400 x 1 1/16
	RQL 6-056	.056	.400 x 1 1/16
	RQL 6-068	.068	.400 x 1 1/16
	RQL 6-082	.082	.500 x 1 1/16
	RQL 6-1	.1	.500 x 1 1/16
	RQL 6-12	.12	.562 x 1 1/16
	RQL 6-15	.15	.562 x 1 1/16
	RQL 6-18	.18	.562 x 1 3/16
	RQL 6-22	.22	.562 x 1 3/16
	RQL 6-27	.27	.562 x 1 9/16
	RQL 6-33	.33	.562 x 1 9/16
	RQL 6-39	.39	.670 x 1 9/16
	RQL 6-47	.47	.670 x 1 9/16
	RQL 6-56	.56	.670 x 1 13/16
	RQL 6-68	.68	.670 x 1 13/16
	RQL 6-82	.82	1.00 x 1 13/16
	RQL 6-1. M	1.0	1.00 x 1 13/16
	RQL 6-1.5 M	1.5	1.00 x 2 1/16
	RQL 6-2. M	2.0	1.00 x 2 1/16
	RQL 6-2.5 M	2.5	1.00 x 2 5/16

* Reg. Dupont Trade Mark

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ASTRON capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

TYPE TQF

MILITARY TYPE

CP04 CP10
CP05 CP11
MIL-C-25A

Commercial Equivalent

TEMPERATURE CHARACTERISTICS E AND K

CIRCUIT 1

(Capacitor Section Insulated From Case)

100 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP04A1-B333M	TQF-1-033	.033	.235 x 3/4
AS-CP04A1-B104M	TQF-1-1	.1	.312 x 7/8
AS-CP04A1-B154M	TQF-1-15	.15	.400 x 7/8
AS-CP04A1-B224M	TQF-1-22	.22	.400 x 1 1/8
AS-CP04A1-B334M	TQF-1-33	.33	.400 x 1 3/8
AS-CP04A1-B474M	TQF-1-47	.47	.562 x 1 1/8
AS-CP04A1-B684M	TQF-1-68	.68	.562 x 1 3/8
AS-CP04A1-B105M	TQF-1-1M	1.0	.562 x 1 7/8
200 VOLTS			
AS-CP04A1-C153M	TQF-2-015	.015	.235 x 3/4
AS-CP04A1-C223M	TQF-2-022	.022	.235 x 3/4
AS-CP04A1-C473M	TQF-2-047	.047	.312 x 7/8
AS-CP04A1-C683M	TQF-2-068	.068	.312 x 7/8
AS-CP04A1-C104M	TQF-2-1	.1	.400 x 7/8
AS-CP04A1-C154M	TQF-2-15	.15	.400 x 1 1/8
AS-CP04A1-C224M	TQF-2-22	.22	.400 x 1 3/8
AS-CP04A1-C334M	TQF-2-33	.33	.562 x 1 1/8
AS-CP04A1-C474M	TQF-2-47	.47	.562 x 1 3/8
AS-CP04A1-C684M	TQF-2-68	.68	.562 x 1 7/8
AS-CP04A1-C105M	TQF-2-1M	1.0	.670 x 1 7/8

400 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP04A1-E103M	TQF-4-01	.01	.235 x 3/4
AS-CP04A1-E333M	TQF-4-033	.033	.312 x 7/8
AS-CP04A1-E473M	TQF-4-047	.047	.400 x 7/8
AS-CP04A1-E683M	TQF-4-068	.068	.400 x 1 1/8
AS-CP04A1-E104M	TQF-4-1	.1	.400 x 1 3/8
AS-CP04A1-E154M	TQF-4-15	.15	.562 x 1 1/8
AS-CP04A1-E224M	TQF-4-22	.22	.562 x 1 3/8
AS-CP04A1-E334M	TQF-4-33	.33	.562 x 1 7/8
AS-CP04A1-E474M	TQF-4-47	.47	.670 x 1 7/8
AS-CP04A1-E684M	TQF-4-68	.68	.750 x 2 1/8
AS-CP04A1-E105M	TQF-4-1M	1.0M	1.000 x 1 7/8
600 VOLTS			
AS-CP04A1-F102M	TQF-6-001	.001	.235 x 3/4
AS-CP04A1-F152M	TQF-6-0015	.0015	.235 x 3/4
AS-CP04A1-F222M	TQF-6-0022	.0022	.235 x 3/4
AS-CP04A1-F332M	TQF-6-0033	.0033	.235 x 3/4
AS-CP04A1-F472M	TQF-6-0047	.0047	.235 x 3/4
AS-CP04A1-F682M	TQF-6-0068	.0068	.235 x 3/4
AS-CP04A1-F103M	TQF-6-01	.01	.312 x 7/8
AS-CP04A1-F153M	TQF-6-015	.015	.312 x 7/8
AS-CP04A1-F223M	TQF-6-022	.022	.312 x 7/8
AS-CP04A1-F333M	TQF-6-033	.033	.400 x 7/8
AS-CP04A1-F473M	TQF-6-047	.047	.400 x 1 1/8
AS-CP04A1-F683M	TQF-6-068	.068	.400 x 1 3/8
AS-CP04A1-F104M	TQF-6-1	.1	.562 x 1 1/8
AS-CP04A1-F154M	TQF-6-15	.15	.562 x 1 3/8
AS-CP04A1-F224M	TQF-6-22	.22	.562 x 1 7/8
AS-CP04A1-F334M	TQF-6-33	.33	.670 x 1 7/8
AS-CP04A1-F474M	TQF-6-47	.47	.750 x 2 1/8
AS-CP04A1-F684M	TQF-6-68	.68	1.000 x 1 7/8
1000 VOLTS			
AS-CP04A1-G153M	TQF-10-015	.015	.400 x 7/8
AS-CP04A1-G223M	TQF-10-022	.022	.400 x 1 1/8
AS-CP04A1-G333M	TQF-10-033	.033	.400 x 1 3/8
AS-CP04A1-G473M	TQF-10-047	.047	.562 x 1 1/8
AS-CP04A1-G683M	TQF-10-068	.068	.562 x 1 3/8
AS-CP04A1-G104M	TQF-10-1	.1	.562 x 1 5/8
AS-CP04A1-G154M	TQF-10-15	.15	.670 x 1 5/8
AS-CP04A1-G224M	TQF-10-22	.22	.750 x 2 1/8
AS-CP04A1-G334M	TQF-10-33	.33	.750 x 2 5/8
AS-CP04A1-G474M	TQF-10-47	.47	1.000 x 2 1/8

VARIATIONS

CIRCUIT 1	CAPACITOR SECTION INSULATED FROM THE CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY SIZES SHOWN IN LISTINGS	Basic unit in floating construction. Sizes as shown in listings.	CP04 (1)	TQF
	Basic unit with tangential soldered-on bracket. Add suffix (A).	CP10 (1)	TQF-A
	Basic unit with soldered-on L type bracket. Add suffix (B).	—	TQF-B
	Screw neck mounting type. Available in same ratings as TQF. Minimum in case diameter .400".	CP11 (1)	TQFS
FOR INSULATED BODY ADD 1/16" TO DIAMETER AND LENGTH OF TQF SIZES LISTED	Internally insulated ("Floating" Construction) with plastic outer sleeve (P).	CP05 (1)	TQFP

CIRCUIT 3	CAPACITOR SECTION GROUNDED TO CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY DEDUCT 1/16" FROM LENGTH OF UNITS LISTED	Basic unit — Grounded construction.	CP04 (3)	TQ
	Basic TQ unit with soldered-on tangential (A) bracket.	CP10 (3)	TQ-A
	Basic TQ unit with soldered-on L type bracket (B).	—	TQ-B
	Screw neck mounting type. Available in same ratings as TQ. Minimum case diameter is .400".	CP11 (3)	TQS
	Stud base mounting type. Available in same ratings as TQ.	—	TQV
FOR INSULATED BODY ADD 1/16" TO DIAMETER OF TQF SIZES LISTED	Grounded construction, with plastic outer sleeve (P).	CP05 (3)	TQP

See complete commercial listings page 394

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ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

TYPE AQF
MILITARY TYPE

CP08
CP09
MIL-C-25A

Commercial Equivalent

TEMPERATURE CHARACTERISTICS E AND K
CIRCUIT 1
(Capacitor Section Insulated From Case)

100 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP08A1-B103M	AQF-1-01	.01	.235 x 3/4
AS-CP08A1-B153M	AQF-1-015	.015	.235 x 3/4
AS-CP08A1-B473M	AQF-1-047	.047	.312 x 7/8
AS-CP08A1-B104M	AQF-1-1	.1	.400 x 7/8
AS-CP08A1-B154M	AQF-1-15	.15	.400 x 1 1/8
AS-CP08A1-B224M	AQF-1-22	.22	.400 x 1 3/8
AS-CP08A1-B334M	AQF-1-33	.33	.562 x 1 1/8
AS-CP08A1-B474M	AQF-1-47	.47	.562 x 1 3/4
AS-CP08A1-B684M	AQF-1-68	.68	.562 x 1 5/8
AS-CP08A1-B105M	AQF-1-1M	1.0	.670 x 1 5/8
200 VOLTS			
AS-CP08A1-C472M	AQF-2-0047	.0047	.235 x 3/4
AS-CP08A1-C682M	AQF-2-0068	.0068	.235 x 3/4
AS-CP08A1-C223M	AQF-2-022	.022	.312 x 7/8
AS-CP08A1-C333M	AQF-2-033	.033	.312 x 7/8
AS-CP08A1-C473M	AQF-2-047	.047	.400 x 7/8
AS-CP08A1-C683M	AQF-2-068	.068	.400 x 7/8
AS-CP08A1-C104M	AQF-2-1	.1	.400 x 1 1/8
AS-CP08A1-C154M	AQF-2-15	.15	.400 x 1 3/8
AS-CP08A1-C224M	AQF-2-22	.22	.562 x 1 1/8
AS-CP08A1-C334M	AQF-2-33	.33	.562 x 1 3/8
AS-CP08A1-C474M	AQF-2-47	.47	.562 x 1 5/8
AS-CP08A1-C684M	AQF-2-68	.68	.670 x 1 5/8
AS-CP08A1-C105M	AQF-2-1M	1.0	.750 x 2 1/8

400 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP08A1-E332M	AQF-4-0033	.0033	.235 x 3/4
AS-CP08A1-E153M	AQF-4-015	.015	.312 x 7/8
AS-CP08A1-E333M	AQF-4-033	.033	.400 x 7/8
AS-CP08A1-E473M	AQF-4-047	.047	.400 x 1 1/8
AS-CP08A1-E683M	AQF-4-068	.068	.400 x 1 3/8
AS-CP08A1-E104M	AQF-4-1	.1	.562 x 1 1/8
AS-CP08A1-E154M	AQF-4-15	.15	.562 x 1 3/8
AS-CP08A1-E224M	AQF-4-22	.22	.562 x 1 5/8
AS-CP08A1-E334M	AQF-4-33	.33	.670 x 1 5/8
AS-CP08A1-E474M	AQF-4-47	.47	.750 x 2 1/8
600 VOLTS			
AS-CP08A1-F102M	AQF-6-001	.001	.235 x 3/4
AS-CP08A1-F152M	AQF-6-0015	.0015	.235 x 3/4
AS-CP08A1-F222M	AQF-6-0022	.0022	.235 x 3/4
AS-CP08A1-F332M	AQF-6-0033	.0033	.312 x 7/8
AS-CP08A1-F472M	AQF-6-0047	.0047	.312 x 7/8
AS-CP08A1-F682M	AQF-6-0068	.0068	.312 x 7/8
AS-CP08A1-F103M	AQF-6-01	.01	.312 x 7/8
AS-CP08A1-F153M	AQF-6-015	.015	.400 x 7/8
AS-CP08A1-F223M	AQF-6-022	.022	.400 x 7/8
AS-CP08A1-F333M	AQF-6-033	.033	.400 x 1 1/8
AS-CP08A1-F473M	AQF-6-047	.047	.400 x 1 3/8
AS-CP08A1-F683M	AQF-6-068	.068	.562 x 1 1/8
AS-CP08A1-F104M	AQF-6-1	.1	.562 x 1 5/8
AS-CP08A1-F154M	AQF-6-15	.15	.562 x 1 3/4
AS-CP08A1-F224M	AQF-6-22	.22	.670 x 1 5/8
AS-CP08A1-F334M	AQF-6-33	.33	.750 x 2 1/8
AS-CP08A1-F474M	AQF-6-47	.47	.750 x 2 3/8
1000 VOLTS			
AS-CP08A1-G102M	AQF-10-001	.001	.400 x 7/8
AS-CP08A1-G152M	AQF-10-0015	.0015	.400 x 7/8
AS-CP08A1-G222M	AQF-10-0022	.0022	.400 x 7/8
AS-CP08A1-G332M	AQF-10-0033	.0033	.400 x 7/8
AS-CP08A1-G472M	AQF-10-0047	.0047	.400 x 7/8
AS-CP08A1-G682M	AQF-10-0068	.0068	.400 x 7/8
AS-CP08A1-G103M	AQF-10-01	.01	.400 x 7/8
AS-CP08A1-G153M	AQF-10-015	.015	.400 x 1 1/8
AS-CP08A1-G223M	AQF-10-022	.022	.400 x 1 3/8
AS-CP08A1-G333M	AQF-10-033	.033	.562 x 1 1/8
AS-CP08A1-G473M	AQF-10-047	.047	.562 x 1 3/8
AS-CP08A1-G683M	AQF-10-068	.068	.562 x 1 5/8
AS-CP08A1-G104M	AQF-10-1	.1	.670 x 1 5/8
AS-CP08A1-G154M	AQF-10-15	.15	.670 x 1 7/8
AS-CP08A1-G224M	AQF-10-22	.22	.750 x 2 1/8
AS-CP08A1-G334M	AQF-10-33	.33	1.000 x 2 1/8
AS-CP08A1-G474M	AQF-10-47	.47	1.000 x 2 3/8

VARIATIONS

CIRCUIT 1	CAPACITOR SECTION INSULATED FROM THE CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY SIZES SHOWN IN LISTINGS	Basic unit in floating construction. Sizes as shown in listings.	CP08 (1)	AQF
	Basic unit with tangential soldered-on bracket. Add suffix (A).	—	AQF-A
	Basic unit with soldered-on L type bracket. Add suffix (B).	—	AQF-B
	Screw neck mounting type. Available in same ratings as AQF. Minimum in case diameter .400".	—	AQFS
FOR INSULATED BODY ADD 1/16" TO DIAMETER AND LENGTH OF AQF SIZES LISTED	Internally insulated ("Floating" Construction) with plastic outer sleeve (P).	CP09 (1)	AQFP

CIRCUIT 3	CAPACITOR SECTION GROUNDED TO CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY DEDUCT 1/16" FROM LENGTH OF UNITS LISTED	Basic unit — Grounded construction.	CP08 (3)	AQ
	Basic AQ unit with soldered-on tangential (A) bracket.	—	AQ-A
	Basic AQ unit with soldered-on L type bracket (B).	—	AQ-B
	Screw neck mounting type. Available in same ratings as AQ. Minimum case diameter is .400".	—	AQS
	Stud base mounting type. Available in same ratings as AQ.	—	AQV
FOR INSULATED BODY ADD 1/16" TO DIAMETER OF AQF SIZES LISTED	Grounded construction, with plastic outer sleeve (P).	CP09 (3)	AQP

See complete commercial listings page 395

ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

CP25 thru CP29 of MIL C-25A

TYPE ARMF Oil Filled Metal Tubulars 85°C. Operation

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Excellent capacitance stability and low power factor over entire temperature range —55°C. to +85°C.
- Units listed are internally insulated from case. Also available with capacitor section grounded to case (Type ARMG) and in accordance with all Specification MIL-C-25A styles CP25-26-27-28-29.
- Wire leads 1½" long. Standard capacitance tolerance ±20%.

Military Number	Astron Type	Cap. Mf.	Dia. x Length
200 VOLTS DC WORKING			
AS-CP25A1EC104M	ARMF-2-1	.1	5/8 x 1 5/8
AS-CP25A1EC254M	ARMF-2-25	.25	3/4 x 2 1/8
AS-CP25A1EC504M	ARMF-2-5	.5	1 x 2 1/8
600 VOLTS DC WORKING			
AS-CP25A1EF302M	ARMF-6-003	.003	7/16 x 1 1/8
AS-CP25A1EF602M	ARMF-6-006	.006	7/16 x 1 1/8
AS-CP25A1EF103M	ARMF-6-01	.01	7/16 x 1 1/8
AS-CP25A1EF203M	ARMF-6-02	.02	7/16 x 1 5/8
AS-CP25A1EF503M	ARMF-6-05	.05	5/8 x 1 1/2
AS-CP25A1EF104M	ARMF-6-1	.1	5/8 x 1 7/8
AS-CP25A1EF254M	ARMF-6-25	.25	1 x 2 1/8
AS-CP25A1EF504M	ARMF-6-5	.5	1 x 2 5/8
1000 VOLTS DC WORKING			
AS-CP25A1EG302M	ARMF-10-003	.003	5/8 x 1 1/8
AS-CP25A1EG602M	ARMF-10-006	.006	5/8 x 1 1/8
AS-CP25A1EG103M	ARMF-10-01	.01	5/8 x 1 1/8
AS-CP25A1EG203M	ARMF-10-02	.02	5/8 x 1 1/2
AS-CP25A1EG503M	ARMF-10-05	.05	3/4 x 1 5/8
AS-CP25A1EG104M	ARMF-10-1	.1	1 x 1 7/8
AS-CP25A1EG254M	ARMF-10-25	.25	1 x 2 5/8
1500 VOLTS DC WORKING			
AS-CP25A1EH302M	ARMF-15-003	.003	1 x 1 1/4
AS-CP25A1EH602M	ARMF-15-006	.006	1 x 1 1/4
AS-CP25A1EH103M	ARMF-15-01	.01	1 x 1 1/4
AS-CP25A1EH203M	ARMF-15-02	.02	1 x 1 5/8
AS-CP25A1EH503M	ARMF-15-05	.05	1 x 1 7/8
AS-CP25A1EH104M	ARMF-15-1	.1	1 x 2 1/8

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE

Circuit 1

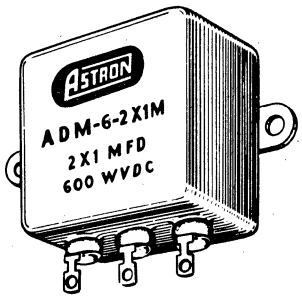
	ASTRON TYPE AND DESCRIPTION		MIL STYLE
UNINSULATED BODY (sizes shown in listings)	ARMF	—Basic type as listed.	CP25
	ARMF-Y	—with radial (Y) bracket. Example: ARMF-2-1Y.	CP27
	ARMF-A	—with tangential (A) soldered-on bracket. Example: ARMF-2-1A.	CP29
INSULATED BODY add 3/16" to length and 1/16" to dia.	ARMFP	—Basic with plastic sleeve (P). Example: ARMFP-2-1.	CP26
	ARMFP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: ARMFP-2-1Y.	CP28

CAPACITOR SECTION GROUNDED TO CASE

Circuit 3

	ASTRON TYPE AND DESCRIPTION		MIL STYLE
UNINSULATED BODY deduct 1/8" from length in above listings	ARMG	—Basic grounded section type.	CP25
	ARMG-Y	—with radial (Y) bracket. Example: ARMG-2-1Y.	CP27
	ARMG-A	—with tangential (A) soldered-on bracket. Example: ARMG-2-1A.	CP29
INSULATED BODY add 1/16" to length and 1/16" to dia. in above listings	ARMGP	—Basic grounded section type with plastic sleeve (P).	CP26
	ARMGP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: ARMGP-2-1Y.	CP28

CP53 thru CP55 of MIL C-25A



TYPE ADM
Bathtub Paper Capacitors 85°C. Operation

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Operating temperature range —55°C. to +85°C.
- Built to comply with strict requirements of MIL-C-25A. Silicone rubber compression-seal lug terminals. Completely immersion-proof.
- Single units have two terminals; duals have three terminals (one common); triple units have three terminals (case common).
- Standard position of Type ADM terminals is on side (MIL-C-25A Style CP53). Available also with terminals on top (ASTRON Type ADMT or MIL Style CP54) and bottom terminals (ASTRON Type ADMB or MIL Style CP55).
- Cap. Tolerance: ±20%.

Military Number	Astron Type	L. x W. x H.
100 VOLTS DC WORKING		
AS-CP53B1EB105M	ADM-1-1M	1 13/16 x 1 x 7/8
AS-CP53B1EB205M	ADM-1-2M	2 x 1 3/4 x 7/8
AS-CP53B1EB405M	ADM-1-4M	2 x 2 x 1 1/8
200 VOLTS DC WORKING		
AS-CP53B1EC504M	ADM-2-5	1 13/16 x 1 x 7/8
AS-CP53B1EC105M	ADM-2-1M	2 x 1 3/4 x 7/8
AS-CP53B1EC205M	ADM-2-2M	2 x 2 x 1
400 VOLTS DC WORKING		
AS-CP53B1EE504M	ADM-4-5	1 13/16 x 1 x 7/8
AS-CP53B1EE105M	ADM-4-1M	2 x 1 3/4 x 7/8
AS-CP53B5EE504M	ADM-4-3x5	2 x 2 x 1 1/8
600 VOLTS DC WORKING		
AS-CP53B1EF503M	ADM-6-05	1 13/16 x 1 x 3/4
AS-CP53B1EF104M	ADM-6-1	1 13/16 x 1 x 3/4
AS-CP53B1EF254M	ADM-6-25	1 13/16 x 1 x 3/4
AS-CP53B1EF504M	ADM-6-5	1 13/16 x 1 x 1
AS-CP53B1EF105M	ADM-6-1M	2 x 1 3/4 x 1
AS-CP53B1EF205M	ADM-6-2M	2 x 2 x 1 1/8 *
AS-CP53B4EF503M	ADM-6-2x05	1 13/16 x 1 x 3/4
AS-CP53B4EF104M	ADM-6-2x1	1 13/16 x 1 x 3/4
AS-CP53B4EF254M	ADM-6-2x25	1 13/16 x 1 x 1
AS-CP53B4EF504M	ADM-6-2x5	2 x 1 3/4 x 1
AS-CP53B4EF105M	ADM-6-2x1M	2 x 2 x 1 1/8 *
AS-CP53B5EF503M	ADM-6-3x05	1 13/16 x 1 x 3/4
AS-CP53B5EF104M	ADM-6-3x1	1 13/16 x 1 x 7/8
AS-CP53B5EF254M	ADM-6-3x25	2 x 1 3/4 x 7/8
AS-CP53B5EF504M	ADM-6-3x5	2 x 2 x 1 1/8 *
1000 VOLTS DC WORKING		
AS-CP53B1EG503M	ADM-10-05	1 13/16 x 1 x 3/4
AS-CP53B1EG104M	ADM-10-1	1 13/16 x 1 x 3/4
AS-CP53B1EG254M	ADM-10-25	1 13/16 x 1 x 7/8
AS-CP53B1EG504M	ADM-10-5	2 x 1 3/4 x 7/8
AS-CP53B1EG105M	ADM-10-1M	2 x 2 x 1 1/8
AS-CP53B4EG503M	ADM-10-2x05	1 13/16 x 1 x 3/4
AS-CP53B4EG104M	ADM-10-2x1	1 13/16 x 1 x 3/4
AS-CP53B4EG254M	ADM-10-2x25	2 x 1 3/4 x 7/8
AS-CP53B4EG504M	ADM-10-2x5	2 x 2 x 1 1/8
AS-CP53B5EG503M	ADM-10-3x05	1 13/16 x 1 x 3/4
AS-CP53B5EG104M	ADM-10-3x1	2 x 1 3/4 x 7/8
AS-CP53B5EG254M	ADM-10-3x25	2 x 2 x 1 1/8

Net
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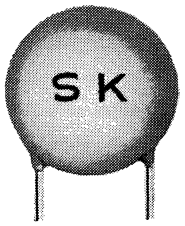
ASTRON® capacitors

ASTRON CORPORATION
EAST NEWARK, N. J.

TEMPERATURE COMPENSATING CERAMIC CAPACITORS DISC (TCD)

SKOTTIE ELECTRONICS CORPORATION
PECKVILLE, PENNSYLVANIA
A WHOLLY-OWNED SUBSIDIARY OF ASTRON CORPORATION



CHARACTERISTICS AND APPLICATIONS: Changes in ambient temperature affect the values of the various components which make up any receiver. This alters the exact frequency of resonance as is illustrated by some "drifty" tuners which must be retuned after they have warmed up. It is possible to control this by introducing reactive components of such temperature characteristics and of such values as to offset the undesired changes.

Available Capacitance—temperature characteristics range from a change of plus 100 parts per million per degree centigrade (P100) to a negative change of 5600 parts per million (N5600).

MAXIMUM CAPACITANCES (MMFD) VS. SIZE

SKOTTIE STYLE:	TCD-4	TCD-5	TCD-8	TCD-10	TCD-12
Max. Dia.	.290"	.410"	.570"	.670"	.790"
Raw Disc	4/16"	5/16"	8/16"	10/16"	12/16"
Temperature Coefficient	Minimum & Maximum	Max.	Max.	Max.	Max.
P100	0 to 6	9	28	—	—
NPO	1 to 15	34	56	100	115
NO30	1 to 16	35	56	100	125
NO80	3 to 17	36	60	105	140
N150	3 to 18	40	75	110	150
N220	3 to 23	52	80	120	160
N330	3 to 25	56	90	135	170
N470	3 to 30	60	120	150	200
N750	3 to 45	82	150	200	300
N1500	20 to 65	150	200	250	330
N2200	20 to 100	160	250	275	470
N3300	20 to 175	234	598	910	1100
N4700	30 to 275	300	657	1000	1210
N5600	40 to 350	381	900	1090	1325

SPECIFICATIONS: TCD

WORKING VOLTAGE: 500 V.D.C. (Higher voltages available.)

TEST VOLTAGE (Flash): 2000 V.D.C.

"Q": Over 1000 at 1 megacycle, for capacitances of 15 mmf and up.

INITIAL LEAKAGE RESISTANCE: Over 10000 megohms.

CAPACITANCE TOLERANCE: At 25°C: ±5% ±10% ±20%. (Special tolerances available).

INSULATION: Durez — vacuum-wax impregnated.

LEADS: No. 22 tinned copper (.026" diameter).

CODING: Capacitance, tolerance, and temperature coefficient stamped on disc.

PRINTED CIRCUIT CONSTRUCTION AVAILABLE ON ALL TYPES.

ALL-PURPOSE CERAMIC CAPACITORS

SKOTTIE STYLE TXD all purpose ceramics provide the highest available capacitances at 250°C. in the smallest possible size. These capacitors exhibit less capacitance change with temperature than the limits specified in the EIA RS-198 specification for Z5U ceramics. This specification allows a maximum capacitance change of +22% and −56% along a temperature range of +10°C. to +85°C.

CAPACITANCES (MMFD) VS. SIZE

SKOTTIE STYLE:	TXD-4	TXD-5	TXD-8	TXD-10	TXD-12
Max. Dia.	.290"	.410"	.570"	.670"	.790"
Raw Disc	4/16"	5/16"	8/16"	10/16"	12/16"
Standard Values: (others available)	120 mmf	680 mmf	.0018 mfd	.0047 mfd	.01 mfd	.02 mfd
	150 "	750 "	.002 "	.005 "	.015 "	.02 +80 −20%
	220 "	800 "	.0022 "	.0068 "	.018 "	2 x .005
	330 "	820 "	.0025 "	.0075 "	.02 ±20%	
	470 "	.001 mfd	.0027 "	.0082 "		
	500 "	.0012 "	.003 "	.01 ±20%		
	560 "	.0015 "	.0033 "			

SKOTTIE STYLE TSD: Stable Capacitance Ceramics afford the best available linearity of capacitance with temperature for an extended temperature range. These units are notable for extremely low aging rate and excellent dielectric strength. The standard 500 V.D.C. working voltage rating is ultra conservative.

TEMPERATURE COEFFICIENT OF CAPACITANCE

Temperature Range	Max. % Cap. Change from 25°C. Value
−55°C to + 85°C	+3% to −7.5%
−30°C to + 85°C	+3% to −3%
+10°C to + 85°C	+3% to −3%
+10°C to +125°C	+5% to −7.5%

CAPACITANCE (MMFD) VS. SIZE

SKOTTIE STYLE:	TSD-4	TSD-5	TSD-8	TSD-10	TSD-12
Max. Dia.	.290"	.410"	.570"	.670"	.790"
Raw Disc	4/16"	5/16"	8/16"	10/16"	12/16"
Max. Capacitance (mmfd)	500	1200	2200	3000	5000

(Specify desired Capacitance)

SPECIFICATIONS: TXD, TSD, TFD

WORKING VOLTAGE: 500 W.V.D.C. (Higher voltages available.)

TEST VOLTAGE (Flash): 2000 W.V.D.C.

POWER FACTOR: 1.5% Maximum at 1kc (initial).

CAPACITANCE: Measured at 25°C, an RMS voltage between 0.5 and 5.0 and a frequency of 1kc.

INITIAL INSULATION RESISTANCE: Over 10000 megohms.

INSULATION: Durez — vacuum-wax impregnated.

LEADS: No. 22 tinned copper (.026" diameter).

CODING: Manufacturer's identification, capacitance and tolerance stamped on disc.

CAPACITANCE TOLERANCES: Available as shown.

SKOTTIE STYLE TFD: Semi-stable Capacitance Ceramics exceed the standards specified in the EIA RS-198 specification for Y5S temperature characteristics. This specification allows a maximum capacitance change of ±22% along a temperature range of −30°C to +85°C. These capacitors exhibit excellent capacitance stability with voltage and frequency and afford relatively high capacitance vs. size.

CAPACITANCE (MMFD) VS. SIZE

SKOTTIE STYLE:	TFD-4	TFD-5	TFD-8	TFD-10	TFD-12
Max. Capacitance (mmfd)	1000	2000	3500	5000	10000
Max. Dia.	.290"	.400"	.570"	.670"	.790"
Raw Disc	4/16"	5/16"	8/16"	10/16"	12/16"

(Specify desired Capacitance)

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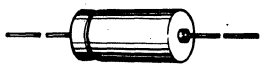
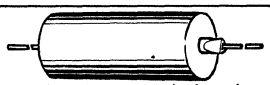
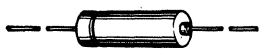
Net

Barco, Inc. MILWAUKEE 1, WISCONSIN

Ultra Miniature 'Lectrolytics

	CATALOG NO.	CAPACITY −20 + 60%	WORKING VOLTAGE	LIST PRICE	BODY SIZE (Illustrations 3/4 Actual) Tolerances: dia. + 1/64, Length + 1/32 Leads: 1⅛ in. Minimum
	FOR OPERATING TEMPERATURES UP TO 70° C.				
TYPE 0	*P3-2I	2 mfd.	3 v dc	.85	1/8 dia. x 7/16 length
	*P6-1	1 mfd.	6 v dc	.85	
	P6-1.5	1.5 mfd.	6 v dc	.85	
	P6-3	3 mfd.	6 v dc	$1.00	
	P10-2	2 mfd.	10 v dc	$1.00	
	*P16-1.25	1.25 mfd.	16 v dc	$1.00	
	*P25-.8I	0.8 mfd.	25 v dc	$1.00	
	P40-.5I	0.5 mfd.	40 v dc	$1.00	
	P70-.3I	0.3 mfd.	70 v dc	$1.00	
TYPE ½	*PT4-4	4 mfd.	4 v dc	.85	1/8 dia. x 5/8 length
	*PT8-2	2 mfd.	8 v dc	$1.00	
TYPE ¾	*PC4-25	25 mfd.	4 v dc	.85	11/64 dia. x 7/16 length
	*PX6-8I	8 mfd.	6 v dc	.85	
	*P15-5I	5 mfd.	15 v dc	.85	
	*P16-10I	10 mfd.	16 v dc	.85	
	*PX25-2.5I	2.5 mfd.	25 v dc	.85	
	PX25-6	6 mfd.	25 v dc	.85	
	PC40-3	3 mfd.	40 v dc	.85	
	*P70-1I	1 mfd.	70 v dc	.85	
TYPE I-IA	*PT6-2	2 mfd.	6 v dc	.70	11/64 dia. x 9/16 length
	PT6-4	4 mfd.	6 v dc	.70	
	PT12/25-2	2 mfd.	12/25 v dc	.70	
	*P25-2.5	2.5 mfd.	25 v dc	.70	① ① Body size 11/64 x 3/4
TYPE II	PT3-32*I*	32 mfd.	3 v dc	.75	1/4 dia. x 11/16 length
	*P3-40I	40 mfd.	3 v dc	.75	
	PC4-100††	100 mfd.	4 v dc	.85	
	*P6-25I	25 mfd.	6 v dc	.75	
	PC6-80I††	80 mfd.	6 v dc	.85	
	*P12-16I	16 mfd.	12 v dc	.75	
	PC16-40I††	40 mfd.	16 v dc	.85	
	PC25-25I††	25 mfd.	25 v dc	.85	
	*P70-4	4 mfd.	70 v dc	.75	
TYPE III	PC6-200††	200 mfd.	6 v dc	$1.00	 23/64 dia. x 11/16 length
	*P12-50I	50 mfd.	12 v dc	$1.00	
	PC40-30I††	30 mfd.	40 v dc	$1.00	
	*P70-10I	10 mfd.	70 v dc	$1.00	
TYPE IV	PC4-500	500 mfd.	4 v dc	$1.35	② 23/64 dia. x 1-3/16 length ② Body size 19/32 dia. x 1-9/32
	PC6-400	400 mfd.	6 v dc	$1.35	
	P10-320I	320 mfd.	10 v dc	$1.25	
	P12-100I	100 mfd.	12 v dc	$1.25	
	P25-125I	125 mfd.	25 v dc	$1.25	
	PC40-64I	64 mfd.	40 v dc	$1.35	
	P70-20I	20 mfd.	70 v dc	$1.25	
TYPE V	PT3-500I	500 mfd.	3 v dc	$1.25	④  ④ Body size 7/16 x 1-3/8 (④a 1-5/8)
	PT50-25*I*	25 mfd.	50 v dc	$1.25	
	PT150-8*I*	8 mfd.	150 v dc	$1.25	
	PT150-20*I*	20 mfd.	150 v dc	$1.25	④a 7/16 dia. x 1-1/8 length
	FOR OPERATING TEMPERATURES UP TO 85° C.				
TYPE IIA	PCH10-25	25 mfd.	10 v dc	.75	 1/4 dia. x 11/16 length
	PCH25-10I	10 mfd.	25 v dc	.75	
	PCH40-6I	6 mfd.	40 v dc	.75	
TYPE IIIA	PCH40-16	16 mfd.	40 v dc	$1.00	23/64 dia. x 11/16 length
TYPE IV A	PCH6-160	160 mfd.	6 v dc	$1.25	23/64 dia. x 1-3/16 length
	PCH25-50I	50 mfd.	25 v dc	$1.25	

* Indicates fastest selling items which should be stocked heavily.
I Designates insulated covering available; add I to catalog number if desired (*I* insulated only.)
†† New, super-small, dimensions for these capacity-voltage ratings.

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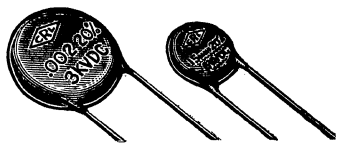
Centralab® Ceramic Capacitors

TYPES DD30 AND DD60 3000-6000 VOLT DISC HI-KAPS®

All these units are highly efficient for bypass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Maintain high capacity and performance at 85° C. All units have a tolerance of ±20%.



CRL Type DD30—3000 v. DC working, 6000 v. DC test; 7/32" thick. Values through 2700 μμf. Net Each..... **24c**
CRL Type DD30—Values 3000 μμf through 5000 μμf. Net Ea. **30c**
CRL Type DD60—6000 v. DC working, 12,000 v. DC test; 21/64" thick. Values through 820 μμf. Net Each..... **36c**
CRL Type DD60—Values 1000 μμf and up. Net Each..... **60c**

Cap. μμf	3000 Volt, DC Working CRL No.	Dia.	6000 Volt, DC Working CRL No.	Dia.
4.7	DD30-4R7	1/4"	DD60-4R7	9/16"
6.8	DD30-6R8	1/4"	DD60-6R8	9/16"
8.2	DD30-8R2	1/4"	DD60-8R2	9/16"
10	DD30-100	1/4"	DD60-100	9/16"
12	DD30-120	1/4"	DD60-120	9/16"
15	DD30-150	1/4"	DD60-150	9/16"
22	DD30-220	1/4"	DD60-220	9/16"
25	DD30-250	1/4"	DD60-250	9/16"
27	DD30-270	1/4"	DD60-270	9/16"
30	DD30-300	1/4"	DD60-300	9/16"
33	DD30-330	1/4"	DD60-330	9/16"
39	DD30-390	1/4"	DD60-390	9/16"
47	DD30-470	1/4"	DD60-470	9/16"
50	DD30-500	1/4"	DD60-500	9/16"
56	DD30-560	1/4"	DD60-560	9/16"
68	DD30-680	1/4"	DD60-680	9/16"
75	DD30-750	1/4"	DD60-750	9/16"
82	DD30-820	1/4"	DD60-820	9/16"
100	DD30-101	1/4"	DD60-101	9/16"
120	DD30-121	1/4"	DD60-121	9/16"
150	DD30-151	1/4"	DD60-151	9/16"
180	DD30-181	1/4"	DD60-181	9/16"
200	DD30-201	1/4"	DD60-201	9/16"
220	DD30-221	1/4"	DD60-221	9/16"
250	DD30-251	1/4"	DD60-251	9/16"
270	DD30-271	1/4"	DD60-271	9/16"
300	DD30-301	1/4"	DD60-301	9/16"
330	DD30-331	1/4"	DD60-331	9/16"
390	DD30-391	1/4"	DD60-391	9/16"
400	DD30-401	1/4"	DD60-401	9/16"
470	DD30-471	3/8"	DD60-471	9/16"
500	DD30-501	3/8"	DD60-501	9/16"
560	DD30-561	3/8"	DD60-561	9/16"
680	DD30-681	3/8"	DD60-681	9/16"
750	DD30-751	3/8"	DD60-751	9/16"
820	DD30-821	3/8"	DD60-821	9/16"
1000	DD30-102	9/16"	DD60-102	3/4"
1200	DD30-122	9/16"	DD60-122	3/4"
1500	DD30-152	9/16"	DD60-152	3/4"
2000	DD30-202	5/8"	DD60-202	7/8"
2200	DD30-222	5/8"	DD60-222	7/8"
2500	DD30-252	5/8"		
2700	DD30-272	5/8"		
3000	DD30-302	3/4"		
3300	DD30-332	7/8"		
3900	DD30-392	7/8"		
4700	DD30-472	7/8"		
5000	DD30-502	7/8"		

TYPE DD2 DUO-KAPS®

Single disc, dual capacity. Double Durez insulation. Rated 600 v. DC, working; 1200 v. DC, test.

CRL No.	Cap., μf	Tolerance	Dia.	Thick.	Net Each
DD2-102	2 x .001	GMV	3/8"	5/32"	24c
DD2-152	2 x .0015	GMV	9/16"	5/32"	24c
DD2-502	2 x .005	−20% +80%	5/8"	5/32"	24c

TYPE DD3 SHIELDED DUO-KAPS®

Three leads—two capacitors in the space formerly needed for one. Shielded to minimize stray capacities between discs. Rated 600 v. DC, working; 1200 v. DC, test.

CRL No.	Cap., μf	Tolerance	Dia.	Thick.	Net Ea
DD3-102	2 x .001	GMV	3/8"	7/32"	30c
DD3-152	2 x .0015	GMV	3/8"	7/32"	30c
DD3-202	2 x .002	GMV	9/16"	7/32"	30c
DD3-502	2 x .005	GMV	9/16"	7/32"	30c
DD3-103	2 x .01	GMV	5/8"	7/32"	30c

TYPE DD16 HI-KAP® BUFFERS

Compact, easy to install. Long life, low cost. Able to withstand high heat, moisture, and vibration. Size: 7/8" diam.. 11/64" thick.

CRL No.	Cap., μf	Tolerance	VDCW	Net Ea.
DD16-302	.003	GMV	1600	21c
DD16-402	.004	GMV	1600	21c
DD16-502	.005	GMV	1600	21c
DD16-602	.006	GMV	1600	21c
DD16-702	.007	GMV	1600	21c
DD16-752	.0075	GMV	1600	21c
DD16-802	.008	GMV	1600	21c
DD16-103	.01	GMV	1600	21c
DD16-153*	.015	−20% +80%	1600	36c

*1/4" thick.

TYPE DD 1000 VDCW DISC HI-KAPS®

Ideal for bypass coupling in high frequency circuits. Rated 1000 v. DC working except Nos. DD6-103, DD-153, DD-203, DD-303, DD-403 and DD-503, which are 600 v. DC working. Tolerance ±10%, except as otherwise indicated.

CRL No.DD -	Cap., μμf	Dia., In.	Net Each	CRL No. DD-	Cap., μμf	Dia., In.	Net Each
3R3	3.3*	1/4	15c	501	500	1/4	15c
050	5	1/4	15c	511	510	1/4	15c
060	6	1/4	15c	561	560	1/4	15c
6R8	6.8	1/4	15c	601	600	1/4	15c
7R5	7.5	1/4	15c	681	680	1/4	15c
080	8	1/4	15c	751	750	1/4	15c
100	10	1/4	15c	801	800†	1/4	15c
120	12	1/4	15c	821	820	1/4	15c
150	15	1/4	15c	911	910	1/4	15c
180	18	1/4	15c	102	1000	3/8	15c
200	20	1/4	15c	102G	1000†	1/4	15c
220	22	1/4	15c	122	1200	3/8	15c
240	24	1/4	15c	122G	1200†	1/4	15c
250	25	1/4	15c	132	1300	3/8	15c
270	27	1/4	15c	152	1500	3/8	15c
300	30	1/4	15c	152G	1500†	1/4	15c
330	33	1/4	15c	162	1600	3/8	15c
390	39	1/4	15c	182	1800	3/8	15c
470	47	1/4	15c	202	2000†	3/8	15c
500	50	1/4	15c	222	2200†	3/8	15c
510	51	1/4	15c	252	2500†	3/8	15c
560	56	1/4	15c	272	2700†	3/8	15c
680	68	1/4	15c	302	3000†	3/8	15c
750	75	1/4	15c	332	3300†	9/16	15c
820	82	1/4	15c	392	3900†	9/16	15c
910	91	1/4	15c	402	4000†	9/16	15c
101	100	1/4	15c	432	4300†	9/16	15c
121	120	1/4	15c	472	4700‡	9/16	15c
131	130	1/4	15c	472G	4700†	9/16	15c
151	150	1/4	15c	5022	5000‡	9/16	15c
181	180	1/4	15c	502	5000†	5/8	15c
201	200	1/4	15c	562	5600†	9/16	15c
221	220	1/4	15c	682	6800†	9/16	15c
241	240	1/4	15c	752	7500†	9/16	15c
251	250	1/4	15c	822	8200†	5/8	15c
271	270	1/4	15c	6-103	10,000†	5/8	15c
301	300	1/4	15c	1032	10,000‡	3/4	15c
331	330	1/4	15c	103	10,000†	3/4	15c
351	350	1/4	15c	153	15,000§	7/8	18c
361	360	1/4	15c	203	20,000§	7/8	18c
391	390	1/4	15c	303	30,000§	7/8	36c
401	400	1/4	15c	403	40,000§	7/8	36c
471	470	1/4	15c	503	50,000§	7/8	36c
471G	470†	1/4	15c				

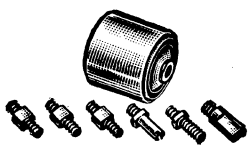
Tolerance: *±0.5 μμf. †GMV. ‡±20%. §+80, −20%.

TYPE DF FLAT-PLATE HI-KAPS®

A dependable 600 volt ceramic capacitor recommended for general replacement applications where their unusual thinness makes them useful. Types listed below are 1 1/16" l. x 1 1/16" h. 600 v. DC, working; 1200 v. DC, test.

CRL No.	Cap. μf	Thickness	Net Each
DF-303	.03	7/32"	$0.75
DF-403	.04	7/32"	.75
DF-503	.05	7/32"	.75
DF-753	.075	19/64"	1.05
DF-104	.1	19/64"	1.05

ATTACHABLE TERMINAL HI-VO-KAPS®



TYPE TV-20—20,000 v. DC working ceramic capacitors; 35,000 v. DC test. Capacity 500 μμf. Terminals will not pull out or break off. Five different type terminals available as listed below.
Type TV-20 Capacitor— Net Each..... **$1.11**

ATTACHABLE TERMINALS

CRL Type TX—Net Each..... **6c**

CRL No.	Type	Thread	CRL No.	Type	Thread
TX-1	Slotted Rod	.....	TX-4	Short Male	8-32
TX-2	Female Tap	6-32	TX-5	Long Male	8-32
TX-3	Male Thread	6-32			

HI-VO-KAP KITS®

CRL Type TV-20T—One TV-20 capacitor with 7 attachable terminals. Net Each..... **$1.35**

CRL Type TVK-5-50—Five TV-20 capacitors with 10 each terminals in plastic box. Net Each..... **$6.75**

FIXED TERMINAL HI-VO-KAPS®

Similar to TV-20, with fixed terminals. Rated 30 kv working, 45 kv test. TV1-503: 2-rod type. TV8-503: Two 8-32 male terminals.
CRL Type TV1-503 or TV8-503— Net Each..... **$1.98**

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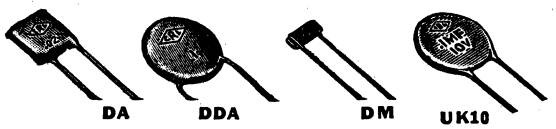
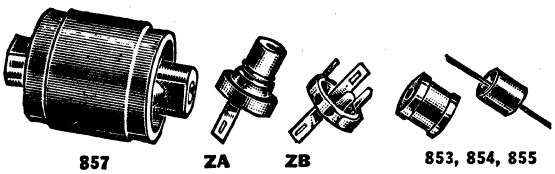
Centralab® Ceramic Capacitors





TYPE CK LOW VOLTAGE DISC HI-KAPS®

For high capacity, low voltage use in transistor circuits. Phenolic insulation; vacuum wax impregnated. Power factor 2% max. at 1 kc. Rated 50 VDCW. Tol., ±20%. Max. capacity change: +25° C to +45° C, ±30%.

CRL No.	Cap., μf	Dia., In.	Net Each	CRL No.	Cap., μf	Dia., In.	Net Each
CK-502	.005	3/8	21c	CK-303	.03	9/16	21c
CK-103	.01	3/8	21c	CK-503	.05	5/8	21c
CK-203	.02	9/16	21c	CK-104	.1	5/8	60c
CK-253	.025	9/16	21c				

TYPE DA MINIATURE PLATE CAPACITORS

Extremely small size. Proven in use by transistor radio receivers. designed for cathode bypass and transistor applications. Power factor, 2.5% at 1 kc. Rated 30 v. DC working; 50 v. DC test. Vacuum wax impregnated with Durez resin coating. Tolerances: +100% −20%.

CRL No.	Cap. μf	Size (Sq.) In., Max.	Thick, Inches	Net Each
DA-203	.02	1/2	.140	$0.36
DA-503	.05	1/2	.160	.81
DA-104	.1	1/2	.187	1.35

TYPE DDA MINIATURE DISCS

Disc type similar to above, 75 VDCW, 150 VDCT. Size: 5/8" diam. x 5/32" thick.

CRL No.	Cap. μf	Tolerance	Net Each
DDA-503	.05	−30% +80%	21c
DDA-104	.1	−30% +80%	60c

TYPE DDM MIN-KAP® DISC CAPACITORS

Ceramic disc type capacitors for smaller voltage requirement applications; 150 VDCW; 300 VDC test. Very small in size; maximum of 3/8" diam. in high capacity values. Ideal for hearing aid, miniature radio, intercom and experimental rigs. Packaged 5 per package. Tolerance: −40% +60%.

CRL Number	Capacity, μf	VDCW	Thickness, Inches	Net Each
DDM-502	.005	150	.146	30c
DDM-103	.01	150	.146	30c
DDM-203	.02	150	.166	54c
DDM2-103	2 x .01	150	.166	54c

TYPE DM FLAT-PLATE MIN-KAPS®

150 VDCW, 300 v. DC test. Size: 7/32" x 17/32" x 7/64". Tolerance +50%, −20%, except (*) +80%, −20%.

CRL No.	Cap., μf	Net Each	CRL No.	Cap., μf	Net Each
DM-101	.0001	30c	DM-202	.002	30c
DM-201	.0002	30c	DM-302*	.003	30c
DM-301	.0003	30c	DM-502*	.005	30c
DM-501	.0005	30c	DM-103*	.01	60c
DM-102	.001	30c	DM2-502*	2 x .005	60c

TYPES UK AND UK10 ULTRA-KAPS

Miniature ceramic disc capacitors for transistor circuit uses; ideally suited for low voltage uses requiring extremely high capacities and low power factors. Leads are No. 22 tinned copper wire. Wt., 2 oz. **Type UK:** Rated 3 v. DC working; GMV tolerance. **Type UK10:** Rated 10 v. DC working; tolerance +80, −20%.

Type UK—3 WVDC				Type UK10—10 WVDC			
CRL Number	Cap., μf	Dia., In.	Net Each	CRL Number	Cap., μf	Dia., In.	Net Each
UK-104	.1	3/16	54c	UK10-503	.05	1/4	33c
UK-224	.22	1/4	33c	UK10-104	.1	3/8	33c
UK-474	.47	3/8	33c	UK10-204	.2	9/16	33c
UK-105	1.0	9/16	54c	UK10-474	.47	3/4	54c
UK-225	2.2	3/4	54c				

ROTARY TRIMMER CAPACITORS

Highly stable, small lightweight design. Power factor less than 0.2% at 1 mc. All units rated 600 v. DC, working; 1200 v. DC, test. **Suffix Z:** Indicates zero temperature coefficient. **Suffix N:** Indicates negative coefficient. Shpg. Wt., 3 oz. max.

CRL Type 820—High dielectric ceramic base impervious to moisture. Flat rotor and stator. Mounting holes take No. 4 machine screws; 5/8" x 27/32". Net Each..... **78c**

CRL Type 822—Steatite body; silver rotor and stator plates; 41/64" x 27/32". Mtg. holes take No. 4 screw. Net Each..... **$1.05**

CRL Type 823—Steatite body; 15/16" x 1 9/32". Net Each.... **3.60**

CRL Type 827—Molded phenolic body has high stability under vibration. Insulation resistance 10,000 megs. minimum Size: 17/32" x 3/4". Net Each..... **75c**

CRL Type 829—Tiny, tubular, high voltage types for TV or FM. Ceramic bodies .215" dia. Full capacity in 180° rotation. Net. **30c**

CRL No.	Range, μμf	CRL No.	Range, μμf	CRL No.	Range, μμf
820D	1.0-3.5	822-AZ	4.5-25	823-DN	8.-50
820A	2.5-6.0	822-DN	2.0-6.0	823-BN	10.-100
820B	5.0-20	822-EN	4.0-30	823-AN	20.-125
820C	7.0-35	822-CN	4.5-25	827A	2.5-7
820E*	35-55	822-BN	7.0-45	827B	3.5-12
820F*	55-75	822-AN	8.0-50	827C	6.0-30
820G*	70-90	823-EZ	5.-12	827D	7.0-35
822-DZ	1.5-3	823-DZ	6.-25	829-3	.5-3
822-EZ	1.5-7	823-BZ	10.-50	829-4	1.-4
822-CZ	2.0-7.5	823-AZ	12-62	829-6	1.-6
822-BZ	2.5-13.0	823-FN	5.-15	829-7	1.-7.5
822-FZ	3.0-12	823-EN	8.-25	829-10	1.5-10

*Less brackets.

TYPE 825 TRIMMERS

Meet MIL-C-81A specifications. Low loss steatite base with pure silver fired on top surface to form stator plate. Silver-plated brass terminals bent 90° from stator plane. Rated 500 VDCW; 1500 v. DC test. Power factor less than 0.2% at 1 mc. Body 27/32" lg. x 41/64" w. Zero temp. coefficient, except * which are negative 650. Shpg. Wt., 2 oz. **$1.05**

CRL Type 825—Net Each.....

CRL No.	MIL Spec.	Cap., μμf	CRL No.	MIL Spec.	Cap., μμf
825-EZ	CV11A070	1.5-7	825-DN*	CV11D060	2.0-6
825-FZ	CV11A120	3.0-12	825-EN*	CV11D300	4.0-30
825-AZ	CV11A250	4.5-25	825-BN*	CV11D450	7.0-45

TRANSMITTING CAPACITORS

Designed for high voltage, high frequency circuits requiring very low power factor and stable retrace characteristics. Double cup design for long leakage paths and rugged construction.

TYPE 850 AND 858—5 AND 7.5 KV

Tolerance: ±10% 850 type; ±20% 858 type. Size: 13/16" dia. x 5/8". Stud type has 1/8" long hex studs 6-32 thread. Lug type 9/16" long solder lugs with tapped 6-32 threaded hole.

CRL No.		Cap. μμf	KV DCW	Temp. Coeff.	RF Load at 30 MC†	Net Each
Stud Type	Lug Type					
850S-25Z	859SL-25Z	25	7.5	NPO	7 amps.	$2.70
850S-50Z	850SL-50Z	50	7.5	NPO	10 amps.	2.70
850S-50N	850SL-50N	50	7.5	N750	8.8 amps.	2.70
850S-75N	850SL-75N	75	7.5	N750	10 amps.	2.70
850S-100N	850SL-100N	100	5	N750	9.8 amps.	2.70
858S-500	.....	500	5	Hi-K	.....	2.70
858S-1000	.....	1 K	5	Hi-K	.....	2.70

TYPE 853, 854, 855—5 KV

Tolerance: ±10%. Size: 853, 9/16" dia. x 1/2". 854, 7/16" dia. x 7/16". 855, 5/16" dia. x 3/8". Lead type has 1 1/2" axial leads. Tap type has axial screw terminals tapped 2-56.

CRL No.		Cap. μμf	KV DCW	Temp. Coeff.	RF Load at 30 MC†	Net Each
Lead Type	Tap Type					
855-3Z	855A-3Z	3	5	NPO	1.8 amps.	$1.80
855-5Z	855A-5Z	5	5	NPO	1.8 amps.	1.80
854-10Z	854A-10Z	10	5	NPO	1.8 amps.	1.80
855-10N	855A-10N	10	5	N750	3.2 amps.	1.80
853-20Z	853A-20Z	20	5	NPO	2.8 amps.	1.80
854-20N	854A-20N	20	5	N750	3.2 amps.	1.80
853-40N	853A-40N	40	5	N750	5.6 amps.	1.80

TYPE 857—7.5 AND 15 KV

Tolerance: 10%. Size: 1 9/64" dia. x 1 5/16". Axial screw terminals at both ends; 1/4" deep 10-32 NF-2 thread.

CRL No.	Cap. μμf	Temp. Coeff.	RF Load at 30 MC†	KV DCW	Net Each
857-25Z	25	NPO	12 amps.	15	$8.40
857-50Z	50	NPO	12 amps.	15	8.40
857-100N	100	N750	14.4 amps.	15	7.20
857-200N	200	N750	18.2 amps.	7.5	7.20

TYPE 859—15 AND 20 KV

Tolerance: ±10%. Size: 2" dia. x 2 7/8" overall. Terminals 7/16" deep both ends, tapped 10-32.

859S-50Z	50	NPO	30 amps.	20	$54.00
859S-100Z	100	NPO	30 amps.	20	54.00
859S-250N	250	N750	30 amps.	20	54.00
859S-500N	500	N3300	30 amps.	15	54.00

†R.F. Load Ratings based on 30° C rise in temperature.

TYPES ZA AND ZB BUTTON-STYLE CERAMICS

Solder-sealed for long life and high quality performance. Shell is effective at ground potential. 500 VDCW, 1000 VDCT. **Type ZA** is standoff 3-48 thread tapped base and ground terminal. **Type ZB** is feed-thru style with three solder lugs.

Cap. μμf	CRL No.	Tol.	Net Each	CRL No.	Tol.	Net Each
15	ZA-150	±10%	75c	ZB-150	±10%	75c
50	ZA-500	±10%	75c	ZB-500	±10%	75c
500	ZA-501	±20%	75c	ZB-501	±20%	75c
1000	ZA-102	GMV	75c	ZB-102	GMV	75c

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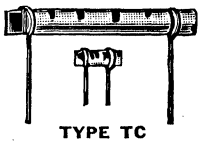
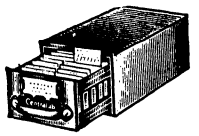
Centralab® Ceramic Capacitors, Kits


TYPE TC

TC DISC

D6

TYPE FT


DDK-200

TEMPERATURE COMPENSATING TUBULAR HI-KAP® CAPACITORS

Especially designed to limit frequency drift in RF circuits where temperature variations are prevalent. Ceramic body construction changes capacities as the temperature varies; made to comply with JAN-C-20A specifications. Rated 1,200 volts DC, test; 600 volts DC, working. Extremely compact. Weight, 2 oz. **Type TCZ:** NPO or zero units, superior to micas for all uses. Show zero capacitance changeover temperature range −20° C to +85° C. Left end coded black. **Type TCN:** N750 units show negative capacity of −750 parts per million per degree C rise in temperature. Left end coded violet.

TYPES TCN AND TCZ

Cap., μμf	Type TCN Units CRL Number	Size †	Tol. ±	Net Each	Type TCZ Units CRL Number	Size †	Tol. ±	Net Each
0.5					TCZ-R5	A	.25 μμf	30c
0.68					TCZ-R68	A	.25 μμf	30c
1.0					TCZ-1	A	.25 μμf	30c
1.5					TCZ-1R5	A	.25 μμf	30c
2.2					TCZ-2R2	A	.25 μμf	30c
3.3	TCN-3R3	A	.5 μμf	30c	TCZ-3R3	A	.25 μμf	30c
4.7					TCZ-4R7	A	.5 μμf	30c
5.0	TCN-5	A	.5 μμf	30c				
6.8					TCZ-6R8	A	.5 μμf	30c
10	TCN-10	A	.5 μμf	30c	TCZ-10	A	.5 μμf	30c
12	TCN-12	A	2%	30c	TCZ-12	A	2%	30c
15	TCN-15	A	2%	30c	TCZ-15	A	2%	30c
18	TCN-18	A	2%	30c	TCZ-18	A	2%	30c
20	TCN-20	A	2%	30c	TCZ-20	A	2%	30c
22	TCN-22	A	2%	30c	TCZ-22	A	2%	30c
24	TCN-24	A	2%	30c	TCZ-24	A	2%	30c
25	TCN-25	A	2%	30c	TCZ-25	A	2%	30c
27	TCN-27	A	2%	30c	TCZ-27	A	2%	30c
30	TCN-30	A	2%	30c	TCZ-30	A	2%	30c
33	TCN-33	A	2%	30c	TCZ-33	A	2%	30c
36	TCN-36	A	2%	30c	TCZ-36	A	2%	30c
39	TCN-39	A	2%	30c	TCZ-39	A	2%	30c
43	TCN-43	A	2%	30c	TCZ-43	B	2%	30c
47	TCN-47	A	2%	30c	TCZ-47	B	2%	30c
50	TCN-50	A	2%	30c	TCZ-50	B	2%	30c
51	TCN-51	A	2%	30c	TCZ-51	B	2%	30c
56	TCN-56	A	2%	30c	TCZ-56	B	2%	30c
62	TCN-62	A	2%	30c	TCZ-62	B	2%	30c
68	TCN-68	A	2%	30c	TCZ-68	B	2%	30c
75	TCN-75	A	2%	30c	TCZ-75	B	2%	30c
82	TCN-82	A	2%	30c	TCZ-82	B	2%	30c
91	TCN-91	A	2%	30c	TCZ-91	C	2%	30c
100	TCN-100	A	2%	30c	TCZ-100	C	2%	30c
110	TCN-110	B	5%	30c	TCZ-110	D	5%	45c
120	TCN-120	B	5%	30c	TCZ-120	D	5%	45c
130	TCN-130	B	5%	30c	TCZ-130	D	5%	45c
150	TCN-150	B	5%	30c	TCZ-150	D	5%	45c
160	TCN-160	B	5%	30c	TCZ-160	D	5%	45c
180	TCN-180	B	5%	30c	TCZ-180	D	5%	45c
200	TCN-200	B	5%	30c	TCZ-200	D	5%	45c
220	TCN-220	C	5%	30c	TCZ-220	D	5%	45c
240	TCN-240	C	5%	30c	TCZ-240	E	5%	60c
270	TCN-270	C	5%	30c	TCZ-270	E	5%	60c
300	TCN-300	D	5%	45c	TCZ-300	E	5%	60c
330	TCN-330	D	5%	45c				
360	TCN-360	D	5%	45c				
390	TCN-390	D	5%	45c				
430	TCN-430	D	5%	45c				
470	TCN-470	D	5%	45c				
510	TCN-510	D	5%	45c				
560	TCN-560	D	5%	45c				
620	TCN-620	E	5%	60c				
680	TCN-680	E	5%	60c				
750	TCN-750	E	5%	60c				

TYPES TCA AND TCL

Intermediate stock values. This group changes negatively capacity-wise with temperature increases. **Type TCA:** Changes 330 parts per million per degree C. **Type TCL:** Changes 1500 parts per million per degree C.

Cap., μμf	Type TCA Units CRL Number	Size †	Tol. ±	Net Each	Type TCL Units CRL Number	Size †	Tol. ±	Net Each
10	TCA-10	A	.5 μμf	30c	TCL-10	A	.5 μμf	30c
15	TCA-15	A	2%	30c	TCL-15	A	2%	30c
22	TCA-22	A	2%	30c	TCL-22	A	2%	30c
33	TCA-33	A	2%	30c	TCL-33	A	2%	30c
47	TCA-47	A	2%	30c	TCL-47	A	2%	30c
68	TCA-68	A	2%	30c	TCL-68	A	2%	30c
100	TCA-100	B	2%	30c	TCL-100	A	2%	30c

SIZE†

Key	Size, Inches	Key	Size, Inches	Key	Size, Inches
A	.400 x .200	C	.860 x .225	E	1.625 x .285
B	.690 x .200	D	1.165 x .285		

TEMPERATURE COMPENSATING DISC HI-KAPS®

Very popular unit that replaces mica types in all applications. High stability and small size, using TC ceramic dielectric material. Type DTZ is NPO or zero TC disc type. Type DTN is an N750 TC type. Thickness: 1/32" and 1/16". Tolerance: ±5%.

TEMPERATURE COMPENSATING DISC HI-KAPS® (CONT'D)

TYPE DTN (N750)

CRL No.	Cap. μμf	Dia., In.	Net Each	CRL No.	Cap., μμf	Dia., In.	Net Each
DTN-5*	5	1/4	30c	DTN-68	68	3/8	30c
DTN-10*	10	1/4	30c	DTN-75	75	3/8	30c
DTN-15	15	1/4	30c	DTN-100	100	3/8	30c
DTN-20	20	1/4	30c	DTN-150	150	9/16	45c
DTN-22	22	1/4	30c	DTN-200	200	9/16	45c
DTN-25	25	1/4	30c	DTN-220	220	9/16	45c
DTN-33	33	1/4	30c	DTN-330	330	5/8	45c
DTN-47	47	1/4	30c				

TYPE DTZ (NPO)

DTZ-1R5*	1.5	1/4	30c	DTZ-50	50	9/16	30c
DTZ-2R2*	2.2	1/4	30c	DTZ-68	68	9/16	30c
DTZ-3R3*	3.3	1/4	30c	DTZ-75	75	9/16	30c
DTZ-4R7*	4.7	1/4	30c	DTZ-82	82	9/16	30c
DTZ-6R8*	6.8	1/4	30c	DTZ-100	100	9/16	30c
DTZ-10	10	1/4	30c	DTZ-120	120	5/8	45c
DTZ-15	15	1/4	30c	DTZ-150	150	3/4	45c
DTZ-20	20	1/4	30c	DTZ-180	180	9/16	45c
DTZ-22	22	3/8	30c	DTZ-200	200	9/16	45c
DTZ-25	25	3/8	30c	DTZ-220	220	5/8	45c
DTZ-33	33	3/8	30c	DTZ-270	270	5/8	45c
DTZ-47	47	9/16	30c				

*Tolerance, ±.5 μμf.

TYPE D6 TUBULAR BC HI-KAPS®

Rated 600 v. DC working; 1200 v., test. Tropicalized. Operating temperature 85° C. Tolerance: ±0.5 μμf, D6-030; ±10%, 5 μμf through 680 μμf; ±20%, 750 μμf through 2200 μμf; GMV, 2500 μμf and up.

CRL Type D6—Any model. Net Each..... **15c**

CRL No.	Cap., μμf	Size *	CRL No.	Cap., μμf	Size *	CRL No.	Cap., μμf	Size *
D6-030	3	A	D6-910	91	A	D6-821	820	A
D6-050	5	A	D6-101	100	A	D6-102	1000	A
D6-100	10	A	D6-121	120	A	D6-122	1200	A
D6-120	12	A	D6-151	150	A	D6-152	1500	A
D6-150	15	A	D6-181	180	A	D6-182	1800	A
D6-180	18	A	D6-201	200	A	D6-202	2000	B
D6-200	20	A	D6-221	220	A	D6-222	2200	B
D6-220	22	A	D6-251	250	A	D6-252	2500	B
D6-250	25	A	D6-271	270	A	D6-272	2700	B
D6-270	27	A	D6-301	300	A	D6-302	3000	B
D6-330	33	A	D6-331	330	A	D6-332	3300	B
D6-390	39	A	D6-391	390	A	D6-402	4000	B
D6-400	40	A	D6-401	400	A	D6-472	4700	C
D6-470	47	A	D6-471	470	A	D6-502	5000	C
D6-500	50	A	D6-501	500	A	D6-562	5600	C
D6-560	56	A	D6-561	560	B	D6-682	6800	D
D6-680	68	A	D6-601	600	B	D6-752	7500	D
D6-750	75	A	D6-681	680	B	D6-103	10000	D
D6-820	82	A	D6-751	750	A			

***Size:** **A**—.260" x .460". **B**—.260" x .790". **C**—.280" x .900". **D**—.330" x 1.21".

TYPES FT AND MFT FEED-THRU HI-KAPS®

Rated 500 v. DC, working; 1000 v. DC, test. **Type FT:** Hooked end terminals; mounting nut supplied. **Type MFT:** 1/4" (max.) flange eyelet inserts in .160" hole; solders direct to chassis.

CRL Type FT—Any model. Net Each..... **75c**

CRL Type MFT—Any model. Net Each..... **30c**

Type FT Hi-Kaps® No.	μμf	Tolerance	Type MFT Hi-Kaps® No.	μμf	Tolerance
FT-500	500	±20%	MFT-50	50	±10%
FT-1000	1000	±20%	MFT-100	100	±10%
FT-1500	1500	−20, +50%	MFT-500	500	±20%
FT-1800	1800	−20, +50%	MFT-1000	1000	GMV
FT-2300	2300	−20, +50%			

CERAMIC CAPACITOR KITS

Each kit contains a carefully balanced inventory of the most required replacement values. All kits utilize the sturdy, convenient Centralab ceramic capacitor packages. Housed in a 6" x 4" x 11", one drawer, heavy gauge steel cabinet. Entire contents labeled and marked for prompt identification.

CRL Kit No. DDK-200—Contains 200 disc capacitors of 31 assorted values, rated at 1 kv DCW. Values range from 5 μμf to 20,000 μμf. Net Each..... **$31.10**

CRL Kit No. D6K-200—Contains 200 tubular capacitors of 27 assorted values, rated at 600 VDCW. Values range from 5 μμf to 10,000 μμf. Net Each..... **$30.00**

CRL Kit No. HVK-150—Contains 150 high voltage capacitors of 17 assorted values, rated at 1.6 kv, 3 kv, and 6 kv. Values range from 47 μμf to 15,000 μμf. Net Each..... **$38.60**

CRL Kit No. LVK-120—Contains 65 low voltage (50- and 150-volt) discs plus 55 Ultra-Kaps (3- and 10-volt) ceramic capacitors for transistor radio replacement. Values from .005 to 2.2 μf. Net Each..... **$44.90**

CRL Kit No. TCK-80—Contains 80 temperature compensating capacitors of 28 assorted values, rated at 600 VDCW. Values range from .68 μμf to 750 μμf. Net Each..... **$26.90**

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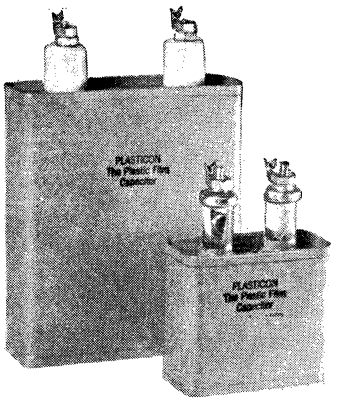
PLASTICON DC RECTANGULARS

Mineral oil impregnated and filled. Hermetically sealed. Can be operated in any position, continuously at 10% over rated voltage up to +40° C. Tolerance 10%. Ambient temperature range -40° C. to 105° C. Insulators: Two ceramic type bushings for standard temperature range. Two soldered-in metallized glass insulators for extended temperature range. All DC rectangulars have 8-32 screw and hex nut terminals with removable hot-tinned solder lugs. Case: Rectangular base, lead coated steel with heavy finish of grey organic lacquer.



Mfr's. No.	Cap. Mfd.	Volts DC	Dimensions - Inches Height	Width	Depth	Term. Height	Dist. Bet. Ter.	Net
AOC6C1	1.0	600	2 1/8	1 3/4	1	5/8	13/16	$ 2.69
AOC6C2	2.0	600	2 3/4	1 3/4	1	5/8	13/16	3.25
AOC6C4	4.0	600	3 1/2	2 1/2	1 3/16	5/8	1 1/8	4.04
AOC6C8	8.0	600	4	3 3/4	1 1/4	5/8	2	6.10
AOC6C10	10.0	600	4	3 3/4	1 3/4	5/8	2	6.85
AOC1M1	1.0	1000	2 3/8	1 3/4	1	5/8	13/16	2.60
AOC1M2	2.0	1000	3	2 1/2	1 13/16	3/4	1 1/8	3.47
AOC1M4	4.0	1000	4 5/8	2 1/2	1 3/16	3/4	1 1/8	4.24
AOC1M8	8.0	1000	4 5/8	3 3/4	1 3/4	5/8	2	5.99
AOC1M10	10.0	1000	4 5/8	3 3/4	2 1/4	5/8	2	6.91
AOC2M05	0.5	2000	2 3/4	1 3/4	1	5/8	13/16	3.14
AOC2M1	1.0	2000	4 1/2	1 3/4	1	5/8	13/16	3.81
AOC2M2	2.0	2000	3 1/4	3 3/4	1 1/4	3/4	2	4.42
AOC2M4	4.0	2000	3 1/2	3 3/4	2 1/4	3/4	2	5.99
AOC3M1	1.0	3000	4	2 1/2	1 3/16	1 1/8	1 1/8	7.84
AOC3M2	2.0	3000	4 5/8	3 3/4	1 1/4	1 1/16	2	9.98
AOC3M4	4.0	3000	4 5/8	3 3/4	2 1/4	1	2	13.80
AOC4M1	1.0	4000	4	3 3/4	1 1/4	1 1/4	2	17.82
AOC4M2	2.0	4000	4	3 3/4	1 3/4	1 1/4	2	21.38
AOC4M4	4.0	4000	4	3 3/4	4 9/16	1 1/16	2	32.69
AOC5M1	1.0	5000	4	3 3/4	1 3/4	2 1/4	2	21.38
AOC5M2	2.0	5000	3 1/2	3 3/4	4 9/16	1 1/8	2	26.73
AOC10M1	1.0	10000	4 5/8	3 3/4	4 9/16	2 1/4	2	57.02

PLASTICON TEFLON CAPACITORS FOR 200° C. APPLICATIONS

POWER FACTOR ..... @ 25°C ..... .05%
@ 165°C ..... .07%

TEMPERATURE COEFFICIENT .... —70°C to 200°C .... —200 ppm/°C.

INSULATION RESISTANCE ..... @25°C ..... 500,000 meg x mfd.
But need not exceed ..... 10,000,000 megohms

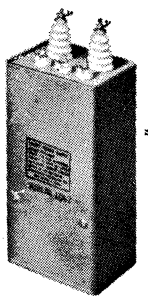
@ 165°C ..... 7,000 meg. x mfd.
But need not exceed ..... 50,000 megohms

@ 170°C ..... 4,000 meg. x mfd.
But need not exceed ..... 25,000 megohms

@ 200°C ..... 1,000 meg. x mfd.
But need not exceed ..... 5,000 megohms

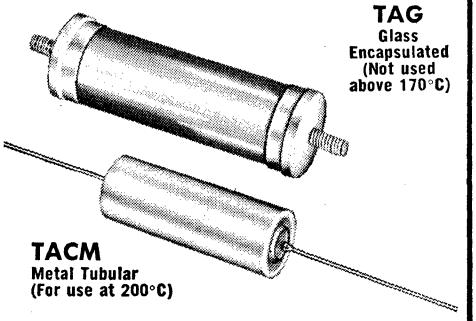
DIELECTRIC ABSORPTION ..... @25°C ..... .02%

TAC
CP-70 Type Can (For use at 200°C)



TAG
Glass Encapsulated (Not used above 170°C)

TACM
Metal Tubular (For use at 200°C)



VOLTAGE RANGE ..... 200 to 1,000 vdc.

CAPACITANCE RANGE ..... TAG, TACM — .001 to 1.0 mfd
TAC — 1 mfd and above.

Condenser Products Company

MANUFACTURERS: Glassmikes • Plasticon Capacitors • HiVolt Power Supplies • Pulse Forming Networks

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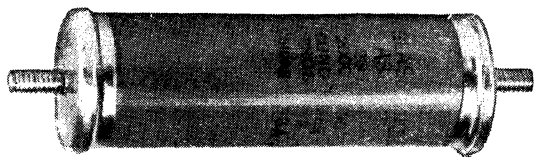
"Glassmike" Plasticon Capacitors



Type ASG

Type ASG are Plasticon A dielectric-silicone fluid impregnated capacitor elements in hermetically sealed glass tubes. Standard range —60°C to +85°C, extended range —60°C to +125°C with proper derating. The smallest and lightest high voltage capacitors made. Type ASG are ideal for DC and low frequency AC applications.

LSG type capacitors have Plasticon L film-silicone fluid impregnant. Designed to compete with mica capacitors, the LSG capacitors are more applicable for Radio Frequency. Special beneficial features include greater safety factor, lower RF loss, more conveniently mounted, utilizes less chassis space, impervious to moisture, and smaller in overall volume.

All 19/32 diameter Glassmikes are supplied with pigtail leads.

Cat. No.	Cap. Mfd.	Volts D.C.	Dimensions Dia. & Length	List Price
ASG502-1M	.005	1000	19/32x1 9/16	$ 2.85
ASG103-1M	.01	1000	19/32x1 3/16	2.85
ASG203-1M	.02	1000	19/32x1 3/16	2.85
ASG503-1M	.05	1000	¾ x1 ¾	3.08
ASG104-1M	.1	1000	¾ x2 ¼	3.08
ASG254-1M	.25	1000	29/32x2 ¾	3.08
ASG504-1M	.5	1000	1 ⅛ x2 ¼	2.90
ASG102-3M	.001	3000	19/32x1 3/16	4.08
ASG202-3M	.002	3000	19/32x1 3/16	4.08
ASG502-3M	.005	3000	19/32x1 3/16	4.08
ASG103-3M	.01	3000	19/32x1 9/16	4.25
ASG203-3M	.02	3000	¾ x1 ¾	4.95
ASG503-3M	.05	3000	29/32x2 ¼	5.45
ASG104-3M	.1	3000	1 ⅛ x2 ¼	6.00
ASG254-3M	.25	3000	1 ⅜ x2	6.60
ASG102-5M	.001	5000	19/32x1 3/16	6.30
ASG202-5M	.002	5000	19/32x1 3/16	6.40
ASG502-5M	.005	5000	19/32x1 ⅝	6.50
ASG103-5M	.01	5000	¾ x1 ¾	6.80
ASG203-5M	.02	5000	¾ x2 ¼	7.20
ASG503-5M	.05	5000	29/32x2 ¼	7.60
ASG104-5M	.1	5000	1 ⅜ x3 ½	8.50
ASG501-8M	.0005	8000	19/32x1 9/16	6.50
ASG102-8M	.001	8000	19/32x1 9/16	6.50
ASG202-8M	.002	8000	19/32x1 ¾	6.80
ASG502-8M	.005	8000	¾ x1 ¾	7.00
ASG103-8M	.01	8000	¾ x2 ¼	7.50
ASG203-8M	.02	8000	29/32x2 ¾	8.60
ASG503-8M	.05	8000	1 ⅜ x4 ¼	11.00
ASG501-10M	.0005	10,000	19/32x1 ⅝	7.00
ASG102-10M	.001	10,000	19/32x1 ⅝	7.20
ASG202-10M	.002	10,000	19/32x1 ⅝	7.40
ASG502-10M	.005	10,000	13/16x1 ¾	8.50
ASG103-10M	.01	10,000	29/32x3 ½	9.20
ASG203-10M	.02	10,000	1 ⅛ x2 ¾	11.40
ASG303-10M	.03	10,000	1 ⅜ x2 ¾	14.60
ASG603-10M	.06	10,000	1 ⅜ x4 ¼	17.50
ASG501-15M	.0005	15,000	19/32x2 ¾	13.50
ASG102-15M	.001	15,000	¾ x2 ¼	13.80
ASG202-15M	.002	15,000	¾ x2 ¼	14.60
ASG502-15M	.005	15,000	1 ⅛ x2 ¾	17.00
ASG103-15M	.01	15,000	1 ⅛ x3 ¾	20.00
ASG203-15M	.02	15,000	1 ⅜ x4 ½	22.00
ASG501-20M	.0005	20,000	19/32x3 ½	18.00
ASG102-20M	.001	20,000	¾ x3 ½	19.00
ASG202-20M	.002	20,000	13/16x3 ½	21.00
ASG502-20M	.005	20,000	1 ⅛ x3 ½	22.50
ASG103-20M	.01	20,000	1 ⅜ x4 ½	24.00
ASG501-30M	.0005	30,000	19/32x4 9/16	21.00
ASG102-30M	.001	30,000	¾ x5	23.50
ASG202-30M	.002	30,000	1 ¾ x4 ¼	26.00
ASG502-30M	.005	30,000	1 ⅜ x5	28.00
ASG501-40M	.0005	40,000	¾ x6 ½	22.50
ASG102-40M	.001	40,000	13/16x6 ½	26.00
ASG202-40M	.002	40,000	1 ⅛ x6 ½	28.00
ASG501-50M	.0005	50,000	¾ x8 ¼	24.50
ASG102-50M	.001	50.0000	13/16x8 ¼	28.00
ASG202-50M	.002	50,000	1 ⅛ x8 ¼	31.50
ASG502-50M	.005	50,000	1 ⅝ x10 ¼	36.00
ASG501-60M	.0005	60,000	¾ x11	28.50
ASG102-60M	.001	60,000	29/32x11	34.00

Part No.	Size	Cap	Volts D.C.	List Price
LSG303-1M	13/16x1 ½	.03	1000	$ 6.17
LSG403-1M	29/32x1 ½	.04	1000	6.85
LSG503-1M	1 ⅛ x1 ½	.05	1000	7.33
LSG603-1M	1 ⅛ x1 ½	.06	1000	7.33
LSG753-1M	1 ⅛ x1 ½	.075	1000	7.33
LSG104-1M	1 ⅛ x2	0.1	1000	8.00
LSG154-1M	1 ⅜ x2	0.15	1000	9.50
LSG204-1M	1 ⅜ x2 ½	0.2	1000	10.80
LSG254-1M	1 ⅝ x2 ½	0.25	1000	11.00
LSG304-1M	1 ⅝ x3	0.3	1000	11.70
LSG404-1M	1 ⅝ x3 ½	0.4	1000	12.70
LSG752-25C	29/32x1	.0075	2500	6.17
LSG103-25C	1 ⅛ x1	.01	2500	6.50
LSG203-25C	1 ⅛ x1 ½	.02	2500	7.18
LSG253-25C	1 ⅛ x1 ½	.025	2500	7.18
LSG303-25C	1 ⅛ x1 ½	.03	2500	7.18
LSG403-25C	1 ⅛ x2	.04	2500	8.00
LSG503-25C	1 ⅜ x2	.05	2500	8.68
LSG603-25C	1 ¾ x2	.06	2500	8.68
LSG753-25C	1 ⅝ x2	.075	2500	10.40
LSG104-25C	1 ⅝ x2 ½	0.1	2500	11.70
LSG154-25C	1 ⅝ x3 ½	0.15	2500	12.70
LSG402-35C	29/32x1	.004	3500	7.00
LSG502-35C	1 ⅛ x1	.005	3500	7.50
LSG602-35C	1 ⅛ x1	.006	3500	7.50
LSG752-35C	1 ⅜ x1	.0075	3500	7.85
LSG103-35C	1 ⅝ x1	.01	3500	8.18
LSG203-35C	1 ⅝ x1 ½	.02	3500	8.50
LSG253-35C	1 ⅝ x1 ½	.025	3500	8.67
LSG303-35C	1 ⅝ x2	.03	3500	10.80
LSG403-35C	1 ⅝ x2	.04	3500	10.80
LSG503-35C	1 ⅝ x2 ½	.05	3500	11.65
LSG603-35C	1 ⅝ x3	.06	3500	12.35
LSG753-35C	1 ⅝ x3	.075	3500	12.35
LSG104-35C	1 ⅝ x4	0.1	3500	13.65
LSG252-5M	13/16x2	.0025	5000	9.65
LSG302-5M	13/16x2	.003	5000	9.65
LSG402-5M	1 ⅛ x2	.004	5000	10.50
LSG502-5M	1 ⅛ x2	.005	5000	10.50
LSG602-5M	1 ⅛ x2	.006	5000	10.50
LSG752-5M	1 ⅜ x2	.0075	5000	11.50
LSG103-5M	1 ⅜ x2	.01	5000	11.50
LSG203-5M	1 ⅜ x3	.02	5000	12.50
LSG253-5M	1 ⅜ x3	.025	5000	12.50
LSG303-5M	1 ⅜ x4	.03	5000	15.00
LSG403-5M	1 ⅝ x4	.04	5000	16.70
LSG503-5M	1 ⅜ x6	.05	5000	18.70
LSG603-5M	1 ⅝ x6	.06	5000	20.70
LSG753-5M	1 ⅜ x8	.075	5000	22.70
LSG104-5M	1 ⅝ x8	0.1	5000	24.70
LSG751-7M	¾ x2	.00075	7000	9.00
LSG102-7M	¾ x2	.001	7000	9.00
LSG202-7M	29/32x2	.002	7000	11.00
LSG252-7M	1 ⅛ x2	.0025	7000	11.85
LSG302-7M	1 ⅛ x2	.003	7000	11.85
LSG402-7M	1 ⅜ x2	.004	7000	12.35
LSG502-7M	1 ⅝ x2	.005	7000	14.35
LSG602-7M	1 ⅝ x2	.006	7000	14.35
LSG752-7M	1 ⅛ x4	.0075	7000	17.00
LSG103-7M	1 ⅛ x4	.01	7000	17.00
LSG203-7M	1 ⅝ x4	.02	7000	18.65
LSG253-7M	1 ⅜ x6	.025	7000	21.30
LSG303-7M	1 ⅝ x6	.03	7000	21.30
LSG403-7M	1 ⅜ x8	.04	7000	23.00
LSG503-7M	1 ⅝ x8	.05	7000	23.00
LSG102-10M	29/32x3	.001	10 KV	12.35
LSG202-10M	1 ⅛ x3	.002	10 KV	13.65
LSG252-10M	1 ¾ x3	.0025	10 KV	15.35
LSG302-10M	1 ¾ x3	.003	10 KV	15.35
LSG402-10M	1 ⅝ x3	.004	10 KV	17.65
LSG502-10M	1 ⅛ x6	.005	10 KV	21.30
LSG602-10M	1 ⅛ x6	.006	10 KV	21.30
LSG752-10M	1 ⅜ x6	.0075	10 KV	24.00
LSG103-10M	1 ¾ x6	.01	10 KV	24.00
LSG203-10M	1 ⅝ x9	.02	10 KV	27.70
LSG253-10M	1 ⅝ x9	.025	10 KV	27.70
LSG101-14M	19/32x4	.0001	14 KV	12.00
LSG201-14M	¾ x4	.0002	14 KV	12.85
LSG251-14M	¾ x4	.00025	14 KV	12.85

OTHER VALUES READILY AVAILABLE

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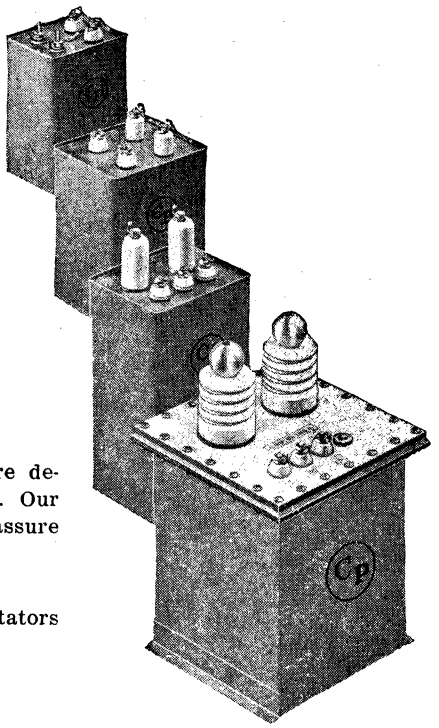
HiVolt POWER SUPPLIES



Where size and weight must be kept to a minimum —

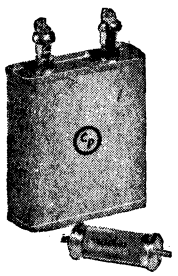
These hermetically-sealed, self-contained power supplies are designed for Hi Voltage low current DC for many applications. Our exclusive engineering techniques and oil-filled construction assure smaller, lighter, more flexible units.

APPLICATIONS:

- radiation counters
- spectrographic analyzers
- projection television sets
- dust and electrostatic precipitators
- oscilloscopes
- display tubes, etc.

Model *	Output Voltage	Rated Output Current	Max. Output Current	% Ripple at Rated Current	Circuit	Case Size	Weight
PS 2-2M60	2 KV DC	2.0 ma	5.0 ma	1.5	Half Wave	3¼ x 3 3/16 x 5½	4.5 pounds
PS 5-5M60	5 KV DC	5.0 ma	5.0	1.5	Half Wave	3¼ x 4 5/16 x 6	9 pounds
PS10-1M60V	0-12 KV DC	1.0 ma	1.75ma	3.0	Full Wave Doubler	3¼ x 4 5/16 x 8	11.5 pounds
PS15-1M60V	0-15 KV DC	1.0 ma	1.75ma	3.0	Full Wave Doubler	3¼ x 4 5/16 x 9	12 pounds
PS30-1M60V	0-30 KV DC	1.0 ma	1.5 ma	3.0	Full Wave Doubler	7 x 7 x 8¼	25 pounds
PS50-2M60VT	0-50 KV DC	2.0 ma	4.0 ma	1.5	Full Wave Tripler	12½ x 12½ x 12½	30 pounds

NOTES: *The PS 50 supply has a separate accessible compartment for the rectifier tubes.
1. Hivolt Supplies are rated at 118 V AC input, 60 cycles.
2 Hivolt Supplies for 400 cycle operation are also available for aircraft use, built to military specifications.
3. Hivolt Supplies are engineered for various applications. Send us your requirements.



LABORATORY GRADE PLASTICON CAPACITORS

Low dielectric absorption, .01-.02% residual. Low dissipation factor, .0002-.0003 at 1 MC. Constant Q and capacitance, from DC to 100 KC. High insulation resistance, 10^{12} ohms/mfd. average. Negative temp. coefficient, minus 400-500 ppm/°C. Rated voltage 500 V DC. Resistance and absorption readings taken at 200 V DC. 2% and 5% standard tolerances, 1% to order. Type LAG Glassmike style. Type LAC rectangular metal can.

No.	Mfd.	Dimensions	List Price 5% Tolerance
LAG101	.0001	13/32 x 1"	$ 6.25
LAG201	.0002	13/32 x 1"	6.33
LAG501	.0005	13/32 x 1"	6.50
LAG102	.001	3/4 x 1"	6.67
LAG202	.002	3/4 x 1"	6.83
LAG502	.005	3/4 x 1"	7.25
LAG103	.01	29/32 x 1"	7.75
LAG203	.02	29/32 x 1"	8.50
LAG503	.05	1 3/8 x 1"	9.33
LAC104	.1	2¼ x 1¾ x 1"	12.83
LAC204	.2	2¼ x 2½ x 1 3/16"	13.83
LAC504	.5	4 x 2½ x 1 3/16"	15.83
LAC105	1.	4 5/8 x 3¾ x 1¼"	27.50
LAC205	2.	4 5/8 x 3¾ x 2¼"	40.83
LAC505	5.	6 x 4 5/16 x 3¾"	88.33

Condenser Products Company

MANUFACTURERS: Glassmikes • Plasticon Capacitors • HiVolt Power Supplies • Pulse Forming Networks

Trade Discount Applies To List Prices Only
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CORNELL-DUBILIER

"BLUE BEAVER" ELECTROLYTIC TUBULARS

TYPE BBR

TYPE BR

BBR

Type BBR "BLUE BEAVERS," miniature versions of the BR, are especially popular for cramped space installations in television receivers, hearing aids, miniature radios and other small assemblies. They are hermetically sealed *in tubular aluminum containers with cardboard sleeve* and ideally suited to meet requirements in low voltage circuits. NEGATIVE TERMINAL IS GROUNDED TO CAN.

The anodes AND cathodes of all 150 volt BBR and BR units are ETCHED. This feature recommends these types for use with JUNCTION RECTIFIERS.

BR

Type BR is the compact unit in *aluminum can with cardboard outer sleeve*. Fits neatly into the cramped quarters, self-supported by rigid tinned copper-bearing alloy leads. Larger sizes may be further supported by a metal strap. NEGATIVE TERMINAL IS GROUNDED TO CAN.

TEMPERATURE RANGE: to +85°C except 500 V. D.C., to +65°C.

BBR/BR Cat. No.	Cap. Mfd.	*Can Size—Inches Diam. x Length	List Price	Net Price
		3 Volts		
BBR 25-3	25	3/8 x 1 1/16	$ .85	**$.51**
BBR 50-3	50	3/8 x 1 1/16	.95	**.57**
		6 Volts		
BBR 5-6	5	3/8 x 1 1/16	.80	**.48**
BBR 25-6	25	3/8 x 1 1/16	.85	**.51**
BBR 50-6	50	3/8 x 1 1/16	.95	**.57**
BBR 100-6	100	1/2 x 1 1/16	1.20	**.72**
BBR 250-6	250	1/2 x 1 7/16	1.35	**.81**
BR 500-6	500	5/8 x 1 11/16	1.55	**.93**
BR 1000-6	1000	3/4 x 2	1.90	**1.14**
BR 2000-6	2000	1 x 2 3/16	2.30	**1.38**
		15 Volts		
BBR 100-15	100	1/2 x 1 1/16	1.25	**.75**
BR 2501	250	5/8 x 1 11/16	1.55	**.93**
BR 5001	500	3/4 x 2	1.75	**1.05**
BR 10001	1000	7/8 x 2	2.30	**1.38**
BR 20001	2000	1 x 3	3.20	**1.92**
		25 Volts		
BBR 10-25	10	3/8 x 1 1/16	1.00	**.60**
BBR 20-25	20	3/8 x 1 1/16	1.00	**.60**
BBR 25-25	25	3/8 x 1 1/16	1.00	**.60**
BBR 50-25	50	1/2 x 1 1/16	1.10	**.66**
BBR 100-25	100	1/2 x 1 7/16	1.35	**.81**
BR 2502	250	3/4 x 1 11/16	1.70	**1.02**
BR 5002	500	7/8 x 2	2.30	**1.38**
		50 Volts		
BBR 1-50	1	3/8 x 1 1/16	.90	**.54**
BBR 2-50	2	3/8 x 1 1/16	.90	**.54**
BBR 4-50	4	3/8 x 1 1/16	1.00	**.60**
BBR 5-50	5	3/8 x 1 1/16	1.00	**.60**

*For Overall BBR Size add 1/16" to Diam. and 5/32" to Length.
*For Overall BR Size add 1/16" to Diam. and 3/16" to Length.

Lead Lengths: BBR — 2 3/8" ± 1/8" — #20 AWG
Lead Lengths: BR — 3 3/8" ± 1/8" — #18 AWG

BBR/BR Cat. No.	Cap. Mfd.	*Can Size—Inches Diam. x Length	List Price	Net Price
		50 Volts		
BBR 10-50	10	3/8 x 1 1/16	$1.00	**$.60**
BBR 25-50	25	1/2 x 1 1/16	1.05	**.63**
BR 505	50	5/8 x 1 7/16	1.20	**.72**
BR 1005	100	5/8 x 1 11/16	1.40	**.84**
BR 1505	150	3/4 x 1 11/16	1.55	**.93**
BR 2505	250	7/8 x 1 11/16	1.75	**1.05**
BR 5005	500	1 x 3	2.40	**1.44**
		90 Volts		
BBR 10-90	10	1/2 x 1 1/16	1.10	**.66**
BBR 16-90	16	1/2 x 1 7/16	1.10	**.66**
		150 Volts		
BBR 4-150	4	3/8 x 1 1/16	1.00	**.60**
BBR 8-150	8	1/2 x 1 1/16	1.05	**.63**
BBR 10-150	10	1/2 x 1 1/16	1.05	**.63**
BBR 12-150	12	1/2 x 1 1/16	1.10	**.66**
BBR 16-150	16	1/2 x 1 7/16	1.15	**.69**
BBR 20-150	20	1/2 x 1 7/16	1.20	**.72**
BR 2515	25	3/4 x 1 7/16	1.25	**.75**
BR 3015	30	3/4 x 1 7/16	1.30	**.78**
BR 4015	40	3/4 x 1 11/16	1.35	**.81**
BR 5015	50	3/4 x 1 11/16	1.40	**.84**
BR 6015	60	7/8 x 1 11/16	1.50	**.90**
BR 8015	80	7/8 x 1 11/16	1.60	**.96**
BR 10015	100	7/8 x 2	1.75	**1.05**
BR 15015	150	1 x 2 3/16	1.90	**1.14**
BR 20015	200	1 x 3	2.20	**1.32**
BR 30015	300	1 x 3 13/16	2.55	**1.53**
		250 Volts		
BBR 4-250	4	1/2 x 1 1/16	1.00	**.60**
BBR 8-250	8	1/2 x 1 7/16	1.15	**.69**
BBR 12-250	12	1/2 x 1 7/16	1.25	**.75**
BR 1625	16	3/4 x 1 7/16	1.30	**.78**
BR 2025	20	3/4 x 1 7/16	1.35	**.81**
BR 3025	30	3/4 x 1 11/16	1.45	**.87**
BR 4025	40	3/4 x 2	1.55	**.93**
BR 5025	50	7/8 x 1 11/16	1.70	**1.02**
BR 6025	60	1 x 1 11/16	1.80	**1.08**
BR 20025	200	1 3/8 x 3 1/8	3.50	**2.10**
		350 V. D.C.		
BR 435	4	5/8 x 1 1/16	1.05	**.63**
BR 835	8	5/8 x 1 7/16	1.20	**.72**
BR 1235	12	3/4 x 1 7/16	1.30	**.78**
BR 1635	16	3/4 x 1 7/16	1.40	**.84**
BR 2035	20	3/4 x 1 7/16	1.45	**.87**
BR 3035	30	3/4 x 2	1.65	**.99**
BR 4035	40	7/8 x 2	1.75	**1.05**
BR 5035	50	1 x 2	1.85	**1.11**
BR 6035	60	1 x 2	1.95	**1.17**
BR 8035	80	1 x 3	2.10	**1.26**
BR 10035	100	1 x 3	2.30	**1.38**
BR 150-350	150	1 3/8 x 3 5/8	3.95	**2.37**
BR 200-350	200	1 3/8 x 4 1/8	4.50	**2.70**
		450 V. D.C.		
BR 145	1	5/8 x 1 1/16	1.10	**.66**
BR 245	2	5/8 x 1 1/16	1.10	**.66**
BR 445	4	5/8 x 1 1/16	1.15	**.69**
BR 845	8	3/4 x 1 7/16	1.25	**.75**
BR 1045	10	3/4 x 1 7/16	1.30	**.78**
BR 1245	12	3/4 x 1 7/16	1.35	**.81**
BR 1645	16	3/4 x 1 11/16	1.40	**.84**
BR 2045	20	7/8 x 1 11/16	1.55	**.93**
BR 3045	30	1 x 2	1.70	**1.02**
BR 4045	40	1 x 2 3/16	1.80	**1.08**
BR 5045	50	1 x 2 11/16	2.10	**1.26**
BR 6045	60	1 x 3	2.35	**1.41**
BR 8045	80	1 x 3 9/16	2.80	**1.68**
BR 10045	100	1 x 3 13/16	3.20	**1.92**
BR 150-450	150	1 3/8 x 3 5/8	4.75	**2.85**
BR 200-450	200	1 3/8 x 4 1/8	5.00	**3.00**
		500 V. D.C.		
BR 450	4	5/8 x 1 7/16	1.20	**.72**
BR 850	8	3/4 x 1 7/16	1.30	**.78**
BR 1250	12	3/4 x 1 11/16	1.40	**.84**
BR 1650	16	7/8 x 1 11/16	1.50	**.90**
BR 2050	20	7/8 x 2	1.60	**.96**
BR 3050	30	1 x 2	1.75	**1.05**

*For Overall BBR Size add 1/16" to Diam. and 5/32" to Length.
*For Overall BR Size add 1/16" to Diam. and 3/16" to Length.

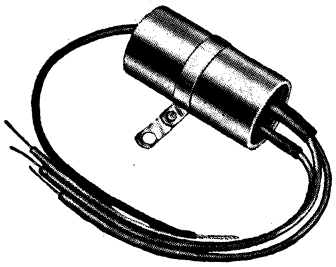
LOW CAPACITY BRHV HIGH VOLTAGE

BRHV Cat. No.	Cap. Mfd.	OVERALL Size—Inches Diam. x Length	List Price	Net Price
		600 D.C. W. Volts		
BRHV 604	4	13/16 x 2 7/16	$1.95	**$1.17**
BRHV 608	8	13/16 x 3 3/16	2.10	**1.26**
BRHV 610	10	15/16 x 3 3/16	2.20	**1.32**
BRHV 612	12	1 1/16 x 3 3/16	2.40	**1.44**
BRHV 616	16	1 1/16 x 3 3/16	2.55	**1.53**
BRHV 620	20	1 1/16 x 3 11/16	2.70	**1.62**
		700 D.C. W. Volts		
BRHV 708	8	15/16 x 3 3/16	2.20	**1.32**
BRHV 710	10	1 1/16 x 3 3/16	2.35	**1.41**
BRHV 712	12	1 1/16 x 3 11/16	2.45	**1.47**
BRHV 716	16	1 1/16 x 4 5/16	2.65	**1.59**

Lead Lengths: 3 3/8" + 1/8" — #18 AWG

CDE CORNELL-DUBILIER

MULTI-SECTION TUBULAR ELECTROLYTICS



BBRT

A series of compact, tubular METAL-CASED, CARDBOARD SLEEVED electrolytics—specially sealed against heat and humidity.

Featuring—

- Direct-to-terminal internal lead construction reduces possibility of shorts. (Pure aluminum wires crimped securely together with outer leads within aluminum stud terminals.)
- New high-insulation vinylite covered leads — generous 7 inches long.
- Sections sealed in aluminum tube for protection against moisture getting in, or electrolyte drying out.
- Wax impregnated cardboard outer insulation sleeve.
- Rubber diaphragm-type vent insures ideal vent action under all conditions.
- **IDEAL FOR OPERATION AT TEMPERATURES UP TO 85° C.**

BBRD — Dual Common Negative

BBRD Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
BBRD 2202	20-20	25	¾ x 1 1/16	$1.40	$ .84
BBRD 115	10-10	50	¾ x 1 1/16	1.40	.84
BBRD 2115	20-10	150	¾ x 1 7/16	1.55	.93
BBRD 2215	20-20	150	¾ x 1 11/16	1.65	.99
BBRD 3215	30-20	150	⅞ x 1 11/16	1.70	1.02
BBRD 3315	30-30	150	⅞ x 1 11/16	1.80	1.08
BBRD 4215	40-20	150	⅞ x 1 11/16	1.75	1.05
BBRD 4315	40-30	150	⅞ x 2	1.80	1.08
BBRD 4415	40-40	150	⅞ x 2	1.85	1.11
BBRD 5315	50-30	150	⅞ x 2	1.95	1.17
BBRD 5515	50-50	150	1 x 2	2.10	1.26
BBRD 8415	80-40	150	1 x 2 3/16	2.25	1.35
BBRD 8515	80-50	150	1 x 2½	2.30	1.38
*BBRD 0183.7	100-50	150	1 x 3	3.00	1.80
*BBRD 101015	100-100	150	1 x 3	3.20	1.92
*BBRD 0196	200-5	200	1 x 4 1/16	3.50	2.10
BBRD 8D25	8-8	250	¾ x 1 7/16	1.60	.96
BBRD 16825	16-8	250	¾ x 2	1.70	1.02
BBRD 16D25	16-16	250	⅞ x 2	1.80	1.08
BBRD 2225	20-20	250	1 x 1 11/16	1.85	1.11
BBRD 3325	30-30	250	1 x 2 3/16	2.25	1.35
*BBRD 7V225	75-20	250	1 x 3	2.60	1.56
*BBRD 0242	80-10	250	1 x 3	2.55	1.53
*BBRD 0246	120-80	250	1 3/8 x 3 1/16	4.00	2.40
*BBRD 0286	150-100	300	1 3/8 x 4 3/16	5.25	3.15
*BBRD 0334	140-5	350	1 1/8 x 4 1/16	4.15	2.49
BBRD 8D45	8-8	450	⅞ x 1 11/16	1.70	1.02
BBRD 1145	10-10	450	⅞ x 2	1.95	1.17
BBRD 16845	16-8	450	1 x 2 3/16	2.00	1.20
BBRD 16D45	16-16	450	1 x 2½	2.25	1.35
*BBRD 2245	20-20	450	1 x 3	2.50	1.50
*BBRD 3345	30-30	450	1 1/8 x 3 9/16	3.00	1.80
*BBRD 4445	40-40	450	1 x 4 1/16	3.40	2.04
*BBRD 0576	60, 125	200, 50	1 x 3	3.25	1.95
BBRD 0646	20, 100	450, 25	1 x 2½	2.20	1.32
*BBRD 0652	40, 50	450, 50	1 x 3 9/16	3.00	1.80
*BBRD 0722	80, 100	450, 50	1 3/8 x 3 9/16	3.75	2.25
*BBRD 0707	30, 50	450, 200	1 1/8 x 2½	2.85	1.71

BBRT — Triple-Common Negative

BBRT Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
BBRT 22215	20-20-20	150	⅞ x 1 11/16	$2.20	$1.32
BBRT 32V215	30-25-20	150	⅞ x 2	2.25	1.35
BBRT 33315	30-30-30	150	1 x 2	2.35	1.41
BBRT 42215	40-20-20	150	1 x 1 11/16	2.25	1.35
BBRT 43215	40-30-20	150	1 x 2	2.35	1.41
BBRT 44215	40-40-20	150	1 x 2	2.35	1.41
BBRT 44415	40-40-40	150	1 x 2 3/16	2.45	1.47
BBRT 53215	50-30-20	150	1 x 2	2.45	1.47
*BBRT 84215	80-40-20	150	1 x 3	2.75	1.65
*BBRT 0126.5	150-150-150	150	1 3/8 x 4 3/16	4.75	2.85
BBRT 0129	250-200-10	150	1 3/8 x 4 3/16	5.65	3.39
*BBRT 7V4125	75-40-10	250	1 1/8 x 3	3.45	2.07
*BBRT 0185	40-40-40	300	1 1/8 x 3	4.60	2.76
*BBRT 0196	120-40-10	300	1 3/8 x 3 1/16	4.85	2.91
*BBRT 0235	60-60-5	350	1 3/8 x 3 1/16	4.25	2.55
*BBRT 11145	10-10-10	450	1 x 2½	2.45	1.47
*BBRT 16T45	16-16-16	450	1 1/8 x 3	3.10	1.86
BBRT 4415X25	40-40, 250	150, 10	1 x 2 3/16	2.60	1.56
BBRT 5315X20	50-30, 200	150, 10	1 x 2 3/16	2.55	1.53
BBRT 5315C	50-30, 20	150, 25	1 x 1 11/16	2.35	1.41
BBRT 5515C	50-50, 20	150, 25	1 x 2 3/16	2.50	1.50
BBRT 8415C	80-40, 20	150, 25	1 x 2½	2.65	1.59
BBRT 3215C10	30-20, 100	150, 25	1 x 2	2.35	1.41
BBRT 2215C	20-20, 20	150, 25	⅞ x 1 11/16	2.05	1.23
BBRT 3315C	30-30, 20	150, 25	⅞ x 2	2.20	1.32
BBRT 4215C	40-20, 20	150, 25	1 x 1 11/16	2.15	1.29
BBRT 4315C	40-30, 20	150, 25	1 x 1 11/16	2.20	1.32
BBRT 4415C	40-40, 20	150, 25	1 x 1 11/16	2.25	1.35
BBRT 5315C10	50-30, 100	150, 25	1 x 2 3/16	2.45	1.47
*BBRT 5315C25	50-30, 250	150, 25	1 x 3	3.10	1.86
BBRT 8215C10	80-20, 100	150, 25	1 x 2½	2.75	1.65
BBRT 2225C	20-20, 20	250, 25	1 x 2	2.25	1.35
BBRT 4225C	40-20, 20	250, 25	1 x 2 3/16	2.55	1.53
BBRT 4425C	40-40, 20	250, 25	1 x 2 11/16	2.90	1.74
*BBRT 0733	80-10, 100	300, 50	1 3/8 x 3 1/16	4.05	2.43
*BBRT 0878	140-5, 200	350, 200	1½ x 4 3/16	6.70	4.02
*BBRT 2245C	20-20, 20	450, 25	1 x 3	2.90	1.74
BBRT 0925	10-10, 100	450, 50	1 x 3	3.30	1.90
*BBRT 1238	5, 80-40	450, 400	1 3/8 x 3 9/16	4.55	2.73
*BBRT 1411	30, 50, 100	450, 150, 25	1 1/8 x 3	3.70	2.22

BBRQ — Quadruple-Common Negative

BBRQ Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
*BBRQ 111145	10-10-10-10	450	1 x 3	$3.20	$1.92
*BBRQ 222245	20-20-20-20	450	1 1/8 x 4 1/16	4.50	2.70
*BBRQ 0125	20-20-20-10	450	1 3/8 x 3 1/16	4.25	2.55
*BBRQ 0170.5	40-20-20-10	450	1 3/8 x 3 9/16	4.70	2.82
*BBRQ 0174	40-40-20-20	450	1 3/8 x 4 3/16	5.45	3.27
BBRQ 33215C	30-30-20, 20	150, 25	1 x 2	2.90	1.74
BBRQ 42215C	40-20-20, 20	150, 25	1 x 2	2.85	1.71
BBRQ 44315C	40-40-30, 20	150, 25	1 x 2½	3.00	1.80
BBRQ 53215C	50-30-20, 20	150, 25	1 x 2½	3.05	1.83
*BBRQ 55515C	50-50-50, 20	150, 25	1 x 3	3.45	2.07
*BBRQ 0789.4	140-5, 200-30	300, 150	1½ x 4 3/16	5.15	3.09
*BBRQ 0385	120-40-40, 10	300, 250	1 3/8 x 3 9/16	6.20	3.72
*BBRQ 22245C	20-20-20, 20	450, 25	1 1/8 x 3 9/16	4.05	2.43
BBRQ 0500	10-10-10, 150	450, 50	1 1/8 x 3	4.60	2.76
*BBRQ 0695.3	10, 20-20-10	450, 350	1 1/8 x 3	3.50	2.10
*BBRQ 0789.5	80-60, 40, 20	350, 300, 150	1 3/8 x 3 9/16	5.90	3.54
*BBRQ 0925	140, 5, 200-30	350, 300, 200	1½ x 4 3/16	7.65	4.59
*BBRQ 0805	80-10, 40, 100	400, 300, 50	1 3/8 x 3 9/16	5.45	3.27
*BBRQ 0926.5	10, 80, 40-40	450, 300, 250	1 3/8 x 3 9/16	4.95	2.97
*BBRQ 0954	10, 80, 40, 100	450, 300, 250, 50	1 3/8 x 3 9/16	4.80	2.88
BBRQ 0954.5	20, 120, 40, 100	450, 300, 250, 50	1 3/8 x 4 3/16	6.15	3.69

EDL — Dual SEPARATE Section

Type EDL Capacitors are dual units in CARDBOARD TUBE containers with wax-filled ends. Capacities, voltages and polarity of the leads are clearly defined by color coding stamped on the tube casing.

TEMPERATURE RANGE: to +65°C.

EDL Cat. No.	Cap. Mfd.	D.C. W. Volts	OVERALL Size—Inches Dia. x Lgth.	List Price	Net Price
*EDL 2215SS	20-20	150	15/16 x 2 5/8	$1.65	$ .99
*EDL 3315SS	30-30	150	1 x 2 5/8	1.80	1.08
*EDL 4215SS	40-20	150	1 x 2 5/8	1.75	1.05
*EDL 4415SS	40-40	150	1 1/16 x 2 7/8	1.85	1.11
*EDL 5315SS	50-30	150	1 1/16 x 2 7/8	1.95	1.17
*EDL 5515SS	50-50	150	1 1/8 x 3 1/8	2.10	1.26
*EDL 8415SS	80-40	150	1 3/16 x 3 3/8	2.25	1.35

†For OVERALL size add 1/16" to Diam. and 3/16" to Length.
All above Packed—5 Units per Carton, except those marked (*) which are individual Carton Packed.

Net

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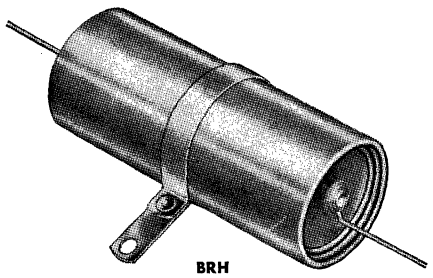
CORNELL-DUBILIER

HIGH-CAPACITY LOW-VOLTAGE ELECTROLYTICS



BRH

BRH compact tubular electrolytic capacitors are widely employed in portable radio power rectifying circuits, electric fence devices, telephone and D.C. timing circuits. Hermetically sealed in pure aluminum cans with an external cardboard insulating sleeve, these units are provided with metal mounting strap and bare wire leads for convenient wiring into any circuit assembly.

TEMPERATURE RANGE to +85°C.

BRH Cat. No.	Cap. Mfd.	Can† Size—Inches Diam. x Length	List Price	Net Price
		6 D.C. W. Volts		
BRH 601	100	5/8 x 1 1/16	$1.20	**$ .72**
BRH 6025	250	5/8 x 1 7/16	1.35	**.81**
BRH 605	500	5/8 x 1 11/16	1.55	**.93**
BRH 610	1000	3/4 x 2	1.90	**1.14**
BRH 620	2000	1 x 2 13/16	2.30	**1.38**
		12 D.C. W. Volts		
BRH 121	100	5/8 x 1 1/16	1.20	**.72**
BRH 1225	250	5/8 x 1 11/16	1.45	**.87**
BRH 125	500	3/4 x 2	1.70	**1.02**
BRH 1210	1000	7/8 x 2	2.25	**1.35**
BRH 1220	2000	1 x 3	2.65	**1.59**
		15 D.C. W. Volts		
BRH 151	100	5/8 x 1 1/16	1.25	**.75**
BRH 1525	250	5/8 x 1 11/16	1.55	**.93**
BRH 155	500	3/4 x 2	1.75	**1.05**
BRH 1510	1000	7/8 x 2	2.30	**1.38**
BRH 1520	2000	1 x 3	3.20	**1.92**
		25 D.C. W. Volts		
BRH 251	100	5/8 x 1 7/16	1.35	**.81**
BRH 2525	250	3/4 x 1 11/16	1.70	**1.02**
BRH 255	500	7/8 x 2	2.30	**1.38**
BRH 2510	1000	1 x 3	3.30	**1.98**
		50 D.C. W. Volts		
BRH 501	100	5/8 x 1 11/16	1.40	**.84**
BRH 5015	150	3/4 x 1 11/16	1.55	**.93**
BRH 5025	250	7/8 x 1 11/16	1.75	**1.05**
BRH 5050	500	1 x 3	2.40	**1.44**

†For Overall Size add 1/16" to Diam. and 3/16" to Length.

Lead Lengths: 3 3/8" ± 1/8" — #18 AWG

HIGH-CAPACITY LOW-VOLTAGE ELECTROLYTICS

TYPE FB ★

Type FB capacitors in round cardboard sleeved aluminum cans are designed for high capacity, low voltage applications, and are especially popular as replacements in motion picture sound equipment, and other low voltage circuits.

TEMPERATURE RANGE: to +85°C.

FB Cat. No.	Cap. Mfd.	D.C. W. Volts	Can†† Size—Inches Dia. x Lgth.	List Price	Net Price
FB 1005	500	10	1 3/8 x 2 3/8	$3.10	**$1.86**
FB 1010	1000	10	1 3/8 x 2 3/8	3.55	**2.13**
FB 1015	1500	10	1 3/8 x 2 3/8	3.75	**2.25**
FB 1020	2000	10	1 3/8 x 2 5/8	3.95	**2.37**
FB 1030	3000	10	1 3/8 x 3 1/8	4.35	**2.61**
FB 1040	4000	10	1 3/8 x 4 1/8	4.75	**2.85**
FB 1050	5000	10	1 1/2 x 4 1/8	5.15	**3.09**
FB 1060	6000	10	1 3/4 x 4 1/8	7.50	**4.50**
FB 1205	500	12	1 3/8 x 2 3/8	3.20	**1.92**
FB 1210	1000	12	1 3/8 x 2 3/8	3.75	**2.25**
FB 1215	1500	12	1 3/8 x 2 5/8	3.95	**2.37**
FB 1220	2000	12	1 3/8 x 3 1/8	4.15	**2.49**
FB 1225	2500	12	1 3/8 x 3 1/8	4.85	**2.91**
FB 1230	3000	12	1 3/8 x 4 1/8	5.05	**3.03**
FB 1240	4000	12	1 1/2 x 4 1/8	5.25	**3.15**
FB 1260	6000	12	2 x 4 1/8	9.35	**5.61**
FB 1505	500	15	1 3/8 x 2 3/8	3.25	**1.95**
FB 1510	1000	15	1 3/8 x 2 3/8	3.80	**2.28**
FB 1515	1500	15	1 3/8 x 2 5/8	4.00	**2.40**
FB 1520	2000	15	1 3/8 x 3 1/8	4.70	**2.82**
FB 1530	3000	15	1 3/8 x 4 1/8	5.15	**3.09**
FB 1540	4000	15	1 1/2 x 4 1/8	8.10	**4.86**
FB 1560	6000	15	2 x 4 1/8	10.00	**6.00**
FB 1805	500	18	1 3/8 x 2 3/8	3.00	**1.80**
FB 1810	1000	18	1 3/8 x 2 3/8	3.90	**2.34**
FB 1820	2000	18	1 3/8 x 3 1/8	4.90	**2.94**
FB 1840	4000	18	1 1/2 x 4 1/8	8.45	**5.07**
FB 2005	500	20	1 3/8 x 2 3/8	3.40	**2.04**
FB 2010	1000	20	1 3/8 x 3 1/8	4.10	**2.46**
FB 2020	2000	20	1 3/8 x 4 1/8	5.20	**3.12**
FB 2040	4000	20	2 x 4 1/8	8.75	**5.25**
FB 2505	500	25	1 3/8 x 2 3/8	3.55	**2.13**
FB 2510	1000	25	1 3/8 x 3 1/8	4.80	**2.88**
FB 2520	2000	25	1 3/8 x 4 1/8	5.75	**3.45**
FB 2530	3000	25	1 3/4 x 4 1/8	8.00	**4.80**
FB 2540	4000	25	2 x 4 1/8	9.50	**5.70**
FB 2550	5000	25	2 1/2 x 4 1/8	11.00	**6.60**
FB 3005	500	30	1 3/8 x 3 1/8	3.60	**2.16**
FB 3010	1000	30	1 3/8 x 4 1/8	4.90	**2.94**
FB 3020	2000	30	1 3/4 x 4 1/8	7.40	**4.44**
FB 3030	3000	30	2 x 4 1/8	8.95	**5.37**
FB 3040	4000	30	2 1/2 x 4 1/8	10.50	**6.30**
FB 3505	500	35	1 3/8 x 3 1/8	3.70	**2.22**
FB 3510	1000	35	1 3/8 x 4 1/8	5.00	**3.00**
FB 3520	2000	35	1 3/4 x 4 1/8	8.00	**4.80**
FB 3530	3000	35	2 x 4 1/8	9.50	**5.70**
FB 3540	4000	35	2 1/2 x 4 1/8	11.00	**6.60**
FB 4005	500	40	1 3/8 x 3 1/8	3.80	**2.28**
FB 4010	1000	40	1 3/8 x 4 1/8	6.50	**3.90**
FB 4020	2000	40	1 3/4 x 4 1/8	9.00	**5.40**
FB 4030	3000	40	2 x 4 1/8	10.50	**6.30**
FB 4040	4000	40	2 1/2 x 4 1/8	11.50	**6.90**
FB 5005	500	50	1 3/8 x 3 1/8	3.90	**2.34**
FB 5010	1000	50	1 3/8 x 4 1/8	7.00	**4.20**
FB 5020	2000	50	1 3/4 x 4 1/8	9.10	**5.46**
FB 5030	3000	50	2 x 4 1/8	11.50	**6.90**
FB 5040	4000	50	2 1/2 x 4 1/8	12.50	**7.50**

††For Overall Size add 1/16" to Diam. and 3/8" to Length.

★When MIL-C-62A units must be supplied, order according to specific CE type designations.

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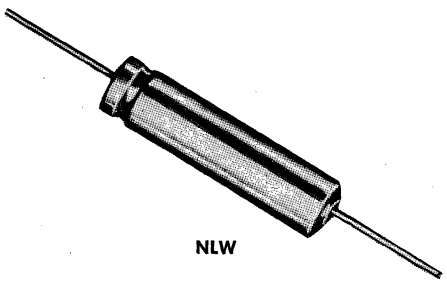
CDE CORNELL-DUBILIER

MINIATURIZED ELECTROLYTICS FOR TRANSISTORIZED AND PRINTED CIRCUITRY

"ELECTOMITE"® METAL-CASED



NLW

Type **NLW** is an aluminum foil capacitor, hermetically sealed into an ultra-small tubular aluminum can which is tightly fitted with an outer transparent plastic sleeve to insure freedom from "shorts" with adjacent components commonly found in compact assemblies. All terminal connections are securely welded. Despite their extremely small size, "Electomites" exhibit excellent electrical characteristics as well as rugged physical construction. Ideal for by-pass, filter and coupling applications in low-voltage, compact, miniaturized equipment.

TEMPERATURE RANGE: −20°C. to +85°C.
TOLERANCE: −10%, +150%

NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 10-3	10	3	3/16 x 1/2	$1.25	$.75
NLW 25-3	25	3	1/4 x 1/2	1.25	.75
NLW 35-3	35	3	1/4 x 5/8	1.25	.75
NLW 40-3	40	3	1/4 x 5/8	1.25	.75
NLW 50-3	50	3	1/4 x 3/4	1.25	.75
NLW 75-3	75	3	5/16 x 3/4	1.40	.85
NLW 100-3	100	3	3/8 x 5/8	1.40	.84
NLW 125-3	125	3	3/8 x 5/8	1.40	.84
NLW 150-3	150	3	3/8 x 3/4	1.45	.87
NLW 175-3	175	3	3/8 x 3/4	1.50	.90
NLW 200-3	200	3	3/8 x 7/8	1.50	.90
NLW 250-3	250	3	3/8 x 1	1.60	.96
NLW 300-3	300	3	3/8 x 1	1.65	.99
NLW 350-3	350	3	3/8 x 1	1.65	.99
NLW 400-3	400	3	3/8 x 1 1/4	1.70	1.02
NLW 450-3	450	3	3/8 x 1 1/2	1.75	1.05
NLW 1-6	1	6	3/16 x 1/2	1.25	.75
NLW 10-6	10	6	3/16 x 1/2	1.35	.81
NLW 15-6	15	6	1/4 x 1/2	1.35	.81
NLW 20-6	20	6	1/4 x 1/2	1.35	.81
NLW 30-6	30	6	1/4 x 5/8	1.40	.84
NLW 40-6	40	6	5/16 x 5/8	1.40	.84
NLW 50-6	50	6	5/16 x 3/4	1.40	.84
NLW 125-6	125	6	3/8 x 3/4	1.50	.90
NLW 150-6	150	6	3/8 x 7/8	1.55	.93
NLW 175-6	175	6	3/8 x 1	1.55	.93
NLW 250-6	250	6	3/8 x 1 1/4	1.70	1.02
NLW 300-6	300	6	3/8 x 1 1/2	1.80	1.08
NLW 8-10	8	10	3/16 x 1/2	1.35	.81
NLW 25-10	25	10	1/4 x 5/8	1.45	.87
NLW 40-10	40	10	5/16 x 3/4	1.45	.87
NLW 50-10	50	10	5/16 x 3/4	1.55	.93
NLW 75-10	75	10	3/8 x 5/8	1.65	.99
NLW 125-10	125	10	3/8 x 7/8	1.85	1.11
NLW 150-10	150	10	3/8 x 1	1.90	1.14
NLW 225-10	225	10	3/8 x 1 1/4	2.10	1.26
NLW 15-12	15	12	1/4 x 1/2	1.40	.84
NLW 35-12	35	12	5/16 x 5/8	1.45	.87
NLW 100-12	100	12	3/8 x 3/4	1.75	1.05
NLW 200-12	200	12	3/8 x 1 1/4	2.05	1.23
NLW 250-12	250	12	3/8 x 1 1/2	2.20	1.32

NLW (cont'd)

NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 3-15	3	15	3/16 x 1/2	$1.25	$.75
NLW 4-15	4	15	3/16 x 1/2	1.30	.78
NLW 5-15	5	15	3/16 x 1/2	1.40	.84
NLW 6-15	6	15	3/16 x 1/2	1.40	.84
NLW 10-15	10	15	1/4 x 1/2	1.40	.84
NLW 15-15	15	15	1/4 x 5/8	1.45	.87
NLW 20-15	20	15	1/4 x 5/8	1.45	.87
NLW 25-15	25	15	5/16 x 5/8	1.45	.87
NLW 30-15	30	15	5/16 x 5/8	1.50	.90
NLW 35-15	35	15	3/8 x 5/8	1.55	.93
NLW 40-15	40	15	3/8 x 5/8	1.55	.93
NLW 50-15	50	15	3/8 x 5/8	1.60	.96
NLW 75-15	75	15	3/8 x 3/4	1.70	1.02
NLW 100-15	100	15	3/8 x 7/8	1.80	1.08
NLW 125-15	125	15	3/8 x 1	1.85	1.11
NLW 150-15	150	15	3/8 x 1 1/4	1.95	1.17
NLW 175-15	175	15	3/8 x 1 1/4	2.00	1.20
NLW 200-15	200	15	3/8 x 1 1/2	2.10	1.26
NLW 3-25	3	25	3/16 x 1/2	1.30	.78
NLW 6-25	6	25	1/4 x 1/2	1.40	.84
NLW 8-25	8	25	1/4 x 1/2	1.45	.87
NLW 10-25	10	25	1/4 x 5/8	1.45	.87
NLW 15-25	15	25	5/16 x 5/8	1.45	.87
NLW 20-25	20	25	3/8 x 5/8	1.50	.90
NLW 25-25	25	25	3/8 x 5/8	1.55	.93
NLW 30-25	30	25	3/8 x 5/8	1.60	.96
NLW 35-25	35	25	3/8 x 3/4	1.60	.96
NLW 40-25	40	25	3/8 x 3/4	1.70	1.02
NLW 50-25	50	25	3/8 x 7/8	1.80	1.08
NLW 75-25	75	25	3/8 x 1 1/4	1.95	1.17
NLW 100-25	100	25	3/8 x 1 1/2	2.10	1.26
NLW 1-50	1	50	3/16 x 1/2	1.30	.78
NLW 2-50	2	50	3/16 x 1/2	1.35	.81
NLW 3-50	3	50	1/4 x 1/2	1.35	.81
NLW 4-50	4	50	1/4 x 1/2	1.35	.81
NLW 5-50	5	50	1/4 x 1/2	1.45	.87
NLW 6-50	6	50	1/4 x 5/8	1.45	.87
NLW 8-50	8	50	5/16 x 1/2	1.50	.90
NLW 10-50	10	50	5/16 x 5/8	1.50	.90
NLW 15-50	15	50	3/8 x 5/8	1.50	.90
NLW 20-50	20	50	3/8 x 5/8	1.50	.90
NLW 25-50	25	50	3/8 x 3/4	1.55	.93
NLW 30-50	30	50	3/8 x 3/4	1.60	.96
NLW 35-50	35	50	3/8 x 7/8	1.70	1.02
NLW 40-50	40	50	3/8 x 1	1.75	1.05
NLW 50-50	50	50	3/8 x 1 1/4	1.85	1.11
NLW 75-50	75	50	3/8 x 1 1/2	2.00	1.20
NLW 2-100	2	100	1/4 x 5/8	1.40	.84
NLW 3-100	3	100	5/16 x 5/8	1.40	.84
NLW 6-100	6	100	3/8 x 5/8	1.50	.90
NLW 8-100	8	100	3/8 x 3/4	1.55	.93
NLW 10-100	10	100	3/8 x 7/8	1.55	.93
NLW 15-100	15	100	3/8 x 1 1/4	1.55	.93
NLW 20-100	20	100	3/8 x 1 1/2	1.60	.96
NLW 1-150	1	150	1/4 x 1/2	1.40	.84
NLW 2-150	2	150	5/16 x 5/8	1.45	.87
NLW 3-150	3	150	3/8 x 5/8	1.45	.87
NLW 4-150	4	150	3/8 x 5/8	1.45	.87
NLW 5-150	5	150	3/8 x 5/8	1.55	.93
NLW 6-150	6	150	3/8 x 3/4	1.55	.93
NLW 8-150	8	150	3/8 x 7/8	1.60	.96
NLW 10-150	10	150	3/8 x 1	1.60	.96
NLW 12-150	12	150	3/8 x 1 1/4	1.60	.96
NLW 15-150	15	150	3/8 x 1 1/4	1.60	.96
NLW 18-150	18	150	3/8 x 1 1/2	1.60	.96

Net

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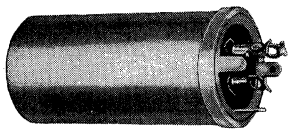
CORNELL-DUBILIER

TWIST-PRONG BASE ELECTROLYTICS



Small round-can TWIST-PRONG electrolytic units. Each is furnished with a bakelite and a metal mounting washer.

X types are especially designed for SELENIUM RECTIFIER circuit applications. ONLY THIS TYPE SHOULD BE USED FOR THIS SERVICE.

TEMP. RANGE: to 475 V.D.C.W. +85°C.
over 475 V.D.C.W. +65°C.

★★**BEST-SELLING PREFERRED TYPE**

★**PREFERRED TYPE**

1 SECTION — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
10 Ohms 30 CPS.	**A0010**	¾ x 2	$2.50	**$1.50**
.5 Ohms 15,750 CPS.	**A0020**	1 x 2	2.75	**1.65**
1 Ohms 60 CPS.	**A0030**	1⅜ x 3	3.50	**2.10**
★★ 2000/**6**	**A0040**	1⅜ x 2	3.05	**1.83**
3000/**10**	**A0050**	1⅜ x 2½	3.65	**2.19**
★★ 225/**15**	**A0053**	¾ x 2	1.75	**1.05**
★★ 1000/**15**	**A0060**	1 x 2½	2.55	**1.53**
★★ 2000/**15**	**A0070**	1⅜ x 2½	3.45	**2.07**
★★ 3000/**15**	**A0080**	1⅜ x 3	4.50	**2.43**
★ 40/**25**	**A0090**	¾ x 2	1.35	**.81**
100/**25**	**A0100**	¾ x 2	2.00	**1.20**
500/**25**	**A0110**	1 x 2½	3.20	**1.92**
★★ 500/**25**	**A0120**	1 x 2	2.55	**1.53**
★★ 1000/**25**	**A0130**	1⅜ x 2	3.55	**2.13**
★★ 100/**50**	**A0140**	¾ x 2	1.65	**.99**
★ 150/**50**	**A0150**	1 x 2	1.80	**1.08**
★★ 500/**50**	**A0160**	1⅜ x 2	2.65	**1.59**
★ 1000/**50**	**A0170**	1⅜ x 3⅝	3.75	**2.25**
★★ 1500/**50**	**A0174**	1⅜ x 4⅛	4.40	**2.64**
★ 30/**150**	**A0180**	¾ x 2	1.55	**.93**
★★ 40/**150**	**XA0191**	¾ x 2	2.00	**1.20**
★ 50/**150**	**A0200**	1 x 2	1.65	**.99**
60/**150**	**A0220**	1 x 2	2.20	**1.32**
★★ 80/**150**	**XA0231**	1 x 2	1.85	**1.11**
★★ 100/**150**	**XA0241**	1 x 2½	2.00	**1.20**
★★ 120/**150**	**XA0248**	1 x 2½	2.05	**1.23**
★★ 120/**150**	**A0250**	1⅜ x 2	2.05	**1.23**
★★ 150/**150**	**XA0261**	1 x 3	2.15	**1.29**
★★ 200/**150**	**XA0262**	1⅜ x 2½	2.45	**1.47**
★★ 200/**150**	**XA0262.1**	1 x 3⅝	2.45	**1.47**
★★ 300/**150**	**XA0263**	1⅜ x 3	2.80	**1.68**
80/**200**	**XA0265**	1⅜ x 2	2.45	**1.47**
★★ 120/**200**	**XA0265.3**	1⅜ x 2	2.80	**1.68**
★★ 20/**250**	**A0270**	¾ x 2	1.60	**.96**
30/**250**	**A0280**	1 x 2	2.15	**1.29**
★★ 40/**250**	**XA0291**	1 x 2	1.80	**1.08**
★★ 100/**250**	**XA0312**	1 x 3	2.70	**1.62**
★★ 150/**250**	**XA0315**	1⅜ x 2½	3.10	**1.86**
★★ 200/**250**	**XA0318**	1⅜ x 3	3.95	**2.37**
50/**300**	**A0320**	1 x 2½	2.55	**1.53**
60/**300**	**XA0324**	1 x 2½	2.65	**1.59**
★★ 80/**300**	**XA0331**	1 x 3	2.55	**1.53**
★★ 100/**300**	**A0340**	1⅜ x 3	2.90	**1.74**
★★ 100/**300**	**A0350**	1 x 3⅝	2.90	**1.74**
★★ 150/**300**	**XA0355**	1⅜ x 3	3.50	**2.10**
15/**350**	**A0360**	1 x 2	2.05	**1.23**
★★ 30/**350**	**A0370**	1 x 2	1.90	**1.14**
★★ 40/**350**	**A0380**	1 x 2½	2.00	**1.20**
★★ 50/**350**	**A0390**	1 x 3	2.10	**1.26**
★★ 80/**350**	**XA0401**	1⅜ x 2½	2.80	**1.68**
★★ 125/**350**	**XA0411**	1⅜ x 3	3.65	**2.19**
★★ 150/**350**	**XA0415**	1⅜ x 3⅝	3.95	**2.37**
★★ 10/**450**	**A0430**	1 x 2	1.75	**1.05**

1 SECTION — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★★ 10/**450**	**A0440**	¾ x 2	$1.95	**$1.17**
15/**450**	**A0450**	1 x 2	2.15	**1.29**
★★ 20/**450**	**A0460**	1 x 2	1.80	**1.08**
★★ 30/**450**	**A0470**	1 x 2½	1.95	**1.17**
★★ 40/**450**	**A0480**	1 x 3	2.05	**1.23**
★★ 50/**450**	**A0490**	1 x 3⅝	2.35	**1.41**
★★ 60/**450**	**A0500**	1⅜ x 2½	2.70	**1.62**
★★ 80/**450**	**A0510**	1⅜ x 3	3.05	**1.83**
★★ 100/**450**	**A0512**	1⅜ x 3	3.45	**2.07**
★★ 125/**450**	**A0514**	1⅜ x 4⅛	3.95	**2.37**
★ 40/**475**	**A0516**	1⅜ x 2	2.50	**1.50**
★★ 10/**500**	**A0520**	1 x 2	1.60	**.96**
★★ 20/**500**	**A0530**	1 x 2½	1.85	**1.11**
25/**500**	**A0532**	1 x 2½	2.45	**1.47**
★★ 30/**500**	**XA0541**	1 x 3	2.20	**1.32**
★★ 40/**500**	**A0550**	1 x 3⅝	2.50	**1.50**
★★ 80/**500**	**A0560**	1⅜ x 3⅝	3.60	**2.16**
★★ 90/**500**	**A0570**	1⅜ x 3⅝	3.90	**2.34**

2 SECTIONS — 1 VOLTAGE

.5 Ohms 15,750 CPS.	**B0010**	1⅜ x 2	4.90	**2.94**
2.5 Ohms 60 CPS.				
1000-500/**6 VNP**	**B0020**	1⅜ x 2	4.80	**2.88**
★ 1000-1000/**15**	**B0030**	1 x 3⅝	4.40	**2.64**
★★ 1000-1000/**15**	**B0040**	1⅜ x 2½	4.40	**2.64**
★★ 500-100/**20**	**B0045**	1 x 2	3.15	**1.89**
20-20/**25**	**B0050**	1 x 2	1.80	**1.08**
40-40/**25**	**B0060**	1 x 2	2.00	**1.20**
150-50/**25**	**B0070**	1 x 2	2.40	**1.44**
★ 50-50/**50**	**B0080**	1 x 2	1.70	**1.02**
★ 100-100/**50**	**B0085**	1 x 2	2.10	**1.26**
★★ 20-20/**150**	**XB0091**	1 x 2	1.85	**1.11**
30-20/**150**	**B0100**	1 x 2	2.20	**1.32**
★ 30-30/**150**	**B0110**	1 x 2	1.85	**1.11**
★★ 40-20/**150**	**B0120**	1 x 2	1.80	**1.08**
★ 40-30/**150**	**B0130**	1 x 2	1.85	**1.11**
★★ 40-40/**150**	**XB0141**	1 x 2	2.00	**1.20**
★★ 50-30/**150**	**B0150**	1 x 2	2.00	**1.20**
★★ 50-50/**150**	**XB0161**	1 x 2½	2.15	**1.29**
★ 60-60/**150**	**XB0165**	1 x 3	2.35	**1.41**
★ 75-75/**150**	**B0170**	1 x 3	2.60	**1.56**
★★ 80-40/**150**	**XB0181**	1 x 2½	2.30	**1.38**
★ 80-80/**150**	**XB0183**	1⅜ x 2	2.65	**1.59**
100-100/**150**	**XB0184**	1⅜ x 2½	4.05	**2.43**
★ 125-100/**150**	**XB0184.5**	1⅜ x 2½	3.50	**2.10**
150-150/**150**	**XB0185**	1⅜ x 3	4.40	**2.64**
200-5/**150**	**B0186**	1⅜ x 2½	3.40	**2.04**
★ 200-125/**150**	**XB0187**	1⅜ x 3⅝	3.75	**2.25**
★★ 200-150/**150**	**XB0188**	1⅜ x 3⅝	3.75	**2.25**
★★ 200-200/**150**	**XB0189**	1⅜ x 3⅝	4.00	**2.40**
★ 60-60/**200**	**B0190**	1⅜ x 2	2.55	**1.53**
★★ 100-100/**200**	**XB0194**	1⅜ x 3	3.50	**2.10**
★★ 200-5/**200**	**XB0196**	1⅜ x 2½	3.20	**1.92**
10-10/**250**	**B0200**	1 x 2	2.15	**1.29**
★★ 20-20/**250**	**B0210**	1 x 2	1.90	**1.14**
30-30/**250**	**B0220**	1 x 2½	2.90	**1.74**
40-20/**250**	**B0230**	1 x 2½	2.75	**1.65**
40-40/**250**	**B0240**	1 x 3	3.20	**1.92**
★★ 40-40/**250**	**XB0241**	1 x 3	2.50	**1.50**
★★ 80-40/**250**	**XB0243**	1⅜ x 2½	3.75	**2.25**
★★ 150-150/**250**	**B0250**	1⅜ x 4⅛	5.15	**3.09**
★★ 200-200/**250**	**XB0252**	1⅜ x 4⅛	6.10	**3.66**
40-40/**300**	**XB0254**	1 x 3	3.75	**2.25**
50-50/**300**	**B0260**	1⅜ x 2½	4.20	**2.52**
80-40/**300**	**XB0264**	1⅜ x 2½	4.45	**2.67**
★★ 80-80/**300**	**B0270**	1⅜ x 3	4.05	**2.43**
★ 120-20/**300**	**B0280**	1⅜ x 3	4.00	**2.40**
120-40/**300**	**B0282**	1⅜ x 3⅝	5.45	**3.27**
★★ 200-80/**300**	**B0286**	1⅜ x 3⅝	5.25	**3.15**
★ 15-15/**350**	**B0290**	1 x 2	2.25	**1.35**
★★ 20-20/**350**	**B0300**	1 x 2½	2.90	**1.74**
★★ 30-30/**350**	**B0310**	1 x 3	2.90	**1.74**

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CDE — CORNELL-DUBILIER

TWIST-PRONG BASE ELECTROLYTICS

★★ BEST-SELLING PREFERRED TYPE ★ PREFERRED TYPE

2 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 50-30/**350**	**B0320**	1⅜ x 2½	$3.15	**$1.89**
60-30/**350**	**B0321**	1⅜ x 2½	3.15	**1.89**
★ 80-20/**350**	**B0322**	1 x 3⅝	3.50	**2.10**
★ 80-20/**350**	**B0324**	1⅜ x 2½	3.50	**2.10**
★★ 80-40/**350**	**B0326**	1⅜ x 3	3.95	**2.37**
★★ 80-80/**350**	**B0330**	1⅜ x 3⅝	4.70	**2.82**
★ 90-40/**350**	**B0331**	1⅜ x 3	4.30	**2.58**
★★ 100-100/**350**	**B0332**	1⅜ x 4⅛	6.15	**3.69**
★ 160-10/**350**	**B0334**	1⅜ x 3⅝	4.30	**2.58**
★★ 40-120/**400**	**B0336**	1⅜ x 4⅛	5.25	**3.15**
60-60/**400**	**B0340**	1⅜ x 3⅝	5.50	**3.30**
80-10/**400**	**B0350**	1⅜ x 3	4.25	**2.55**
★ 80-60/**400**	**B0354**	1⅜ x 3⅝	4.85	**2.91**
★★ 80-80/**400**	**B0356**	1⅜ x 4⅛	4.95	**2.97**
★ 5-5/**450**	**B0362**	1 x 2	1.75	**1.05**
★★ 10-10/**450**	**B0370**	1 x 2	1.90	**1.14**
15-10/**450**	**B0374**	1 x 2½	2.55	**1.53**
★ 15-15/**450**	**B0380**	1 x 2½	2.25	**1.35**
★★ 20-10/**450**	**B0390**	1 x 2½	2.25	**1.35**
★★ 20-20/**450**	**B0400**	1 x 3	2.55	**1.53**
★ 30-10/**450**	**B0410**	1 x 3	2.50	**1.50**
★★ 30-30/**450**	**B0430**	1⅜ x 2½	3.05	**1.83**
40-5/**450**	**B0436**	1 x 3	3.20	**1.92**
★★ 40-20/**450**	**B0440**	1⅜ x 2½	3.00	**1.80**
★★ 40-40/**450**	**B0450**	1⅜ x 3	3.45	**2.07**
★★ 50-50/**450**	**XB0455**†	1⅜ x 3	3.85	**2.31**
★ 60-20/**450**	**B0460**	1⅜ x 3	3.55	**2.13**
★★ 60-40/**450**	**B0462**	1⅜ x 3⅝	3.95	**2.37**
60-60/**450**	**B0464**	1⅜ x 3⅝	5.65	**3.39**
★★ 80-10/**450**	**B0470**	1⅜ x 3	3.60	**2.16**
★ 80-20/**450**	**B0473**	1⅜ x 3⅝	3.90	**2.34**
80-30/**450**	**B0477**	1⅜ x 3⅝	4.20	**2.40**
★★ 80-40/**450**	**B0480**	1⅜ x 3⅝	4.35	**2.61**
★★ 100-40/**450**	**B0483**	1⅜ x 4⅛	4.85	**2.91**
★ 15-15/**475**	**B0485**	1 x 2½	2.35	**1.41**
★ 30-10/**475**	**B0486**	1⅜ x 2	2.70	**1.62**
★ 40-10/**475**	**B0487**	1⅜ x 2½	3.10	**1.86**
★ 80-50/**475**	**B0489**	1⅜ x 4⅛	5.20	**3.12**
★★ 10-10/**500**	**B0490**	1 x 2½	2.35	**1.41**
★★ 20-20/**500**	**B0500**	1⅜ x 2½	2.85	**1.71**
25-40/**500**	**B0510**	1⅜ x 3	4.55	**2.73**
★ 30-10/**500**	**B0520**	1⅜ x 2½	2.85	**1.71**
★★ 40-40/**500**	**B0530**	1⅜ x 3⅝	4.40	**2.64**
★★ 60-40/**500**	**B0540**	1⅜ x 3⅝	4.60	**2.76**

2 SECTIONS — 2 VOLTAGES

★ 250/**10** 1000/**6**	**B0550**	1⅜ x 2	2.85	**1.71**
40/**150** 20/**50**	**B0560**	1 x 2	2.15	**1.29**
40/**150** 150/**25**	**B0570**	1 x 2	2.55	**1.53**
★ 50/**150** 500/**5**	**B0574**	1 x 2½	2.45	**1.47**
★ 150/**150** 100/**25**	**B0575**	1⅜ x 2½	2.70	**1.62**
150/**150** 100/**50**	**XB0575.5**	1 x 3⅝	2.85	**1.71**
60/**200** 125/**50**	**B0576**	1 x 3	3.00	**1.80**
40/**250** 20/**25**	**B0580**	1 x 2	2.50	**1.50**
50/**250** 100/**50**	**B0590**	1⅜ x 2	3.25	**1.95**
★ 100/**250** 150/**50**	**B0600**	1⅜ x 3	3.65	**2.19**
10/**300** 40/**50**	**B0601**	1 x 2	1.70	**1.02**
★ 35/**300** 500/**6**	**XB0603**	1 x 2½	2.80	**1.68**
80/**300** 100/**50**	**B0606**	1⅜ x 2½	3.95	**2.37**
★★ 150/**300** 100/**150**	**B0608**	1⅜ x 3⅝	4.50	**2.70**
20/**350** 20/**25**	**B0610**	1 x 2	2.40	**1.44**
20/**350** 100/**75**	**B0612**	1 x 2½	2.80	**1.68**
40/**350** 20/**25**	**B0620**	1 x 2½	2.95	**1.77**
★ 35/**400** 100/**50**	**B0623**	1 x 3	2.60	**1.56**
80/**400** 80/**200**	**B0625**	1⅜ x 3⅝	3.95	**2.37**
★★ 100/**400** 30/**50**	**B0626**	1⅜ x 3	3.90	**2.34**
★ 10/**450** 20/**25**	**B0630**	1 x 2	1.75	**1.05**
20/**450** 20/**25**	**B0640**	1 x 2	2.50	**1.50**
20/**450** 100/**25**	**B0646**	1 x 2½	2.75	**1.65**
40/**450** 20/**25**	**B0650**	1 x 3	3.05	**1.83**
40/**450** 50/**50**	**B0652**	1 x 3⅝	3.75	**2.25**
40/**450** 10/**300**	**B0654**	1 x 3	2.60	**1.56**
80/**450** 20/**25**	**B0660**	1⅜ x 3	4.25	**2.55**

2 SECTIONS — 2 VOLTAGES

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
10/**450** 100/**50**	**B0670**	1⅜ x 2	$2.55	**$1.53**
★ 20/**450** 50/**250**	**B0674**	1 x 3	2.80	**1.68**
★ 20/**450** 80/**350**	**B0680**	1⅜ x 3	3.65	**2.19**
20/**450** 100/**100**	**B0690**	1⅜ x 2	3.30	**1.98**
30/**450** 40/**150**	**B0700**	1⅜ x 2	3.15	**1.89**
★ 30/**450** 200/**150**	**B0705**	1⅜ x 3	3.50	**2.10**
★ 40/**450** 10/**350**	**B0710**	1⅜ x 2	2.65	**1.59**
★ 50/**450** 100/**50**	**B0715**	1⅜ x 2½	3.00	**1.80**
★ 80/**450** 50/**50**	**B0720**	1⅜ x 3	3.50	**2.10**
★★ 80/**450** 100/**50**	**B0722**	1⅜ x 3⅝	3.75	**2.25**
80/**450** 40/**200**	**B0724**	1⅜ x 3	4.75	**2.85**
★ 20/**475** 100/**400**	**B0726**	1⅜ x 4⅛	4.50	**2.70**
15/**500** 20/**300**	**B0730**	1 x 2½	2.90	**1.74**
20/**500** 100/**300**	**B0740**	1⅜ x 3	4.95	**2.97**
40/**500** 50/**200**	**B0750**	1⅜ x 2½	4.20	**2.52**
60/**500** 80/**150**	**B0760**	1⅜ x 3⅝	4.70	**2.82**
80/**500** 50/**50**	**B0770**	1⅜ x 3⅝	4.75	**2.85**

3 SECTIONS — 1 VOLTAGE

★ 20-20-20/**25**	**C0010**	1 x 2	1.95	**1.17**
★ 40-40-40/**25**	**C0020**	1 x 2	2.15	**1.29**
30-30-30/**50**	**C0030**	1 x 2	3.25	**1.95**
★★ 20-20-20/**150**	**XC0041**	1 x 2	2.30	**1.38**
30-30-10/**150**	**C0050**	1 x 2	3.55	**2.13**
★ 40-20-10/**150**	**C0060**	1 x 2	2.35	**1.41**
★★ 40-20-20/**150**	**XC0071**	1 x 2	2.40	**1.44**
★★ 40-30-20/**150**	**C0080**	1 x 2	2.50	**1.50**
★★ 40-40-40/**150**	**C0090**	1 x 2½	2.60	**1.56**
★ 40-70-40/**150**	**C0100**	1 x 3	2.95	**1.77**
★ 50-40-10/**150**	**C0103**	1 x 2½	2.55	**1.53**
★★ 50-50-50/**150**	**XC0105**	1 x 3	3.00	**1.80**
★★ 60-40-20/**150**	**C0110**	1 x 2½	2.75	**1.65**
★ 70-15-15/**150**	**C0113**	1 x 2½	2.70	**1.62**
★★ 80-40-20/**150**	**C0120**	1 x 3	2.90	**1.74**
80-80-80/**150**	**XC0123**	1⅜ x 3	5.65	**3.39**
★ 120-80-40/**150**	**XC0125**	1⅜ x 3	3.80	**2.28**
★ 120-120-40/**150**	**XC0126**	1⅜ x 3	4.05	**2.43**
★★ 200-100-60/**150**	**XC0127**	1⅜ x 3⅝	4.55	**2.73**
★ 200-150-150/**150**	**XC0128**	1⅜ x 4⅛	7.50	**4.50**
★★ 250-200-10/**150**	**XC0129**	1⅜ x 4⅛	5.60	**3.36**
20-20-10/**250**	**C0130**	1 x 2	3.75	**2.25**
★ 20-20-20/**250**	**C0132**	1 x 2	2.60	**1.56**
30-20-10/**250**	**C0140**	1 x 2½	4.05	**2.43**
40-20-10/**250**	**C0150**	1⅜ x 2	4.30	**2.58**
★ 40-20-20/**250**	**C0160**	1 x 3	2.90	**1.74**
★ 80-10-10/**250**	**C0165**	1 x 3	3.20	**1.92**
★ 80-80-60/**250**	**C0170**	1⅜ x 3⅝	4.90	**2.94**
20-80-10/**300**	**C0180**	1⅜ x 2½	5.70	**3.42**
★ 60-20-10/**300**	**C0190**	1⅜ x 2½	3.45	**2.07**
★★ 80-40-40/**300**	**C0194**	1⅜ x 3	4.75	**2.85**
★★ 120-50-40/**300**	**C0200**	1⅜ x 4⅛	5.65	**3.39**
★★ 10-10-10/**350**	**C0210**	1 x 2	2.40	**1.44**
20-20-10/**350**	**C0220**	1 x 3	4.45	**2.67**
★ 30-20-10/**350**	**C0225**	1 x 3	3.25	**1.95**
★★ 60-40-20/**350**	**C0230**	1⅜ x 3	4.25	**2.55**
60-40-40/**350**	**C0232**	1⅜ x 3⅝	7.05	**4.23**
★★ 60-50-50/**350**	**C0234**	1⅜ x 3⅝	4.90	**2.94**
★★ 80-60-60/**350**	**C0236**	1⅜ x 4⅛	5.55	**3.33**
★ 90-40-20/**350**	**C0237**	1⅜ x 3⅝	5.25	**3.15**
★★ 100-100-10/**350**	**C0238**	1⅜ x 4⅛	5.50	**3.30**
★ 80-20-10/**400**	**C0239**	1⅜ x 3	4.30	**2.58**
★ 90-10-5/**400**	**C0239.2**	1⅜ x 3	4.40	**2.64**
★★ 10-10-10/**450**	**C0240**	1 x 2½	2.60	**1.56**
15-15-10/**450**	**C0250**	1 x 3	4.45	**2.67**
★★ 15-15-15/**450**	**C0254**	1 x 3	3.10	**1.86**
★★ 20-10-10/**450**	**C0260**	1 x 3	2.95	**1.77**
★★ 20-20-20/**450**	**C0270**	1⅜ x 2½	3.60	**2.16**
★★ 30-20-20/**450**	**C0280**	1⅜ x 3	3.85	**2.31**
★★ 30-30-30/**450**	**C0300**	1⅜ x 3	4.35	**2.61**
★ 30-60-10/**450**	**C0310**	1⅜ x 3⅝	4.50	**2.70**
★★ 40-10-10/**450**	**C0320**	1⅜ x 3	3.35	**2.01**
★★ 40-30-20/**450**	**C0330**	1⅜ x 3	4.30	**2.58**
★★ 40-40-10/**450**	**C0340**	1⅜ x 3	4.20	**2.52**

† For Photoflash use only.

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CORNELL-DUBILIER

TWIST-PRONG BASE ELECTROLYTICS

★★BEST-SELLING PREFERRED TYPE ★PREFERRED TYPE

3 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★★ 40-40-20/**450**	C0344	1⅜ x 3⅝	$4.45	$2.67
★★ 40-40-40/**450**	C0350	1⅜ x 3⅝	4.90	2.94
★ 50-40-30/**450**	C0355	1⅜ x 3⅝	4.90	2.94
★★ 60-20-20/**450**	C0360	1⅜ x 3⅝	4.60	2.76
★★ 60-40-20/**450**	C0365	1⅜ x 3⅝	5.00	3.00
★★ 80-40-20/**450**	C0370	1⅜ x 4⅛	5.40	3.24
★ 30-30-20/**475**	C0371	1⅜ x 3	4.75	2.85
★★ 40-20-20/**475**	C0372	1⅜ x 3	4.75	2.85
★ 40-30-10/**475**	C0373	1⅜ x 3	4.50	2.70
★ 40-30-30/**475**	C0374	1⅜ x 3⅝	5.15	3.09
★★ 10-10-10/**500**	C0380	1 x 3	2.70	1.62
★★ 30-20-20/**500**	C0390	1⅜ x 3	4.20	2.52
★ 40-10-10/**500**	C0400	1⅜ x 3	3.90	2.34
★ 40-40-10/**500**	C0410	1⅜ x 3⅝	5.05	3.03

2 SECTIONS HV — 1 SECTION LV

★ 15-15/**150** 1200/**1.5**	C0420	1 x 2	3.00	1.80
20-20/**150** 20/**25**	XC0431	1 x 2	3.30	1.98
20-20/**150** 100/**10**	C0440	1 x 2	3.55	2.13
20-20/**150** 250/**10**	C0450	1 x 2	3.90	2.34
30-30/**150** 20/**25**	C0460	1 x 2	3.55	2.13
30-30/**150** 200/**10**	C0470	1 x 2	3.75	2.25
★ 40-20/**150** 20/**25**	XC0481	1 x 2	2.30	1.38
40-20/**150** 100/**25**	C0490	1 x 2	3.75	2.25
★ 40-20/**150** 200/**25**	C0510	1 x 2½	2.70	1.62
★ 40-20/**150** 200/**10**	C0520	1 x 2	2.40	1.44
40-20/**150** 250/**10**	C0530	1 x 2	4.05	2.43
40-30/**150** 20/**25**	C0540	1 x 2	3.55	2.13
★★ 40-40/**150** 20/**25**	XC0551	1 x 2	2.40	1.44
★★ 40-40/**150** 250/**25**	XC0555	1 x 3	3.15	1.89
★ 50-30/**150** 20/**25**	C0560	1 x 2	2.50	1.50
★ 50-30/**150** 100/**25**	C0570	1 x 2½	2.70	1.62
★★ 50-50/**150** 20/**25**	C0580	1 x 2½	2.65	1.59
60-20/**150** 20/**25**	C0590	1 x 2	3.85	2.31
60-40/**150** 20/**25**	C0600	1 x 2½	4.00	2.40
★ 80-30/**150** 300/**10**	XC0602	1⅜ x 2	3.15	1.89
80-30/**150** 300/**25**	XC0604	1⅜ x 2½	5.50	3.30
★★ 80-40/**150** 20/**25**	C0610	1 x 2½	2.80	1.68
★ 80-40/**150** 300/**25**	XC0613	1⅜ x 2½	3.70	2.22
★★ 80-60/**150** 250/**10**	XC0615	1⅜ x 2½	3.40	2.04
★ 100-80/**150** 200/**10**	XC0618	1⅜ x 2½	3.60	2.16
120-60/**150** 20/**25**	C0620	1⅜ x 2½	5.05	3.03
★ 300-80/**150** 200/**50**	C0626	1⅜ x 4⅛	4.95	2.97
30-20/**200** 20/**25**	C0630	1 x 2	3.85	2.31
★ 30-20/**200** 40/**150**	C0632	1 x 2½	2.70	1.62
40-80/**200** 100/**50**	C0634	1⅜ x 3	5.25	3.15
★ 60-5/**200** 20/**50**	C0636	1 x 2½	2.50	1.50
80-10/**200** 20/**50**	C0638	1 x 3	2.80	1.68
100-10/**200** 40/**50**	C0640	1⅜ x 2	4.75	2.85
★ 15-15/**250** 20/**25**	C0650	1 x 2	2.35	1.41
20-15/**250** 20/**25**	C0660	1 x 2	3.55	2.13
★ 30-30/**250** 20/**25**	C0670	1 x 2½	2.80	1.68
40-40/**250** 10/**200**	C0674	1 x 3	4.45	2.67
70-70/**250** 20/**50**	C0680	1⅜ x 3	5.85	3.51
80-80/**250** 10/**450**	C0690	1⅜ x 3⅝	6.30	3.78
★ 90-90/**250** 20/**50**	C0695	1⅜ x 3	4.60	2.76
10-10/**300** 15/**250**	C0700	1 x 2	3.70	2.22
20-20/**300** 20/**25**	C0710	1 x 2	4.15	2.49
30-30/**300** 25/**50**	C0720	1 x 3	4.35	2.61
40-20/**300** 20/**25**	XC0732	1 x 2½	4.65	2.79
★ 100-10/**300** 60/**50**	C0733	1⅜ x 2½	4.05	2.43
125-20/**300** 20/**50**	XC0733.2	1⅜ x 3	4.30	2.58
125-20/**300** 100/**50**	XC0733.4	1⅜ x 3⅝	7.35	4.41
125-60/**300** 40/**50**	C0733.7	1⅜ x 3⅝	7.35	4.41
★ 140-10/**300** 200/**150**	C0734	1⅜ x 4⅛	5.50	3.30
★★ 140-100/**300** 60/**50**	C0734.3	1⅜ x 4⅛	6.05	3.63
★ 200-20/**300** 10/**100**	C0735	1⅜ x 4⅛	4.90	2.94
10-5/**350** 30/**50**	C0739	1 x 2½	3.85	2.31
10-5/**350** 150/**50**	C0740	1 x 3	4.05	2.43
10-15/**350** 20/**25**	C0760	1 x 2	3.75	2.25
★★ 15-10/**350** 20/**25**	C0770	1 x 2	2.50	1.50
★ 20-4/**350** 100/**25**	C0773	1 x 2½	2.60	1.56
★ 20-5/**350** 150/**50**	C0775	1 x 3	2.95	1.77

2 SECTIONS HV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★★ 20-10/**350** 20/**25**	C0780	1 x 2	$2.55	$1.53
★ 20-10/**350** 5/**250**	C0790	1 x 2	2.55	1.53
★★ 20-20/**350** 20/**25**	C0800	1 x 2½	2.80	1.68
30-5/**350** 100/**200**	C0806	1⅜ x 2½	6.00	3.60
30-10/**350** 20/**25**	C0810	1 x 2½	4.30	2.58
30-10/**350** 20/**250**	C0820	1 x 3	4.60	2.76
★★ 30-20/**350** 20/**25**	C0830	1 x 3	3.10	1.86
★ 30-20/**350** 100/**150**	C0835	1⅜ x 2½	4.00	2.40
★ 30-30/**350** 20/**25**	C0840	1⅜ x 2	3.40	2.04
40-20/**350** 10/**100**	C0850	1⅜ x 2	4.30	2.58
20-40/**350** 10/**150**	C0860	1 x 3	4.80	2.88
40-40/**350** 50/**25**	C0870	1⅜ x 2½	5.65	3.39
★ 80-40/**350** 400/**50**	XC0874	1⅜ x 4⅛	5.65	3.39
80-40/**350** 100/**200**	C0874.5	1⅜ x 3⅝	5.45	3.27
★★ 100-60/**350** 20/**250**	C0875	1⅜ x 4⅛	5.50	3.30
150-4/**350** 30/**50**	XC0875.5	1⅜ x 3⅝	4.75	2.85
★ 20-20/**400** 10/**350**	C0876	1 x 3	3.00	1.80
30-10/**400** 150/**50**	C0880	1⅜ x 2½	5.10	3.06
★ 60-30/**400** 20/**350**	C0885	1⅜ x 3	4.55	2.73
★★ 80-40/**400** 150/**50**	C0890	1⅜ x 3⅝	5.15	3.09
★★ 100-10/**400** 20/**50**	C0894	1⅜ x 3⅝	4.50	2.70
★★ 100-10/**400** 80/**350**	C0896	1⅜ x 4⅛	6.10	3.66
15-5/**450** 15/**350**	C0900	1 x 3	4.30	2.58
★★ 10-10/**450** 20/**25**	C0910	1 x 2	2.40	1.44
★ 10-10/**450** 40/**50**	C0920	1 x 2½	2.50	1.50
10-10/**450** 50/**100**	C0930	1⅜ x 2	4.00	2.40
15-15/**450** 20/**25**	C0940	1 x 2½	4.15	2.49
★ 15-15/**450** 40/**25**	C0945	1 x 2½	2.75	1.65
15-15/**450** 10/**300**	C0950	1 x 3	4.35	2.61
★★ 20-10/**450** 20/**25**	C0960	1 x 2½	2.70	1.62
★ 20-10/**450** 50/**50**	C0970	1 x 3	2.85	1.71
20-15/**450** 20/**25**	C0980	1 x 3	4.35	2.61
★★ 20-20/**450** 20/**25**	C0990	1 x 3	3.05	1.83
20-20/**450** 100/**50**	C0992	1⅜ x 2½	5.25	3.15
20-20/**450** 60/**350**	C1000	1⅜ x 3	6.10	3.66
★ 30-10/**450** 150/**50**	C1005	1⅜ x 2½	3.50	2.10
30-20/**450** 30/**150**	C1010	1⅜ x 2½	5.25	3.15
★ 30-30/**450** 20/**25**	C1020	1⅜ x 2½	3.55	2.13
30-30/**450** 40/**50**	C1030	1⅜ x 3	5.50	3.30
★ 30-30/**450** 125/**25**	C1034	1⅜ x 3	3.95	2.37
★ 35-25/**450** 100/**50**	C1036	1⅜ x 3	3.95	2.37
★ 40-10/**450** 100/**50**	C1040	1⅜ x 3	4.30	2.58
★★ 40-10/**450** 80/**200**	C1050	1⅜ x 3	3.90	2.34
★ 40-20/**450** 20/**25**	C1060	1⅜ x 2½	3.50	2.10
★★ 40-40/**450** 20/**25**	C1070	1⅜ x 3	3.95	2.37
★ 40-40/**450** 40/**25**	C1080	1⅜ x 3	3.95	2.37
★ 40-40/**450** 100/**50**	C1090	1⅜ x 3⅝	4.30	2.58
★ 40-40/**450** 40/**150**	C1100	1⅜ x 3⅝	4.10	2.46
★ 40-40/**450** 60/**200**	C1102	1⅜ x 3⅝	4.45	2.67
★ 40-40/**450** 80/**350**	C1103	1⅜ x 4⅛	5.55	3.33
★ 50-5/**450** 50/**350**	C1103.5	1⅜ x 3⅝	4.25	2.55
★ 60-40/**450** 75/**50**	C1104	1⅜ x 3⅝	4.60	2.76
★ 80-10/**450** 125/**25**	C1106	1⅜ x 3⅝	4.40	2.64
★★ 80-20/**450** 100/**50**	C1108	1⅜ x 4⅛	4.80	2.88
★ 80-40/**450** 100/**25**	C1110	1⅜ x 4⅛	5.10	3.06
★ 20-10/**475** 100/**400**	C1114	1⅜ x 4⅛	5.25	3.15
10-10/**500** 100/**50**	C1120	1 x 3	4.30	2.58
10-10/**500** 4/**350**	C1130	1 x 2½	3.75	2.25
★ 20-10/**500** 100/**50**	C1150	1 x 3⅝	3.30	1.98
20-20/**500** 60/**400**	C1160	1⅜ x 3⅝	7.20	4.32
★ 20-20/**500** 60/**450**	C1162	1⅜ x 3⅝	4.85	2.91
30-10/**500** 20/**50**	C1170	1⅜ x 2½	4.65	2.79
★★ 40-40/**500** 100/**200**	C1180	1⅜ x 4⅛	5.85	3.51

1 SECTION HV — 2 SECTIONS LV

100/**100** 50-25/**25**	C1190	1 x 3	4.00	2.40
20/**150** 250-100/**15**	C1200	1⅜ x 2	4.35	2.61
★★ 60/**200** 200-140/**150**	XC1202	1⅜ x 4⅛	4.80	2.88
★ 10/**300** 500-500/**15**	XC1204	1⅜ x 2½	3.90	2.34
★ 20/**300** 150-80/**150**	C1206	1⅜ x 3	3.95	2.37
★ 100/**300** 200-30/**150**	XC1207	1⅜ x 4⅛	5.05	3.03
★ 100/**300** 200-60/**150**	XC1208	1⅜ x 4⅛	5.55	3.33
100/**300** 60-20/**250**	XC1209	1⅜ x 4⅛	7.35	4.41

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CDE CORNELL-DUBILIER

TWIST-PRONG BASE ELECTROLYTICS

★★ BEST-SELLING PREFERRED TYPE ★ PREFERRED TYPE

1 SECTION HV — 2 SECTIONS LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
120/**300** 15-10/**450**	C1210	1⅜ x 3⅝	$6.75	$4.05
★ 200/**300** 60-20/**250**	XC1212	1⅜ x 5	5.80	3.48
4/**350** 100-40/**25**	C1214	1 x 2	3.40	2.04
30/**350** 20-10/**250**	C1220	1 x 3	4.50	2.70
★ 40/**350** 200-100/**150**	C1224	1⅜ x 3⅝	5.00	3.00
★★ 60/**350** 200-30/**150**	C1226	1⅜ x 3⅝	4.40	2.64
40/**400** 200-60/**200**	C1228	1⅜ x 4⅛	8.30	4.98
80/**400** 20-10/**300**	C1230	1⅜ x 3⅝	6.40	3.84
★ 5/**450** 80-40/**300**	C1231	1⅜ x 3	4.15	2.49
10/**450** 20-10/**25**	C1232	1 x 2	3.25	1.95
★ 10/**450** 80-80/**250**	C1236	1⅜ x 3⅝	4.20	2.52
20/**450** 40-10/**250**	C1240	1⅜ x 2	4.75	2.85
★ 20/**450** 40-10/**350**	C1243	1⅜ x 2½	3.50	2.10
★ 20/**450** 80-10/**350**	C1246	1⅜ x 3⅝	4.25	2.55
30/**450** 100-25/**25**	C1250	1⅜ x 2	4.50	2.70
★ 40/**450** 90-50/**150**	C1260	1⅜ x 3	3.95	2.37
60/**450** 40-20/**350**	C1261	1⅜ x 3⅝	6.90	4.14
★ 80/**450** 40-40/**250**	C1262	1⅜ x 4⅛	4.95	2.97
80/**450** 100-20/**50**	C1263	1⅜ x 3⅝	6.40	3.84
40/**475** 40-10/**250**	C1265	1⅜ x 2½	6.00	3.60
40/**475** 80-10/**300**	C1266	1⅜ x 3⅝	7.20	4.32
40/**475** 20-20/**450**	C1268	1⅜ x 3	6.75	4.05
★ 40/**475** 80-10/**450**	C1167	1⅜ x 4⅛	5.50	3.30
10/**500** 80-10/**150**	C1269	1 x 3⅝	4.30	2.58

1 SECTION HV — 1 SECTION MV — 1 SECTION LV

40/**150** 25/**25** 130/**15**	C1270	1 x 3	3.55	2.13
50/**150** 100/**50** 20/**25**	C1274	1 x 3	4.30	2.58
★ 80/**250** 40/**150** 50/**50**	C1280	1⅜ x 2½	2.90	1.74
100/**300** 60/**150** 20/**50**	C1290	1⅜ x 3	6.30	3.78
150/**300** 60/**200** 200/**150**	XC1295	1⅜ x 4⅛	5.70	3.42
★ 20/**350** 50/**100** 100/**75**	C1300	1 x 3	3.10	1.86
★★ 30/**350** 30/**300** 20/**25**	C1310	1 x 3	3.15	1.89
50/**350** 10/**250** 500/**5**	C1320	1⅜ x 2½	5.40	3.24
★★ 125/**350** 5/**200** 100/**75**	C1325	1⅜ x 3⅝	5.30	3.18
10/**400** 50/**350** 30/**25**	C1330	1 x 3	4.65	2.79
40/**400** 80/**350** 100/**200**	C1336	1⅜ x 3⅝	7.95	4.77
60/**400** 40/**300** 20/**25**	C1340	1⅜ x 3⅝	6.30	3.78
10/**450** 50/**150** 100/**25**	C1350	1 x 3	4.15	2.49
★ 10/**450** 50/**150** 100/**75**	C1355	1 x 3	3.25	1.95
★★ 10/**450** 40/**300** 10/**150**	C1360	1⅜ x 2	3.10	1.86
10/**450** 40/**350** 100/**50**	C1366	1⅜ x 3⅝	5.10	3.06
10/**450** 30/**400** 30/**300**	C1370	1⅜ x 2½	5.05	3.03
15/**450** 20/**350** 20/**250**	C1380	1 x 3	4.50	2.70
★ 20/**450** 80/**200** 50/**50**	C1385	1⅜ x 2½	3.40	2.04
★ 20/**450** 60/**250** 100/**25**	C1390	1⅜ x 2½	3.65	2.19
20/**450** 15/**350** 10/**300**	C1400	1 x 3	4.60	2.76
20/**450** 80/**350** 100/**50**	C1410	1⅜ x 3⅝	6.75	4.05
★ 30/**450** 15/**350** 40/**25**	C1412	1⅜ x 2	2.40	1.44
★ 30/**450** 40/**350** 50/**25**	C1414	1 x 4⅛	2.90	1.74
30/**450** 50/**400** 40/**25**	C1420	1⅜ x 3	5.95	3.57
★ 40/**450** 40/**150** 130/**50**	C1430	1⅜ x 3	3.75	2.25
40/**450** 100/**150** 50/**50**	C1440	1⅜ x 3	5.95	3.57
40/**450** 50/**350** 50/**300**	C1442	1⅜ x 4⅛	7.30	4.38
★ 60/**450** 80/**400** 20/**350**	C1443	1⅜ x 4⅛	5.65	3.39
★ 10/**475** 4/**350** 40/**250**	C1444	1⅜ x 2	3.00	1.80
10/**475** 4/**350** 100/**50**	C1445	1 x 2½	4.50	2.70
★ 10/**475** 40/**450** 100/**200**	C1445.3	1⅜ x 3	4.20	2.52
★ 20/**475** 50/**50** 20/**25**	C1446	1 x 3	2.75	1.65
20/**475** 10/**350** 5/**150**	C1448	1 x 2½	4.90	2.94
★ 80/**475** 80/**150** 50/**50**	C1449	1⅜ x 4⅛	4.85	2.91
10/**500** 100/**200** 40/**50**	C1450	1⅜ x 2½	5.05	3.03
20/**500** 20/**300** 40/**25**	C1460	1⅜ x 2	4.65	2.79
40/**500** 40/**250** 100/**50**	C1470	1⅜ x 3	6.45	3.87
40/**500** 40/**400** 25/**50**	C1480	1⅜ x 3	6.45	3.87

4 SECTIONS — 1 VOLTAGE

★★ 40-40-40-30/**150**	D0010	1⅜ x 2	3.35	2.01
★ 100-80-60-40/**150**	D0014	1⅜ x 3	4.65	2.79
200-200-60 30/**175**	XD0015	1⅜ x 4⅛	6.00	3.60
★ 40-20-10-10/**300**	D0016	1⅜ x 2	3.95	2.37
★ 40-40-20-10/**300**	D0020	1⅜ x 2½	4.55	2.73
★ 40-40-30-20/**300**	D0022	1⅜ x 3	4.85	2.91
★ 60-40-10-10/**300**	D0024	1⅜ x 3⅝	4.55	2.73
★★ 150-100-10-5/**300**	D0025	1⅜ x 4⅛	6.60	3.96

4 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 200-20-20-20/**300**	D0026	1⅜ x 5	$6.15	$3.69
★★ 40-20-20-10/**350**	D0032	1⅜ x 2½	4.35	2.61
★★ 40-40-40-40/**350**	D0034	1⅜ x 3⅝	6.00	3.60
80-10-10-10/**350**	D0040	1⅜ x 3⅝	6.90	4.14
80-60-40-20/**350**	D0042	1⅜ x 4⅛	6.40	3.84
100-40-10-10/**350**	D0044	1⅜ x 3⅝	7.60	4.56
140-40-10-10/**350**	D0046	1⅜ x 4⅛	7.90	4.74
30-30-20-20/**400**	D0050	1⅜ x 3	7.30	4.38
★ 50-40-30-20/**400**	D0054	1⅜ x 4⅛	5.50	3.30
80-10-10-10/**400**	D0058	1⅜ x 3⅝	7.05	4.23
★ 80-20-10-10/**400**	D0060	1⅜ x 3⅝	5.05	3.03
80-40-30-4/**400**	D0065	1⅜ x 4⅛	5.80	3.48
★ 5-5-5-5/**450**	D0080	1⅜ x 2	3.00	1.80
★★ 10-10-10-5/**450**	D0088	1⅜ x 2	4.90	2.94
★★ 10-10-10-10/**450**	D0090	1⅜ x 2	3.35	2.01
15-30-30-10/**450**	D0100	1⅜ x 3	7.05	4.23
15-30-30-30/**450**	D0110	1⅜ x 3⅝	7.95	4.77
★★ 20-10-10-10/**450**	D0120	1⅜ x 2½	3.70	2.22
★★ 20-20-20-20/**450**	D0130	1⅜ x 3	4.70	2.82
★ 30-15-15-15/**450**	D0140	1⅜ x 3	4.45	2.67
★★ 30-30-20-20/**450**	D0144	1⅜ x 3⅝	5.20	3.12
★★ 35-35-10-5/**450**	D0150	1⅜ x 3⅝	4.65	2.79
★ 40-10-10-10/**450**	D0160	1⅜ x 3	4.15	2.49
★ 40-20-10-10/**450**	D0170	1⅜ x 3	4.45	2.67
★ 40-35-10-10/**450**	D0171	1⅜ x 3	4.80	2.88
★ 40-40-4-4/**450**	D0172	1⅜ x 3⅝	4.70	2.82
★★ 40-40-20-20/**450**	D0174	1⅜ x 4⅛	5.55	3.33
★★ 40-40-30-30/**450**	D0176	1⅜ x 4⅛	6.05	3.63
★★ 40-40-40-40/**450**	D0177	1⅜ x 5	6.45	3.87
★ 60-20-20-20/**450**	D0177.4	1⅜ x 4⅛	5.65	3.39
★ 60-30-10-2/**450**	D0177.6	1⅜ x 3⅝	5.10	3.06
70-10-10-5/**450**	D0178	1⅜ x 3⅝	7.15	4.29
★★ 80-10-10-10/**450**	D0179	1⅜ x 3⅝	5.05	3.03
★ 20-20-10-10/**475**	D0179.3	1⅜ x 2½	4.35	2.61
★ 20-20-20-20/**475**	D0179.5	1⅜ x 3	5.20	3.12
★ 40-20-10-10/**475**	D0179.7	1⅜ x 3	5.10	3.06
★ 10-10-10-10/**500**	D0180	1⅜ x 2	3.50	2.10
★ 40-40-8-8/**500**	D0185	1⅜ x 3⅝	5.70	3.42

3 SECTIONS HV — 1 SECTION LV

20-20-20/**150** 20/**25**	D0190	1⅜ x 2	4.35	2.61
30-20-20/**150** 200/**10**	D0200	1⅜ x 2	4.65	2.79
★ 30-30-30/**150** 40/**25**	D0210	1⅜ x 2	3.10	1.86
★ 40-20-20/**150** 20/**25**	D0220	1⅜ x 2	2.95	1.77
★ 40-40-20/**150** 200/**10**	D0230	1⅜ x 2	3.25	1.95
★ 40-40-30/**150** 20/**25**	D0240	1⅜ x 2	3.10	1.86
★ 40-40-40/**150** 20/**25**	D0250	1⅜ x 2	3.15	1.89
40-40-40/**150** 100/**25**	D0260	1⅜ x 2	5.05	3.03
★ 40-40-40/**150** 160/**25**	D0270	1⅜ x 2	3.55	2.13
★ 50-20-20/**150** 200/**25**	D0275	1⅜ x 2	3.50	2.10
★ 50-30-30/**150** 100/**25**	D0280	1⅜ x 2	3.45	2.07
★ 50-50-50/**150** 20/**25**	D0290	1⅜ x 2	3.55	2.13
★★ 60-40-20/**150** 200/**10**	D0300	1⅜ x 2	3.50	2.10
75-75-75/**150** 30/**25**	D0310	1⅜ x 3	6.45	3.87
★★ 80-40-40/**150** 40/**25**	D0325	1⅜ x 2	3.60	2.16
★★ 80-40-40/**150** 100/**25**	D0330	1⅜ x 2½	3.75	2.25
★ 100-90-60/**150** 200/**25**	D0336	1⅜ x 3	4.95	2.97
★ 200-200-100/**150** 10/**75**	D0338	1⅜ x 4⅛	5.95	3.57
40-20-10/**250** 20/**25**	D0340	1⅜ x 2	5.10	3.06
80-60-40/**250** 20/**150**	D0350	1⅜ x 3⅝	7.65	4.59
★ 100-40-10/**250** 100/**50**	D0360	1⅜ x 3⅝	5.15	3.09
★ 40-20-20/**300** 25/**25**	D0367	1⅜ x 2	4.00	2.40
40-30-20/**300** 50/**25**	D0368	1⅜ x 2	6.25	3.75
★ 40-40-40/**300** 20/**150**	D0370	1⅜ x 3	4.90	2.94
★ 60-40-20/**300** 50/**25**	D0380	1⅜ x 3	4.65	2.79
★ 120-40-40/**300** 10/**250**	D0385	1⅜ x 4⅛	6.15	3.69
★ 150-20-10/**300** 250/**50**	D0387	1⅜ x 4⅛	6.05	3.63
150-30-30/**300** 150/**50**	D0388	1⅜ x 4⅛	6.10	3.66
10-10-10/**350** 20/**25**	D0390	1⅜ x 2	4.45	2.67
15-15-15/**350** 50/**50**	D0400	1⅜ x 2	5.70	3.42
★ 20-10-5/**350** 20/**25**	D0410	1⅜ x 2	3.10	1.86
★ 30-10-5/**350** 200/**25**	D0414	1⅜ x 2	3.80	2.28
★ 30-10-5/**350** 100/**200**	D0416	1⅜ x 2½	4.40	2.64
★ 30-20-5/**350** 100/**200**	D0418	1⅜ x 3	4.70	2.82
30-20-20/**350** 20/**25**	D0420	1⅜ x 2½	6.15	3.69
★ 40-40-20/**350** 20/**25**	D0430	1⅜ x 3	4.70	2.82
★ 40-40-30/**350** 10/**25**	D0433	1⅜ x 3	4.95	2.97
40-20-20/**350** 25/**25**	D0440	1⅜ x 2½	6.40	3.84
40-30-10/**350** 50/**50**	D0450	1⅜ x 3	6.60	3.96

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TWIST-PRONG BASE ELECTROLYTICS

★★BEST-SELLING PREFERRED TYPE ★PREFERRED TYPE

3 SECTIONS HV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 40-40-40/**350** 40/**25**	**D0460**	1⅜ x 3	$5.20	**$3.12**
★ 40-40-40/**350** 150/**50**	**D0470**	1⅜ x 3⅝	5.70	**3.42**
70-40-10/**350** 50/**50**	**D0471**	1⅜ x 3	5.25	**3.15**
80-60-60/**350** 10/**50**	**D0472**	1⅜ x 4⅛	9.30	**5.58**
★★ 90-30-5/**350** 100/**75**	**D0473**	1⅜ x 3⅝	6.15	**3.69**
★ 100-10-10/**350** 20/**50**	**D0473.3**	1⅜ x 3	5.15	**3.09**
100-20-10/**350** 20/**50**	**D0473.4**	1⅜ x 3⅝	5.40	**3.24**
★★ 100-80-10/**350** 20/**50**	**D0473.5**	1⅜ x 4⅛	6.60	**3.96**
★ 100-40-30/**350** 50/**50**	**D0474**	1⅜ x 4⅛	6.55	**3.93**
140-20-10/**350** 100/**50**	**D0475**	1⅜ x 4⅛	9.25	**5.55**
★★ 20-10-10/**400** 25/**25**	**D0476**	1⅜ x 2	3.25	**1.95**
★★ 80-40-10/**400** 20/**25**	**D0477**	1⅜ x 3⅝	5.30	**3.18**
★★ 80-40-10/**400** 100/**200**	**D0477.5**	1⅜ x 4⅛	6.30	**3.78**
★★ 80-40-30/**400** 40/**25**	**D0478**	1⅜ x 4⅛	5.95	**3.57**
90-20-10/**400** 50/**50**	**D0479**	1⅜ x 3⅝	5.40	**3.24**
90-40-10/**400** 40/**25**	**D0479.2**	1⅜ x 3⅝	8.70	**5.22**
★★ 10-10-10/**450** 20/**25**	**D0480**	1⅜ x 2	3.15	**1.89**
10-10-10/**450** 100/**25**	**D0490**	1⅜ x 2	5.05	**3.03**
10-10-10/**450** 150/**50**	**D0500**	1⅜ x 2½	5.55	**3.33**
15-10-10/**450** 20/**25**	**D0504**	1⅜ x 2	4.95	**2.97**
20-10-10/**450** 100/**25**	**D0510**	1⅜ x 2	5.55	**3.33**
★ 20-20-20/**450** 20/**25**	**D0520**	1⅜ x 2½	4.15	**2.49**
★ 20-20-20/**450** 100/**50**	**D0530**	1⅜ x 3	4.55	**2.73**
30-15-15/**450** 40/**25**	**D0540**	1⅜ x 2½	6.25	**3.75**
30-20-20/**450** 20/**25**	**D0550**	1⅜ x 3	6.60	**3.96**
★ 30-30-10/**450** 125/**25**	**D0555**	1⅜ x 3	4.50	**2.70**
★ 30-30-15/**450** 30/50	**D0560**	1⅜ x 3	4.55	**2.73**
30-30-15/**450** 100/**50**	**D0570**	1⅜ x 3⅝	7.35	**4.41**
30-30-20/**450** 20/**25**	**D0590**	1⅜ x 3	7.00	**4.20**
35-35-10/**450** 10/**200**	**D0592**	1⅜ x 3⅝	6.90	**4.14**
★ 40-10-10/**450** 250/**25**	**D0600**	1⅜ x 3	4.65	**2.79**
40-10-10/**450** 100/**200**	**D0602**	1⅜ x 3⅝	7.35	**4.41**
40-10-10/**450** 40/**300**	**D0604**	1⅜ x 3⅝	7.00	**4.20**
★ 40-10-10/**450** 40/**350**	**D0606**	1⅜ x 3	4.75	**2.85**
40-20-10/**450** 25/**25**	**D0610**	1⅜ x 3	6.40	**3.84**
★ 40-20-10/**450** 100/**50**	**D0620**	1⅜ x 3⅝	4.60	**2.76**
★ 40-20-10/**450** 100/**250**	**D0622**	1⅜ x 4⅛	5.85	**3.51**
★ 40-20-20/**450** 20/**25**	**D0624**	1⅜ x 3	4.60	**2.76**
★ 40-20-20/**450** 40/**25**	**D0630**	1⅜ x 3	4.65	**2.79**
★★ 40-30-10/**450** 20/**25**	**D0640**	1⅜ x 3	4.50	**2.70**
★★ 40-40-10/**450** 25/**50**	**D0650**	1⅜ x 3⅝	4.70	**2.82**
★ 40-40-10/**450** 50/**50**	**D0655**	1⅜ x 3⅝	4.80	**2.88**
★★ 40-40-10/**450** 100/**100**	**D0660**	1⅜ x 3⅝	5.35	**3.21**
40-40-10/**450** 10/**350**	**D0662**	1⅜ x 3⅝	7.20	**4.32**
★ 40-40-20/**450** 20/**25**	**D0663**	1⅜ x 3⅝	5.00	**3.00**
★★ 40-40-40/**450** 40/**25**	**D0663.2**	1⅜ x 3⅝	5.50	**3.30**
50-40-5/**450** 20/**25**	**D0664**	1⅜ x 3⅝	7.20	**4.32**
★ 60-10-10/**450** 20/**150**	**D0670**	1⅜ x 3	4.60	**2.76**
60-30-30/**450** 150/**50**	**D0671**	1⅜ x 4⅛	5.80	**3.48**
★ 60-40-10/**450** 25/**50**	**D0672**	1⅜ x 3⅝	5.25	**3.15**
★ 60-40-40/**450** 10/**25**	**D0674**	1⅜ x 4⅛	6.00	**3.60**
★ 60-50-5/**450** 20/**25**	**D0676**	1⅜ x 3⅝	5.35	**3.21**
40-10-20/**475** 10/**25**	**D0680**	1⅜ x 3	7.30	**4.38**
★ 20-20-10/**500** 10/**300**	**D0690**	1⅜ x 2½	4.30	**2.58**
★ 50-30-10/**500** 20/**300**	**D0692**	1⅜ x 3⅝	5.60	**3.36**

1 SECTION HV — 3 SECTIONS LV

★★ 10/**300** 200-140-30/**150**	**D0694**	1⅜ x 5	5.10	**3.06**
★ 10/**300** 200-200-30/**150**	**XD0694.5**	1⅜ x 5	5.35	**3.21**
★★ 160/**350** 60-10-4/**300**	**XD0695**	1⅜ x 4⅛	6.40	**3.84**
★ 5/**475** 70-25-5/**400**	**D0695.3**	1⅜ x 3⅝	5.05	**3.03**
★ 10/**450** 100-20-20/**300**	**D0695.5**	1⅜ x 3	5.25	**3.15**
★ 10/**475** 130-20-10/**350**	**D0695.7**	1⅜ x 4⅛	6.00	**3.60**
20/**475** 60-40-10/**350**	**D0696**	1⅜ x 3⅝	7.80	**4.68**
★ 30/**475** 130-10-10/**350**	**D0697**	1⅜ x 4⅛	6.40	**3.84**
★ 20/**500** 80-20-10/**300**	**D0698**	1⅜ x 3⅝	5.00	**3.00**

1 SECTION HV — 2 SECTIONS MV — 1 SECTION LV

5/**75** 25-25/**25** 100/**15**	**D0700**	1⅜ x 2	4.15	**2.49**
★ 20/**300** 150-150/**150** 100/**30**	**D0710**	1⅜ x 4⅛	5.30	**3.18**
15/**350** 80-40/**200** 200/**25**	**D0720**	1⅜ x 3	6.75	**4.05**
20/**350** 150-80/**150** 20/**25**	**D0722**	1⅜ x 3	6.85	**4.11**
40/**350** 50-20/**150** 80/**50**	**D0724**	1⅜ x 3	6.10	**3.66**
10/**400** 50-30/**350** 30/**25**	**D0730**	1⅜ x 3	6.60	**3.96**
★ 20/**400** 50-40/**350** 80/**50**	**D0730.4**	1⅜ x 3	5.00	**3.00**
30/**400** 60-20/**350** 100/**50**	**D0731**	1⅜ x 3	6.80	**4.08**
★ 40/**400** 120-10/**250** 150/**50**	**D0731.3**	1⅜ x 4⅛	5.90	**3.54**
80/**400** 40-10/**350** 10/**25**	**D0732**	1⅜ x 3⅝	7.95	**4.77**
50/**400** 60-40/**350** 20/**25**	**D0733**	1⅜ x 3⅝	7.35	**4.41**
10/**450** 100-20/**300** 20/**200**	**D0736**	1⅜ x 3⅝	7.60	**4.56**
★ 10/**450** 60-40/**350** 25/**25**	**D0740**	1⅜ x 3⅝	4.60	**2.76**
★ 10/**450** 100-10/**350** 20/**25**	**D0750**	1⅜ x 3⅝	5.25	**3.15**
★ 20/**450** 80-20/**200** 50/**50**	**D0760**	1⅜ x 3	4.15	**2.49**
★ 20/**450** 80-50/**350** 100/**50**	**D0764**	1⅜ x 4⅛	6.00	**3.60**

1 SECTION HV — 2 SECTIONS MV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
25/**450** 100-10/**300** 60/**50**	**D0768**	1⅜ x 3⅝	$8.40	**$5.04**
30/**450** 125-125/**25** 30/**450**	**D0770**	1⅜ x 3	7.35	**4.41**
30/**450** 40-40/**350** 10/**200**	**D0780**	1⅜ x 3⅝	7.75	**4.65**
40/**450** 40-40/**250** 20/**25**	**D0782**	1⅜ x 3	6.85	**4.11**
★ 40/**450** 40-40/**300** 20/**150**	**D0783**	1⅜ x 3	4.90	**2.94**
★ 60/**450** 80-40/**250** 20/**150**	**D0783.2**	1⅜ x 4⅛	5.65	**3.39**
★ 10/**475** 140-4/**350** 100/**50**	**D0783.4**	1⅜ x 4⅛	5.30	**3.18**
★ 10/**475** 40-10/**450** 100/**50**	**D0783.6**	1⅜ x 3	4.30	**2.58**
★ 10/**475** 50-30/**450** 30/**25**	**D0783.8**	1⅜ x 3⅝	4.75	**2.85**
5/**500** 100-10/**300** 200/**150**	**D0784**	1⅜ x 3⅝	10.45	**6.27**
★ 10/**500** 10-4/**300** 20/**25**	**D0784.8**	1⅜ x 2	2.90	**1.74**
★ 10/**500** 100-10/**300** 100/**25**	**D0785**	1⅜ x 3⅝	4.90	**2.94**
20/**525** 40-20/**450** 100/**25**	**D0786**	1⅜ x 3⅝	8.95	**5.37**

2 SECTIONS HV — 1 SECTION MV — 1 SECTION LV

5-5/**75** 25/**25** 100/**15**	**D0788**	1⅜ x 2	4.00	**2.40**
★ 80-5/**300** 60/**150** 20/**25**	**D0788.2**	1⅜ x 2½	4.30	**2.58**
★ 140-10/**300** 10/**150** 100/**50**	**D0788.3**	1⅜ x 3⅝	5.20	**3.12**
★ 30-30/**350** 50/**300** 100/**75**	**D0788.7**	1⅜ x 3	5.25	**3.15**
50-30/**350** 8/**250** 20/**200**	**D0789**	1⅜ x 2½	6.75	**4.05**
60-20/**350** 80/**150** 100/**50**	**D0789.1**	1⅜ x 3	4.90	**2.94**
★★ 60-40/**350** 60/**250** 20/**150**	**D0789.2**	1⅜ x 3⅝	5.40	**3.24**
★★ 60-100/**350** 60/**200** 40/**75**	**D0789.4**	1⅜ x 4⅛	6.55	**3.93**
5-5/**400** 50/**300** 80/**250**	**D0790**	1⅜ x 3	7.00	**4.20**
40-60/**400** 40/**350** 10/**50**	**D0800**	1⅜ x 3⅝	8.65	**5.19**
★★ 100-10/**400** 20/**350** 20/**50**	**D0805**	1⅜ x 3⅝	5.45	**3.27**
★ 10-10/**450** 60/**200** 100/**50**	**D0810**	1⅜ x 3	3.85	**2.31**
★ 20-20/**450** 60/**150** 100/**25**	**D0816**	1⅜ x 2½	4.25	**2.55**
★ 35-25/**450** 20/**200** 100/**50**	**D0820**	1⅜ x 3⅝	4.65	**2.79**
★ 40-40/**450** 125/**150** 125/**25**	**D0825**	1⅜ x 4⅛	5.70	**3.42**
10-5/**475** 80/**450** 40/**50**	**D0830**	1⅜ x 3⅝	7.45	**4.47**
★ 15-15/**475** 80/**300** 40/**50**	**D0840**	1⅜ x 3	4.80	**2.88**
★ 20-10/**475** 20/**450** 100/**25**	**D0841**	1⅜ x 2½	4.20	**2.52**
★ 40-10/**475** 4/**350** 40/**300**	**D0842**	1⅜ x 3	4.95	**2.97**

2 SECTIONS HV — 2 SECTIONS LV

★ 20-20/**150** 160-40/**25**	**XD0844**	1⅜ x 2	3.20	**1.92**
40-40/**150** 40-40/**25**	**D0850**	1⅜ x 2	4.60	**2.76**
40-40/**150** 100-100/**25**	**D0860**	1⅜ x 2	5.05	**3.03**
★ 50-20/**150** 150-30/**15**	**XD0862**	1⅜ x 2	3.20	**1.92**
140-40/**150** 50-30/**50**	**XD0864**	1⅜ x 2½	5.25	**3.15**
★★ 100-10/**300** 200-30/**150**	**D0866**	1⅜ x 5	5.90	**3.54**
★ 60-4/**350** 100-40/**25**	**D0868**	1⅜ x 2½	3.80	**2.28**
60-40/**350** 60-20/**200**	**D0869**	1⅜ x 3⅝	7.00	**4.20**
40-10/**400** 80-10/**250**	**D0870**	1⅜ x 3⅝	7.05	**4.23**
★★ 100-10/**400** 30-20/**50**	**D0875**	1⅜ x 3⅝	5.10	**3.06**
10-10/**450** 20-20/**25**	**D0880**	1⅜ x 2	4.45	**2.67**
★ 20-20/**450** 20-20/**25**	**D0890**	1⅜ x 2	3.55	**2.13**
20-20/**450** 30-30/**350**	**D0900**	1⅜ x 3	7.60	**4.56**
30-10/**450** 150-30/**50**	**D0906**	1⅜ x 3	6.15	**3.69**
40-10/**450** 35-10/**350**	**D0910**	1⅜ x 3	6.90	**4.14**
40-20/**450** 80-10/**350**	**DD912**	1⅜ x 4⅛	8.70	**5.22**
★ 40-40/**450** 100-60/**200**	**D0914**	1⅜ x 4⅛	6.05	**3.63**
★★ 40-40/**450** 30-30/**350**	**D0920**	1⅜ x 4⅛	5.90	**3.54**

1 SECTION HV — 1 SECTION MV — 2 SECTIONS LV

100/**300** 40/**50** 80-20/**25**	**D0922**	1⅜ x 2½	6.85	**4.11**
40/**350** 100/**250** 100-25/**50**	**D0924**	1⅜ x 3⅝	6.30	**3.78**
20/**400** 50/**350** 80-40/**25**	**D0926**	1⅜ x 2½	6.25	**3.75**
★ 80/**450** 10/**400** 40-30/**300**	**D0927**	1⅜ x 4⅛	5.80	**3.48**
★★ 30/**500** 10/**450** 150-30/**50**	**D0928**	1⅜ x 3	4.20	**2.52**

ALL SECTIONS DIFFERENT VOLTAGE

★ 100/**300** 60/**200** 10/**150** 20/**50**	**D0929**	1⅜ x 3	5.35	**3.21**
120/**300** 20/**250** 20/**25** 100/**50**	**D0930**	1⅜ x 4⅛	7.60	**4.56**
★ 200/**300** 20/**250** 20/**25** 100/**50**	**D0940**	1⅜ x 5	5.80	**3.48**
20/**350** 40/**300** 10/**150** 250/**50**	**D0950**	1⅜ x 3	6.90	**4.14**
★ 20/**350** 150/**300** 10/**250** 250/**50**	**D0951**	1⅜ x 4⅛	6.10	**3.66**
10/**400** 100/**300** 10/**75** 100/**25**	**D0952**	1⅜ x 3	6.70	**4.02**
30/**450** 40/**300** 50/**250** 200/**150**	**D0952.5**	1⅜ x 4⅛	9.00	**5.40**
★ 10/**450** 40/**350** 100/**250** 100/**50**	**D0953**	1⅜ x 3	5.55	**3.33**
60/**450** 40/**250** 10/**150** 80/**50**	**D0956**	1⅜ x 3⅝	7.20	**4.32**
80/**450** 10/**400** 30/**300** 40/**150**	**D0960**	1⅜ x 4⅛	7.90	**4.74**
★ 10/**475** 40/**350** 80/**300** 100/**100**	**D0961**	1⅜ x 4⅛	5.55	**3.33**
10/**475** 40/**350** 80/**200** 100/**50**	**D0962**	1⅜ x 3⅝	7.20	**4.32**
10/**475** 40/**400** 100/**50** 10/**25**	**D0964**	1⅜ x 2½	6.00	**3.60**
★ 10/**475** 40/**400** 4/**350** 100/**50**	**D0966**	1⅜ x 2½	4.05	**2.43**
10/**475** 10/**450** 80/**200** 50/**60**	**D0970**	1⅜ x 2½	5.80	**3.48**
★ 10/**475** 60/**450** 30/**400** 125/**50**	**D0980**	1⅜ x 4⅛	5.45	**3.27**
★ 20/**475** 40/**300** 100/**50** 80/**25**	**D0990**	1⅜ x 3	4.50	**2.70**
★ 20/**475** 40/**350** 80/**200** 100/**100**	**D0995**	1⅜ x 4⅛	5.45	**3.27**
★ 25/**475** 20/**450** 20/**300** 100/**50**	**D0997**	1⅜ x 3	4.60	**2.76**
25/**475** 20/**450** 40/**300** 100/**50**	**D1000**	1⅜ x 3	7.45	**4.47**
★ 40/**475** 40/**250** 50/**150** 80/**50**	**D1004**	1⅜ x 3⅝	5.00	**3.00**

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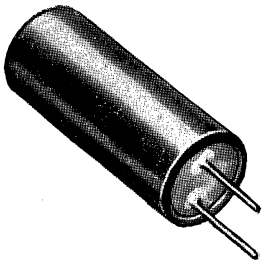
CDE CORNELL-DUBILIER

MINIATURIZED ELECTROLYTICS FOR TRANSISTORIZED AND PRINTED CIRCUITRY

PHENOLIC-CASED PARALLEL LEADS



ECPB

Type **ECPB** is an aluminum foil electrolytic capacitor embedded and sealed into a premolded phenolic case with single-ended, parallel lead termination. A special cast-resin sealer is employed which forms a moisture-tight seal and anchor for the pull-proof leads. This construction is especially well suited to printed board assemblies and because of its ultra-small size, is ideal for compact transistor circuitry.

Scrupulous selection of high-purity materials and precise fabrication assure a unit of the highest dependability.

TEMPERATURE RANGE: −20°C. to +65°C.

TOLERANCE: −10%, +150%

SINGLES

ECPB Cat. No.	Cap. Mfd.	Size—Inches† Diam. x Length	List Price	Net Price
		3 WVDC		
ECPB 15	50	3/8 x 5/8	$1.55	**$ .93**
ECPB 16	75	3/8 x 3/4	1.70	**1.02**
ECPB 17	100	3/8 x 7/8	1.75	**1.05**
ECPB 18	125	7/16 x 7/8	1.75	**1.05**
ECPB 19	150	7/16 x 7/8	1.75	**1.05**
ECPB 20	175	1/2 x 7/8	1.80	**1.08**
ECPB 21	200	1/2 x 7/8	1.80	**1.08**
ECPB 22	250	1/2 x 1	1.95	**1.17**
ECPB 23	300	1/2 x 1 1/4	2.00	**1.20**
ECPB 24	350	1/2 x 1 1/4	2.05	**1.23**
		6 WVDC		
ECPB 113	35	3/8 x 5/8	1.50	**.90**
ECPB 114	40	3/8 x 5/8	1.50	**.90**
ECPB 115	50	3/8 x 3/4	1.55	**.93**
ECPB 116	75	3/8 x 7/8	1.70	**1.02**
ECPB 117	100	7/16 x 3/4	1.75	**1.05**
ECPB 118	125	1/2 x 7/8	1.80	**1.08**
ECPB 119	150	1/2 x 7/8	1.90	**1.14**
ECPB 120	175	1/2 x 1	1.90	**1.14**
ECPB 121	200	1/2 x 1	1.95	**1.17**
ECPB 122	250	1/2 x 1 1/4	2.00	**1.20**
ECPB 123	300	1/2 x 1 1/4	2.10	**1.26**

SINGLES

ECPB Cat. No.	Cap. Mfd.	Size—Inches† Diam. x Length	List Price	Net Price
		15 WVDC		
ECPB 401	1	3/8 x 5/8	$1.45	**$ .87**
ECPB 402	2	3/8 x 5/8	1.45	**.87**
ECPB 403	3	3/8 x 5/8	1.45	**.87**
ECPB 404	4	3/8 x 5/8	1.45	**.87**
ECPB 405	5	3/8 x 5/8	1.50	**.90**
ECPB 406	6	3/8 x 5/8	1.50	**.90**
ECPB 407	8	3/8 x 5/8	1.50	**.90**
ECPB 408	10	3/8 x 5/8	1.50	**.90**
ECPB 409	15	3/8 x 5/8	1.55	**.93**
ECPB 410	20	3/8 x 5/8	1.55	**.93**
ECPB 411	25	3/8 x 5/8	1.55	**.93**
ECPB 412	30	3/8 x 5/8	1.55	**.93**
ECPB 413	35	3/8 x 3/4	1.55	**.93**
ECPB 414	40	3/8 x 7/8	1.60	**.96**
ECPB 415	50	3/8 x 7/8	1.65	**.99**
ECPB 416	75	7/16 x 7/8	1.80	**1.08**
ECPB 417	100	1/2 x 7/8	1.95	**1.17**
ECPB 418	125	1/2 x 1	2.00	**1.20**
ECPB 419	150	1/2 x 1 1/4	2.05	**1.23**
ECPB 420	175	1/2 x 1 1/4	2.10	**1.26**
ECPB 421	200	1/2 x 1 1/4	2.20	**1.32**
		25 WVDC		
ECPB 601	1	3/8 x 5/8	1.50	**.90**
ECPB 602	2	3/8 x 5/8	1.50	**.90**
ECPB 603	3	3/8 x 5/8	1.55	**.93**
ECPB 604	4	3/8 x 5/8	1.65	**.99**
ECPB 605	5	3/8 x 5/8	1.65	**.99**
ECPB 606	6	3/8 x 5/8	1.65	**.99**
ECPB 607	8	3/8 x 5/8	1.65	**.99**
ECPB 608	10	3/8 x 5/8	1.65	**.99**
ECPB 609	15	3/8 x 5/8	1.65	**.99**
ECPB 610	20	3/8 x 3/4	1.65	**.99**
ECPB 611	25	3/8 x 7/8	1.65	**.99**
ECPB 612	30	7/16 x 3/4	1.70	**1.02**
ECPB 613	35	7/16 x 7/8	1.75	**1.05**
ECPB 614	40	7/16 x 7/8	1.75	**1.05**
ECPB 615	50	1/2 x 7/8	1.75	**1.05**
ECPB 616	75	1/2 x 1	1.95	**1.17**
ECPB 617	100	1/2 x 1 1/4	2.00	**1.20**
		50 WVDC		
ECPB 806	6	3/8 x 5/8	1.65	**.99**
ECPB 807	8	3/8 x 5/8	1.65	**.99**
ECPB 808	10	3/8 x 5/8	1.65	**.99**
ECPB 809	15	3/8 x 7/8	1.65	**.99**
ECPB 810	20	7/16 x 3/4	1.65	**.99**
ECPB 811	25	7/16 x 7/8	1.65	**.99**
ECPB 812	30	7/16 x 7/8	1.70	**1.02**
ECPB 813	35	1/2 x 7/8	1.75	**1.05**
ECPB 814	40	1/2 x 7/8	1.75	**1.05**
ECPB 815	50	1/2 x 1	1.75	**1.05**
ECPB 816	75	1/2 x 1 1/4	1.95	**1.17**
		75 WVDC		
ECPB 901	1	3/8 x 5/8	1.25	**.75**
ECPB 902	2	3/8 x 5/8	1.25	**.75**
ECPB 903	3	3/8 x 5/8	1.25	**.75**
ECPB 904	4	3/8 x 3/4	1.25	**.75**
ECPB 905	5	3/8 x 7/8	1.30	**.78**
ECPB 906	6	7/16 x 3/4	1.30	**.78**
ECPB 907	8	7/16 x 7/8	1.30	**.78**
ECPB 908	10	7/16 x 1	1.35	**.81**
ECPB 910	15	1/2 x 1	1.35	**.81**
ECPB 911	20	1/2 x 1 1/4	1.35	**.81**

†LEAD SPACING = Nominal .168" for 3/8" or 7/16" Dia. cases; .283" for 1/2" Dia. cases.
LEAD LENGTH = 3/4" Min. — #22 AWG tinned copper.

Net

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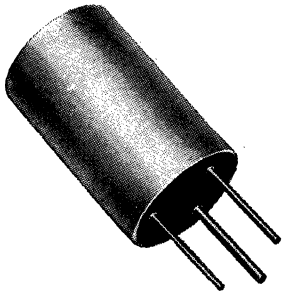
CORNELL-DUBILIER

MINIATURIZED ELECTROLYTICS FOR TRANSISTORIZED AND PRINTED CIRCUITRY

ALUMINUM-CASED PARALLEL LEADS



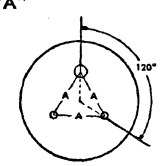
ECPAN - ECPAP

Types **ECPAN** and **ECPAP** are DUAL SECTION versions of the type **ECPB.** The dual types are housed in a tubular *aluminum* case as compared with the *phenolic* cased **ECPB.** Otherwise they are electrically and physically similar to type **ECPB.**

Type **ECPAN** are COMMON NEGATIVE-Dual Anode capacitors.
Type **ECPAP** are COMMON POSITIVE-Dual Cathode capacitors.

*NOMINAL LEAD SPACING: Dimension "A"

For 1/2" Diameter case = 7/32"
For 9/16" Diameter case = 1/4"
For 5/8" Diameter case = 9/32"
For 3/4" Diameter case = 11/32"
For 1" Diameter case = 7/16"



*NOMINAL LEAD LENGTH: 1/2"

DUALS
COMMON NEGATIVE — DUAL ANODE

ECPAN Cat. No.	Cap. Mfd.	Size—Inches* Diam. x Length	List Price	Net Price
		10 WVDC		
ECPAN 1	25–25	1/2 x 3/4	$2.05	**$1.23**
ECPAN 2	50–25	1/2 x 3/4	2.15	**1.29**
ECPAN 3	100–25	1/2 x 7/8	2.30	**1.38**
ECPAN 4	30–30	1/2 x 3/4	2.40	**1.44**
ECPAN 5	50–50	1/2 x 3/4	2.15	**1.29**
ECPAN 6	100–50	9/16 x 7/8	2.50	**1.50**
ECPAN 7	100–100	9/16 x 7/8	3.00	**1.80**
		15 WVDC		
ECPAN 8	25–25	1/2 x 3/4	2.60	**1.56**
ECPAN 9	50–25	1/2 x 3/4	2.85	**1.71**
ECPAN 10	100–25	9/16 x 7/8	3.05	**1.83**
ECPAN 11	30–30	1/2 x 3/4	2.70	**1.62**
ECPAN 12	50–50	1/2 x 3/4	2.95	**1.77**
ECPAN 13	100–50	9/16 x 7/8	3.20	**1.92**
ECPAN 14	100–100	5/8 x 1	3.30	**1.98**

DUALS
COMMON NEGATIVE — DUAL ANODE

ECPAN Cat. No.	Cap. Mfd.	Size—Inches* Diam. x Length	List Price	Net Price
		25 WVDC		
ECPAN 15	25–25	1/2 x 7/8	$3.40	**$2.00**
ECPAN 16	50–25	9/16 x 7/8	3.50	**2.10**
ECPAN 17	100–25	5/8 x 1	3.65	**2.20**
ECPAN 18	30–30	9/16 x 7/8	3.45	**2.07**
ECPAN 19	50–50	5/8 x 1	3.55	**2.13**
ECPAN 20	100–50	5/8 x 1 1/4	3.75	**2.25**
ECPAN 21	100–100	5/8 x 1 1/2	4.20	**2.52**
ECPAN 22	250–250	1 x 1 1/2	5.40	**3.24**
		50 WVDC		
ECPAN 23	25–25	9/16 x 7/8	3.70	**2.22**
ECPAN 24	50–25	5/8 x 1	3.95	**2.37**
ECPAN 25	50–50	3/4 x 1	4.20	**2.52**

ECPAP COMMON POSITIVE — DUAL CATHODE

		10 WVDC		
ECPAP 1	25–25	1/2 x 3/4	$2.45	**$1.77**
ECPAP 2	50–25	1/2 x 3/4	2.70	**1.62**
ECPAP 3	100–25	1/2 x 7/8	2.85	**1.71**
ECPAP 4	30–30	1/2 x 3/4	2.60	**1.56**
ECPAP 5	50–50	1/2 x 3/4	2.70	**1.62**
ECPAP 6	100–50	9/16 x 7/8	3.00	**1.80**
ECPAP 7	100–100	9/16 x 7/8	3.60	**2.16**
		15 WVDC		
ECPAP 8	25–25	1/2 x 3/4	2.55	**1.53**
ECPAP 9	50–25	1/2 x 3/4	2.55	**1.53**
ECPAP 10	100–25	9/16 x 7/8	2.70	**1.62**
ECPAP 11	30–30	1/2 x 3/4	2.95	**1.77**
ECPAP 12	50–50	1/2 x 3/4	3.20	**1.92**
ECPAP 13	100–50	9/16 x 7/8	3.45	**2.07**
ECPAP 14	100–100	5/8 x 1	3.65	**2.19**
		25 WVDC		
ECPAP 15	25–25	1/2 x 7/8	3.65	**2.19**
ECPAP 16	50–25	9/16 x 7/8	3.85	**2.31**
ECPAP 17	100–25	5/8 x 1	4.00	**2.40**
ECPAP 18	30–30	9/16 x 7/8	3.80	**2.28**
ECPAP 19	50–50	5/8 x 1	3.90	**2.34**
ECPAP 20	100–50	5/8 x 1 1/4	4.15	**2.49**
ECPAP 21	100–100	5/8 x 1 1/2	4.55	**2.73**
ECPAP 22	250–250	1 x 1 1/2	5.95	**3.57**
		50 WVDC		
ECPAP 23	25–25	9/16 x 7/8	4.10	**2.46**
ECPAP 24	50–25	5/8 x 1	4.35	**2.61**
ECPAP 25	50–50	3/4 x 1	4.55	**2.73**

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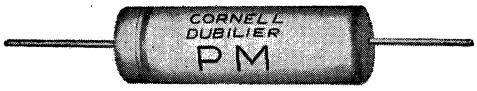
CDE CORNELL-DUBILIER

MOLDED MYLAR* TUBULARS



PM

CDE type PM is a MYLAR* dielectric, high temperature, moisture resistant molded tubular capacitor. The thermoset molded case is tough and non-inflammable. The Mylar dielectric assures dependable operation under high humidity conditions, and it exhibits very high insulation resistance. Low RF impedance of these capacitors makes them ideal for all general bypass and coupling applications. High stability under changes in temperature makes these capacitors excellent replacements in tuned circuits.

TOLERANCE: ±10%

TEMPERATURE RANGE: —55°C to +130°C.

Derate voltage by 10% at 100°C; by 50% at 130°C. Full rating at 85°C.

PM Cat. No.	Cap. Mfd.	Dimensions—Inches Diameter x Length	List Price	Net Price
		200 V. D.C.W.		
PM 2S2	.02	3/8 x 1 1/4	$.25	$.15
PM 2S47	.047	3/8 x 1 1/4	.25	.15
PM 2S5	.05	3/8 x 1 1/4	.25	.15
PM 2P1	.10	7/16 x 1 1/4	.35	.21
PM 2P15	.15	1/2 x 1 1/2	.35	.21
PM 2P22	.22	1/2 x 1 1/2	.40	.24
PM 2P25	.25	9/16 x 1 9/16	.40	.24
PM 2P47	.47	5/8 x 1 7/8	.60	.36
PM 2P5	.50	5/8 x 1 7/8	.60	.36
PM 2W1	1.00	3/4 x 2 1/4	1.05	.63
		400 V. D.C.W.		
PM 4S1	.01	5/16 x 1	.25	.15
PM 4S12	.012	3/8 x 1 1/4	.25	.15
PM 4S15	.015	3/8 x 1 1/4	.25	.15
PM 4S18	.018	3/8 x 1 1/4	.30	.18
PM 4S22	.022	3/8 x 1 1/4	.30	.18
PM 4S25	.025	3/8 x 1 1/4	.30	.18
PM 4S27	.027	3/8 x 1 1/4	.30	.18
PM 4S33	.033	7/16 x 1 1/4	.30	.18
PM 4S39	.039	7/16 x 1 1/4	.30	.18
PM 4S47	.047	7/16 x 1 1/4	.30	.18
PM 4S5	.05	7/16 x 1 1/4	.30	.18
PM 4S56	.056	1/2 x 1 1/2	.30	.18
PM 4S68	.068	1/2 x 1 1/2	.35	.21
PM 4S82	.082	1/2 x 1 1/2	.35	.21
PM 4P1	.10	1/2 x 1 1/2	.35	.21
PM 4P12	.12	1/2 x 1 1/2	.40	.24
PM 4P15	.15	9/16 x 1 9/16	.40	.24
PM 4P18	.18	9/16 x 1 9/16	.40	.24
PM 4P22	.22	5/8 x 1 7/8	.45	.27
PM 4P25	.25	5/8 x 1 7/8	.50	.30
PM 4P27	.27	5/8 x 1 7/8	.55	.33
PM 4P33	.33	11/16 x 1 15/16	.60	.36
PM 4P39	.39	11/16 x 1 15/16	.65	.39
PM 4P47	.47	3/4 x 2 1/4	.75	.45
PM 4P5	.50	3/4 x 2 1/4	.75	.45
PM 4P56	.56	3/4 x 2 1/4	.80	.48
PM 4P68	.68	1 x 2 1/8	.90	.54
PM 4P82	.82	1 x 2 1/8	1.00	.60
PM 4W1	1.00	1 x 2 1/8	1.25	.75
		600 V. D.C.W.		
PM 6D1	.001	5/16 x 1	.25	.15
PM 6D12	.0012	5/16 x 1	.25	.15
PM 6D15	.0015	5/16 x 1	.25	.15
PM 6D18	.0018	5/16 x 1	.25	.15
PM 6D22	.0022	5/16 x 1	.25	.15
PM 6D27	.0027	5/16 x 1	.25	.15
PM 6D33	.0033	5/16 x 1	.25	.15
PM 6D39	.0039	5/16 x 1	.25	.15
PM 6D47	.0047	5/16 x 1	.25	.15
PM 6D5	.005	5/16 x 1	.25	.15
PM 6D56	.0056	5/16 x 1	.25	.15
PM 6D68	.0068	5/16 x 1	.30	.18
PM 6D82	.0082	3/8 x 1 1/4	.30	.18
PM 6S1	.01	3/8 x 1 1/4	.30	.18
PM 6S12	.012	3/8 x 1 1/4	.30	.18
PM 6S15	.015	3/8 x 1 1/4	.30	.18
PM 6S18	.018	3/8 x 1 1/4	.30	.18
PM 6S22	.022	7/16 x 1 1/4	.30	.18
PM 6S25	.025	7/16 x 1 1/4	.30	.18
PM 6S27	.027	7/16 x 1 1/4	.30	.18
PM 6S33	.033	7/16 x 1 1/4	.35	.21
PM 6S39	.039	7/16 x 1 1/4	.35	.21
PM 6S47	.047	1/2 x 1 1/2	.40	.24
PM 6S5	.05	1/2 x 1 1/2	.40	.24
PM 6S56	.056	1/2 x 1 1/2	.40	.24
PM 6S68	.068	1/2 x 1 1/2	.45	.27
PM 6S82	.082	1/2 x 1 1/2	.45	.27
PM 6P1	.10	9/16 x 1 9/16	.45	.27
PM 6P12	.12	9/16 x 1 9/16	.45	.27
PM 6P15	.15	5/8 x 1 7/8	.50	.30
PM 6P18	.18	5/8 x 1 7/8	.60	.36
PM 6P22	.22	5/8 x 1 7/8	.70	.42
PM 6P25	.25	11/16 x 1 15/16	.75	.45
PM 6P27	.27	11/16 x 1 15/16	.80	.48
PM 6P33	.33	3/4 x 2 1/4	.90	.54
PM 6P39	.39	3/4 x 2 1/4	1.00	.60
PM 6P47	.47	3/4 x 2 1/4	1.25	.75
PM 6P5	.50	3/4 x 2 1/4	1.25	.75
PM 6P56	.56	1 x 2 1/8	1.30	.78

*Dupont TM.

Net

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CORNELL-DUBILIER

"BLACK CAT" MOLDED KRAFT-MYLAR* TUBULARS

Dual dielectric, molded tubular of Mylar and Kraft assuring high temperature operation, exceptional resistance to moisture and high reliability.

CDE's exclusive "FIXFIL" impregnant (a solid thermosetting compound) together with a rugged molded plastic case, make PKM ideal for the most exacting and rugged services.

For operation at temperatures from —40°C to +125°C — without Derating.

TOLERANCE: ±10%.

1000 V. D.C. Working

Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
PKM 10D1	.001	5/16 x 1	$.50	**$.30**
PKM 10D5	.005	3/8 x 1 1/4	.50	**.30**
PKM 10D68	.0068	7/16 x 1 1/4	.50	**.30**
PKM 10S1	.01	7/16 x 1 1/4	.50	**.30**
PKM 10S15	.015	1/2 x 1 1/2	.50	**.30**
PKM 10S22	.022	1/2 x 1 1/2	.50	**.30**
PKM 10S33	.033	1/2 x 1 1/2	.50	**.30**
PKM 10S47	.047	9/16 x 1 9/16	.60	**.36**
PKM 10S5	.05	9/16 x 1 9/16	.60	**.36**
PKM 10S68	.068	5/8 x 1 7/8	.70	**.42**
PKM 10P1	.1	11/16 x 1 15/16	.75	**.45**

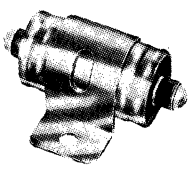
1600 V. D.C. Working

Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
PKM 16D1	.001	3/8 x 1 1/4	$.65	**$.39**
PKM 16D15	.0015	3/8 x 1 1/4	.65	**.39**
PKM 16D22	.0022	3/8 x 1 1/4	.65	**.39**
PKM 16D33	.0033	3/8 x 1 1/4	.65	**.39**
PKM 16D47	.0047	3/8 x 1 1/4	.65	**.39**
PKM 16D5	.005	3/8 x 1 1/4	.65	**.39**
PKM 16D68	.0068	7/16 x 1 1/4	.65	**.39**
PKM 16D82	.0082	7/16 x 1 1/4	.65	**.39**
PKM 16S1	.01	1/2 x 1 1/2	.70	**.42**
PKM 16S15	.015	1/2 x 1 1/2	.70	**.42**
PKM 16S22	.022	5/8 x 1 7/8	.70	**.42**
PKM 16S33	.033	5/8 x 1 7/8	.70	**.42**
PKM 16S47	.047	5/8 x 1 7/8	.90	**.54**
PKM 16S5	.05	5/8 x 1 7/8	.90	**.54**
	6000 V. D.C. Working			
PKM 60T5	.0005	1/2 x 1 1/2	1.35	**.81**
PKM 60D1	.001	9/16 x 1 9/16	1.35	**.81**
PKM 60D5	.005	11/16 x 1 15/16	1.35	**.81**
	10,000 V. D.C. Working			
PKM 100T5	.0005	1/2 x 1 1/2	1.50	**.90**
	12,500 V. D.C. Working			
PKM 125T25	.00025	1/2 x 1 1/2	1.70	**1.02**

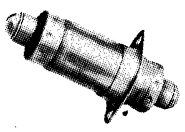
*DuPont TM

QUIETONE® Interference Suppression FILTERS

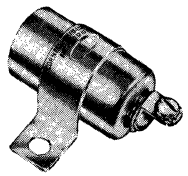
COAXIAL CAPACITORS and Vehicular Bypass Capacitors for Mobile Radio Noise Suppression



NFF-055B



NFF-315D
NFT-1F246

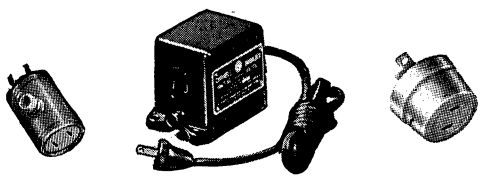


MC-8D98

Specially designed to suppress radio interference at frequencies, where standard ignition capacitors are relatively ineffective. Type NFF-055B is for generator and ignition coil suppression, and Types NFF-315D and NFT-1F246 are for voltage regulator noise suppression. Type NFT-1D086 is similar to NFF-315D, except that it has wire leads instead of screw terminals.

Type MC-8D98 is a specially designed, metal-clad vehicular bypass capacitor, for use on fans, motors, etc.

Cat. No.	Mfd.	V.D.C.W.	Amp.	Dia. x Length Inches	List Price	Net Price
NFF-055B	0.5	50	40	1 x 1 13/16	$3.50	**$2.10**
NFF-315D	0.1	600	20	11/16 x 1 13/16	2.95	**1.77**
NFT-1F246	0.25	200	20	7/8 x 2 17/32	4.50	**2.70**
NFT-1D086	0.1	600	20	11/16 x 1 7/16	2.60	**1.56**
MC-8D98	0.1	100	—	11/16 x 1 3/8	2.38	**1.43**



IF-6 IF-21 IF-20

RADIO, TV AND APPLIANCE "QUIETONES"

RATING — 110 V. A.C. - D.C. — 5 AMPS

Cat. No.	Radio and Electrical Appliance Uses	List Price	Net Price
IF-4	Small radios, portables. Low intensity noise.	$1.25	**$.75**
IF-5	Small electric appliances. Low intensity interference.	1.25	**.75**
IF-6	All home appliances. Low intensity interference.	1.95	**1.17**
IF-18	All radios and appliances with severe interference.	9.20	**5.52**
IF-19	All types home appliances with severe interference.	7.70	**4.62**
IF-20	Small appliances with very low interference.	.85	**.51**
IF-21†	Electric barber clippers, shavers, small appliances.	4.40	**2.64**

†IF-21 rated at 1.6 amps.

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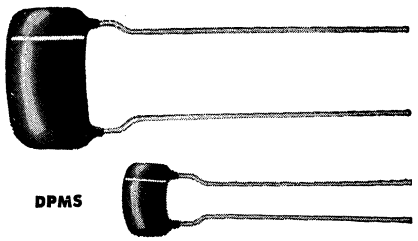
CDE CORNELL-DUBILIER

PAPER-MYLAR* DIELECTRIC SIDE-LEAD TUBULARS



Type **DPMS** is unique in that it is constructed with TWO dielectrics — Mylar* Polyester Film and a film of the very highest grade paper. The combination of the two thus provides the best features of both —

★ **HIGH TEMPERATURE OPERATION**

★ **HIGH INSULATION RESISTANCE**

★ **HIGH RELIABILITY**

★ **COMPACT — SPACE SAVING**

★ **IDEAL For Printed and Transistorized Circuitry**

"FIXFIL" impregnant, a C-D exclusive, assures stability of temperature characteristics. This solid thermosetting compound will not crack, soften or flow, even at maximum operating temperatures.

The **DPMS** has a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. This tough, durable material has high humidity resistance, high dielectric strength against grounding and is unaffected by accidental contact with soldering iron. The crimped side-leads are space saving and permit uniform mounting of units parallel to the plane of the chassis or printed wiring board.

LEAD SPACING—INCHES

Case Length	Lead Spacing	Case Length	Lead Spacing	Case Length	Lead Spacing
.690	.250	1.150	.719	1.300	.844
.855	.438	1.160	.719	1.560	1.094
.870	.438	1.180	.719	1.600	1.094

TEMPERATURE RANGE: —55°C to +125°C
Derate Working Voltage by 25% for over +100°C operation.

TOLERANCE: ±10%

DPMS Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		200 W.V.D.C.		
DPMS 2S2	.02	.350 x .855	$.25	**$.15**
DPMS 2S47	.047	.450 x .855	.30	**.18**
DPMS 2S5	.05	.450 x .855	.30	**.18**
DPMS 2P1	.10	.470 x 1.180	.35	**.21**
DPMS 2P15	.15	.540 x 1.180	.40	**.24**
DPMS 2P22	.22	.590 x 1.300	.45	**.27**
DPMS 2P25	.25	.620 x 1.300	.45	**.27**
DPMS 2P47	.47	.730 x 1.600	.60	**.36**
DPMS 2P5	.5	.730 x 1.600	.60	**.36**
		400 W.V.D.C.		
DPMS 4S1	.01	.390 x .690	.25	**.15**
DPMS 4S15	.015	.430 x .690	.25	**.15**
DPMS 4S2	.02	.390 x .855	.30	**.18**
DPMS 4S22	.022	.400 x .855	.30	**.18**
DPMS 4S33	.033	.440 x .855	.30	**.18**
DPMS 4S47	.047	.415 x 1.150	$.35	**$.21**
DPMS 4S5	.05	.415 x 1.150	.35	**.21**
DPMS 4S68	.068	.440 x 1.180	.40	**.24**
DPMS 4P1	.10	.520 x 1.180	.40	**.24**
DPMS 4P15	.15 .22	.560 x 1.300	.50	**.30**
DPMS 4P22		.620 x 1.560	.60	**.36**
DPMS 4P25	.25	.650 x 1.560	.60	**.36**
		600 W.V.D.C.		
DPMS 6D1	.001	.340 x .690	.25	**.15**
DPMS 6D12	.0012	.340 x .690	.25	**.15**
DPMS 6D15	.0015	.340 x .690	.25	**.15**
DPMS 6D2	.002	.340 x .690	.25	**.15**
DPMS 6D22	.0022	.340 x .690	.25	**.15**
DPMS 6D25	.0025	.350 x .690	.25	**.15**
DPMS 6D27	.0027	.370 x .690	.25	**.15**
DPMS 6D3	.003	.370 x .690	.25	**.15**
DPMS 6D33	.0033	.370 x .690	.25	**.15**
DPMS 6D39	.0039	.370 x .690	.25	**.15**
DPMS 6D4	.004	.370 x .690	.25	**.15**
DPMS 6D47	.0047	.400 x .690	.25	**.15**
DPMS 6D5	.005	.400 x .690	.25	**.15**
DPMS 6D56	.0056	.415 x .690	.25	**.15**
DPMS 6D6	.006	.415 x .690	.25	**.15**
DPMS 6D68	.0068	.430 x .690	.30	**.18**
DMPS 6D75	.0075	.370 x .870	.30	**.18**
DPMS 6D8	.008	.370 x .870	.30	**.18**
DPMS 6D82	.0082	.370 x .870	.30	**.18**
DPMS 6S1	.01	.390 x .870	.30	**.18**
DPMS 6S12	.012	.400 x .870	.30	**.18**
DPMS 6S15	.015	.415 x .870	.30	**.18**
DPMS 6S2	.02	.445 x .870	.30	**.18**
DPMS 6S22	.022	.470 x .870	.30	**.18**
DPMS 6S25	.025	.400 x 1.150	.35	**.21**
DPMS 6S27	.027	.415 x 1.150	.35	**.21**
DPMS 6S3	.03	.415 x 1.150	.35	**.21**
DPMS 6S33	.033	.430 x 1.150	.35	**.21**
DPMS 6S39	.039	.470 x 1.150	.35	**.21**
DPMS 6S4	.04	.470 x 1.150	.35	**.21**
DPMS 6S47	.047	.490 x 1.150	.35	**.21**
DPMS 6S5	.05	.490 x 1.150	.40	**.24**
DPMS 6S56	.056	.520 x 1.180	.40	**.24**
DPMS 6S6	.06	.520 x 1.180	.40	**.24**
DPMS 6S68	.068	.540 x 1.300	.45	**.27**
DPMS 6S75	.075	.570 x 1.300	.45	**.27**
DPMS 6S82	.082	.590 x 1.300	.45	**.27**
DPMS 6P1	.10	.640 x 1.300	.45	**.27**
DPMS 6P15	.15	.650 x 1.560	.55	**.33**
DPMS 6P2	.20	.730 x 1.560	.60	**.36**
DPMS 6P22	.22	.750 x 1.560	.60	**.36**
DPMS 6P25	.25	.830 x 1.560	.60	**.36**
		1600 W.V.D.C.		
DPMS 16D1	.001	.350 x .870	.35	**.21**
DPMS 16D15	.0015	.375 x .870	.35	**.21**
DPMS 16D18	.0018	.400 x .870	.35	**.21**
DPMS 16D2	.002	405 x .870	.35	**.21**
DPMS 16D22	.0022	.420 x .870	.35	**.21**
DPMS 16D25	.0025	.445 x .870	.40	**.24**
DPMS 16D3	.003	.475 x .870	.40	**.24**
DPMS 16D33	.0033	.480 x .870	.40	**.24**
DPMS 16D4	.004	.520 x .870	.40	**.24**
DPMS 16D47	.0047	.540 x .870	.40	**.24**
DPMS 16D5	.005	.565 x .870	.45	**.27**
DPMS 16D6	.006	.460 x 1.180	.45	**.27**
DPMS 16D7	.007	.485 x 1.180	.45	**.27**
DPMS 16D75	.0075	.495 x 1.180	.45	**.27**
DPMS 16D8	.008	.510 x 1.180	.50	**.30**
DPMS 16S1	.01	.525 x 1.180	.50	**.30**
DPMS 16S15	.015	.560 x 1.300	.55	**.33**
DPMS 16S2	.02	.570 x 1.600	.60	**.36**
DPMS 16S22	.022	.585 x 1.600	.70	**.42**
DPMS 16S25	.025	.620 x 1.600	.70	**.42**
DPMS 16S3	.03	.665 x 1.600	.70	**.42**
DPMS 16S33	.033	.695 x 1.600	.80	**.48**
DPMS 16S4	.04	.735 x 1.600	.80	**.48**
DPMS 16S47	.047	.785 x 1.600	.85	**.51**
DPMS 16S5	.05	.815 x 1.600	.85	**.51**

*DUPONT-TM

Net

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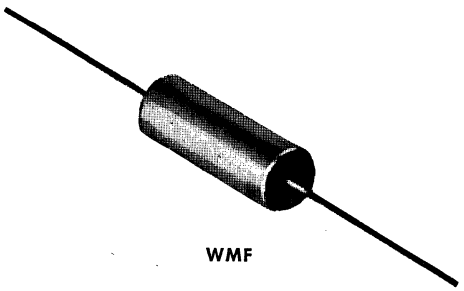
CORNELL-DUBILIER

MYLAR* DIELECTRIC FILM-ENCASED



WMF

Type WMF is an ultra-compact Mylar dielectric tubular capacitor encased in a thin, tough Mylar film wrapping and end-sealed with a high density thermosetting plastic. A most desirable unit where a metal-cased unit is not indicated. The WMF is extremely small in size, has high resistance to humidity and excellent capacitance stability with temperature and life.

TEMPERATURE RANGE: —55°C. to +125°C.
Full rated voltage at 85°C.
Derate voltage 10% at 100°C.
Derate voltage 50% at 125°C.

TOLERANCE: ±10%.

WMF Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		100 W.V.D.C.		
WMF1D1	.001	.156 x ½	$.35	**$.21**
WMF1D15	.0015	.156 x ½	.35	**.21**
WMF1D22	.0022	.156 x ½	.35	**.21**
WMF1D33	.0033	.156 x ½	.35	**.21**
WMF1D47	.0047	.156 x ½	.35	**.21**
WMF1D68	.0068	.175 x ½	.35	**.21**
WMF1S1	.01	.200 x ½	.35	**.21**
WMF1S15	.015	.235 x ½	.35	**.21**
WMF1S22	.022	.275 x ⅝	.40	**.24**
WMF1S33	.033	.300 x ⅝	.40	**.24**
WMF1S47	.047	.265 x ¾	.45	**.27**
WMF1S68	.068	.280 x ¾	.45	**.27**
WMF1P1	.1	.290 x ⅞	.60	**.36**
WMF1P15	.15	.335 x ⅞	.60	**.36**
WMF1P22	.22	.385 x 1	.65	**.39**
WMF1P33	.33	.415 x 1⅛	.75	**.45**
WMF1P47	.47	.475 x 1¼	.85	**.51**
WMF1P68	.68	.570 x 1¼	.95	**.57**
WMF1W1	1.0	.625 x 1½	1.45	**.87**
WMF1W1P25	1.25	.690 x 1½	1.75	**1.05**
WMF1W1P5	1.5	.770 x 1¾	2.05	**1.23**
WMF1W2	2.0	.955 x 1¾	2.50	**1.50**
		200 W.V.D.C.		
WMF2D1	.001	.156 x ½	.35	**.21**
WMF2D15	.0015	.156 x ½	.35	**.21**
WMF2D22	.0022	.156 x ½	.35	**.21**
WMF2D33	.0033	.160 x ½	.35	**.21**
WMF2D47	.0047	.170 x ½	.35	**.21**
WMF2D68	.0068	.200 x ½	.35	**.21**
WMF2S1	.01	.230 x ½	.35	**.21**
WMF2S15	.015	.290 x ½	.35	**.21**
WMF2S22	.022	.275 x ⅝	.40	**.24**
WMF2S33	.033	.270 x ¾	.40	**.24**
WMF2S47	.047	.320 x ¾	$.45	**$.27**
WMF2S68	.068	.350 x ¾	.45	**.27**
WMF2P1	.1	.410 x ⅞	.60	**.36**
WMF2P15	.15	.500 x ⅞	.60	**.36**
WMF2P22	.22	.500 x 1⅛	.65	**.39**
WMF2P33	.33	.550 x 1⅛	.75	**.45**
WMF2P47	.47	.600 x 1¼	.85	**.51**
WMF2P68	.68	.650 x 1⅜	.95	**.57**
WMF2W1	1.0	.750 x 1¾	1.45	**.87**
WMF2W1P25	1.25	.825 x 1¾	1.75	**1.05**
WMF2W1P5	1.5	.900 x 1¾	2.05	**1.23**
WMF2W2	2.0	.980 x 1⅞	2.50	**1.50**
		400 W.V.D.C.		
WMF4D1	.001	.156 x ⅝	.35	**.21**
WMF4D15	.0015	.156 x ⅝	.35	**.21**
WMF4D22	.0022	.156 x ⅝	.35	**.21**
WMF4D33	.0033	.190 x ⅝	.40	**.24**
WMF4D47	.0047	.200 x ⅝	.40	**.24**
WMF4D68	.0068	.250 x ⅝	.40	**.24**
WMF4S1	.01	.300 x ⅝	.45	**.27**
WMF4S15	.015	.360 x ⅝	.45	**.27**
WMF4S22	.022	.320 x ¾	.45	**.27**
WMF4S33	.033	.350 x ⅞	.45	**.27**
WMF4S47	.047	.400 x ⅞	.50	**.30**
WMF4S68	.068	.390 x 1	.55	**.33**
WMF4P1	.1	.465 x 1	.55	**.33**
WMF4P15	.15	.515 x 1¼	.60	**.36**
WMF4P22	.22	.565 x 1⅜	.70	**.42**
WMF4P33	.33	.600 x 1⅝	1.10	**.66**
WMF4P47	.47	.700 x 1⅝	1.30	**.78**
WMF4P68	.68	.790 x 1¾	1.60	**.96**
WMF4W1	1.0	.875 x 2	2.00	**1.20**
WMF4W1P25	1.25	.950 x 2	2.30	**1.38**
WMF4W1P5	1.5	.975 x 2¼	2.60	**1.56**
WMF4W2	2.0	1.250 x 2¼	3.30	**2.04**
		600 W.V.D.C.		
WMF6D1	.001	.170 x ¾	.40	**.24**
WMF6D15	.0015	.170 x ¾	.40	**.24**
WMF6D22	.0022	.187 x ¾	.40	**.24**
WMF6D33	.0033	.203 x ¾	.40	**.24**
WMF6D47	.0047	.234 x ¾	.45	**.27**
WMF6D68	.0068	.265 x ¾	.45	**.27**
WMF6S1	.01	.290 x ¾	.50	**.30**
WMF6S15	.015	.312 x ⅞	.50	**.30**
WMF6S22	.022	.325 x ⅞	.50	**.30**
WMF6S33	.033	.350 x 1	.50	**.30**
WMF6S47	.047	.415 x 1	.55	**.33**
WMF6S68	.068	.500 x 1	.60	**.36**
WMF6P1	.1	.520 x 1⅜	.70	**.42**
WMF6P15	.15	.625 x 1⅜	.75	**.45**
WMF6P22	.22	.660 x 1⅝	.85	**.51**
WMF6P33	.33	.687 x 2	1.50	**.90**
WMF6P47	.47	.855 x 2	1.90	**1.14**
WMF6P68	.68	.970 x 2	2.55	**1.53**
WMF6W1	1.0	1.165 x 2½	4.25	**2.55**
WMF6W1P25	1.25	1.340 x 2½	4.80	**2.88**
WMF6W1P5	1.5	1.275 x 3	5.80	**3.48**
WMF6W2	2.0	1.460 x 3	7.30	**4.38**

*Dupont TM.

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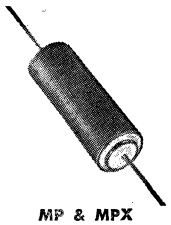
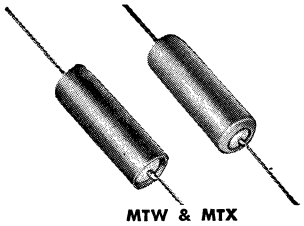
CDE CORNELL-DUBILIER

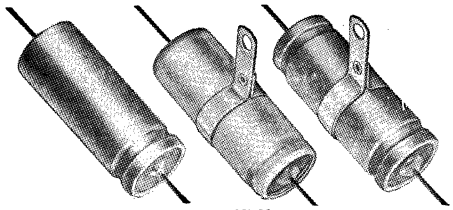
COMPACT METALIZED-PAPER CAPACITORS



MP & MPX



MTW & MTX



MTM

Cornell-Dubilier self-healing, metalized paper capacitors have better electrical characteristics and extra long service life. Units are light and compact.

"PUP" units have bare wire leads securely anchored in metal end-caps, wax-impregnated and dip-sealed against humidity. All units are extended foil—non-inductive wound for low impedance at high frequencies, have high insulation resistance, low power factor and small capacity change with temperature and life.

"METAPUPS" are one piece metal tubular cased, pressure sealed by spin-over on synthetic rubber gaskets.

"SEALPUPS" are a high quality metalized paper capacitor, designed for smallest size and positive seal against moisture. They are hermetically sealed in metal cases with solder-seal glass terminals. Especially recommended in military and commercial equipment where miniature size and light weight are paramount.

TEMPERATURE RANGE: —40°C to +70°C.

"PUP" METAL END-CAP CARDBOARD TUBULARS

MP Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Diam. x Length
MP 2S5	.05	200	3/8 x 5/8
MP 2P1	.1	200	3/8 x 5/8
MP 2P25	.25	200	15/32 x 5/8
MP 2P5	.5	200	15/32 x 1 1/8
MP 2W1	1.0	200	9/16 x 1 1/8
MP 2W2	2.0	200	5/8 x 1 5/8
MP 4S5	.05	400	15/32 x 5/8
MP 4P1	.1	400	15/32 x 1 1/8
MP 4P25	.25	400	9/16 x 1 1/8
MP 4P5	.5	400	5/8 x 1 5/8
MP 4W1	1.0	400	23/32 x 2 1/8
MP 6S1	.01	600	3/8 x 5/8
MP 6P1	.1	600	15/32 x 1 1/8
MP 6P25	.25	600	5/8 x 1 1/8
MP 6P5	.5	600	23/32 x 1 5/8
MP 6W1	1.0	600	23/32 x 2 1/8

TEMPERATURE RANGE: —55°C to +95°C.

"METAPUP" ONE-PIECE METAL TUBULARS

STYLE A (Ungrounded)

MTM Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Diam. x Length
MTM 2S5	.05	200	3/8 x 15/16
MTM 2P1	.1	200	7/16 x 15/16
MTM 2P25	.25	200	1/2 x 15/16
MTM 2P5	.5	200	1/2 x 1 1/4
MTM 2W1	1.0	200	5/8 x 1 7/16
MTM 2W2	2.0	200	5/8 x 1 15/16
MTM 4S5	.05	400	7/16 x 15/16
MTM 4P1	.1	400	7/16 x 1 1/4
MTM 4P25	.25	400	5/8 x 1 1/4
MTM 4P5	.5	400	5/8 x 1 15/16
MTM 4W1	1.0	400	3/4 x 2 1/16
MTM 4W2	2.0	400	1 x 2 1/16
MTM 6S1	.01	600	3/8 x 15/16
MTM 6P1	.1	600	1/2 x 1 7/16
MTM 6P25	.25	600	5/8 x 1 9/16
MTM 6P5	.5	600	3/4 x 1 15/16
MTM 6W1	1.0	600	13/16 x 2 1/16

TEMPERATURE RANGE: —55°C to +95°C.

"SEALPUP" GLASS-METAL END-SEALED TUBULARS

STYLE A (Ungrounded)

MTW Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Diam. x Length
MTW 2S5	.05	200	.235 x 3/4
MTW 2P1	.1	200	.312 x 3/4
MTW 2P25	.25	200	.312 x 1 1/16
MTW 2P5	.5	200	.400 x 1 1/16
MTW 2W1	1.0	200	.562 x 1 1/4
MTW 2W15	1.5	200	.562 x 1 3/4
MTW 2W2	2.0	200	.562 x 1 3/4
MTW 4S5	.05	400	.400 x 3/4
MTW 4P1	.1	400	.400 x 1 1/16
MTW 4P25	.25	400	.562 x 1 1/16
MTW 4P5	.5	400	.562 x 1 3/4
MTW 4W1	1.0	400	.670 x 2 1/4
MTW 6S1	.01	600	.312 x 3/4
MTW 6P1	.1	600	.500 x 1 1/4
MTW 6P25	.25	600	.670 x 1 3/8
MTW 6P5	.5	600	.750 x 1 3/4
MTW 6W1	1.0	600	.750 x 2 1/4

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CORNELL-DUBILIER

HIGH TEMPERATURE Metalized-Paper CAPACITORS

- **POLYKANE-IMPREGNATED:** This impregnant insures excellent electrical properties over long service life.
- **MOISTURE RESISTANT:** MTX tubulars have the finest glass-to-metal solder seal terminals for maximum protection against moisture. MPX tubulars have POLYKANE-impregnated paper tubes, bonded securely to the POLYKANE fill. An external flash wax dip provides an increased moisture seal for extra long storage and service conditions under extremes of humidity.
- **NON-LEAKING:** "POLYKANE" is a solid thermosetting plastic that will not soften, crack, or leak at the maximum temperature. No oil or wax is used internally with these units.

MPX†—HIGH TEMPERATURE Paper-Cased TUBULARS

STANDARD TOLERANCE: +40 —20% to 1 mfd.
+30 —20% over 1 mfd.

TEMP. RANGE: —35°C to +100°C

MPX Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Dia. x Length
MPX 2S5	.05	200	1/4 x 13/16
MPX 2P1	.10	200	5/16 x 13/16
MPX 2P25	.25	200	13/32 x 13/16
MPX 2P5	.50	200	15/32 x 1 1/8
MPX 2W1	1.0	200	9/16 x 1 3/16
MPX 2W2	2.0	200	5/8 x 1 1/2
MPX 4S5	.05	400	3/8 x 13/16
MPX 4P1	.10	400	3/8 x 1 1/8
MPX 4P25	.25	400	9/16 x 1 3/16
MPX 4P5	.50	400	5/8 x 1 3/8
MPX 4W1	1.0	400	11/16 x 1 7/8
MPX 6S1	.01	600	1/4 x 13/16
MPX 6P1	.10	600	1/4 x 1 1/8
MPX 6P25	.25	600	5/8 x 1 3/16
MPX 6P5	.50	600	11/16 x 1 1/2
MPX 6W1	1.0	600	13/16 x 1 7/8
MPX 6W2	2.0	600	1 x 2 3/8

MTX†—HIGH TEMPERATURE Metal-Cased‡ TUBULARS

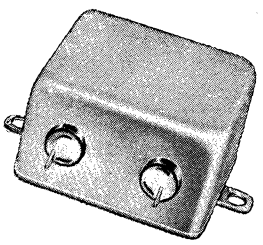
STYLE BASIC (Ungrounded)

STANDARD TOLERANCE: +40 —20% to 1 mfd.
+30 —20% over 1 mfd.

TEMP. RANGE: —55°C to +130°C
Derate voltage by 25% for operation at +130°C.
No derating at 100°C.

MTX Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Diam. x Length
MTX 2S5	.05	200	.235 x 13/16
MTX 2P1	.10	200	.312 x 13/16
MTX 2P25	.25	200	.312 x 1 1/8
MTX 2P5	.50	200	.400 x 1 1/8
MTX 2W1	1.0	200	.562 x 1 1/8
MTX 2W1P5	1.5	200	.562 x 1 7/16
MTX 2W2	2.0	200	.562 x 1 13/16
MTX 4S5	.05	400	.312 x 13/16
MTX 4P1	.10	400	.400 x 1 1/8
MTX 4P25	.25	400	.500 x 1 1/8
MTX 4P5	.50	400	.562 x 1 13/16
MTX 4W1	1.0	400	.670 x 2 5/16
MTX 6S1	.01	600	.312 x 13/16
MTX 6P1	.10	600	.400 x 1 1/8
MTX 6P25	.25	600	.562 x 1 5/16
MTX 6P5	.50	600	.670 x 1 13/16
MTX 6W1	1.0	600	.750 x 2 5/16

METAL CASED DYKANOL PAPER CAPACITORS



TYPE DYR
(Similar to CP53)

Type DYR Dykanol Bypass Capacitors are non-inductively wound and meet the need for dependable capacitors of fractional capacities that will operate efficiently in R.F. and A.F. bypass, audio frequency coupling under all humidity conditions. They are built to meet MIL-C-25C performance and test requirements and have been specially designed to fill the severe requirements of aircraft, submarine, marine and tropical applications.

TEMPERATURE RANGE: —55°C to +85°C.

STANDARD TOLERANCE: +20%, —10%.

DYR Cat. No.	Cap. Mfd.	Size—Inches L. x W. x T.
		600 V. D.C. Work.
DYR 6005	.05	1 13/16 x 1 x 3/4
DYR 6010	.1	1 13/16 x 1 x 3/4
DYR 6025	.25	1 13/16 x 1 x 3/4
DYR 6050	.5	1 13/16 x 1 x 7/8
DYR 6100	1	2 x 1 3/4 x 7/8
DYR 6200	2	2 x 2 x 1 1/8
DYR 60055	.05-.05	1 13/16 x 1 x 3/4
DYR 6011	.1-.1	1 13/16 x 1 x 3/4
DYR 6022X	.25-.25	1 13/16 x 1 x 7/8
DYR 6055	.5-.5	2 x 1 3/4 x 7/8
DYR 6110	1.-1.	2 x 2 x 1 1/8
DYR 6111	.1-.1-.1	1 13/16 x 1 x 3/4
DYR 6222	.25-.25-.25	2 x 1 3/4 x 1 5/16
DYR 6555	.5-.5-.5	2 x 2 x 1 1/8
		1000 V. D.C. Work.
DYR 10005	.05	1 13/16 x 1 x 3/4
DYR 10010	.1	1 13/16 x 1 x 3/4
DYR 10025	.25	1 13/16 x 1 x 3/4
DYR 10050	.5	2 x 1 3/4 x 13/16
DYR 10100	1	2 x 2 x 1 1/8
DYR 100055	.05-.05	1 13/16 x 1 x 3/4
DYR 10011	.1-.1	1 13/16 x 1 x 3/4
DYR 10022	.25-.25	2 x 1 3/4 x 13/16
DYR 10055	.5-.5	2 x 2 x 1 1/8
DYR 10111X	.1-.1-.1	2 x 1 3/4 x 7/8
DYR 10222	.25-.25-.25	2 x 2 x 1 1/8

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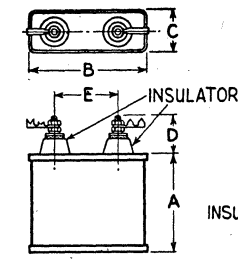
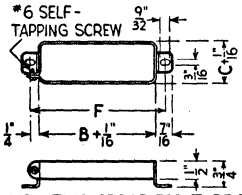
CDE CORNELL-DUBILIER

DYKANOL TRANSMITTING CAPACITORS

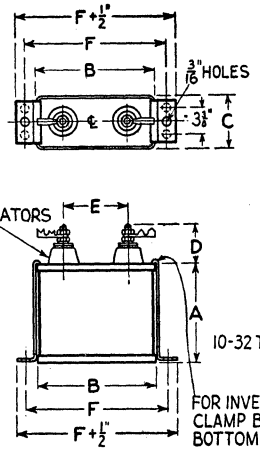


TYPE T
(WITHOUT MOUNTINGS)

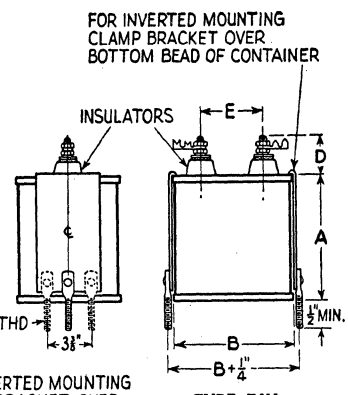


MOUNTING STRAP FOR TYPE TJU

TYPE TJU
(WITH MOUNTING STRAP)



TYPE TJL



TYPE TJH

TYPE T
(Similar to CP70)
Provided with mounting brackets designated upon ordering as explained below.

TYPE DESIGNATIONS—Type T (basic units) are without mountings. To order Types TJH, TJL or TJU with mountings as shown above, add letter symbols of type mountings desired to Cat. No. as follows:

TYPE T—(Basic unit) without mountings.
TYPE TJH—With screw spade-lug brackets.
TYPE TJL—With mounting foot brackets.
TYPE TJU—With universal mounting strap.

Prices below do not include mounting brackets or universal mounting strap.

TEMPERATURE RANGE: —55° to +85°C. **STANDARD TOLERANCE:** ± 10%.

T Cat. No.	Cap. Mfd.	Dimensions—Inches A	B	C	D	E	F
		600 V. D.C. Working					
T 6005	.5	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 6010	1	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 6020	2	2 7/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 6040	4	3 3/8	2 1/2	1 3/16	7/8	1 1/8	3
T 6060	6	4 5/8	2 1/2	1 3/16	7/8	1 1/8	3
T 6080	8	3 13/16	3 3/4	1 1/4	7/8	2	4 3/8
T 6100	10	4 5/8	3 3/4	1 1/4	7/8	2	4 3/8
T 6150	15	4 5/8	3 3/4	1 3/4	7/8	2	4 3/8
		1000 V. D.C. Working					
T 10001	.1	2	1 13/16	1 1/16	7/8	13/16	2 1/4
T 100025	.25	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 10005	.5	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 10010	1	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 10020	2	4	1 13/16	1 1/16	7/8	13/16	2 1/4
T 10040	4	4 5/8	2 1/2	1 3/16	7/8	1 1/8	3
T 10060	6	4 3/4	3 3/4	1 1/4	7/8	2	4 3/8
T 10080X	8	3 7/8	3 3/4	1 3/4	7/8	2	4 3/8
T 10100	10	4 5/8	3 3/4	1 3/4	7/8	2	4 3/8
T 10120	12	3 13/16	3 3/4	2 1/4	7/8	2	4 3/8
T 10150	15	4 3/4	3 3/4	2 1/2	7/8	2	4 3/8
		1500 V. D.C. Working					
T 15001	.1	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 150025X	.25	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 15005	.5	2 7/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 15010X	1	3 7/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 15020X	2	4 1/4	2 1/2	1 3/16	7/8	1 1/8	3
T 15040X	4	4 3/4	3 3/4	1 1/4	7/8	2	4 3/8
T 15060	6	4 3/4	3 3/4	1 3/4	7/8	2	4 3/8
T 15080	8	4 3/4	3 3/4	2 1/2	7/8	2	4 3/8
*T 15100	10	4 3/4	3 3/4	3 3/16	7/8	2	4 3/8
*T 15120	12	4 3/4	3 3/4	3 3/16	7/8	2	4 3/8
†*T 15150	15	4 3/4	3 3/4	4 3/16	7/8	2	4 3/8
		2000 V. D.C. Working					
T 20001	.1	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 200025	.25	2 1/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 20005	.5	2 7/8	1 13/16	1 1/16	7/8	13/16	2 1/4
T 20010	1	3 3/8	2 1/2	1 3/16	1	1 1/8	3
T 20020	2	4	3 3/4	1 1/4	1	2	4 3/8
T 20040	4	3 13/16	3 3/4	2 1/4	1	2	4 3/8
*T 20060	6	4 3/4	3 3/4	3 3/16	1	2	4 3/8
*T 20080	8	4 3/4	3 3/4	3 3/16	1	2	4 3/8

NOTES—*Type TJU units are not furnished in these larger sizes.
† Types TJL and TJH units furnished with two mounting holes or spade lugs 3/8" apart. All other units furnished with a single mounting hole or spade lug centered on each bracket.

T Cat. No.	Cap. Mfd.	Dimensions—Inches A	B	C	D	E	F
		2000 V. D.C. Working					
†*T 20100	10	4 3/4	3 3/4	4 9/16	1	2	4 3/8
†*T 20120	12	5 3/8	3 3/4	4 9/16	1	2	4 3/8
T 20150	15	6 1/2	3 3/4	4 9/16	1	2	4 3/8
		2500 V. D.C. Working					
T 25001	.1	2	2 1/2	1 3/16	1	1 1/8	3
T 250025X	.25	2 1/4	3 3/4	1 1/4	1	2	4 3/8
T 25005	.5	3 1/2	3 3/4	1 1/4	1	2	4 3/8
T 25010	1	3 1/4	3 3/4	1 3/4	1	2	4 3/8
T 25020	2	4 3/4	3 3/4	1 3/4	1	2	4 3/8
†*T 25040	4	4	3 3/4	4 9/16	1	2	4 3/8
T 25060X	6	4 3/4	3 3/4	4 9/16	1	2	4 3/8
†*T 25100A	10	6 3/8	3 3/4	4 9/16	1	2	4 3/8
		3000 V. D.C. Working					
T 30001	.1	2	2 1/2	1 3/16	1	1 1/8	1
T 300025	.25	2 1/2	2 1/2	1 3/16	1	1 1/8	3
T 30005	.5	3 7/8	2 1/2	1 3/16	1	1 1/8	3
T 30010	1	3 13/16	3 3/4	2 1/4	1	2	4 3/4
*T 30020	2	4 1/8	3 3/4	3 3/16	1	2	4 3/8
†*T 30040	4	4 3/4	3 3/4	4 9/16	1	2	4 3/8
T 30080	8	7 1/8	3 3/4	4 9/16	1	2	4 3/8
		4000 V. D.C. Working					
T 40001	.1	2 3/4	3 3/4	2 1/4	2 1/4	2	4 3/8
T 400025	.25	2 3/4	3 3/4	2 1/4	2 1/4	2	4 3/8
T 40005	.5	4	3 3/4	2 1/4	2 1/4	2	4 3/8
T 40010	1	5	3 3/4	2 1/4	2 1/4	2	4 3/8
†*T 40020	2	5	3 3/4	4 9/16	2 1/4	2	4 3/8
†*T 40040A	4	8	3 3/4	4 9/16	2 1/4	1 3/4	4 3/8
		5000 V. D.C. Working					
T 50001	.1	2 3/4	3 3/4	2 1/4	2 1/4	2	4 3/8
T 500025X	.25	3 1/4	3 3/4	2 1/4	2 1/4	2	4 3/8
T 50005	.5	4 1/4	3 3/4	2 1/4	2 1/4	2	4 3/8
†*T 50010	1	4 1/4	3 3/4	4 9/16	2 1/4	2	4 3/8
†*T 50020	2	6	3 3/4	4 9/16	2 1/4	2	4 3/8
		6000 V. D.C. Working					
T 60001	.1	2 3/4	3 3/4	2 1/4	2 1/4	1 3/4	4 3/8
T 600025X	.25	4 1/8	3 3/4	3 3/16	2 1/4	2	4 3/8
†*T 60010A	1	5	3 3/4	4 9/16	2 1/4	1 3/4	4 3/8
		7500 V. D.C. Working					
T 75001X	.1	3 7/8	3 3/4	2 1/4	2 1/4	2	4 3/8
T 750025	.25	3 7/8	3 3/4	4 9/16	2 1/4	2	4 3/8
T 75005	.5	5 1/8	3 3/4	4 9/16	2 1/4	2	4 3/8

For higher voltage units, from 7,500 to 25,000 v.d.c., write for data and prices on Type TK capacitors.

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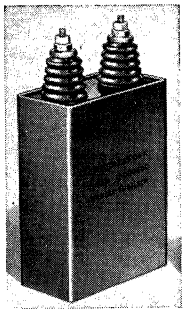
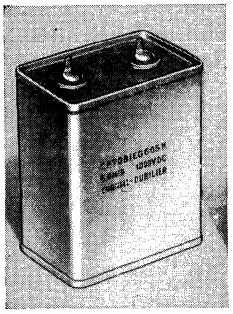
CORNELL-DUBILIER

RECTANGULAR METAL CASED CAPACITORS

TYPE CP70 (to MIL-C-25C)





CHARACTERISTICS "E" and "F" **TOLERANCE "K": ±10%**

Rugged, steel-cased units, designed to meet or exceed Specification MIL-C-25C requirements.

Available with any of the following terminals:

"B" Solder-Lug (1500 VDC or less)

"D" Pillar Insulator (6000 VDC or more) **"E"** Pillar Insulator (5000 VDC or less)

CP07F (Footed) or **CP07S** (Spade-Lug) **BRACKETS** available

MIL-C-25C Type No.	Cap. Mfd.	DIMENSIONS (±1/16") in INCHES — For Characteristic E: Width	Depth	Height	For Characteristic F: Width	Depth	Height
600 W. V. D.C. Working							
CP70-1-F254K	.25	1 13/16	1 1/16	1 5/8	1 13/16	1 1/16	1 5/8
CP70-1EF105K	1	1 13/16	1 1/16	2 1/4	—	—	—
CP70-1-F205K	2	1 13/16	1 1/16	3 1/4	1 13/16	1 1/16	2 7/8
CP70-1-F405K	4	2 1/2	1 13/16	3 7/8	2 1/2	1 13/16	3 1/2
CP70-1-F605K	6	3 3/4	1 1/4	3 7/8	2 1/2	1 13/16	4 3/4
CP70-1-F805K	8	3 3/4	1 1/4	4 1/4	3 3/4	1 1/4	3 7/8
CP70-1-F106K	10	3 3/4	1 3/4	4	3 3/4	1 1/4	4 3/4
1000 W. V. D.C. Working							
CP70-1EG104K	.1	1 13/16	1 1/16	1 5/8	—	—	—
CP70-1EG254K	.25	1 13/16	1 1/16	2 1/4	—	—	—
CP70-1EG504K	.5	1 13/16	1 1/16	2 1/4	—	—	—
CP70-1-G105K	1	1 13/16	1 1/16	2 7/8	1 13/16	1 1/16	2 1/4
CP70-1-G205K	2	1 13/16	1 1/16	4 3/4	1 13/16	1 1/16	3 7/8
CP70-1-G405K	4	3 3/4	1 1/4	3 7/8	2 1/2	1 13/16	4 3/4
CP70-1-G605K	6	3 3/4	1 3/4	4	3 3/4	1 1/4	4 3/4
CP70-1-G805K	8	3 3/4	1 3/4	4 3/4	3 3/4	1 3/4	3 7/8
CP70-1-G106K	10	3 3/4	2 1/4	4 3/4	3 3/4	1 3/4	4 3/4
CP70-1-G126K	12	3 3/4	2 1/4	5 1/8	3 3/4	2 1/4	4 1/2
CP70-1-G156K	15	3 3/4	3 3/16	4 3/4	3 3/4	2 1/2	4 3/4
1500 W. V. D.C. Working							
CP70-1EH104K	.1	1 13/16	1 1/16	2 1/4	—	—	—
CP70-1-H254K	.25	1 13/16	1 1/16	2 7/8	1 13/16	1 1/16	2 1/4
CP70-1EH504K	.5	1 13/16	1 1/16	2 7/8	—	—	—
CP70-1-H105K	1	1 13/16	1 1/16	4 3/4	1 13/16	1 1/16	3 7/8
CP70-1-H205K	2	2 1/2	1 13/16	4 3/4	2 1/2	1 13/16	4 1/4
CP70-1-H405K	4	3 3/4	1 3/4	4 1/4	3 3/4	1 1/4	4 3/4
CP70-1-H605K	6	3 3/4	2 1/4	4 3/4	3 3/4	1 3/4	4 3/4
CP70-1-H805K	8	3 3/4	2 1/2	5 3/4	3 3/4	2 1/2	4 3/4
CP70-1-H106K	10	3 3/4	3 3/16	5 1/2	3 3/4	3 3/16	4 3/4
CP70-1-H126K	12	4 9/16	3 3/4	4 3/4	3 3/4	3 3/16	5 1/2
CP70-1-H156K	15	4 9/16	3 3/4	6	4 9/16	3 3/4	4 3/4
2000 W. V. D.C. Working							
CP70-1EJ254K	.25	2 1/2	1 13/16	2 1/2	—	—	—
CP70-1EJ504K	.5	2 1/2	1 13/16	2 7/8	—	—	—
CP70-1-J105K	1	2 1/2	1 13/16	4 3/4	2 1/2	1 13/16	3 1/2
CP70-1-J205K	2	3 3/4	1 1/4	4 3/4	3 3/4	1 1/4	4 1/4
CP70-1-J405K	4	3 3/4	2 1/4	5 1/8	3 3/4	2 1/4	3 7/8
CP70-1-J605K	6	3 3/4	3 3/16	5 1/2	3 3/4	3 3/16	4 1/2
CP70-1-J805K	8	4 9/16	3 3/4	5 1/8	3 3/4	3 3/16	5 1/8
CP70-1-J106K	10	4 9/16	3 3/4	6 1/2	4 9/16	3 3/4	4 3/4
CP70-1-J126K	12	4 9/16	3 3/4	7 1/2	4 9/16	3 3/4	5 1/2
CP70-1-J156K	15	4 9/16	3 3/4	8 1/2	4 9/16	3 3/4	6 1/2

MIL-C-25C Type No.	Cap. Mfd.	DIMENSIONS (±1/16") in INCHES — For Characteristic E: Width	Depth	Height	For Characteristic F: Width	Depth	Height
2500 W. V. D.C. Working							
CP70-1EK104K	.1	2 1/2	1 13/16	2 1/2	—	—	—
CP70-1-K254K	.25	2 1/2	1 13/16	2 7/8	2 1/2	1 13/16	2 1/2
CP70-1-K504K	.5	2 1/2	1 13/16	3 7/8	2 1/2	1 13/16	3 1/2
CP70-1-K105K	1	3 3/4	1 3/4	3 7/8	3 3/4	1 3/4	3 1/4
CP70-1-K205K	2	3 3/4	2 1/4	4 3/4	3 3/4	1 3/4	4 3/4
CP70-1EK405K	4	4 9/16	3 3/4	4 3/8	—	—	—
CP70-1-K605K	6	4 9/16	3 3/4	6	4 9/16	3 3/4	5 1/8
CP70-1-K805K	8	4 9/16	3 3/4	7	4 9/16	3 3/4	6
CP70-1-K106K	10	4 9/16	3 3/4	8 1/2	4 9/16	3 3/4	7
CP70-1-K126K	12	*8	*4	9 1/4	4 9/16	3 3/4	8 1/2
3000 W. V. D.C. Working							
CP70-1-L104K	.1	2 1/2	1 13/16	2 7/8	2 1/2	1 13/16	2 1/2
CP70-1-L254K	.25	2 1/2	1 13/16	3 1/2	2 1/2	1 13/16	2 7/8
CP70-1-L504K	.5	2 1/2	1 13/16	4 3/4	2 1/2	1 13/16	4 1/4
CP70-1-L105K	1	3 3/4	2 1/4	4 1/2	3 3/4	2 1/4	3 7/8
CP70-1-L205K	2	3 3/4	3 3/16	4 3/4	3 3/4	3 3/16	4 1/2
CP70-1-L405K	4	4 9/16	3 3/4	6 1/2	4 9/16	3 3/4	4 3/4
CP70-1-L605K	6	*8	*4	7	4 9/16	3 3/4	7 1/2
4000 W. V. D.C. Working							
CP70-1EM104K	.1	3 3/4	2 1/4	2 3/4	—	—	—
CP70-1-M254K	.25	3 3/4	2 1/4	3 7/8	3 3/4	2 1/4	2 3/4
CP70-1-M504K	.5	3 3/4	2 1/4	4 3/4	3 3/4	2 1/4	3 7/8
CP70-1-M105K	1	3 3/4	3 3/16	4 3/4	3 3/4	2 1/4	5 1/8
CP70-1-M205K	2	4 9/16	3 3/4	6	4 9/16	3 3/4	5 1/8
CP70-1-M405K	4	4 9/16	3 3/4	9 5/8	4 9/16	3 3/4	8 1/2
5000 W. V. D.C. Working							
CP70-1EN104K	.1	3 3/4	2 1/4	2 3/4	—	—	—
CP70-1EN254K	.25	3 3/4	2 1/4	3 7/8	—	—	—
CP70-1-N504K	.5	3 3/4	2 1/4	5 1/8	3 3/4	2 1/4	4 1/2
CP70-1-N105K	1	4 9/16	3 3/4	5 1/8	4 9/16	3 3/4	4 3/8
CP70-1-N205K	2	4 9/16	3 3/4	9 5/8	4 9/16	3 3/4	6
6000 W. V. D.C. Working							
CP70D1-P104K	.1	3 3/4	2 1/4	3 7/8	3 3/4	2 1/4	3 3/8
CP70D1-P254K	.25	3 3/4	2 1/4	4 3/4	3 3/4	2 1/4	4 1/2
CP70D1-P504K	.5	4 9/16	3 3/4	4 3/4	4 9/16	3 3/4	4 3/8
CP70D1-P105K	1	4 9/16	3 3/4	9 5/8	4 9/16	3 3/4	7 1/2
7500 W. V. D.C. Working							
CP70D1-R104K	.1	3 3/4	2 1/4	4 3/4	3 3/4	2 1/4	3 7/8
CP70D1-R254K	.25	4 9/16	3 3/4	4 3/8	4 9/16	3 3/4	3 7/8
CP70D1-R504K	.5	4 9/16	3 3/4	6	4 9/16	3 3/4	5 1/8

*Tolerance ±1/8" for this dimension

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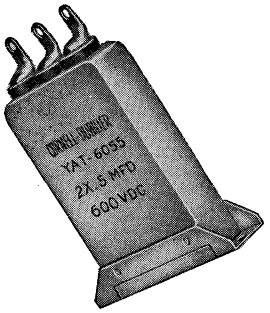
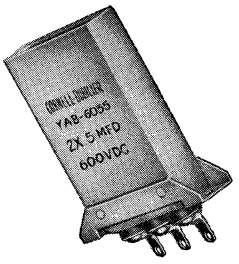
CDE CORNELL-DUBILIER

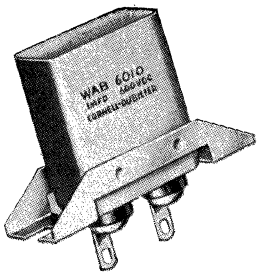
METAL CASED DYKANOL PAPER CAPACITORS



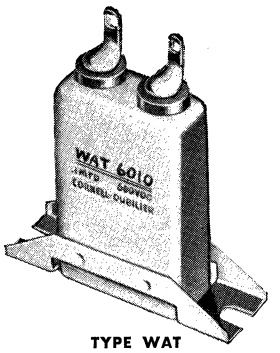
TYPE YAT
(Similar to CP67)



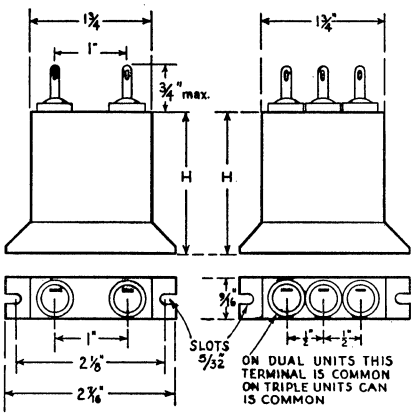
TYPE YAB
(YAB—Similar to CP69)



TYPE WAB
(Similar to CP65)



TYPE WAT
(Similar to CP63)

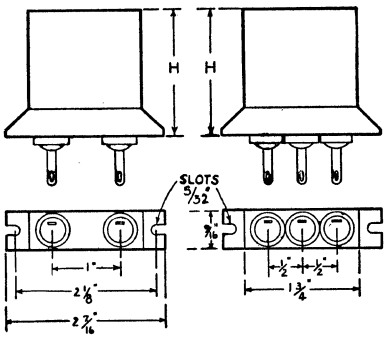


TYPE YAT

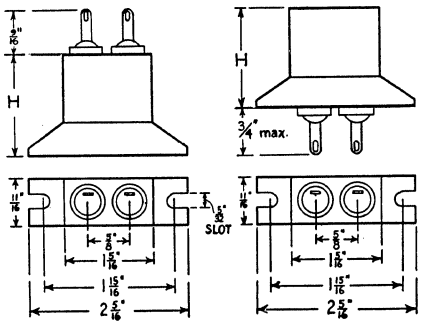
Types YAT and YAB are impregnated and filled with Dykanol "G" (chlorinated diphenyl) a synthetic, non-inflammable, non-oxidizable liquid compound. They are especially suited for use in bypass, audio frequency coupling circuits and other applications. Units are sealed in drawn metal shell containers and provided with leakproof terminals either on top or bottom of the can containers, designated as Types YAT and YAB. They will meet MIL-C-25C performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

YAT-YAB Cat. No.	Cap. Mfd.	Case Size—Inches L. x W. x H.
		600 V. D.C. Work.
YAT or YAB 6005	.05	1¾ x 9/16 x 1 1/16
YAT or YAB 6010	.1	1¾ x 9/16 x 1 1/16
YAT or YAB 6025	.25	1¾ x 9/16 x 1½
YAT or YAB 6050X	.5	1¾ x 9/16 x 2
YAT or YAB 6100	1.0	1¾ x 9/16 x 2½
YAT or YAB 60055	.05–.05	1¾ x 9/16 x 1 1/16
YAT or YAB 6011	.1–.1	1¾ x 9/16 x 1½
YAT or YAB 6022X	.25–.25	1¾ x 9/16 x 2
YAT or YAB 6055	.5–.5	1¾ x 9/16 x 2½
YAT or YAB 60555	.05–.05–.05	1¾ x 9/16 x 1 1/16
YAT or YAB 6111	.1–.1–.1	1¾ x 9/16 x 1½
YAT or YAB 6222	.25–.25–.25	1¾ x 9/16 x 2½
		1000 V. D.C. Work.
YAT or YAB 10005	.05	1¾ x 9/16 x 1 1/16
YAT or YAB 10010	.1	1¾ x 9/16 x 1 1/16
YAT or YAB 10025X	.25	1¾ x 9/16 x 2
YAT or YAB 10050	.5	1¾ x 9/16 x 2½
YAT or YAB 100055	.05–.05	1¾ x 9/16 x 1 1/16
YAT or YAB 10011	.1–.1	1¾ x 9/16 x 1½
YAT or YAB 10022	.25–.25	1¾ x 9/16 x 2½
YAT or YAB 100555	.05–.05–.05	1¾ x 9/16 x 1½
YAT or YAB 10111	.1–.1–.1	1¾ x 9/16 x 2½



TYPE YAB



TYPE WAT **TYPE WAB**

Types WAT and WAB Capacitors are smaller size units of similar construction and electrical characteristics but only supplied in single section units with two terminals. These units are ideally suited for use in assemblies where space is limited and multiple units may be mounted close together. They will meet MIL-C-25C performance and test requirements.

TEMPERATURE RANGE: —55°C to +85°C.
STANDARD TOLERANCE: +20%, —10%.

WAT-WAB Cat. No.	Cap. Mfd.	Case Size—Inches L. x W. x H.
		600 V. D.C. Work.
WAT or WAB 6005X	.05	1 5/16 x 11/16 x 1 1/16
WAT or WAB 6010	.1	1 5/16 x 11/16 x 1⅜
WAT or WAB 6025	.25	1 5/16 x 11/16 x 1⅝
WAT or WAB 6050	.5	1 5/16 x 11/16 x 2
WAT or WAB 6100	1.0	1 5/16 x 11/16 x 2½
		1000 V. D.C. Work.
WAT or WAB 10005	.05	1 5/16 x 11/16 x 1⅜
WAT or WAB 10010	.1	1 5/16 x 11/16 x 1⅜
WAT or WAB 10025	.25	1 5/16 x 11/16 x 2
WAT or WAB 10050	.5	1 5/16 x 11/16 x 2½

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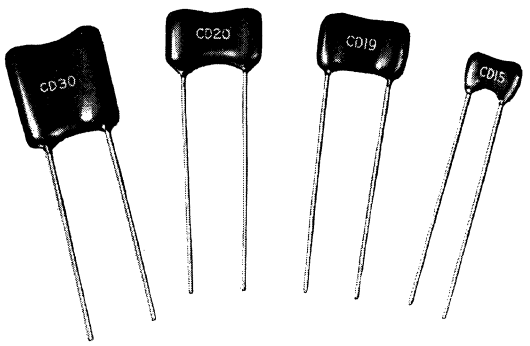
CORNELL-DUBILIER

MINIATURE DIPPED SILVERED MICA CAPACITORS



- Designed to Replace Molded Mica or Ceramic Capacitors in Critical Circuits
- Silvered Mica Assures Close Temperature Coefficient and High Stability
- Operate at Temperatures from —55°C to +125°C without Derating, and to 150°C with Derating
- Multi-Coated with Tough Phenolic to Withstand Extremes of Heat and Humidity
- Meet Specifications of EIA and MIL-C-5B

TYPE CD15, CD19, CD20, CD30

Rated at 500 WVDC . . . Tolerance ±5% or 0.5 MMF (whichever is greater)

Cap. MMF	Cat. No.	Size—Inches Lgth. x Wid. x Thick.	List Price	Net Price	Cap. MMF	Cat. No.	Size—Inches Lgth. x Wid. x Thick.	List Price	Net Price
1	**CD15-5V1**	.440 x .344 x .180	$.20	**$.12**	360	**CD15-5T36**	.440 x .344 x .200	$.40	**$.24**
2	**CD15-5V2**	.440 x .344 x .180	.20	**.12**	390	**CD15-5T39**	.440 x .344 x .200	.45	**.27**
3	**CD15-5V3**	.440 x .344 x .180	.20	**.12**	430	**CD19-5T43**	.610 x .460 x .175	.30	**.18**
5	**CD15-5V5**	.440 x .344 x .180	.20	**.12**	470	**CD19-5T47**	.610 x .460 x .175	.35	**.21**
10	**CD15-5Q1**	.440 x .344 x .180	.20	**.12**	500	**CD19-5T5**	.610 x .460 x .175	.35	**.21**
12	**CD15-5Q12**	.440 x .344 x .180	.20	**.12**	510	**CD19-5T51**	.610 x .460 x .175	.35	**.21**
15	**CD15-5Q15**	.440 x .344 x .180	.20	**.12**	560	**CD19-5T56**	.610 x .460 x .175	.35	**.21**
18	**CD15-5Q18**	.440 x .344 x .180	.20	**.12**	620	**CD19-5T62**	.610 x .460 x .175	.35	**.21**
20	**CD15-5Q2**	.440 x .344 x .180	.20	**.12**	680	**CD19-5T68**	.610 x .460 x .175	.40	**.24**
22	**CD15-5Q22**	.440 x .344 x .180	.20	**.12**	750	**CD19-5T75**	.610 x .460 x .175	.40	**.24**
24	**CD15-5Q24**	.440 x .344 x .190	.20	**.12**	820	**CD19-5T82**	.610 x .460 x .175	.45	**.27**
27	**CD15-5Q27**	.440 x .344 x .190	.20	**.12**	910	**CD19-5T91**	.610 x .460 x .175	.45	**.27**
30	**CD15-5Q3**	.440 x .344 x .190	.20	**.12**	1000	**CD19-5D1**	.610 x .460 x .175	.50	**.30**
33	**CD15-5Q33**	.440 x .344 x .190	.20	**.12**	1100	**CD19-5D11**	.630 x .480 x .190	.50	**.30**
36	**CD15-5Q36**	.440 x .344 x .190	.20	**.12**	1200	**CD19-5D12**	.630 x .480 x .190	.55	**.33**
39	**CD15-5Q39**	.440 x .344 x .190	.20	**.12**	1300	**CD19-5D13**	.630 x .480 x .190	.60	**.36**
43	**CD15-5Q43**	.440 x .344 x .190	.20	**.12**	1500	**CD19-5D15**	.630 x .480 x .190	.65	**.39**
47	**CD15-5Q47**	.440 x .344 x .190	.20	**.12**	1600	**CD19-5D16**	.630 x .480 x .190	.70	**.42**
50	**CD15-5Q5**	.440 x .344 x .190	.20	**.12**	1800	**CD19-5D18**	.630 x .480 x .190	.75	**.45**
51	**CD15-5Q51**	.440 x .344 x .200	.20	**.12**	2000	**CD19-5D2**	.630 x .480 x .190	.80	**.48**
56	**CD15-5Q56**	.440 x .344 x .200	.20	**.12**	2200	**CD19-5D22**	.650 x .500 x .220	.85	**.51**
62	**CD15-5Q62**	.440 x .344 x .200	.20	**.12**	2400	**CD19-5D24**	.650 x .500 x .220	.90	**.54**
68	**CD15-5Q68**	.440 x .344 x .200	.20	**.12**	2500	**CD19-5D25**	.650 x .500 x .220	.95	**.57**
75	**CD15-5Q75**	.440 x .344 x .200	.20	**.12**	2700	**CD19-5D27**	.650 x .500 x .220	1.05	**.63**
82	**CD15-5Q82**	.440 x .344 x .200	.20	**.12**	3000	**CD19-5D3**	.650 x .500 x .220	1.15	**.69**
91	**CD15-5Q91**	.440 x .344 x .200	.20	**.12**	3300	**CD20-5D33**	.740 x .500 x .220	1.05	**.63**
100	**CD15-5T1**	.440 x .344 x .200	.20	**.12**	3600	**CD20-5D36**	.740 x .500 x .220	1.10	**.66**
110	**CD15-5T11**	.440 x .344 x .200	.25	**.15**	3900	**CD20-5D39**	.740 x .500 x .220	1.15	**.69**
120	**CD15-5T12**	.440 x .344 x .200	.25	**.15**	4300	**CD20-5D43**	.740 x .500 x .220	1.25	**.75**
130	**CD15-5T13**	.440 x .344 x .200	.25	**.15**	4700	**CD30-5D47**	.780 x .880 x .300	1.25	**.75**
150	**CD15-5T15**	.440 x .344 x .200	.25	**.15**	5000	**CD30-5D5**	.780 x .880 x .300	1.35	**.81**
160	**CD15-5T16**	.440 x .344 x .200	.25	**.15**	5100	**CD30-5D51**	.780 x .880 x .300	1.35	**.81**
180	**CD15-5T18**	.440 x .344 x .200	.30	**.18**	5600	**CD30-5D56**	.780 x .880 x .300	1.45	**.87**
200	**CD15-5T2**	.440 x .344 x .200	.30	**.18**	6200	**CD30-5D62**	.780 x .880 x .300	1.55	**.93**
220	**CD15-5T22**	.440 x .344 x .200	.30	**.18**	6800	**CD30-5D68**	.780 x .880 x .300	1.75	**1.05**
240	**CD15-5T24**	.440 x .344 x .200	.30	**.18**	7500	**CD30-5D75**	.780 x .880 x .300	1.85	**1.11**
250	**CD15-5T25**	.440 x .344 x .200	.30	**.18**	8200	**CD30-5D82**	.780 x .880 x .300	2.05	**1.23**
270	**CD15-5T27**	.440 x .344 x .200	.35	**.21**	9100	**CD30-5D91**	.780 x .880 x .300	2.20	**1.32**
300	**CD15-5T3**	.440 x .344 x .200	.35	**.21**	10,000	**CD30-5S1**	.780 x .880 x .300	2.40	**1.44**
330	**CD15-5T33**	.440 x .344 x .200	.40	**.24**					

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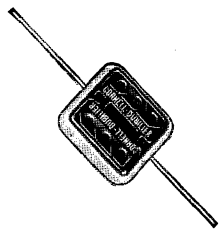
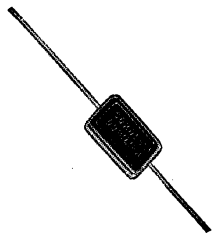
MOLDED MIDGET MICA



TYPE 1W, 1D & 1DP ★
(CM30 & CM35)



TYPE 5W, 5P & 5RP
(CM20)

Types 1W, 1D, and 5W are specially adapted to functions in low-voltage radio receiving circuits. Individually tested for capacity and voltage breakdown and designed to give dependable service where small size units are required.

STANDARD TOLERANCE: ±20%.

Also available, on order, in plus or minus 10%, 5%, 3% and 2% tolerance ratings (or within 1 mmfd.—whichever is greater). For capacity tolerance of: 10% add 10% to list prices; 5% add 20% to list prices; 3% add 40% to list prices; 2% add 75% to list prices.

SIZES: 1W—13/16" x 13/16" x 1/4"
1D—13/16" x 13/16" x 5/16"
5W—51/64" x 15/32" x 7/32"

NOTE: When MIL-C-5B units are required, order by specific CM type designation.

Cap. mmf.	Cat. No.	List Price	Net Price	Cap. mmf.	Cat. No.	List Price	Net Price	Cap. mmf.	Cat. No.	List Price	Net Price
5	**5W 5V5**	$.20	**$.12**	150	**5W 5T15**	$.20	**$.12**	1,300	**5W 5D13**	$.35	**$.21**
10	**5W 5Q1**	.20	**.12**	160	**5W 5T16**	.20	**.12**	1,500	**5W 5D15**	.40	**.24**
12	**5W 5Q12**	.20	**.12**	180	**5W 5T18**	.20	**.12**	1,600	**5W 5D16**	.40	**.24**
15	**5W 5Q15**	.20	**.12**	200	**5W 5T2**	.20	**.12**	1,800	**5W 5D18**	.40	**.24**
18	**5W 5Q18**	.20	**.12**	220	**5W 5T22**	.20	**.12**	2,000	**5W 5D2**	.40	**.24**
20	**5W 5Q2**	.20	**.12**	240	**5W 5T24**	.20	**.12**	2,200	**1W 5D22**	.45	**.27**
22	**5W 5Q22**	.20	**.12**	250	**5W 5T25**	.20	**.12**	2,400	**1W 5D24**	.45	**.27**
24	**5W 5Q24**	.20	**.12**	270	**5W 5T27**	.20	**.12**	2,500	**1W 5D25**	.45	**.27**
25	**5W 5Q25**	.20	**.12**	300	**5W 5T3**	.20	**.12**	2,700	**1W 5D27**	.45	**.27**
27	**5W 5Q27**	.20	**.12**	330	**5W 5T33**	.20	**.12**	3,000	**1W 5D3**	.45	**.27**
30	**5W 5Q3**	.20	**.12**	360	**5W 5T36**	.20	**.12**	3,300	**1W 5D33**	.55	**.33**
33	**5W 5Q33**	.20	**.12**	390	**5W 5T39**	.20	**.12**	3,600	**1W 5D36**	.55	**.33**
36	**5W 5Q36**	.20	**.12**	400	**5W 5T4**	.20	**.12**	3,900	**1W 5D39**	.55	**.33**
39	**5W 5Q39**	.20	**.12**	430	**5W 5T43**	.20	**.12**	4,000	**1W 5D4**	.55	**.33**
40	**5W 5Q4**	.20	**.12**	470	**5W 5T47**	.25	**.15**	4,300	**1W 5D43**	.55	**.33**
43	**5W 5Q43**	.20	**.12**	500	**5W 5T5**	.25	**.15**	4,700	**1W 5D47**	.70	**.42**
47	**5W 5Q47**	.20	**.12**	510	**5W 5T51**	.25	**.15**	5,000	**1W 5D5**	.70	**.42**
50	**5W 5Q5**	.20	**.12**	560	**5W 5T56**	.25	**.15**	5,100	**1W 5D51**	.70	**.42**
51	**5W 5Q51**	.20	**.12**	600	**5W 5T6**	.25	**.15**	5,600	**1W 5D56**	.70	**.42**
56	**5W 5Q56**	.20	**.12**	620	**5W 5T62**	.25	**.15**	6,000	**1W 5D6**	.70	**.42**
62	**5W 5Q62**	.20	**.12**	680	**5W 5T68**	.30	**.18**	6,200	**1W 5D62**	.70	**.42**
68	**5W 5Q68**	.20	**.12**	700	**5W 5T7**	.30	**.18**	6,800	**1D 5D68**	.95	**.57**
70	**5W 5Q7**	.20	**.12**	750	**5W 5T75**	.30	**.18**	7,000	**1D 5D7**	.95	**.57**
75	**5W 5Q75**	.20	**.12**	800	**5W 5T8**	.30	**.18**	7,500	**1D 5D75**	.95	**.57**
82	**5W 5Q82**	.20	**.12**	820	**5W 5T82**	.30	**.18**	8,000	**1D 5D8**	.95	**.57**
91	**5W 5Q91**	.20	**.12**	900	**5W 5T9**	.30	**.18**	8,200	**1D 5D82**	.95	**.57**
100	**5W 5T1**	.20	**.12**	910	**5W 5T91**	.30	**.18**	9,000	**1D 5D9**	.95	**.57**
110	**5W 5T11**	.20	**.12**	1,000	**5W 5D1**	.35	**.21**	9,100	**1D 5D91**	.95	**.57**
120	**5W 5T12**	.20	**.12**	1,100	**5W 5D11**	.35	**.21**	10,000	**1D 5S1**	1.40	**.84**
130	**5W 5T13**	.20	**.12**	1,200	**5W 5D12**	.35	**.21**				

"HIVOMIKE" High Voltage Molded Midget Mica Capacitors

FOIL TYPES — Tolerance ±20%

Type	Cap. mmf.	Volts DCW	List Price	Net Price
5P25Q1	10	2500	$.20	**$.12**
5P25Q2	20	2500	.20	**.12**
5P25Q3	30	2500	.25	**.15**
5P25Q5	50	2500	.25	**.15**
5P25Q75	75	2500	.30	**.18**
5P25T1	100	2500	.30	**.18**
5P25T15	150	2500	.35	**.21**
5P25T2	200	2500	.45	**.27**
5P15Q1	10	1500	.20	**.12**
5P15Q2	20	1500	.20	**.12**
5P15Q3	30	1500	.20	**.12**
5P15Q5	50	1500	.25	**.15**
5P15Q75	75	1500	.25	**.15**
5P15T1	100	1500	.30	**.18**
5P15T15	150	1500	.30	**.18**
5P15T2	200	1500	.35	**.21**
5P15T25	250	1500	.40	**.24**
5P15T3	300	1500	.40	**.24**
5P15T47	470	1500	.45	**.27**
5P15T5	500	1500	.45	**.27**
1DP25T25	250	2500	.40	**.24**
1DP25T3	300	2500	.45	**.27**
1DP25T5	500	2500	.60	**.36**
1DP25T75	750	2500	.70	**.42**
1DP25D1	1,000	2500	.85	**.51**
1DP25D12	1,200	2500	.95	**.57**
1DP25D15	1,500	2500	1.30	**.78**
1DP25D18	1,800	2500	1.55	**.93**
1DP25D2	2,000	2500	1.65	**.99**
1DP15T75	750	1500	.60	**.36**
1DP15D1	1,000	1500	.70	**.42**
1DP15D12	1,200	1500	.85	**.51**
1DP15D15	1,500	1500	.95	**.57**
1DP15D18	1,800	1500	1.05	**.63**
1DP15D2	2,000	1500	1.15	**.69**

Where high voltage, capacitance stability and high Q are important and units of the smallest size are requisite, the "HIVOMIKE" is ideal. Recommended for commercial —civilian and military uses under Characteristic "B." Voltage ratings actually exceed those required under MIL-C-5B.

SIZES: 1DP — 13/16" x 13/16" x 5/16"; 5P & 5RP — 51/64" x 15/32" x 7/32"

1000-VOLT SILVERED MICA — Tolerance ±5%

Type	Cap. mmf.	List Price	Net Price	Type	Cap. mmf.	List Price	Net Price
5RP10V5	5	$.30	**$.18**	**5RP10T16**	160	$.35	**$.21**
5RP10Q1	10	.30	**.18**	**5RP10T18**	180	.35	**.21**
5RP10Q12	12	.30	**.18**	**5RP10T2**	200	.40	**.24**
5RP10Q15	15	.30	**.18**	**5RP10T22**	220	.40	**.24**
5RP10Q18	18	.30	**.18**	**5RP10T24**	240	.40	**.24**
5RP10Q2	20	.30	**.18**	**5RP10T25**	250	.40	**.24**
5RP10Q22	22	.30	**.18**	**5RP10T27**	270	.40	**.24**
5RP10Q25	25	.30	**.18**	**5RP10T3**	300	.45	**.27**
5RP10Q27	27	.30	**.18**	**5RP10T33**	330	.45	**.27**
5RP10Q3	30	.30	**.18**	**5RP10T36**	360	.45	**.27**
5RP10Q33	33	.30	**.18**	**5RP10T39**	390	.50	**.36**
5RP10Q36	36	.30	**.18**	**5RP10T4**	400	.50	**.36**
5RP10Q39	39	.30	**.18**	**5RP10T43**	430	.50	**.36**
5RP10Q4	40	.30	**.18**	**5RP10T47**	470	.50	**.36**
5RP10Q43	43	.30	**.18**	**5RP10T5**	500	.50	**.36**
5RP10Q47	47	.30	**.18**	**5RP10T51**	510	.50	**.30**
5RP10Q5	50	.30	**.18**	**5RP10T56**	560	.50	**.30**
5RP10Q51	51	.30	**.18**	**5RP10T6**	600	.55	**.33**
5RP10Q56	56	.30	**.18**	**5RP10T62**	620	.55	**.33**
5RP10Q62	62	.30	**.18**	**5RP10T68**	680	.60	**.36**
5RP10Q68	68	.30	**.18**	**5RP10T7**	700	.60	**.36**
5RP10Q7	70	.30	**.18**	**5RP10T75**	750	.60	**.36**
5RP10Q75	75	.30	**.18**	**5RP10T8**	800	.65	**.39**
5RP10Q82	82	.30	**.18**	**5RP10T82**	820	.65	**.39**
5RP10Q91	91	.30	**.18**	**5RP10T9**	900	.70	**.42**
5RP10T1	100	.35	**.21**	**5RP10T91**	910	.70	**.42**
5RP10T11	110	.35	**.21**	**5RP10D1**	1000	.75	**.45**
5RP10T12	120	.35	**.21**	**5RP10D11**	1100	.80	**.48**
5RP10T13	130	.35	**.21**	**5RP10D12**	1200	.85	**.51**
5RP10T15	150	.35	**.21**				

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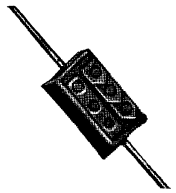
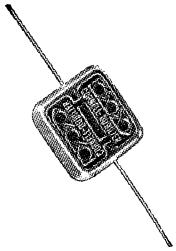
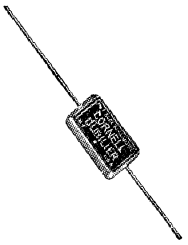
"SILVER-MIKE" MOLDED MIDGET MICA



TYPE 22R
(CM15)



TYPE 1R & 1DR
(CM30 & CM35)



TYPE 5R
(CM20)

HIGH-STABILITY "SILVER-MIKE"† UNITS

Type 22R *miniature* "Silver-Mike" *capacitors* are especially adapted for use in circuits where accuracy and stability of capacity is of prime importance. They are rated at 500 volts D.C.W. and tested at 1,000 volts D.C., molded in low-loss red plastic and fully protected against physical damage or changes in characteristics due to varying atmospheric conditions.

STANDARD TOLERANCE ±5%, but in no instance less than ±1mmf. For capacity Tolerance of: 20% deduct 10% from List; 10% deduct 5% from List; 3% add 10% to List; 2% add 15% to List; 1% add 25% to List. (Applies also to 1R, 1DR, and 5R.)

SIZE: ½" x 1¾4" x 3/16"

22 R

22R Cat. No.	Cap. mmf.	List Price	Net Price
22R 5V2	2	$ .20	$ .12
22R 5V5	5	.20	.12
22R 5Q1	10	.20	.12
22R 5Q12	12	.20	.12
22R 5Q15	15	.20	.12
22R 5Q18	18	.20	.12
22R 5Q2	20	.20	.12
22R 5Q22	22	.20	.12
22R 5Q24	24	.20	.12
22R 5Q25	25	.20	.12
22R 5Q27	27	.20	.12
22R 5Q3	30	.20	.12
22R 5Q33	33	.20	.12
22R 5Q36	36	.20	.12
22R 5Q39	39	.20	.12
22R 5Q4	40	.20	.12
22R 5Q43	43	.20	.12
22R 5Q47	47	.20	.12
22R 5Q5	50	.20	.12
22R 5Q51	51	.20	.12
22R 5Q56	56	.20	.12
22R 5Q62	62	.20	.12
22R 5Q68	68	.20	.12
22R 5Q7	70	.20	.12
22R 5Q75	75	.20	.12
22R 5Q82	82	.20	.12
22R 5Q91	91	.25	.15
22R 5T1	100	.25	.15
22R 5T11	110	.25	.15
22R 5T12	120	.25	.15
22R 5T13	131	.25	.15
22R 5T15	151	.30	.18
22R 5T16	161	.30	.18
22R 5T18	181	.30	.18
22R 5T2	200	.30	.18
22R 5T22	220	.30	.18
22R 5T24	240	.35	.21
22R 5T25	250	.35	.21
22R 5T27	270	.35	.21
22R 5T3	300	.35	.21
22R 5T33	330	.40	.24
22R 5T36	360	.40	.24
22R 5T39	390	.45	.27
22R 3T43	430	.45	.27
22R 3T47	470	.45	.27
22R 3T51	510	.45	.27

Notes On Ordering 5R, 1R, 1DR Units

Standard capacity tolerance is 5% (or within 1 mmfd.—whichever is greater). Also available, on special order, in tolerance ratings of plus or minus 3%, add 10% to list prices, 2% add 15% to list prices and 1% add 25% to list prices. All types can also be supplied in plus or minus 10% and 20% tolerances at lower prices.

Types 1R, 1DR, and 5R "Silver-Mike" capacitors are designed for use in high Q electronic circuits where frequency stability and minimum loss must be maintained. Ideally suited for use in circuits where the LC product must be maintained constant, and particularly adapted for use in tuning IF transformers, tuning circuits and other similar applications.

SIZES: 5R—51/64" x 15/32" x 7/32"
1R—13/16" x 13/16" x ¼"
1DR—13/16" x 13/16" x 5/16"

See Notes bottom of column 1.

1R, 1DR, 5R

Cap. mmf.	500 V. D.C. W.—1000 V. D.C. T. Type 5R Cat. No.	Type 1R Cat. No.	Type 1DR Cat. No.	List Price	Net Price
270	5R 5T27			$ .30	$ .18
300	5R 5T3			.30	.18
330	5R 5T33			.30	.18
360	5R 5T36			.30	.18
390	5R 5T39			.30	.18
400	5R 5T4			.35	.21
430	5R 5T43			.35	.21
470	5R 5T47			.35	.21
500	5R 5T5			.35	.21
510	5R 5T51			.35	.21
560	5R 5T56			.40	.24
600	5R 5T6			.40	.24
620	5R 5T62			.40	.24
680	5R 5T68			.40	.24
700	5R 5T7			.45	.27
750	5R 5T75			.45	.27
800	5R 5T8			.45	.27
820	5R 5T82			.45	.27
900	5R 5T9			.50	.30
910	5R 5T91			.50	.30
1,000	5R 5D1			.50	.30
1,100	5R 5D11			.55	.33
1,200	5R 5D12			.55	.33
1,300	5R 5D13			.55	.33
1,500	5R 5D15			.65	.39
1,600	5R 5D16			.65	.39
1,800	5R 5D18			.70	.42
2,000	5R 5D2			.75	.45
2,200		1R 5D22		.85	.51
2,400		1R 5D24		.85	.51
2,500		1R 5D25		.90	.54
2,700		1R 5D27		.90	.54
3,000		1R 5D3		1.00	.60
3,300		1R 5D33		1.10	.66
3,600		1R 5D36		1.15	.69
3,900		1R 5D39		1.20	.72
4,000		1R 5D4		1.30	.78
4,300		1R 5D43		1.30	.78
4,700		1R 5D47		1.40	.84
5,000		1R 5D5		1.45	.87
5,100		1R 5D51		1.45	.87
5,600		1R 5D56		1.55	.93
6,200		1R 5D62		1.70	1.02
6,800			1DR 5D68	1.90	1.14
7,000			1DR 5D7	2.00	1.20
7,500			1DR 5D75	2.00	1.20
8,000			1DR 5D8	2.20	1.32
8,200			1DR 5D82	2.20	1.32
9,000			1DR 5D9	2.35	1.41
9,100			1DR 5D91	2.35	1.41
10,000			1DR 5S1	2.65	1.59

*Rated at 300 WVDC

†Reg. U.S. Pat. Off.

***NOTE: When MIL-C-5B units are required, order by specific CM type designation.**

© U.C.P., Inc.

CDE CORNELL-DUBILIER

ENCAPSULATED
Molded-Case MIDGET MICA
"Super MICADON"

Cornell-Dubilier "SUPER MICADONS" represent an entirely new concept in Midget Mica Capacitor construction. The vastly improved design and construction makes it possible to produce miniature units of greatly increased capacitance and superior quality over conventional units of the same case size. Ideally suited for printed board assemblies.

- 3 to 6 Times Greater Capacity Over Conventional Case Sizes
- 10 to 35 Times Higher Insulation Resistance
- Up to 20 Times Greater Moisture Resistance
- Up to 19 Times Longer Life

STANDARD TOLERANCE: ±5%; ±2% from stock when specified; ±½% and ±1% on special order.
For ±2% Tol. add 15% to List
For ±1% Tol. add 25% to List
For ±½% Tol. add 50% to List

CHARACTERISTICS*: All types are supplied from stock as follows:

1 to 24 mmfd. in Char. "C".
24 to 51 mmfd. in Char. "E".
51 to 41,000 mmfd. in Char. "E". (Char. "F" on Spec. Order)

		Long	*Wide*	*Thick*
Type	1A	53/64 x	53/64 x	9/32
SIZES	1AD	53/64 x	53/64 x	11/32
in	5A	51/64 x	15/32 x	7/32
Inches	22A	35/64 x	5/16 x	7/32

TEMPERATURE RANGE: −55°C to +130°C.

TYPE 22A

500 V. D.C. Working

Type	Cap Mmfd.	List* Price	Net* Price
22A5V5	5	$.20	$ .12
22A5Q1	10	.20	.12
22A5Q12	12	.20	.12
22A5Q15	15	.20	.12
22A5Q18	18	.20	.12
22A5Q2	20	.20	.12
22A5Q22	22	.20	.12
22A5Q24	24	.20	.12
22A5Q27	27	.20	.12
22A5Q3	30	.20	.12
22A5Q33	33	.20	.12
22A5Q36	36	.20	.12
22A5Q39	39	.20	.12
22A5Q43	43	.20	.12
22A5Q47	47	.20	.12
22A5Q51	51	.20	.12
22A5Q56	56	.20	.12
22A5Q62	62	.20	.12
22A5Q68	68	.20	.12
22A5Q75	75	.20	.12
22A5Q82	82	.20	.12
22A5Q91	91	.25	.15

TYPE 22A (Cont'd)

500 V. D.C. Working

Type	Cap Mmfd.	List* Price	Net* Price
22A5T1	100	$.25	$ .15
22A5T11	110	.25	.15
22A5T12	120	.25	.15
22A5T13	130	.25	.15
22A5T15	150	.30	.18
22A5T16	160	.30	.18
22A5T18	180	.35	.21
22A5T2	200	.35	.21
22A5T22	220	.35	.21
22A5T24	240	.35	.21
22A5T27	270	.40	.24
22A5T3	300	.40	.24
22A5T33	330	.45	.27
22A5T36	360	.45	.27
22A5T39	390	.45	.27
22A5T43	430	.50	.30
22A5T47	470	.50	.30
22A5T51	510	.60	.36
22A5T56	560	.60	.36
22A5T62	620	.65	.39
22A5T68	680	.70	.42
22A5T75	750	.80	.48
22A5T82	820	.85	.51
22A5T91	910	.90	.54
22A5D1	1,000	.95	.57

TYPE 5A

500 V. D.C. Working

5A5D11	1,100	$.65	$ .39
5A5D12	1,200	.65	.39
5A5D13	1,300	.65	.39
5A5D15	1,500	.75	.45
5A5D16	1,600	.75	.45
5A5D18	1,800	.90	.54
5A5D2	2,000	1.10	.66
5A5D22	2,200	1.10	.66
5A5D24	2,400	1.25	.75
5A5D27	2,700	1.35	.81
5A5D3	3,000	1.45	.87
5A5D33	3,300	1.55	.93
5A5D36	3,600	1.85	1.11

TYPE 1A

500 V. D.C. Working

1A5D39	3,900	$1.40	$ .84
1A5D43	4,300	1.50	.90
1A5D47	4,700	1.65	.99
1A5D51	5,100	1.70	1.02
1A5D56	5,600	1.85	1.11
1A5D62	6,200	1.95	1.17
1A5D68	6,800	2.15	1.29
1A5D75	7,500	2.30	1.38
1A5D82	8,200	2.50	1.50
1A5D91	9,100	2.70	1.62
1A5S1	10,000	3.15	1.89
1A5S11	11,000	3.35	2.02
1A5S12	12,000	3.50	2.10
1A5S13	13,000	3.85	2.31
1A5S15	15,000	4.20	2.52

TYPE 1AD

500 V. D.C. Working

1AD5S16	16,000	$4.85	$2.91
1AD5S18	18,000	5.30	3.18
1AD5S2	20,000	5.80	3.48
1AD5S22	22,000	6.10	3.66
1AD5S24	24,000	6.50	3.90
1AD5S27	27,000	7.10	4.26
1AD5S3	30,000	7.85	4.71
†1AD3S33	33,000	8.45	5.07
†1AD3S36	36,000	9.05	5.43
†1AD3S39	39,000	9.80	5.88
†1AD3S4	40,000	9.95	5.97

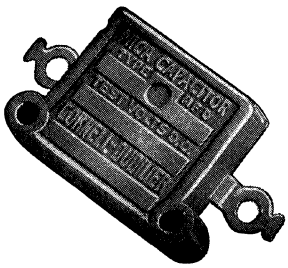
†Rated at 300 V. D.C. Working.

*Prices shown cover Char. "C" or "E"; For Char. "F" add 25¢ each to list.

Net
© U.C.P., Inc.

CORNELL-DUBILIER

LOW-POWER MOLDED MICA



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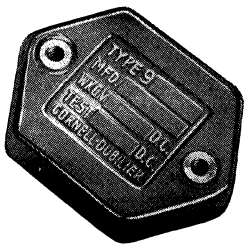
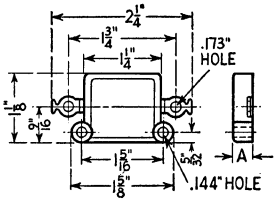
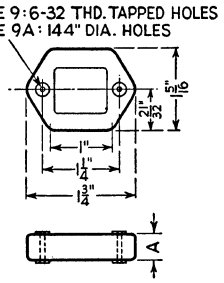


TYPE 9 ★





C-D types 4 and 9 are designed to meet applications in power amplifiers and low-power transmitters. Principally employed for grid and plate blocking and for r.f. by-pass. **Units are molded in a low-loss bakelite and have a special salt water immersion seal against humidity.**
In the type 9 the two terminals are tapped to receive mounting screws.

STANDARD TOLERANCE: ±10%. Also available on order in plus or minus 5% and 2%.

TYPE 4		TYPE 9	
Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.
1200 V. D.C. Test— 600 V. D.C. Working		**1200 V. D.C. Test— 600 V. D.C. Working**	
4-14050	.00005	**9-14050**	.00005
4-13010	.0001	**9-13010**	.0001
4-13020	.0002	**9-13025**	.00025
4-13025	.00025	**9-13050**	.0005
4-13030	.0003	**9-12010**	.001
4-13040	.0004	**9-12020**	.002
4-13050	.0005	**9-12025**	.0025
4-12010	.001	**9-12030**	.003
4-12015	* .0015	**9-12040**	* .004
4-12020	.002	**9-12050**	.005
4-12025	.0025	**9-12060**	.006
4-12030	.003	**9-12080**	.008
4-12040	.004	**9-11010**	.01
4-12050	.005	**9-11015**	.015
4-12060	.006	**9-11020**	.02
4-12070	.007	**9-11025**	.025
4-12080	.008	**9-11030**	.03
4-11010	.01	**9-11040**	.04
4-11015	.015	**9-11050**	† .05
4-11020	† .02	**9-11060**	.06
4-11025	.025		
4-11030	.03		
2500 V. D.C. Test— 1200 V. D.C. Working		**2500 V. D.C. Test— 1200 V. D.C. Working**	
4-24050	.00005	**9-24050**	.00005
4-23010	.0001	**9-23010**	.0001
4-23020	.0002	**9-23025**	.00025
4-23025	.00025	**9-23050**	.0005
4-23030	.0003	**9-22010**	.001
4-23050	* .0005	**9-22020**	.002
4-22010	.001	**9-22025**	* .0025
4-22015	.0015	**9-22030**	.003
4-22020	.002	**9-22040**	.004
4-22025	.0025	**9-22050**	.005
4-22030	.003	**9-22060**	.006
4-22040	.004	**9-22080**	.008
4-22050	.005	**9-21010**	.01
4-22060	† .006	**9-21015**	.015
4-22080	.008	**9-21020**	.02
4-21010	.01	**9-21025**	† .025
		9-21030	.03

TYPE 4		TYPE 9	
Cat. No.	Cap. Mfd.	Cat. No.	Cap. Mfd.
5000 V. D.C. Test— 2500 V. D.C. Working		**5000 V. D.C. Test— 2500 V. D.C. Working**	
4-54050	.00005	**9-54050**	.00005
4-53010	.0001	**9-53010**	.0001
4-53020	.0002	**9-53025**	.00025
4-53025	* .00025	**9-53050**	.0005
4-53030	.0003	**9-52010**	* .001
4-53050	.0005	**9-52020**	.002
4-52010	.001	**9-52025**	.0025
4-52015	.0015	**9-52030**	.003
4-52020	.002	**9-52040**	.004
4-52025	.0025	**9-52050**	.005
4-52030	† .003	**9-52060**	.006
4-52040	.004	**9-52080**	† .008
4-52050	.005	**9-51010**	.01
		9-51015	.015

*Dimension "A" in diagram—for type 4—11/32"; for type 9—7/16".
†Dimension "A" in diagram—for type 4—7/16"; for type 9—47/64".
Supplied as Type 4D or 9D.

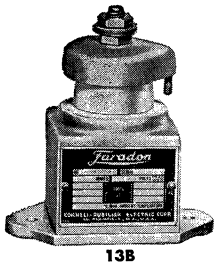
"E" METER BRACKETS: For Weston Model 301 meters. Add "E" to C-D Type No., for example, 4E-52020, etc. These "E" brackets are also available separately. Specify by ordering (2) Part No. 18445 per capacitor.

EQUIVALENT MIL TYPE NUMBERS

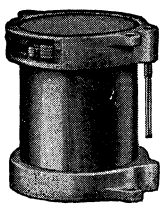
C-D Type	MIL Type	C-D Type	MIL Type
4	**CM45**	**9A**	**CM56**
4D	**CM50**	**9D**	**CM60**
9	**CM55**	**9DA**	**CM61**

Faradon

REPLACEMENT MICA TRANSMITTING CAPACITORS



13B



77 (CM85)
99 (CM75)★
111 (CM90)

The "Faradon" trade mark has been a symbol of outstanding quality for over 45 years. "Faradons" are made exclusively by Cornell-Dubilier, supplementing the standard C-D line in types designed for original equipment incorporating Faradon specifications.

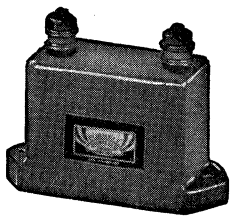
C-D Cat. No.	Type Case	Cap. Mfd.	Volts D.C.W.
UC 2325A	77	.001	15,000
UC 2344	77	.0005	20,000
UC 2360A	77	.004	12,000
UC 2446	77	.05	3,000
UC 2992	99	.05	2,000
UC 3000	111	.02	5,000
UC 3031A	13B	.005	5,000
UC 3047	13B	.003	5,000
UC 3073	99	.001	10,000
UC 3075	111	.001	20,000
UC 3097	99	.0005	10,000
UC 3099	111	.0005	25,000
UC 3117	99	.0002	10,000
UC 3123	99	.00015	10,000

★When MIL-C-5B units must be supplied, order according to specific CM type designations.

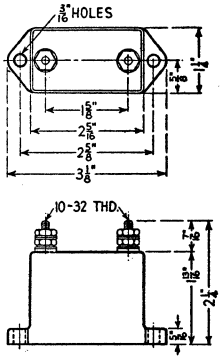
© U.C.P., Inc.

CDE CORNELL-DUBILIER

MEDIUM-POWER MICA BAKELITE CASED



TYPE 6 ★
(CM70)



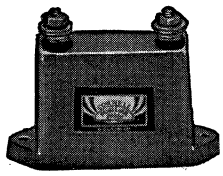
Plastic-cased capacitors designed for a wide variety of radio-frequency applications, especially where small size and minimum weight are essential such as in airborne and portable equipment. Used also in stationary medium-power transmitters, television transmitters, oscillators, and many electronic devices, in grid, plate, coupling, tank and bypass functions.

- ♦ SPECIAL C-D SERIES-SECTION MICA STACK
- ♦ STACKS PERMANENTLY HELD UNDER PRESSURE WITH NON-MAGNETIC CLAMPS
- ♦ COMPLETELY SOLDERED FOILS
- ♦ VACUUM - IMPREGNATED STACK
- ♦ NON-TURNABLE PLATED BRASS STUD TERMINALS
- ♦ SECTIONS INDIVIDUALLY TESTED FOR CAPACITY AND VOLTAGE
- ♦ SPECIAL LOW-LOSS FILLER
- ♦ FINEST INDIA RUBY MICA DIELECTRIC
- ♦ LOW-LOSS PLASTIC CASES

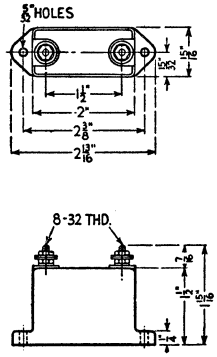
TYPE 6

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.
390-6	.00005	5,000	1.5	.8	.2	.07
362-6	.0000625	5,000	1.8	.85	.3	.075
321-6	.0001	5,000	2.4	1.2	.47	.1
395-6	.00015	5,000	3.7	1.8	.68	.24
307-6	.0002	5,000	3.6	2.0	.82	.33
364-6	.00025	5,000	5.0	2.5	1.0	.45
294A-6	.0003	5,000	3.9	2.7	1.1	.51
283-6	.0004	5,000	4.3	2.7	1.3	.62
272-6	.0005	5,000	4.7	3.3	1.7	.8
266-6	.0006	5,000	5.1	3.6	1.8	.8
654-6	.00075	5,000	5.6	3.9	2.2	.91
599-6	.0008	5,000	6.0	4.0	2.3	1.0
246-6	.001	5,000	6.2	4.3	2.4	1.2
234-6	.0015	5,000	6.8	5.1	3.3	1.5
215-6	.002	3,000	6.0	3.0	1.5	.8
217-6	.002	6,000	9.0	6.2	4.0	2.0
473-6	.0025	5,000	9.0	6.2	4.3	2.0
197-6	.003	3,000	8.2	6.8	4.7	2.2
184-6	.004	3,000	9.1	7.5	5.6	2.7
173-6	.005	2,000	8.0	5.0	3.0	1.5
474-6	.005	3,000	9.1	8.2	6.2	3.0
565-6	.0075	2,000	10.0	9.1	6.8	3.9
476-6	.008	2,000	11.0	9.0	7.0	3.0
162-6	.008	3,000	10.0	10.0	7.5	3.9
151-6	.01	2,000	11.0	11.0	8.2	4.3
140-6	.015	1,500	12.0	10.0	7.0	4.0
784-6	.015	2,000	12.0	12.0	10.0	5.1
131-6	.02	2,000	13.0	13.0	11.0	6.2
479-6	.03	2,000	14.0	20.0	15.0	7.0
480-6	.04	1,500	15.0	16.0	13.0	7.5
118-6	.05	1,500	15.0	16.0	15.0	7.5
111-6	.1	500	15.0	18.0	15.0	8.2
406-6	.1	1,000	18.0	20.0	15.0	8.0
110-6	.1—.1	250	20.0	20.0	15.0	10.0
105-6	.2	250	18.0	20.0	16.0	12.0
885-6	.25	250	18.0	20.0	16.0	12.0

TYPE 15

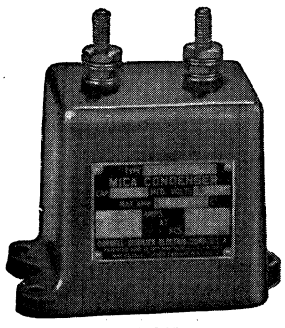


TYPE 15 ★
(CM65)

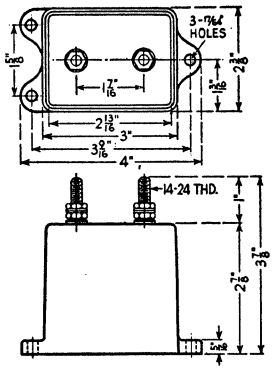


Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.
639-15	.00005	3,000	1.3	.6	.18	.06
583A-15	.0001	3,000	1.8	.75	.33	.1
657-15	.00015	3,000	2.2	1.0	.47	.18
582A-15	.0002	3,000	2.4	1.2	.62	.24
805-15	.00025	3,000	3.0	2.0	.8	.3
640A-15	.0003	3,000	3.0	1.5	.75	.36
641-15	.0004	3,000	4.0	2.0	.9	.45
642-15	.0005	3,000	4.0	2.0	1.1	.55
727-15	.0006	3,000	4.5	2.4	1.2	.6
581B-15	.0008	3,000	4.5	2.7	1.5	.7
679-15	.001	3,000	4.7	3.0	1.6	.75
679-15	.0015	3,000	5.6	3.9	2.0	.91
726-15	.002	3,000	6.2	4.3	2.4	1.1
645-15	.003	3,000	7.5	5.0	3.0	1.5
699-15	.004	3,000	8.2	6.2	3.5	1.6
725-15	.005	3,000	8.5	6.8	4.0	2.0
580-15	.006	2,000	9.1	7.5	4.5	2.2
724-15	.008	1,500	10.0	8.2	5.0	2.3
677-15	.01	1,000	10.0	9.1	5.1	2.4
723-15	.02	1,000	11.0	11.0	7.5	3.6
722-15	.05	500	11.0	11.0	9.1	5.0
721-15	.1	250	11.0	11.0	9.1	5.6

TYPE 30B



TYPE 30B



Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps. 3000 kc.	1000 kc.	300 kc.	100 kc.
533-30B	.0001	4,000	(20 Amps. at 60 mc.)		(3 Amps. at 4 mc.)	
959-30B	.0005	8,000	8.5	6	3	1
960-30B	.001	8,000	10	8.5	4.5	1.5
961-30B	.002	8,000	11	11	7.5	2.5
759-30B	.003	8,000	12	14	10	5
757-30B	.004	8,000	12	14	10	6
758-30B	.005	8,000	13	15	11	7
756-30B	.006	6,000	15	15	11	7
962-30B	.01	6,000	16	20	15	8
915-30B	.01	8,000	17	21	15	9
963-30B	.02	5,000	18	22	18	12
741-30B	.03	4,000	18	23	20	13
113-30B	.1	2,000	18	25	22	12
603-30B	.2	600	18	28	23	15
750-30B	.25	600	18	28	23	15
933-30B	.3	600	18	28	23	15
898-30B	1.0	600	18	28	23	15

★ **When MIL-C-5B units must be supplied, order according to specific CM type designations.**

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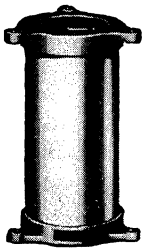
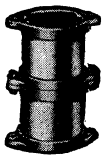
CORNELL-DUBILIER

HIGH-POWER MICA CERAMIC-CASED



57

50 (CM80)
51 (CM85)
52 (CM90) ★
59 (CM75)



59 (CM75) ★
Stacked

C-D Ceramic-Cased Capacitors are used in a variety of industrial electronic equipment and high-power transmitters. Built to handle high rf currents and withstand high-voltage stresses with a wide factor of safety. For grid, plate blocking, coupling, tank, and bypass applications—in induction heating, as high-frequency filters to obtain special wave shapes, in Loran circuits. Higher currents and voltages may be obtained with parallel or series combinations by selecting units of the proper capacity and rating, then bolting or strapping the terminal flanges together.

- ♦ CYLINDRICAL WHITE GLAZED, LOW-LOSS CERAMIC CASE
- ♦ VACUUM - IMPREGNATED STACK ASSEMBLY
- ♦ THE C-D SERIES SECTION MICA STACK
- ♦ FINEST INDIA RUBY MICA
- ♦ EACH SECTION INDIVIDUALLY TESTED FOR VOLTAGE AND CAPACITY
- ♦ CAST ALUMINUM END TERMINALS
- ♦ STACKS HELD UNDER HIGH PRESSURE
- ♦ SPECIAL LOW-LOSS FILLER

ALSO REFER TO "FARADON" TYPES.

***SIZE DATA**—applies to both Broadcast & Heavy Duty Types;

Type 50 — 5″ x 3½″ x 3″ high Type 52 — 6½″ x 5″ x 5¾″ high
Type 51 — 6½″ x 5″ x 4″ high Type 57 — 8½″ x 14″ high
Type 59 — 3 13/16″ x 2 13/16″ x 2½″ high

BROADCAST TRANSMITTING TYPES

Cat. No.	Cap. Mfd.	Peak Working Voltage
BROADCAST TYPE 50		
2210-50	.0001	10,000
2220-50	.00015	10,000
2230-50	.0002	10,000
2251-50	.00051	10,000
2271-50	.00082	10,000
2280-50	.001	10,000
2300-50	.0015	10,000
2310-50	.002	10,000
2333-50	.0043	8,000
2341-50	.0051	6,000
2360-50	.01	5,000
2370-50	.015	4,000
2380-50	.02	3,000
BROADCAST TYPE 51		
2411-51	.000051	20,000
2420-51	.0001	20,000
2430-51	.00015	20,000
2440-51	.0002	20,000
2483-51	.00051	20,000
2501-51	.00082	20,000
2510-51	.001	20,000
2530-51	.0015	15,000
2550-51	.002	15,000
2583-51	.0043	12,000
2591-51	.0051	10,000
2610-51	.01	8,000
2620-51	.02	5,000
BROADCAST TYPE 52		
2710-52	.0001	30,000
2720-52	.00015	30,000
2740-52	.0003	30,000
2763-52	.00043	30,000
2773-52	.00051	30,000
2791-52	.00082	30,000
2800-52	.001	30,000
2820-52	.002	20,000
2853-52	.0043	15,000
2861-52	.0051	15,000
2882-52	.0082	12,000
2890-52	.01	10,000
2911-52	.043	5,000
BROADCAST TYPE 59		
2011-59	.000051	6,000
2020-59	.0001	6,000
2040-59	.0002	6,000
2060-59	.0003	6,000
2083-59	.00051	6,000
2100-59	.001	6,000
2120-59	.002	6,000
2140-59	.003	6,000
2161-59	.0051	4,000
2170-59	.01	4,000
2180-59	.02	2,000

HEAVY DUTY INDUSTRIAL TYPES

Cat. No.	Cap. Mfd.	Peak Working Voltage
HEAVY DUTY TYPE 50		
278-50	.005	12,500
250-50	.001	12,500
238-50	.0015	10,000
223-50	.002	10,000
191-50	.004	8,000
HEAVY DUTY TYPE 51		
252-51	.001	20,000
239-51	.0015	20,000
225-51	.002	15,000
193-51	.004	12,000
158-51	.01	10,000
HEAVY DUTY TYPE 52		
298-52	.0003	35,000
286-52	.0004	35,000
485-52	.005	20,000
164-52	.008	12,000
430-52	.01	15,000
HEAVY DUTY TYPE 57		
402-57	.0006	40,000
676-57	.002	40,000
776-57	.004	30,000
HEAVY DUTY TYPE 59		
544-59	.0005	7,500
545-59	.001	7,500
572-59	.002	7,500
595-59	.003	6,000
547-59	.005	6,000
548-59	.01	5,000

★When MIL-C-5B units must be supplied, order according to specific CM type designations.

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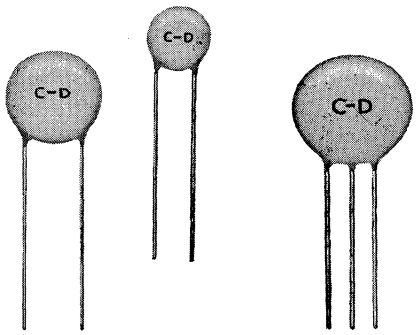
CDE CORNELL-DUBILIER

"TINYMIKE" CERAMIC CAPACITORS



THE CERAMIC WITH THE MILLION DOLLAR BODY

- Small, space-saving and lightweight.
- Adapted for wide variety of applications.
- Available in all popular capacities.
- Minimized eddy current losses due to construction.
- Guaranteed minimum capacity tolerance.
- Low inductance, stable, dependable performance.
- Available with temperature compensating characteristics.

General Purpose DISC HIGH K

TYPE: BYA — BYB

VOLTAGE: 1000 VDCW, except as noted.

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
470	**BYA10T47**	9/32	5/32	$.25	**$.15**
500	**BYA10T5**	9/32	5/32	.25	**.15**
680	**BYA10T68**	9/32	5/32	.25	**.15**
820	**BYA10T82**	9/32	5/32	.25	**.15**
1000	**BYA10D1**	9/32	5/32	.25	**.15**
†1000	**BYA10D1M**	3/8	5/32	.25	**.15**
1500	**BYA10D15**	3/8	5/32	.25	**.15**
2000	**BYA10D2**	3/8	5/32	.25	**.15**
2200	**BYA10D22**	3/8	5/32	.25	**.15**
2500	**BYA10D25**	19/32	5/32	.25	**.15**
2700	**BYA10D27**	19/32	5/32	.25	**.15**
3000	**BYA10D3**	19/32	5/32	.25	**.15**
3300	**BYA10D33**	19/32	5/32	.25	**.15**
4000	**BYA10D4**	19/32	5/32	.25	**.15**
†4700	**BYA10D47M**	19/32	5/32	.25	**.15**
5000	**BYA10D5**	5/8	5/32	.25	**.15**
†5000	**BYA10D5M**	5/8	5/32	.25	**.15**
6800	**BYA10D68**	19/32	5/32	.25	**.15**
*10000	**BYA6S1**	5/8	5/32	.25	**.15**
10000	**BYA10S1**	3/4	5/32	.25	**.15**
†10000	**BYA10S1M**	5/8	5/32	.30	**.18**
15000	**BYA10S15**	7/8	5/32	.30	**.18**
*20000	**BYB6S2**	7/8	7/32	.30	**.18**
*30000	**BYB6S3**	7/8	7/32	.60	**.36**
*40000	**BYB6S4**	7/8	7/32	.60	**.36**

*Rated at 600 VDCW.
†Tolerance ±20%.

General Purpose DISC UNSHIELDED

TYPE: BYC

VOLTAGE: 600 VDCW

TOLERANCE: GMC

TEMPERATURE RANGE: —55°C to +85°C.

DUALS

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
2 x 1000	**BYC6DD1**	3/8	5/32	$.40	**$.24**
2 x 1500	**BYC6DD15**	19/32	5/32	.40	**.24**
2 x 2000	**BYC6DD2**	19/32	5/32	.40	**.24**
2 x 2200	**BYC6DD22**	19/32	5/32	.40	**.24**
2 x 2500	**BYC6DD25**	19/32	5/32	.40	**.24**
2 x 3000	**BYC6DD3**	3/4	5/32	.40	**.24**
2 x 4000	**BYC6DD4**	3/4	5/32	.40	**.24**
2 x 4700	**BYC6DD47**	3/4	5/32	.40	**.24**
2 x 5000	**BYC6DD5**	3/4	5/32	.40	**.24**

General Purpose DISC SHIELDED

TYPE: BYD

VOLTAGE: 600 VDCW

TOLERANCE: GMC

TEMPERATURE RANGE: —55°C to +85°C.

DUALS

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
2 x 1000	**BYD6DD1**	3/8	7/32	$.50	**$.30**
2 x 2000	**BYD6DD2**	3/8	7/32	.50	**.30**
2 x 5000	**BYD6DD5**	19/32	7/32	.50	**.30**
2 x 10000	**BYD6D51**	5/8	7/32	.50	**.30**

General Purpose DISC CLOSE TOLERANCE

TYPE: L

VOLTAGE: 1000 VDCW

TOLERANCE: ±10%, except as noted, to 390 mmfd. incl. ±20%, 400 mmfd. and over.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†3.3	**L10V33**	9/32	5/32	$.25	**$.15**
†5.0	**L10V5**	9/32	5/32	.25	**.15**
†6.8	**L10V68**	9/32	5/32	.25	**.15**
7.0	**L10V7**	9/32	5/32	.25	**.15**
8.0	**L10V8**	9/32	5/32	.25	**.15**
10	**L10Q1**	9/32	5/32	.25	**.15**
12	**L10Q12**	9/32	5/32	.25	**.15**
15	**L10Q15**	9/32	5/32	.25	**.15**
18	**L10Q18**	9/32	5/32	.25	**.15**
20	**L10Q2**	9/32	5/32	.25	**.15**
22	**L10Q22**	9/32	5/32	.25	**.15**
24	**L10Q24**	9/32	5/32	.25	**.15**
25	**L10Q25**	9/32	5/32	.25	**.15**
27	**L10Q27**	9/32	5/32	.25	**.15**
30	**L10Q3**	9/32	5/32	.25	**.15**
33	**L10Q33**	9/32	5/32	.25	**.15**
39	**L10Q39**	9/32	5/32	.25	**.15**
47	**L10Q47**	9/32	5/32	.25	**.15**
50	**L10Q5**	9/32	5/32	.25	**.15**
51	**L10Q51**	9/32	5/32	.25	**.15**

†Tolerance ±.5 Mmfd.

(cont'd next page)

Net

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CORNELL-DUBILIER

"TINYMIKE" CERAMIC CAPACITORS

TYPE: L (cont'd)

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
56	**L10Q56**	9/32	5/32	$.25	**$.15**
68	**L10Q68**	9/32	5/32	.25	**.15**
75	**L10Q75**	9/32	5/32	.25	**.15**
82	**L10Q82**	9/32	5/32	.25	**.15**
91	**L10Q91**	9/32	5/32	.25	**.15**
100	**L10T1**	9/32	5/32	.25	**.15**
110	**L10T11**	9/32	5/32	.25	**.15**
120	**L10T12**	9/32	5/32	.25	**.15**
130	**L10T13**	9/32	5/32	.25	**.15**
150	**L10T15**	9/32	5/32	.25	**.15**
180	**L10T18**	9/32	5/32	.25	**.15**
200	**L10T2**	9/32	5/32	.25	**.15**
220	**L10T22**	9/32	5/32	.25	**.15**
240	**L10T24**	9/32	5/32	.25	**.15**
250	**L10T25**	9/32	5/32	.25	**.15**
270	**L10T27**	9/32	5/32	.25	**.15**
300	**L10T3**	9/32	5/32	.25	**.15**
330	**L10T33**	9/32	5/32	.25	**.15**
350	**L10T35**	9/32	5/32	.25	**.15**
360	**L10T36**	9/32	5/32	.25	**.15**
390	**L10T39**	9/32	5/32	.25	**.15**
400	**L10T4**	9/32	5/32	.25	**.15**
420	**L10T42**	3/8	5/32	.25	**.15**
470	**L10T47**	3/8	5/32	.25	**.15**
500	**L10T5**	3/8	5/32	.25	**.15**
510	**L10T51**	3/8	5/32	.25	**.15**
560	**L10T56**	3/8	5/32	.25	**.15**
600	**L10T6**	3/8	5/32	.25	**.15**
620	**L10T62**	3/8	5/32	.25	**.15**
680	**L10T68**	3/8	5/32	.25	**.15**
750	**L10T75**	3/8	5/32	.25	**.15**
800	**L10T8**	3/8	5/32	.25	**.15**
820	**L10T82**	19/32	5/32	.25	**.15**
910	**L10T91**	19/32	5/32	.25	**.15**
1000	**L10D1**	19/32	5/32	.25	**.15**
1200	**L10D12**	19/32	5/32	.25	**.15**
1500	**L10D15**	19/32	5/32	.25	**.15**
1600	**L10D16**	19/32	5/32	.25	**.15**
1800	**L10D18**	19/32	5/32	.25	**.15**
2000	**L10D2**	19/32	5/32	.25	**.15**
2200	**L10D22**	19/32	5/32	.25	**.15**
2500	**L10D25**	3/4	5/32	.25	**.15**
2700	**L10D27**	3/4	5/32	.25	**.15**
3000	**L10D3**	3/4	5/32	.25	**.15**
3300	**L10D33**	3/4	5/32	.25	**.15**
3900	**L10D39**	7/8	5/32	.25	**.15**
4000	**L10D4**	7/8	5/32	.25	**.15**
4300	**L10D43**	7/8	5/32	.25	**.15**
4700	**L10D47**	7/8	5/32	.25	**.15**
5000	**L10D5**	7/8	5/32	.25	**.15**
5100	**L10D51**	7/8	5/32	.25	**.15**

General Purpose DISC HIGH VOLTAGE

TYPE: HVA — HVB — HVC

VOLTAGE: 1600 VDCW

TEMPERATURE RANGE: —55°C to +85°C.

TOLERANCE: 4.7 to 100 mmfd. incl. ±10%, except as noted.
150 to 1000 mmfd. incl. ±20%.
1200 to 6800 mmfd. incl. GMC.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†4.7	**HVA16V47**	3/8	7/32	$.35	**$.21**
6.8	**HVA16V68**	3/8	7/32	.35	**.21**
10	**HVA16Q1**	3/8	7/32	.35	**.21**
12	**HVA16Q12**	3/8	7/32	.35	**.21**
15	**HVA16Q15**	3/8	7/32	.35	**.21**

TYPE: HVA — HVB — HVC (Cont'd)

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
18	**HVA16Q18**	3/8	7/32	$.35	**$.21**
20	**HVA16Q2**	3/8	7/32	.35	**.21**
22	**HVA16Q22**	3/8	7/32	.35	**.21**
33	**HVA16Q33**	3/8	7/32	.35	**.21**
47	**HVA16Q47**	19/32	7/32	.35	**.21**
56	**HVA16Q56**	19/32	7/32	.35	**.21**
62	**HVA16Q62**	19/32	7/32	.35	**.21**
68	**HVA16Q68**	19/32	7/32	.35	**.21**
82	**HVA16Q82**	19/32	7/32	.35	**.21**
100	**HVA16T1**	19/32	7/32	.35	**.21**
150	**HVB16T15**	3/8	7/32	.35	**.21**
180	**HVB16T18**	3/8	7/32	.35	**.21**
220	**HVB16T22**	3/8	7/32	.35	**.21**
300	**HVB16T3**	3/8	7/32	.35	**.21**
330	**HVB16T33**	3/8	7/32	.35	**.21**
390	**HVB16T39**	3/8	7/32	.35	**.21**
470	**HVB16T47**	19/32	7/32	.35	**.21**
680	**HVB16T68**	19/32	7/32	.35	**.21**
1000	**HVB16D1**	19/32	7/32	.35	**.21**
1200	**HVC16D12**	19/32	7/32	.35	**.21**
1500	**HVC16D15**	19/32	7/32	.35	**.21**
2000	**HVC16D2**	19/32	7/32	.35	**.21**
2200	**HVC16D22**	19/32	7/32	.35	**.21**
3300	**HVC16D33**	19/32	7/32	.35	**.21**
4700	**HVC16D47**	3/4	7/32	.35	**.21**
6800	**HVC16D68**	7/8	7/32	.35	**.21**

†Tolerance ±.5 Mmfd.

High Voltage DISC for BUFFER Applications

TYPE: HVE

VOLTAGE: 1600 VDCW

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
3000	**HVE16D3**	3/4	7/32	$.35	**$.21**
4000	**HVE16D4**	3/4	7/32	.35	**.21**
5000	**HVE16D5**	3/4	7/32	.35	**.21**
6000	**HVE16D6**	7/8	7/32	.35	**.21**
7000	**HVE16D7**	7/8	7/32	.35	**.21**
7500	**HVE16D75**	7/8	7/32	.35	**.21**
8000	**HVE16D8**	7/8	7/32	.35	**.21**
10000	**HVE16S1**	7/8	7/32	.35	**.21**
†15000	**HVE16S15**	7/8	1/4	.60	**.36**

†Tolerance ±.5 Mmfd.

Low Voltage Miniature DISC for TRANSISTOR CIRCUITRY

TYPE: H

VOLTAGE: 50 VDCW

TOLERANCE: +100%, —0%, except as noted.

TEMPERATURE RANGE: +10°C to +85°C.

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
.001	**H-05D1**	.290	1/8	$.45	**$.27**
.005	**H-05D5**	.350	1/8	.45	**.27**
.01	**H-05S1**	.350	1/8	.65	**.39**
.02	**H-05S2**	.500	1/8	.65	**.39**
.025	**H-05S25**	.500	1/8	.65	**.39**
*.05	**H-05S5**	.625	1/8	.70	**.42**
*.10	**H-05P1**	.625	5/16	.90	**.54**

*Tolerance +80%, —20%.

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Net

CDE CORNELL-DUBILIER

"TINYMIKE" CERAMIC CAPACITORS

General Purpose DISC HIGH VOLTAGE

TYPE: HVA — HVB — HVC

VOLTAGE: 2000 VDCW

TEMPERATURE RANGE: —55°C to +85°C.

TOLERANCE: 4.7 to 82 mmfd. incl. ±10%, except as noted. 100 to 1500 mmfd. incl. ±20%. 2000 to 6000 mmfd. incl. GMC.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†4.7	**HVA20V47**	3/8	7/32	$.35	**$.21**
6.8	**HVA20V68**	3/8	7/32	.35	**.21**
10	**HVA20Q1**	3/8	7/32	.35	**.21**
15	**HVA20Q15**	3/8	7/32	.35	**.21**
22	**HVA20Q22**	3/8	7/32	.35	**.21**
33	**HVA20Q33**	3/8	7/32	.35	**.21**
39	**HVA20Q39**	19/32	7/32	.35	**.21**
47	**HVA20Q47**	19/32	7/32	.35	**.21**
56	**HVA20Q56**	19/32	7/32	.35	**.21**
62	**HVA20Q62**	19/32	7/32	.35	**.21**
68	**HVA20Q68**	19/32	7/32	.35	**.21**
75	**HVA20Q75**	19/32	7/32	.35	**.21**
82	**HVA20Q82**	19/32	7/32	.35	**.21**
100	**HVB20T1**	3/8	7/32	.35	**.21**
120	**HVB20T12**	3/8	7/32	.35	**.21**
150	**HVB20T15**	3/8	7/32	.35	**.21**
180	**HVB20T18**	3/8	7/32	.35	**.21**
200	**HVB20T2**	3/8	7/32	.35	**.21**
220	**HVB20T22**	3/8	7/32	.35	**.21**
270	**HVB20T27**	3/8	7/32	.35	**.21**
300	**HVB20T3**	3/8	7/32	.35	**.21**
330	**HVB20T33**	19/32	7/32	.35	**.21**
390	**HVB20T39**	19/32	7/32	.35	**.21**
470	**HVB20T47**	19/32	7/32	.35	**.21**
500	**HVB20T5**	19/32	7/32	.35	**.21**
560	**HVB20T56**	19/32	7/32	.35	**.21**
680	**HVB20T68**	19/32	7/32	.35	**.21**
1000	**HVB20D1**	3/4	7/32	.40	**.24**
1500	**HVB20D15**	3/4	7/32	.40	**.24**
2000	**HVC20D2**	19/32	7/32	.40	**.24**
2200	**HVC20D22**	19/32	7/32	.40	**.24**
3300	**HVC20D33**	3/4	7/32	.50	**.30**
4700	**HVC20D47**	3/4	7/32	.50	**.30**
5000	**HVC20D5**	3/4	7/32	.50	**.30**
6000	**HVC20D6**	7/8	7/32	.50	**.30**

†Tolerance ±.5 Mmfd.

High Voltage DISC for DEFLECTION YOKE Applications

TYPE: HVD

VOLTAGE: 2000 VDCW

TOLERANCE: ±10%

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
15	**HVD20Q15**	3/8	7/32	$.35	**$.21**
18	**HVD20Q18**	3/8	7/32	.35	**.21**
20	**HVD20Q2**	3/8	7/32	.35	**.21**
22	**HVD20Q22**	3/8	7/32	.35	**.21**
33	**HVD20Q33**	3/8	7/32	.35	**.21**
39	**HVD20Q39**	19/32	7/32	.35	**.21**
47	**HVD20Q47**	19/32	7/32	.35	**.21**
62	**HVD20Q62**	19/32	7/32	.35	**.21**
68	**HVD20Q68**	19/32	7/32	.35	**.21**
75	**HVD20Q75**	19/32	7/32	.35	**.21**
82	**HVD20Q82**	19/32	7/32	.35	**.21**
91	**HVD20Q91**	19/32	7/32	.35	**.21**

General Purpose DISC HIGH VOLTAGE

TYPE: HVA — HVB — HVC

VOLTAGE: 3000 VDCW

TEMPERATURE RANGE: —55°C to +85°C.

TOLERANCE: 4.7 to 60 mmfd. .incl. ±10%, except as noted; 68 to 1000 mmfd. incl. ±20%; 1500 to 4000 mmfd. incl. GMC.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†4.7	**HVA30V47**	3/8	7/32	$.40	**$.24**
6.8	**HVA30V68**	3/8	7/32	.40	**.24**
10	**HVA30Q1**	3/8	7/32	.40	**.24**
12	**HVA30Q12**	3/8	7/32	.40	**.24**
15	**HVA30Q15**	3/8	7/32	.40	**.24**
22	**HVA30Q22**	3/8	7/32	.40	**.24**
33	**HVA30Q33**	19/32	7/32	.40	**.24**
39	**HVA30Q39**	19/32	7/32	.40	**.24**
47	**HVA30Q47**	19/32	7/32	.40	**.24**
50	**HVA30Q5**	19/32	7/32	.40	**.24**
60	**HVA30Q6**	19/32	7/32	.40	**.24**
68	**HVB30Q68**	3/8	7/32	.40	**.24**
100	**HVB30T1**	3/8	7/32	.40	**.24**
120	**HVB30T12**	3/8	7/32	.40	**.24**
150	**HVB30T15**	3/8	7/32	.40	**.24**
180	**HVB30T18**	3/8	7/32	.40	**.24**
200	**HVB30T2**	3/8	7/32	.40	**.24**
220	**HVB30T22**	15/32	7/32	.40	**.24**
250	**HVB30T25**	19/32	7/32	.40	**.24**
270	**HVB30T27**	19/32	7/32	.40	**.24**
300	**HVB30T3**	19/32	7/32	.40	**.24**
330	**HVB30T33**	19/32	7/32	.40	**.24**
390	**HVB30T39**	19/32	7/32	.40	**.24**
470	**HVB30T47**	19/32	7/32	.40	**.24**
500	**HVB30T5**	19/32	7/32	.40	**.24**
680	**HVB30T68**	3/4	7/32	.40	**.24**
1000	**HVB30D1**	7/8	7/32	.40	**.24**
1500	**HVC30D15**	19/32	7/32	.40	**.24**
2000	**HVC30D2**	3/4	7/32	.40	**.24**
2200	**HVC30D22**	3/4	7/32	.50	**.30**
3300	**HVC30D33**	7/8	7/32	.50	**.30**
4000	**HVC30D4**	7/8	7/32	.50	**.30**

†Tolerance ±.5 Mmfd.

General Purpose DISC HIGH VOLTAGE

TYPE: HVA — HVB

VOLTAGE: 5000 VDCW

TOLERANCE: ±20%

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
4.7	**HVA50V47**	3/8	7/32	$.60	**$.36**
10	**HVA50Q1**	3/8	7/32	.60	**.36**
22	**HVA50Q22**	19/32	7/32	.60	**.36**
47	**HVB50Q47**	3/8	7/32	.60	**.36**
100	**HVB50T1**	3/8	7/32	.60	**.36**
220	**HVB50T22**	19/32	7/32	.60	**.36**
330	**HVB50T33**	19/32	7/32	.60	**.36**
470	**HVB50T47**	3/4	7/32	.60	**.36**

Net

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CORNELL-DUBILIER

"TINYMIKE" CERAMIC CAPACITORS

Temperature Compensating DISC Coefficient NPO

TYPE: C
VOLTAGE: 1000 VDCW
TOLERANCE: ±5%, except as noted.
TEMPERATURE RANGE: −55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†1.5	C10V15C	9/32	5/32	$.50	$.30
†2.0	C10V2C	9/32	5/32	.50	.30
†2.2	C10V22C	9/32	5/32	.50	.30
†3.0	C10V3C	9/32	5/32	.50	.30
†3.3	C10V33C	9/32	5/32	.50	.30
†4.0	C10V4C	9/32	5/32	.50	.30
†4.7	C10V47C	9/32	5/32	.50	.30
5.0	C10V5C	9/32	5/32	.50	.30
6.0	C10V6C	9/32	5/32	.50	.30
6.8	C10V68C	9/32	5/32	.50	.30
7.0	C10V7C	9/32	5/32	.50	.30
8.0	C10V8C	9/32	5/32	.50	.30
8.2	C10V82C	9/32	5/32	.50	.30
9.0	C10V9C	9/32	5/32	.50	.30
10	C10Q1C	9/32	5/32	.50	.30
12	C10Q12C	3/8	5/32	.50	.30
13	C10Q13C	3/8	5/32	.50	.30
15	C10Q15C	3/8	5/32	.50	.30
18	C10Q18C	3/8	5/32	.50	.30
20	C10Q2C	3/8	5/32	.50	.30
22	C10Q22C	19/32	5/32	.50	.30
24	C10Q24C	19/32	5/32	.50	.30
25	C10Q25C	19/32	5/32	.50	.30
27	C10Q27C	19/32	5/32	.50	.30
30	C10Q3C	19/32	5/32	.50	.30
33	C10Q33C	19/32	5/32	.50	.30
36	C10Q36C	19/32	5/32	.50	.30
39	C10Q39C	19/32	5/32	.50	.30
43	C10Q43C	19/32	5/32	.50	.30
47	C10Q47C	19/32	5/32	.50	.30
50	C10Q5C	3/4	5/32	.50	.30
51	C10Q51C	3/4	5/32	.50	.30
56	C10Q56C	3/4	5/32	.50	.30
62	C10Q62C	3/4	5/32	.50	.30
68	C10Q68C	3/4	5/32	.50	.30
75	C10Q75C	3/4	5/32	.50	.30
82	C10Q82C	3/4	5/32	.50	.30
91	C10Q91C	7/8	5/32	.50	.30
100	C10T1C	7/8	5/32	.50	.30

†Tolerance ±.5 Mmfd.

Temperature Compensating DISC Coefficient N750

TYPE: C
VOLTAGE: 1000 VDCW
TOLERANCE: ±5%
TEMPERATURE RANGE: −55°C to +85°C.

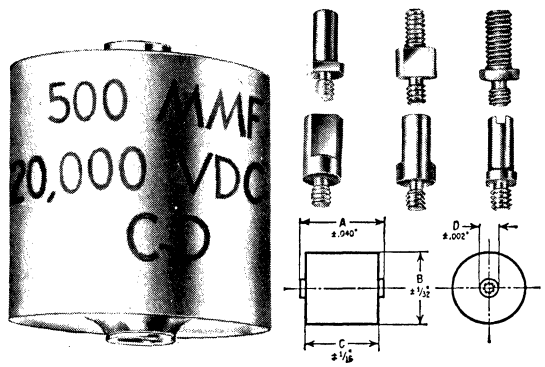
SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
5.0	C10V5U	9/32	5/32	$.50	$.30
6.0	C10V6U	9/32	5/32	.50	.30
6.8	C10V68U	9/32	5/32	.50	.30
7.0	C10V7U	9/32	5/32	.50	.30
8.0	C10V8U	9/32	5/32	.50	.30
8.2	C10V82U	9/32	5/32	.50	.30
9.0	C10V9U	9/32	5/32	.50	.30
10	C10Q1U	9/32	5/32	.50	.30
12	C10Q12U	9/32	5/32	.50	.30
13	C10Q13U	9/32	5/32	.50	.30
15	C10Q15U	9/32	5/32	.50	.30
18	C10Q18U	9/32	5/32	.50	.30
20	C10Q2U	9/32	5/32	.50	.30
22	C10Q22U	9/32	5/32	.50	.30
24	C10Q24U	9/32	5/32	.50	.30

TYPE: C (cont'd)

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
25	C10Q25U	9/32	5/32	$.50	$.30
27	C10Q27U	9/32	5/32	.50	.30
30	C10Q3U	9/32	5/32	.50	.30
33	C10Q33U	9/32	5/32	.50	.30
36	C10Q36U	3/8	5/32	.50	.30
39	C10Q39U	3/8	5/32	.50	.30
43	C10Q43U	3/8	5/32	.50	.30
47	C10Q47U	3/8	5/32	.50	.30
50	C10Q5U	3/8	5/32	.50	.30
51	C10Q51U	3/8	5/32	.50	.30
56	C10Q56U	3/8	5/32	.50	.30
62	C10Q62U	3/8	5/32	.50	.30
68	C10Q68U	3/8	5/32	.50	.30
75	C10Q75U	19/32	5/32	.50	.30
82	C10Q82U	19/32	5/32	.50	.30
91	C10Q91U	19/32	5/32	.50	.30
100	C10T1U	19/32	5/32	.50	.30
110	C10T11U	19/32	5/32	.75	.45
120	C10T12U	19/32	5/32	.75	.45
130	C10T13U	19/32	5/32	.75	.45
150	C10T15U	19/32	5/32	.75	.45
160	C10T16U	3/4	5/32	.75	.45
175	C10T175U	3/4	5/32	.75	.45
180	C10T18U	3/4	5/32	.75	.45
200	C10T2U	3/4	5/32	.75	.45
220	C10T22U	3/4	5/32	.75	.45
240	C10T24U	3/4	5/32	.75	.45
270	C10T27U	7/8	5/32	.75	.45
300	C10T3U	7/8	5/32	.75	.45
330	C10T33U	7/8	5/32	.75	.45

UNIVERSAL HIGH VOLTAGE



- **New, superior design and construction.**
- **High insulation resistance, low power factor.**
- **Generous factor of safety permits use at FULL rated voltage.**
- **Choice of terminal styles to meet all TV assembly requirements.**

STANDARD TOLERANCE: +50%, −20%

	Cat. No. MMU200T5	Cat. No. MMU300T5
Cap. Mmfd.	500	500
VDCW	20,000	30,000
Flash Test	30,000	40,000
Body Size		
A	1.068"	1.381"
B	.950"	1.375"
C	.937"	1.250"
D	.250"	.250"
List Price	$1.85	$3.00
Net Price	1.11	1.80

A 10,000 VDCW (MMU 100T5) unit is available on special order.

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Net

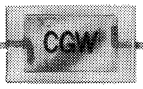
CORNING ELECTRONIC COMPONENTS

The following pages list the resistors, fixed and trimmer capacitors, inductors, and grid boards available from Corning Electronic Components through Corning Distributors. Our electronic components plant in Bradford, Pa., mass produces them all.

Wherever **your** plant is, there is a Corning distributor nearby to give you fast service on the specific components you need to meet your specific requirement. A phone call will put his knowledge at your service.

CORNING FIXED CAPACITORS

Layers of ultra stable ribbon glass and aluminum foil, with leads attached, are fused under heat and pressure to make each Corning capacitor a practically indestructible monolithic unit. Its properties are entirely those of the closely controlled dielectric, and can't be changed by assembly methods or subsequent treatment. Properties like these at 1 Kc and 20°C.; dissipation factor of .05%; dielectric constant of 8.4; temperature coefficient within 10PPM with absolute retrace. Standard values are the same as standard decade values in applicable military specifications.

TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (pf)	VOLTAGE	NOMINAL DIMENSIONS Size in inches	WEIGHT IN GRAMS
CY — For standard applications not requiring environment-proof construction. MIL-C-11272B. 	CY10	0.5 to 240	500 and 300	11/32 x 11/64 x 5/64	0.25 - 0.50
	CY15	160 to 1200	500 and 300	15/32 x 17/64 x 7/64	0.75 - 1.25
	CY20	560 to 5100	500 and 300	47/64 x 27/64 x 9/64	2.50 - 4.00
	CY30	3600 to 10000	500 and 300	49/64 x 3/4 x 9/64	5.00 - 7.00
CYF — For the most exacting applications where extremely high reliability levels to your specification must be guaranteed. Environment-proof fused construction. MIL-C-11272B.	CYF10	0.5 to 240	500 and 300	11/32 x 11/64 x 5/64	0.25 - 0.50
	CYF15	160 to 1200	500 and 300	15/32 x 17/64 x 7/64	0.75 - 1.25
	CYF20	560 to 5100	500 and 300	47/64 x 27/64 x 9/64	2.50 - 4.00
CYFM — Fusion-sealed environment-proof performance at cost savings. Electrically and environmentally interchangeable with CYF. MIL-C-11272B.	CYFM10	0.5 to 300	500 and 300	11/32 x 11/64 x 5/64	0.25 - 0.50
	CYFM15	220 to 1200	500 and 300	15/32 x 17/64 x 7/64	0.75 - 1.25
	CYFM20	560 to 5100	500 and 300	47/64 x 27/64 x 9/64	2.50 - 4.00
	CYFM30	3600 to 10000	500 and 300	49/64 x 3/4 x 9/64	5.00 - 7.00
W, WL — Smallest high stability wafer capacitors available. With or without radial leads. MIL-C-11272B.	W, WL1	4700 to 10000	300	.468 x .737 x .125	2.50
	W, WL2	3000 to 4300	300	.468 x .377 x .115	1.12
	W, WL3	1100 to 2700	300	.468 x .234 x .115	0.71
	W, WL4	620 to 1000	300	.218 x .234 x .115	0.37
	W, WL5	5 to 560	300	.218 x .144 x .115	0.30

STANDARD CAPACITOR VALUES

0.5	7.5	33	130	560	2400
1.0	8.2	36	150	620	2700
1.5	9.1	39	160	680	3000
2.2	10	43	180	750	3300
2.7	11	47	200	820	3600
3.0	12	51	220	910	3900
3.3	13	56	240	1000	4300
3.6	15	62	270	1100	4700
3.9	16	68	300	1200	5100
4.3	18	75	330	1300	5600
4.7	20	82	360	1500	6200
5.1	22	91	390	1600	6800
5.6	24	100	430	1800	7500
6.2	27	110	470	2000	8200
6.8	30	120	510	2200	9100
					10000

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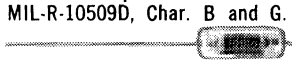
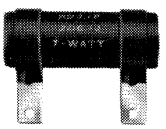
CORNING ELECTRONIC COMPONENTS

CORNING RESISTORS

Fuse a tin oxide coating into glass, spiral a helix in the coating, attach leads and you have a simple, rugged, exceptionally reliable resistor. Its temperature coefficient runs from ±0.020% to ±0.05%/°C. Its overload change is less than 1%. Its noise level is less than 0.1 uv/v. It is non-inductive above 280 ohms. Standard values are the same as standard decade values in applicable military specifications.

TYPE AND MIL SPEC.	MODEL	MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
NF – Glass encapsulation is fusion sealed. MIL-R-10509D, Char. B and G. 	NF60	RN60B	100 to 100K	1/8 @ 70°C.	1%
	NF65	RN65B	100 to 348K	1/4 @ 70°C.	1%
N – Fixed film, derating to 140°C. Uninsulated. MIL-R-10509B, Char. X.	N12		100 to 133K	1/4 @ 40°C.	1, 2, and 5%
	N20	RN20	10 to 500K	1/2 @ 40°C.	1, 2, and 5%
	N25	RN25	10 to 1.5 meg.	1 @ 40°C.	1, 2, and 5%
	N30	RN30	30 to 4.12 meg.	2 @ 40°C.	1, 2, and 5%
N (insulated)–Epoxy insulation coating. MIL-R-10509D, Char. B.	N60	RN60B	10 to 133K	1/8 @ 70°C.	1%
	N65	RN65B	10 to 499K	1/4 @ 70°C.	1%
	N70	RN70B	10 to 1 meg.	1/2 @ 70°C.	1%
C – General purpose, low cost film-type. Prices and sizes comparable to carbon composition type, but with film resistor performance characteristics. MIL-R-22684 (Navy)	C20	RL20	51 to 150K	1/2 @ 70°C.	2%, 5%
	C32	RL32	51 to 470K	1 @ 70°C.	2%, 5%
	C42S	C42S	10 to 1.4 meg.	2 @ 70°C.	5%, 10%
S – Fixed film-type for high temperature operation. Silicone baked lacquer. MIL-R-11804C, Char. P.				130°C. 25°C.	
	S20	RD60P	10 to 500K	1/2 1	1, 2, 5, 10%
	S25	RD65P	10 to 1.54 meg.	1 2	1, 2, 5, 10%
	S30	RD70P	30.1 to 4.22 meg.	2 4	1, 2, 5, 10%
R – Power type, essentially noninductive in high-frequency operations. MIL-R-11804C. 	R31	RD31P	10 to 70K	7 @ 25°C.	2, 5, 10%
	R33	RD33P	19.6 to 150K	13 @ 25°C.	2, 5, 10%
	R35	RD35P	19.6 to 301K	25 @ 25°C.	2, 5, 10%
	R37	RD37P	19.6 to 500K	55 @ 25°C	2, 5, 10%
	R39	RD39P	30.1 to 1 meg.	115 @ 25°C.	2, 5, 10%

STANDARD VALUES*—N, N INSULATED, NF, S, R, RESISTORS 1, 2, and 5% Tolerances

1%	2%	5%	1%	2%	5%	1%	2%	5%	1%	2%	5%
1.00	1.00	1.00	1.82			3.32	3.32		6.04		
1.02			1.87	1.87		3.40			6.19	6.19	6.19
1.05	1.05		1.91			3.48	3.48	3.48	6.34		
1.07			1.96	1.96	1.96	3.57			6.49	6.49	
1.10	1.10	1.10	2.00			3.65	3.65		6.65		
1.13			2.05	2.05		3.74			6.81	6.81	6.81
1.15	1.15		2.10			3.83	3.83	3.83	6.98		
1.18			2.15	2.15	2.15	3.92			7.15	7.15	
1.21	1.21	1.21	2.21			4.02	4.02		7.32		
1.24			2.26	2.26		4.12			7.50	7.50	7.50
1.27	1.27		2.32			4.22	4.22	4.22	7.68		
1.30			2.37	2.37	2.37	4.32			7.87	7.87	
1.33	1.33	1.33	2.43			4.42	4.42		8.06		
1.37			2.49	2.49		4.53			8.25	8.25	8.25
1.40	1.40		2.55			4.64	4.64	4.64	8.45		
1.43			2.61	2.61	2.61	4.75			8.66	8.66	
1.47	1.47	1.47	2.67			4.87	4.87		8.87		
1.50			2.74	2.74		4.99			9.09	9.09	9.09
1.54	1.54		2.80			5.11	5.11	5.11	9.31		
1.58			2.87	2.87	2.87	5.23			9.53	9.53	
1.62	1.62	1.62	2.94			5.36	5.36		9.76		
1.65			3.01	3.01		5.49					
1.69	1.69		3.09			5.62	5.62	5.62			
1.74			3.16	3.16	3.16	5.76					
1.78	1.78	1.78	3.24			5.90	5.90				

*Standard resistance values are obtained from the decade table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms, 133 ohms, 1.33k, 13.3k, 133k, 1.33 megohm.

STANDARD VALUES* C RESISTORS

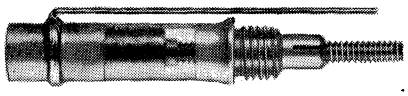
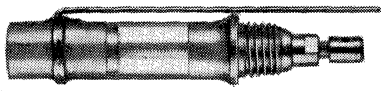
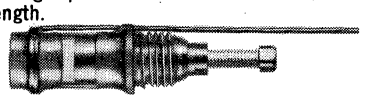
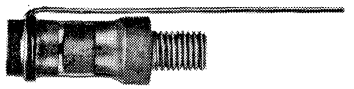
±5%	±10%
10	10
11	—
12	12
13	—
15	15
16	—
18	18
20	—
22	22
24	—
27	27
30	—
33	33
36	—
39	39
43	—
47	47
51	—
56	56
62	—
68	68
75	—
82	82
91	—

*Values not listed are considered non-standard.

CORNING ELECTRONIC COMPONENTS

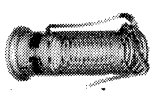
CORNING TRIMMER CAPACITORS

Special metallizing is fired into a special glass of unexcelled dielectric properties, and special hardware is added to produce a Corning trimmer capacitor. This construction provides excellent performance and stability even under conditions of heavy shock and vibration. Our direct traverse PDT and Mini-Trimmer models are unique in design: the core runs up and down its tube without rotating. Tuning curves are smooth – no tuning breakage, backlash, or capacitance reversals. Tuning cores never work loose or become microphonic. Typical values for all our trimmer capacitors are: Q of 500 at 50Mc; temperature coefficient of 50 ± 50 PPM/°C.

TYPE	MODEL	CAPACITANCE RANGE (pf)	DC VOLTS	DIMENSIONS RANGE (inches). Behind-panel length;	overall length
ROTARY TRIMMER CAPACITORS– Provide high performance in high frequency tuned circuits. 	Standard	0.3 to 3.0 1.0 to 8.0 1.0 to 12.0	500	25/32 to 1 15/32;	1 45/64 to 2 9/16
	Split Bushing	1.0 to 8.0 1.0 to 12.0 0.5 to 3.0	600	13/16 to 1 15/32;	2 to 2 13/16
	Precision	0.75 to 3.0 0.70 to 4.0 0.50 to 3.0 0.50 to 4.0	500	19/32 to 3/4;	1 25/64 to 1 43/64
DIRECT TRAVERSE TRIMMER CAPACITORS– Special sliding core design provides completely linear tuning curve, eliminates reversals and backlash. Ideal where you have more space to play with than money. 	Pan Terminal	0.5 to 3.0 - unplated 1.0 to 7.5 - " 1.0 to 8.0 - " 1.0 to 12.0 - " 0.5 to 3.0 - silver plate 1.0 to 8.0 - " " 1.0 to 12.0 - " "	500	13/16 to 1 15/32;	1 11/16 to 2 9/16
	Wire Terminal	1.0 to 8.0 - unplated 0.5 to 3.0 - silver plate 1.0 to 7.5 - " " 1.0 to 8.0 - " " 1.0 to 12.0 - " "	500	3/4 to 1 15/32;	1 15/16 to 2 3/4
PRECISION DIRECT TRAVERSE TRIMMERS– Provides high performance with minimum behind-panel length. 	Precision DT	0.8 to 4.5 0.8 to 8.5 0.8 to 12 1.0 to 18 1.0 to 30	1000	21/64 to 1 19/32;	1 1/4 to 2 7/8
MINI-TRIMMERS– Extreme miniaturization with performance advantages of direct traverse. Shortest overall length. 	Panel Mount	1.0 to 4.5 1.0 to 8.5 1.0 to 12 1.0 to 18	1000	27/64 to 1 3/32	(front of panel length, all types, is 1/4 inch.)
	Printed Circuit	1.0 to 4.5 1.0 to 8.5 1.0 to 12 1.0 to 18	1000		27/64 to 1 3/32

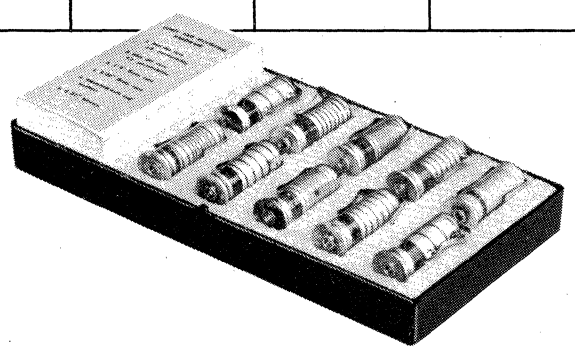
CORNING INDUCTORS

Corning standard inductors provide the same rugged construction characteristics as Corning trimmer capacitors–special silver metallizing fired into a special glass, plus special hardware. Inductance value can be duplicated within ±3%. There is no drift. All standard values are available with leads for printed circuit mounting. Inquiries for special values are invited.

MODEL	INDUCTANCE RANGE (uh)	Q FACTOR	FREQUENCY RANGE	CURRENT RATING
STANDARD INDUCTORS– High reliability, high stability, and rugged construction in all 27 standard types. 	0.05 to 2.0	180 at 140 MC to 120 at 30 MC	10 - 250 MC and over	1 ampere

INDUCTOR KITS

Provide 10 inductor models, plus four tuning cores, accessories, and a technical manual which includes performance curves. Gives designers a range of top-stability inductors for testing of new circuits.



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CORNING ELECTRONIC COMPONENTS

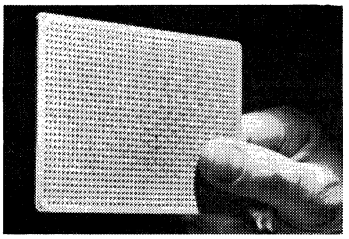
GRID BOARDS

A simple, three-step process converts a Corning FOTOCERAM* grid board into a printed circuit in just 15 minutes. Apply a tape or chemical resist to the copper-plated grid board. Etch away the excess copper. Rinse the board and strip the resist.

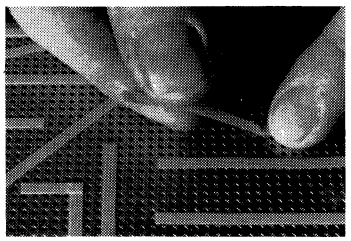
The FOTOCERAM base is a solid piece without laminations which might bend, twist, or warp under high temperatures. Its glass-ceramic composition provides excellent plating, high strength, temperature resistance to 250°C., zero moisture absorption, nonflammability, and rigid dimensional stability.

The board has 0.052 **plated** holes spaced 0.1 inch apart on center. Boards are currently available in two sizes, both 1/16" thick: three by five, and six by eight inches. They can be trimmed to any desired shape with a simple glass cutter.

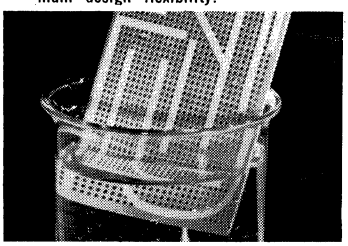
*Trademark



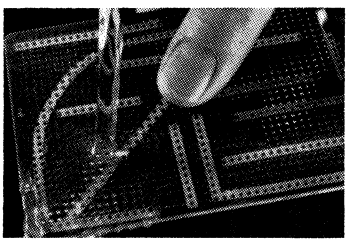
1. New Corning grid boards are already holed and coppered to give you maximum design flexibility.



2. Lay out the circuit run you want on one or both sides with tape or chemical resist.



3. Immerse in a copper etchant to remove excess copper.



4. Rinse. That's all there is to making a board ready for use.

GRID BOARD KITS

These kits include everything needed to build a printed circuit quickly and easily. A complete kit provides FOTOCERAM grid boards, masking tape and a chemical resist ball point pen, etchant chemicals. The kit container itself is used as the etchant solution tray. A second kit version includes everything but the grid boards.

Specify high reliability Corning electronic components, available nationally through Corning electronic components distributors.

For more information and data sheets, write Corning Electronic Components, 550 High St., Bradford, Pa.

THESE COMPONENTS ARE DISTRIBUTED BY:

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Newark Electronics Co., Inc.
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NORTHERN CALIFORNIA
Elmar Electronics, Inc.
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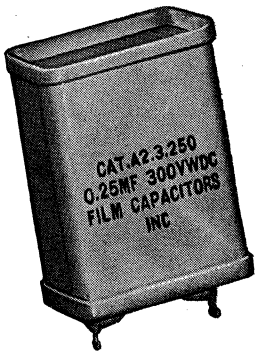


FILM CAPACITORS, INC.

F-C-I POLYSTYRENE CAPACITORS

F-C-I Polystyrene capacitors are characterized by a unique combination of low power factor, high insulation resistance and low dielectric absorption ("soakage") which cannot be duplicated by any other type capacitor except Teflon units. Furthermore, the capacitance stability is excellent, and the temperature coefficient of capacitance is very small. F-C-I Polystyrene capacitors are furnished as standard units in hermetically sealed metal shells; in bathtub cases with low loss steatite terminals; and in style CP70 metal cans with low loss steatite terminals. Special units, including multi-section blocks are also available to order.

TOLERANCES TO .25% AVAILABLE.

METAL SHELL POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	D	List Price
A4-1-10	100	.01	1	.235	$4.00
A4-1-22	100	.022	1	.312	4.00
A4-1-33	100	.033	1	.312	4.10
A4-1-47	100	.047	1	.400	4.15
A4-1-68	100	.068	1	.400	4.20
A4-1-100	100	.10	1⅜	.400	4.40
A4-1-220	100	.22	1⅜	.562	4.80
A4-1-330	100	.33	1⅜	.670	5.25
A4-1-470	100	.47	1⅞	.670	5.60
A4-2-10	200	.01	1	.312	4.00
A4-2-22	200	.022	1	.400	4.10
A4-2-33	200	.033	1	.400	4.10
A4-2-47	200	.047	1⅜	.400	4.15
A4-2-68	200	.068	1⅜	.400	4.15
A4-2-100	200	.10	1⅜	.562	4.50
A4-2-220	200	.22	1⅞	.562	5.20
A4-2-330	200	.33	1⅞	.750	5.80
A4-2-470	200	.47	1⅞	1.00	6.10
A4-4-10	400	.01	1	.312	4.00
A4-4-22	400	.022	1	.400	4.10
A4-4-33	400	.033	1⅜	.400	4.25
A4-4-47	400	.047	1⅜	.400	4.35
A4-4-68	400	.068	1⅜	.562	4.50
A4-4-100	400	.10	1⅞	.562	4.90
A4-4-220	400	.22	1⅞	.750	5.45
A4-4-330	400	.33	1⅞	.750	6.30
A4-4-470	400	.47	1⅞	1.00	7.20
A4-6-10	600	.01	1	.400	4.00
A4-6-22	600	.022	1⅜	.562	4.25
A4-6-33	600	.033	1⅜	.562	4.25
A4-6-47	600	.047	1⅜	.670	4.50
A4-6-68	600	.068	1⅞	.562	4.80
A4-6-100	600	.10	1⅞	.670	5.10
A4-6-220	600	.22	1⅞	.750	5.45
A4-6-330	600	.33	2⅜	1.00	6.30
A4-6-470	600	.47	2⅜	1.00	7.20

STYLE CP70 CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H	List Price
A2-0-1000	50	1.0	1¾	1¾	1⅝	$ 8.10
A2-0-2000	50	2	1¾	1	2¼	11.60
A2-0-4000	50	4	2½	1 13/16	2¼	14.90
A2-0-6000	50	6	3¾	1¼	2¼	20.00
A2-0-8000	50	8	3¾	1¼	2½	23.50
A2-0-10M	50	10	3¾	1¾	2¼	27.50
A2-1-500	100	0.5	1¾	1	1⅝	6.00
A2-1-1000	100	1.0	1¾	1	2¼	9.50
A2-1-2000	100	2.0	2½	1 13/16	2¼	13.65
A2-1-4000	100	4.0	3¾	1¼	2½	17.55
A2-1-6000	100	6.0	3¾	1¾	2½	23.50
A2-1-8000	100	8.0	3¾	2¼	2½	27.70
A2-1-10M	100	10.0	3¾	2¼	3	32.30
A2-1-20M	100	20.0	3¾	3 5/16	3½	46.00
A2-2-250	200	0.25	1¾	1	2¼	5.40
A2-2-500	200	0.5	1¾	1	3¼	6.10
A2-2-1000	200	1.0	1¾	1	3	9.60
A2-2-2000	200	2.0	2½	1 13/16	3	13.75
A2-2-4000	200	4.0	3¾	1¼	3½	17.90
A2-2-6000	200	6.0	3¾	1¾	3½	23.90
A2-2-8000	200	8.0	3¾	2¼	3½	28.00
A2-2-10M	200	10.0	3¾	3 5/16	3½	32.60
A2-2-20M	200	20.0	4 5/16	3¾	4	48.50
A2-4-250	400	0.25	1¾	1	2¼	5.45
A2-4-500	400	0.5	1¾	1	2½	7.20
A2-4-1000	400	1.0	2½	1 13/16	2⅞	14.50
A2-4-2000	400	2.0	3¾	1¼	3	21.70
A2-4-4000	400	4.0	3¾	1¾	3½	34.10
A2-4-6000	400	6.0	3¾	3 3/16	3	47.50
A2-4-8000	400	8.0	3¾	3 5/16	5⅛	58.50
A2-4-10M	400	10.0	4 5/16	3¾	3½	72.00
A2-6-250	600	0.25	1¾	1	2¼	5.45
A2-6-500	600	0.5	1¾	1	3½	7.20
A2-6-1000	600	1.0	2½	1¼	3½	14.50
A2-6-2000	600	2.0	3¾	1¾	3	22.10
A2-6-4000	600	4.0	3¾	3 5/16	4	34.60
A2-6-5000	600	5.0	4 5/16	3¾	3½	41.65

BATHTUB CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H	List Price
A3-0-50	50	.05	1⅛	1	½	$ 4.35
A3-0-100	50	.10	1⅛	1	½	4.50
A3-0-250	50	.25	1⅛	1	½	4.65
A3-0-500	50	.50	1⅛	1	1	5.10
A3-0-1000	50	1.0	1¾	1	¾	8.10
A3-1-50	100	.05	1⅛	1	½	5.25
A3-1-100	100	.10	1⅛	1	½	5.35
A3-1-250	100	.25	1⅛	1	1	5.45
A3-1-500	100	.50	1¾	1	¾	6.00
A3-1-1000	100	1.0	1¾	1	1	9.50
A3-2-50	200	.10	1¾	1	¾	5.35
A3-2-100	200	.05	1¾	1	¾	5.25
A3-2-250	200	.25	2	1¾	⅞	5.45
A3-2-500	200	.50	2	1¾	⅞	6.10
A3-2-1000	200	1.0	2	2	1¼	9.60
A3-4-10	400	1.0	1¾	1	¾	5.15
A3-4-20	400	.02	1¾	1	¾	5.15
A3-4-50	400	.05	1¾	1	¾	5.25
A3-4-100	400	.10	1¾	1	¾	5.35
A3-4-250	400	.25	2	1¾	⅞	5.45
A3-4-500	400	.50	2	1¾	⅞	7.20
A3-4-1000	400	1.0	2	2	1¼	14.50
A3-6-10	600	.01	1¾	1	¾	5.15
A3-6-20	600	.02	1¾	1	¾	5.15
A3-6-50	600	.05	1¾	1	¾	5.25
A3-6-100	600	.10	1¾	1	1	5.35
A3-6-250	600	.25	2	1¾	⅞	5.45
A3-6-500	600	.50	2	2	1¼	7.20

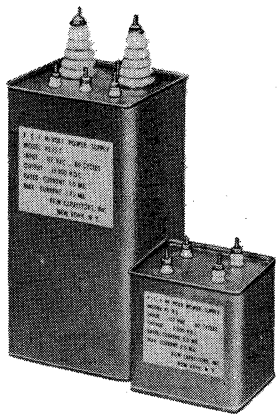
F-C-I TEFLON CAPACITORS

F-C-I Teflon capacitors, available in all capacity and voltage ranges, are essentially identical to polystyrene capacitors in their electrical characteristics, with one important difference—Teflon capacitors may be operated at temperatures up to 200°C, whereas polystyrene capacitors have a maximum operating temperature of 85°C. Furthermore, the insulation resistance of Teflon capacitors is many times that of polystyrene at elevated temperatures.

SOLID STATE HIGH VOLTAGE PACKAGED POWER SUPPLIES

Completely enclosed and hermetically sealed power supplies operating on 115 volt, 60 or 400 cycle, AC input. Output ranges from 2,000 vdc to 50,000 vdc. Standard sizes as follows: Non-standard supplies available upon request.

PART No.	OUTPUT VOLTAGE	RATED CURRENT OUTPUT	MAX. CURRENT OUTPUT
PS—2S	2 KVDC	5 MA	7.5 MA
PS—5S	5 KVDC	5 MA	7.5 MA
PS—12S	12 KVDC	1 MA	1.75 MA
PS—15S	15 KVDC	1 MA	1.75 MA
PS—20S	20 KVDC	1 MA	1.75 MA
PS—30S	30 KVDC	1 MA	1.75 MA
PS—50S	50 KVDC	1 MA	1.75 MA



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FILM CAPACITORS, INC.

F-C-I HIGH VOLTAGE CAPACITORS

F-C-I Type D-6 capacitors employ a newly developed plastic film, plus Kraft paper dielectric which, with suitable processing, produces capacitors which are better, smaller and cheaper than could ever be produced before. F-C-I Type D-6 capacitors are suitable for practically every type of high voltage D-C application. Type D-6 capacitors can be used up to 125°C with proper derating. With these capacitors available, it is no longer necessary to stock groups of units each outstanding in only one property. F-C-I Type D-6 capacitors are furnished in steatite tubes with hermetically sealed metal end caps and either threaded studs or wire leads. Sizes not listed here can be furnished upon request. Ask for our quotation.

FURNISHED IN STEATITE CASES — NO BREAKAGE... NO LEAKAGE

Cat. No.	Capacity MFD.	Working Volts DC	Dimensions Dia.	Dimensions L	List Price
D6-6-10	.01	600	½	1⅜	$ 3.10
D6-6-20	.02	600	½	1⅜	3.10
D6-6-50	.05	600	½	1⅜	3.20
D6-6-100	.10	600	11/16	1⅜	3.30
D6-6-250	.25	600	11/16	2⅜	3.50
D6-6-500	.50	600	1	2⅜	3.90
D6-6-1000	1.00	600	1¼	2⅜	4.20
D6-10-10	.01	1000	½	1⅜	3.20
D6-10-20	.02	1000	½	1⅜	3.20
D6-10-50	.05	1000	11/16	1⅜	3.20
D6-10-100	.10	1000	11/16	2⅜	3.40
D6-10-250	.25	1000	⅞	2⅜	3.40
D6-10-500	.50	1000	1	2⅜	3.70
D6-20-2	.002	2000	½	1⅜	3.50
D6-20-5	.005	2000	½	1⅜	3.50
D6-20-10	.01	2000	½	1⅜	3.50
D6-20-20	.02	2000	½	1⅜	3.60
D6-20-50	.05	2000	11/16	1⅜	3.90
D6-20-100	.10	2000	11/16	2⅜	4.00
D6-20-250	.25	2000	1	2⅜	4.50
D6-20-500	.50	2000	1¼	2⅜	5.20
D6-30-2	.002	3000	½	1⅜	4.30
D6-30-5	.005	3000	½	1⅜	4.30
D6-30-10	.01	3000	½	1⅜	4.50
D6-30-20	.02	3000	11/16	1⅜	5.10
D6-30-50	.05	3000	11/16	2⅜	5.50
D6-30-100	.10	3000	⅞	2⅜	6.00
D6-30-250	.25	3000	1¼	2⅜	6.60
D6-50-5	.005	5 KV	⅝	1 11/16	6.50
D6-50-10	.01	5 KV	¾	1 11/16	6.80
D6-50-20	.02	5 KV	¾	2 9/16	7.20
D6-50-50	.05	5 KV	⅞	2 9/16	7.60
D6-50-100	.10	5 KV	1¼	2 9/16	8.50
D6-75-1	.001	7½ KV	⅝	1 11/16	6.50
D6-75-2	.002	7½ KV	⅝	1 11/16	6.80
D6-75-5	.005	7½ KV	¾	1 11/16	7.00
D6-75-10	.01	7½ KV	¾	2 9/16	7.50
D6-75-20	.02	7½ KV	⅞	2 9/16	8.60
D6-75-50	.05	7½ KV	1¼	2 9/16	11.00
D6-75-100	.10	7½ KV	1½	2 9/16	12.50

Cat. No.	Capacity MFD.	Working Volts DC	Dimensions Dia.	Dimensions L	List Price
D6-100-1	.001	10 KV	⅝	1 11/16	$ 7.20
D6-100-2	.002	10 KV	⅝	1 11/16	7.40
D6-100-5	.005	10 KV	⅝	2 9/16	8.50
D6-100-10	.01	10 KV	⅞	2 9/16	9.20
D6-100-20	.02	10 KV	1	2 9/16	11.40
D6-100-50	.05	10 KV	1½	2 9/16	14.60
D6-150-1	.001	15 KV	⅝	2⅜	13.80
D6-150-2	.002	15 KV	⅞	2⅜	14.60
D6-150-5	.005	15 KV	⅞	2 9/16	17.00
D6-150-10	.01	15 KV	1¼	2 9/16	20.00
D6-150-20	.02	15 KV	1¼	4¾	22.00
D6-150-50	.05	15 KV	1½	4¾	26.00
D6-200-05	.0005	20 KV	⅝	2⅜	18.00
D6-200-1	.001	20 KV	¾	2⅜	19.00
D6-200-2	.002	20 KV	¾	2 9/16	21.00
D6-200-5	.005	20 KV	1	2 9/16	22.50
D6-200-10	.01	20 KV	1½	2 9/16	24.00
D6-200-20	.02	20 KV	1½	4¾	27.00
D6-300-02	.0002	30 KV	⅝	3	21.00
D6-300-05	.0005	30 KV	⅝	3	21.00
D6-300-1	.001	30 KV	⅞	3	23.50
D6-300-2	.002	30 KV	¾	4¾	26.00
D6-300-5	.005	30 KV	1¼	4¾	28.00
D6-300-10	.01	30 KV	1¼	6⅞	35.00
D6-400-01	.0001	40 KV	⅝	3	22.50
D6-400-02	.0002	40 KV	⅝	3	22.50
D6-400-05	.0005	40 KV	¾	3	22.50
D6-400-1	.001	40 KV	¾	4¾	26.00
D6-400-2	.002	40 KV	1	4¾	28.00
D6-400-5	.005	40 KV	1½	4¾	33.00
D6-500-01	.0001	50 KV	⅝	4¼	23.50
D6-500-02	.0002	50 KV	⅝	4¼	23.50
D6-500-05	.0005	50 KV	¾	4¼	24.50
D6-500-1	.001	50 KV	¾	6⅞	28.00
D6-500-2	.002	50 KV	⅞	6⅞	31.50
D6-500-5	.005	50 KV	1¼	6⅞	36.00
D6-600-01	.0001	60 KV	⅝	4¼	24.50
D6-600-02	.0002	60 KV	⅝	4¼	24.50
D6-600-05	.0005	60 KV	⅞	4¼	28.00
D6-600-1	.001	60 KV	⅞	6⅞	34.00
D6-600-2	.002	60 KV	1¼	6⅞	36.50
D6-600-5	.005	60 KV	1¼	13	41.50

FCI TYPE MMS METALLIZED MYLAR CAPACITORS (Glass Button Seal Terminals with Metal Shells)

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
200	MMS 2-01	.010	.235 x ¾
	MMS 2-022	.022	.235 x ¾
	MMS 2-033	.033	.235 x ¾
	MMS 2-047	.047	.312 x ⅞
	MMS 2-1	.1	.312 x ⅞
	MMS 2-22	.22	.400 x ⅞
	MMS 2-33	.33	.400 x 1⅛
	MMS 2-47	.47	.500 x 1⅛
	MMS 2-1.M	1.0	.562 x 1⅛
	MMS 2-1.5M	1.5	.562 x 1⅛
	MMS 2-2.M	2.0	.670 x 1⅝
	MMS 2-3.M	3.0	.670 x 1⅞
	MMS 2-4.M	4.0	.750 x 1⅞
	MMS 2-5.M	5.0	1.00 x 1⅞
	MMS 2-6.M	6.0	1.00 x 1⅞
	MMS 2-8.M	8.0	1.00 x 1⅞
	MMS 2-10.M	10.0	1.00 x 2⅜
	MMS 2-12.M	12.0	1.00 x 2⅝

• Standard tolerance plus or minus 20%. Tolerances to 1% are also available.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
400	MMS 4-01	.010	.312 x ⅞
	MMS 4-022	.022	.312 x ⅞
	MMS 4-033	.033	.312 x 1⅛
	MMS 4-047	.047	.400 x 1⅛
	MMS 4-1	.1	.500 x 1⅛
	MMS 4-22	.22	.562 x 1⅜
	MMS 4-33	.33	.562 x 1⅝
	MMS 4-47	.47	.670 x 1⅝
	MMS 4-1.M	1.0	.750 x 1⅞
	MMS 4-1.5M	1.5	1.00 x 1⅞
	MMS 4-2.M	2.0	1.00 x 1⅞
	MMS 4-3.M	3.0	1.00 x 2⅝

• For flat mylar wrap types specify MMMF.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
600	MMS 6-01	.010	.312 x ⅞
	MMS 6-022	.022	.312 x 1⅛
	MMS 6-033	.033	.312 x 1⅛
	MMS 6-047	.047	.400 x 1⅛
	MMS 6-1	.1	.500 x 1⅛
	MMS 6-22	22	.562 x 1⅜
	MMS 6-33	.33	.562 x 1⅜
	MMS 6-47	.47	.670 x 1⅝
	MMS 6-1.M	1.0	1.00 x 1⅞
	MMS 6-1.5M	1.5	1.00 x 1⅞
	MMS 6-2.M	2.0	1.00 x 2⅛
	MMS 6-2.5M	2.5	1.00 x 2⅝

• For round mylar wrap types specify MMMR.

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FILM CAPACITORS, INC.

MINIATURE MYLAR® CAPACITORS

HERMETICALLY SEALED — CLOSE TOLERANCE

F-C-I miniature "Mylar" capacitors are furnished in metal shells hermetically sealed with metal-steatite compression type seals. The capacitor elements are non-inductively wound, and wire leads are carefully soldered to the swedged, extended foils to minimize self-inductance, power factor and noise. The Mylar dielectric capacitors are characterized by high insulation resistance (10⁶ megohm-microfarads at 20°C); 0.5% power factor; and a temperature coefficient of +500 PPM/°C.

PART No.	CAP. MFD.	SIZE L	SIZE D	LIST PRICE
100 VWDC				
HD4-1-10	.01	1	.235	$2.25
HD4-1-15	.015	1	.235	2.25
HD4-1-22	.022	1	.235	2.25
HD4-1-33	.033	1	.312	2.25
HD4-1-47	.047	1	.312	2.25
HD4-1-68	.068	1	.400	2.35
HD4-1-100	.10	1	.400	2.40
HD4-1-220	.22	1 3/8	.400	2.60
HD4-1-330	.33	1 3/8	.562	2.65
HD4-1-470	.47	1 3/8	.562	2.75
HD4-1-1000	1.0	1 3/8	.670	3.40
200 VWDC				
HD4-2-10	.01	1	.235	2.25
HD4-2-15	.015	1	.235	2.25
HD4-2-22	.022	1	.312	2.25
HD4-2-33	.033	1	.312	2.25
HD4-2-47	.047	1	.400	2.35
HD4-2-68	.068	1	.400	2.40
HD4-2-100	.10	1 3/8	.400	2.55
HD4-2-220	.22	1 3/8	.562	2.65
HD4-2-330	.33	1 3/8	.670	2.70
HD4-2-470	.47	1 7/8	.670	4.10
HD4-2-1000	1.0	1 7/8	1.00	4.70

PART No.	CAP. MFD.	SIZE L	SIZE D	LIST PRICE
400 VWDC				
HD4-4-10	.01	1	.312	2.90
HD4-4-15	.015	1	.312	2.90
HD4-4-22	.022	1	.400	3.00
HD4-4-33	.033	1	.400	3.05
HD4-4-47	.047	1 3/8	.400	3.05
HD4-4-68	.068	1 3/8	.400	3.40
HD4-4-100	.10	1 3/8	.562	3.45
HD4-4-220	.22	1 7/8	.670	4.00
HD4-4-330	.33	1 7/8	.750	4.15
HD4-4-470	.47	1 7/8	1.00	4.50
HD4-4-1000	1.0	2 3/8	1.00	5.70
600 VWDC				
HD4-6-10	.01	1	.400	3.65
HD4-6-15	.015	1	.400	3.70
HD4-6-22	.022	1 3/8	.400	3.75
HD4-6-33	.033	1 3/8	.400	3.80
HD4-6-47	.047	1 3/8	.562	3.85
HD4-6-68	.068	1 3/8	.562	3.90
HD4-6-100	.10	1 3/8	.670	4.00
HD4-6-220	.22	1 7/8	1.00	5.00
HD4-6-330	.33	1 7/8	1.00.	6.00
HD4-6-470	.47	2 3/8	1.00	7.00

The capacitors listed above are suitable for continuous operation at 125° C without derating. For 85° C operation. 100 volt series HD capacitors may be operated at 200 volts; 200 volt capacitors at 400 volts; 400 volt capacitors at 600 volts; and 600 volt capacitors at 1000 volts. To correctly designate 85° C capacitors, omit the letter "H" in the part number, and correct the single number standing for the voltage rating.

Prices listed above are for ±5% tolerance. For ±2% tolerance, add 20% and for ±1% tolerance, add 50% to these prices. These capacitors are also available in ceramic shells with epoxy resin end fill. Write for prices.

We are set up to produce these capacitors in any quantity to any odd value of capacitance at close tolerance for manufacturers of filter networks, R-C networks and the like. Write for information.

HIGH CAPACITANCE MYLAR® CAPACITORS

HERMETICALLY SEALED — HIGH INSULATION RESISTANCE

F-C-I Series D-2 capacitors are Mylar dielectric capacitors which possess extremely high insulation resistance, together with good power factor and dielectric absorption. The insulation resistance runs well over 10⁶ megohm-microfarads at room temperature, even for the highest values of capacitance. The power factor and the dielectric absorption are both on the order of 0.5%. These properties make Series D-2 capacitors extremely useful in computers of moderate precision, in timing circuits, and similar types of circuitry. Standard tolerance is ±10%, and closer tolerances are available on order. (Case sizes indicated below are in inches.) (D3 indicates bathtub case and D2 CP70 cases.)

CAP. MFD.	100 VWDC CASE SIZE L W H	100 VWDC LIST PRICE	200 VWDC CASE SIZE L W H	200 VWDC LIST PRICE	300 VWDC CASE SIZE L W H	300 VWDC LIST PRICE	400 VWDC CASE SIZE L W H	400 VWDC LIST PRICE	600 VWDC CASE SIZE L W H	600 VWDC LIST PRICE
0.5 CAT #	1 3/4 1 3/4 D3-1-500	$ 3.00	1 3/4 1 3/4 D3-2-500	$ 3.00	1 3/4 1 1 D3-3-500	$ 3.20	1 3/4 1 1 D3-4-500	$ 3.38	1 3/4 1 1 D3-6-500	$ 3.38
1.0 CAT #	1 3/4 1 3/4 D3-1-1000	3.12	1 3/4 1 1 D3-2-1000	3.12	1 3/4 1 1 5/8 D2-3-1000	4.95	1 3/4 1 2 1/4 D2-4-1000	5.37	1 3/4 1 2 3/4 D2-6-1000	5.50
2.0 CAT #	1 3/4 1 1 D3-1-2000	4.00	1 3/4 1 1 5/8 D2-2-2000	5.12	1 3/4 1 2 1/4 D2-3-2000	6.35	1 3/4 1 3 1/4 D2-4-2000	6.60	2 1/2 1 1/4 3 1/2 D2-6-2000	7.60
5.0 CAT #	1 3/4 1 2 3/4 D2-1-5000	6.35	1 3/4 1 3 1/4 D2-2-5000	7.00	2 1/2 1 1/4 3 1/2 D2-3-5000	9.50	3 3/4 1 1/4 2 1/2 D2-4-5000	11.25	3 3/4 1 1/4 5 D2-6-5000	11.25
10.0 CAT #	2 1/2 1 1/4 3 1/2 D2-1-10000	11.00	2 1/2 1 1/4 3 1/2 D2-2-10000	11.60	3 3/4 1 3/4 3 1/4 D2-3-10000	17.75	3 3/4 1 3/4 4 D2-4-10000	19.75	3 3/4 1 3/4 5 D2-6-10000	24.70
20.0 CAT #	3 3/4 1 3/4 2 1/2 D2-1-20000	18.80	3 3/4 1 3/4 3 1/4 D2-2-20000	20.30	4 5/16 3 3/4 3 D2-3-20000	29.40	4 5/16 3 3/4 4 D2-4-20000	32.50	4 5/16 3 3/4 4 1/2 D2-6-20000	42.50
25.0 CAT #	3 3/4 1 3/4 3 1/4 D2-1-25000	22.20	3 3/4 1 3/4 4 D2-2-25000	23.70	4 5/16 3 3/4 3 1/2 D2-3-25000	36.10	4 5/16 3 3/4 4 D2-4-25000	39.00	4 5/16 3 3/4 5 D2-6-25000	51.50

Trade Discount Applies to List Prices Only

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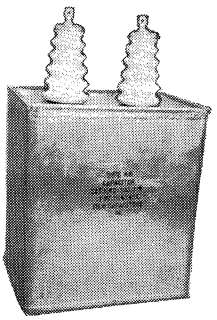
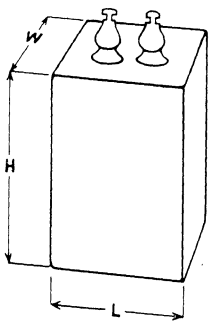
FILM CAPACITORS, INC.

HIGH VOLTAGE
TYPE KM-2 CAPACITORS—85 C OPERATION
WITH SOLDER-SEAL CERAMIC BUSHINGS

F-C-I Type KM-2 series capacitors has been designed specifically to meet the need for smaller, more reliable capacitors that will withstand the severe operating conditions encountered in military and industrial electronic equipment. The dielectric employed is a combination of synthetic polyester film and the finest grade capacitor tissue. Capacitor cases are of CP70 rectangular construction. Units will meet the applicable MIL-C-25C specifications. Solder seal terminals with lugs are used for easy connections and true hermetic sealing. Capacity tolerance is 10%, with an insulation resistance of 20,000 megohm-microfarads. Specify type KMH-2 for operating temperatures up to 125°C. Case sizes for the KMH-2 and engineering data for both series are available upon request. CP07 mounting brackets are available for all sizes.





Cat. No.	μf	L	W	H
	1000 VOLTS D-C			
KM-2-10-500	0.5	1¾	1	1⅝
KM-2-10-1M	1.0	1	1¾	2¼
KM-2-10-2M	2.0	1	1¾	3¼
KM-2-10-4M	4.0	1¼	2½	4¼
KM-2-10-6M	6.0	1¼	3¾	4¾
KM-2-10-8M	8.0	1¾	3¾	3⅞
KM-2-10-10M	10.0	1¾	3¾	4¾
KM-2-10-12M	12.0	2¼	3¾	4½
KM-2-10-15M	15.0	2½	3¾	4¾
	1500 VOLTS D-C			
KM-2-15-100	0.1	1	1¾	1⅝
KM-2-15-250	0.25	1	1¾	1⅝
KM-2-15-500	0.5	1	1¾	2¼
KM-2-15-1M	1.0	1	1¾	3⅞
KM-2-15-2M	2.0	1¼	2½	4¼
KM-2-15-4M	4.0	1¾	3¾	4¼
KM-2-15-6M	6.0	3⅜	3¾	4½
KM-2-15-8M	8.0	4⅜	3¾	4⅜
KM-2-15-10M	10.0	4⅜	3¾	5⅛
KM-2-15-12M	12.0	4⅜	3¾	6
KM-2-15-15M	15.0	4⅜	3¾	8
	2000 VOLTS D-C			
KM-2-20-2M	2.0	1¼	3¾	4¼
KM-2-20-4M	4.0	2¼	3¾	4½
KM-2-20-6M	6.0	3¼	3¾	4¾
KM-2-20-8M	8.0	4⅜	3¾	4⅜
KM-2-20-10M	10.0	4⅜	3¾	5½
KM-2-20-12M	12.0	4⅜	3¾	6
KM-2-20-15M	15.0	4⅜	3¾	9⅝
	2500 VOLTS D-C			
KM-2-25-2M	2.0	1¼	3¾	4¾
KM-2-25-4M	4.0	2¼	3¾	4¾
KM-2-25-6M	6.0	4⅜	3¾	4⅜
KM-2-25-8M	8.0	4⅜	3¾	5⅛
KM-2-25-10M	10.0	4⅜	3¾	6
KM-2-25-12M	12.0	4⅜	3¾	7½

Cat. No.	μf	L	W	H
	3000 VOLTS D-C			
KM-2-30-1M	1.0	1¼	3¾	3¼
KM-2-30-2M	2.0	2¼	3¾	3⅜
KM-2-30-4M	4.0	3⅜	3¾	4½
KM-2-30-6M	6.0	4⅜	3¾	4¾
	4000 VOLTS D-C			
KM-2-40-1M	1.0	1¼	3¾	4¼
KM-2-40-2M	2.0	2¼	3¾	4½
KM-2-40-4M	4.0	4⅜	3¾	4¾
	5000 VOLTS D-C			
KM-2-50-100	0.1	1	1¾	2⅞
KM-2-50-250	0.25	1	1¾	3¼
KM-2-50-500	0.5	1¼	3¾	3¼
KM-2-50-1M	1.0	1¾	3¾	3⅞
KM-2-50-2M	2.0	2½	3¾	5¾
	6000 VOLTS D-C			
KM-2-60-100	0.1	1	1¾	3¼
KM-2-60-250	0.25	1¼	2½	3½
KM-2-60-500	0.5	1¼	3¾	3½
KM-2-60-1M	1.0	2¼	3¾	4¾
KM-2-60-2M	2.0	3⅜	3¾	4½
	7500 VOLTS D-C			
KM-2-75-100	0.1	1¼	2½	3½
KM-2-75-250	0.25	1¼	3¾	3⅞
KM-2-75-500	0.5	2¼	3¾	4½
KM-2-75-1M	1.0	3⅜	3¾	4⅜
KM-2-75-2M	2.0	4⅜	3¾	7½
	10,000 VOLTS D-C			
KM-2-100-100	0.1	1¼	3¾	3½
KM-2-100-250	0.25	2¼	3¾	3⅞
KM-2-100-500	0.5	2¼	3¾	4⅜
KM-2-100-1M	1.0	4⅜	3¾	5½
	12,500 VOLTS D-C			
KM-2-125-100	0.1	2¼	3¾	2⅜
KM-2-125-250	0.25	2¼	3¾	4
KM-2-125-500	0.5	4⅜	3¾	4
KM-2-125-1M	1.0	4⅜	3¾	7

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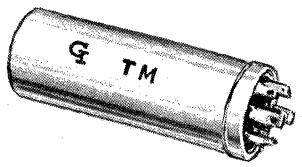
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TM TWIST-MOUNT ELECTROLYTICS

Designed for 85° C operation. Available in single, dual, triple and quadruple capacitors units. Assembled in aluminum containers providing protection against moisture. Easy to mount, low leakage, long shelf life. Highly dependable. For use in applications where high temperatures, voltage, surges, and ripple currents are encountered; as in radio and television receivers, amplifiers and similar equipment. Packaged in new Vu-Pak especially designed for the new General Instrument Capac-O-Mat.



Stock No. TMS	Former Stock No. TMS	Capacity	Voltage	Diameter	Length	Net*
1010	1	1000	6	1⅜	2	1.41
1020	2	2000	6	1⅜	2	1.50
1030	3	3000	10	1⅜	2½	2.16
1040	4	1000	15	1	2½	1.50
1050	5	2000	15	1⅜	2½	2.04
1060	6	3000	15	1⅜	3	2.07
1070	7	4000	15	1⅜	3½	2.22
1080	8	50	25	1	2	.99
1090	9	100	25	1	2	.96
1100	73	250	25	1	2	1.14
1110	10	500	25	1	2	1.50
1120	11	1000	25	1⅜	2	2.10
1130	12	100	50	1	2	.99
1140	13	150	50	1	2	1.08
1150	14	250	50	1	2½	1.17
1160	15	500	50	1⅜	2	1.56
1170	16	1000	50	1⅜	3½	2.22
1180		1500	50	1⅞	4	2.28
1190	17	20	150	1	2	1.05
1200	18	30	150	1	2	.90
1210	19	40	150	1	2	1.17
1220	20	50	150	1	2	.96
1230	21	80	150	1	2	1.08
1240	22	100	150	1	2	1.17
1250	23	120	150	1	2½	1.26
1260	76	120	150	1⅜	2	1.26
1270	24	140	150	1	3	1.26
1280	25	150	150	1	3	1.26
1285		150	150	1⅜	2	1.26
1290	26	200	150	1⅞	2½	1.44
1300	27	300	150	1⅜	3	1.65
1310	77	40	175	1	2	.99
1320	78	50	175	1	2	1.02
1330	79	80	175	1	2	1.14
1340	80	100	175	1	2	1.23
1350	81	120	175	1	2½	1.29
1360	82	140	175	1	3	1.32
1370	83	150	175	1	3	1.32
1380	84	200	175	1⅞	2½	1.50
1390	85	300	175	1⅜	3	1.71
1400		160	200	1⅜	2½	1.86
1410	74	5	250	1	2	.81
1420	28	15	250	1	2	1.14
1430	29	20	250	1	2	.93
1440	30	30	250	1	2	1.26
1450	31	40	250	1	2	1.05
1460	32	60	250	1	2½	1.50
1470	33	80	250	1	3	1.59
1480	34	150	250	1⅞	2½	1.83
1490	75	200	250	1⅜	3½	2.16
1500	35	15	300	1	2	1 17
1510	36	30	300	1	2	1.29
1520	37	40	300	1	2½	1.11
1530	38	50	300	1	2½	1.50
1540	39	80	300	1	3	1.50
1550	40	100	300	1	3	1.71
1560	41	125	300	1⅜	3	2.07
1570	42	150	300	1⅞	3	2.07
1580	89	200	300	1⅜	3½	1.71
1590		250	300	1⅜	4	3.30
1600	43	15	350	1	2	1.20
1610	44	30	350	1	2½	1.11
1620	45	40	350	1	2½	1.17
1630	46	50	350	1	3	1.23
1640		60	350	1	3	1.29
1650	47	80	350	1⅜	2½	1.68
1660	48	125	350	1⅜	3	2.34
1670	86	300	350	1⅞	5	3.45
1680	49	10	400	1	2	1.11
1690	50	20	400	1	2	1.29
1700	51	40	400	1	3	1.86
1710	52	80	400	1⅜	2½	2.19
1720		4	450	1	2	.81
1730	53	10	450	1	2	.90
1740	54	15	450	1	2	.99
1750	55	20	450	1	2	1.08
1760	56	30	450	1	2½	1.14

Stock No. TMS	Former Stock No. TMS	Capacity	Voltage	Diameter	Length	Net*
1770	57	40	450	1	3	1.20
1780	58	50	450	1	3	1.38
1790	59	60	450	1⅜	2½	1.53
1800	60	80	450	1⅜	3	1.80
1810	61	100	450	1⅞	3	2.04
1820		125	450	1⅜	3½	2.28
1830	62	150	450	1⅜	4	2.52
1840	87	200	450	1⅜	5	3.60
1850	88	250	450	1⅞	5	4.05
1860	66	10	500	1	2	.99
1870	67	20	500	1	2½	1.08
1880	68	30	500	1	3	1.17
1890	69	40	500	1	3½	1.47
1900	70	80	500	1⅜	3½	1.89
1910	71	90	500	1⅞	3½	2.07
1920	72	10	525	1	2	1.02

Stock No. TMD	Former Stock No. TMD	Capacity	Voltage	Diameter	Length	Net*
2005	64	250-1000	10-6	1⅜	2	1.68
2010	1	1000-500	10-10	1⅞	2	2.40
2015	2	1000-1000	15-15	1	3	2.61
2020		1000-1000	15-15	1⅜	2	2.61
2025	109	500-100	16-16	1	2	2.31
2030	3	40-40	25-25	1	2	1.17
2035		100-70	25-25	1	2	1.05
2040	4	150-50	25-25	1	2	1.41
2045	5	50-50	50-50	1	2	.99
2050	107	100-100	50-50	1	2	1.23
2055	94	50-500	150-5	1	3	1.44
2060	65	50-150	150-25	1	2	1.62
2065		150-100	150-25	1⅜	2	1.59
2070	66	40-20	150-50	1	2	1.50
2075	6	20-20	150-150	1	2	.99
2080	7	30-15	150-150	1	2	1.29
2085	8	30-30	150-150	1	2	1.08
2090	9	40-20	150-150	1	2	1.08
2095	10	40-30	150-150	1	2	1.08
2100	11	40-40	150-150	1	2	1.11
2105	12	50-30	150-150	1	2	1.17
2110	13	50-50	150-150	1	2	1.26
2115	14	60-20	150-150	1	2	1.47
2120	15	60-60	150-150	1	2½	1.38
2125		70-30	150-150	1	2½	1.29
2130		75-75	150-150	1	2½	1.53
2135	16	80-40	150-150	1	2½	1.35
2140	17	80-50	150-150	1	2½	1.41
2145	18	80-80	150-150	1	3	1.56
2150	87	100-30	150-150	1⅜	2½	1.65
2155	19	100-100	150-150	1⅞	2½	2.40
2160		125-100	150-150	1⅜	2½	1.98
2165		200-5	150-150	1⅜	2½	1.59
2170	20	200-125	150-150	1⅞	3	2.22
2180		200-150	150-150	1⅜	3½	2.22
2185	21	200-200	150-150	1⅜	3	2.37
2190	105	100-100	175-175	1⅞	2½	1.86
2195	106	200-200	175-175	1⅜	3	2.46
2200		60-60	200-200	1	3	2.01
2205	22	60-60	200-200	1⅜	2	2.01
2210		100-100	200-200	1⅞	3	2.07
2215	67	40-20	250-25	1	2	1.20
2220	68	40-25	250-50	1	2	1.23
2225	69	100-150	250-50	1⅜	3	2.16
2230	23	10-10	250-250	1	2	1.26
2235	24	20-20	250-250	1	2	1.11
2240	25	30-30	250-250	1	2	1.62
2245	26	40-20	250-250	1	2½	1.62
2250	27	40-40	250-250	1	3	1.47
2255	28	150-150	250-250	1⅜	4	3.06
2260	88	200-200	250-250	1⅞	4	3.60
2265		35-500	300-6	1	2½	1.65
2270		10-40	300-50	1	2	.99
2275	111	150-100	300-150	1⅜	4	3.36
2280	97	60-10	300-200	1	3	1.86
2285	96	200-5	300-200	1⅞	3	2.10
2290	98	20-60	300-250	1	3	2.04

Net

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMD	Former Stock No. TMD	Capacity	Voltage	Diameter	Length	Net*
2295	29	20-20	300-300	1	2	1.23
2300	30	30-30	300-300	1⅜	2½	1.47
2310		40-30	300-300	1	3	1.56
2315	31	40-40	300-300	1⅜	2½	2.22
2320	32	60-60	300-300	1⅜	2½	2.52
2325	104	80-40	300-300	1⅜	3	2.64
2330	33	80-80	300-300	1⅜	3	2.40
2340	110	80-200	300-300	1⅜	4½	3.27
2350	34	120-20	300-300	1⅜	3	2.37
2355		120-40	300-300	1⅜	3	2.58
2360	70	20-20	350-25	1	2	1.41
2365	71	40-25	350-25	1	2½	1.74
2370		15-15	350-350	1	2	1.32
2375	35	20-20	350-350	1	2½	1.71
2380	36	30-20	350-350	1	3	1.92
2385	37	30-30	350-350	1	3	1.71
2390	38	40-40	350-350	1⅜	2½	1.77
2395	39	50-30	350-350	1⅜	2½	1.86
2400		60-30	350-350	1⅜	2½	1.86
2405		80-20	350-350	1⅜	2½	2.07
2410		80-40	350-350	1⅜	3	2.43
2415	40	80-80	350-350	1⅜	3	2.79
2420		90-40	350-350	1⅜	3	2.55
2425	108	100-60	350-350	1⅜	4	2.85
2430	89	100-80	350-350	1⅜	3½	2.94
2435		100-100	350-350	1⅜	4	3.66
2440	90	160-10	350-350	1⅜	3½	2.55
2445		35-100	400-50	1	3	1.53
2450	99	40-100	400-50	1	3½	2.01
2455		100-30	400-50	1⅜	3	2.31
2460		80-80	400-200	1⅜	3½	2.34
2465	100	60-80	400-250	1⅜	3½	2.91
2470	41	15-15	400-400	1	2	1.65
2475	42	30-10	400-400	1	2	1.74
2480	43	40-40	400-400	1⅜	3	2.04
2485	44	60-60	400-400	1⅜	3	3.27
2490	45	80-10	400-400	1⅜	3	2.52
2495		80-60	400-400	1⅜	3	2.79
2500	91	120-40	400-400	1⅜	4	3.12
2510	72	10-20	450-25	1	2	.99
2515	73	20-20	450-25	1	2	1.47
2520	74	40-20	450-25	1	3	1.80
2525	75	80-20	450-25	1⅜	3	2.52
2530	101	20-25	450-50	1	2½	1.68
2535		40-100	450-50	1	3½	1.65
2540		50-100	450-50	1⅜	2½	1.77
2545	76	80-50	450-50	1⅜	3	2.07
2550		80-100	450-50	1⅜	3	2.22
2555	102	100-50	450-50	1⅜	3	2.25
2560	77	20-100	450-100	1⅜	2	2.16
2565	78	30-40	450-150	1⅜	2	2.16
2570		30-200	450-150	1⅜	3	2.07
2575		20-50	450-250	1	3	1.65
2580	103	20-200	450-250	1⅜	3	2.70
2585		40-10	450-300	1	3	1.53
2590	79	20-80	450-350	1⅜	3	2.70
2595	80	40-10	450-350	1⅜	2	1.53
2600	46	4-4	450-450	1	2	.93
2605		5-5	450-450	1	2	.99
2610	47	10-10	450-450	1	2	1.11
2615	48	15-15	450-450	1	2½	1.32
2620	49	20-10	450-450	1	2½	1.32
2625	50	20-20	450-450	1	3	1.50
2630		30-10	450-450	1	3	1.41
2635	51	30-15	450-450	1	3	1.95
2640	52	30-30	450-450	1⅜	2½	1.80
2645	53	40-20	450-450	1⅜	2½	1.92
2650	54	40-40	450-450	1⅜	3	2.04
2655		50-50	450-450	1⅜	3	2.28
2660	55	60-20	450-450	1⅜	3	2.10
2665	56	60-40	450-450	1⅜	3	2.34
2670		60-60	450-450	1⅜	3½	2.67
2675	57	80-10	450-450	1⅜	3	2.13
2680		80-20	450-450	1⅜	3	2.31
2685		80-30	450-450	1⅜	3½	2.49
2690	58	80-40	450-450	1⅜	3½	3.00
2695	59	80-80	450-450	1⅜	4	2.85
2700		100-40	450-450	1⅜	4	2.88
2705		20-100	475-400	1⅜	3½	2.67
2710		15-15	475-475	1	2½	1.38
2715		30-10	475-475	1	3	1.53
2720		40-10	475-475	1⅜	2½	1.83
2725		80-50	474-475	1⅜	4	3.09
2730	81	80-50	500-50	1⅜	3½	2.82
2735	82	60-80	500-150	1⅜	3½	2.79
2740	83	40-50	500-200	1⅜	2½	2.49
2745	84	15-20	500-300	1	2½	1.71
2750	85	20-100	500-300	1⅜	3	2.91
2755	60	10-10	500-500	1	2½	1.14
2760	61	20-20	500-500	1⅜	2½	1.68
2765		30-10	500-500	1⅜	2½	1.53
2770		30-30	500-500	1⅜	3	1.92
2775	92	40-10	500-500	⅜	3	1.89
2780	62	40-40	500-500	1⅜	3½	2.55
2785	63	60-40	500-500	1⅜	3½	2.73
2790	93	80-50	500-500	1⅜	3½	3.06

Stock No. TMD	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Net*
3003	1	20-20-20	25-25-25	1	2	1.14
3006	2	40-40-40	25-25-25	1	2	1.89
3009	3	30-30-30	50-50-50	1	2	1.92
3012	49	100-50-25	100-25-25	1	3	1.59
3015	50	20-250-100	150-15-15	1⅛	2	2.58
3018	51	40-25-130	150-25-15	1	3	2.94
3021	166	15-15-1200	150-150-2	1	2	1.86
3024	52	30-20-200	150-150-10	1	2	1.44
3027	53	30-30-200	150-150-10	1	2	2.22
3030		40-20-150	150-150-10	1	2	1.41
3033	54	40-20-250	150-150-10	1	2	2.40
3036	208	80-20-200	150-150-10	1	2½	2.55
3039		80-30-300	150-150-10	1⅜	2	1.86
3042	209	80-60-250	150-150-10	1	3	1.77
3045	168	90-40-400	150-150-10	1	3	3.12
3048		100-80-200	150-150-10	1⅜	2	2.13
3051	55	20-20-20	150-150-25	1	2	1.95
3054	56	30-30-20	150-150-25	1	2	2.04
3057	57	40-20-20	150-150-25	1	2	1.35
3060	58	40-20-100	150-150-25	1	2	2.22
3063	59	40-20-200	150-150-25	1	2½	1.59
3066	60	40-30-20	150-150-25	1	2	2.10
3069	61	40-40-20	150-150-25	1	2	1.41
3072	169	40-40-200	150-150-25	1	3	1.65
3075		40-40-250	150-150-25	1	3	1.86
3078	62	50-30-20	150-150-25	1	2	1.47
3081	63	50-30-100	150-150-25	1	3	1.59
3084	64	50-50-20	150-150-25	1	2½	1.56
3087	65	60-20-20	150-150-25	1	2	2.28
3090	66	60-40-20	150-150-25	1	2½	1.59
3093		60-40-200	150-150-25	1	3	1.80
3096	206	60-60-175	150-150-25	1⅛	2	1.98
3097	67	80-40-20	150-150-25	1	2½	1.65
3100		80-40-300	150-150-25	1⅜	2½	2.16
3103	170	100-40-300	150-150-25	1⅜	2½	2.25
3106	68	120-60-20	150-150-25	1⅜	2½	3.00
3109	204	10-15-15	150-150-150	1	2	1.62
3112	4	20-20-20	150-150-150	1	2	1.35
3115	5	30-30-10	150-150150	1	2	1.68
3118	6	40-20-10	150-150-150	1	2	1.38
3121	7	40-20-20	150-150-150	1	2	1.41
3124	8	40-30-20	150-150-150	1	2	1.47
3127	9	40-40-40	150-150-150	1	2½	1.53
3130	162	50-40-10	150-150-150	1	2	1.50
3133	10	50-50-50	150-150-150	1	3	1.74
3136	11	60-40-20	150-150-150	1	2½	1.62
3139		70-15-150	150-150-150	1	2	1.59
3142	12	70-40-40	150-150-150	1	3	2.40
3145		80-30-10	150-150-150	1	2½	1.62
3148	13	80-40-20	150-150-150	1	2½	1.71
3151	14	80-80-80	150-150-150	1⅜	3	3.36
3154		100-30-10	150-150-150	1	2½	1.80
3160	15	120-80-40	150-150-150	1⅜	3	2.25
3163	163	120-120-40	150-150-150	1⅜	3½	2.40
3166		200-100-60	150-150-150	1⅜	3	2.70
3169		200-150-150	150-150-150	1¾	3½	4.47
3172	203	120-120-40	175-175-175	1⅜	3½	2.52
3175	171	60-140-200	200-150-150	1⅜	4	2.85
3178	69	30-20-20	200-200-25	1	2	2.04
3181	172	60-5-20	200-200-50	1	3	1.47
3184		80-10-20	200-200-50	1	3	1.65
3187	70	100-10-40	200-200-50	1⅛	2	2.82
3190		30-20-40	200-200-150	1	2½	1.59
3193	71	80-40-50	250-150-50	1⅜	2½	1.38
3196	72	15-15-20	250-250-25	1	2	1.38
3199	73	20-15-20	250-250-25	1	2	2.10
3202	74	30-30-20	250-250-25	1	3	1.65
3205	75	70-70-20	250-250-50	1⅜	3	3.48
3208	173	90-90-20	250-250-50	1¾	3	2.73
3211	76	40-20-10	250-250-150	1⅜	2	2.46
3214	16	15-15-10	250-250-250	1	2	2.19
3217	17	20-20-10	250-250-250	1	2	2.22
3220		20-20-20	250-250-250	1	2	1.53
3223	18	30-20-10	250-250-250	1	2½	2.40

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Net

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMT	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Net*
3226	19	40-20-10	250-250-250	1⅜	2	2.55
3229	20	40-20-20	250-250-250	1	3	1.71
3232		80-10-10	250-250-250	1	3	1.89
3235	21	80-80-60	250-250-250	1⅜	3½	2.91
3238		10-500-500	300-15-15	1⅜	2½	2.31
3241	77	100-60-20	300-150-25	1⅜	3	3.75
3244		20-150-80	300-150-150	1⅜	3	2.37
3247		100-200-30	300-150-150	1⅜	4	3.09
3250	174	100-200-60	300-150-150	1⅜	4	2.97
3253	78	30-30-20	300-250-25	1	3	1.89
3256		100-60-20	300-250-250	1⅜	3½	2.91
3259	175	200-60-20	300-250-250	1⅜	4	3.27
3262	79	20-20-20	300-300-25	1	2½	2.46
3265	80	40-15-20	300-300-25	1	2½	2.64
3268	81	30-30-25	300-300-50	1	3	2.58
3271	210	80-60-40	300-300-50	1⅜	3½	5.79
3274	176	100-10-60	300-300-50	1⅜	2½	2.40
3277	211	125-60-40	300-300-50	1⅜	4	4.38
3280	212	140-100-60	300-300-50	1⅜	3½	5.43
3283		200-20-10	300-300-100	1⅜	4	2.91
3286	177	140-10-200	300-300-150	1⅜	4½	2.94
3289	82	10-10-15	300-300-250	1	2	2.19
3292	22	10-10-10	300-300-300	1	2	1.41
3295	23	40-40-40	300-300-300	1⅜	3	2.34
3298	24	60-20-10	300-300-300	1⅜	2½	2.04
3301	25	80-20-10	300-300-300	1⅜	2½	3.39
3304		80-40-40	300-300-300	1⅜	2½	2.82
3307		120-50-40	300-300-300	1⅜	4	3.48
3310	26	120-60-40	300-300-300	1⅜	4	3.45
3313	178	4-100-40	350-25-25	1	2	2.01
3316	213	200-50-50	350-25-25	1	2	2.25
3319	83	20-50-100	350-100-75	1	3	1.83
3322	84	10-50-100	350-150-50	1	3	1.68
3325	179	125-5-100	350-200-75	1⅜	3½	3.15
3328	85	50-10-500	350-250-5	1⅜	2½	3.30
3331	180	10-80-25	350-300-25	1	3½	3.03
3334	87	30-30-20	350-300-25	1	3	1.86
3337	181	40-40-30	350-300-250	1⅜	2½	2.58
3340	88	10-10-20	350-350-25	1	2	2.01
3343	89	15-10-20	350-350-25	1	2	1.47
3346	90	15-15-20	350-350-25	1	2	2.40
3349		20-5-100	350-350-25	1	3	1.53
3352	91	20-10-20	350-350-25	1	2	1.50
3355	92	20-20-20	350-350-25	1	2½	1.71
3358	93	30-10-20	350-350-25	1	2½	2.73
3361	94	30-20-20	350-350-25	1	3	1.83
3364	95	30-30-20	350-350-25	1⅜	2	2.01
3367	96	40-40-25	350-350-25	1⅜	2½	2.16
3370	97	40-40-50	350-350-25	1⅜	2½	3.36
3373	182	90-40-50	350-350-25	1⅜	3½	4.38
3376		200-10-50	350-350-25	1⅜	4	3.12
3379	98	10-5-150	350-350-50	1	3	.40
3382	183	20-5-30	350-350-50	1	2	1.47
3385		20-5-150	350-350-50	1	3	1.74
3388		20-10-100	350-350-50	1⅜	2	1.71
3392	214	80-40-100	350-350-50	1⅜	5	3.12
3395	184	150-4-30	350-350-50	1⅜	3½	2.82
3398		30-20-100	350-350-150	1⅜	2½	2.37
3401	99	40-20-10	350-350-150	1	3	1.89
3404	215	30-5-100	350-350-200	1⅜	2½	3.33
3407		80-40-100	350-350-200	1⅜	4	3.24
3410	207	100-60-20	350-350-200	1⅜	4	3.27
3413		20-10-5	350-350-250	1	2	1.50
3417	100	30-10-20	350-350-250	1	3	2.73
3420	86	30-20-10	350-350-250	1	3	2.61
3423	27	10-10-10	350-350-350	1	2	1.44
3426	28	20-20-10	350-350-350	1	3	2.64
3429	205	30-20-10	350-350-350	1⅜	2½	1.92
3432	216	30-30-30	350-350-350	1	2½	1.98
3435	29	60-40-20	350-350-350	1	3	2.52
3438		60-50-50	350-350-350	1⅜	3½	2.91
3441	30	80-60-60	350-350-350	1⅜	4	3.30
3444	164	90-40-20	350-350-350	1⅜	4	3.12
3447	165	100-100-10	350-350-350	1⅜	4	3.42
3450	101	60-40-20	400-300-25	1⅜	3½	3.75
3453	102	10-40-10	400-300-150	1⅜	2	1.74
3456	103	80-20-10	400-300-300	1⅜	3½	3.81
3459	217	10-4-20	400-350-25	1	2	2.07
3462	104	10-50-30	400-350-25	1	3	2.76
3465	105	15-15-40	400-400-25	1	2½	2.49
3468	106	20-20-20	400-400-25	1	3	1.68
3471	107	20-10-40	400-400-50	1	3	2.37
3474	108	30-10-150	400-400-50	1⅜	2½	3.03
3477	185	40-10-200	400-400-50	1⅜	3½	2.31
3480	109	80-40-150	400-400-50	1⅜	4	3.12

Stock No. TMT	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Net*
3483	186	100-10-20	400-400-50	1⅜	3½	2.67
3486		20-20-10	400-400-350	1	3	1.77
3489		60-30-20	400-400-350	1⅜	3	2.70
3492		80-20-10	400-400-350	1⅜	3	2.55
3495	187	100-10-80	400-400-350	1⅜	4½	3.63
3498	31	10-10-10	400-400-400	1	2½	1.41
3501		90-10-5	400-400-400	1⅜	3	2.61
3504	188	20-500-500	450-25-25	1⅜	3½	3.15
3507	110	30-100-25	450-25-25	1⅜	2	2.64
3510	189	80-100-20	450-50-50	1⅜	3	3.81
3513	111	10-50-100	450-150-25	1	3	2.46
3516	112	40-40-130	450-150-50	1⅜	3	2.19
3519	113	40-100-50	450-150-50	1⅜	2½	3.54
3522		10-50-100	450-150-75	1	3	1.92
3525	114	40-90-50	450-150-150	1⅜	3	2.37
3528	115	20-60-100	450-250-25	1⅜	2½	2.16
3531		10-80-80	450-250-250	1⅜	3	2.46
3534	116	20-40-10	450-250-250	1⅜	2	2.82
3537		80-40-40	450-250-250	1⅜	3½	2.85
3540		10-40-10	450-300-150	1⅜	2	1.83
3543	117	10-40-20	450-300-150	1⅜	2	1.86
3546		5-80-40	450-300-300	1⅜	3	2.46
3549	118	20-15-10	450-300-300	1	3½	2.55
3552	119	10-10-20	450-350-25	1	2	2.04
3555	190	10-100-25	450-350-25	1⅜	3	2.43
3558		30-15-40	450-350-25	1⅜	2	1.89
3561	120	30-40-50	450-350-25	1	4	2.19
3564	121	20-80-100	450-350-50	1⅜	3½	4.02
3567	191	20-80-50	450-350-300	1⅜	3	2.04
3570	122	40-50-50	450-350-300	1⅜	3½	4.35
3573		20-40-10	450-350-350	1⅜	2½	2.07
3576		20-80-10	450-350-350	1⅜	3	2.52
3577		40-80-40	450-350-350	1⅜	3½	3.21
3580	192	50-80-10	450-350-350	1⅜	3½	4.38
3583	123	30-50-40	450-400-25	1⅜	3	3.48
3586		60-80-20	450-400-250	1⅜	4	3.24
3589	124	10-30-30	450-400-300	1⅜	2½	3.00
3592		10-10-10	450-450-25	1	2	1.41
3595	125	10-10-20	450-450-25	1	2	1.41
3598	126	15-15-20	450-450-25	1	2½	2.40
3601		15-15-40	450-450-25	1	2½	1.62
3604	127	20-10-20	450-450-25	1	2½	1.59
3607	128	20-15-20	450-450-25	1	3	2.58
3610	129	20-20-20	450-450-25	1	3	1.80
3613	130	30-30-20	450-450-25	1⅜	2½	2.10
3616		30-30-125	450-450-25	1⅜	3	2.34
3619	131	30-30-150	450-450-25	1⅜	3	2.43
3622	132	40-20-20	450-450-25	1⅜	2½	2.07
3625	133	40-40-20	450-450-25	1⅜	3	2.31
3628	134	40-40-40	450-450-25	1⅜	3	2.34
3631	135	80-10-125	450-450-25	1⅜	3½	2.64
3634	136	80-40-100	450-450-25	1⅜	4	3.00
3637	137	10-10-40	450-450-50	1	2½	1.47
3640	138	20-10-50	450-450-50	1	3	1.68
3643		30-10-150	450-450-50	1⅜	2½	2.07
3646		30-15-150	450-450-50	1⅜	3	2.19
3649	139	30-30-40	450-450-50	1⅜	3	3.27
3652		35-25-150	450-450-50	1⅜	3	2.34
3655	140	40-10-100	450-450-50	1⅜	3	2.55
3658	141	40-40-100	450-450-50	1⅜	3½	2.55
3661		60-40-75	450-450-50	1⅜	3½	2.76
3664		80-20-100	450-450-50	1⅜	3½	2.85
3667	142	10-10-50	450-450-100	1⅜	2	2.37
3670	143	30-20-30	450-450-150	1⅜	2½	3.12
3673	144	40-40-40	450-450-150	1⅜	3½	2.46
3676	145	40-10-80	450-450-200	1⅜	3	2.31
3679		40-10-100	450-450-200	1⅜	3	2.46
3682		40-40-60	450-450-200	1⅜	3	2.64
3685		40-40-100	450-450-200	1⅜	3½	2.94
3688	146	15-10-120	450-450-300	1⅜	3½	4.20
3691	147	15-15-10	450-450-300	1	3	2.55
3694	148	15-5-15	450-450-350	1	3	2.55
3697	149	20-20-60	450-450-350	1⅜	3	4.53
3700	150	40-40-10	450-450-350	1⅜	2	1.98
3703		40-40-80	450-450-350	1⅜	4	3.30
3706	218	50-5-50	450-450-350	1⅜	3	2.19
3709	193	60-40-20	450-450-400	1⅜	3½	3.03
3712	32	10-10-10	450-450-450	1	2½	1.53
3715	33	15-15-10	450-450-450	1	3	2.64
3718		15-15-15	450-450-450	1	3	1.83
3721		20-10-10	450-450-450	1	3	1.71
3724	34	20-20-20	450-450-450	1⅜	2½	2.13
3727		30-10-10	450-450-450	1⅜	2	1.86
3730		30-20-20	450-450-450	1⅜	2½	2.28
3733	35	30-30-30	450-450-450	1⅜	3½	2.58

Net

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMS	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Net*
3736	36	40-10-10	450-450-450	1⅜	3	1.98
3739	37	40-30-20	450-450-450	1⅜	3	2.55
3742	38	40-40-10	450-450-450	1⅜	3	2.46
3745	39	40-40-20	450-450-450	1⅜	3	2.64
3748	40	40-40-40	450-450-450	1⅜	3½	2.91
3751		50-40-30	450-450-450	1⅜	3½	2.91
3754	41	60-20-20	450-450-450	1⅜	3½	2.73
3757	42	60-30-10	450-450-450	1⅜	3	2.67
3760		60-40-20	450-450-450	1⅜	3½	2.97
3763	43	80-40-20	450-450-450	1⅜	4	3.21
3766	194	20-50-20	475-50-25	1	3	1.62
3769		80-80-50	475-150-50	1⅜	3½	2.88
3772	195	10-100-40	475-200-50	1⅜	2½	3.00
3775	196	40-40-100	475-250-100	1⅜	3	3.66
3778	219	5-100-200	475-300-150	1⅜	4	4.65
3781	197	10-100-25	475-350-25	1⅜	3	3.30
3784	220	10-4-100	475-350-50	1	2½	2.31
3787	198	20-10-5	475-350-150	1⅜	2½	2.49
3790	199	10-4-40	475-350-250	1⅜	2	1.62
3793		10-40-100	475-450-200	1⅜	3	2.49
3796	200	10-45-100	475-450-200	1⅜	3	2.52
3799		40-80-10	475-450-450	1⅜	3½	3.27
3802		20-10-100	475-475-50	1⅜	2	1.92
3805		20-10-100	475-475-400	1⅜	3½	3.12
3808		20-20-60	475-475-450	1⅜	3	2.88
3811		30-30-20	475-475-475	1⅜	3	2.64
3814		40-30-10	475-475-475	1⅜	3	2.55
3817		40-30-30	500-200-50	1⅜	2½	3.06
3820	151	10-100-40	475-475-475	1⅜	3½	3.00
3823	152	40-40-100	500-250-50	1⅜	3	3.84
3826	153	20-20-40	500-300-25	1⅜	2	2.76
3829	201	20-40-100	500-300-25	1⅜	2½	3.21
3832	202	10-80-10	500-350-350	1⅜	3	2.91
3835	154	40-40-25	500-400-50	1⅜	3	3.84
3838	155	10-10-100	500-500-50	1	3	2.55
3841	156	20-10-100	500-500-50	1⅜	3	1.95
3844	157	30-10-20	500-500-50	1⅜	2½	2.76
3847	158	40-40-100	500-500-200	1⅜	4	3.45
3850	159	10-10-5	500-500-350	1	2½	2.22
3853	160	20-20-60	500-500-400	1⅜	3½	2.85
3856	45	10-10-10	500-500-500	1	3	1.59
3859		30-20-20	500-500-500	1⅜	3	2.49
3862	46	30-30-20	500-500-500	1⅜	3	2.64
3865	47	40-10-10	500-500-500.	1⅜	3	2.31
3868	48	40-40-10	500-500-500	1⅜	4	3.00

Stock No. TMQ	Former Stock No. TMQ	Capacity	Voltage	Diameter	Length	Net*
4001		50-20-150-30	150-150-15-15	1⅜	2	1.86
4004		20-20-160-40	150-150-25-25	1⅜	2	1.89
4007	20	40-40-40-40	150-150-25-25	1⅜	2	1.83
4010	21	40-40-100-100	150-150-25-25	1⅜	2	3.00
4013		50-40-160-40	150-150-25-25	1⅜	2	2.10
4016	22	30-20-20-200	150-150-150-150	1⅜	2	2.76
4019	23	40-40-20-20	150-150-150-10	1⅜	2	1.89
4022	24	60-40-20-200	150-150-150-10	1⅜	2	2.04
4025	25	20-20-20-20	150-150-150-25	1⅜	2	2.58
4028		30-30-30-40	150-150-150-25	1⅜	2	1.83
4031	26	30-30-30-50	150-150-150-25	1⅜	2	1.74
4034	27	40-20-20-20	150-150-150-25	1⅜	2	1.74
4037	28	40-40-30-20	150-150-150-25	1⅜	2	1.83
4040	29	40-40-40-20	150-150-150-25	1⅜	2	1.86
4043	30	40-40-40-100	150-150-150-25	1⅜	2	3.00
4047	31	40-40-40-160	150-150-150-25	1⅜	2	2.10
4050	124	50-10-40-50	150-150-150-25	1⅜	2	1.92
4053		50-20-20-200	150-150-150-25	1⅜	2	2.07
4056	32	50-30-30-100	150-150-150-25	1⅜	2	2.01
4059	33	50-50-50-20	150-150-150-25	1⅜	2	2.07
4062	125	60-60-10-60	150-150-150-25	1⅜	2	3.12
4065	34	75-75-75-30	150-150-150-25	1⅜	3	2.58
4068	35	80-40-30-100	150-150-150-25	1⅜	2½	3.30
4071		80-40-40-20	150-150-150-25	1⅜	2	2.10
4074	36	80-40-40-40	150-150-150-25	1⅜	2	2.13
4077	37	80-40-40-100	150-150-150-25	1⅜	2½	2.22
4080		100-90-60-200	150-150-150-25	1⅜	3	2.94
4083	126	200-250-10-25	150-150-150-25	1⅜	3½	3.18
4086	188	200-200-100-10	150-150-150-75	1⅜	4	3.54
4089	1	40-40-40-30	150-150-150-150	1⅜	2	1.95
4092	115	100-80-60-40	150-150-150-150	1⅜	3	2.76
4095	38	40-20-10-20	250-250-250-25	1⅜	2	2.49
4098	39	100-40-10-100	250-250-250-50	1⅜	3½	3.06
4101	40	80-60-40-20	250-250-250-150	1⅜	3½	4.56
4104	116	40-40-40-40	250-250-250-250	1⅜	2½	2.76
4107	41	100-40-80-20	300-50-25-25	1⅜	2½	4.08

Stock No. TMQ	Former Stock No. TMQ	Capacity	Voltage	Diameter	Length	Net*
4110	42	20-150-150-100	300-150-150-30	1⅜	4	3.15
4113	43	10-200-140-30	300-150-150-150	1⅜	4	3.03
4116		10-200-200-30	300-150-150-150	1⅜	4	3.18
4119	127	100-60-10-20	300-200-150-50	1⅜	3	2.88
4122	44	120-20-100-20	300-250-50-25	1⅜	4	4.71
4125	45	200-20-100-20	300-250-50-25	1⅜	5	3.45
4128	189	80-5-60-20	300-300-150-25	1⅜	3	2.55
4131	185	140-10-10-100	300-300-150-50	1⅜	4	3.00
4134	46	100-10-200-30	300-300-150-150	1⅜	4	3.51
4137		150-20-10-250	300-300-250-50	1⅜	4	3.60
4140	47	60-40-20-50	300-300-300-25	1⅜	3½	2.79
4143	129	150-20-10-250	300-300-300-50	1⅜	4	3.60
4146	190	150-30-30-150	300-300-300-50	1⅜	4	2.91
4149	48	40-40-40-20	300-300-300-150	1⅜	3	3.21
4152		120-40-40-10	300-300-300-250	1⅜	4	3.75
4155	2	40-20-10-10	300-300-300-300	1⅜	2	2.34
4158	3	40-40-20-10	300-300-300-300	1⅜	2½	2.70
4161		40-40-30-20	300-300-300-300	1⅜	3	2.88
4164	4	60-40-10-10	300-300-300-300	1⅜	3½	2.70
4167	191	100-20-20-4	300-300-300-300	1⅜	3½	3.15
4170	120	120-40-40-10	300-300-300-300	1⅜	4	3.30
4173	118	200-20-20-20	300-300-300-300	1⅜	4	3.72
4176	49	20-150-80-20	350-150-150-25	1⅜	3	4.08
4179	50	40-50-20-80	350-150-150-50	1⅜	3	3.63
4182	51	15-80-40-200	350-200-200-25	1⅜	3	4.02
4185	130	20-100-100-10	350-200-200-100	1⅜	4	4.47
4188		20-150-10-250	350-300-150-50	1⅜	4	3.63
4191	52	20-40-10-250	350-300-150-150	1⅜	3	2.76
4194		30-30-50-100	350-300-300-75	1⅜	3	3.12
4197	180	160-60-10-4	350-300-300-300	1⅜	4	3.75
4200	131	40-10-100-25	350-350-25-25	1⅜	2½	2.22
4203	132	60-4-100-40	350-350-25-25	1⅜	2½	2.25
4205	133	140-40-50-30	350-350-50-50	1⅜	4	3.81
4208		60-20-80-100	350-350-150-150	1⅜	4	2.91
4211	134	40-10-100-100	350-350-200-50	1⅜	3½	3.15
4214	135	100-60-60-40	350-350-200-75	1⅜	4	3.75
4217	136	60-40-60-20	350-350-200-150	1⅜	3½	3.00
4220	192	100-80-10-20	350-350-300-50	1⅜	4	3.27
4223		20-10-5-10	350-350-350-25	1⅜	2	1.83
4226	54	20-10-5-20	350-350-350-25	1⅜	2	1.83
4229	53	20-10-10-20	350-350-350-25	1⅜	2	1.83
4232		30-10-5-200	350-350-350-25	1⅜	2	2.25
4235	55	30-20-20-20	350-350-350-25	1⅜	2½	3.66
4238	56	40-20-20-25	350-350-350-25	1⅜	2½	3.81
4241	57	40-40-20-20	350-350-350-25	1⅜	3	2.76
4244		40-40-30-10	350-350-350-25	1⅜	3	2.94
4247	58	40-40-40-40	350-350-350-25	1⅜	3	3.09
4250	59	15-15-15-50	350-350-350-50	1⅜	2	3.36
4253	60	40-30-10-50	350-350-350-50	1⅜	3	3.81
4256	61	40-40-40-150	350-350-350-50	1⅜	3½	3.36
4259	137	60-25-25-100	350-350-350-50	1⅜	3½	4.62
4262		60-30-30-150	350-350-350-50	1⅜	3	3.75
4265	181	70-40-10-50	350-350-350-50	1⅜	3	3.12
4268		100-10-10-20	350-350-350-50	1⅜	3½	3.06
4271		100-20-10-20	350-350-350-50	1⅜	3½	3.21
4274	138	100-40-30-50	350-350-350-50	1⅜	4	3.90
4277	193	140-20-10-100	350-350-350-50	1⅜	4	5.52
4280	139	60-30-30-150	350-350-350-75	1⅜	4	3.33
4283	140	90-30-5-100	350-350-350-75	1⅜	3½	3.66
4286		30-10-5-100	350-350-350-200	1⅜	2½	2.70
4289	182	30-20-5-100	350-350-350-200	1⅜	3	2.79
4292	5	10-10-10-10	350-350-350-350	1⅜	2	2.76
4295		40-20-20-10	350-350-350-350	1⅜	2½	2.58
4298		40-40-40-40	350-350-350-350	1⅜	4	3.54
4301	6	80-10-10-10	350-350-350-350	1⅜	3	3.57
4304		80-60-40-20	350-350-350-350	1⅜	4	3.81
4307		90-40-30-30	350-350-350-350	1⅜	4	4.05
4310	194	130-40-20-10	350-350-350-350	1⅜	4½	3.39
4313		40-120-10-150	400-250-250-50	1⅜	4	3.51
4316	141	10-100-10-100	400-300-75-25	1⅜	3	4.20
4319	142	30-40-50-200	400-300-250-150	1⅜	4	5.37
4322	143	80-40-20-10	400-300-300-300	1⅜	4	4.98
4325	144	20-10-10-20	400-350-200-25	1⅜	2	2.85
4328	145	40-80-100-20	400-350-200-50	1⅜	4	3.54
4331	146	40-10-80-10	400-350-250-250	1⅜	3	4.17
4334	195	20-10-80-20	400-350-350-25	1⅜	3	3.93
4337	62	10-50-30-30	400-350-350-25	1⅜	3	3.93
4340		20-50-40-80	400-350-350-50	1⅜	3	2.97
4343	147	50-25-100-20	400-400-50-25	1⅜	3	4.17
4346		50-40-100-100	400-400-50-25	1⅜	4	3.03
4349	183	100-10-30-20	400-400-50-50	1⅜	3½	3.03
4352		20-10-20-25	400-400-200-25	1⅜	2	2.25
4358	148	10-10-40-10	400-400-200-50	1⅜	2	2.85
4361	63	40-10-80-10	400-400-250-250	1⅜	3½	4.20
4364	64	5-5-50-80	400-400-300-250	1⅜	3	4.17
4367		50-20-20-25	400-400-350-25	1⅜	3	2.64
4370	65	60-40-40-10	400-400-350-50	1⅜	3½	5.16
4373	196	100-10-20-20	400-400-350-50	1⅜	3	3.24
4376	184	80-40-10-20	400-400-400-25	1⅜	4	3.15

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Net

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMQ	Former Stock No. TMQ	Capacity	Voltage	Diameter	Length	Net*
4379	149	80-40-30-40	400-400-400-25	1⅜	4	3.54
4382		90-20-10-50	400-400-400-50	1⅜	4	3.21
4385	150	80-40-30-4	400-400-400-350	1⅜	4	3.51
4388	7	30-30-20-20	400-400-400-400	1⅜	3	4.35
4391	119	40-40-30-30	400-400-400-400	1⅜	4	3.39
4394		50-40-30-20	400-400-400-400	1⅜	4	3.36
4397	8	80-25-10-10	400-400-400-400	1⅜	3½	3.12
4400	151	10-80-40-100	450-200-200-50	1⅜	3	3.81
4403	66	20-80-20-50	450-200-200-50	1⅜	3	2.43
4406	152	40-40-40-20	450-250-250-25	1⅜	3	3.99
4409		60-80-40-20	450-250-250-150	1⅜	4	3.36
4412	153	60-30-100-25	450-300-50-50	1⅜	3½	3.06
4415		10-100-10-100	450-300-75-25	1⅜	3	2.82
4418	154	10-100-10-100	450-300-150-25	1⅜	3	2.88
4421	158	10-40-60-100	450-300-250-50	1⅜	3½	2.70
4424	67	10-100-20-20	450-300-300-25	1⅜	3½	2.94
4427		25-100-10-60	450-300-300-50	1⅜	3	3.15
4430	155	30-100-10-60	450-300-300-50	1⅜	3½	3.15
4433	156	40-40-40-20	450-300-300-150	1⅜	3	2.91
4436		10-100-20-20	450-300-300-200	1⅜	3	3.00
4439	157	10-100-20-20	450-300-300-300	1⅜	3	4.71
4442		10-40-100-100	450-350-250-50	1⅜	3	3.30
4445	68	10-60-40-25	450-450-350-25	1⅜	3½	2.73
4448	69	10-100-10-20	450-350-350-25	1⅜	3	3.12
4451	159	20-80-50-100	450-350-350-50	1⅜	4	3.57
4454	70	30-40-40-10	450-350-350-200	1⅜	3½	4.62
4457	160	40-30-10-10	450-350-350-300	1⅜	3	2.79
4460	71	80-10-30-40	450-400-300-150	1⅜	4	4.71
4463		80-10-40-30	450-400-300-300	1⅜	4	3.45
4466	161	5-60-50-20	450-400-350-25	1⅜	3½	4.53
4469	72	10-10-20-20	450-450-25-25	1⅜	2	2.64
4472		20-15-20-20	450-450-25-25	1⅜	2	2.04
4475	73	20-20-20-20	450-450-25-25	1⅜	2	2.10
4478	74	30-30-125-125	450-450-25-25	1⅜	3	2.88
4481		20-20-60-100	450-450-150-25	1⅜	2½	2.52
4484		40-40-125-125	450-450-150-25	1⅜	4	3.39
4487	75	10-10-60-100	450-450-200-50	1⅜	3	2.28
4490	76	35-25-20-100	450-450-200-50	1⅜	3	2.76
4493		40-40-100-60	450-450-200-200	1⅜	4	3.60
4496	77	20-20-30-30	450-450-350-350	1⅜	3½	4.11
4499	78	40-10-35-10	450-450-350-350	1⅜	3	4.11
4502	79	40-40-30-30	450-450-350-350	1⅜	4	3.51
4505	80	10-10-10-20	450-450-450-25	1⅜	2	1.86
4508	81	10-10-10-100	40-450-450-25	1⅜	2	2.91
4511	82	20-10-10-100	450-450-450-25	1⅜	2	3.30
4514	83	20-20-20-20	450-450-450-25	1⅜	3	2.46
4517	84	30-15-15-40	450-450-450-25	1⅜	2½	3.72
4520	85	30-20-20-20	450-450-450-25	1⅜	3	3.83
4523	86	30-30-10-20	450-450-450-25	1⅜	3	3.90
4526	163	30-30-10-125	450-450-450-25	1⅜	3	2.79
4529	87	30-30-20-20	450-450-450-25	1⅜	3	4.17
4532	88	40-10-10-250	450-450-450-25	1⅜	3	4.20
4535	89	40-20-10-20	450-450-450-25	1⅜	3	3.81
4538	90	40-20-20-20	450-450-450-25	1⅜	3	2.73
4541	91	40-20-20-40	450-450-450-25	1⅜	3	2.76
4544	92	40-30-210-20	450-450-450-25	1⅜	3	2.67
4547		40-40-10-20	450-450-450-25	1⅜	3½	2.79
4550		40-40-20-20	450-450-450-25	1⅜	3½	2.97
4553	164	40-40-40-40	450-450-450-25	1⅜	3½	3.27
4556	93	60-40-10-35	450-450-450-25	1⅜	3½	2.82
4559		60-40-40-10	450-450-450-25	1⅜	4	3.57
4562		60-50-5-20	450-450-450-25	1⅜	4	3.18
4565		80-40-40-40	450-450-450-25	1⅜	4	3.84
4568	94	10-10-10-150	450-450-450-50	1⅜	3	2.70
4571	95	20-20-20-100	450-450-450-50	1⅜	3	2.70
4574	96	30-30-15-30	450-450-450-50	1⅜	3	2.70
4577	97	30-30-15-100	450-450-450-50	1⅜	3½	4.38
4580	98	40-20-10-100	450-450-450-50	1⅜	3½	2.73
4583	99	40-40-10-25	450-450-450-50	1⅜	3½	2.79
4586		40-40-10-50	450-450-450-50	1⅜	4	2.85
4589		60-40-10-25	450-450-450-50	1⅜	4	3.12
4592	100	40-40-10-100	450-450-450-100	1⅜	3½	3.30
4595	101	60-10-10-20	450-450-450-150	1⅜	3	2.70
4598	102	35-35-10-10	450-450-450-200	1⅜	3	4.11
4601		40-20-10-100	450-450-450-250	1⅜	4	3.48
4604		40-10-10-40	450-450-450-350	1⅜	3	2.82
4607	9	5-5-5-5	450-450-450-450	1⅜	2	1.77
4610	10	10-10-10-10	450-450-450-450	1⅜	2	1.98
4613	11	20-10-10-10	450-450-450-450	1⅜	2½	2.19
4616	12	20-20-20-20	450-450-450-450	1⅜	2½	2.79
4619	13	30-15-15-15	450-450-450-450	1⅜	3	2.64
4622	14	30-30-15-10	450-450-450-450	1⅜	4	4.20
4625		30-30-20-20	450-450-450-450	1⅜	3½	4.20
4628	15	30-30-30-15	450-450-450-450	1⅜	3½	4.74
4631	16	35-35-10-5	450-450-450-450	1⅜	3½	2.73
4634	17	40-10-10-10	450-450-450-450	1⅜	3	2.43
4637	18	40-20-10-10	450-450-450-450	1⅜	3	2.67
4640		40-35-10-10	450-450-450-450	1⅜	3	2.85
4643		40-40-4-4	450-450-450-450	1⅜	3½	2.76
4646		40-40-20-20	450-450-450-450	1⅜	4	3.30
4649		40-40-30-30	450-450-450-450	1⅜	4	3.60
4652	120	40-40-40-40	450-450-450-450	1⅜	4	3.84
4655	121	60-20-20-20	450-450-450-450	1⅜	3½	3.36
4658		60-30-10-2	450-450-450-450	1⅜	3	3.03
4661	122	80-10-10-10	450-450-450-450	1⅜	3½	3.00
4664	165	40-40-50-80	475-250-150-50	1⅜	3½	2.97
4667	103	20-40-100-80	475-300-50-25	1⅜	3	2.64
4670	166	10-100-10-100	475-300-300-25	1⅜	3½	2.91
4673	167	20-80-20-10	475-300-300-300	1⅜	3½	2.97
4676	104	10-40-80-100	475-350-200-50	1⅜	3½	4.29
4679		20-40-80-100	475-350-200-100	1⅜	4	3.24
4682		10-40-80-100	475-350-300-100	1⅜	4	3.30
4685	168	20-40-80-100	475-350-300-100	1⅜	4	3.33
4688	169	10-30-5-80	475-350-350-50	1⅜	2½	3.30
4691	186	10-140-4-100	475-350-350-50	1⅜	4	3.48
4694	187	10-130-20-10	475-350-350-350	1⅜	4	3.57
4697		30-130-10-10	475-350-350-350	1⅜	4	3.81
4700	170	30-130-10-20	475-350-350-350	1⅜	5	3.66
4703	171	10-40-100-10	475-400-50-30	1⅜	2½	2.40
4706	172	10-40-4-100	457-400-350-50	1⅜	2½	2.40
4709	173	10-40-100-10	475-400-350-50	1⅜	2½	2.40
4710		5-70-25-5	475-400-400-400	1⅜	3½	3.00
4713	105	10-10-80-50	475-450-200-60	1⅜	3	3.45
4716	174	25-20-20-100	475-450-300-50	1⅜	3	4.11
4719	106	25-20-40-100	475-450-300-50	1⅜	3	4.44
4722	107	10-60-30-125	475-450-400-50	1⅜	4	3.30
4725		10-50-30-30	475-450-450-25	1⅜	3	2.82
4728		10-40-10-100	475-450-450-50	1⅜	2½	2.55
4731	108	15-15-80-40	475-475-300-50	1⅜	3	2.85
4734	109	40-10-4-40	475-475-350-50	1⅜	3	2.94
4737	175	50-10-30-30	475-475-450-25	1⅜	3	2.85
4740	110	10-5-80-40	475-475-450-50	1⅜	3	4.38
4743	111	40-20-10-10	475-475-475-25	1⅜	3	4.35
4746		20-20-10-10	475-475-475-300	1⅜	2½	2.55
4749		50-30-10-20	475-475-475-300	1⅜	3½	3.33
4752		20-20-10-10	475-475-475-475	1⅜	2	3.12
4755		20-20-20-20	475-475-475-475	1⅜	3	3.03
4758		40-20-10-10	475-475-475-475	1⅜	3	3.03
4761	176	5-100-10-20	500-300-300-150	1⅜	4	5.25
4764	177	30-10-150-30	500-450-50-50	1⅜	3	2.49
4767	112	30-30-10-20	500-500-450-25	1⅜	3½	2.94
4770	113	20-20-10-10	500-500-500-300	1⅜	2½	2.58
4773	114	50-30-10-20	500-500-500-300	1⅜	4	3.36
4776	19	10-10-10-10	500-500-500-500	1⅜	2	2.07
4779	123	40-20-20-20	500-500-500-500	1⅜	4	3.51
4782		40-40-8-8	500-500-500-500	1⅜	4	3.39

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE TD TYNEE-DRY ELECTROLYTICS

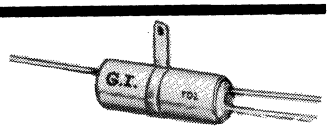
Tynee-Dry single capacitor units with 3-inch bare-wire leads. Designed for 85° C operation. Each unit sealed in metal tubular case. Supplied with insulating cardboard sleeve. Low leakage. Long shelf life. Top quality in minimum space.

Catalogue No.	Capacity in UF	Dia.*	Length*	Net Price
	6 Volts DC Working			
TD-50-6	50	½	1⅛	.57
TD-100-6	100	½	1⅛	.72
TD-250-6	250	⅝	1⅝	.81
	15 Volts DC Working			
TD-100-15	100	⅝	1¼	.75
TD-250-15	200	⅝	1⅝	.93
TD-500-15	500	¾	2	1.05
TD-1000-15	1000	⅞	2	1.38
	25 Volts DC Working			
TD-2-25	2	7/16	1⅛	.54
TD-4-25	4	7/16	1⅛	.60
TD-5-25	5	7/16	1⅛	.60
TD-10-25	10	7/16	1⅛	.60
TD-25-25	25	½	1⅛	.60
TD-50-25	50	⅝	1¼	.66
TD-100-25	100	⅝	1⅝	.81
TD-250-25	250	⅞	2	1.02
TD-500-25	500	⅞	2	1.38
	50 Volts DC Working			
TD-1-50	1	7/16	1⅛	.54
TD-2-250	2	7/16	1⅛	
TD-4-50	4	7/16	1⅛	.60
TD-5-50	5	7/16	1⅛	.60
TD-10-50	10	7/16	1⅛	.60
TD-25-50	25	⅝	1¼	.63
TD-50-50	50	⅝	1¼	.72
TD-100-50	100	¾	1⅝	.84
TD-150-50	150	¾	1⅝	.93
TD-250-50	250	⅞	1⅝	1.05
TD-500-50	500	1	2½	
	150 Volts DC Working			
TD-4-150	4	7/16	1⅛	.60
TD-8-150	8	⅝	1¼	.63
TD-10-150	10	⅝	1¼	.63
TD-12-150	12	⅝	1¼	.66
TD-16-150	16	⅝	1¼	.69
TD-20-150	20	⅝	1¼	.72
TD-30-150	30	⅝	1⅝	.78
TD-40-150	40	¾	1⅝	.81
TD-50-150	50	¾	1⅝	.84
TD-80-150	80	⅞	1⅝	.96
TD-100-150	100	⅞	2	.84
TD-150-150	150	1	2½	1.14
TD-200-150	200	1	3	1.32
TD-250-150	250	1	3	1.05
TD-300-150	300	1	3¾	1.53
	200 Volts DC Working			
TD-100-200	100	1	3	1.32
TD-150-200	150	1	3½	1.53
TD-200-200	200	1	4	1.71
	250 Volts DC Working			
TD-4-250	4	½	1⅛	.60
TD-8-250	8	⅝	1¼	.69
TD-10-250	10	⅝	1¼	.72

* For sleeve add 1/16" to diameter, 3/16" to length.

Catalogue No.	Capacity in UF	Dia.*	Length*	Net Price
TD-500-6	500	⅝	1⅝	.93
TD-1000-6	1000	¾	2	1.14
TD-1500-6	1500	¾	2	1.26
TD-2000-6	2000	1	2	1.38
TD-12-250	12	⅝	1¼	.75
TD-16-250	16	⅝	1⅝	.78
TD-20-250	20	⅝	1⅝	.81
TD-30-250	30	¾	1⅝	.87
TD-40-250	40	⅞	1⅝	.93
TD-60-250	60	⅞	2	1.08
TD-100-250	100	1⅜	3	1.62
	300 Volts DC Working			
TD-150-300	150	1	4¼	1.95
TD-200-300	200	1	4¼	2.25
	350 Volts DC Working			
TD-8-350	8	⅝	1⅝	.72
TD-12-350	12	⅝	1⅝	.78
TD-16-350	16	¾	1⅝	.84
TD-20-350	20	¾	1⅝	.87
TD-30-350	30	⅞	2	.99
TD-40-350	40	1	2	1.05
TD-60-350	60	1	2½	1.17
TD-80-350	80	1	2½	1.29
	450 Volts DC Working			
TD-2-450	2	⅝	1¼	.66
TD-4-450	4	⅝	1¼	.69
TD-8-450	8	⅝	1⅝	.75
TD-10-450	10	¾	1⅝	.78
TD-12-450	12	¾	1⅝	.81
TD-16-450	16	¾	2	.84
TD-20-450	20	⅞	2	.93
TD-30-450	30	1	2	1.02
TD-40-450	40	1	2½	1.08
TD-50-450	50	1	3	1.26
TD-80-450	80	1	3½	1.68
TD-100-450	100	1	4	1.86
	500 Volts DC Working			
TD-8-500	8	⅞	1⅝	.78
TD-10-500	10	⅞	1⅝	.84
TD-12-500	12	⅞	1⅝	.84
TD-20-500	20	1	2	.96
TD-30-500	30	1	2½	1.05
	600 Volts DC Working			
TD-8-600	8	⅞	2¾	1.23
TD-10-600	10	⅞	2¾	1.29
TD-12-600	12	1	2¾	1.41
TD-16-600	16	1	3 9/16	1.50
TD-20-600	20	1	3 9/16	1.59
	700 Volts DC Working			
TD-8-700	8	⅞	2¾	1.29
TD-10-700	10	1	2¾	1.38
TD-12-700	12	1	3 9/16	1.44
TD-16-700	16	1	3 9/16	1.56

DUAL & TRIPLE CAPACITY TYPE TDL ELECTROLYTICS



Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Length	Net Price
	150 Volts DC Working				
TDLD-1A	TDL-D10-150	10-10	¾	1⅝	.96
TDLD-3	TDL-D20-150	20-20	¾	1⅝	.99
TDLD-4	TDL-D30-150	30-30	¾	2	1.08
TDLD-5	TDL-4020-150	40-20	¾	2	1.05
TDLD-6	TDL-4030-150	40-30	¾	2	1.08
TDLD-7	TDL-D40-150	40-40	¾	2	1.11
	Dual 150 Volts DC Working				
TDLD-8	TDL-5030-150	50-30	¾	2	1.17
TDLD-9	TDL-D50-150	50-50	⅞	2	1.26
TDLD-10	TDL-8030-150	80-30	⅞	2	1.32
TDLD-11	TDL-8040-150	80-40	1	2	1.35
TDLD-12	TDL-8050-150	80-50	1	2	1.38
TDLD-13	TDL-D80-150	80-80	1	2½	1.56
TDLD-14	TDL-10050-150	100-50	1	3	1.77
TDLD-15	TDL-D100-150	100-100	1	3	1.92
TDLD-16	TDL-2005-150	200-5	1	3½	2.07
	Triple 150 Volts DC Working				
TDLT-1	TDL-T20-150	20-20-20	1	2	1.29
TDLT-2	TDL-T30-150	30-30-30	1	2	1.38
TDLT-3	TDL-403020-150	40-30-20	1	2	1.41
TDLT-4	TDL-404020-150	40-40-20	1	2	1.41
TDLT-5	TDL-T40-150	40-40-40	1	2	1.47
TDLT-6	TDL-503020-150	50-30-20	1	2	1.44
TDLT-7	TDL-804020-150	80-40-20	1	2	1.65
	Triple 250 Volts DC Working				
TDLT-8	TDL-754010-250	75-40-10	1	3	2.07
	Triple 450 Volts DS Working				
TDLT-9	TDL-T16-450	16-16-16	1	3	1.86

Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Length	Net Price
	Dual 250 Volts DC Working				
TDLD-17	TDL-D8-250	8-8	¾	1⅝	.96
TDLD-18	TDL-D16-250	16-16	¾	1⅝	1.05
TDLD-19	TDL-D20-250	20-20	¾	2	1.11
TDLD-20	TDL-D30-250	30-30	⅞	2	1.32
TDLD-21	TDL-4020-250	40-20	⅞	2	1.29
TDLD-22	TDL-D40-250	40-40	1	2	1.29
TDLD-23	TDL-8010-250	80-10	1	2	
	Dual 450 Volts DC Working				
TDLD-24	TDL-D8-450	8-8	⅞	1⅝	1.02
TDLD-25	TDL-816-450	8-16	⅞	2	1.20
TDLD-26	TDL-D10-450	10-10	⅞	2	1.35
TDLD-27	TDL-D16-450	16-16	1	2	1.32
TDLD-28	TDL-D20-450	20-20	1	2½	1.50
TDLD-29	TDL-D30-450	30-30	1	3	1.80
TDLD-30	TDL-4020-450	40-20	1	3½	1.77
TDLD-31	TDL-D40-450	40-40	1	3½	2.04
	Triple Mixed Sections Diameter 1"				
TDLT-10	TDL-8332	80-30-300	150-150-10	3	1.83
TDLT-11	TDL-222	20-20-20	150-150-20	2	1.23
TDLT-12	TDL-432	40-30-20	150-150-25	2	1.32
TDLT-13	TDL-442	40-40-20	150-150-25	2	1.29
TDLT-14	TDL-4412	40-40-100	150-150-25	3½	1.47
TDLT-15	TDL-532	50-30-20	150-150-25	2	1.38
TDLT-16	TDL-5312	50-30-100	150-150-25	2½	1.47
TDLT-17	TDL-5322	50-30-200	150-150-25	2½	1.65
TDLT-18	TDL-8212	80-20-100	150-150-25	2½	1.50
TDLT-19	TDL-552	50-50-20	150-150-25	2½	1.65
TDLT-20	TDL-44225	40-40-20	250-250-25	2½	1.74
TDLT-21	TDL-22245	20-20-20	450-450-25	2½	1.74

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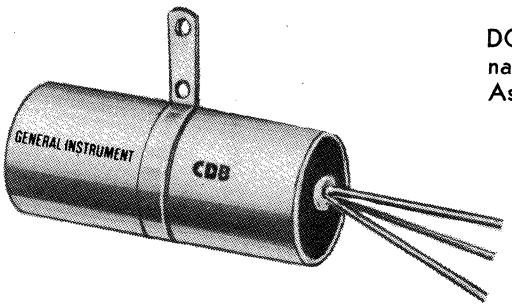
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE CDB CARTRIJ-DRY ELECTROLYTICS



DC dry electrolytic capacitors assembled in wax-filled, impregnated cardboard tubes. 8-inch flexible leads at one end. Assembled mounting strap. Low leakage. Long shelf life.

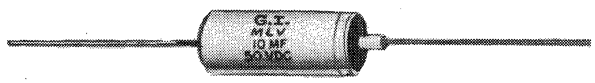
TEMPERATURE RANGE
—20° +75°C

Catalog Number	Cap. in UF	Voltage DC Working	Size in Dia.	Inches Lgth.	Net Price
CDB Dual Capacitor (Common Negative)					
CDB-D20-150CN	20-20	150-150	7/8	2	.99
-D30-150CN	30-30	150-150	1	2	1.08
-D40-150CN	40-40	150-150	1	2¼	1.11
-5030-150CN	50-30	150-150	1	2¼	1.17
-D50-150CN	50-50	150-150	1	2¼	1.26
-D-1014	150-100	300-300	1⅜	4¾	3.33
-816-450CN	8-16	450-450	1	2	1.20
-D20-450CN	20-20	450-450	1	2¾	1.50
CDB Triple Capacitor Units (Common Negative)					
CDBT-1015	200-250-10	150-150-150	1⅜	4⅛	2.37

Catalog Number	Cap. in UF	Voltage DC Working	Size in Dia.	Inches Lgth.	Net Price
CDB Triple Capacitor Units (Mixed Sections)					
CDBT-1002	80-30-20	150-150-25	1	2¾	1.65
-1009	100-200-40	300-200-200	1⅜	4½	2.85
-1011	120-40-100	300-250-50	1⅜	4⅛	2.70
CDB Quadruple Capacitor Units (Common Negative)					
CDBQ-1003	20-20-10-10	350-350-350-350	1⅛	3½	2.46
-4422	40-40-20-20	450-450-450-450	1½	4¾	3.27
CDB Quadruple Capacitor (Mixed Sections)					
CDBQ-1013	70-30-30-20	150-150-150-15	1	3½	2.19
-1001	40-40-20-20	150-150-150-25	1	3	1.86
-1008	140-5-200-30	350-350-200-200	1½	5	3.27
-1005	20-120-40-100	450-300-250-50	1½	4½	3.30

TYPE MLV HERMETICALLY-SEALED MINIATURIZED ELECTROLYTICS

Designed for —30°C to +85°C operation.
Features unit Hermetically Sealed with Specially processed rubber
Low Leakage Current
All Welded Construction
Long Shelf and Operating Life
Units supplied with plastic insulated sleeve



Cat. No.	Cap. in mfd.	Dia.*	Length*	Net
3 Volts Working D.C.				
MLV5-3	3	3/16	11/16	.75
MLV10-3	10	¼	11/16	.75
MLV15-3	15	¼	11/16	.75
MLV25-3	25	¼	11/16	.75
MLV40-3	40	¼	11/16	.75
MLV50-3	50	¼	11/16	.75
MLV100-3	100	5/16	11/16	.84
MLV150-3	150	3/8	11/16	.87
MLV200-3	200	3/8	13/16	.90
MLV250-3	250	3/8	15/16	.96
MLV300-3	300	3/8	13/16	.99
10 Volts Working D.C.				
MLV10-10	10	¼	11/16	.81
MLV15-10	15	¼	11/16	.81
MLV25-10	25	¼	11/16	.81
MLV50-10	50	3/8	11/16	.90
MLV100-10	100	3/8	13/16	1.02
MLV200-10	200	3/8	1¼	1.62
12 Volts Working D.C.				
MLV2-12	2	3/16	11/16	.75
MLV5-12	5	¼	11/16	.81
MLV10-12	10	¼	11/16	.81
MLV15-12	15	¼	11/16	.84
MLV20-12	20	¼	11/16	.84
MLV25-12	25	¼	11/16	.84
MLV40-12	40	5/16	11/16	.87
MLV50-12	50	3/8	11/16	.93
MLV100-12	100	3/8	13/16	1.05
MLV150-12	150	3/8	1¼	1.14
MLV200-12	200	3/8	1¼	1.23
15 Volts Working D.C.				
MLV5-15	5	¼	11/16	.84
MLV10-15	10	¼	11/16	.84
MLV15-15	15	¼	11/16	.87
MLV25-15	25	5/16	11/16	.87
MLV35-15	35	5/16	11/16	.93
MLV50-15	50	3/8	11/16	.96
MLV100-15	100	3/8	13/16	1.08
MLV150-15	150	3/8	1¼	1.17

Cat. No.	Cap. in mfd.	Dia.*	Length*	Net
6 Volts Working D.C.				
MLV2-6	2	3/16	11/16	.75
MLV5-6	5	¼	11/16	.75
MLV10-6	10	¼	11/16	.81
MLV15-6	15	¼	11/16	.81
MLV25-6	25	¼	11/16	.84
MLV30-6	30	¼	11/16	.84
MLV40-6	40	5/16	11/16	.84
MLV50-6	50	5/16	11/16	.84
MLV100-6	100	3/8	11/16	.90
MLV150-6	150	3/8	15/16	.93
MLV200-6	200	3/8	1¼	.96
25 Volts Working D.C.				
MLV5-25	5	¼	11/16	.84
MLV10-25	10	¼	11/16	.87
MLV15-25	15	5/16	11/16	.87
MLV25-25	25	3/8	11/16	.93
MLV50-25	50	3/8	15/16	1.08
MLV100-25	100	3/8	1½	
50 Volts Working D.C.				
MLV2-50	2	¼	11/16	.81
MLV5-50	5	¼	11/16	.87
MLV10-50	10	5/16	11/16	.90
MLV15-50	15	3/8	11/16	.90
MLV25-50	25	3/8	13/16	.90
MLV50-50	50	3/8	1½	1.11
100 Volts Working D.C.				
MLV2-100	2	3/8	11/16	.84
MLV5-100	5	3/8	13/16	.90
MLV10-100	10	3/8	15/16	.93
MLV15-100	15	3/8	1¼	.93
MLV25-100	25	3/8	1½	.96
150 Volts Working D.C.				
MLV1-150	1	3/8	15/16	.84
MLV2-150	2	3/8	15/16	.87
MLV5-150	5	3/8	15/16	.93
MLV10-150	10	3/8	1¼	.96
MLV15-150	15	3/8	1½	.96

*These units supplied with plastic insulated sleeve to listed dimension add 1/32 to diam. and 1/16 to length.
General Instrument also manufactures Electrolytics Type MLE for operation at —40°C to+85 — Write to General Instrument Sales Engineering Department for Bulletin EL-6.

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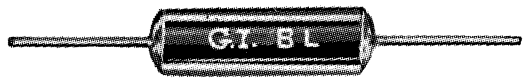
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE BL SUBMINIATURE ELECTROLYTICS

Small, inexpensive and reliable, best describe this versatile new series of Subminiature Electrolytics. For compact transistorized circuits in conventional or printed board construction. New non-conductive plastic case. End seal compounds, offer true moisture resistance. Low leakage. Long shelf life. Operating temp. —20°C to +65°C.

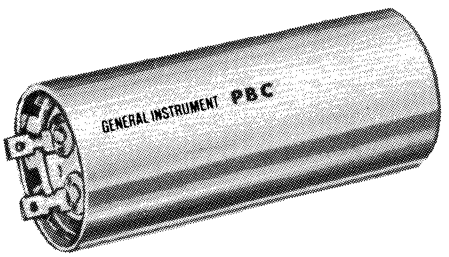


Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.
3 V. D-C. W.V. 4 V. Surge		6 V. D-C. W.V. 8 V. Surge		10 V. D-C. W.V. 12 V. Surge		15 V. D-C. W.V. 18 V. Surge		20 V. D-C. W.V. 25 V. Surge		25 V. D-C. W.V. 30 V. Surge		50 V. D-C. W.V. 60 V. Surge	
								2.	BL1050	2.	BL1160	2.	BL1270
				4.	BL1030	4.	BL1140	4.	BL1150	4.	BL1260	4.	BL1370
		5.	BL1020	5.	BL1130	5.	BL1141	5.	BL1250	5.	BL1261	5.	BL1470
6.	BL1010	6.	BL1120	6.	BL1131	6.	BL1142	6.	BL1251	6.	BL1262	6.	BL1471
8.	BL1110	8.	BL1121	8.	BL1230	8.	BL1240	8.	BL1252	8.	BL1360	8.	BL1570
10.	BL1111	10.	BL1220	10.	BL1231	10.	BL1241	10.	BL1350	10.	BL1460	10.	BL1670
12.	BL1112	12.	BL1221	12.	BL1232	12.	BL1242	12.	BL1351	12.	BL1461	12.	BL1671
15.	BL1210	15.	BL1222	15.	BL1233	15.	BL1340	15.	BL1450	15.	BL1560	15.	BL1770
20.	BL1211	20.	BL1223	20.	BL1330	20.	BL1440	20.	BL1451	20.	BL1561	20.	BL1870
25.	BL1212	25.	BL1320	25.	BL1331	25.	BL1441	25.	BL1550	25.	BL1660	25.	BL1970
30.	BL1213	30.	BL1321	30.	BL1430	30.	BL1540	30.	BL1650	30.	BL1760	30.	BL2070
40.	BL1310	40.	BL1420	40.	BL1530	40.	BL1541	40.	BL1750	40.	BL1860	40.	BL2170
50.	BL1410	50.	BL1520	50.	BL1531	50.	BL1640	50.	BL1850	50.	BL1861	50.	BL2171
60.	BL1411	60.	BL1521	60.	BL1630	60.	BL1740	60.	BL1950	60.	BL1960	60.	BL2270
65.	BL1510	65.	BL1522	65.	BL1631	65.	BL1741	65.	BL1951	65.	BL1961	65.	BL2271
75.	BL1511	75.	BL1620	75.	BL1730	75.	BL1840	75.	BL1952	75.	BL2060	75.	BL2370
100.	BL1610	100.	BL1720	100.	BL1731	100.	BL1940	100.	BL2050	100.	BL2160	100.	BL2371
125.	BL1611	125.	BL1721	125.	BL1830	125.	BL1941	125.	BL2051	125.	BL2161	125.	BL2470
150.	BL1710	150.	BL1820	150.	BL1930	150.	BL2040	150.	BL2150	150.	BL2260		
175.	BL1711	175.	BL1920	175.	BL1931	175.	BL2041	175.	BL2151	175.	BL2261		
200.	BL1910	200.	BL1921	200.	BL2030	200.	BL2140	200.	BL2250	200.	BL2360		
250.	BL1911	250.	BL2020	250.	BL2031	250.	BL2141	250.	BL2251	250.	BL2361		
300.	BL1912	300.	BL2021	300.	BL2130	300.	BL2240	300.	BL2350	300.	BL2362		
350.	BL2010	350.	BL2120	350.	BL2131	350.	BL2241	350.	BL2351	350.	BL2460		
400.	BL2011	400.	BL2121	400.	BL2230	400.	BL2340	400.	BL2450	400.	BL2461		
450.	BL2110	450.	BL2220	450.	BL2231	450.	BL2341	450.	BL2451				
500.	BL2111	500.	BL2221	500.	BL2232	500.	BL2342						
600.	BL2210	600.	BL2222	600.	BL2330	600.	BL2440						
750.	BL2211	750.	BL2320	750.	BL2331								
1,000.	BL2310	1,000.	BL2321	1,000.	BL2430								
1,200.	BL2311	1,200.	BL2420										
1,500.	BL2410												

Code Case	Dia. ±.010	Max. Lgth.	Code Case	Dia. ±.010	Max. Lgth.
10	.187	11/16	18	.375	1 1/8
11	.187	13/16	19	.437	1 1/8
12	.250	11/16	20	.437	1 1/4
13	.250	13/16	21	.500	1 1/4
14	.312	11/16	22	.500	1 1/2
15	.312	13/16	23	.625	1 1/2
16	.375	7/8	24	.625	1 3/4
17	.375	1			

A-C MOTOR STARTING ELECTROLYTICS — MOLDED CASE

The MOTORLYTICS are preferred standards. Other designs and ratings can be furnished on request, including aluminum can types. MOTORLYTIC capacitors are designed to assure optimum and dependable operation in all applications.



Rated Capacitance (in MFDS) MIN.-MAX.	125 VAC Ratings (160 VRMS Max. at Start) Part No.	Case Size Dia.	Length	Net Price
43— 53	953-130	1 7/16	3 3/8	1.26
53— 64	953-132	1 7/16	3 3/8	1.29
64— 77	953-133	1 7/16	3 3/8	1.35
72— 88	953-134	1 7/16	3 3/8	1.38
88—108	953-135	1 7/16	3 3/8	1.56
108—130	953-136	1 7/16	3 3/8	1.71
124—149	953-137	1 13/16	3 3/8	1.77
130—156	953-138	1 13/16	3 3/8	1.77
141—169	951-177	1 13/16	3 3/8	1.77
161—193	953-140	1 13/16	3 3/8	1.92
189—227	953-141	1 13/16	3 3/8	1.95
216—259	953-142	1 13/16	4 3/8	2.31
233—280	953-143	1 13/16	4 3/8	2.43
243—292	953-144	1 13/16	4 3/8	2.79

Rated Capacitance (MFD) MIN.-MAX.	125 VAC Ratings (continued) (160 VRMS Max. at Start) Part No.	Case Size Dia.	Length	Net Price
270—324	953-145	2 1/16	4 3/8	2.82
340—408	953-146	2 1/16	4 3/8	2.85
378—440	953-147	2 1/16	4 3/8	3.33
400—480	953-148	2 1/16	4 3/8	3.60
220 VAC Ratings (280 VRMS Max. at Start)				
25— 30	953-163	1 7/16	3 3/8	2.76
30— 36	953-164	1 7/16	3 3/8	2.94
36— 43	953-165	1 13/16	3 3/8	3.18
43— 53	953-166	1 13/16	3 3/8	3.33
53— 64	953-168	1 13/16	4 3/8	3.45
64— 77	953-169	1 13/16	4 3/8	4.05
72— 88	953-170	2 1/16	4 3/8	4.20
88—108	953-171	2 1/16	4 3/8	4.59

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

TYPE MCS MINIATURIZED SOLID ELECTROLYTE TANTALUMS

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases

No Electrolyte Leakage
Tolerance ±20%
Closer Tolerances on Request.

Catalog Number	Capacity in MFD	Case Size
6 VOLTS		
MCS14B565	5.6	A
MCS14B685	6.8	A
MCS14B825	8.2	B
MCS14B106	10.0	B
MCS14B476	47.0	B
MCS14B566	56.0	B
MCS14B107	100.0	C
MCS14B127	120.0	C
MCS14B157	150.0	C
MCS14B187	180.0	C
MCS14B227	220.0	D
MCS14B337	330.0	D
10 VOLTS		
MCS14C395	3.9	A
MCS14C475	4.7	A
MCS14C565	5.6	B
MCS14C685	6.8	B
MCS14C276	27.0	B
MCS14C336	33.0	B
MCS14C396	39.0	B
MCS14C686	68.0	C
MCS14C107	100.0	C
MCS14C227	220.0	D
15 VOLTS		
MCS14D275	2.7	A
MCS14D335	3.3	A
MCS14D395	3.9	B
MCS14D475	4.7	B
MCS14D186	18.0	B
MCS14D226	22.0	B
MCS14D566	56.0	C
MCS14D826	82.0	D

Catalog Number	Capacity in MFD	Case Size
20 VOLTS		
MCS14E125	1.2	A
MCS14E155	1.5	A
MCS14E185	1.8	A
MCS14E225	2.2	A
MCS14E275	2.7	B
MCS14E335	3.3	B
MCS14E106	10.0	B
MCS14E126	12.0	B
MCS14E156	15.0	B
MCS14E336	33.0	C
MCS14E396	39.0	C
MCS14E476	47.0	C
35 VOLTS		
MCS14F472	0.0047	A
MCS14F562	0.0056	A
MCS14F682	0.0068	A
MCS14F882	0.0082	A
MCS14F103	0.01	A
MCS14F123	0.012	A
MCS14F153	0.015	A
MCS14F183	0.018	A
MCS14F223	0.022	A
MCS14F273	0.027	A
MCS14F333	0.033	A
MCS14F393	0.039	A
MCS14F473	0.047	A
MCS14F683	0.068	A
MCS14F823	0.082	A
MCS14F104	0.1	A
MCS14F124	0.12	A
MCS14F154	0.15	A
MCS14F184	0.18	A
MCS14F224	0.22	A

Catalog Number	Capacity in MFD	Case Size
35 VOLTS (continued)		
MCS14F274	0.27	A
MCS14F334	0.33	A
MCS14F394	0.39	A
MCS14F474	0.47	A
MCS14F564	0.56	A
MCS14F684	0.68	A
MCS14F824	0.82	A
MCS14F105	1.0	A
MCS14F125	1.2	B
MCS14F155	1.5	B
MCS14F185	1.8	B
MCS14F225	2.2	B
MCS14F275	2.7	B
MCS14F335	3.3	B
MCS14F395	3.9	B
MCS14F475	4.7	B
MCS14F565	5.6	B
MCS14F685	6.8	B
MCS14F825	8.2	C
MCS14F106	10.0	C
MCS14F126	12.0	C
MCS14F156	15.0	C
MCS14F186	18.0	C
MCS14F226	22.0	C
MCS14F276	27.0	C
MCS14F336	33.0	D
MCS14F476	47.0	D

	Diameter	Length
Case Size A	.125	x .250
Case Size B	.173	x .438
Case Size C	.279	x .650
Case Size D	.341	x .750

GENERAL INSTRUMENT manufactures a wide range of capacity and voltages. Write for engineering bulletin for full information.

TYPE TAK, TAK-C, TAK-H MINIATURE SINTERED ANODE TANTALUMS

Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage and defect due to vibration. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve). For full details write for Engr. Bulletin ET-8.

TEMPERATURE OPERATING RANGES
No Voltage Rating

TAK	−55°C to 85°C
TAK-C	−55°C to 100°C
TAK-H	−55°C to 125°C

STANDARD LISTING TO −15, +20

Mfd.	6 VOLTS Cat. No.	Case Size
30	TAK-30T6B	B
50	TAK-30T6B	B
68	TAK-68T6B	B
140	TAK-140T6E	E
200	TAK-200T6E	E
270	TAK-270T6F	F
330	TAK-330T6F	F
450	TAK-450T6F	F
560	TAK-560T6F	F

Mfd.	10 VOLTS Cat. No.	Case Size
20	TAK-20T10B	B
35	TAK-35T10B	B
47	TAK-47T10B	B
100	TAK-100T10E	E
150	TAK-150T10E	E
180	TAK-180T10E	E
250	TAK-250T10F	F
320	TAK-320T10F	F
390	TAK-390T10F	F

Mfd.	15 VOLTS Cat. No.	Case Size
15	TAK-15T15B	B
33	TAK-33T15B	B
40	TAK-40T15D	D
70	TAK-70T15E	E
100	TAK-100T15E	E
120	TAK-120T15E	E
170	TAK-170T15F	F
225	TAK-225T15F	F
270	TAK-270T15F	F

Mfd.	25 VOLTS Cat. No.	Case Size
10	TAK-10T25B	B
22	TAK-22T25B	B
30	TAK-30T25D	D
70	TAK-70T25E	E
100	TAK-100T25E	E
150	TAK-150T25F	F
180	TAK-180T25F	F

Mfd.	30 VOLTS Cat. No.	Case Size
8	TAK-8T30B	B
15	TAK-15T30B	B
25	TAK-25T30D	D
40	TAK-40T30E	E
68	TAK-68T30E	E
100	TAK-100T30F	F
150	TAK-150T30F	F

Mfd.	50 VOLTS Cat. No.	Case Size
5	TAK-5T50B	B
10	TAK-10T50B	B
20	TAK-20T50D	D
25	TAK-25T50E	E
40	TAK-40T50E	E
47	TAK-47T50E	E
60	TAK-60T50F	F
82	TAK-82T50F	F
100	TAK-100T50F	F

Mfd.	75 VOLTS Cat. No.	Case Size
3.5	TAK-3.5T75B	B
6.8	TAK-6.8T75B	B
12	TAK-12T75D	D
15	TAK-15T75E	E
33	TAK-33T75E	E
40	TAK-40T75F	F
56	TAK-56T75F	F
70	TAK-70T75F	F

Mfd.	100 VOLTS Cat. No.	Case Size
2.5	TAK-2.5T100B	B
4.7	TAK-4.7T100B	B
8	TAK-8T100D	D
11	TAK-11T100E	E
22	TAK-22T100F	F
30	TAK-30T100F	F
43	TAK-43T100F	F

CASE SIZES

	Uninsulated Case		Insulated Case		
A.	Dia. ±0.010	Length ±0.016	Dia. ±0.031	Length ±0.031	Lead Length ±¼
A.	0.212	0.375	0.234	0.437	1½
B.	0.187	0.453	0.203	0.515	1½
C.	0.212	0.468	0.234	0.531	1½
D.	0.212	0.531	0.234	0.593	1½
E.	0.275	0.640	0.296	0.703	2¼
F.	0.375	0.765	0.390	0.828	2¼

Net

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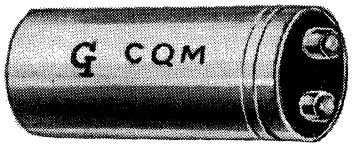
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type CQM Computer Quality Electrolytic Capacitors



Exacting performance of digital computers and related equipment demands components of the highest grade. Type CQM electrolytic capacitors meet these demands. Performance is designed into Type CQM's by the careful selection of materials and the arrangement and processing of these materials so as to obtain the optimum results from their use. Improved internal construction provides for low impedance at high frequencies, and the use of newly developed electrolytes assures superior operation through the operating range of −20°C to +85°C.

Cases are of heavy guage aluminum. A leak proof seal is obtained by rolling the top of the case into a pliable synthetic rubber gasket. Terminals are available in two styles: tapped terminal inserts, for bus bar connections and solder lug terminals for permanent connections. The capacitors are furnished with bare case, one piece vinyl sleeve, or clear rigid plastic sleeve.

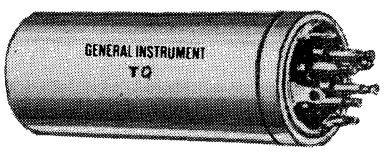
Type CQM's are for operation from −20°C to +85°C for periods not exceeding 15% of the total operating time. Units will operate at full rating at ambient temperatures of from−20°C to +65°C. Special design can be furnished to operate at −40°C to +85°C as called for in MIL-C-62 specs.

Capacitance Mfd.	Catalog Number	Dia. Length
5.0 WVDC 7V Surge		
10,700	CQMS 200	1⅜ x 3⅛
16,000	CQMS 201	1⅜ x 4⅛
19,000	CQMS 202	1⅜ x 4⅝
25,000	CQMS 203	1¾ x 4⅛
37,000	CQMS 204	2 x 4⅛
43,000	CQMS 205	2 x 4⅝
55,000	CQMS 206	2 x 5⅝
76,000	CQMS 208	2½ x 4⅝
96,000	CQMS 211	3 x 4⅛
110,000	CQMS 210	3 x 4⅝
145,000	CQMS 211	3 x 5⅝
10 WVDC 15V Surge		
5,300	CQMS 400	1⅜ x 3⅛
8,000	CQMS 401	1⅜ x 4⅛
13,000	CQMS 403	1¾ x 4⅛
18,000	CQMS 404	2 x 4⅛
20,000	CQMS 405	2 x 4⅝
25,000	CQMS 406	2 x 5⅝
33,000	CQMS 407	2½ x 4⅛
38,000	CQMS 408	2½ x 4⅝
48,000	CQMS 409	3 x 4⅛
15 WVDC 20V Surge		
4,400	CQMS 500	1⅜ x 3⅛
6,600	CQMS 501	1⅜ x 4⅛
7,700	CQMS 502	1⅜ x 4⅝
10,700	CQMS 503	1¾ x 4⅛
15,500	CQMS 504	2 x 4⅛
18,000	CQMS 505	2 x 4⅝
25,000	CQMS 506	2 x 5⅝
25 WVDC 35V Surge		
2,750	CQMS 700	1⅜ x 3⅛
4,800	CQMS 702	1⅜ x 4⅝
9,200	CQMS 704	2 x 4⅛
10,700	CQMS 705	2 x 4⅝
15,700	CQMS 706	2 x 5⅝
17,000	CQMS 707	2½ x 4⅛
30 WVDC 45V Surge		
1,850	CQMS 800	1⅜ x 3⅛
2,750	CQMS 801	1⅜ x 4⅛
3,200	CQMS 802	1⅜ x 4⅝
4,500	CQMS 803	1¾ x 4⅛
6,500	CQMS 804	2 x 4⅛
40 WVDC 55V Surge		
1,500	CQMS 900	1⅜ x 3⅛
2,300	CQMS 901	1⅜ x 4⅛
3,700	CQMS 903	1¾ x 4⅛
5,300	CQMS 904	2 x 4⅛
8,700	CQMS 906	2 x 5⅝
11,000	CQMS 908	2½ x 4⅝
13,700	CQMS 909	3 x 4⅛
21,000	CQMS 911	3 x 5⅝
50 WVDC 75V Surge		
1,050	CQMS 1000	1⅜ x 3⅛
1,850	CQMS 1002	1⅜ x 4⅝
2,600	CQMS 1003	1¾ x 4⅛
4,400	CQMS 1005	2 x 4⅝
6,700	CQMS 1007	2½ x 4⅛
7,800	CQMS 1008	2½ x 4⅝
11,000	CQMS 1010	3 x 4⅝
16,000	CQMS 1011	3 x 5⅝
100 WVDC 150 Surge		
850	CQMS 1201	1⅜ x 4⅛
1,350	CQMS 1203	1¾ x 4⅛
1,800	CQMS 1204	2 x 4⅛
3,000	CQMS 1206	2 x 5⅝
3,600	CQMS 1208	2½ x 4⅝
4,800	CQMS 1209	3 x 4⅛
150 WVDC 200V Surge		
550	CQMS 1301	1⅜ x 4⅛
900	CQMS 1303	1¾ x 4⅛
1,500	CQMS 1305	2 x 4⅝
2,100	CQMS 1306	2 x 5⅝
2,500	CQMS 1308	2½ x 4⅝
3,200	CQMS 1309	3 x 4⅛
250 WVDC 300V Surge		
200	CQMS 1500	1⅜ x 3⅛
350	CQMS 1502	1⅜ x 4⅝
700	CQMS 1504	2 x 4⅛
1,000	CQMS 1506	2 x 5⅝
1,400	CQMS 1508	2½ x 4⅝
1,850	CQMS 1509	3 x 4⅛
2,150	CQMS 1510	3 x 4⅝
300 WVDC 350V Surge		
250	CQMS 1601	1⅜ x 4⅛
400	CQMS 1603	1¾ x 4⅛
675	CQMS 1605	2 x 4⅝
800	CQMS 1606	2 x 5⅝
1,150	CQMS 1608	2½ x 4⅝
1,500	CQMS 1609	3 x 4⅛
350 WVDC 400V Surge		
130	CQMS 1700	1⅜ x 3⅛
200	CQMS 1701	1⅜ x 4⅛
300	CQMS 1703	1¾ x 4⅛
600	CQMS 1706	2 x 5⅝
800	CQMS 1707	2½ x 4⅛
1,200	CQMS 1709	3 x 4⅛
1,350	CQMS 1710	3 x 4⅝
400 WVDC 475V Surge		
100	CQMS 1800	1⅜ x 3⅛
150	CQMS 1801	1⅜ x 4⅛
250	CQMS 1803	1¾ x 4⅛
350	CQMS 1804	2 x 4⅛
525	CQMS 1806	2 x 5⅝
700	CQMS 1808	2½ x 4⅝
900	CQMS 1809	3 x 4⅛
1,000	CQMS 1810	3 x 4⅝
450 WVDC 525V Surge		
90	CQMS 1900	1⅜ x 3⅛
125	CQMS 1901	1⅜ x 4⅛
200	CQMS 1903	1¾ x 4⅛
300	CQMS 1904	2 x 4⅛
500	CQMS 1906	2 x 5⅝
600	CQMS 1908	2½ x 4⅝
800	CQMS 1910	3 x 4⅝

Supplied with rigid plastic sleeve. For complete CQM listing write for Bulletin EL-8.

Type TQ Telephone-Quality Electrolytic Capacitors

Designed for high reliability electronic equipment, telephone networks, and industrial control systems. Wide temperature range: —20° C to +85° C. Hermetically sealed aluminum can. Low leakage current. Long life, trouble free operation. Manufactured under quality controlled conditions. Provided with Standard Twist Mount Type mounting feet and insulating washers.



Cap. in Mfd.	WV DC	Inches D x L
SINGLE SECTION		
2000	6	1⅜x2½
1000	15	1 x4
500	25	1 x4
200	50	1 x3½
100	150	1 x4
50	250	1 x3
20	350	1 x2½
50	350	1 x4
20	450	1 x3
50	450	1⅜x3
DUAL SECTION		
50+50	150	1 x4
20+20	250	1 x3½
10+10	450	1 x4
20+20	450	1⅜x3½
40+40	450	1⅜x4
TRIPLE SECTION		
50+50+50	150	1⅜x4
40+40+40	250	1⅜x4
20+20+20	350	1⅜x4
20+20+20	450	1⅜x4

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Net

GENERAL INSTRUMENT CAPACITORS

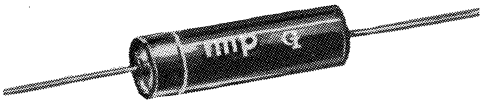
GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type IMP Molded Tubular Paper Capacitors

Noninductive extended-foil section molded in noninflammable thermosetting plastic. High insulation resistance. Excellent power factor. Withstands standard RETMA Humidity-resistance Test. Extremely rugged. Very long life.

Temperature Rating:
—40°C to + 100°C

Standard Tolerance:
.0001- .001 UF: —25% to + 60%
.0011- .009 UF: —20% to + 40%
.01 -1.0 UF: —20% to + 20%



Catalogue Number	Cap. in UF	Diameter	Length	Net
	200 Volts DC Working			
IMP2-S2	.02	3/8	1 1/4	.15
IMP2-S47	.047	3/8	1 1/4	.18
IMP2-S5	.05	3/8	1 1/4	.18
IMP2-P1	.1	7/16	1 1/4	.21
IMP2-P15	.15	1/2	1 1/2	.21
IMP2-P25	.25	5/8	1 7/8	.27
IMP2-P47	.47	5/8	1 7/8	.36
IMP2-P5	.5	5/8	1 7/8	.36
IMP2-1	1.	3/4	2 1/4	.51
	400 Volts DC Working			
IMP4-S1	.01	5/16	1	.15
IMP4-S2	.02	3/8	1 1/4	.15
IMP4-S22	.022	3/8	1 1/4	.15
IMP4-S25	.025	3/8	1 1/4	.15
IMP4-S3	.03	3/8	1 1/4	.15
IMP4-S4	.04	7/16	1 1/4	.18
IMP4-S47	.047	7/16	1 1/4	.18
IMP4-S5	.05	7/16	1 1/4	.18
IMP4-S68	.068	1/2	1 1/2	.21
IMP4-P1	.1	1/2	1 1/2	.21
IMP4-P15	.15	5/8	1 7/8	.24
IMP4-P22	.22	5/8	1 7/8	.24
IMP4-P25	.25	5/8	1 7/8	.27
IMP4-P47	.47	3/4	2 1/4	.36
IMP4-P5	.5	3/4	2 1/4	.36
	600 Volts DC Working			
IMP6-T1	.0001	5/16	1	.15
IMP6-T25	.00025	5/16	1	.15
IMP6-T4	.0004	5/16	1	.15
IMP6-T5	.0005	5/16	1	.15
IMP6-D1	.001	5/16	1	.15
IMP6-D15	.0015	5/16	1	.15
IMP6-D2	.002	5/16	1	.15
IMP6-D22	.0022	5/16	1	.15
IMP6-D3	.003	5/16	1	.15
IMP6-D33	.0033	5/16	1	.15
IMP6-D4	.004	5/16	1	.15
IMP6-D47	.0047	5/16	1	.15
IMP6-D5	.005	5/16	1	.15
IMP6-D6	.006	3/8	1 1/4	.18
IMP6-D68	.0068	3/8	1 1/4	.18
IMP6-D8	.008	3/8	1 1/4	.18
IMP6-S1	.01	3/8	1 1/4	.18
IMP6-S15	.015	3/8	1 1/4	.18
IMP6-S2	.02	7/16	1 1/4	.18
IMP6-S22	.022	7/16	1 1/4	.18
IMP6-S3	.03	7/16	1 1/4	.21
IMP6-S33	.033	1/2	1 1/2	.21
IMP6-S4	.04	1/2	1 1/2	.24
IMP6-S47	.047	1/2	1 1/2	.24
IMP6-S5	.05	1/2	1 1/2	.24
IMP6-S6	.06	5/8	1 7/8	.27
IMP6-S68	.068	5/8	1 7/8	.27
IMP6-P1	.1	5/8	1 7/8	.27
IMP6-P2	.2	3/4	2 1/4	.33
IMP6-P22	.22	3/4	2 1/4	.33
IMP6-P25	.25	3/4	2 1/4	.33
CT6P5*	.5	15/16	2 3/4	.48

Catalogue Number	Cap. in UF	Diameter	Length	Net
	1000 Volts DC Working			
IMP10-T5	.0005	5/16	1	.30
IMP10-D1	.001	5/16	1	.30
IMP10-D15	.0015	5/16	1	.30
IMP10-D2	.002	3/8	1 1/4	.30
IMP10-D22	.0022	3/8	1 1/4	.30
IMP10-D3	.003	3/8	1 1/4	.30
IMP10-D4	.004	3/8	1 1/4	.30
IMP10-D47	.0047	3/8	1 1/4	.30
IMP10-D5	.005	3/8	1 1/4	.30
IMP10-D68	.0068	3/8	1 1/4	.30
IMP10-S1	.01	7/16	1 1/4	.30
IMP10-S15	.015	1/2	1 1/2	.30
IMP10-S2	.02	1/2	1 1/2	.30
IMP10-S22	.022	1/2	1 1/2	.30
IMP10-S3	.03	5/8	1 7/8	.30
IMP10-S35	.035	5/8	1 7/8	.30
IMP10-S47	.047	5/8	1 7/8	.36
IMP10-S5	.05	5/8	1 7/8	.36
IMP10-S68	.068	5/8	1 7/8	.39
IMP10-P1	.1	3/4	2 1/4	.45
	1,600 Volts DC Working			
IMP16-T5	.0005	3/8	1 1/4	.39
IMP16-D1	.001	3/8	1 1/4	.39
IMP16-D15	.0015	3/8	1 1/4	.39
IMP16-D2	.002	3/8	1 1/4	.39
IMP16-D22	.0022	3/8	1 1/4	.39
IMP16-D3	.003	7/16	1 1/4	.39
IMP16-D33	.0033	7/16	1 1/4	.39
IMP16-D4	.004	7/16	1 1/4	.39
IMP16-D47	.0047	7/16	1 1/4	.39
IMP16-D5	.005	7/16	1 1/4	.39
IMP16-D6	.006	1/2	1 1/2	.39
IMP16-D68	.0068	1/2	1 1/2	.39
IMP16-D7	.007	1/2	1 1/2	.39
IMP16-D75	.0075	1/2	1 1/2	.39
IMP16-D8	.008	1/2	1 1/2	.39
IMP16-S1	.01	1/2	1 1/2	.42
IMP16-S15	.015	5/8	1 7/8	.42
IMP16-S2	.02	5/8	1 7/8	.42
IMP16-S22	.022	5/8	1 7/8	.42
IMP16-S3	.03	5/8	1 7/8	.42
IMP16-S4	.04	5/8	1 7/8	.42
IMP16-S5	.05	3/4	2 1/4	.42
*CT16-S68	.068	15/16	2 7/8	.48
*CT16-P1	.1	15/16	2 7/8	.51
	6,000 Volts DC Working			
*CT60-T5	.0005	5/8	2	.78
*CT60-D1	.001	5/8	2	.78
*CT60-D5	.005	13/16	2 1/4	.78
	10,000 Volts DC Working			
*CT100-D1	.001	3/4	2 5/8	.90
*CT100-T5	.0005	5/8	2	.90
	12,500 Volts DC Working			
*CT125-T25	.00025	3/4	2 5/8	1.02
*CT125-T5	.0005	3/4	2 5/8	1.02

* Supplied in ceramic-case units.

Net

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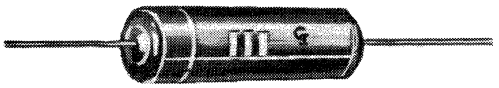
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type III "Gold Standard" Molded Mylar* Capacitors

Noninductive polyester film extended foil section, molded in a noninflammable thermosetting plastic case. Very high insulation resistance. Excellent power factor. Greatly reduced sizes. Dielectric impervious to moisture. Extremely rugged with a very long life.

Temperature Rating: —40°C to + 100°C
Standard Tolerance: ± 20%

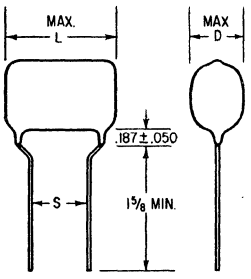


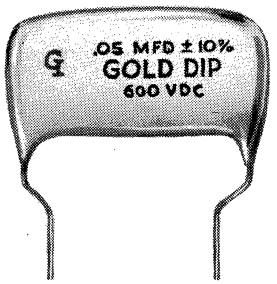
Catalog Number	Cap. in Mfd.	Size in Inches Dia.	Length	Net Price
	200 Volts DC Working			
111-2S2	.02	5/16	1	.15
111-2S47	.047	3/8	1 1/4	.15
111-2S5	.05	3/8	1 1/4	.15
111-2P1	.1	3/8	1 1/4	.21
111-2P15	.15	7/16	1 1/4	.21
111-2P22	.22	1/2	1 1/2	.24
111-2P25	.25	1/2	1 1/2	.27
111-2P47	.47	5/8	1 7/8	.36
111-2P5	.5	5/8	1 7/8	.36
111-2-1	1.0	3/4	2 1/4	.57
	400 Volts DC Working			
111-4S1	.01	5/16	1	.15
111-4S15	.015	5/16	1	.15
111-4S2	.02	3/8	1 1/4	.15
111-4S22	.022	3/8	1 1/4	.18
111-4S333	.033	3/8	1 1/4	.18
111-4S47	.047	3/8	1 1/4	.18
111-4S5	.05	3/8	1 1/4	.18
111-4S68	.068	7/16	1 1/4	.21
111-4P1	.1	1/2	1 1/2	.21
111-4P15	.15	1/2	1 1/2	.24
111-4P22	.22	5/8	1 7/8	.30
111-4P25	.25	5/8	1 7/8	.33
111-4P33	.33	5/8	1 7/8	.39
111-4P47	.47	3/4	2 1/4	.48
111-4P5	.5	3/4	2 1/4	.51
111-4P68	.68	3/4	2 1/4	.69
111-6T1	.0001	5/16	1	.15
111-6T25	.00025	5/16	1	.15
111-6T4	.0004	5/16	1	.15
111-6T5	.0005	5/16	1	.15
111-6D1	.001	5/16	1	.15
111-6D15	.0015	5/16	1	.15
111-6D2	.002	5/16	1	.15
111-6D22	.0022	5/16	1	.15
111-6D3	.003	5/16	1	.15
111-6D33	.0033	5/16	1	.15
111-6D4	.004	5/16	1	.15
111-6D47	.0047	5/16	1	.15
111-6D5	.005	5/16	1	.15
111-6D6	.006	5/16	1	.15
111-6D68	.0068	5/16	1	.18
111-6S1	.01	5/16	1	.18
111-6S15	.015	3/8	1 1/4	.18
111-6S2	.02	3/8	1 1/4	.18
111-6S22	.022	3/8	1 1/4	.18
111-6S3	.03	7/16	1 1/4	.21
111-6S33	.033	7/16	1 1/4	.21
111-6S4	.04	7/16	1 1/4	.21
111-6S47	.047	7/16	1 1/4	.24
111-6S5	.05	7/16	1 1/4	.24
111-6S6	.06	7/16	1 1/4	.24
111-6S68	.068	17/32	1 1/4	.24
111-6P1	.1	5/8	1 7/8	.27
111-6P15	.15	5/8	1 7/8	.33
111-6P2	.2	3/4	2 1/4	.39
111-6P22	.22	3/4	2 1/4	.39
111-6P25	.25	3/4	2 1/4	.45
111-6P33	.33	3/4	2 1/4	.54

Type 151 Gold-Dip Mylar* Capacitors

A new Mylar Plastic Dipped Capacitor engineered for highest reliability and especially designed for printed board circuitry as well as conventional application. General Instrument Gold-Dip Capacitors Type 151 feature:

- ▲ New reliable Dipped Plastic Coating
- ▲ New Moisture Resistance
- ▲ —55°C to +100°C operation
- ▲ High insulation resistance
- ▲ 10% capacity tolerance





Catalog Number	Capacity in Mfds.	D	L	S	Net
	200 Volts DC Working				
151-2P1	.1	5/8	1 1/4	23/32	.21
151-2P15	.15	5/8	1 1/4	23/32	.21
151-2P22	.22	11/16	1 11/32	27/32	.24
151-2P25	.25	11/16	1 11/32	27/32	.27
151-2P47	.47	7/8	1 9/16	1 3/32	.36
151-2P5	.5	7/8	1 9/16	1 3/32	.36
	400 Volts DC Working				
151-4S1	.01	7/16	3/4	1/4	.15
151-4S15	.015	7/16	3/4	1/4	.15
151-4S2	.02	1/2	7/8	5/16	.15
151-4S22	.022	1/2	7/8	5/16	.18
151-2P5	.5	7/8	1 9/16	1 3/32	.36
151-4S33	.033	1/2	7/8	5/16	.18
151-4S47	.047	5/8	1 1/4	23/32	.18
151-4S5	.05	5/8	1 1/4	23/32	.18
151-4S68	.068	5/8	1 1/4	23/32	.21
151-4P1	.1	5/8	1 1/4	23/32	.21
151-4P15	.15	11/16	1 11/32	27/32	.24
151-4P22	.22	7/8	1 9/16	1 3/32	.30
151-4P25	.25	7/8	1 9/16	1 3/32	.33
	600 Volts DC Working				
151-6D1‡	.001	7/16	3/4	1/4	.15
151-6D15‡	.0015	7/16	3/4	1/4	.15
151-6D2‡	.002	7/16	3/4	1/4	.15
151-6D22‡	.0022	7/16	3/4	1/4	.15
151-6D3‡	.003	7/16	3/4	1/4	.15
151-6D33‡	.0033	7/16	3/4	1/4	.15
151-6D4‡	.004	7/16	3/4	1/4	.15
151-6D47‡	.0047	7/16	3/4	1/4	.15
151-6D5‡	.005	7/16	3/4	1/4	.15
151-6D6	.006	7/16	3/4	1/4	.18
151-6D68	.0068	7/16	3/4	1/4	.18
151-6S1	.01	1/2	7/8	5/16	.18
151-6S15	.015	1/2	7/8	5/16	.18
151-6S2	.02	1/2	7/8	5/16	.18
151-6S22	.022	1/2	7/8	5/16	.18
151-6S3	.03	5/8	1 1/4	23/32	.21
151-6S33	.033	5/8	1 1/4	23/32	.21
151-6S4	.04	5/8	1 1/4	23/32	.21
151-6S47	.047	5/8	1 1/4	23/32	.24
151-6S5	.05	5/8	1 1/4	23/32	.24
151-6S6	.06	11/16	1 11/32	27/32	.24
151-6S68	.068	11/16	1 11/32	27/32	.24
151-6P1	.1	11/16	1 11/32	27/32	.27
151-6P15	.15	7/8	1 9/16	1 3/32	.33
151-6P2	.2	7/8	1 9/16	1 3/32	.39
151-6P22	.22	7/8	1 9/16	1 3/32	.39
151-6P25	.25	7/8	1 9/16	1 3/32	.45

‡Indicates Tolerance of +20%

* DuPont Reg.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type 107 Wrapped Mylar® Capacitors

Noninductive polyester film extended foil section, assembled in Mylar wrapper case. Ends filled with thermosetting Pyroset resin. Tinned leads firmly embedded in the resin and will not pull out. Sizes are greatly reduced. Very high insulation resistance, dielectric impervious to moisture.

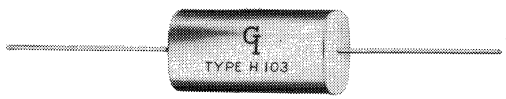
Temperature Range:
—30°C. to + 110°C

Standard Tolerance.
.001 to .0047 Mfd. ±30%
.005 to 1.0 Mfd. ±20%

Catalog No.	Capacity	Diameter	Length
	150 VDC Working		
107V103	.01	.156	1/2
107V153	.015	.187	1/2
107V223	.022	.203	5/8
107V333	.033	.218	5/8
107V473	.047	.234	3/4
107V683	.068	.265	3/4
107V104	.1	.281	7/8
107V154	.15	.328	7/8
107V224	.22	.328	1
107V334	.33	.375	1 1/8
107V474	.47	.468	1 1/4
107V684	.68	.562	1 1/4
107V105	1.00	.593	1 1/2
107V155	1.5	.718	1 3/4
107V205	2.00	.812	1 3/4
	200 VDC Working		
107C102	.001	.156	1/2
107C152	.0015	.156	1/2
107C222	.0022	.156	1/2
107C332	.0033	.156	1/2
107C472	.0047	.156	1/2
107C682	.0068	.156	1/2
107C103	.01	.171	1/2
107C153	.015	.203	1/2
107C223	.022	.250	5/8
107C333	.033	.250	3/4
107C473	.047	.296	3/4
107C683	.068	.343	3/4
107C104	.1	.375	7/8
107C154	.15	.453	7/8
107C224	.22	.438	1 1/8
107C334	.33	.484	1 1/8
107C474	.47	.546	1 1/4
107C684	.68	.609	1 5/8
107C105	1.	.671	1 3/4
107C155	1.5	.828	1 3/4
107C205	2.	.875	1 7/8
	400 VDC Working		
107E102	.001	.156	5/8
107E152	.0015	.156	5/8
107E222	.0022	.156	5/8
107E332	.0033	.156	5/8
107E472	.0047	.187	5/8
107E682	.0068	.218	5/8
107E103	.01	.250	5/8
107E153	.015	.296	5/8
107E223	.022	.312	3/4
107E333	.033	.312	7/8
107E473	.047	.343	7/8
107E683	.068	.375	1
107E104	.1	.421	1
107E154	.15	.468	1 1/4
107E224	.22	.546	1 3/8
107E334	.33	.593	1 5/8
107E474	.47	.671	1 5/8
107E684	.68	.796	1 7/8
107E105	1.	.812	2
107E155	1.5	.921	2 1/4
107E205	2.	1.093	2 1/4
	600 VDC Working		
107F102	.001	.156	3/4
107F152	.0052	.171	3/4
107F222	.0022	.187	3/4
107E332	.0033	.203	3/4
107F472	.0047	.234	3/4
107F682	.0068	.265	3/4
107F103	.01	.312	3/4
107F153	.015	.312	7/8
107F223	.022	.375	7/8
107F333	.033	.406	1
107F473	.047	.453	1
107F683	.068	.531	1
107F104	.1	.562	1 3/16
107F154	.15	.671	1 3/8
107F224	.22	.718	1 5/8
107F334	.33	.756	2
107F474	.47	.859	2
107F684	.68	1.016	2
107F105	1.	1.125	2 1/2
107F155	1.5	1.234	3
107F205	2.	1.421	3

Available ±10% tolerance (K) 107F205K 2.0 mfd. 600V ±10 ±20% tolerance (M) 107F205M 2.0 mfd. 600V ±20

Type 103 Flat Mylar® Capacitors



Smallest film capacitors made. Made with non-hygroscopic polyester dielectric and wrapper. Ends sealed with thermosetting resin. Capable of passing rigid humidity requirements (MIL-C-91). Will operate up to 125°C. Extremely high insulation resistance.

Part No.	Cap. Mfd.	T	W	L
	150 Working Volts DC			
103V102	.001	3/16	5/16	13/16
103V152	.0015	3/16	5/16	13/16
103V222	.0022	3/16	5/16	13/16
103V332	.0033	3/16	5/16	13/16
103V472	.0047	3/16	5/16	13/16
103V682	.0068	3/16	5/16	13/16
103V822	.0082	3/16	5/16	13/16
103V103	.01	3/16	5/16	13/16
103V153	.015	1/32	3/8	13/16
103V223	.022	1/32	7/16	13/16
103V333	.033	3/16	11/32	15/16
103V473	.047	3/16	3/8	15/16
103V683	.068	1/32	3/8	15/16
103V823	.082	1/32	13/32	15/16
103V104	0.1	1/4	15/32	15/16
103V154	.15	1/4	7/16	1 1/16
103V224	.22	1/4	17/32	1 1/4
103V334	.33	5/16	19/32	1 1/4
103V474	.47	7/16	23/32	1 7/16
103V684	.68	13/32	23/32	1 11/16
103V824	.82	15/32	3/4	1 11/16
103V105	1.0	13/32	3/4	1 7/8
	400 Working Volts DC			
103E102	.001	3/16	5/16	13/16
103E152	.0015	3/16	5/16	13/16
103E222	.0022	3/16	5/16	13/16
103E332	.0033	3/16	5/16	13/16
103E472	.0047	3/16	5/16	13/16
103E682	.0063	3/16	5/16	13/16
103E822	.0082	3/16	5/16	13/16
103E103	.01	3/16	5/16	13/16
103E153	.015	1/32	3/8	13/16
103E223	.022	1/32	7/16	13/16
103E333	.033	1/32	7/16	15/16
103E473	.047	1/4	15/32	15/16
103E683	.068	3/32	1/2	1 1/8
103E823	.082	3/32	15/32	1 1/4
103E104	.1	3/32	17/32	1 1/4
103E154	.15	5/16	19/32	1 11/16
103E224	.22	3/8	21/32	1 7/8
103E334	.33	7/16	3/4	1 7/8
103E474	.47	1/2	7/8	1 7/8
103E684	.68	17/32	15/16	2 1/8
103E824	.82	17/32	31/32	2 5/16
103E105	1.0	9/16	1-	2 7/16
	600 Working Volts DC			
103F102	.001	3/16	5/16	13/16
103F152	.0015	3/16	5/16	13/16
103F222	.0022	3/16	5/16	13/16
103F332	.0033	3/16	3/8	7/8
103F472	.0047	3/16	13/32	7/8
103F682	.0068	1/32	13/32	7/8
103F822	.0082	1/4	13/32	7/8
103F103	.01	1/4	7/16	7/8
103F153	.015	5/16	1/2	7/8
103F223	.022	5/16	1/2	1 1/16
103F333	.033	9/32	1/2	1 1/8
103F473	.047	5/16	17/32	1 1/8
103F683	.068	5/16	19/32	1 1/4
103F823	.082	3/8	5/8	1 5/16
103F104	.1	13/32	21/32	1 5/16
103F154	.15	3/8	23/32	1 7/8
103F224	.22	1/2	27/32	1 7/8
103F334	.33	1/2	29/32	2 1/8
103F474	.47	5/8	1 1/16	2 1/8
103F684	.68	11/16	1 3/32	2 7/16

ALSO AVAILABLE: **Type 101 Flat Inserted Tab Construction.**
Type 103 Flat Extended Foil Construction.
For further details write for latest Engineering Bulletin.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Glasseal Capacitors For Military and Commercial Application
CPO4 and CPO5 to Mil-C-25C (Inserted Tabs)

G.I. Glasseal capacitors are subminiature metal cased tubular units which have been designed to meet severe and rigid operating requirements, especially where an important design consideration is limited space.

AVAILABLE IN FOLLOWING CASE STYLES:

CP10

CP11

"Glasseals" have proven themselves to be unsurpassed in reliability over the entire operating temp. range from −55° C to + 125° C.

NOTE: The capacitors listed in this table have a capacitance tolerance of ±10%. For ±20% units, change the last letter in the catalog number from K to M.

		TYPE CPO4AI* Plain Metal Case		TYPE CPO5AI* Metal Case with Insulating Sleeve	
μF	WVDC	Char. K −55°C to +125°C	Size D. x L.	Char. K −55°C to +125°C	Size D. x L.
.001	600	CPO4A1KF102K3	.235 x 3/4	CPO5A1KF102K3	.298 x 13/16
.0015	600	CPO4A1KF152K3	.235 x 3/4	CPO5A1KF152K3	.298 x 13/16
.0022	600	CPO4A1KF222K3	.235 x 3/4	CPO5A1KF222K3	.298 x 13/16
.0033	600	CPO4A1KF332K3	.235 x 3/4	CPO5A1KF332K3	.298 x 13/16
.0047	600	CPO4A1KF472K3	.235 x 3/4	CPO5A1KF472K3	.298 x 13/16
.0068	600	CPO4A1KF682K3	.235 x 3/4	CPO5A1KF682K3	.298 x 13/16
.01	400	CPO4A1KE103K3	.235 x 3/4	CPO5A1KE103K3	.298 x 13/16
	600	CPO4A1KF103K3	.312 x 7/8	CPO5A1KF103K3	.375 x 15/16
.015	200	CPO4A1KC153K3	.235 x 3/4	CPO5A1KC153K3	.298 x 13/16
	600	CPO4A1KF153K3	.312 x 7/8	CPO5A1KF153K3	.375 x 15/16
.022	200	CPO4A1KC223K3	.235 x 3/4	CPO5A1KC223K3	.298 x 13/16
	600	CPO4A1KF223K3	.312 x 7/8	CPO5A1KF223K3	.375 x 15/16
.033	100	CPO4A1KB333K3	.235 x 3/4	CPO5A1KB333K3	2.98 x 13/16
	400	CPO4A1KE333K3	.312 x 7/8	CPO5A1KE333K3	.375 x 15/16
	600	CPO4A1KF333K3	.400 x 7/8	CPO5A1KF333K3	.463 x 15/16
.047	200	CPO4A1KC473K3	.312 x 7/8	CPO5A1KC473K3	.375 x 15/16
	400	CPO4A1KE473K3	.400 x 7/8	CPO5A1KE473K3	.463 x 15/16
	600	CPO4A1KF473K3	.400 x 1 1/8	CPO5A1KF473K3	.463 x 15/16
.068	200	CPO4A1KC683K3	.312 x 7/8	CPO5A1KC683K3	.375 x 15/16
	400	CPO4A1KE683K3	.400 x 1 1/8	CPO5A1KE683K3	.463 x 1 3/16
	600	CPO4A1KF683K3	.400 x 1 3/8	CPO5A1KF683K3	.463 x 1 7/16
.1	100	CPO4A1KB104K3	.312 x 7/8	CPO5A1KB104K3	.375 x 15/16
	200	CPO4A1KC104K3	.400 x 7/8	CPO5A1KE104K3	.463 x 15/16
	400	CPO4A1KE104K3	.400 x 1 3/8	CPO5A1KF104K3	.463 x 1 7/16
	600	CPO4A1KF104K3	.562 x 1 1/8		.625 x 1 3/16
.15	100	CPO4A1KB154K3	.400 x 7/8	CPO5A1KB154K3	.463 x 15/16
	200	CPO4A1KC154K3	.400 x 1 1/8	CPO5A1KC154K3	.463 x 1 3/16
	400	CPO4A1KE154K3	.562 x 1 1/8	CPO5A1KE154K3	.625 x 1 3/16
	600	CPO4A1KF154K3	.562 x 1 3/8	CPO5A1KF154K3	.625 x 1 7/16
.22	100	CPO4A1KB224K3	.400 x 1 3/8	CPO5A1KB224K3	.463 x 1 3/16
	200	CPO4A1KC224K3	.400 x 1 3/8	CPO5A1KC224K3	.463 x 1 7/16
	400	CPO4A1KE224K3	.562 x 1 3/8	CPO5A1KE224K3	.625 x 1 7/16
	600	CPO4A1KF224K3	.562 x 1 7/8	CPO5A1KF224K3	.625 x 1 15/16
.33	100	CPO4A1KB334K3	.400 x 1 3/8	CPO5A1KB334K3	.463 x 1 7/16
	200	CPO4A1KC334K3	.562 x 1 1/8	CPO5A1KC334K3	.625 x 1 3/16
	400	CPO4A1KE334K3	.562 x 1 7/8	CPO5A1KE334K3	.625 x 1 15/16
	600	CPO4A1KF334K3	.670 x 1 7/8	CPO5A1KF334K3	.733 x 1 15/16
.47	100	CPO4A1KB474K3	.562 x 1 1/8	CPO5A1KB474K3	.625 x 1 3/16
	200	CPO4A1KC474K3	.562 x 1 3/8	CPO5A1KC474K3	.625 x 1 7/16
	400	CPO4A1KE474K3	.670 x 1 7/8	CPO5A1KE474K3	.733 x 1 15/16
	600	CPO4A1KF474K3	.750 x 2 1/8	CPO5A1KF474K3	.813 x 2 3/16
.68	100	CPO4A1KB684K3	.562 x 1 3/4	CPO5A1KB684K3	.625 x 1 7/16
	200	CPO4A1KC684K3	.562 x 1 7/8	CPO5A1KC684K3	.625 x 1 15/16
	400	CPO4A1KE684K3	.750 x 2 1/8	CPO5A1KE684K3	.813 x 2 3/16
	600	CPO4A1KF684K3	1.0 x 1 7/8	CPO5A1KF684K3	1.063 x 1 15/16
1.0	100	CPO4A1KB105K3	.562 x 1 7/8	CPO5A1KB105K3	.625 x 1 15/16
	200	CPO4A1KC105K3	.670 x 1 7/8	CPO5A1KC105K3	.733 x 1 15/16
	400	CPO4A1KE105K3	1.0 x 1 7/8	CPO5A1KE105K3	1.063 x 1 15/16

*For case grounded reduce L dimension by 1/16".

Above listing are ratings listed in Mil-C-25C. Other values are available in General Instrument Commercial Equivalents. For wide variety of case styles and mountings write for catalog.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Glasseal Capacitors For Military and Commercial Application (Cont'd.)

CPO8 and CPO89 to Mil-C-25C (Extended Foil)

TYPE CPO8AI Plain Metal Case				TYPE CPO9AI Metal Case with Insulating Sleeve			
μF	WVDC	Char. K −55°C to +125°C	Size D. x L.	μF	WVDC	Char. K −55°C to +125°C	Size D. x L.
.001	600	CPO8A1KF102K3	.235 x 3/4	.001	600	CPO9A1KF102K3	.298 x 13/16
.0015	600	CPO8A1KF152K3	.235 x 3/4	.0015	600	CPO9A1KF152K3	.298 x 13/16
.0022	600	CPO8A1KF222K3	.235 x 3/4	.0022	600	CPO9A1KF222K3	.298 x 13/16
.0033	400	CPO8A1KE332K3	.235 x 3/4	.0033	400	CPO9A1KE332K3	.298 x 13/16
	600	CPO8A1KF332K3	.312 x 7/8		600	CPO9A1KF332K3	.375 x 15/16
.0047	200	CPO8A1KC472K3	.235 x 3/4	.0047	200	CPO9A1KC472K3	.298 x 13/16
	600	CPO8A1KF472K3	.312 x 7/8		600	CPO9A1KF472K3	.375 x 15/16
.0068	200	CPO8A1KC682K3	.235 x 3/4	.0068	200	CPO9A1KC683K3	.298 x 13/16
	600	CPO8A1KF682K3	.312 x 7/8		600	CPO9A1KF682K3	.375 x 15/16
.01	100	CPO8A1KB103K3	.235 x 3/4	.01	100	CPO9A1KB103K3	.298 x 13/16
	600	CPO8A1KF103K3	.312 x 7/8		600	CPO9A1KF103K3	.375 x 15/16
.015	100	CPO8A1KB153K3	.235 x 3/4	.015	100	CPO9A1KB153K3	.298 x 13/16
	400	CPO8A1KE153K3	.312 x 7/8		400	CPO9A1KE153K3	.375 x 15/16
	600	CPO8A1KF153K3	.400 x 7/8		600	CPO9A1KF153K3	.463 x 15/16
.022	200	CPO8A1KC223K3	.312 x 7/8	.022	600	CPO9A1KC223K3	.375 x 15/16
	600	CPO8A1KF223K3	.400 x 7/8		200	CPO9A1KF223K3	.463 x 15/16
.033	200	CPO8A1KC333K3	.312 x 7/8	.033	200	CPO9A1KC333K3	.375 x 15/16
	400	CPO8A1KE333K3	.400 x 7/8		400	CPO9A1KE333K3	.463 x 15/16
	600	CPO8A1KF333K3	.400 x 1 1/8		600	CPO9A1KF333K3	.463 x 1 3/16
.047	100	CPO8A1KB473K3	.312 x 7/8	.047	100	CPO9A1KB473K3	.375 x 15/16
	200	CPO8A1KC473K3	.400 x 7/8		200	CPO9A1KC473K3	.463 x 15/16
	400	CPO8A1KE473K3	.400 x 1 1/8		400	CPO9A1KE473K3	.463 x 1 3/16
	600	CPO8A1KF473K3	.400 x 1 3/8		600	CPO9A1KF473K3	.463 x 1 7/16
.068	200	CPO8A1KC683K3	.400 x 7/8	.068	200	CPO9A1KC683K3	.463 x 15/16
	400	CPO8A1KE683K3	.400 x 1 3/8		400	CPO9A1KE683K3	.463 x 1 7/16
	600	CPO8A1KF683K3	.562 x 1/8		600	CPO9A1KF683K3	.625 x 1 3/16
.1	100	CPO8A7KB104K3	.400 x 7/8	.1	100	CPO9A1KB104K3	.463 x 15/16
	200	CPO8A1KC104K3	.400 x 1 1/8		200	CPO9A1KC104K3	.463 x 1 3/16
	400	CPO8A1KE104K3	.562 x 1 1/8		400	CPO9A1KE104K3	.625 x 1 3/16
	600	CPO8A1KF104K3	.562 x 1 3/8		600	CPO9A1KF104K3	.625 x 1 7/16
.15	100	CPO8A1KB154K3	.400 x 1 1/8	.15	100	CPO9A1KB154K3	.463 x 1 3/16
	200	CPO8A1KC154K3	.400 x 1 3/8		200	CPO9A1KC154K3	.463 x 1 7/16
	400	CPO8A1KE154K3	.562 x 1 3/8		400	CPO9A1KE154K3	.625 x 1 7/16
	600	CPO8A1KF154K3	.562 x 1 5/8		600	CPO9A1KF154K3	.625 x 1 11/16
.22	100	CPO8A1KB224K3	.400 x 1 3/8	.22	100	CPO9A1KB224K3	.463 x 1 7/16
	200	CPO8A1KC224K3	.562 x 1 1/8		200	CPO9A1KC224K3	.625 x 1 3/16
	400	CPO8A1KE224K3	.562 x 1 5/8		400	CPO9A1KE224K3	.625 x 1 11/16
	600	CPO8A1KF224K3	.670 x 1 5/8		600	CPO9A1KF224K3	.733 x 1 11/16
.33	100	CPO8A1KB334K3	.562 x 1 1/8	.33	100	CPO9A1KB334K3	.625 x 1 3/16
	200	CPO8A1KC334K3	.562 x 1 3/8		200	CPO9A1KC334K3	.625 x 1 7/16
	400	CPO8A1KE334K3	.670 x 1 5/8		400	CPO9A1KE334K3	.733 x 1 11/16
	600	CPO8A1KF334K3	.750 x 2 1/8		600	CPO9A1KF334K3	.813 x 2 3/16
.47	100	CPO8A1KB474K3	.562 x 1 3/8	.47	100	CPO9A1KB474K3	.625 x 1 7/16
	200	CPO8A1KC474K3	.562 x 1 5/8		200	CPO9A1KC474K3	.625 x 1 11/16
	400	CPO8A1KE474K3	.750 x 2 1/8		400	CPO9A1KE474K3	.813 x 2 3/16
	600	CPO8A1KF474K3	.750 x 2 3/8		600	CPO9A1KF474K3	.813 x 2 7/16
.68	100	CPO8A1KB684K3	.562 x 1 5/8	.68	100	CPO9A1KB684K3	.625 x 1 11/16
	200	CPO8A1KC684K3	.670 x 1 5/8		200	CPO9A1KC684K3	.733 x 1 11/16
1.0	100	CPO8A1KB105K3	.670 x 1 5/8	1.0	100	CPO9A1KB105K3	.733 x 1 11/16
	200	CPO8A1KC105K3	.750 x 2 1/8		200	CPO9A1KC105K3	.813 x 2 3/16

* For case grounded reduce L dimension by 1/16".

Above listings are ratings listed n Mil-C-25C. For complete listing of Hermetically sealed Capacitor write for catalog.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type MTR Kraft-Tube Hi-Temp Metallized Paper Capacitor

Assembled in a special kraft tube. Impregnated in solid thermosetting resin. Plastic end-seals. Overall coating of highly moisture resistant wax. Self healing. Low r-f impedance. Excellent p-f over wide temperature range.

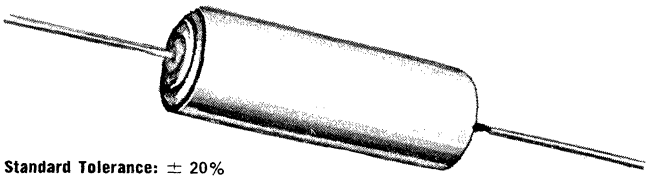
Temperature Rating: —40°C. to +100°C.
Standard Tolerance: —20% to +30%.

Catalog Number	Cap. in UF	Size in inches Diameter	Length
200 Volts DC Working			
MTR2-S1	.01	1/4	25/32
MTR2-S2	.02	1/4	25/32
MTR2-S3	.03	1/4	25/32
MTR2-S5	.05	1/4	25/32
MTR2-P1	.1	5/16	25/32
MTR2-P25	.25	7/16	25/32
MTR2-P5	.5	7/16	1 1/8
MTR2-1	1.0	9/16	1 1/8
MTR2-2	2.0	5/8	1 1/16
400 Volts DC Working			
MTR4-S1	.01	1/4	25/32
MTR4-S2	.02	5/16	25/32
MTR4-S3	.03	5/16	25/32
MTR4-S5	.05	3/8	25/32
MTR4-P1	.1	13/32	1 1/8
MTR4-P25	.25	9/16	1 1/8
MTR4-P5	.5	21/32	1 1/16
MTR4-1	1.0	3/4	1 13/16
MTR4-2	2.0	7/8	2 3/8
600 Volts DC Working			
MTR6-S1	.01	1/4	25/32
MTR6-S2	.02	5/16	25/32
MTR6-S3	.03	3/8	25/32
MTR6-S5	.05	7/16	25/32
MTR6-P1	.1	7/16	1 1/8
MTR6-P25	.25	5/8	1 1/8
MTR6-P5	.5	3/4	1 7/16
MTR6-1	1.0	7/8	1 13/16
MTR6-2	2.0	1	2 3/8

Type MPGR Metal-Can-Hi-Temp Metallized Paper Capacitors

MPGR Variations

MPGR Basis type with grounded case.
MPGIR With floating case. To order: add I after MPG—1/16" to length.
MPGRV With insulating plastic sleeve. To order: add V after MPGR—1/16" to Diameter—1/8" to Length.
3MPGR With threaded end Bushing. To order: add 3 before MPGR.
6MPGR With soldered transverse bracket. To order: add 6 before MPGR.
7MPGR With soldered tangential bracket. To order: add 7 to MPGR.



Standard Tolerance: ± 20%
Temperature Rating: —55°C. to + 125°C.
Derating: 0% at + 100°C. 25% at + 125°C.

MPGR Capacitors, Grounded Case

Catalog Number	Cap. in UF	Size in inches Diameter	Length
200 Volts DC Working			
MPGR2-S1	.01	.235	3/4
MPGR2-S15	.015	.235	3/4
MPGR2-S2	.02	.235	3/4
MPGR2-S22	.022	.235	3/4
MPGR2-S33	.033	.235	3/4
MPGR2-S4	.04	.235	3/4
MPGR2-S47	.047	.235	3/4
MPGR2-S5	.05	.235	3/4
MPGR2-S68	.068	.312	3/4
MPGR2-P1	.1	.312	3/4
MPGR2-P15	.15	.312	1 1/16
MPGR2-P2	.2	.312	1 1/16
MPGR2-P22	.22	.312	1 1/16
MPGR2-P25	.25	.312	1 1/16
MPGR2-P33	.33	.400	1 1/16
MPGR2-P47	.47	.400	1 1/16
MPGR2-P5	.5	.400	1 1/16
MPGR2-P68	.68	.500	1 1/16
MPGR2-1	1.0	.562	1 1/16
MPGR2-2	2.0	.562	1 3/4
400 Volts DC Working			
MPGR4-S1	.01	.235	3/4
MPGR4-S15	.015	.235	3/4
MPGR4-S2	.02	.235	3/4
MPGR4-S22	.022	.235	3/4
MPGR4-S33	.033	.312	3/4
MPGR4-S4	.04	.312	3/4
MPGR4-S47	.047	.312	3/4
MPGR4-S5	.05	.312	7/8
MPGR4-S68	.068	.312	1 1/16
MPGR4-P1	.1	.400	1 1/16
MPGR4-P15	.15	.500	1 1/16
MPGR4-P2	.2	.500	1 1/16
MPGR4-P22	.22	.500	1 1/16
MPGR4-P25	.25	.500	1 1/16
MPGR4-P33	.33	.562	1 1/4
MPGR4-P47	.47	.562	1 3/4
MPGR4-P5	.5	.562	1 3/4
MPGR4-P68	.68	.670	1 3/4
MPGR4-1	1.0	.670	2 1/4
MPGR4-2	2.0	1.000	1 3/4
600 Volts DC Working			
MPGR6-S1	.01	.235	3/4
MPGR6-S15	.015	.312	3/4
MPGR6-S2	.02	.312	3/4
MPGR6-S22	.022	.312	3/4
MPGR6-S33	.033	.400	3/4
MPGR6-S4	.04	.400	3/4
MPGR6-S47	.047	.400	3/4
MPGR6-S5	.05	.400	3/4
MPGR6-S68	.068	.400	1 1/16
MPGR6-P1	.1	.400	1 1/16
MPGR6-P15	.15	.500	1 1/16
MPGR6-P2	.2	.562	1 1/4
MPGR6-P22	.22	.562	1 1/4
MPGR6-P25	.25	.562	1 1/4
MPGR6-P33	.33	.562	1 3/4
MPGR6-P47	.47	.670	1 3/4
MPGR6-P5	.5	.670	1 3/4
MPGR6-P68	.68	.670	2 1/4
MPGR6-1	1.0	.750	2 1/4
MPGR6-1.5	1.5	1.000	2 1/4

For —55°C to +85°C order Type MPGK. Available in same capacity and voltage ratings as shown above for Type MPGR. Same tube size for equivalent ratings.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type MPTIK Metal-Tube Metallized Paper Capacitors

HERMETICALLY SEALED — IMPREGNATED IN MINERAL OIL

−55°C TO +85° DERATE 30% AT +85°C TOLERANCE −20% +30%

MPTIK, MPTIM VARIATIONS

MPTIK-MPTIM Basic types with floating case. To order: see Catalog Listing. Example: MPTIM1.5-3

MPTK-MPTM With grounded case. To order: delete Letter I after MPT—subtract 1/8" from Length. Example: MPTK1.5-3

MPTIKV-MPTIMV With insulating plastic sleeve. To order: add V after MPTIK or MPTIM—1/16" to Diameter—1/8" to Length. Example: MPTIKV1.5-3

4MPTIK-4MPTIM With riveted radial bracket. To order: add 4 before MPTIK or MPTIM—Example: 4MPTIK1.5-3

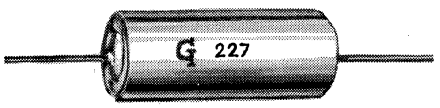
4MPTIKV-4MPTIMV With insulating plastic sleeve and riveted radial bracket. To order: add 4 before and V after MPTIK or MPTIM—Example: 4MPTIKV1.5-3

7MPTIK-7MPTIM With soldered tangential bracket. To order: add 7 before MPTIK or MPTIM—Example: 7MPTIK1.5-3

MPTIK-MPTIM CAPACITORS, FLOATING CASE

Cat. No.	Cap. in UF	Diameter	Length
150 Volts DC Working			
MPTIK1.5-3	3.0	3/4	1 15/16
MPTIK1.5-4	4.0	7/8	1 15/16
MPTIK1.5-6	6.0	1	1 15/16
200 Volts DC Working			
MPTIK2-S5	.05	3/8	29/32
MPTIK2-P1	.1	3/8	29/32
MPTIK2-P25	.25	1/2	29/32
MPTIK2-P5	.5	1/2	1 1/4
MPTIK2-1	1.0	5/8	1 3/8
MPTIK2-2	2.0	5/8	1 15/16
400 Volts DC Working			
MPTIM4-S3	.03	3/8	29/32
MPTIM4-S5	.05	7/16	29/32
400 Volts DC Working			
MPTIM4-P1	.1	7/16	1 1/4
MPTIM4-P25	.25	5/8	1 1/4
MPTIM4-P5	.5	5/8	1 15/16
MPTIM4-1	1.0	3/4	2 7/16
MPTIM4-2	2.0	1	2 7/16
600 Volts DC Working			
MPTIM6-S1	.01	3/8	29/32
MPTIM6-S2	.02	3/8	29/32
MPTIM6-S3	.03	7/16	29/32
MPTIM6-S5	.05	1/2	29/32
MPTIM6-P1	.1	1/2	1 3/8
MPTIM6-P25	.25	5/8	1 3/8
MPTIM6-P5	.5	3/4	1 15/16
MPTIM6-1	1.0	13/16	2 7/16
MPTIM6-2	2.0	1 1/8	2 7/16

Type 227 Metallized-Paper/Mylar® Glass-Sealed Metal Tubulars



For operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes. For complete listing write for Engineering Bulletin. Made to specification MIL C 18312A.

Part No.	Cap. Mfd.	Dia.	Length
100 Volts D-C. W.V.			
227A1V305M	3	.750	1 7/8
227A1V405M	4	.750	1 7/8
227A1V605M	6	1.000	1 7/8
200 V. D-C. W.V.			
227A1C103M	.01	.235	3/4
227A1C123M	.012	.235	3/4
227A1C153M	.015	.235	3/4
227A1C183M	.018	.235	3/4
227A1C223M	.022	.235	3/4
227A1C273M	.027	.235	3/4
227A1C333M	.033	2.35	3/4
227A1C393M	.039	.312	7/8
227A1C473M	.047	.312	7/8
227A1C563M	.056	.312	7/8
227A1C683M	.068	.312	7/8
227A1C823M	.082	.312	7/8
227A1C104M	.1	.312	7/8
227A1C124M	.12	.312	7/8
227A1C154M	.15	.312	7/8
227A1C184M	.18	.312	7/8
227A1C224M	.22	.312	1 1/8
227A1C274M	.27	.400	1 1/8
227A1C334M	.33	.400	1 1/8
227A1C394M	.39	.400	1 1/8
227A1C474M	.47	.400	1 1/8
227A1C564M	.56	.500	1 1/8
227A1C684M	.68	.500	1 1/8
227A1C824M	.82	.562	1 1/8
227A1C105M	1.0	.562	1 1/8
227A1C155M	1.5	.562	1 27/32
227A1C205M	2.0	.562	1 27/32
227A1C305M	3.0	.670	1 7/8
227A1C405M	4.0	.750	1 7/8
227A1C505M	5.0	1.000	1 7/8
227A1C605M	6.0	1.000	1 7/8
227A1C805M	8.0	1.000	1 7/8
227A1C106M	10.0	1.000	2 3/8
227A1C126M	12.0	1.000	2 5/8
400 V. D-C. W.V.			
227A1E103M	.01	.312	7/8
227A1E123M	.012	.312	7/8
227A1E153M	.015	.312	7/8
227A1E183M	.018	.312	7/8
227A1E223M	.022	.312	7/8
227A1E273M	.027	.312	7/8
227A1E333M	.033	.312	7/8
227A1E393M	.039	.312	7/8
227A1E473M	.047	.312	7/8
227A1E563M	.056	.400	1 1/8
227A1E683M	.068	.400	1 1/8
227A1E823M	.082	.400	1 1/8
227A1E104M	.1	.400	1 1/8
227A1E124M	.12	.400	1 1/8
227A1E154M	.15	.400	1 1/8
227A1E184M	.18	.400	1 1/8
227A1E224M	.22	.500	1 1/8
227A1E274M	.27	.500	1 1/8
227A1E334M	.33	.500	1 1/8
227A1E394M	.39	.500	1 1/8
227A1E474M	.47	.562	1 7/8
227A1E564M	.56	.562	1 7/8
227A1E684M	.68	.670	1 7/8
227A1E824M	.82	.670	1 7/8
227A1E105M	1.0	.670	1 7/8
227A1E155M	1.5	1.000	1 7/8
227A1E205M	2.0	1.000	1 7/8
227A1E305M	3.0	1.000	2 5/8
600 V. D-C. W.V.			
227A1F103M	.01	.235	7/8
227A1F123M	.012	.235	7/8
227A1F153M	.015	.235	7/8
227A1F183M	.018	.235	7/8
227A1F223M	.022	.312	7/8
227A1F273M	.027	.312	7/8
227A1F333M	.033	.312	7/8
227A1F393M	.039	.312	7/8
227A1F473M	.047	.400	7/8
227A1F563M	.056	.400	7/8
227A1F683M	.068	.400	7/8
227A1F823M	.082	.400	7/8
227A1F104M	.1	.400	1 1/8
227A1F124M	.12	.400	1 1/8
227A1F154M	.15	.400	1 1/8
227A1F184M	.18	.400	1 1/8
227A1F224M	.22	.562	1 5/8
227A1F274M	.27	.562	1 5/8
227A1F334M	.33	.562	1 5/8
227A1F394M	.39	.562	1 5/8
227A1F474M	.47	.610	1 7/8
227A1F564M	.56	.610	1 7/8
227A1F684M	.68	.610	1 7/8
227A1F824M	.82	.610	1 7/8
227A1F105M	1.0	.750	2 5/16
227A1F155M	1.5	1.000	2 5/16
227A1F205M	2.0	1.000	2 5/16
227A1F255M	2.5	1.000	2 5/8

NOTE: Type 227's Are Available in All Mil Styles, Mylar and Plastic Insulating Sleeves, Tolerances, and Ratings.

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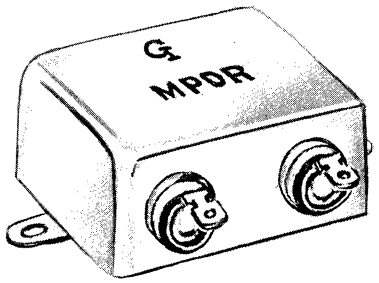
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type MPDR Bath-Tub Hi-Temp Metallized Paper Capacitors

Assembled in hermetically sealed tinned bathtub type case. Impregnated in solid thermosetting resin. Vitrified ceramic (or glass) lug-type terminal seals. Self-healing. Low r-f impedance. Excellent power factor over a very wide temperature range.



Temperature Rating: −55°C. to +125°C.
Derating: 0% at +100°C. 25% at+125°C.
Standard Tolerance: ±20%.

MPDR Variations
MPDR with terminals on side.
MPDRT with terminals on top.
MPDRB with terminals on bottom.

Catalog Number	Cap. in UF	Size in inches Length	Width	Height
	150 Volts DC Working			
MPDR1.5-3	3.0	1 13/16	1	3/4
MPDR1.5-4	4.0	1 13/16	1	7/8
MPDR1.5-5	5.0	1 13/16	1	7/8
MPDR1.5-6	6.0	1 13/16	1 1/4	7/8
MPDR1.5-8	8.0	2	1 3/4	3/4
MPDR1.5-10	10.0	2	1 3/4	1 3/16
MPDR1.5-12	12.0	2	2	7/8
	200 Volts DC Working			
MPDR2-P5	.5	1 13/16	1	3/4
MPDR2-1	1.0	1 13/16	1	3/4
MPDR2-2	2.0	1 13/16	1	3/4
	400 Volts DC Working			
MPDR4-P25	.25	1 13/16	1	3/4
MPDR4-P5	.5	1 13/16	1	3/4
MDPR4-1	1.0	1 13/16	1	7/8
MPDR4-2	2.0	2	1 3/4	3/4
MPDR4-3	3.0	2	1 3/4	1
MPDR4-4	4.0	2	2	1
	600 Volts DC Working			
MPDR6-P1	.1	1 13/16	1	3/4
MPDR6-P25	.25	1 13/16	1	3/4
MPDR6-P5	.5	1 13/16	1	3/4
MPDR6-1	1.0	1 13/16	1 1/4	7/8
MPDR6-2	2.0	2	2	7/8

Type MPDK Bathtub-Type Metallized Paper Capacitors

Assembled in hermetically sealed tinned bath-type case. Lug-type terminal seals. Basic type MPDK impregnated in microcrystalline mineral wax. Basic Type MPDM impregnated in mineral oil. Self-healing. Low r-f impedance. Excellent power factor over a wide temperature range.

MPDK, MPDM Variations
MPDK-MPDM Basic types with terminals on side. Example: MPDK1.5.3
MPDKT-MPDMT With terminals on top. To order: add T after MPDK or MPDM. Example: MPDKT1.5-3
MPDKB-MPDMB With terminals on bottom. To order: add B after MPDK or MPDM. Example MPDKB1.5-3

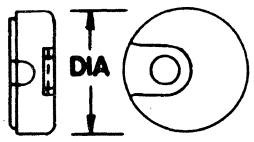
Temp. Rating: −55°C. to +85°C.
Derating: 30% at +85°C.
Tolerance: ±20%

MPDK-MPDM Single — Capacitor Units

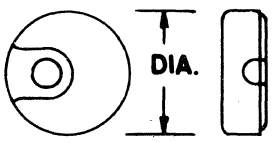
Catalog Number	Cap. in UF	Size in inches Length	Width	Height
	150 Volts DC Working			
MPDK1.5-3	3.0	1 13/16	1	3/4
MPDK1.5-4	4.0	1 13/16	1	7/8
MPDK1.5-6	6.0	1 13/16	1 1/4	7/8
MPDK1.5-8	8.0	2	1 3/4	7/8
MPDK1.5-10	10.0	2	1 3/4	7/8
MPDK1.5-12	12.0	2	2	1
	200 Volts DC Working			
MPDK2-P5	.5	1 13/16	1	3/4
MPDK2-1	1.0	1 13/16	1	3/4
MPDK2-2	2.0	1 13/16	1	3/4
	400 Volts DC Working			
MPDM4-P25	.25	1 13/16	1	3/4
MPDM4-P5	.5	1 13/16	1	3/4
MPDM4-1	1.0	1 13/16	1	7/8
MPDM4-2	2.0	2	1 3/4	7/8
MPDM4-4	4.0	2	2	1 1/8
	600 Volts DC Working			
MPDM6-P1	.1	1 13/16	1	3/4
MPDM6-P25	.25	1 13/16	1	3/4
MPDM6-P5	.5	1 13/16	1	3/4
MPDM6-1	1.0	1 13/16	1 1/4	7/8
MPDM6-2	2.0	2	2	1
	MPDK-MPDM Dual Capacitor Units			
	150 Volts DC Working			
2MPDK1.5-4	4.0-4.0	2	1 3/4	7/8
2MPDK1.5-6	6.0-6.0	2	2	1
	200 Volts DC Working			
2MPDK2-1	1.0-1.0	1 13/16	1	3/4
2MPDK2-2	2.0-2.0	1 13/16	1	7/8
	400 Volts DC Working			
2MPDM4-P25	.25-.25	1 13/16	1	3/4
2MPDM4-P5	.5-.5	1 13/16	1	7/8
2MPDM4-1	1.0-1.0	2	1 3/4	7/8
2MPDM4-2	2.0-2.0	2	2	1 1/8
	600 Volts DC Working			
2MPDM6-P1	.1-.1	1 13/16	1	3/4
2MPDM6-P25	.25-.25	1 13/16	1	3/4
2MPDM6-P5	.5-.5	1 13/16	1 1/4	7/8
2MPDM6-1	1.0-1.0	2	2	1

Mounting Brackets For Motor Start Electrolytics

See Page 461 For Capacitor Listing



TYPE B_1, C_1, D_1 END CAPS

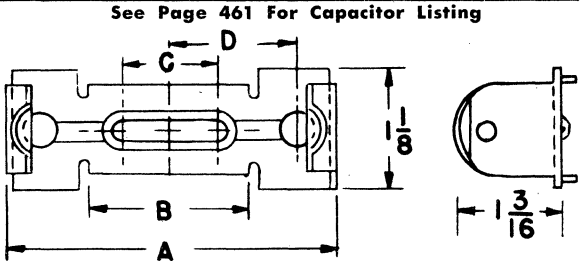


TYPE B_2, C_2, D_2 END CAPS

Types B_1, C_1, and D_1 are used where the wire leads are fed through the mounting bracket.
Types B_2, C_2 and D_2 are used where the wire leads are to protrude from the case diametrically opposite the mounting bracket.

ENDCAPS

CAP.	DIA.
B_1 & B_2	1 1/16
C_1 & C_2	1 13/16
D_1 & D_2	2 1/16



TYPE	A	B	C	D
X	4 1/16	2 1/16	1 1/2	1 3/64
Y	5 1/16	2 5/8	1 51/64	2 3/64

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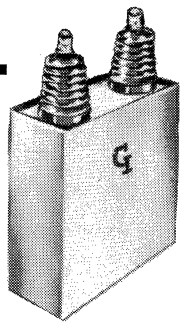
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type PJ High-Voltage Oil-Paper Capacitors
6000 thru 25,000 Volt Series

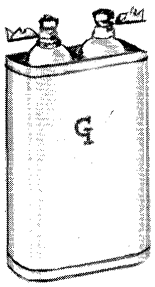


Section assembled in container of heavy gage steel, welded oil tight and hot tinned. Mineral oil impregnated and mineral oil filled. Case and terminals are bonded together. Low leakage current and negligible capacity change over wide range of operating temperature. For higher voltage ratings and engineering data write to Sales Engineering Department.

Temperature Range: —55°C. to +85°C.
Capacity Tolerance: ±10%

Available in:	Cat. No.
6,000 Volts DC Working	PJ 60
7,500 Volts DC Working	PJ 75
10,000 Volts DC Working	PJ 100
12,500 Volts DC Working	PJ 125
15,000 Volts DC Working	PJ 150
20,000 Volts DC Working	PJ 200
25,000 Volts DC Working	PJ 250

Type PLM High-Voltage Oil-Paper Capacitors



Section assembled in lacquer-finished terneplate case. Mineral-oil impregnated and filled. Ceramic terminal insulators with screw studs. Designed for heavy-duty continuous service. Fulfills the exacting requirements of power-supply and filter applications. Meets electrical requirements of MIL-C-25C. For higher voltage ratings and engineering data write to Sales Engineering Department.

Temperature Rating: —55°C. to +85°C.
Standard Tolerance: ±10%

PLM Variations

PLM Basic type similar to MIL Type CP70. Example: PLM6-P5.
PLMF Similar to CP70 with CP07F footed bracket. To order: add F after PLM. Example: PLMF6-P5.
PLMS Similar to CP70 with CP07S spade bracket. To order: Add S after PLM. Example: PLMS6-P5.
PLMU With universal mounting bracket. To order: add U after PLM. Example: PLMU6-P5.
PLMR With solder-lug MIL type B terminals (furnished only through 2,000 VDCW rating). To order: add R after PLM. Example: PLMR6-P5.

Catalog Number	Cap. in UF	Case Size in inches Length	Width	Height
	600 Volts DC Working			
PLM6-P5	.5	1 13/16	1 1/16	1 5/8
PLM6-1	1.0	1 13/16	1 1/16	2 1/4
PLM6-2	2.0	1 13/16	1 1/16	3 1/4
PLM6-3	3.0	1 13/16	1 1/16	4 3/4
PLM6-4	4.0	2 1/2	1 3/16	3 1/2
PLM6-5	5.0	2 1/2	1 3/16	4 1/4
PLM6-6	6.0	2 1/2	1 3/16	4 3/4
PLM6-8	8.0	3 3/4	1 1/4	4 1/4
PLM6-10	10.0	3 3/4	1 3/4	4
	1,000 Volts DC Working			
PLM10-P1	.1	1 13/16	1 1/16	1 5/8
PLM10-P25	.25	1 13/16	1 1/16	1 5/8
PLM10-P5	.5	1 13/16	1 1/16	2 1/4
PLM10-1	1.0	1 13/16	1 1/16	2 7/8
PLM10-2	2.0	1 13/16	1 1/16	4 3/4
PLM10-3	3.0	2 1/2	1 3/16	4 1/4
PLM10-4	4.0	3 3/4	1 1/4	3 7/8
PLM10-5	5.0	3 3/4	1 1/4	4 3/4
PLM10-6	6.0	3 3/4	1 3/4	4
PLM10-8	8.0	3 3/4	1 3/4	4 3/4
PLM10-10	10.0	3 3/4	2 1/4	4 3/4
PLM10-12	12.0	3 3/4	2 1/4	5 1/8
PLM10-15	15.0	3 3/4	3 3/16	4 3/4
	1,500 Volts DC Working			
PLM15-P5	.5	1 13/16	1 1/16	2 7/8
PLM15-1	1.0	1 13/16	1 1/16	4 3/4
PLM15-2	2.0	2 1/2	1 3/16	4 3/4
PLM15-3	3.0	3 3/4	1 1/4	4 3/4
PLM15-4	4.0	3 3/4	1 3/4	4 1/4
PLM15-5	5.0	3 3/4	2 1/4	4 1/2
PLM15-6	6.0	3 3/4	2 1/4	4 3/4
PLM15-8	8.0	3 3/4	2 1/2	5 3/4
PLM15-10	10.0	3 3/4	3 3/16	5 1/2
PLM15-12	12.0	4 5/16	3 3/4	4 3/4
PLM15-15	15.0	4 5/16	3 3/4	6

Catalog Number	Cap. in UF	Case Size in inches Length	Width	Height
	2,000 Volts DC Working			
PLM20-P1	.1	1 13/16	1 1/16	2 1/4
PLM20-P25	.25	1 13/16	1 1/16	2 7/8
PLM20-P5	.5	1 13/16	1 1/16	3 7/8
PLM20-1	1.0	2 1/2	1 3/16	4 1/4
PLM20-2	2.0	3 3/4	1 1/4	4 3/4
PLM20-3	3.0	3 3/4	1 3/4	4 3/4
PLM20-4	4.0	3 3/4	2 1/4	5 1/8
PLM20-5	5.0	3 3/4	3 3/16	4 3/4
PLM20-6	6.0	3 3/4	3 3/16	5 1/2
PLM20-8	8.0	4 5/16	3 3/4	5 1/8
PLM20-10	10.0	4 5/16	3 3/4	6 1/2
PLM20-12	12.0	4 5/16	3 3/4	7 1/2
	2,500 Volts DC Working			
PLM25-P5	.5	2 1/2	1 3/16	3 7/8
PLM25-1	1.0	3 3/4	1 3/4	3 1/4
PLM25-2	2.0	3 3/4	2 1/4	4 3/4
PLM25-4	4.0	4 5/16	3 3/4	4 3/8
PLM25-10	10.0	4 5/16	3 3/4	8 1/2
	3,000 Volts DC Working			
PLM30-1	.1	1 13/16	1 1/16	2 7/8
PLM30-P25	.25	2 1/2	1 3/16	3 1/2
PLM30-P5	.5	2 1/2	1 3/16	4 3/4
PLM30-1	1.0	3 3/4	2 1/4	4 1/2
PLM30-2	2.0	3 3/4	3 3/16	4 3/4
PLM30-4	4.0	4 5/16	3 3/4	6 1/2
	4,000 Volts DC Working			
PLM40-P1	.1	3 3/4	2 1/4	2 3/4
PLM40-P25	.25	3 3/4	2 1/4	2 3/4
PLM40-P5	.5	3 3/4	2 1/4	4 3/4
PLM40-1	1.0	3 3/4	3 3/16	4 3/4
PLM40-2	2.0	4 5/16	3 3/4	6
PLM40-4	4.0	4 5/16	3 3/4	9 5/8
	5,000 Volts DC Working			
PLM50-P5	.5	3 3/4	2 1/4	5 1/8
PLM50-1	1.0	4 5/16	3 3/4	5 1/8
PLM50-2	2.0	4 5/16	3 3/4	9 5/8

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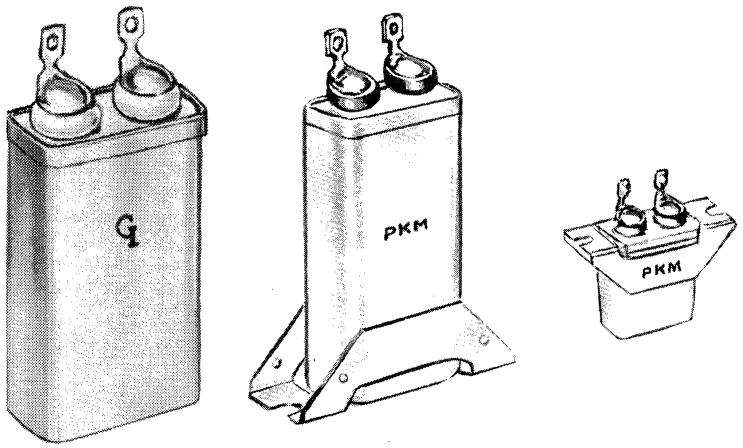
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type PKM Small-Base Oil-Paper Capacitors

Section assembled in hermetically sealed tincoated container. Mineral-oil impregnated and filled. Lug-type terminal seals. Suitable for use in compact equipment. Meets electrical requirements of MIL-C-25C.

Temperature Rating: —55°C to + 85°C.
Standard Tolerance: —10% to + 20%



PKM VARIATIONS

PKM Basic type similar to MIL Type CP61.
Example: PKM4-S5

PKMF Similar to CP61 with CP06F footed bracket.
To order: add F after PKM. Example: PKMF4-S5

PKMS Similar to CP61 with CP06S spade bracket.
To order: add S after PKM. Example: PKMS4-S5

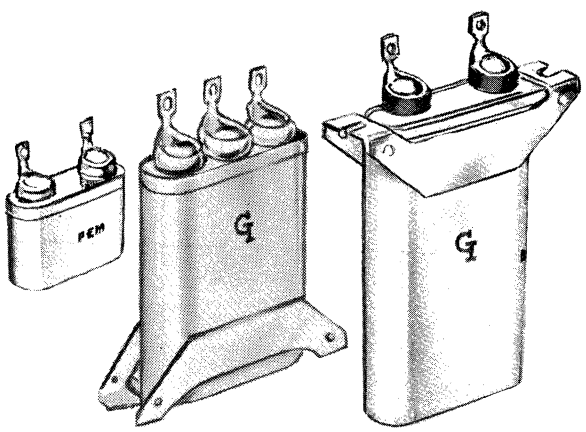
PKMT Similar to CP63 with channel bracket on end opposite terminals.
To order: add T after PKM. Example: PKMT4-S5

PKMB Similar to CP65 with channel bracket on same end as terminals.
To order: add B after PKM. Example: PKMB4-S5

PKMT, PKMB Channel Bracket Dimensions:
Overall Length: 2 5/16".
Overall Width: 49/64" (max.).
Length between Mounting Slot Centers: 1 15/16".
Mounting Slot Width: 5/32".

Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Net
400 Volts DC Working					
PKM4-S5	.05	1 5/16	47/64	1 1/16	1.73
PKM4-P1	.1	1 5/16	47/64	1 1/16	1.82
PKM4-P25	.25	1 5/16	47/64	1 3/8	1.87
PKM4-P5	.5	1 5/16	47/64	1 5/8	1.95
PKM4-1	1.0	1 5/16	47/64	2 1/2	2.14
600 Volts DC Working					
PKM6-S5	.05	1 5/16	47/64	1 1/16	1.76
PKM6-P1	.1	1 5/16	47/64	1 1/16	1.87
PKM6-P25	.25	1 5/16	47/64	1 5/8	1.93
PKM6-P5	.5	1 5/16	47/64	2	2.00
PKM6-1	1.0	1 5/16	47/64	2 3/4	2.24
1,000 Volts DC Working					
PKM10-S5	.05	1 5/16	47/64	1 1/16	1.83
PKM10-P1	.1	1 5/16	47/64	1 3/8	1.91
PKM10-P25	.25	1 5/16	47/64	2	1.92
PKM10-P5	.5	1 5/16	47/64	2 1/2	2.43

Type PEM Small-Base Oil-Paper Capacitors



Section assembled in hermetically sealed tin coated container. Mineral-oil impregnated and filled. Lug-type terminal seals. Suitable for use in compact equipment. Meets electrical requirements of MIL-C-25A.

PEM Variations

PEM Basic type. To order: see Catalog Listing. Example: PEM6-S5
PEMT Similar to MIL Type CP67, with channel bracket on end opposite terminals. To order: add T after PEM. Example: PEMT6-S5
PEMB Similar to CP69, with channel bracket on same end as terminals. To order: add B after PEM. Example: PEMB6-S5

Standard Tolerance: —10% to +20%.
Temperature Rating: —55°C. to + 85°C.

PEMT, PEMB Channel Bracket Dimensions:

Overall Length: 2 7/16".
Overall Width: 41/64" (max.).
Length between Mounting Slot Centers: 2 1/8".
Mounting Slot Width: 5/32".

PEM SINGLE-CAPACITOR UNITS

Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Net
600 Volts DC Working					
PEM6-S5	.05	1 13/16	5/8	1 1/16	1.86
PEM6-P1	.1	1 13/16	5/8	1 1/16	1.92
PEM6-P25	.25	1 13/16	5/8	1 1/2	1.95
PEM6-P5	.5	1 13/16	5/8	2	2.01
PEM6-1	1.0	1 13/16	5/8	2 1/2	2.25
1,000 Volts DC Working					
PEM10-S5	.05	1 13/16	5/8	1 1/16	1.89
PEM10-P1	.1	1 13/16	5/8	1 1/16	1.95
PEM10-P25	.25	1 13/16	5/8	1 1/2	2.01
PEM10-P5	.5	1 13/16	5/8	2 1/2	2.19

PEM DUAL-CAPACITOR UNITS

600 Volts DC Working					
2PEM6-S5	.05-.05	1 13/16	5/8	1 1/16	2.64
2PEM6-P1	.1-.1	1 13/16	5/8	1 1/2	2.69
2PEM6-P25	.25-.25	1 13/16	5/8	2	2.90
2PEM6-P5	.5-.5	1 13/16	5/8	2 1/2	3.25
1,000 Volts DC Working					
2PEM10-S5	.05-.05	1 13/16	5/8	1 1/16	2.69
2PEM10-P1	.1-.1	1 13/16	5/8	1 1/2	2.79
2PEM10-P25	.25-.25	1 13/16	5/8	2 1/2	2.97

PEM TRIPLE-CAPACITOR UNITS

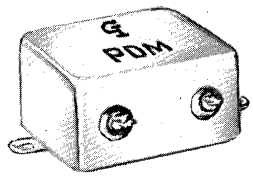
600 Volts DC Working					
3PEM6-S5	.05-.05-.05	1 13/16	5/8	1 1/16	3.16
3PEM6-P1	.1-.1-.1	1 13/16	5/8	1 1/2	3.25
3PEM6-P25	.25-.25-.25	1 13/16	5/8	2 1/2	3.53
1,000 Volts DC Working					
3PEM10-S5	.05-.05-.05	1 13/16	5/8	1 1/2	3.25
3PEM10-P1	.1-.1-.1	1 13/16	5/8	2	3.38

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Type PDM Bathtub-Type Oil-Paper Capacitors

Section assembled in hermetically sealed tin coated drawn-shell container. Mineral-oil impregnated and filled. Lug-type terminal seals. Meets requirements of MIL-C-25C.



PDM Variations

PDM Similar to MIL Type CP53, with terminals on side. Example: PDM4-S5

PDMT (CP54) With terminals on top. To order: add T after PDM. Example: PDMT4-S5

PDMB (CP55) With terminals on the bottom. To order: add B after PDM. Example: PDMB4-S5

Temperature Rating: —55°C. to + 85°C.
Standard Tolerance: —10% to + 20%

PDM SINGLE-CAPACITOR UNITS

Catalog Number	Cap. in UF	Size in inches Length	Width	Height
	400 Volts DC Working			
PDM4-S5	.05	1 13/16	1	3/4
PDM4-P1	.1	1 13/16	1	3/4
PDM4-P25	.25	1 13/16	1	3/4
PDM4-P5	.5	1 13/16	1	15/16
PDM4-1	1.0	2	1 3/4	15/16
PDM4-2	2.0	2	2	1 3/16*
	600 Volts DC Working			
PDM6-S5	.05	1 13/16	1	3/4
PDM6-P1	.1	1 13/16	1	3/4
PDM6-P25	.25	1 13/16	1	3/4
PDM6-P5	.5	1 13/16	1	1
PDM6-1	1.0	2	1 3/4	1
PDM6-2	2.0	2	2	1 3/16*
	1,000 Volts DC Working			
PDM10-S5	.05	1 13/16	1	3/4
PDM10-P1	.1	1 13/16	1	3/4
PDM10-P25	.25	1 13/16	1	13/16
PDM10-P5	.5	2	1 3/4	7/8
PDM10-1	1.0	2	2	1 1/8*

PDM DUAL-CAPACITOR UNITS

	400 Volts DC Working			
2PDM4-S5	.05-.05	1 13/16	1	3/4
2PDM4-P1	.1-.1	1 13/16	1	3/4
2PDM4-P25	.25-.25	1 13/16	1	1
2PDM4-P5	.5-.5	2	1 3/4	15/16
2PDM4-1	1.0-1.0	2	2	1 3/16*

PDM SINGLE-CAPACITOR UNITS (continued)

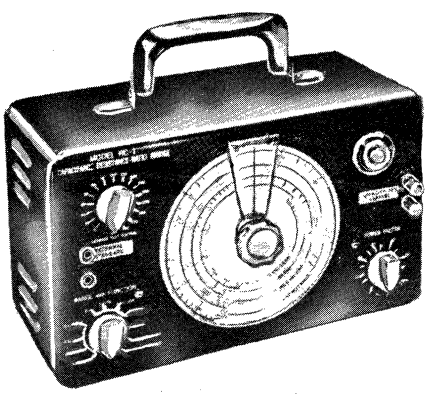
Catalog Number	Cap. in UF	Size in inches Length	Width	Height
	600 Volts DC Working			
2PDM6-S5	.05-.05	1 13/16	1	3/4
2PDM6-P1	.1-.1	1 13/16	1	3/4
2PDM6-P25	.25-.25	1 13/16	1	1
2PDM6-P5	.5-.5	2	1 3/4	15/16
2PDM6-1	1.0-1.0	2	2	1 13/16
	1,000 Volts DC Working			
2PDM10-S5	.05-.05	1 13/16	1	3/4
2PDM10-P1	.1-.1	1 13/16	1	7/8
2PDM10-P25	.25-.25	2	1 3/4	7/8
2PDM10-P5	.5-.5	2	2	1 1/8*

PDM TRIPLE-CAPACITOR UNITS

	400 Volts DC Working			
3PDM4-P1	.1-.1-.1	1 13/16	1	13/16
3PDM4-P25	.25-.25-.25	2	1 3/4	7/8
3PDM4-P5	.5-.5-.5	2	2	1
	600 Volts DC Working			
3PDM6-P1	.1-.1-.1	1 13/16	1	13/16
3PDM6-P25	.25-.25-.25	2	1 3/4	7/8
3PDM6-P5	.5-.5-.5	2	2	1
	1,000 Volts DC Working			
3PDM10-P1	.1-.1-.1	2	1 3/4	7/8
3PDM10-P25	.25-.25-.25	2	2	1 1/8*

* Add 1/16" to Height for units with top or bottom terminals.

Model RC-1 Resistance-Capacity Ratio Bridge Tester



THIS FINE INSTRUMENT IS EQUIPPED TO TEST LEAKAGE IN LOW VOLTAGE ELECTROLYTICS USED IN TRANSISTORIZED CIRCUITS.

G.I. MODEL RC-1 FEATURES:

- Special 3 volt amplifier for checking low voltage electrolytics used in miniaturized equipment such as transistor radios, etc.
- Capacity Ranges—from 10 mmfd. to 2000 mfd.
- Resistance—from .5 ohms to 200 megohms in 4 ranges.
- Ratio test—provides quick reactance or resistance ratio between any two capacitors, inductors or resistors—range: .05 to 1 and 20 to 1. It can be used also to determine turns ratio of transformer windings within this range.
- Leakage Tests—handles all types of capacitors at rated voltages between 0 and 500V DC.
- Power-Factor—0 to 60% (on capacitors from .1 mfd to 2000 mfd).
- Capacitor Test Voltages—variable between 0 and 500V DC in 17 steps.

Shipping Weight: 11 lbs. Overall Dimensions: Length 6½", Height 7⅞", Depth 6".

Dealer Net **$38.60**

Net

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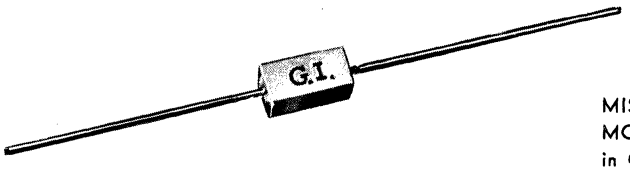
GENERAL INSTRUMENT CAPACITORS

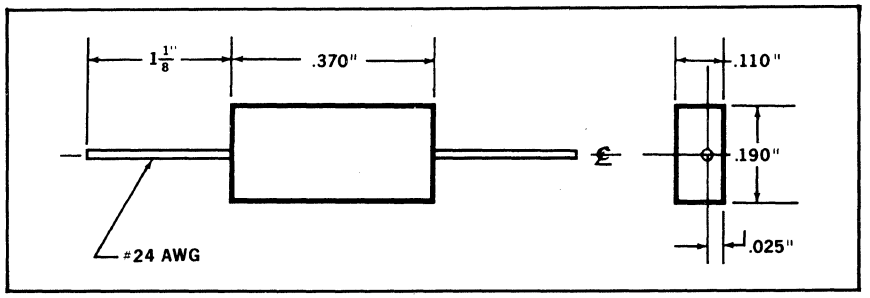
GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

SUBMINIATURE MOLDED MICAS



—55°C TO +125°C OPERATION MEETS & EXCEEDS MIL-C-5B

MISSILMITE subminiature molded mica capacitors are the SMALLEST MOLDED MICA CAPACITORS EVER PRODUCED, and are furnished in Characteristic "C", "D" and "E". MISSILMITES will withstand operating temperatures of —55°C to +125°C (standard ranges is from —55°C to +85°C).



MISSILMITE's reliability and stability permit greater flexibility to the design engineer, and are especially desirable in critical miniaturized assemblies. This subminiature mica capacitor is recommended for use in missiles, delay lines, pulse networks, computors, transistorized assemblies . . . or wherever minimum size and weight, with stability, are required.

TYPE MCM MISSILMITE

TYPE DESIGNATION*	CAPACITANCE ($\mu\mu$f)	DC WORKING VOLTAGE		Characteristic available at capacitance tolerance:			
		85°C	125°C	±2% (G)	±5% (J)	±20% (K)	±20% (M)
MCM10—050M	5	500	300	....	....	....	CD
MCM10—100—	10	500	300	....	....	CD	CD
MCM10—120—	12	500	300	....	....	CD	CD
MCM10—150—	15	500	300	....	....	CD	CD
MCM10—180—	18	500	300	....	....	CD	CD
MCM10—200—	20	500	300	....	CD	CD	CD
MCM10—220—	22	500	300	....	CD	CD	CD
MCM10—240—	24	500	300	....	CD	CD	CD
MCM10—270—	27	500	300	....	CD	CD	CD
MCM10—300—	30	500	300	....	CD	CD	CD
MCM10—330—	33	500	300	....	CD	CD	CD
MCM10—360—	36	500	300	....	CD	CD	CD
MCM10—390—	39	500	300	....	CD	CD	CD
MCM10—430—	43	500	300	....	CD	CD	CD
MCM10—470—	47	500	300	....	CD	CD	CD
MCM10—510—	51	500	300	CDE	CDE	CDE	CDE
MCM10—560—	56	500	300	CDE	CDE	CDE	CDE
MCM10—620—	62	500	300	CDE	CDE	CDE	CDE
MCM10—680—	68	500	300	CDE	CDE	CDE	CDE
MCM10—750—	75	500	300	CDE	CDE	CDE	CDE
MCM10—820—	82	500	300	CDE	CDE	CDE	CDE
MCM10—910—	91	500	300	CDE	CDE	CDE	CDE
MCM10—101—	100	500	300	CDE	CDE	CDE	CDE
MCM10—111—	110	500	300	CDE	CDE	CDE	CDE
MCM10—121—	120	500	300	CDE	CDE	CDE	CDE
MCM10—131—	130	500	300	CDE	CDE	CDE	CDE
MCM10—151—	150	500	300	CDE	CDE	CDE	CDE
MCM10—161—	160	500	300	CDE	CDE	CDE	CDE
MCM10—181—	180	500	300	CDE	CDE	CDE	CDE
MCM10—201—	200	500	300	CDE	CDE	CDE	CDE
MCM10—221—	220	500	300	CDE	CDE	CDE	CDE
MCM10—241—	240	500	300	CDE	CDE	CDE	CDE

***Complete type designation shall include additional symbols to indicate characteristic and tolerance.**

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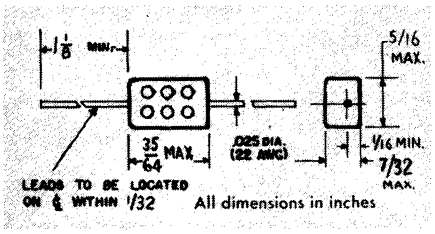
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

MOLDED MICA CAPACITORS

G.I. molded mica capacitors are furnished for military use under MIL specification MIL-C-5B, and tables listed herein coincide with that specification. G.I. also manufactures mica capacitors of the same size and electrical characteristics, for 150° C operation. The headings give the G.I. type designations for commercial use. Unless otherwise specified by the customer, these conform, in general, to the E. I. A. Specification RS 153.

TYPE CM-15 Silvered Mica



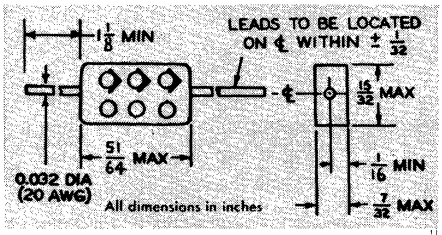
500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±5%
1	CM-15-C-010†	$0.12
2	CM-15-C-020†	.12
3	CM-15-C-030†	.12
5	CM-15-C-050†	.12
10	CM-15-C-100	.12
12	CM-15-C-120	.12
15	CM-15-C-150	.12
18	CM-15-C-180	.12
20	CM-15-C-200	.12
22	CM-15-C-220	.12
24	CM-15-E-240	.12
27	CM-15-E-270	.12
30	CM-15-E-300	.12
33	CM-15-E-330	.12
36	CM-15-E-360	.12
39	CM-15-E-390	.12
43	CM-15-E-430	.12
47	CM-15-E-470	.12
50	CM-15-E-500	.12
51	CM-15-E-510	.12
56	CM-15-E-560	.12
62	CM-15-E-620	.12
68	CM-15-E-680	.12
75	CM-15-E-750	.12
82	CM-15-E-820	.12
91	CM-15-E-910	.15
100	CM-15-E-101	.15
110	CM-15-E-111	.15
120	CM-15-E-121	.15
130	CM-15-E-131	.15
150	CM-15-E-151	.15
160	CM-15-E-161	.18
180	CM-15-E-181	.18
200	CM-15-E-201	.18
220	CM-15-E-221	.18
240	CM-15-E-241	.21
250	CM-15-E-251	.21
270	CM-15-E-271	.21
300	CM-15-E-301	.21
330	CM-15-E-331	.24
360	CM-15-E-361	.24
390	CM-15-E-391	.45
430*	CM-15-E-431	.45
470*	CM-15-E-471	.45
500*	CM-15-E-501	.45
510*	CM-15-E-511	.45

*Voltage Rating 300VDCW.
†Closest Tolerance ±0.5 μμf.

SPECIFICATIONS NOTES:
±½% tolerance available above 100 μμf at double ±5% price.

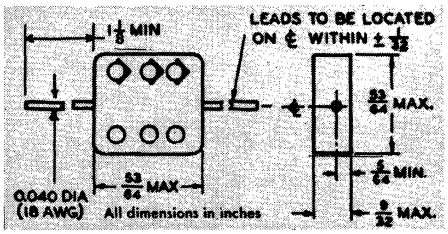
TYPE CM-20 Silvered Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±5%
5	CM-20-C-505	$0.12
10	CM-20-C-100	.12
12	CM-20-C-120	.12
15	CM-20-C-150	.12
18	CM-20-C-180	.12
20	CM-20-C-200	.12
22	CM-20-C-220	.12
24	CM-20-C-220	.12
27	CM-20-C-270	.12
30	CM-20-C-300	.12
33	CM-20-C-330	.12
36	CM-20-C-360	.12
39	CM-20-C-390	.12
43	CM-20-C-430	.12
47	CM-20-C-470	.12
50	CM-20-C-500	.12
51	CM-20-C-510	.12
56	CM-20-C-560	.12
62	CM-20-C-620	.12
68	CM-20-C-680	.12
75	CM-20-C-750	.12
82	CM-20-C-820	.12
91	CM-20-C-910	.12
100	CM-20-C-101	.12
110	CM-20-C-111	.15
120	CM-20-C-121	.15
130	CM-20-C-131	.15
150	CM-20-C-151	.15
160	CM-20-C-161	.15
180	CM-20-C-181	.15
200	CM-20-D-201	.15
220	CM-20-D-221	.15
240	CM-20-D-241	.18
250	CM-20-D-251	.18
270	CM-20-D-271	.18
300	CM-20-D-301	.18
330	CM-20-D-331	.18
360	CM-20-D-361	.18
390	CM-20-D-391	.18
430	CM-20-D-431	.21
470	CM-20-D-471	.21
500	CM-20-D-501	.21
510	CM-20-D-511	.21
560	CM-20-D-561	.24
620	CM-20-D-621	.24
680	CM-20-D-681	.24
750	CM-20-D-751	.27
820	CM-20-D-821	.27
910	CM-20-D-911	.30
1000	CM-20-D-102	.30
1100	CM-20-D-112	.33
1200	CM-20-D-122	.33
1300	CM-20-D-132	.33
1500	CM-20-D-152	.39
1600	CM-20-D-162	.39
1800	CM-20-D-182	.42
2000	CM-20-D-202	.45

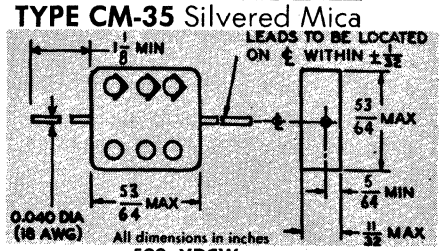
TYPE CM-30 Silvered Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±5%
510	CM-30-E-511	$0.21
560	CM-30-E-561	.24
620	CM-30-E-621	.24
680	CM-30-E-681	.24
750	CM-30-E-751	.27
820	CM-30-E-821	.27
910	CM-30-E-911	.30
1000	CM-30-E-102	.30
1100	CM-30-E-112	.33
1200	CM-30-E-122	.33
1300	CM-30-E-132	.33
1500	CM-30-E-152	.39
1600	CM-30-E-162	.39
1800	CM-30-E-182	.42
2000	CM-30-E-202	.45
2200	CM-30-E-222	.51
2400	CM-30-E-242	.51
2500	CM-30-E-252	.54
2700	CM-30-E-272	.54
3000	CM-30-E-302	.60
3300	CM-30-E-332	.66
3600	CM-30-E-362	.69
3900	CM-30-E-392	.72
4300	CM-30-E-432	.78
4700	CM-30-E-472	.84
5000	CM-30-E-502	.87
5100	CM-30-E-512	.87
5600	CM-30-E-562	.93
6200	CM-30-E-622	1.02

TYPE CM-35 Silvered Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±5%
6800*	CM-35-E-682	$1.14
7500*	CM-35-E-752	1.20
8200*	CM-35-E-822	1.30
9100*	CM-35-E-912	1.41
10000*	CM-35-E-103	1.59
12000*	CM-35-E-123	1.84
15000*	CM-35-E-153	2.17
6800	VCM-35-E-682	1.14
7500	VCM-35-E-752	1.20
8200	VCM-35-E-822	1.30
9100	VCM-35-E-912	1.41
10000	VCM-35-E-103	1.59

All capacities marked with * are 300WV.
NOTE: For ±½% tolerance, double the 5% list prices.

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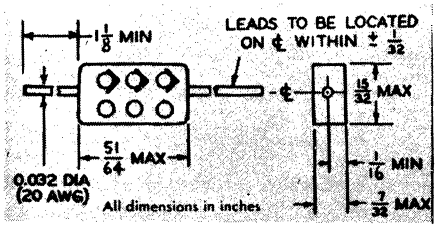
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

MOLDED MICA CAPACITORS

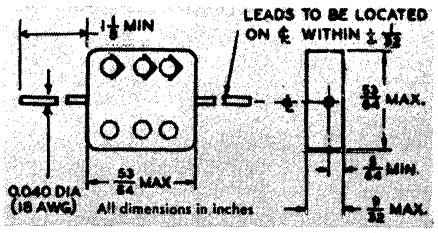
TYPE CM-20 Foil Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±20%
5	CM-20-B-050	$0.12
10	CM-20-B-100	.12
12	CM-20-B-120	.12
15	CM-20-B-150	.12
18	CM-20-B-180	.12
20	CM-20-B-200	.12
22	CM-20-B-220	.12
24	CM-20-B-240	.12
27	CM-20-B-270	.12
30	CM-20-B-300	.12
33	CM-20-B-330	.12
36	CM-20-B-360	.12
39	CM-20-B-390	.12
43	CM-20-B-430	.12
47	CM-20-B-470	.12
50	CM-20-B-500	.12
51	CM-20-B-510	.12
56	CM-20-B-560	.12
62	CM-20-B-620	.12
68	CM-20-B-680	.12
75	CM-20-B-750	.12
82	CM-20-B-820	.12
91	CM-20-B-910	.12
100	CM-20-B-101	.12
110	CM-20-B-111	.12
120	CM-20-B-121	.12
130	CM-20-B-131	.12
150	CM-20-B-151	.12
160	CM-20-B-161	.12
180	CM-20-B-181	.12
200	CM-20-B-201	.12
220	CM-20-B-221	.12
240	CM-20-8-241	.12
250	CM-20-B-251	.12
270	CM-20-B-271	.12
300	CM-20-B-301	.12
330	CM-20-B-331	.12
360	CM-20-B-361	.12
390	CM-20-B-391	.12
430	CM-20-B-431	.12
470	CM-20-B-471	.15
500	CM-20-B-501	.15
510	CM-20-B-511	.15
560	CM-20-B-561	.15
620	CM-20-B-621	.15
680	CM-20-B-681	.18
750	CM-20-B-751	.18
820	CM-20-B-821	.18
910	CM-20-B-911	.18
1000	CM-20-B-102	.21
1100	CM-20-B-112	.21
1200	CM-20-B-122	.21
1300	CM-20-B-132	.21
1500	CM-20-B-152	.24
1600	CM-20-B-162	.24
1800	CM-20-B-182	.24
2000	CM-20-B-202	.24

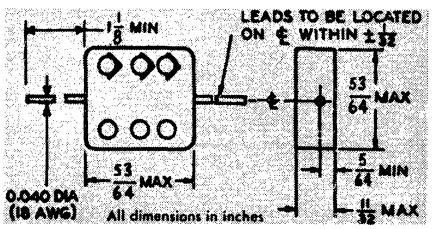
TYPE CM-30 Foil Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±20%
510	CM-30-B-511	$0.15
560	CM-30-B-561	.15
620	CM-30-B-621	.15
680	CM-30-B-681	.18
750	CM-30-B-751	.18
820	CM-30-B-821	.18
910	CM-30-B-911	.18
1000	CM-30-B-102	.21
1100	CM-30-B-112	.21
1200	CM-30-B-122	.21
1300	CM-30-B-132	.21
1500	CM-30-B-152	.24
1600	CM-30-B-162	.24
1800	CM-30-B-182	.24
2000	CM-30-B-202	.24
2200	CM-30-B-222	.27
2400	CM-30-B-242	.27
2500	CM-30-B-252	.27
2700	CM-30-B-272	.27
3000	CM-30-B-302	.27
3300	CM-30-B-332	.33
3600	CM-30-B-362	.33
3900	CM-30-B-392	.33
4300	CM-30-B-432	.33
4700	CM-30-B-472	.42
5000	CM-30-B-502	.42
5100	CM-30-B-512	.42
5600	CM-30-B-562	.42
6200	CM-30-B-622	.54

TYPE CM-35 Foil Mica



500 VDCW

CAP. μμf	TYPE DESIGNATION	NET PRICE ±10%
6800*	CM-35-B-682	$0.57
7500*	CM-35-B-752	.57
8200*	CM-35-B-822	.57
9100*	CM-35-B-912	.57
10000*	CM-35-B-103	.84
12000*	CM-35-B-123	.96
15000*	CM-35-B-153	1.20
6800	VCM-35-B-682	.57
7500	VCM-35-B-752	.57
8200	VCM-35-B-822	.57
9100	VCM-35-B-912	.57
10000	VCM-35-B-103	.84

All capacities marked with * are 300WV. VCM are non-military types.

NON-STANDARD CAPACITORS

To meet the ever increasing demands for non-standard capacitors, G.I. Capacitor Division stocks large quantities of capacitors not listed. Immediate delivery of almost any non-standard mica capacitor can be made. These capacitors are manufactured to meet or exceed MIL-C-5A specifications.

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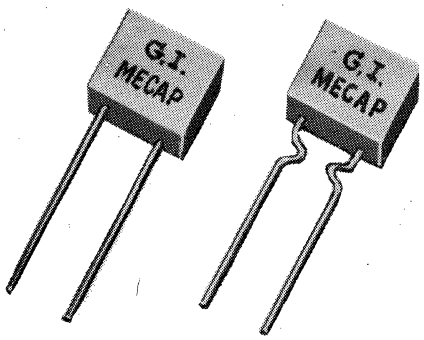
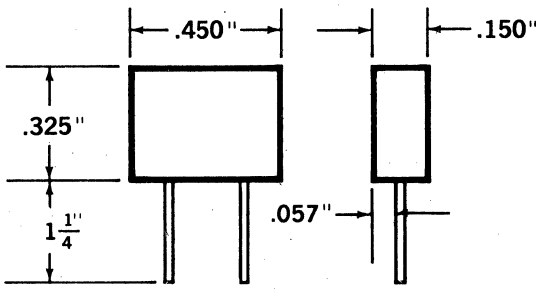
GENERAL INSTRUMENT CAPACITORS

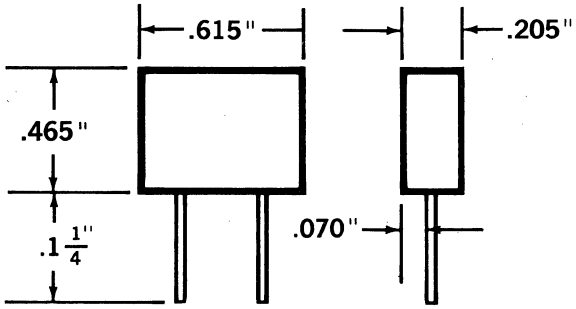
GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Molded Radial Lead Mica Capacitors



G.I.'s new "modern designed" MECAPS are the first MOLDED, radial-lead mica capacitors available with precisely controlled body dimensions. Being molded . . . not dipped or encapsulated, each capacitor is exactly the same size, and symmetrical, so units can be conveniently "stacked" in an assembly to reduce component space requirements. MECAPS are available taped for mechanical insertion, and with leads straight or crimped. These MECAPS meet and exceed MIL-C-5B specifications, can be furnished in "B", "C", "D", "E" and "F" characteristics. Operating temperatures from —55°C to 125°C (standard range is from —40°C to 85°C). MECAPS, with their consistently high quality, and many advantages of design, are no more expensive than the obsolete dipped types.





TYPE RPQ

Type Designation*	Capacitance ($\mu\mu$f)	DC Working Voltage	Characteristic available at capacitance tolerance: ±2% (G)	±5% (J)	±10% (K)	±20% (M)
RPQ-050-	5	500	....	....	....	BC
RPQ-100-	10	500	....	....	BC	BC
RPQ-120-	12	500	....	....	BC	BCD
RPQ-150-	15	500	....	....	BCD	BCD
RPQ-180-	18	500	....	....	BCD	BCD
RPQ-200-	20	500	....	BCD	BCD	BCD
RPQ-220-	22	500	....	BCD	BCD	BCD
RPQ-240-	24	500	....	BCD	BCD	BCD
RPQ-270-	27	500	....	BCD	BCD	BCD
RPQ-300-	30	500	....	BCD	BCD	BCD
RPQ-330-	33	500	....	BCD	BCD	BCD
RPQ-360-	36	500	....	BCD	BCD	BCD
RPQ-390-	39	500	....	BCD	BCD	BCD
RPQ-430-	43	500	....	BCD	BCD	BCD
RPQ-470-	47	500	....	BCD	BCD	BCD
RPQ-510-	51	500	CDE	BCDE	BCDE	BCDE
RPQ-560-	56	500	CDE	BCDE	BCDE	BCDE
RPQ-620-	62	500	CDE	BCDE	BCDE	BCDE
RPQ-680-	68	500	CDE	BCDE	BCDE	BCDE
RPQ-750-	75	500	CDE	BCDE	BCDE	BCDE
RPQ-820-	82	500	CDE	BCDE	BCDE	BCDE
RPQ-910-	91	500	CDE	BCDE	BCDE	BCDE
RPQ-101-	100	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-111-	110	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-121-	120	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-131-	130	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-151-	150	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-161-	160	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-181-	180	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-201-	200	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-221-	220	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-241-	240	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-271-	270	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-301-	300	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-331-	330	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-361-	360	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-391-	390	500	CDEF	BCDEF	BCDEF	BCDEF
RPQ-431-	430	300	CDEF	BCDEF	BCDEF	BCDEF
RPQ-471-	470	300	CDEF	BCDEF	BCDEF	BCDEF
RPQ-511-	510	300	CDEF	BCDEF	BCDEF	BCDEF

***Complete type designation shall include additional symbols to indicate construction, characteristic and tolerance.**
If crimped leads are desired, substitute "K" for "R" in the type designation.

TYPE RPO

Type Designation*	Capacitance ($\mu\mu$f)	DC Working Voltage	Characteristic available at capacitance tolerance: ±2% (G)	±5% (J)	±10% (K)	±20% (M)
RPO-510-	51	500	CDE	BCDE	BCDE	BCDE
RPO-560-	56	500	CDE	BCDE	BCDE	BCDE
RPO-620-	62	500	CDE	BCDE	BCDE	BCDE
RPO-680-	68	500	CDE	BCDE	BCDE	BCDE
RPO-750-	75	500	CDE	BCDE	BCDE	BCDE
RPO-820-	82	500	CDE	BCDE	BCDE	BCDE
RPO-910-	91	500	CDE	BCDE	BCDE	BCDE
RPO-101-	100	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-111-	110	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-121-	120	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-131-	130	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-151-	150	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-161-	160	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-181-	180	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-201-	200	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-221-	220	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-241-	240	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-271-	270	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-301-	300	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-331-	330	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-361-	360	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-391-	390	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-431-	430	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-471-	470	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-511-	510	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-561-	560	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-621-	620	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-681-	680	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-751-	750	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-821-	820	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-911-	910	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-102-	1000	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-112-	1100	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-122-	1200	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-132-	1300	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-152-	1500	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-162-	1600	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-182-	1800	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-202-	2000	500	CDEF	BCDEF	BCDEF	BCDEF
RPO-222-	2200	300	CDEF	BCDEF	BCDEF	BCDEF
RPO-242-	2400	300	CDEF	BCDEF	BCDEF	BCDEF
RPO-272-	2700	300	CDEF	BCDEF	BCDEF	BCDEF
RPO-302-	3000	300	CDEF	BCDEF	BCDEF	BCDEF
RPO-332-	3300	300	CDEF	BCDEF	BCDEF	BCDEF

***Complete type designation shall include additional symbols to indicate construction characteristic and tolerance.**
If crimped leads are desired, substitute "K" for "R" in the type designation.

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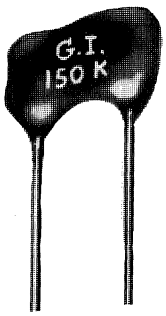
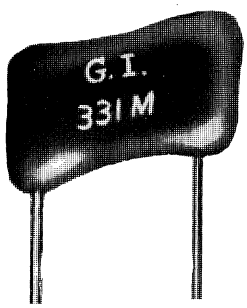
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION | **PYRAMID • MICAMOLD**

Encapsulated Mica Capacitors

G.I. Micaps are silvered mica capacitors having the same mica capacitor sections as the molded styles CM-15 and CM-20. They differ in that they are hermetically sealed by a dip coating method and have radial wire leads instead of axial leads. This latter feature results in a shorter RF current path and greater ease of installation, making them specially suitable for use in printed circuitry. Micaps are smaller than the comparable molded types and are particularly applicable in the development of miniature equipment.





TYPE DESIGNATION TO BE IN FOLLOWING FORM:

MQ-15 151 J

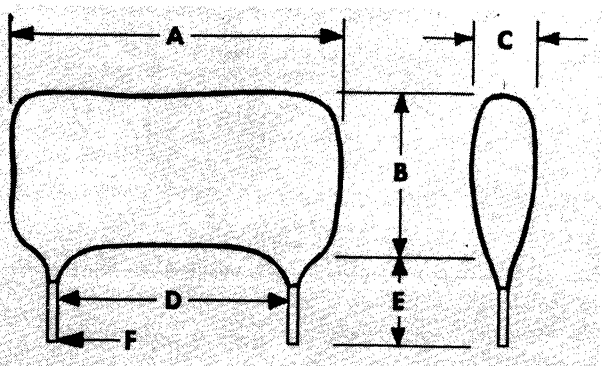
STYLE — CAPACITANCE* — TOLERANCE

*The nominal capacitance value expressed in microfarads is identified by a three-digit number; the first two digits represent significant figures and the last digit specifies the number of zeros that follow.

MICAP TYPE MQ-15 500V. D-C W.V.

CAP. μμf	TYPE DESIGNATION	NET PRICE/TOLERANCE "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
1	MQ-15-010†	$0.15			
2	MQ-15-020†	.15			
3	MQ-15-030†	.15			
5	MQ-15-050†	.15			
10	MQ-15-100	.15	$0.17		
12	MQ-15-120	.15	.17		
15	MQ-15-150	.15	.17		
18	MQ-15-180	.15	.17		
20	MQ-15-200	.15	.17		
22	MQ-15-220	.15	.17		
24	MQ-15-240	.15	.17	$0.20	
27	MQ-15-270	.15	.17	.20	
30	MQ-15-300	.15	.17	.20	
33	MQ-15-330	.15	.17	.20	
36	MQ-15-360	.15	.17	.20	
39	MQ-15-390	.15	.17	.20	
43	MQ-15-430	.15	.17	.20	
47	MQ-15-470	.15	.17	.20	
50	MQ-15-500	.15	.17	.20	$0.24
51	MQ-15-510	.15	.17	.20	.24
56	MQ-15-560	.15	.17	.20	.24
62	MQ-15-620	.15	.17	.20	.24
68	MQ-15-680	.15	.17	.20	.24
75	MQ-15-750	.15	.17	.20	.24
82	MQ-15-820	.15	.17	.20	.24
91	MQ-15-910	.15	.17	.20	.24
100	MQ-15-101	.15	.17	.20	.24
110	MQ-15-111	.18	.20	.23	.29
120	MQ-15-121	.18	.20	.23	.29
130	MQ-15-131	.18	.20	.23	.29
150	MQ-15-151	.18	.20	.23	.29
160	MQ-15-161	.21	.23	.28	.34
180	MQ-15-181	.21	.23	.28	.34
200	MQ-15-201	.21	.23	.28	.34
220	MQ-15-221	.24	.26	.31	.38
240	MQ-15-241	.24	.26	.31	.38
250	MQ-15-251	.24	.26	.31	.38
270	MQ-15-271	.27	.30	.35	.43
300	MQ-15-301	.27	.30	.35	.43
330	MQ-15-331	.30	.33	.39	.48
360	MQ-15-361	.30	.33	.39	.48
390	MQ-15-391	.33	.37	.43	.53
430*	MQ-15-431	.33	.37	.43	.53
470*	MQ-15-471	.36	.40	.47	.58
500*	MQ-15-501	.36	.40	.47	.58
510*	MQ-15-511	.36	.40	.47	.58
560*	MQ-15-561	.39	.43	.51	.62
620*	MQ-15-621	.42	.46	.55	.67
680*	MQ-15-681	.45	.50	.59	.72
750*	MQ-15-751	.48	.53	.62	.77
820*	MQ-15-821	.51	.56	.67	.82

All capacities marked with * are 300WV.



STYLE	A	B	C	D	E	F
MQ-15	7/16"	11/32"	5/32"	1/4"	1½"	#22AWG
MO-19	5/8"	15/32"	3/16"	13/32"	1½"	#20AWG

ALL DIMENSIONS ARE NOMINAL

MICAP TYPE MO-19 500V. D-C W.V.

CAP. μμf	TYPE DESIGNATION	NET PRICE/TOLERANCE "K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
430	MO-19-431	$0.27	$0.30	$0.32	$0.41
470	MO-19-471	.30	.33	.36	.45
500	MO-19-501	.30	.33	.36	.45
510	MO-10-511	.30	.33	.36	.45
560	MO-19-561	.33	.37	.40	.50
620	MO-19-621	.33	.37	.40	.50
680	MO-19-681	.36	.40	.43	.54
750	MO-19-751	.36	.40	.43	.54
820	MO-19-821	.36	.40	.43	.54
910	MO-19-911	.39	.43	.47	.59
1000	MO-19-102	.42	.46	.50	.63
1100	MO-19-112	.42	.46	.50	.63
1200	MO-19-122	.45	.50	.54	.68
1300	MO-19-132	.48	.53	.58	.72
1500	MO-19-152	.51	.56	.61	.77
1600	MO-19-162	.54	.59	.65	.81
1800	MO-19-182	.60	.66	.72	.90
2000	MO-19-202	.66	.73	.79	.99

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Net

PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

ITT Wet Tantalum Capacitors

Feature — low leakage current — long shelf life — maximum performance with minimum size. Manufactured in conformance to MIL specifications.

These High Reliability Tantalum Capacitors are designed for a wide range of applications, in the missile, airborne and mobile service, as well as conventional circuits where extreme reliability and minimum size are of prime importance.

The sintered anode slug, sealed in a fine-silver case with tantalum-oxide electrolyte, assures complete stability and trouble-free operation.

TYPE MA For Average Temperature Use —55 C to +85 C
Standard Tolerance: A+50% —15% B+20% —15%

Case Size	Code Number	Capacity MFD at 120 cps 25°C	Max. Working Voltage D-C at 85°C	Max. Surge Voltage D-C @ 85°C	Max. D-C Leakage at Rated Voltage Microamperes @ 25°C	@ 85°C	Max. E. S. R. at 120 cps OHMS @ 25°C	Max. Imped. at 120 cps OHMS @ 55°C
T-1	MA30D	30	6	7	1.0	4.0	4.0	100
	MA25F	25	8	10	1.0	4.0	4.0	100
	MA20G	20	10	12	1.0	4.0	4.0	125
	MA15J	15	15	18	1.5	6.0	5.0	150
	MA10L	10	25	30	1.5	6.0	6.0	195
	MA8M	8	30	36	2.0	8.0	7.0	240
	MA5Q	5	50	60	2.0	8.0	8.0	365
	MA4R	4	60	72	2.0	10.0	8.7	415
	MA3.5T	3.5	75	87	2.5	10.0	9.0	515
	MA2.5V	2.5	100	115	2.5	10.0	10.0	870
	MA1.75W	1.75	125	140	3.0	12.0	13.5	980
T-2	MA140D	140	6	7	2.0	8.0	2.0	40
	MA100G	100	10	12	2.0	8.0	2.0	60
	MA70J	70	15	18	3.0	12.0	2.5	68
	MA40M	40	30	36	3.0	12.0	4.0	65
	MA25Q	25	50	60	4.0	16.0	4.0	95
	MA20R	20	60	72	4.0	16.0	4.3	105
	MA15T	15	75	87	5.0	20.0	5.0	145
	MA11V	11	100	115	6.0	24.0	5.0	200
	MA9W	9	125	140	7.0	28.0	5.0	240
T-3	MA330D	330	6	7	3.0	12.0	2.0	20
	MA250G	250	10	12	3.0	12.0	2.0	30
	MA175J	175	15	18	4.0	16.0	2.0	35
	MA100M	100	30	36	5.0	20.0	2.5	40
	MA60Q	60	50	60	5.0	20.0	3.0	45
	MA50R	50	60	72	5.0	20.0	4.0	50
	MA40T	40	75	87	6.0	24.0	4.7	60
	MA30V	30	100	115	7.0	28.0	4.0	80
	MA25W	25	125	140	8.0	32.0	5.0	93

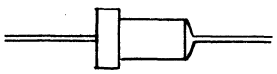
Refer to Specification Form #900018-1260

TYPE PA For High Temperature Use —55 C to +125 C
Standard Tolerance: A+50—15% B+20—15%

Case Size	Code Number	Capacity MFD at 120 cps 25°C	Max. Working Voltage D-C @ 125°C	@ 85°C	Max. D-C Leakage Microamperes @ 25°C	@ 85°C	@ 125°C	Max. E. S. R. at 120 cps OHMS @ 25°C	Max. Imped. at 120 cps OHMS @ 55°C
T-1	PA30B	30	4	6	1.0	4.0	4.0	4.0	100
	PA25C	25	5	8	1.0	4.0	4.0	4.0	100
	PA20E	20	7	10	1.0	4.0	5.0	4.0	125
	PA15G	15	10	15	1.5	6.0	6.0	5.0	150
	PA10J	10	15	25	1.5	6.0	6.0	6.0	195
	PA8K	8	20	30	2.0	8.0	8.0	7.0	240
	PA5M	5	30	50	2.0	8.0	8.0	8.0	365
	PA4P	4	40	60	2.0	10.0	12.0	8.7	415
	PA3.5Q	3.5	50	75	2.5	10.0	12.0	9.0	515
	PA2.5S	2.5	70	100	2.5	10.0	12.0	10.0	870
	PA1.75U	1.75	85	125	3.0	12.0	12.0	13.5	980
T-2	PA140B	140	4	6	2.0	8.0	8.0	2.0	40
	PA100E	100	7	10	2.0	8.0	8.0	2.0	60
	PA70G	70	10	15	3.0	12.0	12.0	2.5	68
	PA40K	40	20	30	3.0	12.0	15.0	4.0	65
	PA25M	25	30	50	4.0	16.0	20.0	4.0	95
	PA20P	20	40	60	4.0	16.0	20.0	4.3	105
	PA15Q	15	50	75	5.0	20.0	24.0	5.0	145
	PA11S	11	70	100	6.0	24.0	28.0	5.0	200
	PA9U	9	85	125	7.0	28.0	28.0	5.0	240
T-3	PA330B	330	4	6	3.0	12.0	12.0	2.0	20
	PA250E	250	7	10	3.0	12.0	12.0	2.0	30
	PA175G	175	10	15	4.0	16.0	16.0	2.0	35
	PA100K	100	20	30	5.0	20.0	20.0	2.5	40
	PA60M	60	30	50	5.0	20.0	24.0	3.0	45
	PA50P	50	40	60	5.0	20.0	24.0	4.0	50
	PA40Q	40	50	75	6.0	24.0	28.0	4.7	60
	PA30S	30	70	100	7.0	28.0	32.0	4.0	80
	PA25U	25	85	125	8.0	32.0	32.0	5.0	93

Refer to Specification Form #900019-1260

CASE TYPES and DIMENSIONS



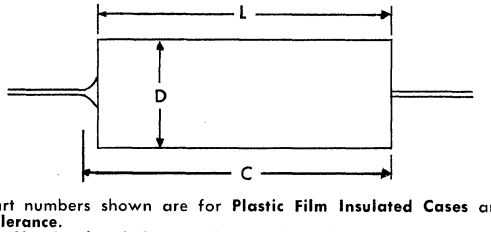
	Body Length	Shoulder Diameter	Body Diameter	Lead Length	Lead Diameter
T-1	15/32	5/16	7/32	1-1/2	.032
T-2	11/16	15/32	9/32	2-1/4	.042
T-3	49/64	37/64	3/8	2-1/4	.042

ITT Solid Anode Tantalum Capacitors

TYPE SM For average temperature use —55° C to +65° C
125° C operation requires derating.

FEATURES Wide operating temperature range — Hermetically sealed — Low leakage — Long shelf life
Meets MIL Specifications.

CASE SIZE	Film Insul. C±.031	D +.016 −.010	L±.031	LEADS Length +¼" −0.000	Diameter +.005 −.001
S-1	0.394	0.129	0.254	1½	0.020
S-2	0.582	0.179	0.442	1½	0.020
S-3	0.794	0.283	0.654	1½	0.025
S-4	0.894	0.345	0.754	1½	0.025



Part numbers shown are for **Plastic Film Insulated Cases** and **10% Tolerance.**
For **Non Insulated Sleeve,** substitute letter 'A' for second character 'M'.
For **Rigid Insulated Sleeve,** substitute letter 'P' for second character 'A'.
Refer to Specification Form #900021-161

For **20% Tolerance** (capacitance value in bold type), substitute the letter 'E' for last character 'F'. Refer to Specification Form #900021-161

ORDERING INFORMATION

Capacity µf. @ 120 CPS 25°C	CASE SIZE	Max. DC Working Voltage 6V	Max. DC Working Voltage 10V	Max. DC Working Voltage 15V	Max. DC Working Voltage 20V	Max. DC Working Voltage 35V
1.0	S1	SM1.0DF	SM1.0GF	SM1.0JF	SM1.0KF	SM1.0NF
1.2		SM1.2DF	SM1.2GF	SM1.2JF	SM1.2KF	SM1.2NF
1.5		SM1.5DF	SM1.5GF	SM1.5JF	SM1.5KF	SM1.5NF
1.8		SM1.8DF	SM1.8GF	SM1.8JF	SM1.8KF	SM1.8NF
2.2		SM2.2DF	SM2.2GF	SM2.2JF	SM2.2KF	SM2.2NF
2.7		SM2.7DF	SM2.7GF	SM2.7JF	SM2.7KF	SM2.7NF
3.3		SM3.3DF	SM3.3GF	SM3.3JF	SM3.3KF	SM3.3NF
3.9		SM3.9DF	SM3.9GF	SM3.9JF	SM3.9KF	SM3.9NF
4.7		SM4.7DF	SM4.7GF	SM4.7JF	SM4.7KF	SM4.7NF
5.6		SM5.6DF	SM5.6GF	SM5.6JF	SM5.6KF	SM5.6NF
6.8		SM6.8DF	SM6.8GF	SM6.8JF	SM6.8KF	SM6.8NF
8.2	S2	SM8.2DF	SM8.2GF	SM8.2JF	SM8.2KF	SM8.2NF
10.0		SM10DF	SM10GF	SM10JF	SM10KF	SM10NF
12.0		SM12DF	SM12GF	SM12JF	SM12KF	SM12NF
15.0		SM15DF	SM15GF	SM15JF	SM15KF	SM15NF
18.0		SM18DF	SM18GF	SM18JF	SM18KF	SM18NF
22.0		SM22DF	SM22GF	SM22JF	SM22KF	SM22NF
27.0		SM27DF	SM27GF	SM27JF	SM27KF	SM27NF
33.0		SM33DF	SM33GF	SM33JF	SM33KF	SM33NF
39.0		SM39DF	SM39GF	SM39JF	SM39KF	SM39NF
47.0		SM47DF	SM47GF	SM47JF	SM47KF	SM47NF
56.0		SM56DF	SM56GF	SM56JF	SM56KF	
68.0	S3	SM68DF	SM68GF	SM68JF	SM68KF	
82.0		SM82DF	SM82GF	SM82JF	SM82KF	
100.0		SM100DF	SM100GF	SM100JF	SM100KF	
120.0		SM120DF	SM120GF	SM120JF		
150.0		SM150DF	SM150GF	SM150JF		
180.0		SM180DF	SM180GF			
220.0	S4	SM220DF	SM220GF			
270.0		SM270DF				
330.0		SM330DF				

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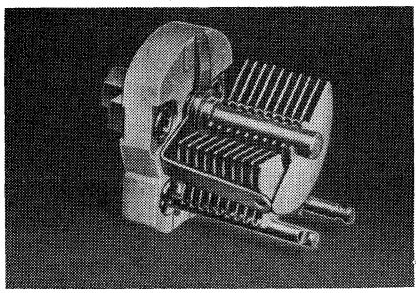
HAMMARLUND

STANDARD VARIABLE CAPACITORS

"APC" CAPACITORS



FEATURES—The "APC" trimmer capacitor originated by Hammarlund over twenty years ago is still widely recognized as the standard capacitor of its type. Its use is indicated in all classes of equipment where a compact, high quality air dielectric trimmer is required. It was designed to resist effects of temperature, moisture and vibration. Silicone treated steatite insulation is used to insure high leakage resistance.

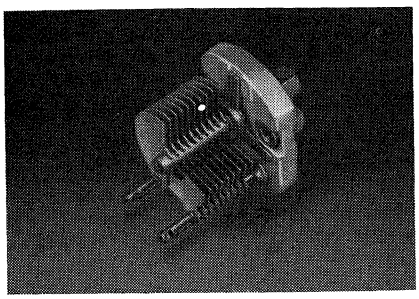
CONSTRUCTION—Brass rotor and stator plates are soldered to brass supports. Nickel-plated phosphor bronze wiper assures positive rotor contact. All metal parts are nickel-plated. Terminals are hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding the rotor.

SPECIFICATIONS—Straight line capacity characteristic. Available either with hexagonal collar on slotted shaft to permit rotor adjustments to be made with wrench or screwdriver or with ½" extended shaft for knob control or shaft coupling. (Type "B") "APC-C" Lock Type now also available through distributors. Air Gap is 0.015" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
APC-15	17.	2.8	5	$1.25
APC-25	25.	3.0	7	1.35
APC-50	50.	3.9	14	1.55
APC-75	75.	4.6	20	1.70
APC-100	100.	5.5	27	1.85
APC-140	140.	6.7	37.	2.15

"B" and "C" types slightly higher

"MAPC" CAPACITORS



FEATURES—The "MAPC" capacitor is representative of Hammarlund's efforts to meet the demand for smaller dependable components. It is a scaled-down version of the popular "APC" with everything reduced except the quality and performance characteristics. For example, an "MAPC" is about half the size and weight of an "APC". Lower minimum capacities and low inductance make the "MAPC" suitable for VHF use.

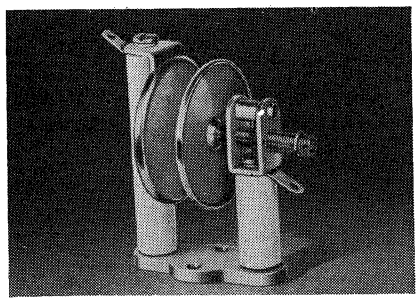
CONSTRUCTION—The standard "APC" construction is used in this capacitor. Rotors and stators are fabricated by soldering brass plates to supporting members and nickel-plating the assemblies. Nickel-plated phosphor bronze wiper assures positive rotor contact. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding rotor.

SPECIFICATIONS—Straight line capacity. Available either with screwdriver or socket wrench adjustment or with 7/16" extended shaft for knob control or shaft coupling. (Type "B") "MAPC-C" Lock Type now also available through distributors. Air Gap is 0.0135" nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
MAPC-15	15.	2.3	6	$1.01
MAPC-25	25.	2.6	10	1.10
MAPC-35	35.	2.9	14	1.10
MAPC-50	50.	3.2	19	1.19
MAPC-75	75.	3.9	29	1.28
MAPC-100	100.	4.5	38	1.44
MAPC-140	140.	5.5	52	1.62

"B" and "C" types slightly higher

"NZ-10" CAPACITORS

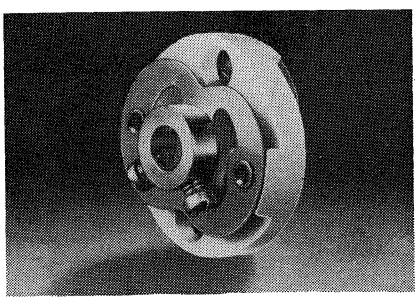


FEATURES—The "NZ-10" is a compact transmitter neutralizing capacitor designed for easy and accurate adjustment. The rotor is attached to a fine-thread lead screw which may be adjusted with smooth and precise action by a screwdriver and locked securely by a readily accessible clamping screw. A stop prevents shorting of plates at maximum capacity. Long leakage paths to ground from both rotor and stator are provided. Glazed steatite insulators and smoothly rounded aluminum plates minimize flashover.

SPECIFICATIONS—Capacity is adjustable from 2.3 to 10 mmf. Peak voltage rating is 3000 V. at maximum capacity (minimum gap) position.

Net Price $4.77

"FC" and "FNC" COUPLINGS



FEATURES—The "FC-46-S" is an insulated flexible coupling designed to provide for mechanical ganging of shafts even though angularly misaligned. The smallest dimensions have been incorporated consistent with the rugged construction necessary for general service. A high degree of electrical isolation is achieved through the use of silicone treated steatite insulation. Flashover voltage is approximately 5000 V. R.M.S. Brass hubs and spring temper phosphor bronze flexible arms are nickel plated. An exclusive and important feature of this coupling is its characteristic of uniform side-thrust through 360° of rotation. This eliminates tendency to vibrate at high speeds, minimizes bearing wear and assures accurate tracking.

The "FNC-46-S" is a non-insulated coupling for use where electrical continuity between shafts is required. The flexible arms are held securely to a nickel plated brass ring instead of an insulator.

Standard Stock Types		Net Price
CODE FC-46-S	Insulated flexible coupling	$1.10
CODE FNC-46-S	Non-insulated flexible coupling	.93

Net

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HAMMARLUND

STANDARD VARIABLE CAPACITORS

"MC", "MCA" and "MCD" CAPACITORS

FEATURES—The "MC" is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum end brackets permit panel or base mounting. "MC-S" capacitors have a straight line capacity characteristic. "MC-M" units have offset plates resulting in a "Midline" characteristic which more equally spaces frequencies. "MC-X" units are wide-spaced for high voltages. Hammarlund "MC" capacitors, except for "MCA" types, have silver plated phosphor bronze wiping contact, silicone-treated steatite insulation, soldered nickel-plated brass rotors and stators, rotor shaft supported on bearings at both front and rear of capacitor.

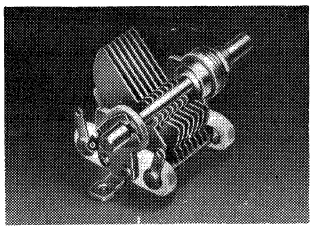
The "MCD" is a split-stator panel-mounted capacitor with all the "MC" features. Stators have terminals on both sides. Stators on single-spaced capacitors are separated by a shield. Wide-spaced units have no shield. Multi-section capacitors can be designed for special applications.

A rotor stop is available on "MC" capacitors on special order.

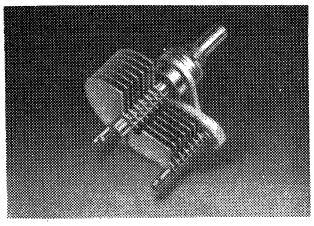
SPECIFICATIONS—Straight line or "Midline" capacity characteristic. Single-spaced types have 0.0245" nominal air gap and are tested at 1000 V. R.M.S., 60 cycles. Wide-spaced ("X") types have 0.0715" nominal air gap and are tested at 1750 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
MC-20-S	20.	5.5	3	$2.27
MC-35-S	35.	6.0	5	2.31
MC-50-M	50.	6.3	7	2.46
MC-50-S	50.	6.5	7	2.48
MC-75-M	80.	7.3	11	2.57
MC-75-S	80.	8.0	11	2.55
MC-100-M	100.	7.7	14	2.72
MC-100-S	100.	8.3	14	2.69
MC-140-M	140.	9.0	19	2.88
MC-140-S	140.	10.0	19	2.85
MC-200-M	200.	10.3	27	3.27
MC-250-M	250.	12.0	34	3.41
MC-325-M	320.	13.5	43	3.90
MC-20-SX	20.	6.8	7	2.63
MC-35-MX	32.	7.8	11	2.69
MC-35-SX	32.	8.5	11	2.79
MC-50-MX	53.	10.5	19	3.02
MC-50-SX	53.	11.5	19	3.05
MC-100-SX	100.	16.5	35	3.87
MCA-20-S	17.5	3.5	3	1.70
MCA-35-S	33.0	3.9	5	1.79
MCA-50-S	47.8	4.4	7	1.91
MCA-75-S	78.0	5.2	11	2.08
MCA-100-S	99.6	5.8	14	2.16
MCA-140-S	137.5	7.0	19	2.30
MCD-50-M	50.	5.5	7	7.25
MCD-100-M	100.	6.3	14	7.74
MCD-100-S	100.	7.0	14	6.74
MCD-140-M	140.	7.8	19	8.16
MCD-35-MX	31.	6.0	11	7.44
MCD-35-SX	31.	6.8	11	6.51

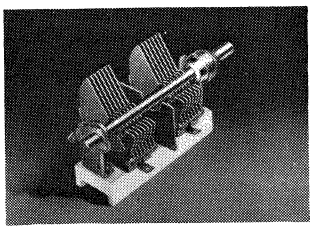
M-Midline plates **S-Straightline plates**
X-Wide-Spaced



MC



MCA



MCD

"HF" and "HFD" CAPACITORS

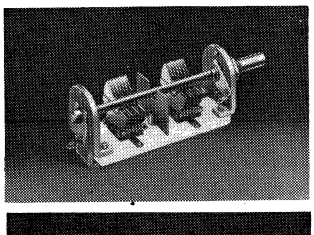
SINGLE SECTION CAPACITOR—The "HF" is a single section tuning capacitor employing "APC" rotor and stator design. Extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications. Silicone treated steatite insulation. Single hole or base mounting. Special spacing, capacity values, finishes and other modifications are available to manufacturers on special order.

DOUBLE SECTION CAPACITOR — The "HFD" dual capacitors, like the "HF" singles, incorporate advanced features providing for maximum efficiency at high frequency. Soldered brass plates are nickel-plated. Aluminum front and rear end panels are mounted on a heavy silicone treated steatite base. Front and rear bearings with wide individual silver plated phosphor bronze wipers for each section assure long life and maximum contact efficiency. Single hole panel mount or base mounting. Electrostatic shield between sections. Terminals are provided on both sides of each stator to permit mounting tube and inductor on opposite sides. Multi-section capacitors can also be made available to customer specifications.

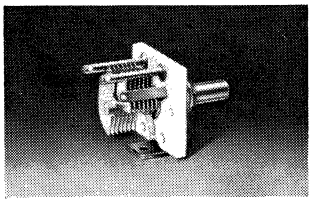
SPECIFICATIONS—Straight line capacity. Single spaced types (HF and HFD) have 0.015" air gap and are tested at 600 V. R.M.S., 60 cycles. Wide spaced types (HF-X and HFD-X) have 0.045" air gap and are tested at 1400 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
HF-15	17.5	2.8	5	$1.14
HF-35	36.	3.2	10	1.25
HF-50	52	3.7	14	1.31
HF-100	102.	5.3	27	1.49
HF-140	142.	6.3	37	1.74
HF-15-X	15.	3.6	10	1.29
HF-30-X	30.	5.2	20	1.43
HFD-25	25.	2.9	7	4.37
HFD-50	52.	3.6	14	4.55
HFD-100	102.	5.0	27	4.98
HFD-140	142.	6.0	37	5.15
HFD-15-X	16.	3.8	11	4.55
HFD-30-X	28.5	5.0	19	4.65

D—Split stator (Duals) **X**—Wide-Spaced



HFD



HF

"HFA", "HFA DIFFERENTIAL", "HFA DUAL", and "HFBD" CAPACITORS

SINGLE SECTION CAPCITORS—The "HFA" is a single section tuning capacitor similar to the "HF" except that larger plates permit wider air-gaps for the same capacitance values. Resultant higher breakdown ratings extend the use of the capacitor into the high frequency low-power transmitter field. A threaded sleeve bearing permits single hole mounting and the bracket supplied may be used for base mounting. A lug type terminal mounted with the bearing provides an efficient rotor connection.

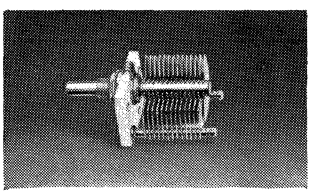
DIFFERENTIAL TYPE CAPACITORS — The "HFA" type units are now available as standard items in the differential type construction. The unit is mounted with an ungrounded rotor making it suitable for a wide field of application. In addition to the features of the "HFA" the design also incorporates the use of a spring bronze silver plated wiping contact on the rotor.

DOUBLE SECTION CAPACITORS—The "HFAD" and the "HFBD" are dual balanced rotor capacitors employing front and rear panels plus a single ball rear thrust. Both units are applicable to transmitter design. The construction features are similar to the "HFA" and the "HFA Differential" type capacitors. Additional special feature employed on the "HFBD" type incorporates the use of an insulated shaft extension on the rotor to safeguard against shock hazards with the application of high voltages.

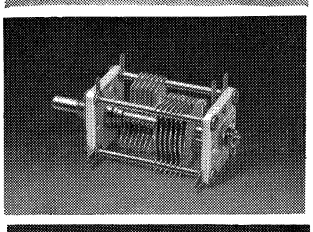
SPECIFICATIONS—Straight line capacity. Air gaps and test voltages are as indicated in table. However, "HFBD" breakdown voltages are doubled and capacitance values approximately halved when stator sections are connected in series.

Code	Capacity Max.	Capacity Min.	Spacing	Plates/ Section	Net Price
HFA-100-A	102	4.5	0.020	19	$2.13
HFA-140-A	145	6.0	0.020	27	2.39
HFA-200-A	200	8.0	0.020	38	2.76
HFA-10-B	9	2.3	0.030	3	1.62
HFA-15-B	16	2.8	0.030	5	1.71
HFA-25-B	25	3.0	0.030	7	1.74
HFA-50-B	50	4.3	0.030	14	1.92
HFA-100-B†	100	7.5	0.030	27	3.05
HFA-15-E	16	4.0	0.070	9	1.85
Differentials					
HFA-10-10B	9	2.3	0.030	3	2.00
HFA-25-25B	25	3.0	0.030	7	2.20
HFA-50-50B	50	4.3	0.030	14	2.50
HFA-Duals					
HFAD-25B	27	5.0	0.030	7	3.59
HFAD-50B	52	6.8	0.030	14	4.04
HFAD-100B	100	8.0	0.030	27	4.94
HFBD-50-C	50	9.0	0.050	11	7.85
HFBD-100-C	105	14.0	0.050	23	9.24
HFBD-35-E*	37	9.5	0.070	11	7.86
HYBD-65-E*	63	12.5	0.070	19	8.69

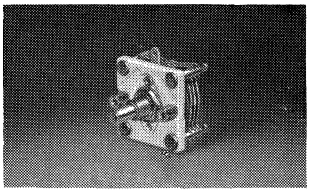
60 cycle test voltage:
"HFA", "A" 800 V. R.M.S. "B" 1200 V. R.M.S.
"E" 1750 V. R.M.S. "HFBD", "C" 1500 V. R.M.S.
"E*" 3000 V. R.M.S.; plates have rounded edges.
†Has front and rear supporting panels.



HFA



HFA DIFFERENTIAL



HFA DUAL

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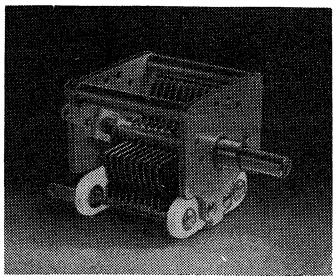
STANDARD VARIABLE CAPACITORS

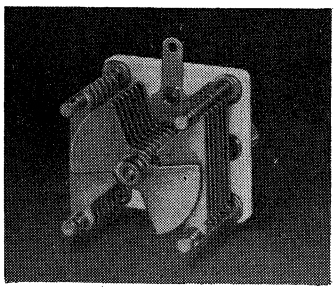


Code	Capacity Max.	Capacity Min.	Plates	Net Price
RMC-50-S	50.	7.3	7	$4.14
RMC-100-S	105.	9.5	14	4.40
RMC-140-S	143.5	11.0	19	4.56
RMC-325-S	327.	17.5	43	5.15

SPECIFICATIONS—Straight line capacity. Air gap is 0.0245" nominal. Tested at 1000 V. R.M.S., 60 cycles.

"RMC" CAPACITORS

FEATURES—The "RMC" was designed specifically for applications requiring an "MC" type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods. It has a brass sleeve front bearing and a single ball thrust rear bearing for smooth tuning and a high degree of resetability. The rotor contact is a forked silver plated phosphor bronze spring wiping against a wide disc on the rotor. The plate shape and other constructional features are the same as on the "MC". Tapped holes in front panel and in mounting feet, as well as additional brackets for inverted mounting permit a wide variety of assembly methods. "M" type plates and ball-bearing construction can also be made available as specials.



"BFC" CAPACITORS

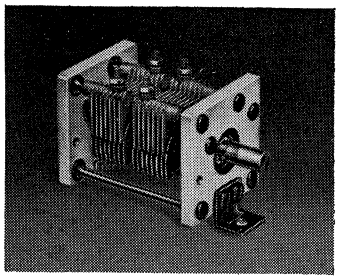
FEATURES — The "BFC" "butterfly" type capacitor has very low minimum capacity, low in inductance and isolated rotor for use in VHF applications as a series capacitor with no rotor connection. For dual split-stator capacitor use, it has a low-loss positive rotor contact. Mechanical and electrical symmetry and stator terminal locations minimize circuit inductance.

CONSTRUCTION — Brass rotors and stators are soldered and nickel-plated. The contact wiper is heavily silver plated phosphor bronze. Tapped studs on the silicone treated steatite front panel permit mounting the capacitor without grounding the rotor. The sleeve type bearing is nickel-plated brass.

SPECIFICATIONS—Straight line capacity. 90° rotation from minimum to maximum capacity position. Air gap is 0.030" nominal. Tested at 1200 V. R.M.S., 60 cycles between rotor and each stator.

High Speed Ball-Bearing Models Also Are Available

Code	Capacity/Section Max.	Capacity/Section Min.	Series Capacity Max.	Series Capacity Min.	Plates Rotor	Plates Ea. Stator	Net Price
BFC-12	14.5	3.4	7.6	2.2	4	3	$1.95
BFC-25	27.3	4.8	14.1	2.9	7	6	2.25
BFC-38	40.1	6.2	20.6	3.6	10	9	2.60
BFC-50	52.4	7.6	27.1	4.3	13	12	2.75



SPECIAL CALIBRATED CAPACITORS —The "VU" type capacitors can be supplied in quantity lots specially calibrated to the nominal curve with a tolerance of ±0.15 mmf or 1¼%, whichever is greater.

Dial % Rotation	Effective Series Capacity VU-20	VU-30	VU-45
0	0.	0.	0.
10	.55	.8	1.15
20	1.55	2.2	3.15
30	2.75	3.85	5.45
40	4.2	5.85	8.35
50	6.0	8.4	12.0
60	8.35	11.65	16.65
70	11.2	15.7	22.4
80	14.65	20.55	29.35
90	18.6	26.05	37.2
100	22.5	31.5	45.0

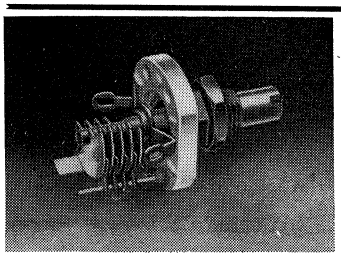
Code	Series Capacity Eff.	Series Capacity Min.	Plates/ Section	Net Price
VU-20	22.5	3.35	11	6.72
VU-30	31.5	3.5	15	6.92
VU-45	45.0	3.8	21	7.34

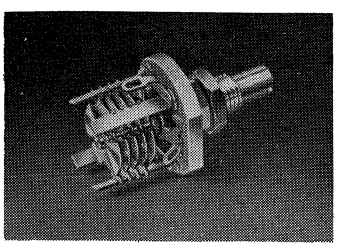
"VU" CAPACITORS

FEATURES — The "VU" is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional "lumped constant" circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles. In addition to employing the capacitor sections in series to eliminate the rotor wiper, the design also utilizes Pyrex balls to form precision bearings and to completely isolate the rotor. Thus, noise generated by rubbing metal-to-metal contacts and variable resistance paths in the bearings have been totally eliminated. Circuit connections are made to threaded studs on each stator. This permits vacuum tube and inductor to be mounted adjacent to and on opposite sides of the capacitor to minimize circuit inductance. The symmetrical design is ideal for tuned circuits operating up to 500 megacycles.

CONSTRUCTION—Rotors and stators are of brass with plates soldered in precisely located grooves and then silver plated to increase the "Q" of the capacitor. The insulation is silicone treated steatite. All lengthwise frame members are of brass to minimize temperature effects. Base mounting brackets are provided.

SPECIFICATIONS—The capacity characteristic approaches a straight line frequency curve as indicated by nominal values in table at left. Air gap is .0168" nominal. Tested at 700 V. R.M.S., 60 cycles, between rotor and each stator.





Code	Capacity Max.	Capacity Min.	Plates	Net Price
MAC-5	5.4	1.3	5	$1.00
MAC-10	9.6	1.5	9	1.05
MAC-15	15.8	1.9	15	1.20
MAC-20	21.5	2.2	21	1.35
MAC-30	32.0	2.5	27	1.40

Code	Capacity/Sect. Max.	Capacity/Sect. Min.	Plates Rotor	Plates Ea. Stato	Net Price
Butterfly					
MACBF-3	3.1	1.3	3	2	$1.40
MACBF-5	5.0	1.6	5	4	1.60
MACBF-8	7.9	2.0	8	7	1.80
MACBF-11	10.8	2.4	11	10	2.00
Differential					
MAC-5-5	5.4	1.3	3	2	1.38
MAC-10-10	9.6	1.5	5	4	1.52
MAC-15-15	15.8	1.9	8	7	1.68
MAC-20-20	21.5	2.2	11	10	1.77

"MAC" and "MACBF" CAPACITORS

FEATURES—The "MAC" provides the low minimum capacity essential for use as a trimmer in the VHF range. It was engineered and designed to produce a rugged, stable, highly reliable miniature component for today's equipment.

CONSTRUCTION — Its silicone treated steatite base is only ¾" x ⅝". Rotor and stator are soldered assemblies and are of brass, nickel-plated. Rotor and stator terminals are positioned to permit short leads. The threaded bearing is provided with flat sides to permit single hole mounting.

SPECIFICATIONS—Straight line capacity. Screwdriver adjustment. Air gap is 0.017" nominal and tested at 880 V. R.M.S., 60 cycles, except the MAC-30 which has an air gap of 0.0135" nominal and is tested at 600 V. R.M.S., 60 cycles. "MACBF" is the butterfly version of the "MAC." It is designed for dual split-stator capacitor use.

Net

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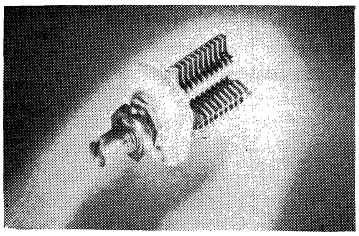
HAMMARLUND

"CT" CAPACITORS MIL TYPES

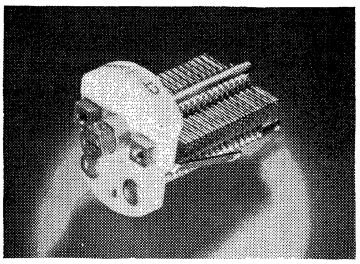
FEATURES—Compact, high quality air dielectric trimmer types designed to resist the effects of temperature, moisture and vibration. Silicone treated steatite insulation insures high leakage resistance.
CONSTRUCTION—All brass parts nickel-plated. Brass rotor and stator plates soldered to brass supports. Terminals hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base eliminates grounding the rotor when mounting capacitor. CT06 types are bushing mounted for grounded rotor operation.
SPECIFICATIONS—CT types designed to meet military specification MIL-C-92.

TYPE CT06



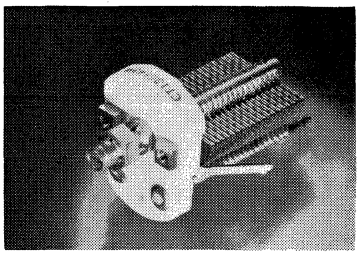
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT06E004	500	1.3	4.0	J, M	10/16
CT06E013	500	2.1	12.9	J, M	59/64
CT06E017	500	2.4	16.8	J, M	1 3/64
CT06E019	500	3.0	19.0	J, M	1 3/16

TYPE CT12



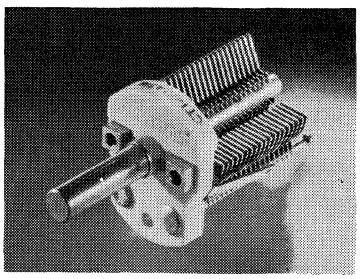
Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT12E042	500	5.0	42	J, M	1 3/16
CT12E075	500	6.0	75	J, M	1 1/2
CT12E099	500	7.5	99	J, M	1 11/16
CT12E135	500	9.0	135	J, M	1 15/16
CT12E143	500	9.0	143	J, M	1 31/32
CT12F010	600	3.0	10	J, M	15/16
CT12F025	600	4.0	25	J, M	1 3/32
CT12F042	600	5.0	42	J, M	1 3/8
CT12F075	600	6.0	75	J, M	1 5/8
CT12F099	600	7.5	99	J, M	1 29/32
CT12G009	700	4.0	9	J, M	1
CT12G023	700	4.5	23	J, M	1 1/4
CT12G042	700	5.5	42	J, M	1 3/4
CT12G075	700	6.5	75	J, M	2

TYPE CT13



Type designation	DC working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT13E0442	500	5.0	42	J, M	1 3/16
CT13E075	500	6.0	75	J, M	1 1/2
CT13E099	500	7.5	99	J, M	1 11/16
CT13E135	500	9.0	135	J, M	1 15/16
CT13E143	500	9.0	143	J, M	1 31/32
CT13F010	600	3.0	10	J, M	15/16
CT13F025	600	4.0	25	J, M	1 3/32
CT13F042	600	5.0	42	J, M	1 3/8
CT13F075	600	6.0	75	J, M	1 5/8
CT13F099	600	7.5	99	J, M	1 29/32
CT13G009	700	4.0	9	J, M	1
CT13G023	700	4.5	23	J, M	1 1/4
CT13G042	700	5.5	42	J, M	1 3/4
CT13G075	700	6.5	75	J, M	2

TYPE CT15



Type designation	Dc working voltage volts	Capacitance minimum μμf	Capacitance maximum μμf	*Rotational life	†Length from mounting surface to end of stator rod
CT1-E042	500	5.0	42	J, M	1 3/16
CT1-E075	500	6.0	75	J, M	1 1/2
CT1-E090	500	7.5	99	J, M	1 11/16
CT1-E135	500	9.0	135	J, M	1 15/16
CT1-E143	500	9.0	143	J, M	1 31/32
CT1-F010	600	3.0	10	J, M	15/16
CT1-F025	600	4.0	25	J, M	1 3/32
CT1-F042	600	5.0	42	J, M	1 3/8
CT1-F075	600	6.0	75	J, M	1 5/8
CT1-F099	600	7.5	99	J, M	1 29/32
CT1-G009	700	4.0	9	J, M	1
CT1-G023	700	4.5	23	J, M	1 1/4
CT1-G042	700	5.5	42	J, M	1 3/4
CT1-G075	700	6.5	75	J, M	2

*J=250 cycle rotational life—M=10,000 cycle rotational life
†For dimensional drawings refer to military specifications MIL-C-92
Suffix "J" or "M" to be added to type designation.
CT14 1" shaft, CT15 1½" shaft

PRICES ON REQUEST

SPECIAL VARIABLE CAPACITORS FOR ALL NEEDS

AVAILABLE MODIFICATIONS

Hammarlund's more than 50 years experience in the development and manufacture of capacitors has resulted in an endless knowledge of techniques. Such "know-how" includes the making of special capacitors using standard techniques and/or components, or giving birth to a completely new custom product—from concept through to production.
An example of this extended knowledge is the fact that Hammarlund now manufactures over 750 different types of APC capacitors.

These capacitors came into being as a result of the many modifications required by our customers for their specific applications. Any standard capacitor listed in this catalog can be modified to customer requirements. Such variations include end-panels, shaft diameter and lengths, bearings, special materials and finishes, special air gaps on most units, etc.
Custom made precision units to suit all electrcial and environmental specifications can be fabricated on special order. The combinations are endless.

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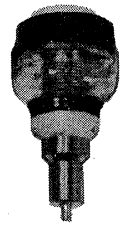
Jennings® VACUUM

Vacuum Variable Capacitors

	FIG.	TYPE NICKEL	TYPE COPPER	CAPACITY MMFD	PEAK VOLTAGE KILOVOLTS	RMS AMPERES① NICKEL	RMS AMPERES① COPPER	NOMINAL DIMENSIONS② LENGTH	NOMINAL DIMENSIONS② DIAMETER
2 to 5 KV	E		UCSL	4-250	3, 5		30	4 1/8	2 1/4
	B		USL	5-500	3, 5		40	5 1/2	2 3/8
	B		USLS	5-465 shorting	3, 5		40	5 5/8	2 3/8
	B		USL	10-1000	3, 5		40	5	3 1/8
	A		UCSL	5-750, 7-1000	3, 5		42	7 5/8	3 1/8
	A		UCSL	20-2000 , 50-3000	2, 3		42	8 3/8	3 1/16
7.5 to 15 KV	E		UCSB	5-100	7.5, 10, 15		40	4 7/8	2 3/8
	I		UCSV	8-110, 125-250	7.5, 10, 15		40	5 1/4	2 7/8
	K		ATCS	10-150, 15-200	7.5, 10, 15		20	7	3 1/8
	L		UCS	5-200, 10-300	7.5, 10, 15		42	8 3/4	2 5/8
	L		UCS	10-400, 25-500	7.5, 10, 15		42	9	3 1/8
	A		UCSF	5-250, 12-500	7.5, 10, 15		45	7 3/4	3 5/8
	H		UCSX	25-700, 25-1000	7.5, 10, 15		45	9 7/8	3 3/4
	M		UCSXF	12-1000, 15-1200	7.5, 10, 15		45	10	4 3/8
	M		UCSXF	20-1500, 50-2000	7.5, 10, 12		45	10	5 1/8
10 to 20 KV	C		ECS	2-8, 3-30	10, 15		20	4	1 3/8
	K	T	TC	5-25	20	10.5	20	6 5/8	2 1/4
	K	AT	ATC	10-50, 15-75	20, 30	10.5	20	6 7/8	3 1/8
	F	U	UC	50-250	10, 15, 20	21	60	11 1/2	5
	D	UX	UXC	25-500	10, 15, 20	21	60	14	5
	M		UXCF	10-250, 20-500	10, 15, 20		45	9 7/8	4 3/8
	J	VMM	VMMC	50-1000, 100-2000	10, 15	35	125	15 7/8	6 1/8
	G		VMMC	100-5000	7.5, 10, 15		125	19	9 1/4
35 to 60 KV	I		UCSVH	8-35	25, 35		40	4 3/4	3
	F	UH	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5
	D	UXH	UXHC	25-150	35, 45, 55	21	60	14 5/8	5
	H		UCSXH	10-200	35, 45		45	10	4 1/2
	M		UCSXHF	25-450	35, 40		60	10 1/2	5 1/8
	J		VMMHC	10-250, 25-450 , 30-650	35, 45, 55		125	17	8 1/8
	N		VMMHCW	25-250, 50-400	35, 45, 55		500	17	9 5/8
120 KV	G		VMMHC	60-1000	35, 40, 45		125	19 3/8	9 1/4
	G		VMMHHC	25-200	120		125	20 1/4	9 1/4

Type GCS
5-100 mmfd
15 kv

Type UCSL
7-1000 mmfd
5 kv



Type UCSXF
50-2000 mmfd
12 kv

①Current ratings can usually be doubled with forced air cooling. Water cooled units are also available
②Nominal Dimensions are for the largest unit of each type.
NOTE: A series of adjustable capacitors are available to cover the range of 8 to 1000 mmfd at 10 KV.

Vacuum Transfer Relays

Jennings Type	RA Series	RB1D	RB2A	RB3	RB4	RB7B	RE6B
Contact arrangement	1, 2, 3, & 4PDT	SPDT	2PDT	2PDT	4PDT	2PDT	SPDT
Rated operating voltage, dc or 60 cycle	300 v	12 kv	20 kv	12 kv*	20 kv	7 kv	25 kv
16 mc		8 kv	10 kv	8 kv	10 kv	3 kv	15 kv
Peak test voltage, 60 cycle	2000 v	18 kv	30 kv	15 kv	25 kv	9 kv	35 kv
Continuous current, rms 60 cycle	30, 40 amps**	15 amps	20 amps	30 amps	20 amps	14 amps	25 amps
2.5 mc		10 amps	14 amps	10 amps	10 amps	9 amps	11 amps
16 mc		6 amps	8 amps	6 amps	6 amps	4 amps	9 amps
Contact resistance	.01 ohms	.01 ohms	.01 ohms	.01 ohms	.01 ohms	.01 ohms	.01 ohms
Contact capacitance	17 mmfd	1.5 mmfd	1 mmfd	1 mmfd	1 mmfd	1.0 mmfd	1 mmfd
Capacitance to ground	11 mmfd	2.0 mmfd	2.5 mmfd	2.5 mmfd	2.5 mmfd	2.0 mmfd	2.5 mmfd
Operate times	18 to 25 msec	8 to 12 msec	10 to 20 msec	12 to 20 msec	25 to 45 msec	8-15 msec	17-25 msec
Release times	2 to 9 msec	6 to 9 msec	3 to 8 msec	4 to 8 msec	4 to 10 msec	1-4 msec	3-8 msec
DC actuating coil—resistance ±10%	225 ohms	270 ohms	225 ohms	120 ohms	131 ohms	270 ohms	120 ohms
voltage	24-28 vdc	24-28 vdc	24-28 vdc	24-28 vdc	24-28 vdc	24-28 vdc	24-28 vdc
Shock	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Vibration—nominal	20G 10-2000 cps	10G 55-500 cps 5G 55-2000 cps	5G 55-2000 cps 10G 55-500cps	5G 55-2000 cps 10G 55-500 cps	5G 55-500 cps	10G 10-2000 cps	5G 55-2000 cps

*Because of external arcover path, bottom set of contacts is derated to a test voltage of 8 kv peak.
**Rating with heavy duty contacts is 40 amps rms.

JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

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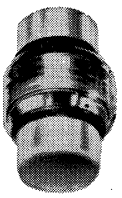
CAPACITORS & RELAYS

Vacuum Fixed Capacitors

FIG.		TYPE		CAPACITY	PEAK VOLTAGE	RMS AMPERES①		NOMINAL DIMENSIONS②	
		NICKEL	COPPER	MMFD	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV	L		JCSL	100, 250	3, 5		35	2⅝	1⅞
	M		JSLF	250, 450	3, 5		30	1¾	1⅞
	B		JSLF	1000, 1500, 2000	3, 5		30	1⅝	3⅛
	B		JCSL	500, 750, 1000, 1500, 2000	2, 3		42	4	2⅞
7.5 to 15 KV	M		JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1⅝	1⅝
	L		JCS2	10, 20, 25, 50, 75, 100, 150	7.5, 10, 15		20	3⅛	1⅞
	B		JCS1	25, 50, 75, 100, 150	7.5, 10, 15		50	3¾	2⅛
	B		JCS	250, 400, 500	7.5, 10, 15		42	4	3⅛
	A		JCS	900, 1000	7.5, 10, 12		42	4⅝	3⅝
	D		MC1	500, 750, 1000	10, 15		75	4⅛	4⅛
	C	M	MC	500, 750, 1000	10, 15, 20	21	120	8⅜	5
	J	MM	MMC	1500, 2000	10, 15	35	125	9¼	6⅛
	F		MMC1	2000	10, 15		125	5	6⅛
	E		MMC	3000, 4000, 5000	10, 15		125	13	9¼
17 to 30 KV	K	Y		1, 2, 3, 4, 5	17	7		3¼	¾
	K	X		5, 10, 15, 20, 25	17	7		3¼	1⅛
	N	W		6, 12, 25, 50, 100	20, 25	10.5		4⅝	2¼
	I		VCCA	6, 12, 25, 50, 75, 100, 150	20, 30		60	4½	2⅜
	I	VC	VCCE	6, 12, 25, 50, 75, 100, 150	20, 30, 35	14	60	6½	2⅝
	I	VC	VCCE	200, 250	20, 30	14	60	6½	2⅝
	M		JMF	50, 75, 100	20, 30		40	2¾	2⅛
	H		JC2	25, 50, 75, 100	20, 30		42	4	3¼
	C	ML	MLC	500, 750, 1000	25, 30	21	125	9¼	5
35 to 60 KV	A		JHC	75	50, 60		42	4	3½
	G		JC3	20, 40, 50, 60	35, 45, 55, 60		140	8¼	3½
	G		JC4	75, 100, 125	35, 45, 55, 60		175	9¼	5
	G		JC5	200	35, 45, 55, 60		225	11¼	7
	J		MMHC	450	35, 45, 55		125	9¼	6⅛
	E		MMHC	1000	35, 40, 45		150	13	9¼

Type JCSF 150 mmfd 15 kv

Type JCSL 1500 mmfd 5 kv



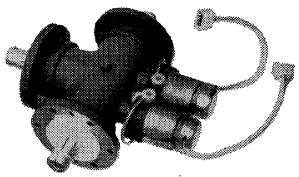
Type MMC 2000 mmfd 15 kv

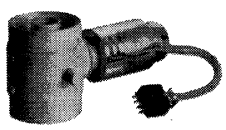
①Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.
②Nominal Dimensions are for the largest unit of each type.
NOTE: Intermediate capacities, feed-thru capacitors, and glass insulators are available.

The all copper construction of Vacuum Fixed Capacitors give high current ratings, long life and stability of operation.

Vacuum Coaxial Relays

FOR 50 OHM 3⅛ LINES





TYPE RC21F SPDT VACUUM RELAY
Impedance: 50 ohms.
Frequency: (0-600 MC) —Crossstlk —VSWR
200 MC —47.12 db —1.03
225 MC —46.1 db —1.04
250 MC —45.0 db —1.05
300 MC —43.6 db —1.05
400 MC —41.2 db —1.06
500 MC —39.2 db —1.07
600 MC —37.5 db —1.09
Power Rating: 3 megawatt pk. 20 kw average at 600 MC.
Insertion Loss: 0.01 db max.

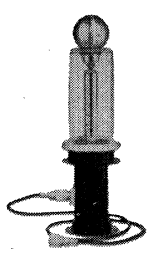
TYPE RC 10 VACUUM RELAY
A SPST latching relay for use at frequencies up to 60 mc at 50 kw average power. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.

TYPE RC21F SPDT VACUUM RELAY
Size: 3⅛ inch. **Fittings:** "RETMA," Flange type.
Inner Connector: Anchor type. "Retma" Bullet to Jennings spring type.
Configuration "T": May be installed in place of "Retma" 50 ohm standard elbow without modification of existing coaxial line.
Actuation: Electro-mechanical latching type. Momentary energize to open/close. 24 or 115 V DC or manual operation.
Indicator: Auxiliary Microswitches 2PDT. (Two each.)
Transfer time: Less than 50 millisec. **Weight:** 18 lbs. (approx.).

TYPE RC 10 LATCHING VACUUM RELAY
Characteristic Impedance: 50 ohms
Power Rating: 50 kw average to 60 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than —60 db isolation at 60 mc
Actuating Voltage: 24, 48, 115 vdc
Actuator: Latching type
Position Indicators: SPDT or DPDT microswitches

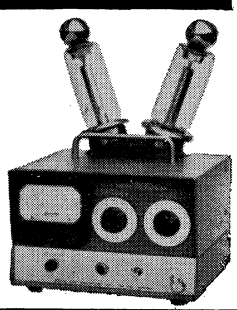
High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft of RG-58 A U cable.
INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.
FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER
for use in pulse, rf and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts full Scale):
Single Ended: 2.5, 5, 10, 25, 50 KV.
Double Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.
INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.
CALIBRATION ACCURACY: — 3% of full scale.
POWER SUPPLY: 117 volt, 50, 60 cy.
DIMENSIONS: 16¼" v 11" x 9"



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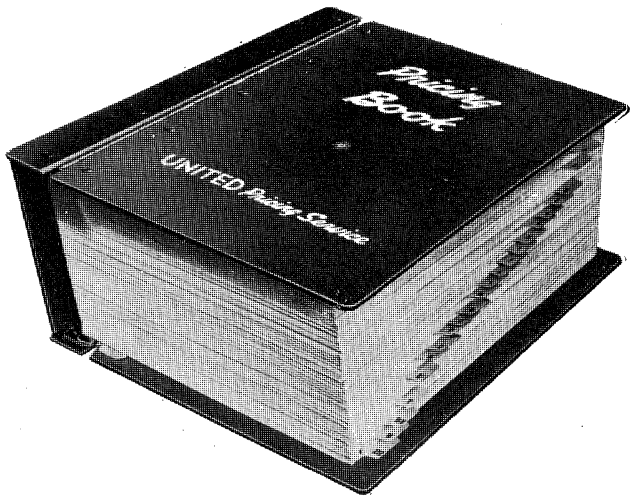

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P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

DRY ELECTROLYTIC CAPACITORS
TC Series • W Series

TYPES TC-TCD-TCS AND TCT TUBULAR DRY ELECTROLYTICS

Combine small size and long life. Tolerance: Up to 50 WVDC, −10%, +250%; 51 through 350 WVDC, −10%, +100%; over 350 WVDC, −10%, +50%. Rated 85° C, except units marked *, 65° C. All TC's with a 13/16" dia. or more and all TCD, TCS and TCT types are equipped with fixed mounting strap. **Types TC and TCN** are single section units with 3" bare solid copper tinned leads, **Type TCD** are dual common negative units with 7" insulated wire leads. **Type TCS** are dual separate section units supplied with soldering lugs. **Type TCT** are triple common negative units with 7" insulated wire leads.

TYPE TC SINGLE SECTION

No. TC-	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
110	1000	1	11/16 x 2	$0.90
304	200	3	11/16 x 1 1/4	.69
305	500	3	11/16 x 1 1/2	.84
310	1000	3	15/16 x 1 3/4	1.02
605	500	6	13/16 x 1 3/4	.93
610	1000	6	15/16 x 2	1.14
1502	200	15	13/16 x 1 1/2	.84
1505	500	15	15/16 x 2	1.05
1501	1000	15	1 1/16 x 2 1/4	1.38
22	10	25	7/16 x 3/4	.60
26	25	25	7/16 x 3/4	.60
29	50	25	9/16 x 1 1/2	.66
2501	100	25	11/16 x 1 3/4	.81
25015	150	25	11/16 x 1 3/4	.87
2505	500	25	1 1/16 x 2 1/4	1.38
31	1	50	1/4 x 1 1/16	.54
302	2	50	5/16 x 3/4	.54
30	5	50	5/16 x 7/8	.60
32	10	50	7/16 x 3/4	.60
36	25	50	11/16 x 1 1/4	.63
39	50	50	13/16 x 1 1/4	.72
3501	100	50	11/16 x 1 3/4	.84
50025	250	50	15/16 x 1 3/4	1.05
40	5	150	7/16 x 7/8	.60
41	8	150	7/16 x 1	.63
42	10	150	7/16 x 1 1/4	.63
43	12	150	7/16 x 1 1/4	.66
44	16	150	11/16 x 1 1/2	.69
45	20	150	13/16 x 1 1/2	.72
47	30	150	13/16 x 1 1/2	.78
48	40	150	15/16 x 1 3/4	.81
49	50	150	15/16 x 1 3/4	.84
492	80	150	15/16 x 2	.96
493	100	150	1 1/16 x 2 1/4	1.05
495	150	150	1 1/16 x 2 1/4	1.14
496	200	150	1 1/16 x 2 7/8	.90
499	300	150	1 7/16 x 3	1.53
50X	5	250	11/16 x 1 1/4	.63
51	8	250	11/16 x 1 3/4	.69
52	10	250	11/16 x 1 3/4	.72
53	12	250	13/16 x 1 3/4	.75
54	16	250	13/16 x 1 3/4	.78
55	20	250	13/16 x 1 3/4	.81
58	40	250	1 1/16 x 1 3/4	.93
59	50	250	1 1/16 x 1 3/4	1.02
1265	100	250	1 1/16 x 2 7/8	1.47
595	2	350	7/16 x 1 1/2	1.26
60	5	350	11/16 x 1 3/4	.63
61	8	350	13/16 x 1 3/4	.72
62	10	350	13/16 x 1 3/4	.75
63	12	350	13/16 x 1 3/4	.78
64	16	350	15/16 x 1 3/4	.84
65	20	350	15/16 x 1 3/4	.87
68	60	350	1 1/16 x 2 1/4	1.17
69	100	350	1 1/16 x 4	1.86
692	150	350	1 7/16 x 3 7/8	.90
695	2	450	11/16 x 1 1/2	.66
697	4	450	1 1/16 x 1 3/4	.90
70	5	450	11/16 x 1 3/4	.72
71	8	450	13/16 x 1 3/4	.75
72	10	450	13/16 x 1 3/4	.78
73	12	450	15/16 x 1 3/4	.81
74	16	450	15/16 x 1 3/4	.84
75	20	450	1 1/16 x 1 3/4	.93
77	30	450	1 1/16 x 2 1/4	1.02
78	40	450	1 1/16 x 2 1/4	1.08
79	50	450	1 1/16 x 2 7/8	1.26
795	60	450	1 1/16 x 2 7/8	1.38
80	80	450	1 1/16 x 4	1.68
805	100	450	1 7/16 x 3	1.92
81*	10	500	15/16 x 1 3/4	.81
83*	20	500	1 1/16 x 1 3/4	.96
84*	30	500	1 1/16 x 2 1/4	1.05
92	10	600	1 1/16 x 2 7/8	1.77
308†	.5Z‡	3	1 1/16 x 2	1.32
420†	1.5Z§	4	1 1/16 x 2 7/8	2.10
421†	1.5Z#	6	1 1/16 x 2	1.80
N105†	5	10	11/16 x 1 1/4	.81
N106†	6	10	9/16 x 1 1/4	.81
N108†	8	10	11/16 x 1 1/2	.81
N1025†	25	10	7/16 x 7/8	.81
N412†	500	10	13/16 x 2	1.20
N1550†	500	15	15/16 x 2 1/4	1.74
N415†	1000	15	1 1/16 x 3 1/2	1.71
N2516†	16	25	9/16 x 1 1/2	.87
N425†	100	25	13/16 x 1 1/2	1.02
N502†	2	50	9/16 x 1 1/4	.69
N503†	3	50	9/16 x 1 1/4	.72
N504†	4	50	9/16 x 1 1/4	.75
N505†	5	50	9/16 x 1 1/4	.90
N5010†	10	50	9/16 x 1 1/4	.75
N5099†	100	50	15/16 x 1 3/4	1.29
N510†	4	150	9/16 x 1 1/4	.75
N3520†	20	350	1 1/16 x 2 7/8	1.08
N511†	10	450	1 1/16 x 2 1/4	.99

†Non-polar. ‡15750 cps. §60 cps. #120 cps.

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., µf	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/16 x 2 1/4	$1.68
16	500-100	16-16	15/16 x 2	.78
26	25-25	25-25	13/16 x 1 1/4	.84
40	10-10	100-100	1 3/16 x 1 1/4	.87
45	20-20	150-150	13/16 x 1 3/4	.99
47	30-30	150-150	15/16 x 1 3/4	1.11
485	40-20	150-150	15/16 x 1 3/4	1.05
475	40-30	150-150	15/16 x 2	1.08
48	40-40	150-150	1 1/16 x 2	1.11
497	50-30	150-150	15/16 x 2	1.17
49	50-50	150-150	1 1/16 x 2 1/4	1.26
4975	80-40	150-150	1 1/16 x 2 1/4	1.32
498	80-50	150-150	1 1/16 x 2 1/4	1.41
2155	100-100	150-150	1 1/16 x 4	1.92
46	30-20	200-200	15/16 x 2	1.17
2165	30-30	200-200	1 1/16 x 2 1/4	1.32
2169	50-75	250-50	1 1/16 x 2 1/4	1.44
2174	100-150	250-50	1 1/16 x 4	2.16
2173	8-8	250-250	15/16 x 1 3/4	.96
52	10-10	250-250	15/16 x 2	.99
55	20-20	250-250	1 1/16 x 2	1.11
2274	40-40	300-300	1 1/16 x 3 1/8	1.77
58	80-40	300-300	1 1/16 x 4	2.07
62	10-10	350-350	15/16 x 2	1.02
65	20-20	350-350	1 1/16 x 2 3/8	1.35
2297	40-50	450-50	1 1/16 x 3 1/8	1.50
2302	30-60	450-300	1 1/16 x 4	1.92
71	8-8	450-450	15/16 x 2	1.02
72	10-10	450-450	1 1/16 x 2	1.11
74	15-15	450-450	1 1/16 x 3 1/8	1.32
745	20-8	450-450	1 1/16 x 2 1/4	1.26
75	20-20	450-450	1 1/16 x 3 1/8	1.50
77	30-30	450-450	1 1/16 x 4	1.80
78	40-40	450-450	1 1/16 x 4	2.04

TCS DUAL SEPARATE SECTION

No. TCS-	Cap. µf	WV DC*	Size, In. Dia. x Lg.	Net Each
44	15-15	150	13/16 x 2 3/8	$1.20
45	20-20	150	15/16 x 2 3/8	1.26
47	30-30	150	1 1/16 x 2 3/8	1.35
48	40-40	150	1 1/16 x 2 7/8	1.41
49	120-120	150	1 1/16 x 3 7/8	1.98
505	70-70	175	1 1/16 x 3 7/8	2.16
52	10-10	250	15/16 x 2 3/8	1.26
55	20-20	250	1 1/16 x 2 7/8	1.41
61	8-8	350	15/16 x 2 3/8	1.26
64	15-15	350	1 1/16 x 2 7/8	1.65
71	8-8	450	1 1/16 x 2 3/8	1.29
74	15-15	450	1 1/16 x 2 7/8	1.65
75	20-20	450	1 1/16 x 3 1/2	1.89

TCT TRIPLE COMMON NEGATIVE

No. TCT-	Cap. µf	Volts†	Size, In. Dia. x L.	Net Each
3053	20-20-20	150-150-25	13/16 x 2 1/4	$1.23
3055	30-30-20	150-150-25	1 1/16 x 2 1/4	1.32
3094	50-30-200	150-150-25	1 1/16 x 2 7/8	1.65
3109	20-10-10	150-150-150	15/16 x 1 3/4	1.20
3112	20-20-20	150-150-150	1 1/16 x 1 3/4	1.29
3113	30-30-30	150-150-150	1 1/16 x 2 1/4	1.41
3114	40-20-20	150-150-150	1 1/16 x 2 1/4	1.35
3105	40-30-20	150-150-150	1 1/16 x 1 3/4	1.38
3116	40-40-20	150-150-150	1 1/16 x 2 1/4	1.41
3115	40-40-40	150-150-150	1 1/16 x 2 1/4	1.47
3107	50-30-20	150-150-150	1 1/16 x 2 1/4	1.41
3110	60-30-10	150-150-150	1 1/16 x 2	2.22
3119	60-50-20	150-150-150	1 1/16 x 2 7/8	1.62
3117	80-40-20	150-150-150	1 1/16 x 2 7/8	1.65
3118	80-50-50	150-150-150	1 1/16 x 4	1.86
3285	40-30-40	350-250-150	1 1/16 x 4	1.98
3405	30-50-100	450-150-25	1 1/16 x 4	1.92
3432	30-30-30	450-350-250	1 1/16 x 4	2.25
3764	40-20-10	450-450-450	1 1/16 x 4	2.25

*Each section †Non-polarized.

CLIPS FOR TC CAPACITORS

Special clips mount any tubular or FP type capacitor horizontally. Mounts without tools under special chassis lances in original equipment; or, with 5-32 screw in 1/8" hole.

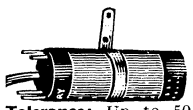
Mall. No.	Spring Clip for	Size, In.	Net Each
TH-13	TC	3/8	3c
TH-15	TC	1/2-9/16	3c
TH-17	TC	5/8-11/16	3c
TH-19	TC and FP	3/4-13/16	3c
TH-21	TC	7/8-15/16	3c
TH-23	TC and FP	1 -1 1/16	3c
TH-25	TC and FP	1 3/8-1 7/16	6c

ELECTROLYTIC CAPACITOR

Designed for antenna rotators.

Mall. No.	Cap. µf at WVDC	Size, In. D. x L.	Net Each
ST75	70 at 50 v. AC	7/8 x 2 5/8	75c

HIGH TEMPERATURE WAX TUBULARS



Single-ended, wax-dipped cardboard sleeve for high capacity at high voltages and temperatures. FP construction; 5" flexible leads. **Tolerance:** Up to 50 WVDC, −10% +250%; 51 to 350 WVDC, −10% +100%; over 351 WVDC, −10% +50%. No. WQ240 is double-ended.

Mall. No.	Cap. µf @ WVDC	Size, In. D. x L.	Net Each
WD270	120-120 @ 150	1 x4 1/8	$2.61
WD210	50-30 @ 150	7/8 x2 7/8	1.17
WD215	50-50 @ 150	7/8 x2 7/8	1.26
WD220	70-30 @ 150	7/8 x2 7/8	1.29
WD235	100-50 @ 150	1 x3 3/8	1.59
WD251	250-50 @ 150	1 3/8 x2 7/8	1.98
WS342	200 @ 200	1 3/8 x3 3/8	1.74
WS427	140 @ 300	1 1/4 x3 3/8	1.89
WS560	150 @ 400	1 1/4 x4 3/8	2.79
WS730	100 @ 450	1 5/16 x3 3/8	2.76
WT217	40-40-20 @ 150	1 x2 7/8	1.41
WT460	60-60-4 @ 350	1 1/4 x3 3/8	3.15
WD340	60-125 @ 200-50	1 1/16 x2 7/8	1.44
WD345	5-200 @ 200-200	1 3/8 x3 3/8	2.13
WD425	150-100 @ 300-300	1 3/8 x3 3/8	2.31
WD450	5-140 @ 350-350	1 3/8 x4 3/8	2.25
WT312	250-120-50 @ 150-150-25	1 3/8 x3 7/8	2.61
WT630	5-40-80 @ 450-400-400	1 3/16 x4 3/8	2.73
WT700	10-10-150 @ 450-450-50	1 1/8 x2 7/8	1.65
WT458	60-60-60 @ @ 350-350-300	1 1/4 x4 3/8	2.85
WT455	100-40-40 @ 350-350-250	1 1/8 x4 3/8	3.42
WT400	120-40-100 @ 300-250-50	1 3/8 x2 7/8	2.97
WT407	70-50-30 @ 300-300-250	1 1/4 x3 7/8	2.52
WT430	100-60-100 @ 300-300-50	1 1/4 x4 3/8	3.06
WT449	140-5-200 @ 350-300-200	1 3/8 x4 3/8	4.11
WT240	60-60-100 @ 150-150-25	1 1/16 x2 3/4	2.73
WT316	150-150-150 @ 150-150-150	1 1/4 x4 3/8	2.91
WT320	200-250-10 @ 150-150-150	1 1/4 x4 3/8	2.73
WT201	60-40-250 @ 150-150-15	1 x2 7/8	1.95
WQ209	60-40-20-200 @ 150-150-150-10	1 1/16 x3	2.07
WQ240	10-10-40-200 @ 150-150-150-35	1 1/8 x2 3/8	1.95
WT447	10-100-200 @ 350-150-150	1 3/8 x3 3/8	2.55
WQ402	150-100-20-100 @ 300-300-300-25	1 1/2 x4 3/8	4.17
WQ775	10-20-20-40 @ 450-450-450-450	1 1/4 x3 3/8	2.82
WQ650	10-40-80-100 @ 450-300-400-50	1 1/4 x4 3/8	3.30
WQ505	5-30-140-200 @ 300-200-350-200	1 1/2 x4 3/8	4.50
WQ511	140-5-200-100 @ 350-300-200-150	1 1/2 x4 3/8	4.92
WQ795	20-20-40-40 @ 450-450-450-450	1 1/4 x4 3/8	3.27
WQ230	40-40-20-20 @ 150-150-150-25	15/16 x2 7/8	1.83
WQ215	40-20-20-100 @ 150-150-150-25	1 1/16 x2 7/8	1.98
WQ250	60-40-40-20 @ 150-150-150-25	1 1/16 x2 7/8	1.95
WQ635	100-25-10-50 @ 300-450-300-50	1 3/8 x3 3/8	2.82
WQ405	120-40-40-10 @ 300-300-300-250	1 3/8 x4 1/4	2.91
WQ410	80-40-40-10 @ 300-300-250-250	1 5/16 x3 3/8	3.12
WQ349	40-20-20-100 @ 350-300-250-50	1 3/8 x2 7/8	2.70
WV404	40-20-20-20-50 @ 300-300-300-300-50	1 1/4 x3 3/8	3.21

PRINTED CIRCUIT HIGH TEMPERATURE WAX TUBULARS

Same as W Series, above, except designed for printed circuit applications.

Mallory No.	Cap., µf	WV DC*	Size, In. Dia. x L.	Net Each
PWD211	50-30	150	1 x 2	$0.86
PWD221	50-50	150	1 x 2	.94
PWD231	75-30	150	1 x 2 3/4	.97
PWD240	80-30	150	1 x 2 3/4	.97
PWD252	80-50	150	1 x 2 3/4	1.06
PWD263	100-50	150	1 x 2 3/4	1.88

*WVDC each section.

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P R MALLORY & CO Inc
MALLORY

DRY ELECTROLYTIC CAPACITORS

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

FP-WP Series

FP AND WP CAPACITORS

For top chassis mounting in filter and audio bypass circuits and TV applications. Extremely dependable under heavy ripple current and high surge voltage. All WP and FP capacitors are designed for high temperature (85° C) operation at full rated voltage, except as noted in table by (‡). Single, dual, triple and quad section units encased in compact rubber sealed aluminum cases with self-contained mounting feature.

Type FP is supplied with Fabricated Plate (metallized cotton gauze) anodes, **Type WP** with etched plate anodes. Special internal design provides low RF impedance and minimum coupling between sections. Case at negative potential. Supplied insulating washer may be used where negative ground is not wanted. For twist-prong mounting through chassis slots. ***SIZES are shown at end of listing.**

FP-WP—SINGLES

Mallory No.	Cap., µf	WV DC	*	Net Each
WP510	.5Z/15750†	3NP	B	$1.32
WP540	1.0Z/60†	3NP	H	2.40
WP505	10Z/30†	3NP	A	1.20
WP035	225	15	A	1.05
WP039	1000	15	C	1.53
WP041	2000	15	G	2.07
WP042	3000	15	H	2.10
WP052	40	25	A	.81
WP055	100	25	B	.96
WP057	500	25	C	1.53
WP059	1000	25	F	2.13
WP063	4	50	A	.75
WP064	100	50	B	.99
WP064.2	150	50	B	$1.08
WP065	500	50	F	1.59
WP066	500	50	D	1.59
WP068	1500	50	H	2.31
FP113	30	150	A	.93
FP115	50	150	B	.99
FP116	100	150	C	1.20
FP116.5	120	150	D	1.23
FP116.6	120	150	F	1.23
FP117	150	150	D	1.29
FP117.5	150	150	F	1.29
FP118	200	150	G	1.47
FP119	300	150	H	1.68
FP121	120	200	F	1.41
FP122	125	200	D	1.44
WP123	500	200	I	2.19
FP125	15	250	A	$0.93
WP125	140	250	D	1.74
WP125.9	150	250	K	1.71
FP126	200	250	H	2.43
FP128	80	300	D	1.53
FP129.1	100	300	D	1.74
FP131	150	300	H	2.10
WP131.5	160	300	G	2.31
WP132	200	300	G	2.58
FP135	30	350	B	1.14
FP137	50	350	C	1.26
FP137.2	60	350	D	1.32
FP138	80	350	G	1.71
FP140	125	350	H	2.37
FP140.5	140	350	H	2.34
FP140.6	150	350	H	2.55
FP141	320	350	I	$3.45
FP142	10	450	A	.93
FP143	15	450	B	1.02
FP144	20	450	B	1.08
FP145	30	450	C	1.17
FP146	40	450	C	1.23
FP148	60	450	G	1.68
FP149	80	450	G	1.83
FP150	100	450	H	2.07
FP155	125	450	J	2.76
FP171‡	10	500	B	.96
FP173‡	20	500	B	1.11
FP175‡	30	500	C	1.20
FP176‡	40	500	F	1.50
FP177‡	40	500	D	1.50
FP187‡	90	500	H	2.10

FP-WP—DUALS

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP204	250-1000	10-6	F	$1.71
WP205	.5Z-2.5Z/15750†-60†	12-6	I	2.16
WP200	1000-1000	15-15	F	2.64
WP200.1	1000-1000	15-15	D	2.64
WP200.23	1500-1000	16-10	F	2.55
WP200.6	500-500	16-16	B	1.95
WP200.18	800-200	16-16	B	2.73
WP200.21	1000-500	16-16	C	2.28
WP200.5	500-100	20-20	B	1.65
WP200.7	500-200	20-20	B	1.80
WP200.2	1000-2000	25-15	H	3.87
WP201.1	40-40	25-25	B	.93
WP201.15	1000-1000	25-25	G	2.91
WP202.1	50-50	50-50	B	1.02
WP202.5	100-100	50-50	B	1.26
WP205.6	50-500	150-5	C	1.41
WP205.8	50-1000	150-8	B	1.71
WP206	50-150	150-25	C	1.32
FP208	20-20	150-150	B	1.02
FP211	30-30	150-150	B	1.11
FP210	40-20	150-150	B	1.08
FP212	40-40	150-150	B	1.14
FP213	50-30	150-150	B	1.20
FP214	50-50	150-150	C	1.29
FP214.5	75-75	150-150	F	1.56
FP214.6	75-75	150-150	E	1.56
FP216.2	80-40	150-150	C	1.38
WP216.24	80-50	150-150	B	1.50
FP215	125-100	150-150	G	2.04
FP216.3	200-150	150-150	I	2.25
FP216.4	200-200	150-150	I	2.40
FP216.6	60-60	200-200	D	1.53
FP216.1	200-5	200-200	G	1.65
FP216.8	40-25	250-150	C	1.29
FP217	20-20	250-250	B	1.14
FP221	40-40	250-250	D	1.50
FP217.7	150-150	250-250	I	3.09
FP217.74	200-200	250-250	I	$3.60
WP217.85	35-500	300-6	C	1.68
FP217.86	30-20	300-50	B	1.14
FP217.8	20-60	300-250	D	1.65
FP217.87	40-40	300-300	F	1.77
FP217.88	50-10	300-300	F	1.53
FP217.9	75-75	300-300	H	2.28
FP218	120-20	300-300	H	2.40
WP219	125-60	300-300	G	2.70
FP223	5-75	350-150	D	1.26
FP225	15-15	350-350	B	1.35
FP227	20-20	350-350	C	1.38
FP227.3	30-30	350-350	D	1.74
WP227.35	80-20	350-350	D	2.10
FP227.4	80-20	350-350	G	2.10
FP227.5	80-40	350-350	H	2.16
FP227.6	80-80	350-350	I	2.82
FP227.7	100-100	350-350	I	3.69
FP228.3	150-20	350-350	H	2.73
FP229	35-100	400-50	D	1.56
FP229.2	40-4	400-350	D	1.41
FP229.3	75-75	400-400	I	2.91
FP229.4	80-60	400-400	I	2.82
FP229.5	120-40	400-400	I	3.15
WP229.52	120-120	400-400	I	4.17
FP229.53	40-50	450-50	D	1.65
FP229.55	40-100	450-50	E	1.68
FP229.6	50-100	450-50	G	1.80
FP244	80-50	450-50	H	2.40
FP229.8	80-100	450-50	H	2.25
FP229.9	30-200	450-150	H	2.10
FP230	20-50	450-250	D	1.68
WP230.2	20-200	450-250	F	2.73
FP230.3	40-10	450-300	D	1.56
FP230.5	10-50	450-350	D	1.62
FP230.6	10-100	450-350	H	2.40
FP235	20-80	450-350	G	2.19
WP230.9	5-5	450-450	B	1.02
FP231	10-10	450-450	B	1.14
FP231.3	20-10	450-450	C	1.32
FP234	20-20	450-450	D	$1.53
FP237	30-30	450-450	G	1.83
FP238	40-40	450-450	H	2.07
FP239	50-40	450-450	H	2.19
FP240‡‡	50-50	450-450	H	2.31
FP242	60-20	450-450	H	2.10
FP242.5	60-60	450-450	I	2.70
FP245	80-10	450-450	H	2.16
FP245.2	80-20	450-450	H	2.34
FP245.3	80-30	450-450	I	2.49
FP247	100-40	450-450	I	2.91
FP248	100-60	450-450	I	3.51
FP250	40-80	475-200	G	2.19
FP252	80-80	475-250	I	2.79
FP255	20-100	475-300	H	2.37
FP256	20-100	475-400	I	2.70
FP258	15-15	475-475	C	1.41
FP259	30-10	475-475	D	1.56
FP260	40-10	475-475	H	1.86
FP262	40-40	475-475	H	2.58
FP263	60-40	475-475	I	2.73
FP264.5	80-40	475-475	I	3.03
FP266	80-50	475-475	I	3.12
WP272	10-100	500-50	B	1.38
FP277‡	60-80	500-150	H	2.25
FP280‡	40-50	500-200	G	1.98
FP282‡	10-10	500-500	C	1.17
FP282.5	20-20	500-500	F	1.98
FP283‡	30-10	500-500	F	1.56
FP284‡	30-30	500-500	G	1.95
FP288‡	40-40	500-500	H	2.58
FP290‡	60-40	500-500	J	2.73

‡‡ Recommended for photoflash applications. Can is ungrounded. ‡Limited operation up to 65° C. †Cycles.

FP-WP—TRIPLES

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP300.15	200-200-30	10-10-10	B	$1.35
WP300.6	850-400-2.2	16-16-11.5 rms	C	2.97
WP300.7	850-400-4	16-16-11.5 rms	C	2.97
WP300.88	1000-400-4	16-16-11.5 rms	C	2.16
WP300.89	1000-400-4	16-16-11.5 rms	F	2.58
WP300.9	1000-500-4	16-16-11.5 rms	C	3.12
WP300.95	1000-200-200	25-25-25	F	3.03
WP300.5	400-100-100	16-16-16	B	1.80
WP300.8	500-100-100	16-16-16	B	2.64
WP300.85	500-500-100	16-16-16	B	2.40
WP300.87	700-200-100	16-16-16	B	1.89
WP300	1000-500-20	16-16-16	F	2.52
WP300.17	500-200-5	16-16-25	B	1.92
WP520	40-40-40	25-25-25	B	1.29
WP301	30-30-30	50-50-50	B	1.29
FP303	20-250-100	150-15-15	F	1.74
FP312	100-50-25	150-50-25	D	1.80
WP302	15-15-1000	150-150-2	B	1.80
WP302.1	15-15-1200	150-150-2	B	1.80
FP302.4	80-20-200	150-150-10	F	1.71
FP302.5	80-60-250	150-150-10	D	$1.89
FP302.7	80-30-300	150-150-10	F	2.04
FP302.8	100-80-200	150-150-10	G	2.16
FP302.9	80-20-100	150-150-15	F	1.68
FP306	40-20-20	150-150-25	B	1.38
FP307	40-20-100	150-150-25	C	1.50
FP304	40-20-200	150-150-25	C	1.62
FP310	40-40-20	150-150-25	C	1.44
FP314	40-40-200	150-150-25	D	1.68
WP308.1	40-40-250	150-150-25	D	1.89
FP309	50-30-100	150-150-25	C	1.62
FP311	50-50-20	150-150-25	D	1.59
FP311.1	80-40-25	150-150-25	D	1.65
FP311.15	80-40-300	150-150-25	G	2.22
FP311.2	20-20-20	150-150-150	B	1.38
FP311.4	40-20-20	150-150-150	C	1.44
FP311.5	40-40-40	150-150-150	D	1.56
FP311.55	50-20-20	150-150-150	C	1.53
FP311.6	50-40-10	150-150-150	B	1.53
FP311.65	50-50-50	150-150-150	D	1.80
FP311.66	70-15-15	150-150-150	C	1.62
FP311.8	70-40-40	150-150-150	E	1.74
FP311.67	80-30-10	150-150-150	D	1.65
FP311.68	60-60-40	150-150-150	F	2.04
FP311.7	80-40-20	150-150-150	F	1.74
FP311.85	120-80-40	150-150-150	H	2.22
FP311.9	120-120-40	150-150-150	H	2.43
FP311.95	150-50-50	150-150-150	G	2.31
FP312.5	200-100-60	150-150-150	I	2.73
FP312.6	300-100-80	150-150-150	I	2.97
FP312.8	60-200-140	200-150-150	I	2.85
FP313	30-20-20	200-200-25	B	$1.53
FP318.3	30-20-40	200-200-150	C	1.62
FP318.5	20-20-20	200-200-200	C	1.50
FP318.7	30-20-20	200-200-200	C	1.62
FP318.74	40-40-20	200-200-200	F	1.77
WP318.77	60-60-40	200-200-200	F	2.16
FP318.8	250-200-10	200-200-200	I	4.02
FP319	80-40-50	250-150-50	G	1.98
FP360	15-20-20	250-150-150	B	1.50
FP319.5	90-90-20	250-250-50	H	2.76
WP319.6	60-5-100	250-250-50	C	1.80
WP319.7	60-5-50	250-250-200	F	2.13
FP319.8	20-20-20	250-250-250	C	1.56
FP320	40-20-20	250-250-250	F	1.74
FP321	40-20-20	250-250-250	D	1.74
FP323	80-80-60	250-250-250	I	2.94
FP326	100-60-20	300-150-25	H	2.52
FP326.2	20-150-80	300-150-150	H	2.43
FP326.3	100-200-60	300-150-150	I	3.27
FP334	20-80-10	300-250-200	G	2.07
FP326.4	60-30-30	300-250-250	G	2.25
FP335	100-60-20	300-250-250	H	2.94
FP336	200-60-20	300-250-250	I	3.48
WP326.35	20-100-100	300-200-50	K	2.01
FP326.5	150-10-25	300-300-25	H	2.37
FP326.6	100-10-60	300-300-50	G	2.43
FP326.62	80-40-40	300-300-300	H	2.73
WP326.63	30-10-20	300-300-250	C	1.71
WP326.64	60-5-20	300-300-250	C	1.83

*See table of sizes on another page.

FP-WP triples continued on next page.

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MALLORY

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

DRY ELECTROLYTIC CAPACITORS
FP-WP Series (CONT.)

FP-WP—TRIPLES (CONTINUED)

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP326.7	140-100-60	300-300-50	I	$3.57
WP326.71	140-100-100	300-300-50	J	3.36
FP326.74	140-10-200	300-300-150	I	3.30
FP326.65	100-60-4	300-300-300	H	2.82
FP326.67	120-50-40	300-300-300	I	3.33
FP326.75	150-30-30	300-300-300	I	3.00
FP326.78	140-100-20	300-300-300	I	3.45
WP326.8	4-100-40	350-25-25	B	1.35
FP327	40-100-25	350-50-25	F	1.92
WP327.2	20-50-100	350-100-75	D	1.98
FP327.3	60-200-30	350-150-150	J	2.82
FP327.4	125-5-100	350-200-75	I	3.18
FP327.5	10-40-40	350-200-200	D	2.58
FP327.6	30-20-100	350-250-50	D	1.95
FP331	30-30-20	350-300-25	D	1.89
FP327.8	30-50-20	350-300-25	G	2.16
FP327.87	100-40-40	350-300-250	I	3.36
FP327.89	40-40-40	350-300-300	G	2.61
WP-327.896	160-120-30	350-300-300	I	3.99
FP328	15-10-20	350-350-25	B	1.50
FP329.1	20-4-100	350-350-25	C	1.56
FP329.5	20-20-20	350-350-25	B	1.68
FP327.9	20-40-100	350-350-25	D	1.56
FP330	30-20-20	350-350-25	D	1.86
FP330.13	200-10-50	350-350-25	I	3.06
FP330.15	10-5-30	350-350-50	B	1.32
FP330.2	10-5-150	350-350-50	C	1.62
FP330.21	20-5-150	350-350-50	D	1.77
FP330.23	80-40-400	350-350-50	H	3.39
FP330.22	100-20-50	350-350-50	H	2.91
FP330.25	30-20-100	350-350-150	G	2.40
FP-330.248	70-40-50	350-350-150	H	2.64
WP330.24	125-20-20	350-350-150	H	2.85
FP330.29	30-5-100	350-350-200	G	2.25
FP330.26	100-60-20	350-350-200	I	3.30
FP330.27	125-60-40	350-350-200	I	3.54
FP330.28	100-60-100	350-350-200	I	3.03
FP330.3	20-10-5	350-350-250	B	1.53
FP330.5	10-10-10	350-350-350	B	1.44
FP330.7	30-20-10	350-350-350	D	1.95
FP330.9	60-50-50	350-350-350	I	2.94
FP331.3	80-60-60	350-350-350	I	3.33
FP331.6	90-40-20	350-350-350	I	3.15
WP331.7	100-40-5	350-350-350	H	2.82
FP331.76	100-40-40	350-350-350	I	3.15
FP331.8	100-60-40	350-350-350	I	3.39
FP332.4	100-100-10	350-350-350	I	4.08
WP332.48	140-140-20	350-350-350	I	4.47
FP332.5	40-200-60	400-200-200	I	3.33
FP332.7	10-4-40	400-350-25	B	$1.32
FP333	10-50-30	400-350-25	F	1.86
FP333.05	100-10-200	450-350-25	H	3.06
FP333.1	40-4-4	400-350-150	D	1.71
FP333.2	80-40-100	400-400-50	I	3.00
FP333.3	80-40-150	400-400-50	I	3.09
FP333.15	100-20-20	400-400-50	H	2.88
FP333.5	20-10-40	400-400-350	E	2.04
FP333.6	20-20-10	400-400-350	D	1.80
FP333.7	60-30-20	400-400-350	H	2.73
FP333.8	80-20-10	400-400-350	H	2.58
FP333.85	100-10-80	400-400-350	I	3.66
FP333.88	50-30-4	400-400-400	G	2.31
FP333.9	90-10-5	400-400-400	H	2.64
FP333.95	100-30-20	400-400-400	I	3.30
WP334.6	20-500-500	450-25-25	H	3.21
FP342	40-40-130	450-150-50	G	2.22
FP343	40-100-50	450-150-50	H	2.37
WP339.5	10-50-100	450-150-75	D	1.95
FP340	20-50-100	450-150-75	F	2.04
FP341	40-90-50	450-150-150	H	2.40
FP341.2	10-100-200	450-200-25	E	2.04
FP341.3	20-80-50	450-200-150	G	2.16
FP341.5	20-60-100	450-250-25	G	2.19
FP341.6	50-160-50	450-250-50	I	3.09
FP341.8	10-80-80	450-250-250	H	2.61
FP342.2	5-80-40	450-300-300	H	2.49
FP342.5	30-15-40	450-350-25	F	1.92
FP342.7	30-40-50	450-350-25	E	2.22
FP342.8	80-50-100	450-350-200	I	3.51
FP343.1	15-20-20	450-350-250	D	1.77
FP343.4	20-15-15	450-350-350	D	1.95
FP343.6	20-40-10	450-350-350	G	2.10
FP343.9	10-30-150	450-400-5	D	1.80
FP344.2	60-80-20	450-400-250	I	3.27
FP344.4	4-40-40	450-400-300	G	2.22
FP344.5	10-30-40	450-400-300	G	2.19
FP345.2	10-10-20	450-450-25	B	1.44
FP345.5	15-15-40	450-450-25	C	1.65
FP345.8	20-20-20	450-450-25	C	2.19
FP345.3	40-20-20	450-450-25	G	2.10
FP346	40-40-20	450-450-25	H	2.37
FP345.4	80-10-125	450-450-25	H	2.64
FP364	80-40-100	450-450-25	I	3.06
FP365	10-10-40	450-450-50	C	1.47
FP366	20-10-50	450-450-50	D	1.71
FP366.5	30-10-150	450-450-50	G	2.10
FP367	35-25-100	450-450-50	H	2.37
FP367.5	40-30-25	450-450-50	G	2.25
FP368	60-40-75	450-450-50	I	2.76
FP368.3	80-20-100	450-450-50	I	2.88
FP368.5	80-50-50	450-450-50	I	3.12
FP368.6	30-30-125	450-450-75	H	$2.70
FP368.68	10-4-20	450-450-150	B	1.53
FP369.1	40-40-40	450-450-150	H	2.49
FP370	40-10-80	450-450-200	H	2.34
FP375	40-40-100	450-450-200	I	2.97
FP375.2	15-10-120	450-450-300	I	2.70
FP375.4	40-40-60	450-450-350	I	2.94
FP375.5	40-40-80	450-450-350	I	3.33
FP375.6	60-20-40	450-450-350	I	2.94
FP375.7	20-10-15	450-450-400	D	1.86
FP375.8	10-10-10	450-450-450	C	1.56
FP376.1	15-15-10	450-450-450	D	1.77
FP376.3	20-10-10	450-450-450	D	1.74
FP376.5	20-20-20	450-450-450	G	2.16
FP376.6	30-10-10	450-450-450	F	1.89
FP376.7	30-30-30	450-450-450	H	2.67
FP376.8	40-40-10	450-450-450	H	2.49
FP376.9	40-40-20	450-450-450	H	2.67
FP377.1	40-40-40	450-450-450	J	3.24
FP377.2	50-40-30	450-450-450	I	2.94
FP377.4	60-10-10	450-450-450	H	2.34
FP377.6	60-30-10	450-450-450	H	2.70
FP378	80-40-20	450-450-450	I	3.24
FP379.1	20-50-20	450-50-25	D	1.65
FP381.1	80-80-50	475-150-50	I	2.91
FP382.1	40-40-100	475-250-100	H	2.46
FP384	20-20-40	475-300-25	F	1.86
FP384.12	30-100-50	475-300-50	H	2.46
FP384.14	5-100-200	475-300-150	I	3.09
FP384.16	10-4-100	475-350-50	B	2.37
FP384.2	10-4-40	475-350-300	F	1.80
FP384.5	10-45-100	475-450-50	G	2.19
FP384.7	40-40-25	475-450-50	H	2.64
FP385	10-40-100	475-450-200	H	2.52
FP385.5	40-80-10	475-450-450	I	3.30
FP386	10-10-5	475-475-25	C	1.47
FP387.1	10-10-150	475-475-50	D	1.80
FP388.1	25-10-20	475-475-50	D	1.77
FP389.1	20-10-100	475-475-400	I	3.15
FP391.1	20-20-60	475-475-450	I	2.91
FP394	10-10-10	475-475-475	D	1.62
FP396	30-30-20	475-475-475	H	2.67
FP396.2	40-10-10	475-475-475	G	2.31
FP396.1	40-20-20	475-475-475	H	2.85
FP396.12	40-30-10	475-475-475	H	2.70
FP396.14	40-30-30	475-475-475	I	3.09
FP397	40-35-10	475-475-475	H	2.73
FP398‡	10-40-40	500-450-450	H	2.49
FP399‡	20-10-100	500-500-50	K	1.95
FP399.5‡	40-20-20	500-500-500	H	2.85
FP399.55	40-40-20	500-500-500	J	3.42

‡Limited operation up to 65°C.

FP-WP—QUADS

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP401.5	750-600-350-4	16-16-16-11.5rms	F	$3.24
WP401.8	750-750-350-4	16-16-16-11.5rms	F	3.87
FP403	50-20-150-30	150-150-15-15	F	1.92
FP405	20-20-160-40	150-150-25-25	F	1.92
WP405.5	50-40-160-40	150-150-25-25	F	1.92
WP406	40-40-200-100	150-150-25-25	F	1.86
FP407	30-20-20-200	150-150-150-10	F	1.86
FP407.5	40-40-20-200	150-150-150-10	F	1.92
FP408	60-40-20-200	150-150-150-10	F	2.07
FP408.5	80-80-10-200	150-150-150-10	G	2.34
FP408.7	300-30-10-100	150-150-150-10	H	2.73
FP408.9	30-30-30-40	150-150-150-25	F	1.86
FP409	40-40-30-20	150-150-150-25	F	1.86
FP409.4	50-20-20-200	150-150-150-25	F	2.10
FP409.6	50-40-10-50	150-150-150-25	F	1.89
FP410	50-50-50-20	150-150-150-25	G	2.13
FP410.3	60-40-20-20	150-150-150-25	F	1.98
FP410.7	60-60-10-60	150-150-150-25	G	2.10
FP411	80-40-30-100	150-150-150-25	G	2.22
FP411.3	80-40-40-20	150-150-150-25	G	2.10
FP411.32	80-40-40-40	150-150-150-25	G	2.16
FP411.4	80-50-50-25	150-150-150-25	G	2.28
FP411.5	100-90-60-200	150-150-150-25	H	2.97
FP411.7	125-125-40-100	150-150-150-25	I	2.91
FP411.8	200-200-100-10	150-150-150-75	I	3.57
FP412	100-80-60-40	150-150-150-150	H	2.79
WP412.1	200-200-60-30	175-175-175-175	I	3.12
WP412.15	200-200-100-10	200-200-200-200	I	3.75
FP412.2	40-40-50-80	250-250-150-150	G	2.46
FP412.8	40-40-40-40	250-250-250-250	F	2.55
FP417	100-40-80-20	300-50-25-25	G	2.73
FP417.2	20-150-150-100	300-150-150-30	I	3.09
FP417.3	10-200-140-30	300-150-150-150	I	3.06
FP417.8	10-200-200-30	300-150-150-150	I	3.21
FP417.9	100-60-10-20	300-200-150-50	H	2.91
FP419	200-20-100-20	300-250-50-25	I	3.48
FP423	40-40-40-40	300-250-250-25	G	2.64
FP419.11	60-5-50-20	300-300-50-50	F	2.16
FP418.7	140-10-10-100	300-300-150-50	I	2.97
FP419.4	100-10-200-30	300-300-150-150	I	3.54
FP419.1	150-20-10-250	300-300-250-50	I	3.63
FP419.2	40-30-20-50	300-300-300-25	G	2.49
FP419.7	60-40-20-50	300-300-300-25	H	2.79
FP419.35	60-30-10-60	300-300-300-50	G	2.52
FP419.37	150-30-30-150	300-300-300-50	I	3.66
FP419.45	120-40-40-10	300-300-300-250	I	3.63
FP419.5	40-40-30-20	300-300-300-300	H	2.91
FP419.53	60-40-10-10	300-300-300-300	H	2.73
FP419.55	150-100-10-10	300-300-300-300	I	3.96
WP415.554	150-100-30-10	300-300-300-300	J	3.69
FP419.52	150-150-30-30	300-300-300-300	I	$4.50
FP419.54	200-20-20-20	300-300-300-300	I	3.87
FP419.56	60-60-30-160	350-150-150-25	H	2.76
FP419.58	20-60-160-40	350-200-25-25	G	2.40
FP414	15-80-40-200	350-200-200-25	H	2.70
FP418.3	120-20-100-20	350-250-50-25	I	3.03
WP419.51	40-80-10-10	350-300-300-300	H	2.82
WP419.585	50-60-5-100	350-250-250-50	G	2.58
FP419.59	160-30-30-20	350-300-300-50	I	3.54
FP419.65	160-60-10-4	350-300-300-300	I	3.84
FP419.6	40-10-100-25	350-350-25-25	F	2.25
FP419.62	60-4-100-40	350-350-25-25	G	2.28
FP419.61	100-4-50-50	350-350-50-25	H	3.03
FP419.63	200-10-4-20	350-350-50-25	I	3.36
FP419.635	40-40-50-50	350-350-50-50	H	2.52
FP419.64	40-20-50-25	350-350-150-25	G	2.49
FP419.67	100-60-60-40	350-350-200-75	I	3.93
FP419.66	60-40-60-20	350-350-250-150	I	3.24
FP419.68	15-15-15-15	350-350-300-25	F	2.07
FP419.8	35-35-10-20	350-350-300-25	G	2.49
FP419.82	20-10-5-10	350-350-350-25	F	1.86
FP419.84	30-10-5-200	350-350-350-25	F	2.28
FP419.86	40-20-5-10	350-350-350-25	G	2.28
FP419.87	40-20-20-50	350-350-350-25	G	2.55
FP419.88	40-30-15-30	350-350-350-25	G	2.70
FP419.3	40-40-20-20	350-350-350-25	H	2.79
FP419.89	100-30-10-40	350-350-350-25	H	3.00
FP419.9	15-15-15-50	350-350-350-50	F	2.25
FP420.15	70-40-10-50	350-350-350-50	H	3.15
FP420.2	50-40-40-160	350-350-350-50	I	3.45
FP420.23	100-10-10-20	350-350-350-50	H	3.09
WP420.25	100-40-4-100	350-350-350-50	J	3.09
FP420.26	100-40-30-50	350-350-350-50	I	3.93
FP420.28	140-20-10-100	350-350-350-50	I	3.63
FP420.29	90-30-5-100	350-350-350-75	I	3.54
FP420.31	100-80-10-20	350-350-350-150	I	3.42
FP420.32	20-10-5-60	350-350-350-200	G	2.19
FP420.33	30-10-5-100	350-350-350-200	G	2.64
WP420.34	40-40-40-40	350-350-350-300	H	3.00
FP420.35	40-20-20-10	350-350-350-350	G	2.61
FP420.36	40-40-30-20	350-350-350-350	H	2.82
FP420.38	40-40-40-40	350-350-350-350	I	3.60
FP420.4	80-60-40-20	350-350-350-350	I	3.84
FP420.405	100-20-10-5	350-350-350-350	H	2.85
FP420.39	100-40-25-25	350-350-350-350	I	4.20

*See table of sizes on following page.

FP-WP Quads continued on next page.

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P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

DRY ELECTROLYTIC CAPACITORS
FP-WP (CONCL.) • PFP-PWP

FP-WP—QUADS (CONTINUED)

Mallory No.	Capacity, μf	WVDC	*	Net Each
FP420.41	40-120-10-150	400-250-250-50	I	$3.48
FP420.44	30-40-50-200	400-300-250-150	I	3.60
FP420.43	80-80-100-100	400-350-25-25	I	3.78
FP420.45	40-80-100-25	400-350-200-50	I	3.63
FP420.46	80-40-20-20	400-350-300-300	I	3.48
FP420.47	20-50-40-80	400-350-350-50	H	3.00
FP420.5	30-60-20-100	400-350-350-50	I	3.00
FP420.51	20-20-50-50	400-400-15-15	F	2.04
FP420.53	20-5-20-20	400-400-25-25	F	1.83
FP420.54	80-50-25-25	400-400-25-25	H	3.21
FP420.56	50-25-100-20	400-400-50-25	H	2.79
FP420.6	80-40-100-20	400-400-50-25	I	3.36
FP420.7	100-10-30-20	400-400-50-50	H	3.06
FP420.8	20-10-10-25	400-400-100-25	F	1.86
WP420.9	20-20-100-100	400-400-100-100	H	3.15
FP421	5-5-50-80	400-400-300-250	H	2.79
FP421.2	60-40-40-10	400-400-350-50	I	3.45
FP421.3	100-10-20-20	400-400-350-50	I	3.27
FP421.4	30-30-15-20	400-400-400-25	H	2.58
FP421.6	80-40-30-40	400-400-400-25	I	3.57
FP421.8	40-40-40-150	400-400-400-50	I	3.42
WP421.85	40-80-10-100	400-400-400-200	I	3.36
FP421.9	50-40-30-20	400-400-400-400	I	3.39
WP422	60-40-40-40	400-400-400-400	I	3.78
FP422.1	20-80-20-50	450-200-200-50	G	3.39
FP422.7	60-80-40-20	450-250-250-150	I	2.46
FP422.8	25-100-10-60	450-300-300-50	H	3.18
FP413X	40-40-40-20	450-300-300-150	H	2.94
FP422.9	10-100-20-20	450-300-300-300	H	3.15
FP423.4	10-40-100-100	450-350-250-50	H	3.33
WP423.5	10-140-100-20	450-350-300-300	I	4.17
FP424.1	10-100-10-20	450-350-350-25	H	3.12
FP424.3	20-80-50-100	450-350-350-50	I	3.60
FP425	30-40-40-10	450-350-350-200	H	3.09
FP425.6	40-100-20-10	450-350-350-350	I	3.84
FP425.1	80-10-40-30	450-400-300-300	I	3.48
FP426	20-15-20-20	450-450-25-25	F	2.07
FP426.2	80-40-100-100	450-450-25-25	I	3.48
FP426.5	20-20-60-100	450-450-150-25	G	2.55
FP426.9	40-40-125-125	450-450-150-25	I	3.42
FP427.5	10-10-60-100	450-450-200-50	G	2.31
FP427.6	35-25-20-100	450-450-200-50	H	2.79
FP427.65	40-40-100-60	450-450-200-200	I	3.63
FP427.7	10-10-10-50	450-450-300-25	F	1.89
FP427.9	20-20-20-10	450-450-350-350	H	2.49
FP428	40-10-35-10	450-450-350-350	H	2.76
FP428.4	40-40-30-30	450-450-350-350	I	3.54
FP424	15-15-10-20	450-450-450-25	F	2.10
FP428.9	30-30-10-125	450-450-450-25	H	2.58
FP432	40-10-10-250	450-450-450-25	H	2.82
FP431	40-15-10-25	450-450-450-25	G	2.46
FP430.2	40-20-20-25	450-450-450-25	H	2.76
FP436	40-20-20-40	450-450-450-25	H	2.79
FP429	40-30-10-20	450-450-450-25	H	2.70
FP429.2	40-40-30-100	450-450-450-25	J	3.21
FP430.6	40-40-40-40	450-450-450-25	I	3.30
FP430.9	60-40-40-10	450-450-450-25	I	3.60
FP430.95	60-50-5-20	450-450-450-25	I	3.21
FP430.97	20-20-20-20	450-450-450-50	G	2.49
FP437	20-20-20-100	450-450-450-50	G	2.73
FP431.2	40-40-10-25	450-450-450-50	H	2.82
FP431.3	40-40-10-50	450-450-450-50	I	2.13
FP431.35	40-40-20-40	450-450-450-50	H	$3.09
FP431.4	60-40-10-25	450-450-450-50	I	3.15
FP431.7	40-40-10-100	450-450-450-100	I	3.18
FP433	60-10-10-20	450-450-450-150	H	2.76
FP432.4	40-40-30-10	450-450-450-200	I	3.21
FP432.8	35-35-15-25	450-450-450-250	H	2.91
FP432.9	40-20-10-100	450-450-450-250	I	3.51
FP433.2	40-10-10-40	450-450-450-350	H	2.85
FP433.4	40-20-20-20	450-450-450-350	H	3.00
WP433.6	5-5-5-5	450-450-450-450	F	1.80
FP434	10-10-10-10	450-450-450-450	F	2.01
FP434.5	20-10-10-10	450-450-450-450	F	2.22
FP444	20-20-20-20	450-450-450-450	H	2.82
FP444.4	30-15-15-15	450-450-450-450	H	2.67
FP444.5	30-20-20-10	450-450-450-450	H	2.76
FP444.6	30-30-15-10	450-450-450-450	H	2.82
FP444.8	30-30-20-20	450-450-450-450	H	3.12
FP444.9	30-30-30-15	450-450-450-450	I	3.18
FP444.54	40-20-20-4	450-450-450-450	H	2.79
FP444.95	40-20-20-20	450-450-450-450	H	3.06
FP445	35-35-10-5	450-450-450-450	H	2.76
FP446	40-35-10-10	450-450-450-450	H	2.88
FP447	40-40-20-20	450-450-450-450	I	3.33
FP447.5	40-40-30-30	450-450-450-450	I	3.63
WP447.5	40-40-40-40	450-450-450-450	I	3.78
FP448	60-20-20-20	450-450-450-450	I	3.39
FP448.5	60-30-10-2	450-450-450-450	H	3.06
FP449	70-10-10-5	450-450-450-450	H	2.85
FP450	80-10-10-10	450-450-450-450	I	3.03
FP450.5	40-40-50-80	475-250-150-50	H	3.00
FP451	10-100-10-100	475-300-300-25	H	2.94
FP451.3	10-140-4-100	475-300-300-50	I	3.18
FP452	20-80-20-10	475-300-300-300	H	3.00
FP452.5	10-20-100-50	475-350-25-25	F	2.07
FP453	20-40-80-100	475-350-200-100	I	3.27
FP453.4	10-40-80-100	475-350-300-100	I	3.00
FP453.8	10-30-5-80	475-350-350-50	G	2.22
FP454.4	10-130-20-10	475-350-350-350	I	3.54
FP454.2	20-60-40-10	475-350-350-350	H	3.12
FP454.6	10-40-4-100	475-400-350-50	G	2.43
FP454.8	10-80-40-100	475-400-400-50	I	3.48
FP455.5	25-20-20-100	475-450-300-50	G	2.73
FP456	25-20-40-100	475-450-300-50	H	2.97
FP456.5	10-60-30-125	475-450-400-50	I	3.33
FP455	10-50-30-30	475-450-450-25	H	2.85
FP457	10-40-10-20	475-450-450-50	G	2.37
FP459	10-40-10-100	475-450-450-50	G	2.58
FP461	15-15-80-40	475-475-300-50	H	2.88
FP463	50-30-20-20	475-475-300-300	I	3.42
FP464.9	40-10-4-40	475-475-350-300	H	2.97
FP467	20-10-20-100	475-475-450-25	G	2.52
FP474	10-10-10-10	475-475-475-475	F	2.10
FP474.5	20-20-10-10	475-475-475-475	G	2.61
FP475	20-20-20-20	475-475-475-475	H	3.12
FP475.5	40-10-10-10	475-475-475-475	H	2.79
FP476	40-20-10-10	475-475-475-475	H	3.06
FP485‡	10-20-10-4	500-300-300-300	F	1.98
FP490‡	30-10-150-30	500-450-50-50	G	2.52
FP495‡	40-40-8-8	500-500-500-500	I	3.42

‡Operation limited to +65° C.

PFP AND PWP PRINTED CIRCUIT TYPES

Identical to FP and WP types except designed for inserting terminals in printed circuit boards. Mounting lugs conform with EIA standard RS-154A. Straight standard terminal ¾" long. May be substituted in applications normally calling for an FP or WP type.

Mallory FPA Adapter Kit—Converts FP's for printed circuit applications on values not listed below. Net Each.....27c

Mallory Number	Capacity μf	Working Volts DC	*	Net Each
PWP030	750	6	A	$1.17
PWP031	2500	10	D	1.74
PWP036	400	15	A	1.17
PWP056	400	25	B	1.38
PWP060	1500	25	D	2.25
PWP063.9	100	50	A	.99
PWP067	1250	50	H	2.25
PFP116.8	140	150	D	1.26
PFP122	160	200	G	1.71
PFP144	20	450	B	1.08
PFP176.5	40	500	D	1.50
PWP200.13	1000-1000	16-10	C	2.43
PWP200.3	250-250	20-20	B	1.71
PWP200.6	500-100	20-20	B	1.77
PWP200.4	800-250	20-20	C	2.40
PWP201.13	400-200	25-25	B	1.80
PWP201.15	1000-1000	25-25	G	3.90
PWP201.3	1500-1500	25-25	H	4.14
PFP213.1	50-30	150-150	B	1.20
PFP214.3	70-30	150-150	B	1.32
PWP214.4	80-40	150-150	C	1.35
PFP214.7	100-50	150-150	D	1.62
PFP216.4	200-200	150-150	H	2.40
PFP216.45	50-100	200-150	F	1.68
PFP216.5	40-20	200-200	B	1.23
PFP216.1	200-5	200-200	G	2.16
PFP217.86	10-10	300-300	F	1.17
PFP217.11	2-20	450-400	B	1.17
PFP284.1	30-30	500-500	H	$1.95
PWP300.3	250-250-50	16-16-16	B	1.95
PWP300.4	500-250-250	16-16-16	C	2.58
PFP302.38	70-30-100	150-150-10	C	1.68
PWP302.55	80-60-250	150-150-10	D	2.04
PFP302.75	90-40-400	150-150-10	D	2.10
PFP311.1	40-20-20	150-150-25	B	1.38
PFP311.12	70-30-20	150-150-25	C	2.40
PFP311.63	50-30-40	150-150-150	C	1.92
PFP311.53	60-60-40	150-150-150	F	1.83
PWP311.75	80-60-20	150-150-150	D	1.86
PWP326.16	10-20-10	300-150-150	B	1.29
PFP326.4	60-10-25	300-300-25	F	2.25
PWP326.77	150-100-30	300-300-300	I	3.81
PWP327.95	20-20-1000	350-350-15	G	2.55
PFP330.4	10-10-60	350-350-300	F	1.92
PFP330.6	20-20-20	350-350-350	D	1.92
PFP330.8	40-40-40	350-350-350	H	3.33
PFP333.16	40-30-20	400-350-300	G	2.37
PFP368.9	40-30-8	450-450-150	G	2.25
PFP397.5	40-40-60	500-200-50	G	2.37
PFP397.7	40-40-20	500-350-250	H	2.67
PFP411.9	60-60-40-10	150-150-150-150	G	2.19
PFP419.42	20-20-20-100	300-300-300-150	G	2.73
PFP420.17	40-20-10-100	350-350-350-50	G	2.58
PFP420.52	40-30-20-20	400-350-350-350	H	2.97

*SIZES

Key	Diameter	Length	Key	Diameter	Length
A	¾"	2"	G	1⅜"	2½"
B	1"	2"	H	1⅜"	3"
C	1"	2½"	I	1⅜"	4"
D	1"	3"	J	1⅜"	3½"
E	1"	4"	K	1"	3½"
F	1⅜"	2"			

ASK FOR INFORMATION ABOUT FP-WP CAPACITOR HARDWARE

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Mallory Page C-4

P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

DRY ELECTROLYTIC CAPACITORS
PET • BS • TT • HC • NP • PB • RS

PET SERIES MINIATURE BAKELITE ELECTROLYTICS

Miniaturized version of FP and TC types designed for printed circuit applications. Low-impedance electrolyte assure long shelf and operating life, outstanding stability, and higher capacitance for the size. Enclosed in bakelite case with epoxy resin end seal. **Type PET-A** has axial leads 1½" long. **Type PET** is single-end design for p-c board mounting; leads 1" long. **Temperature Range:** −30°C to +85°C. **Tolerance:** −10%, +150% at 25°C.

Mallory No.PET-	Cap., µf	WV DC	Size, In.	Net Each
118	8	3	⅜ x ⅝	$0.87
122	15	3	⅜ x ⅝	.87
130	30	3	⅜ x ¾	.87
140	40	3	⅜ x ¾	.90
180	150	3	7/16 x 15/16	.90
1260	60	6	7/16 x ¾	.96
1340	10	10	⅜ x ⅝	.87
1400	100	10	½ x ⅞	1.08
1500	100	12	⅞ x 1⅛	$1.14
1535	6	15	⅜ x ⅝	.90
1570	20	15	⅜ x ¾	.93
1575	50	15	7/16 x ⅞	.99
1760	10	25	⅜ x ¾	.93
1930	2	50	⅜ x ⅝	.90
1935	4	50	⅜ x ¾	.99
1960	25	50	7/16 x 1	.99
1980	50	50	½ x 1⅛	1.11
2290	100-40	6-3	½ x ⅞	1.26
2410	200-20	8-8	½ x 1½	1.47
2365C*	50-25	10-10	½ x ¾	1.20
2370	50-50	10-10	½ x 1	1.29
3400	100-100-65	8-8-8	⅝ x 1	1.56
A190	750	3	⅝ x 1⅜	1.17
A1675	65	16	7/16 x 1⅛	1.02
A2300	250-100	7-3	½ x 1⅜	1.47
A2385	80-50	10-10	½ x 1¼	1.35
A2395	100-40	10-3	½ x 1⅛	1.35

*Uses common positive construction.

BATHTUB DRY ELECTROLYTICS

For filter and bypass circuits under extreme operating conditions. Corrosion-resistant, hot-tinned steel case is hermetically sealed with internal insulation from case. Two solder lug terminals and mounting flanges. Temp. range, −55°C to +65°C. Tol.: Up to 50 WVDC, −10%, +150%; 100-150 WVDC, −10%, +100%; above 350 WVDC, −10%, +50%.

Mali. No.	Cap. µf	WV DC	Size, Inches H. x W. x L.	Net Each
BS26	25	25	¾ x 1 x 1¾	$2.70
BS29	50	25	¾ x 1 x 1¾	2.76
BS36	25	50	¾ x 1 x 1¾	2.73
BS39	50	50	⅞ x 1 x 1¾	2.82
BS45	20	150	⅞ x 1 x 1¾	2.82
BS48	40	150	1 x 1¼ x 1¾	2.91
BS62	10	300	⅞ x 1 x 1¾	2.85
BS65	20	300	1⅛ x 1¼ x 1¾	2.94
BS81*	8	500	1 x 1¾ x 2	3.45
BS91*	8	600	1 x 1¾ x 2	3.51

*Mtg. centers 2⅜"; all others 2⅛".

TYPE TT TINY TUBULAR ELECTROLYTIC CAPACITORS

Ideal for miniaturized circuitry in transistorized pocket radios, hearing aids, test equipment, etc. High purity, etched aluminum plate for low leakage current limits; high ratings and small size. Conforms to EIA standards RS-154-A. Axial leads 1¾" long. **Temperature Range:** −20°, +85° C. **Tolerance:** Up to 50 WVDC, −10%, +150%; above 50 WVDC, −10%, +100%.

Mallory Number	Cap., µf	WV DC	Size, In.* Dia.xLgth.	Net Each
TT1X5	5	1	7/16x 9/16	$0.75
TT2X150	150	2	25/64x 13/16	.90
TT3X10	10	3	7/16x 9/16	.75
TT3X25	25	3	9/16x 11/16	.75
TT3X40	40	3	9/16x 11/16	.75
TT3X110	110	3	25/64x 13/16	.84
TT3X200	200	3	25/64x 15/16	.90
TT6X2	2	6	7/16x 9/16	.75
TT6X3	3	6	7/16x 9/16	.75
TT6X4	4	6	7/16x 9/16	$0.75
TT6X5	5	6	7/16x 9/16	.75
TT6X8	8	6	7/16x ⅝	.81
TT6X10	10	6	7/16x 11/16	.81
TT6X15	15	6	9/16x 11/16	.81
TT6X25	25	6	9/16x 11/16	.81
TT6X30	30	6	25/64x 11/16	.84
TT6X40	40	6	25/64x 11/16	.84
TT6X50	50	6	25/64x 11/16	.84
TT6X60	60	6	25/64x 11/16	.84
TT6X80	80	6	25/64x 13/16	.93
TT6X100	100	6	25/64x 15/16	.90
TT10X6	6	10	7/16x 11/16	.81
TT10X15	15	10	9/16x 11/16	.81
TT10X25	25	10	25/64x 11/16	.81
TT10X50	50	10	25/64x 13/16	.90
TT10X60	60	10	25/64x 15/16	.90
TT12X1	1	12	7/16x 9/16	.75
TT12X2	2	12	7/16x 9/16	.75
TT12X3	3	12	7/16x 5/8	.75
TT12X5	5	12	7/16x 11/16	.81
TT12X10	10	12	9/16x 11/16	.81
TT15X10	10	15	9/16x 11/16	.84
TT15X20	20	15	25/64x 11/16	.87
TT15X30	30	15	25/64x 11/16	.90
TT15X40	40	15	25/64x 15/16	.90
TT15X50	50	15	25/64x 13/16	$0.96
TT15X100	100	15	25/64x 15/16	1.08
TT25X5	5	25	9/16x 11/16	.84
TT25X6	6	25	9/16x 11/16	.84
TT25X8	8	25	25/64x 11/16	.87
TT25X15	15	25	25/64x 11/16	.87
TT25X20	20	25	25/64x 11/16	.90
TT25X25	25	25	25/64x 11/16	.93
TT50X4	4	50	9/16x 11/16	.93
TT50X5	5	50	9/16x 13/16	.87
TT50X10	10	50	25/64x 11/16	.90
TT50X20	20	50	25/64x 13/16	.90
TT50X35	35	50	25/64x 15/16	1.02
TT80X4	4	80	9/16x 13/16	.96
TT150X1	1	150	9/16x 11/16	.84
TT150X2	2	150	9/16x 13/16	.87
TT150X3	3	150	25/64x 11/16	.87
TT150X4	4	150	25/64x 11/16	.87
TT150X5	5	150	25/64x 13/16	.93
TT150X8	8	150	25/64x 15/16	.96
TT150X10	10	150	25/64x 15/16	.96
TT150X12	12	150	25/64x 15/16	.96
TT250X1	1	250	25/64x 11/16	1.02
TT350X2	2	350	25/64x 17/16	1.05

*Includes mylar insulating sleeves.

HC, NP, LOW-VOLTAGE, HIGH CAPACITY DRY ELECTROLYTICS

TYPE HC POLARIZED TYPE

Supplied with a VR bracket for vertical mounting.
Capacity Tolerances: Up to 150 WVDC, −10%, +100%. Above 150 WVDC, −10%, +50%.

Mallory No. HC-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1020A	2000	10	1 7/16 x 2¾	$3.36
1040A	4000	10	1 7/16 x 3⅜	4.60
1060A*	6000	10	1½ x 4⅛	5.20
10100	10000	10	2 1/16 x 4⅜	7.81
1520A	2000	15	1 7/16 x 2¾	3.47
1540A	4000	15	1 7/16 x 4⅜	5.37
1560A	6000	15	1 13/16x 3⅜	5.62
2060	6000	20	2 1/16 x 4⅜	6.11
2060A	6000	20	1 13/16x 4⅜	6.11
2510A	1000	25	1 7/16 x 2¾	3.19
2520A	2000	25	1 7/16 x 3⅜	4.15
2540A	4000	25	1 13/16x 3⅜	5.58
4040	4000	40	2 1/16 x 4⅜	6.98
4040A	4000	40	1 13/16x 4⅜	6.98
5005	500	50	1 7/16 x 3⅜	3.33
5005A	500	50	1 7/16 x 2¾	3.33
5010A	1000	50	1 7/16 x 3⅜	4.25
5020A	2000	50	1 13/16x 3⅜	5.06
5040	4000	50	2 1/16 x 4⅜	7.32
15010	1000	150	2 1/16 x 4⅜	6.44
15010A	1000	150	1 13/16x 4⅜	6.44
20005	500	200	2 1/16 x 4⅜	5.53
20005A	500	200	1 13/16x 3⅜	5.53
45003	300	450	2 1/16 x 4⅜	8.47
2050-50	2 x 5000	20-20	2 1/16 x 4⅜	8.00

*Aluminum can with solder lug terminals.

TYPE NP NON-POLARIZED TYPE

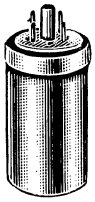
Supplied with a VR bracket for vertical mounting.
Capacity Tolerances: −25%, +25% except NP3003 is −15%, +25%.

Mallory No. NP-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1225A	200	125	1 7/16 x 3⅜	$4.04
1235A	300	125	1 13/16x 3⅜	4.87
1255A	500	125	1 13/16x 4⅜	6.30
3003A	15	300	1 7/16 x 2¾	2.87
3008	50	300	1 7/16 x 3⅜	5.25
3014A	100	300	1 13/16x 3⅜	6.13
3025	200	300	2 1/16 x 4⅜	7.00
4505	50	450	1 13/16x 3⅜	6.30
4510	100	450	2 1/16 x 4⅜	7.70

HARDWARE FOR HC AND NP TYPES

Mall. No.	Description	Size In.	Net Ea.
PL-3	Plastic end cap-on motor	1 7/16	12c
PL-6	Plastic end cap-on motor	1 13/16	15c
PL-8	Plastic end cap-on motor	2 1/16	18c
PL-10	Plastic end cap-on motor	2 9/16	27c
PL-A3	Plastic end cap-off motor	1 7/16	12c
PL-A6	Plastic end cap-off motor	1 13/16	15c
PL-A8	Plastic end cap-off motor	2 1/16	18c
PL-A10	Plastic end cap-off motor	2 9/16	27c
HB-2	Horiz. bkt. (plastic cases)	3 1/64	15c
HB-4	Horiz. bkt. (plastic cases)	3 21/32	18c
HB-8	Horiz. bkt. (plastic cases)	4 21/32	21c

OCTAL BASE, PLUG-IN ELECTROLYTICS



Designed for military and communications parts replacement. Ideal for designers and builders. Meet all MIL-C-62 requirements. Plug-in base for easy replacement in standard octal tube socket. Can be mounted in any position; though if in inverted position, provisions should be made to hold unit securely in socket.

Mallory No.	Cap. µf	WV DC	Size Dia.x L.	Net Each
PB110	20	150	15/32x2½	$2.37
PB114	40	150	15/32x2½	2.46
PB139	100	350	1⅜x3½	3.51
PB142	10	450	15/32x2½	2.43
PB144	20	450	15/32x2½	2.58
PB146	40	450	15/32x2½	2.73
PB149	80	450	1⅜x4¼	3.33
PB208	20-20	150	15/32x2½	2.52
PB212	40-40	150	15/32x2½	2.61
PB234	20-20	450	15/32x2½	3.03
PB238	40-40	450	1⅜x4¼	3.57
PB311.2	20-20-20	150	15/32x2½	2.88
PB345.8	20-20-20	450-450-25	1⅜x2½	3.33
PB375.8	10-10-10	450	15/32x2½	3.06

THREADED NECK DRY ELECTROLYTICS

Single and multiple separate-section capacitors operable to 65° C., encased in aluminum cans equipped with threaded necks for mounting. Type HD is heavy duty. Type HS is for high-surge voltage conditions, operable to 85° C. Type SR638 is lug-type dual. Type SR645 has special internal connections; one terminal common anode, one terminal negative to one section and case negative to the other section. RS, RM types have 8" and HS type has 5" flexible, insulated stranded-copper leads out the threaded neck end of case. Type HD is supplied with one solder lug terminal for positive; case is negative. Type SR has two positive-lug terminals with case common negative. Types RS, RM, HD and HS have threaded necks (⅜-16 for 1" dia. —¾-16 for 1⅜" dia.) equipped with Palnut and special washer. All 1" dia. units are supplied with turn-over washer for 1⅜" clamp mounting. Type SR has ⅞-16 threaded molded neck with solid nut.

Mallory No.	Cap. µf	WV DC	Size Dia. x L.	Net Each
RS207	30	250	1 x 3½	$1.23
RS212	8	450	1⅜ x 3	1.32
RS213	8	450	1 x 2¾	1.32
RS214	12	450	1⅜ x 3	1.44
RS215	12	450	1 x 2¾	1.44
RS216	16	450	1 x 3½	1.47
RS217	16	450	1⅜ x 3	1.47
RS219	20	450	1⅜ x 3	1.62
RS223	30	450	1⅜ x 3	1.80
RS224	40	450	1⅜ x 3	1.89
HD684	10	450	1 x 3	1.38
HS691	4	600	1⅜ x 4	1.77
HS693	8	600	1⅜ x 3¾	1.89
HS696	20	600	1⅜ x 4¼	2.31
RM262	8-8	450	1⅜ x 3	1.80
RM265	8-8-8	450	1⅜ x 4¼	3.00
SR638	8-8	450	1⅜ x 2¾	1.80
SR645	8-8	450	1⅜ x 2¾	1.80

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P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

AC CAPACITORS AND HARDWARE

DRY ELECTROLYTIC AC MOTOR STARTING CAPACITORS

Type PSU are dry electrolytic non-polarized capacitors for intermittent duty in AC motor starting circuits. Rated at minimum capacity with plus tolerance of 20%. Round cases are of moisture and oil resistant molded plastic. Equipped with two quick disconnect terminals. Packed with two PSUA terminal adapters for solder or screw type connection. Also may be mounted by means of Type PL plastic end cap and metal snap-in bracket Type HB which may be ordered separately. Type EP has aluminum case, cardboard sleeve.

Mallory No.	Capacity, μf Min.-Max.	Volts AC	Size, Inches D. x L.	Net Each
PSU2010	20-24	110	1 7/16 x 2 3/4	$0.84
PSU2610	26-31	110	1 7/16 x 2 3/4	.87
PSU3210	32-39	110	1 7/16 x 2 3/4	.90
PSU3810	38-46	110	1 7/16 x 2 3/4	.93
PSU4310	43-52	110	1 7/16 x 2 3/4	.96
PSU5310	56-64	110	1 7/16 x 2 3/4	.99
PSU6410	64-77	110	1 7/16 x 2 3/4	1.02
PSU7010	70-84	110	1 7/16 x 2 3/4	1.02
PSU7510	75-90	110	1 7/16 x 3 3/8	1.08
PSU8610	86-104	110	1 7/16 x 3 3/8	1.08
PSU9710	97-116	110	1 7/16 x 3 3/8	1.08
PSU10810	108-130	110	1 7/16 x 2 3/4	1.08
PSU12410	124-149	110	1 7/16 x 2 3/4	1.11
PSU13010	130-156	110	1 7/16 x 2 3/4	1.17
PSU15410	145-175	110	1 7/16 x 2 3/4	1.29
PSU15810	158-190	110	1 7/16 x 2 3/4	1.32
PSU16110	161-193	110	1 7/16 x 2 3/4	1.32
PSU19210	192-230	110	1 7/16 x 3 3/8	1.59
PSU19410	194-233	110	1 7/16 x 3 3/8	1.59
PSU20010	200-240	110	1 7/16 x 3 3/8	1.65
PSU21610	216-259	110	1 7/16 x 3 3/8	1.68
PSU23310	233-280	110	1 7/16 x 4 3/8	1.83
PSU24310	243-292	110	1 13/16 x 3 3/8	1.86
PSU27010	270-324	110	1 13/16 x 3 3/8	1.98
PSU28210	282-339	110	1 13/16 x 3 3/8	2.01
PSU32410	324-389	110	1 13/16 x 3 3/8	2.10
PSU34010	340-408	110	1 13/16 x 3 3/8	2.19
PSU34110	341-409	110	1 13/16 x 3 3/8	2.19
PSU37810	378-454	110	1 13/16 x 3 3/8	2.40
PSU40010	400-480	110	1 13/16 x 4 3/8	2.67
PSU43010	430-516	110	1 13/16 x 4 3/8	2.94
PSU48510	485-582	110	1 13/16 x 4 3/8	3.12
PSU54010	540-648	110	1 13/16 x 4 3/8	3.54
PSU3825	38-46	125	1 7/16 x 2 3/4	.93
PSU7225	72-86	125	1 7/16 x 3 3/8	1.08
PSU8625	86-104	125	1 7/16 x 2 3/4	1.17
PSU10825	108-130	125	1 7/16 x 3 3/8	1.26
PSU12425	124-149	125	1 7/16 x 3 3/8	1.32
PSU13025	130-156	125	1 7/16 x 3 3/8	1.50
PSU14525	145-174	125	1 7/16 x 3 3/8	1.56
PSU16125	161-194	125	1 7/16 x 4 3/8	1.71
PSU19225	192-231	125	1 7/16 x 4 3/8	1.86
PSU24325	243-292	125	1 13/16 x 3 3/8	2.16
PSU27325	273-328	125	1 13/16 x 4 3/8	2.28
PSU32425	324-389	125	1 13/16 x 4 3/8	2.64
PSU34125	341-409	125	1 13/16 x 4 3/8	2.73
PSU40025	400-480	125	2 1/16 x 4 3/8	3.12
PSU18965	189-227	165	1 13/16 x 4 3/8	2.85
PSU21665	216-260	165	1 13/16 x 4 3/8	3.09
PSU24365	243-292	165	2 1/16 x 3 3/8	3.36
PSU2520	25-30	220	1 7/16 x 2 3/4	1.35
PSU3220	32-39	220	1 7/16 x 2 3/4	1.44
PSU3820	38-46	220	1 7/16 x 3 3/8	1.56
PSU4320	43-51	220	1 13/16 x 3 3/8	1.68
PSU5020	50-60	220	1 13/16 x 3 3/8	1.83
PSU5320	53-64	220	1 13/16 x 3 3/8	1.83
PSU6420	64-77	220	1 13/16 x 3 3/8	2.01
PSU7020	70-84	220	1 13/16 x 3 3/8	2.07
PSU7520	75-90	220	1 13/16 x 3 3/8	2.16
PSU8620	86-103	220	1 13/16 x 4 3/8	2.40
PSU10820	108-130	220	2 1/16 x 4 3/8	2.67
PSU12120	121-145	220	2 1/16 x 4 3/8	3.00
PSU13520	135-162	220	2 1/16 x 4 3/8	3.15
PSU14120	141-170	220	2 1/16 x 4 3/8	3.24
PSU14120R	141-170	220	2 1/16 x 4 3/8	3.45
PSU14520	145-174	220	2 1/16 x 4 3/8	3.24
PSU5050	50-60	250	1 13/16 x 3 3/8	2.19
PSU7550	75-90	250	1 13/16 x 4 3/8	2.73
PSU8150	18-97	250	1 13/16 x 4 3/8	2.85
PSU10850	108-130	250	2 1/16 x 4 3/8	3.51
PSU12150	121-146	250	2 1/16 x 4 3/8	3.75
PSU13550	135-162	250	2 1/16 x 4 3/8	4.02
PSU14150	141-170	250	2 1/16 x 4 3/8	4.17
PSU2730	27-32	330	1 13/16 x 3 3/8	1.92
EP8130	81-90	330	2 9/16 x 4 3/8	3.75
EP10830	108-130	330	2 9/16 x 4 3/8	4.98
PSU10830R	108-130	330	2 9/16 x 4 3/8	5.19
PSU12430	124-149	330	2 9/16 x 4 3/8	5.46
PSU12730	127-152	330	2 9/16 x 4 3/8	5.46
PSU13530	135-162	330	2 9/16 x 4 3/8	5.82
PSU13530R	135-162	330	2 9/16 x 4 3/8	6.03

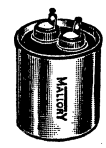
Mallory No. ACR15K Bleeder Resistor—15K ohms at 2 w. Net Each..... 15c

PSU PLASTIC END CAPS

For "On Motor" Mtg.			For "Off Motor" Mtg.		
No.	Dia.	Net Ea.	No.	Dia.	Net Ea.
PL-3	1 7/16	12c	PL-A3	1 7/16	12c
PL-6	1 13/16	15c	PL-A6	1 13/16	15c
PL-8	2 1/16	18c	PL-A8	2 1/16	18c
PL-10	2 9/16	27c	PL-A10	2 9/16	27c

Mallory No. MSS-101 Capacitor Selector—25-645 μf at 160 v. rms. Net Each..... $15.00

CONTINUOUS DUTY OIL IMPREGNATED AC CAPACITORS



Type RP designed primarily for heavy duty AC applications. May be used as motor running capacitors, fluorescent light ballast, etc., where continuous duty is required. Type OP designed primarily for use in home room air conditioners. Supplied in metal cases, these units may be safely operated at voltages up to 10% above rated values and at temperatures as high as 75° C. Impregnating oil is non-inflammable and non-oxidizing. Quick disconnect terminals have flash guards to prevent arcing. Type 35A has stripped leads for soldering. Tolerance: ±10%.

TYPE RP ROUND

Mallory No.	Cap. μf	Volts AC	Size, In. Dia. x Lgth.	Net Each
RP-3301	1	330	1 3/8 x 1 7/8	$1.83
RP-3302	2	330	1 3/8 x 3 1/8	1.86
RP-3303	3	330	2 x 2 7/16	1.89
RP-3304	4	330	2 x 2 7/8	2.16
RP-3305	5	330	2 x 3 7/16	2.49
RP-3306	6	330	2 x 3 15/16	3.09
RP-3307	7	330	2 x 4 7/16	4.14
RP-3308	8	330	2 x 5 3/8	4.32
RP-3310	10	330	2 1/2 x 4 9/16	4.62
RP-3312	12	330	2 1/2 x 5 5/16	5.49
RP-3315	15	330	2 1/2 x 6 1/16	5.94

TYPE OP OVAL

Mallory No.	Cap. μf	Volts AC	Size, Inches	Net Each
OP336	3	236	1 5/16 x 2 5/32 x 2 1/4	$ 1.80
OP436	4	236	1 5/16 x 2 5/32 x 2 7/8	1.95
OP536	5	236	1 5/16 x 2 5/32 x 3 1/8	2.16
OP7x36	7.5	236	1 5/16 x 2 5/32 x 4 3/8	3.75
OP1036	10	236	2 5/32 x 2 27/32 x 3 1/32	4.41
OP1536	15	236	2 5/32 x 2 27/32 x 4 5/32	4.98
OP2036	20	236	2 5/32 x 2 27/32 x 4 5/32	8.34
OP17525	17.5	250	2 5/32 x 2 27/32 x 4 5/32	10.74
OP1033	10	330	2 5/32 x 2 27/32 x 3 1/32	5.46
OP14533	14.5	330	2 5/32 x 2 27/32 x 4 5/32	5.76
OP370	3	370	1 5/16 x 2 5/32 x 2 7/8	1.86
OP470	4	370	1 5/16 x 2 5/32 x 3 3/4	2.01
OP570	5	370	1 5/16 x 2 5/32 x 4 3/8	3.09
OP7x570	7.5	370	2 5/32 x 2 27/32 x 3 1/32	4.14
OP1070	10	370	2 5/32 x 2 27/32 x 3 25/32	4.62
OP1570	15	370	2 5/32 x 2 27/32 x 4 21/32	4.98
OP17570	17.5	370	2 5/32 x 2 27/32 x 5 5/16	6.09
OP240	2	440	1 5/16 x 2 5/32 x 2 1/4	2.34
OP340	3	440	1 5/16 x 2 5/32 x 3 1/8	2.49
OP440	4	440	1 5/16 x 2 5/32 x 3 3/4	2.76
OP540	5	440	1 5/16 x 2 5/32 x 4 3/4	3.39
OP7x40	7.5	440	2 5/32 x 2 27/32 x 3 13/32	4.50
OP1044	10	440	2 5/32 x 2 27/32 x 4 5/32	4.89
OP1540	15	440	2 5/32 x 2 27/32 x 6 1/4	6.75

TYPE OPR RECTANGULAR

OPR2070	20	370	2 5/32 x 2 27/32 x 6 1/4	$ 7.86
OPR2570	25	370	2 5/32 x 2 27/32 x 6 3/4	11.34
OPR2570B	25	370	2 27/32 x 4 9/16 x 4 5/16	11.01
OPR3070	30	370	2 5/32 x 2 27/32 x 6 1/4	13.26
OPR3570	35	370	2 27/32 x 4 9/16 x 6 1/4	13.44
OPR4070	40	370	2 27/32 x 4 9/16 x 6 3/4	18.42
OPR4570	45	370	2 27/32 x 4 9/16 x 8	19.59
OPR2040	20	440	2 5/32 x 2 27/32 x 6 3/4	11.01
OPR2040B	20	440	2 27/32 x 4 9/16 x 4 5/16	11.01
OPR2540	25	440	2 27/32 x 4 9/16 x 4 5/16	13.29
OPR3040	30	440	2 27/32 x 4 9/16 x 6 1/4	16.08
OPR4040	40	440	2 27/32 x 4 9/16 x 6 3/4	19.26
OPR5040	50	440	3 3/4 x 4 9/16 x 6 1/2	22.77

TYPE 35A ROUND WITH LEADS

Mallory No.	Cap. μf	Volts AC	Size, In. Dia. x Lgth.	Net Each
35A3702	2	370	2 x 2 9/16	$2.55
35A3703	3	370	2 x 3	2.58
35A3704	4	370	2 x 3 1/2	2.70
35A3705	5	370	2 x 4	3.21
35A3706	6	370	2 x 4 1/2	3.45
35A3708	8	370	2 x 5 1/2	5.04
35A3710	10	370	2 x 5 1/2	5.34

AC CAPACITOR HARDWARE

Mall. No.	Description	Capacitor Size, In.	Net Each
HB-2	Horiz. bracket (plastic cases)	3 1/64*	15c
HB-4	Horiz. bracket (plastic cases)	3 21/64*	18c
HB-8	Horiz. bracket (plastic cases)	4 21/64*	21c
VR-1	Vertical mounting clamp†	1-1 1/16	9c
VR-3	Vertical mounting clamp†	1 3/8-1 7/16	9c
VR-4	Vertical mounting clamp†	1 1/2-1 9/16	12c
VR-6	Vertical mounting clamp†	1 3/4-1 13/16	15c
VR-8	Vertical mounting clamp†	2-2 1/16	18c
VR-10	Vertical mounting clamp†	2 1/2-2 9/16	21c
OB-1	Mtg. clamp for OP capacitors	.....	12c
OC-1	Terminal cover (rubber) for OP's	#	12c
PSUA	Pkge. 10 screw or solder terminal adapters		30c
274	Pair 12" leads; quick disconnect terminals		27c
515	Pair 12" leads; 1 quick-disc. term; 1 eyelet		27c

*Capacitor length: all others diameter. †For round capacitors. #1 9/16" x 15/16" x 1 1/8".

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P R MALLORY & CO Inc
MALLORY

CERAMIC CAPACITORS

P.R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

RMC DISCAPS® • Specials

For radio, TV and industrial uses in general purpose or temperature compensating applications. Heavy-duty, dual shielded, bypass, high and low voltage discs are free from failure under adverse heat, humidity and voltage overloads. Durez phenolic insulating vacuum wax.

MINIATURE 100 VOLT

Tolerance, +80%, −20%.

Cap. μf	Mallory Number	Net Each	Cap. μf	Mallory Number	Net Each
.005	TA-250*	24c	.025	TA-125†	24c
.01	TA-110*	24c	.05	TA-150‡	39c
.02	TA-120†	24c	.1	TA-010‡	57c

Dia. *11/32". †1/2". ‡5/8".

TYPE SM

Rated 500 WVDC. Tol., −20%, +80% except SM-210 and SM-215, GMV*.

Mallory Number	Cap., μf	Dia., In.	Net Each
SM-210	.001	1/4	12c
SM-215	.0015	9/32	12c
SM-250	.005	13/32	12c
SM-110	.01	1/2	12c
SM-120	.02	11/16	18c

GENERAL PURPOSE

Rated 1000 WVDC except, 20K-50K values rated 600 WVDC. Tol., ±0.25 μμf, 3.3 and 5.0 μμf; ±5%, 6.8 and 8.0 μμf; ±10%, 10-2200 μμf; ±20%, 2500-40K μμf; −20%, +80%, 50K μμf.

Mall. No. GP-	Cap., μμf	Net Ea.	Mall. No. GP-	Cap., μμf	Net Ea.
533*	3.3	15c	336*	360	15c
550*	5.0	15c	339*	390	15c
568*	6.8	15c	340*	400	15c
580*	8.0	15c	347*	470	15c
410*	10	15c	350*	500	15c
412*	12	15c	356*	560	15c
415*	15	15c	360*	600	15c
418*	18	15c	368*	680	15c
420*	20	15c	375†	750	15c
422*	22	15c	382†	820	15c
425*	25	15c	210†	1000	15c
427*	27	15c	212‡	1200	15c
430*	30	15c	215‡	1500	15c
433*	33	15c	216‡	1600	15c
439*	39	15c	218‡	1800	15c
447*	47	15c	220‡	2000	15c
450*	50	15c	222‡	2200	15c
456†	56	15c	225‡	2500	15c
468†	68	15c	227‡	2700	15c
475†	75	15c	230‡	3000	15c
482†	82	15c	233‡	3300	15c
491†	91	15c	239‡	3900	15c
310†	100	15c	240‡	4000	15c
312†	120	15c	243‡	4300	15c
313†	130	15c	247‡	4700	15c
315*	150	15c	250‡	5000	18c
318*	180	15c	256#	5600	18c
320*	200	15c	268#	6800	18c
322*	220	15c	275#	7500	18c
324*	240	15c	110#	10K	18c
325*	250	15c	115#	15K	18c
327*	270	15c	120•	20K	18c
330*	300	15c	130•	30K	36c
333*	330	15c	140•	40K	39c
335*	350	15c	150•	50K	42c

Dia.: *1/4". †5/16". ‡1/2". #5/8". •15/16".

AC LINE AND BUFFER

Rated 1400 WVDC. Tol., GMV*.

Mall. No. UAC-	Cap., μμf	Net. Ea.	Mall. No. UAC-	Cap., μμf	Net Ea.
210*	.001	21c	260‡	.006	21c
220†	.002	21c	270‡	.007	21c
222†	.0022	21c	275‡	.0075	21c
230†	.003	21c	280‡	.008	21c
233†	.0033	21c	110§	.01	21c
240†	.004	21c	120§	.02	24c
247‡	.0047	21c	2X110§	2x.01	27c
250‡	.005	21c			

Dia.: *3/8". †9/16". ‡13/16". §29/32".

TEMPERATURE STABILIZING

Rated 1000 WVDC. Tolerance, ±10%. Commercial equiv. to MIL-C-11015B.

Mall. No. JL-	Cap., μμf	Net Ea.	Mall. No. JL-	Cap., μμf	Net Ea.
315†	150	30c	212#	1200	30c
322†	220	30c	215#	1500	30c
333†	330	30c	218#	1800	30c
347‡	470	30c	220•	2000	30c
356‡	560	30c	222•	2200	30c
368‡	680	30c	233■	3300	30c
375‡	750	30c	239■	3900	30c
382#	820	30c	247▲	4700	33c
210#	1000	30c	250▲	5000	33c

Dia.: †9/32". ‡23/64". #17/32". •5/8". ■47/64". ▲1/8".

RMC CERAMIC DISCAPS®

TEMPERATURE COMPENSATING

Rated 1000 WVDC. Tolerance, ±5%.

Cap., μμf	"0" Temp. Comp. Mall. No.	"0" Temp. Comp. Net Ea.	N750 Negative Temp. Comp. Mall. No.	N750 Negative Temp. Comp. Net Ea.
1	CNO-510*	30c	.....	.....
1.5	CNO-515*	30c	.....	.....
2.2	CNO-522*	30c	CN7-522*	30c
3.3	CNO-533*	30c	CN7-533*	30c
4.7	CNO-547*	30c	CN7-547*	30c
5	.....	.....	CN7-550*	30c
6.8	CNO-568*	30c	CN7-568*	30c
10	CNO-410*	30c	CN7-410*	30c
12	CNO-412*	30c	CN7-412*	30c
15	CNO-415*	30c	CN7-415*	30c
18	CNO-418†	30c	CN7-418*	30c
20	.....	.....	CN7-420*	30c
22	CNO-422†	30c	CN7-422*	30c
25	CNO-425†	30c	.....	.....
27	CNO-427†	30c	CN7-427*	30c
33	CNO-433‡	30c	CN7-433*	30c
39	CNO-439‡	30c	CN7-439*	30c
47	CNO-447‡	30c	CN7-447*	30c
50	CNO-450‡	30c	.....	.....
56	CNO-456‡	30c	CN7-456*	30c
68	CNO-468‡	30c	CN7-468*	30c
75	CNO-475§	30c	CN7-475‡	30c
82	CNO-482§	30c	CN7-482‡	30c
100	CNO-310#	30c	CN7-310‡	30c
120	CNO-312•	30c	CN7-312‡	30c
150	CNO-315•	33c	CN7-315‡	30c
180	CNO-318#	33c	CN7-318§	33c
200	CNO-320#	33c	CN7-320#	33c
220	CNO-322▲	33c	CN7-322#	33c
270	CNO-327▲	33c	CN7-327•	33c
330	.....	.....	CN7-333•	33c

Dia.: *1/4". †5/16". ‡1/2". §5/8". #3/4". •7/8". ▲15/16".

FREQUENCY STABLE 1000 WVDC

For use in oscillators and other closely controlled circuits where it is desirable to have superior frequency and temperature stability. Tolerance, ±10%.

Cap. μμf	Mallory No. JF-	Net. Each	Cap. μμf	Mallory No. JF-	Net Each
150	315*	24c	1500	215‡	24c
220	322*	24c	1800	218‡	24c
330	333*	24c	2000	220‡	24c
470	347*	24c	2200	222‡	24c
500	350*	24c	3300	233§	24c
560	356*	24c	3900	239#	24c
680	368*	24c	4700	247#	24c
750	375†	24c	5000	250#	24c
820	382†	24c	6800	268•	24c
1000	210†	24c	10K	110•	24c
1200	212‡	24c			

Dia.: *19/64". †3/8". ‡35/64". §41/64". #25/32". •59/64".

HIGH VOLTAGE

Tol., GMV* except values 100-470 μμf, ±20%. Not recommended for yoke application.

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC Mall. No. 2HV-	2000 WVDC Net Ea.	3000 WVDC Mall. No. 3HV-	3000 WVDC Net Ea.
100	310*	21c	.....	.....
120	312*	21c	.....	.....
150	315*	21c	.....	.....
220	322†	21c	322†	24c
270	327§	21c	327†	24c
330	333‡	21c	333†	24c
470	347‡	21c	347†	24c
560	356*	21c	356†	24c
680	368*	21c	368†	24c
750	375*	21c	375†	24c
820	382*	21c	382†	24c
1000	210*	33c	210†	24c
1200	212‡	33c	212§	24c
1500	215‡	33c	215§	24c
1800	218‡	33c	218§	24c
2200	222‡	33c	222§	24c
3300	233§	33c	233§	24c
3900	239§	33c	239§	24c
4700	247§	33c	247§	24c
6800	268§	42c	.....	.....
10K	110§	42c	.....	.....

6000 WVDC

Mall. No. 6HV-	Cap., μμf	Net Ea.	Mall. No. 6HV-	Cap., μμf	Net Ea.
310†	100	35c	347§	470	35c
312†	120	35c	356§	560	35c
315†	150	35c	368§	680	35c
322†	220	35c	375§	750	35c
327§	270	35c	382§	820	35c
333§	330	35c	210§	1K	35c

Dia.: *5/8". †3/4". ‡1/16". §7/8".
*Guaranteed Minimum Value.

DEFLECTION YOKE

Tolerance, ±10%.

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC Mall. No. 2DY-	2000 WVDC Net Ea.	3000 WVDC Mall. No. 3DY-	3000 WVDC Net Ea.
4.7	547*	21c	547†	24c
6.8	568*	21c	568†	24c
10	410*	21c	410†	24c
12	412*	21c	412†	24c
15	415*	21c	415†	24c
22	422†	21c	422‡	24c
27	427†	21c	427‡	24c
33	433†	21c	433§	24c
39	439†	21c	439§	24c
47	447†	21c	447§	24c
56	456‡	21c	456§	24c
68	468‡	21c	468§	24c
82	482‡	21c	482§	24c
100	310§	21c	310§	24c

6000 WVDC

Mall. No. 6DY-	Cap., μμf	Net Ea.	Mall. No. 6DY-	Cap., μμf	Net Ea.
547#	4.7	33c	427#	27	33c
568#	6.8	33c	433•	33	33c
410#	10	33c	439•	39	33c
412#	12	33c	447•	47	33c
415#	15	33c	456•	56	33c
422#	22	33c	468•	68	33c

Dia.: *1/4". †5/16". ‡1/2". §5/8". #3/4". •7/8".

BYPASS, GENERAL PURPOSE

Heavy duty, rated 1000 WVDC. Tol., GMV* to 10K; +80%, −20%, 15K and 20K. Values to meet MIL-C-11015B available on special order.

Mall. No.	Cap., μμf	Net Ea.	Mall. No.	Cap., μμf	Net Ea.
B-315*	150	15c	B-220†	2000	15c
B-318*	180	15c	B-222†	2200	15c
B-322*	220	15c	B-227†	2700	15c
B-327*	270	15c	B-233‡	3300	15c
B-333*	330	15c	B-240‡	4000	15c
B-339*	390	15c	B-247§	4700	18c
B-347*	470	15c	B-250§	5000	18c
B-350*	500	15c	B-256§	5600	18c
B-356*	560	15c	B-260§	6000	18c
B-368*	680	15c	B-268#	6800	18c
B-382*	820	15c	B-282#	8200	18c
B-210*	1000	15c	B-110•	10K	18c
B-212*	1200	15c	B-115■	15K	18c
B-215†	1500	15c	B-120■	20K	18c
B-218†	1800	15c			

Dia.: *9/32". †3/8". ‡9/16". §19/32". #5/8". •3/4". ■29/32".

SPECIAL CERAMIC CAPACITORS

UNIVERSAL HIGH VOLTAGE CERAMIC CAPACITORS

Filter high voltage power supplies in TV sets, etc. Hi-voltage, high insulation resistant ceramic. Four universal screw-in terminals. Capacity, 500 μμf. Tol., −20%, +50%.

Mallory Number	WV DC	Flash Volts	Size, In. H. x Dia.	Net Ea.
HV20035U	20K	30K	1.068x.950"	$1.11
HV30035U	30K	40K	1.381x1.375"	1.80

CERAMIC TRIMMERS

Small and stable for high frequency FM and TV uses. Fired silver electrodes; ceramic rotator and base. Sealed against dust. Solder lug terminals. Two-hole screw mounting. Single or dual units available. Constant capacity change on 360° rotator. Size: 21/32 x 27/32 x 3/8", single units. Rated 600 v. DC.

Mallory Number	Cap. Range μμf	Temp. Coef.	Net Each
ST-5515-Z	1.5 to 7	Zero	$1.05
ST-553-Z	3 to 12	Zero	.90
ST-554-N	4 to 30	Neg. 500*	1.05
ST-557-N	7 to 45	Neg. 500*	1.05

*Parts/Million/°C.

FEED-THRU CAPACITORS

For TV bypass. Wire terminals as tie points. Body solders to chassis or mounted by hex nut. **Type CT:** Silvered steatite trimmer. **Type FC:** Feed-thru for bypassing RF. Wire terminals.

Mallory Number	Cap., μμf	WV DC	Size, In.	Net Ea.
CT565*	.5 to 3	500	1/4x1/2	30c
CT551*	1 to 4	500	1/4x1/2	30c
CT552*	2 to 6	500	1/4x3/8	30c
CT250A†	1000	600	1/4x3/4	30c
CT254A†	1000	600	17/64x13/16	30c
CT280A†	1000	600	3/8x15/16	45c
CT282A‡	1000	600	1/2x1 1/32	60c
FC5215‡	1500	500	1/2x1 1/4	60c

Tol.: *±0.5 μμf. †GMV*. ‡±20%.

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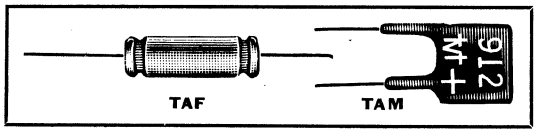
P.R. MALLORY & CO. Inc

MALLORY TANTALUM CAPACITORS

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.



Mallory offers the industry's best selection of tantalum capacitors in three general types: Sintered anode wet slug; sintered anode solid electrolyte; and, foil. Standard temperature range, −55° C to +85° C, with some types offering +200° C operation. **Catalog System:** New 13-digit system is used to specify Mallory tantalum capacitors. Each number is significant and completely identifies the item. The first three digits indicate type (TAF, TAP, etc.). Capacity is shown in μμf with fourth and fifth digits showing significant number and sixth digit showing numbers of zeros. Tolerance is indicated by the seventh digit. Digits eight, nine and ten show WVDC at +85° C. Eleventh digit indicates polarity; twelfth, insulation; and thirteenth, case size or configuration. Thus TAF504M150P0A is: TAF type, 0.5 μf, ±20% tolerance, 150 WVDC, polarized, uninsulated, case size A. Please refer to bulletins shown for exact details. **Note:** Standard ratings available from distributor stock are shown in following tables. Other ratings available from factory stock.

TAF-TAG TANTALUM FOIL

Tantalum foil in corrosion-resistant metal case with plastic end seals. Temperature Range: TAF, −55° C to +85° C; TAG, −55° C to +125° C. Capacity tolerance, ±20% (M); polarized (P) or non-polarized (N); uninsulated (0); axial leads; five case sizes (A, B, C, D, E). Available with Mylar* (1) insulation, add **10c** to prices shown and change 12th digit in number from 0 to 1. Ratings shown are available from distributor stock. Ask for Bulletin 4-48 (TAF) and 4-61 (TAG).

TAF PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$ 4.90	$ 2.80	$2.10	$1.68	$1.40
B	7.42	4.24	3.18	2.54	2.12
C	11.76	6.72	5.04	4.03	3.36
D	16.49	9.42	7.07	5.65	4.71
E	22.05	12.60	9.45	7.56	6.30

TAF POLARIZED +85° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
.5†	150	TAF504M150P0A	A
.8†	100	TAF804M100P0A	A
1.0†	75	TAF105M075P0A	A
1.0	150	TAF105M150P0B	B
1.2	60	TAF125M060P0A	A
1.5†	50	TAF155M050P0A	A
2.0†	150	TAF205M150P0B	B
2.5†	30	TAF255M030P0A	A
3.0	25	TAF305M025P0A	A
3.0†	100	TAF305M100P0B	B
4.0†	75	TAF405M075P0B	B
4.0	150	TAF405M150P0C	C
4.5†	15	TAF455M015P0A	A
5.0	60	TAF505M060P0B	B
6.0†	10	TAF605M010P0A	A
6.0†	50	TAF605M050P0B	B
7.0†	150	TAF705M150P0C	C
8.0†	6	TAF805M006P0A	A
8.0†	150	TAF805M150P0D	D
10.0†	3	TAF106M003P0A	A
10.0	30	TAF106M030P0B	B
10.0†	100	TAF106M100P0C	C
12.0	25	TAF126M025P0B	B
12.0†	150	TAF126M150P0D	D
14.0†	75	TAF146M075P0C	C
14.0†	150	TAF146M150P0D	D
17.0	60	TAF176M060P0C	C
18.0†	15	TAF186M015P0B	B
20.0†	50	TAF206M050P0C	C
20.0†	100	TAF206M100P0D	D
20.0†	150	TAF206M150P0E	E
25.0†	10	TAF256M010P0B	B
28.0†	75	TAF286M075P0D	D
30.0†	6	TAF306M006P0B	B
30.0†	30	TAF306M030P0C	C
30.0†	100	TAF306M100P0E	E
34.0	60	TAF346M060P0D	D
35.0	6	TAF356M006P0B	B
35.0	25	TAF356M025P0C	C
40.0†	50	TAF406M050P0D	D
40.0†	75	TAF406M075P0E	E
48.0	60	TAF486M060P0E	E
50.0†	3	TAF506M003P0B	B
55.0†	15	TAF556M015P0C	C
55.0†	50	TAF556M050P0E	E
60.0†	30	TAF606M030P0D	D
70.0	25	TAF706M025P0D	D
80.0†	10	TAF806M010P0C	C
85.0†	30	TAF856M030P0E	E
100.0†	6	TAF107M006P0C	C
100.0	25	TAF107M025P0E	E
110.0†	15	TAF117M015P0D	D
160.0	3	TAF167M003P0C	C
160.0†	10	TAF167M010P0D	D
160.0†	15	TAF167M015P0E	E
200.0†	6	TAF207M006P0D	D
220.0†	10	TAF227M010P0E	E
300.0†	6	TAF307M006P0E	E
350.0	3	TAF357M003P0D	D
440.0	3	TAF447M003P0E	E

†MIL-C-3965/3B rating.
*Registered Dupont trademark.

TAF NON-POLARIZED +85° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
.25	150	TAF254M150N0A	A
.4	100	TAF404M100N0A	A
.5	75	TAF504M075N0A	A
.6	60	TAF604M060N0A	A
.8	50	TAF804M050N0A	A
1.0	150	TAF105M150N0B	B
1.4	30	TAF145M030N0A	A
1.5	25	TAF155M025N0A	A
1.5	100	TAF155M100N0B	B
2.0	75	TAF205M075N0B	B
2.5	15	TAF255M015N0A	A
2.5	60	TAF255M060N0B	B
3.0	10	TAF305M010N0A	A
3.0	50	TAF305M050N0B	B
3.5	150	TAF355M150N0C	C
5.0	6	TAF505M006N0A	A
5.0	100	TAF505M100N0C	C
5.5	30	TAF555M030N0B	B
6.0	25	TAF605M025N0B	B
7.0	75	TAF705M075N0C	C
7.0	150	TAF705M150N0D	D
8.5	60	TAF855M060N0C	C
10.0	15	TAF106M015N0B	B
10.0	50	TAF106M050N0C	C
10.0	100	TAF106M100N0D	D
10.0	150	TAF106M150N0E	E
14.0	75	TAF146M075N0D	D
15.0	100	TAF156M100N0E	E
16.0	10	TAF166M010N0B	B
17.0	60	TAF176M060N0D	D
18.0	30	TAF186M030N0C	C
20.0	25	TAF206M025N0C	C
20.0	50	TAF206M050N0D	D
20.0	75	TAF206M075N0E	E
24.0	60	TAF246M060N0E	E
25.0	6	TAF256M006N0B	B
30.0	50	TAF306M050N0E	E
35.0	15	TAF356M015N0C	C
36.0	30	TAF366M030N0D	D
40.0	25	TAF405M025N0D	D
45.0	30	TAF456M030N0E	E
55.0	10	TAF556M010N0C	C
60.0	25	TAF606M025N0E	E
70.0	15	TAF706M015N0D	D
85.0	6	TAF856M006N0C	C
100.0	15	TAF107M015N0E	E
110.0	10	TAF117M010N0D	D
150.0	10	TAF157M010N0E	E
170 0	6	TAF177M006N0D	D
250.0	6	TAF257M006N0E	E

TAG PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$ 8.19	$ 4.68	$ 3.51	$2.81	$2.57
B	10.89	6.22	4.67	3.73	3.42
C	15.79	9.02	6.77	5.41	4.96
D	20.30	11.60	8.70	6.96	6.38
E	26.11	14.92	11.19	8.95	8.20

TAG POLARIZED +125° C

Cap. μf	WVDC at +125°C	Mallory Catalog No.	Case Size ‡
.5	100	TAG504M100P0A	A
.8	60	TAG804M060P0A	A
1.0	50	TAG105M050P0A	A
1.5	30	TAG155M030P0A	A
2.0	100	TAG205M100P0B	B
3.0	15	TAG305M015P0A	A
3.0	60	TAG305M060P0B	B
4.0	50	TAG405M050P0B	B
4.5	10	TAG455M010P0A	A
6	30	TAG605M030P0B	B
7	100	TAG705M100P0C	C
10	60	TAG106M060P0C	C
12	15	TAG126M015P0B	B
14	50	TAG146M050P0C	C
14	100	TAG146M100P0D	D
18	10	TAG186M010P0B	B
20	30	TAG206M030P0C	C
20	60	TAG206M060P0D	D
20	100	TAG206M100P0E	E
28	50	TAG286M050P0D	D
30	60	TAG306M060P0E	E
35	15	TAG356M015P0C	C
40	30	TAG406M030P0D	D
40	50	TAG406M050P0E	E

TAG POLARIZED (CONT'D)

Cap. μf	WVDC at +125°C	Mallory Catalog No.	Case Size ‡
55	10	TAG556M010P0C	C
55	30	TAG556M030P0E	E
70	15	TAG706M015P0D	D
100	15	TAG107M015P0E	E
110	10	TAG117M010P0D	D
160	10	TAG167M010P0E	E

TAG NON-POLARIZED +125° C

Cap. μf	WVDC at +125°C	Mallory Catalog No.	Case Size ‡
.25	100	TAG254M100N0A	A
.4	60	TAG404M060N0A	A
.5	50	TAG504M050N0A	A
.8	30	TAG804M030N0A	A
1.0	100	TAG105M100N0B	B
1.5	15	TAG155M015N0A	A
1.5	60	TAG155M060N0B	B
2.0	50	TAG205M050N0B	B
2.5	10	TAG255M010N0A	A
3.0	30	TAG305M030N0B	B
3.5	100	TAG355M100N0C	C
5	60	TAG505M060N0C	C
6	15	TAG605M015N0B	B
7	50	TAG705M050N0C	C
7	100	TAG705M100N0D	D
10	10	TAG106M010N0B	B
10	30	TAG106M030N0C	C
10	60	TAG106M060N0D	D
10	100	TAG106M100N0E	E
14	50	TAG146M050N0D	D
15	60	TAG156M060N0E	E
20	15	TAG206M015N0C	C
20	30	TAG206M030N0D	D
20	50	TAG206M050N0E	E
30	30	TAG306M030N0E	E
35	10	TAG356M010N0C	C
40	15	TAG406M015N0D	D
60	15	TAG606M015N0E	E
70	10	TAG706M010N0D	D
100	10	TAG107M010N0E	E

‡CASE SIZES
TAF-TAG

Case	Diameter	Length
A	3/16″	11/16″
B	9/32″	7/8″
C	3/8″	1 7/16″
D	3/4″	2 1/16″
E	3/8″	2 3/4″

TAM ENCAPSULATED SOLID ELECTROLYTE SINTERED ANODE

Flexible, plastic encapsulated, sintered pellet anode with solid electrolyte. For printed circuit applications. Temperature range, −55° C to +85° C; capacity tolerance, ±20% (M); polarized (P); Mallary plastic encapsulation (5); radial grid spaced leads; size C only. Ask for Bulletin 4-47A.

TAM PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
C	$1.20	$0.96	$0.82	$0.69	$0.63

TAM +85° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size §
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
22	15	TAM226M015P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
56	6	TAM566M006P5C	C

§.325″ square, .175″ thick.

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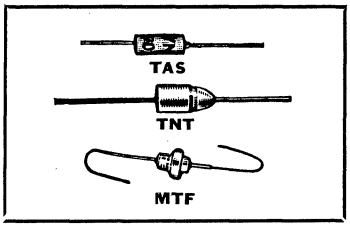
TANTALUM CAPACITORS



TAS SOLID HERMETIC SEAL

Miniature sintered anode, solid electrolyte; hermetically sealed (glass to metal). Temperature range, −80° C to +125° C; capacity tolerance, ±20% (M); polarized (P); uninsulated (0); four case sizes (A, C, F, G) standard. Available in ±10% tolerance (K) at extra cost. Available with Mylar* sleeve (specify **1** in 12 digit; example: TAS334M015P**1**A) add **5c** to prices shown. Ask for Bulletin 4-40D.

TAS PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.43	$1.15	$0.98	$0.825	$0.755
C	1.52	1.22	1.03	.875	.80
F	2.50	2.00	1.69	1.44	1.32
G	4.64	3.72	3.14	2.67	2.44

TAS

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
.33	6	TAS334M006P0A	A
.33	10	TAS334M010P0A	A
.33	15	TAS334M015P0A	A
.33	20	TAS334M020P0A	A
.33	35	TAS334M035P0A	A
.47	6	TAS474M006P0A	A
.47	10	TAS474M010P0A	A
.47	15	TAS474M015P0A	A
.47	20	TAS474M020P0A	A
.47	35	TAS474M035P0A	A
.68	6	TAS684M006P0A	A
.68	10	TAS684M010P0A	A
.68	15	TAS684M015P0A	A
.68	20	TAS684M020P0A	A
.68	35	TAS684M035P0A	A
1	6	TAS105M006P0A	A
1	10	TAS105M010P0A	A
1	15	TAS105M015P0A	A
1	20	TAS105M020P0A	A
1	35	TAS105M035P0A	A
1.5	6	TAS155M006P0A	A
1.5	10	TAS155M010P0A	A
1.5	15	TAS155M015P0A	A
1.5	20	TAS155M020P0A	A
1.5	35	TAS155M035P0C	C
2.2	6	TAS225M006P0A	A
2.2	10	TAS225M010P0A	A
2.2	15	TAS225M015P0A	A
2.2	20	TAS225M020P0A	A
2.2	35	TAS225M035P0C	C
3.3	6	TAS335M006P0A	A
3.3	10	TAS335M010P0A	A
3.3	15	TAS335M015P0A	A
3.3	20	TAS335M020P0C	C
3.3	35	TAS335M035P0C	C
4.7	6	TAS475M006P0A	A
4.7	10	TAS475M010P0A	A
4.7	15	TAS475M015P0C	C
4.7	20	TAS475M020P0C	C
4.7	30	TAS475M035P0C	C
6.8	6	TAS685M006P0A	A
6.8	10	TAS685M010P0C	C
6.8	15	TAS685M015P0C	C
6.8	20	TAS685M020P0C	C
6.8	35	TAS685M035P0C	C
10	6	TAS106M006P0C	C
10	10	TAS106M010P0C	C
10	15	TAS106M015P0C	C
10	20	TAS106M020P0C	C
10	35	TAS106M035P0F	F
15	6	TAS156M006P0C	C
15	10	TAS156M010P0C	C
15	15	TAS156M015P0C	C
15	20	TAS156M020P0C	C
15	35	TAS156M035P0F	F
22	6	TAS226M006P0C	C
22	10	TAS226M010P0C	C
22	15	TAS226M015P0C	C
22	20	TAS226M020P0F	F
22	35	TAS226M035P0F	F
33	6	TAS336M006P0C	C
33	10	TAS336M010P0C	C
33	15	TAS336M015P0F	F
33	20	TAS336M020P0F	F
33	35	TAS336M035P0G	G
47	6	TAS476M006P0C	C
47	10	TAS476M010P0F	F
47	15	TAS476M015P0F	F
47	20	TAS476M020P0F	F

*Registered Dupont trademark.

TAS SOLID HERMETIC SEAL (CONTINUED)

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
47	35	TAS476M035P0G	G
68	6	TAS686M006P0F	F
68	10	TAS686M010P0F	F
68	15	TAS686M015P0F	F
68	20	TAS686M020P0G	G
68	35	TAS686M035P0G	G
100	6	TAS107M006P0F	F
100	10	TAS107M010P0F	F
100	15	TAS107M015P0G	G
100	20	TAS107M020P0G	G
150	6	TAS157M006P0F	F
150	10	TAS157M010P0G	G
150	15	TAS157M015P0G	G
220	6	TAS227M006P0G	G
220	10	TAS227M010P0G	G
330	6	TAS337M006P0G	G

LIQUID ELECTROLYTE SINTERED ANODE

TNT SUBMINIATURE

Subminiature, sintered anode wet slug with epoxy seal lead protection. Temperature range, −55° C to +85° C; capacity tolerance, −15 +75% (U); polarized (P); uninsulated (0) standard. Two case sizes (A and B). Available in other ratings and with Mylar* (1) or vinyl (3) insulation. Ask for Bulletin 4-38B.

TNT PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.24	$0.99	$0.84	$0.714	$0.651
B	1.46	1.17	.99	.84	.766

TNT +85° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
2	50	TNT205U050P0A	A
4	50	TNT405U050P0A	A
6	35	TNT605U035P0A	A
8	50	TNT805U050P0B	B
12	15	TNT126U015P0A	A
12	35	TNT126U035P0B	B
15	30	TNT156U030P0B	B
25	6	TNT256U006P0A	A
25	15	TNT256U015P0B	B
35	12	TNT356U012P0B	B
40	3	TNT406U003P0A	A
50	6	TNT506U006P0B	B
80	3	TNT806U003P0B	B

*Registered Dupont trademark.

TAP MINIATURE +85° C

Miniature, sintered anode wet slug with epoxy seal lead protection. Temperature range: −55° C to +85° C. Capacity tolerance; −15% +75% (U) standard. Polarized (P); uninsulated (0) standard. Ask for Bulletin 4-52.

TAP PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.46	$1.17	$0.99	$0.84	$0.766
B	2.46	1.97	1.66	1.415	1.29

TAP +85° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size ‡
2	90	TAP205U090P0A	A
3.5	75	TAP355U075P0A	A
4	60	TAP405U060P0A	A
5	50	TAP505U050P0A	A
6	40	TAP605U040P0A	A
7	35	TAP705U035P0A	A
8	30	TAP805U030P0A	A
10	25	TAP106U025P0A	A
11	90	TAP116U090P0B	B
12	20	TAP126U020P0A	A
15	15	TAP156U015P0A	A
15	75	TAP156U075P0B	B
20	10	TAP206U010P0A	A
20	60	TAP206U060P0B	B
25	50	TAP256U050P0B	B
30	6	TAP306U006P0A	A
30	40	TAP306U040P0B	B
40	30	TAP406U030P0B	B
70	15	TAP706U015P0B	B
100	10	TAP107U010P0B	B
140	6	TAP147U006P0B	B

TAH MINIATURE +125° C

Miniature, sintered anode wet slug with epoxy seal lead protection. Temperature range: −55° C to +125° C. Capacity tolerance: −15%, +20% (R) standard; polarized (P); uninsulated (0) standard. Ask for Bulletin 4-57.

TAH PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$2.20	$1.75	$1.48	$1.26	$1.095
B	3.68	2.94	2.49	2.12	1.845
C	7.05	5.65	4.76	4.05	3.21

TAH +125° C

Cap. μf	WVDC at +125°C	Mallory Catalog No.	Case Size ‡
2	60	TAH205R060P0A	A
3.5	50	TAH355R050P0A	A
4	40	TAH405R040P0A	A
5	30	TAH505R030P0A	A
6	25	TAH605R025P0A	A
7	23	TAH705R023P0A	A
8	20	TAH805R020P0A	A
10	15	TAH106R015P0A	A
11	60	TAH116R060P0B	B
12	13	TAH126R013P0A	A
15	10	TAH156R010P0A	A
15	50	TAH156R050P0B	B
20	7	TAH206R007P0A	A
20	40	TAH206R040P0B	B
25	30	TAH256R030P0B	B
30	4	TAH306R004P0A	A
30	25	TAH306R025P0B	B
30	60	TAH306R060P0C	C
40	20	TAH406R020P0B	B
40	50	TAH406R050P0C	C
50	40	TAH506R040P0C	C
60	30	TAH606R030P0C	C
70	10	TAH706R010P0B	B
100	7	TAH107R007P0B	B
100	20	TAH107R020P0C	C
140	4	TAH147R004P0B	B
170	10	TAH177R010P0C	C
250	7	TAH257R007P0C	C
330	4	TAH337R004P0C	C

‡CASE SIZES

TAS

Case	Diameter	Length
A	.125″	.250″
C	.75″	.438″
F	.279″	.650″
G	.341″	.750″

TNT

Case	Diameter	Length
A	.165″	.350″
B	.165″	.500″

TAP AND TAH

Case	Diameter	Length
A	.238″	.500″
B	.238″	.660″
C	.238″	.875″

MTF (FORMERLY M-2) HERMETIC SEAL

Sintered anode wet slug; hermetically sealed (glass to metal). Meet all requirements of MIL-C-3965B. Temperature range, −55° C to +150° C; capacity tolerance, −15% +50% (T); polarized (P); uninsulated (0); 0.5″ length and axial leads (H) standard. Ask for Bulletin 4-41B.

MTF PRICES

Case Size	Net Each, Lots of			
	1-24	25-49	50-99	100-249
H	$6.76	$5.41	$4.56	$3.89

MTF

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Case Size §
11	90	MTF116T090P0H	H
15	75	MTF156T075P0H	H
20	60	MTF206T060P0H	H
25	50	MTF256T050P0H	H
30	40	MTF306T040P0H	H
40	30	MTF406T030P0H	H
70	15	MTF706T015P0H	H
100	10	MTF107T010P0H	H
140	6	MTF147T006P0H	H

§.484″ overall dia., .500″ overall body length.

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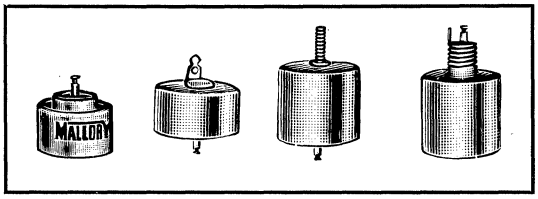
TANTALUM CAPACITORS

P.R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

XT SERIES—HERMETIC SEAL—HIGH TEMPERATURE



Sintered anode, liquid electrolyte, hermetic (glass-to-metal) seal. Individually inspected and coded. Operate −55° C to +200° C (XTM, +175° C). Types shown below are MIL-C-3965 styles and most common commercial units. Over 4000 other configurations and styles are available on special order.

Mallory XT tantalum capacitors are the very highest quality military grades available. Certain units, indicated by appropriate symbols, are stock items. All others and all XTV types are available from factory stock on special order. Please consult Bulletins 4-49 (XTM) or 4-60 (XTH-XTL-XTV) for technical details and ask for prices before ordering.

TYPE XTM −55° to +175° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.*	Net Each, Lots of 1-24	25-49	50-99
4	340	XTM405T340P0A	$16.20	$15.12	$14.04
5	255	XTM505T255P0A	12.96	12.10	11.23
8	170	XTM805T170P0A	9.90	9.24	8.56
16	90	XTM166T090P0A	6.56	6.12	5.68
25	60	XTM256T060P0A	6.56	6.12	5.68
40	35	XTM406T035P0A	6.56	6.12	5.68

*Suffix letter **A** indicates MIL-C-3965/20, style CL-10. Also available in Style C-13; change suffix letter to **D**, and add **5c** to prices shown.

TYPE XTH −55° to +200° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.†	Net Each, Lots of 1-24	25-49	50-99
7	630	XTH705U630P0A	$42.57	$39.73	$36.89
7	630	XTH705U630P0C*	42.62	39.78	36.94
8	540	XTH805U540P0A	37.08	34.61	32.14
8	540	XTH805U540P0B	37.13	34.66	32.19
10	450	XTH106U450P0A	31.50	29.40	27.30
10	450	XTH106U450P0B	31.55	29.45	27.35
12	360	XTH126U360P0A	26.01	24.28	22.54
12	360	XTH126U360P0B	26.06	24.33	22.59
12	360	XTH126U360P0C*	26.06	24.33	22.59
12	360	XTH126U360P0K	26.36	24.63	22.89
12	360	XTH126U360P0L*	26.41	24.68	22.94
16	270	XTH166U270P0A	20.43	19.07	17.71
16	270	XTH166U270P0B	20.48	19.12	17.76
16	270	XTH166U270P0C*	20.48	19.12	17.76
16	270	XTH166U270P0L*	20.83	19.47	18.11
25	180	XTH256U180P0A	14.75	13.76	12.78
25	180	XTH256U180P0B	14.80	13.81	12.83
25	180	XTH256U180P0C*	14.80	13.81	12.83
25	180	XTH256U180P0K	15.10	14.11	13.13
25	180	XTH256U180P0L*	15.15	14.16	13.18
50	90	XTH506U090P0A	9.25	8.64	8.02
50	90	XTH506U090P0B	9.30	8.69	8.07
50	90	XTH506U090P0C*	9.30	8.69	8.07
80	60	XTH806U060P0A	9.25	8.64	8.02
80	60	XTH806U060P0B	9.30	8.69	8.07
80	60	XTH806U060P0C*	9.30	8.69	8.07
80	60	XTH806U060P0K	9.60	8.99	8.37
80	60	XTH806U060P0L*	9.65	9.04	8.42
120	35	XTH127U035P0C*	9.30	8.69	8.07
150	30	XTH157U030P0A	9.25	8.64	8.02
150	30	XTH157U030P0C*	9.30	8.69	8.07
150	30	XTH157U030P0K	9.60	8.99	8.37
150	30	XTH157U030P0L*	9.65	9.04	8.42
240	18	XTH247U018P0A	9.25	8.64	8.02
240	18	XTH247U018P0K	9.60	8.99	8.37
240	18	XTH247U018P0L*	9.65	9.04	8.42

*Stock items; all others available on special order.
†Suffix **A**, plain case; **B**, solder lug on bottom; **C**, MIL-C-3965/1, CL-14; **K**, threaded neck; **L**, MIL-C-3965/1, CL-16.

TYPE XTL −55° to +200° C

Cap. μf	WVDC at +85° C	Mallory Catalog No.	Net Each, Lots of 1-24	25-49	50-99
3.5	630	XTL355U630P0C*	$34.30	$32.01	$29.73
4	540	XTL405U540P0C*	29.89	27.90	25.91
5	450	XTL505U450P0C*	25.70	23.99	22.28
6	360	XTL605U360P0C*†	21.16	19.75	18.34
6	360	XTL605U360P0L‡	21.51	20.10	18.69
8	270	XTL805U270P0C*†	16.70	15.59	14.48
8	270	XTL805U270P0K	17.00	15.89	14.78
12	180	XTL126U180P0C*	12.38	11.56	10.74
12	180	XTL126U180P0L‡	12.73	11.91	11.09
25	90	XTL256U090P0C*	8.24	7.69	7.15
40	60	XTL406U060P0C*†	8.24	7.69	7.15
40	60	XTL406U060P0L‡	8.59	8.04	7.50
60	35	XTL606U035P0A	8.19	7.64	7.10
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L‡	8.59	8.04	7.50
120	18	XTL127U018P0C*	8.24	7.69	7.15

*Stock Items (MIL-C-3965/1, Style CL-14). Available with plain case on special order; change suffix letter to **A** (example: XTL355U630P0**A**) and deduct **5c** from prices shown.
†Available with solder lug on bottom on special order at same price; order by changing suffix letter to **B**.
‡Stock Items (MIL-C-3965/1, Style CL-16). Available without solder lug at neck; order by changing suffix letter to **K**, and deduct **5c** from prices shown.

TYPE XTV −55° to +200° C
XTV TANTALUM CAPACITORS ARE AVAILABLE ON SPECIAL ORDER ONLY.

Cap. μf	WVDC at +85° C	Mallory Catalog No.*	Net Each, Lots of 1-24	25-49
12	630	XTV126T630P0A	$ 74.25	$ 69.30
14	540	XTV146T540P0A	64.80	60.48
17	450	XTV176T450P0A	54.00	50.40
18	630	XTV186T630P0A	111.00	103.60
20	540	XTV206T540P0A	93.75	87.50
22	360	XTV226T360P0A	44.55	41.58
25	450	XTV256T450P0A	79.50	74.20
28	270	XTV286T270P0A	33.75	31.50
30	360	XTV306T360P0A	64.50	60.20
40	270	XTV406T270P0A	49.50	46.20
42	180	XTV426T180P0A	23.63	22.05
60	180	XTV606T180P0A	24.95	32.62
75	225	XTV756T225P0A	75.00	70.00
84	90	XTV846T090P0A	13.50	12.60
110	150	XTV117T150P0A	52.50	49.00
120	90	XTV127T090P0A	19.50	18.20
130	60	XTV137T060P0A	13.50	12.60
150	225	XTV157T225P0A	108.00	100.80
190	40	XTV197T040P0A	13.50	12.60
200	60	XTV207T060P0A	19.50	18.20
220	75	XTV227T075P0A	30.00	28.00
230	150	XTV237T150P0A	76.50	71.40
250	30	XTV257T030P0A	13.50	12.60
290	40	XTV297T040P0A	19.50	18.20
350	60	XTV357T060P0A	30.00	28.00
370	30	XTV377T030P0A	19.50	18.20
390	18	XTV397T018P0A	13.50	12.60
450	75	XTV457T075P0A	43.50	40.60
500	40	XTV507T040P0A	30.00	28.00
560	18	XTV567T018P0A	19.50	18.20
580	12	XTV587T012P0A	13.50	12.60
650	30	XTV657T030P0A	30.00	28.00
700	60	XTV707T060P0A	43.50	40.60
750	60	XTV757T060P0A	43.50	40.60
850	12	XTV857T012P0A	19.50	18.20
900	18	XTV907T018P0A	30.00	28.00
1000	40	XTV108T040P0A	43.50	40.60
1100	12	XTV118T012P0A	30.00	28.00
1300	30	XTV138T030P0A	43.50	40.60
1800	18	XTV188T018P0A	43.50	40.60
2200	12	XTV228U012P0A	43.50	40.60

*Available to MIL-C-3965/19, Style CL-17; order by changing suffix letter to **C**. Or, style CL-18, use suffix **B**, and add **5c** to prices shown. For MIL-C-3965/19 Testing, add **15**% to prices shown.

Additional Mallory Tantalum Capacitor Types and Configurations Available on Special Order

ASK FOR MALLORY CATALOG No. 9-169

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Mallory Page C-9A

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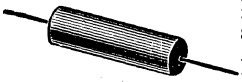
P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

MYLAR AND MOLDED TUBULAR CAPACITORS

GEM SERIES MOLDED TUBULAR CAPACITORS



Molded tubular paper capacitors sealed against moisture with Epoxy resin and molded bakelite. Tolerance ±20% at 85°C except those marked (*), which have ±10% tolerance. Double tinned copperweld leads—20 gauge on case sizes up to ½"; 18 gauge over ½" case size. Use attached leads for mounting. TH clips available for large sizes.

Cap. μf	200 WVDC Mall.No. GEM-	‡	Net Each	400 WVDC Mall.No. GEM-	‡	Net Each	600 WVDC Mall.No. GEM-	‡	Net Each	1000 WVDC Mall.No. GEM-	‡	Net Each
.001				421	A	15c	621	A	15c	1021	A	30c
.0015							6215	A	15c	10215	A	30c
.002							622	A	15c	1022	B	30c
.0022							6222	A	15c	10222	B	30c
.0025							6225	A	15c			
.003							623	A	15c	1023	B	30c
.0033							6233	A	15c			
.004							624	A	15c	1024	B	30c
.0047							6247	A	15c	10247	B	30c
.005				425	A	15c	625	B	15c	1025	B	30c
.006							626	B	15c			
.0068							6268	B	18c	10268	B	30c
.007							627	B	18c			
.008							628	B	18c			
.0082							6282	B	18c			
.01				411	A	15c	611	B	18c	1011	C	30c
.012							6112	B	18c			
.015				4115	B	15c	6115	B	18c	10115	D	30c
.02				412	B	15c	612	C	18c	1012	D	30c
.022				4122	B	18c	6122	C	18c	10122	D	30c
.025				4125	B	18c	6125	C	21c			
.03				413	B	18c	613	C	21c	1013	E	30c
.033				4133	C	18c	6133	D	21c	10133	E	30c
.04				414	C	18c	614	D	21c	1014	E	36c
.047				4147	C	18c	6147	D	24c	10147	E	36c
.05				415	C	18c	615	D	24c	1015	E	36c
.056							6156	E	24c			
.06				416	D	21c	616	E	24c			
.068				4168	D	21c	6168	E	27c	10168	E	39c
.1	201*	C	21c	401	D	21c	601	E	27c	1001*	F	45c
.15	2015*	E	21c	4015*	E	24c	6015*	E	30c			
.2				402*	F	27c	602*	F	42c			
.22	2022*	E	24c	4022*	F	27c	6022*	F	42c			
.25	2025*	E	24c	4025*	F	27c	6025*	F	42c			
.27							6027*	H	42c			
.33	2033*	E	30c	4033*	F	30c	6033*	H	42c			
.47	2047*	E	36c	4047*	H	36c	6047*	H	48c			
.5	205*	E	36c	405*	H	36c	605*	H	48c			
.68							6068*	G	48c			
1.0	21*	F	54c	41*	H	75c	61*	G	75c			

GEM MOLDED TUBULAR 1600 WVDC CAPACITORS

±10% Tolerance

Cap. μf	Mall. No. GEM-	‡	Net Each	Cap. μf	Mall. No. GEM-	‡	Net Each	Cap. μf	Mall. No. GEM-	‡	Net Each
.001	1621	B	39c	.005	1625	D	39c	.01	1611	D	42c
.0015	16215	B	39c	.0056	16256	D	39c	.0125	161125	E	42c
.002	1622	B	39c	.006	1626	D	39c	.02	1612	E	36c
.0025	16225	C	45c	.0068	16268	D	39c	.022	16122	E	45c
.003	1623	C	39c	.007	1627	D	39c	.03	1613	E	42c
.0033	16233	C	39c	.0075	16275	D	39c	.04	1614	F	42c
.004	1624	C	39c	.008	1628	D	39c	.05	1615	F	42c
.0047	16247	D	39c	.0082	16282	D	39c				

GEM MOLDED TUBULAR HIGH VOLTAGE CAPACITORS

±20% Tolerance

Cap. μf	3000 WVDC Mall.No. GEM-	‡	Net Each	6000 WVDC Mall.No. GEM-	‡	Net Each	10,000 WVDC Mall.No. GEM-	‡	Net Each	15,000 WVDC Mall.No. GEM-	‡	Net Each
.0001	3031	C	$0.93							15031	J	$1.98
.00025							125325†	E	$1.32	150325	K	2.01
.0005	3035	C	.66	6X35	D	$0.81	10035	E	.90	15035	L	2.04
.001	3021	C	.66	6X21	E	.81	10021	I	1.26			
.002				6X22	E	.87						
.003	3023	D	.69	6X23	F	1.05						
.005	3025	E	.69	6X25	F	1.11						
.0075				6X275	H	1.26						
.01	3011	E	.84	6X11	H	1.26						
.03	3013	H	.84									
.05	3015	H	.96									

†12,500 WVDC.

‡MOLDED CAPACITOR CASE SIZES, INCHES

Key	Dia. x L.	Key	Dia. x L.	Key	Dia. x L.	Key	Dia. x L.
A	5/16 x 1	D	½ x 1½	G	1 x 2 5/8	J	17/32 x 2½
B	3/8 x 1¼	E	5/8 x 1 7/8	H	1 x 2 3/8	K	¾ x 2½
C	7/16 x 1¼	F	¾ x 2¼	I	15/16 x 2¼	L	⅞ x 2½

ACE SERIES SINGLE ENDED MOLDED TUBULAR CAPACITORS

Same construction as "GEM" line. Designed for replacement use in automation and printed circuit radio and TV applications. Units provide substantial safety factor over original equipment components. Wire leads designed to fit automation and printed circuit chassis. Mounting by means of attached leads. Tolerance, ±20%.

Cap., μf	No. ACE-	WVDC	Size, In. Dia. x Lgth.	Net Each	Cap., μf	No. ACE-	WVDC	Size, In. Dia. x Lgth.	Net Each
.10	401	400	5/16 x 1¼	27c	.033	6133	600	½ x 1¼	24c
.001	621	600	3/8 x 1	18c	.047	6147	600	½ x 1½	27c
.0015	6215	600	3/8 x 1	18c	.05	615	600	½ x 1½	27c
.0022	6222	600	3/8 x 1	18c	.068	6168	600	5/8 x 1¼	30c
.0033	6233	600	3/8 x 1	18c	.10	601	600	¾ x 1½	33c
.0039	6239	600	3/8 x 1	18c	.15	6015	600	5/8 x 1⅞	36c
.0047	6247	600	3/8 x 1	18c	.22	6022	600	¾ x 1⅞	42c
.01	611	600	3/8 x 1 3/8	21c	.01	1011	1000	7/16 x 1 3/8	33c
.015	6115	600	3/8 x 1 3/8	21c	.015	10115	1000	½ x 1¼	33c
.02	612	600	7/16 x 1 3/8	24c	.033	10133	1000	5/8 x 1¼	36c
.022	6122	600	7/16 x 1 3/8	24c	.047	10147	1000	5/8 x 1⅞	39c

PVC POLYVINYL CHLORIDE MYLAR® CAPACITORS

Moistureproof, flexible polyvinyl, chloride-coated capacitors. High purity aluminum foil used throughout. Dielectric is 100% DuPont Mylar®. Leads are solid copper radial type; ideal for printed circuitry. Flexible moisture seal at leads. Feature low capacitance drift. Temperature range, −40° C to +105° C; may be operated at 105° C at two times rated voltage with no derating. Tolerance, ±10%.

100 WVDC UNITS

Mallory No. PVC-	Cap. μf	Net Each	Mallory No. PVC-	Cap. μf	Net Each
1118	.018	24c	1027	.27	33c
1122	.022	24c	1033	.33	33c
1133	.033	24c	104	.40	39c
114	.04	24c	1047	.47	39c
1147	.047	24c	105	.5	39c
1156	.056	24c	1056	.56	45c
1168	.068	24c	1068	.68	48c
101	.10	24c	11	1.0	57c
1015	.15	24c	11P5	1.5	78c
1022	.22	27c	12	2.0	96c
1025	.25	30c			

200 WVDC UNITS

Mallory No. PVC-	Cap. μf	Net Each	Mallory No. PVC-	Cap. μf	Net Each
211	.01	$0.24	2022	.22	$0.36
2115	.015	.24	2025	.25	.36
212	.02	.24	2027	.27	.39
2122	.022	.24	2033	.33	.39
2133	.033	.24	204	.40	.42
214	.04	.24	2047	.47	.45
2147	.047	.24	205	.5	.45
215	.05	.24	2056	.56	.51
2156	.056	.27	2068	.68	.54
2168	.068	.27	21	1.0	.78
201	.10	.27	21P5	1.5	1.02
2015	.15	.30	22	2.0	1.26

400 WVDC UNITS

Mallory No. PVC-	Cap. μf	Net Each	Mallory No. PVC-	Cap. μf	Net Each
4222	.0022	21c	415	.05	27c
423	.003	21c	4156	.056	27c
4233	.0033	21c	4168	.068	27c
424	.004	21c	401	.10	30c
4247	.0047	21c	4015	.15	36c
4256	.0056	21c	4022	.22	45c
4268	.0068	21c	4025	.25	45c
411	.01	21c	4027	.27	48c
4115	.015	21c	4033	.33	51c
412	.02	21c	404	.40	57c
4122	.022	21c	4047	.47	60c
4133	.033	24c	405	.5	69c
414	.04	27c	4056	.56	78c
4147	.047	27c	4068	.68	90c

600 WVDC UNITS

Mallory No. PVC-	Cap. μf	Net Each	Mallory No. PVC-	Cap. μf	Net Each
621	.001	21c	6122	.022	24c
6212	.0012	21c	6125	.025	24c
6215	.0015	21c	613	.03	24c
622	.002	21c	6133	.033	24c
6222	.0022	21c	6139	.039	27c
6225	.0025	21c	614	.04	27c
623	.003	21c	6147	.047	27c
6233	.0033	21c	615	.05	27c
6239	.0039	21c	6156	.056	27c
624	.004	21c	616	.06	27c
6247	.0047	21c	6168	.068	30c
625	.005	21c	6175	.075	33c
6256	.0056	21c	6182	.082	33c
626	.006	21c	601	.10	36c
6268	.0068	21c	6015	.15	42c
6275	.0075	21c	602	.20	54c
628	.008	21c	6022	.22	57c
611	.01	21c	6025	.25	47c
6112	.012	21c	6027	.27	60c
6115	.015	21c	6033	.33	69c
612	.02	24c	6047	.47	81c

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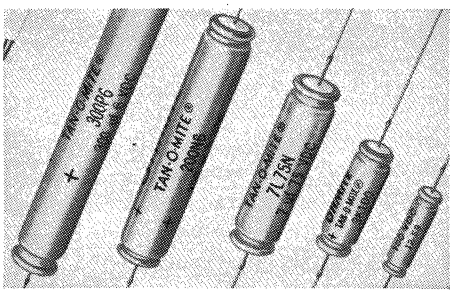
OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

TAN-O-MITE® SERIES TF TANTALUM FOIL CAPACITORS

Polar & Non-Polar Electrolytic — Plain & Etched
MIL & Commercial — 55°C to +85°C

In plain or etched foil. Polar units will withstand reversals up to 3.75 VDC. Temperature range −55°C to +85°C. Capacitance tolerance plain foil ±20%; etched foil less than 50 volts, −15 +75%; 50-99 volts, −15 +50%; 100-150 volts, −15 +30%. Considerably better leakage and power factor than wire type units. Meets MIL-C-3965B, Styles CL24, 25, 34, 35, also MIL vibration Grade 3 which covers Grades 1 & 2. Also available with plastic insulating sleeve .007″ wall thickness, 1½″ leads.



PRICES, DIMENSIONS

Case Size Com'l.	Case Size MIL Styles CL34*,-24*	Uninsulated* Dia.	Uninsulated* Lgth.	Net 1-24 Qty. Plain Foil	Net 1-24 Qty. Etched Foil
J	C1	3/16″	11/16″	$ 4.81	$ 4.81
K	C2	9/32″	7/8″	7.33	8.06
L	C3	3/8″	1 7/16″	11.60	13.92
N	C4	3/8″	2 1/8″	16.24	22.74
P	C5	3/8″	2 3/4″	21.74	30.44

*For plastic insulating sleeve (.007″ wall thickness)—MIL Styles CL35, CL25—add 10c extra.

STOCK—PLAIN FOIL
UNINSULATED‡

DC Volts	Mfd.	Commercial Case	Commercial Stock No.‡	MIL-C-3965B Case	MIL-C-3965B Type Designation‡
3	10*	J	10J3	C1	CL34BA100MP3
3	50*	K	50K3	C2	CL34BA500MP3
3.75	10	J	10J3R75N†		
3.75	45	K	45K3R75N†		
3.75	140	L	140L3R75N†		
3.75	280	N	280N3R75N†		
3.75	400	P	400P3R75N†		
6	8	J	8J6	C1	CL34BB080MP3
6	30	K	30K6	C2	CL34BB300MP3
6	35	K	35K6		
6	100	L	100L6	C3	CL34BB101MP3
6	200	N	200N6	C4	CL34BB201MP3
6	300	P	300P6	C5	CL34BB301MP3
6	7	J	7J6N†		
6	25	K	25K6N†		
6	85	L	85L6N†		
6	175	N	175N6N†		
6	250	P	250P6N†		
10	6	J	6J10	C1	CL34BD060MP3
10	25	K	25K10	C2	CL34BD250MP3
10	80	L	80L10	C3	CL34BD800MP3
10	160	N	160N10	C4	CL34BD161MP3
10	220	P	220P10	C5	CL34BD221MP3
10	4	J	4J10N†		
10	16	K	16K10N†		
10	55	L	55L10N†		
10	110	N	110N10N†		
10	150	P	150P10N†		

Continued next column

NOTES FOR FOIL STOCK TABLES

†Non-polar units. Non-polar units may be used as polar units.

‡For insulating sleeve add "S" to commercial stock number; on MIL designations, change "CL24" to "CL25," or, "CL34" to "CL35."

*Regardless of polarity indicated, these low voltage units can be used as either polar or non-polar units.

STOCK—PLAIN FOIL (cont.)
UNINSULATED‡

DC Volts	Mfd.	Commercial Case	Commercial Stock No.‡	MIL-C-3965B Case	MIL-C-3965B Type Designation‡
15	4.5	J	4R5J15	C1	CL34BE4R5MP3
15	10	K	10K15	C2	CL34BE100MP3
15	18	K	18K15	C2	CL34BE180MP3
15	55	L	55L15	C3	CL34BE550MP3
15	110	N	110N15	C4	CL34BE111MP3
15	160	P	160P15	C5	CL34BE161MP3
15	2.5	J	2R5J15N†		
15	10	K	10K15N†		
15	35	L	35L15N†		
15	70	N	70N15N†		
15	100	P	100P15N†		
25	3	J	3J25		
25	12	K	12K25		
25	35	L	35L25		
25	70	N	70N25		
25	100	P	100P25		
25	1.5	J	1R5J25N†		
25	6	K	6K25N†		
25	20	L	20L25N†		
25	40	N	40N25N†		
25	60	P	60P25N†		
30	2.5	J	2R5J30	C1	CL34BH2R5MP3
30	10	K	10K30		
30	30	L	30L30	C3	CL34BH300MP3
30	60	N	60N30	C4	CL34BH600MP3
30	85	P	85P30	C5	CL34BH850MP3
30	1.4	J	1R4J30N†		
30	5.5	K	5R5K30N†		
30	18	L	18L30N†		
30	36	N	36N30N†		
30	45	P	45P30N†		
50	1.5	J	1R5J50	C1	CL34BJ1R5MP3
50	6	K	6K50	C2	CL34BJ060MP3
50	20	L	20L50	C3	CL34BJ200MP3
50	40	N	40N50	C4	CL34BJ400MP3
50	55	P	55P50	C5	CL34BJ550MP3
50	0.8	J	R8J50N†		
50	3	K	3K50N†		
50	10	L	10L50N†		
50	20	N	20N50N†		
50	30	P	30P50N†		
60	1.25	J	1R25J60		
60	5	K	5K60		
60	17	L	17L60		
60	34	N	34N60		
60	48	P	48P60		
60	0.6	J	R6J60N†		
60	2.5	K	2R5K60N†		
60	8.5	L	8R5L60N†		
60	17	N	17N60N†		
60	24	P	24P60N†		
75	1	J	1J75	C1	CL34BL010MP3
75	4	K	4K75	C2	CL34BL040MP3
75	14	L	14L75	C3	CL34BL140MP3
75	28	N	28N75	C4	CL34BL280MP3
75	40	P	40P75	C5	CL34BL400MP3
75	0.5	J	R5J75N†		
75	2	K	2K75N†		
75	7	L	7L75N†		
75	14	N	14N75N†		
75	20	P	20P75N†		
100	0.8	J	R8J100	C1	CL34BN0R8MP3
100	3	K	3K100	C2	CL34BN030MP3
100	10	L	10L100	C3	CL34BN100MP3
100	20	N	20N100	C4	CL34BN200MP3
100	30	P	30P100	C5	CL34BN300MP3
100	0.4	J	R4J100N†		
100	1.5	K	1R5K100N†		
100	5	L	5L100N†		
100	10	N	10N100N†		
100	15	P	15P100N†		
150	0.5	J	R5J150	C1	CL34BQ0R5MP3
150	2	K	2K150	C2	CL34BQ020MP3
150	4	L	4L150	C3	CL34BQ040MP3
150	7	L	7L150	C3	CL34BQ070MP3
150	8	N	8N150	C4	CL34BQ080MP3
150	12	N	12N150	C4	CL34BQ120MP3
150	14	N	14N150	C4	CL34BQ140MP3
150	20	P	20P150	C5	CL34BQ200MP3
150	0.25	J	R25J150N†		
150	1	K	1K150N†		
150	3.5	L	3R5L150N†		
150	7	N	7N150N†		
150	10	P	10P150N†		

STOCK—ETCHED FOIL
UNINSULATED‡

DC Volts	Mfd.	Commercial Case	Commercial Stock No.‡	MIL-C-3965B Case	MIL-C-3965B Type Designation‡
15	15	J	15JE15	C1	CL24BE150UP3
15	60	K	60KE15	C2	CL24BE600UP3
15	200	L	200LE15	C3	CL24BE201UP3
15	400	N	400NE15	C4	CL24BE401UP3
15	580	P	580PE15	C5	CL24BE581UP3
15	10	J	10JE15N†		
15	40	K	40KE15N†		
15	120	L	120LE15N†		
15	125	L	125LE15N†		
15	250	N	250NE15N†		
15	350	P	350PE15N†		
25	10	J	10JE25	C1	CL24BG100UP3
25	40	K	40KE25	C2	CL24BG400UP3
25	120	L	120LE25	C3	CL24BG121UP3
25	125	L	125LE25		
25	250	N	250NE25	C4	CL24BG251UP3
25	350	P	350PE25	C5	CL24BG351UP3
25	5	J	5JE25N†		
25	20	K	20KE25N†		
25	70	L	70LE25N†		
25	140	N	140NE25N†		
25	200	P	200PE25N†		
30	8	J	8JE30	C1	CL24BH080UP3
30	32	K	32KE30	C2	CL24BH320UP3
30	110	L	110LE30	C3	CL24BH111UP3
30	220	N	220NE30	C4	CL24BH221UP3
30	300	P	300PE30	C5	CL24BH301UP3
30	4.5	J	4R5JE30N†		
30	18	K	18KE30N†		
30	60	L	60LE30N†		
30	120	N	120NE30N†		
30	170	P	170PE30N†		
50	4.5	J	4R5JE50	C1	CL24BJ4R5UP3
50	18	K	18KE50	C2	CL24BJ180UP3
50	60	L	60LE50	C3	CL24BJ600UP3
50	100	N	100NE50	C4	CL24BJ101UP3
50	150	P	150PE50	C5	CL24BJ151UP3
50	2.5	J	2R5JE50N†		
50	10	K	10KE50N†		
50	30	L	30LE50N†		
50	60	N	60NE50N†		
50	80	P	80PE50N†		
60	4	J	4JE60		
60	15	K	15KE60		
60	50	L	50LE60		
60	88	N	88NE60		
60	125	P	125PE60		
60	2	J	2JE60N†		
60	7.5	K	7R5KE60N†		
60	25	L	25LE60N†		
60	50	N	50NE60N†		
60	67	P	67PE60N†		
75	3	J	3JE75	C1	CL24BL030UP3
75	12	K	12KE75	C2	CL24BL120UP3
75	30	L	30LE75	C3	CL24BL300UP3
75	70	N	70NE75	C4	CL24BL700UP3
75	100	P	100PE75	C5	CL24BL101UP3
75	1.5	J	1R5JE75N†		
75	6	K	6KE75N†		
75	15	L	15LE75N†		
75	35	N	35NE75N†		
75	50	P	50PE75N†		
100	2	J	2JE100	C1	CL24BN020UP3
100	8	K	8KE100	C2	CL24BN080UP3
100	25	L	25LE100	C3	CL24BN250UP3
100	50	N	50NE100	C4	CL24BN500UP3
100	70	P	70PE100	C5	CL24BN700UP3
100	1	J	1JE100N†		
100	4	K	4KE100N†		
100	12	L	12LE100N†		
100	25	N	25NE100N†		
100	35	P	35PE100N†		
150	1	J	1JE150	C1	CL24BQ010UP3
150	4	K	4KE150	C2	CL24BQ040UP3
150	13	L	13LE150	C3	CL24BQ130UP3
150	25	N	25NE150	C4	CL24BQ250UP3
150	36	P	36PE150	C5	CL24BQ360UP3
150	0.5	J	R5JE150N†		
150	2	K	2KE150N†		
150	6	L	6LE150N†		
150	12	N	12NE150N†		
150	18	P	18PE150N†		

Net

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OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

TAN-O-MITE® ELECTROLYTIC TANTALUM CAPACITORS

SERIES TS TANTALUM SLUG TYPE

Polar Type — 85°C & 125°C Ratings — MIL & Commercial

Utilizes a porous anode of sintered tantalum. For polar applications. These units offer the best characteristics of all three types of Ohmite capacitors. Meets MIL-C-3965B, Styles CL44, 45, 64, 65. Stocked in two shapes—hat-shaped sizes U, F, G (MIL Styles CL44 uninsulated, —45 insulated—Cases T1, T2, T3) and straight-cylindrical size SU (MIL Styles CL64 uninsulated, —65 insulated—Case T1). Exceeds MIL vibration requirement Grade 3 which covers Grades 1 and 2. Available with plastic insulating sleeve, .015" wall thickness.

COMMERCIAL SLUG CAPACITORS 1-24 QTY. NET PRICES
HAT-SHAPE — UNINSULATED*

Case Size	Dimensions* Dia.	Lgth.	(85° C) Tolerance† S	K	(125° C) Tolerance† S	K
U	5/16	15/32	$2.94	$3.23	$4.12	$4.53
F	15/32	11/16	6.37	7.01	8.92	9.81
G	37/64	49/64	7.74	8.51	10.84	11.92

STRAIGHT-CYLINDRICAL SHAPE — UNINSULATED*
S (or M)†

Case Size	Dia.	Lgth.				
SU	3/16	15/32	$2.94	—	—	—

MIL-C-3965B SLUG CAPACITORS 1-24 QTY. NET PRICES
MIL STYLE CL44 — UNINSULATED*

Case Size	Dimensions* Dia.	Lgth.	(85° C) Tolerance† T	S	(125° C) Tolerance† T	S
T1	5/16	15/32	$4.14	$4.56	$5.43	$5.97
T2	15/32	11/16	8.40	9.24	10.94	12.04
T3	37/64	49/64	10.20	11.22	13.30	14.63

MIL STYLE CL64 — UNINSULATED*

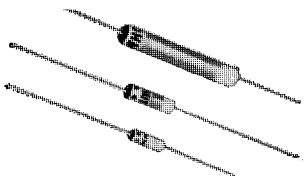
			T	S	(or M)‡	
T1	3/16	15/32	$4.14	$4.56	—	—

*For plastic insulating sleeve (.015" wall thickness) add 10¢ each for commercial sizes U, F, G and all MIL sizes; add 5¢ for commercial size SU. Leads for case sizes U, SU and T1 are 1½" long; all others, 2¼" long.
†Tolerances—see notes below table of Stock Tantalum Slug Capacitors.

SERIES TW TANTALUM WIRE TYPE

Polar Type Only —55°C to +85°C

The smallest subminiature electrolytic capacitors available. —55°C +85°C. 2" leads. Insulated with Mylar plastic sleeve. Polar type units used in DC circuits where capacitance value can exceed nominal circuit requirements considerably (standard tolerance is —0 +100%). Wide use in hearing aids and subminiature apparatus.



Case	D	L
TK	.060	.150
TJ	.060	.190
HK	.075	.150
HJ	.075	.190
S	.080	.234
M	.100	.218
B	.134	.375
C	.134	.562
E	.134	.812

SERIES TW STOCK VALUES

Mfd.	DCWV	Stock No.*	Net 1-24	Mfd.	DCWV	Stock No.*	Net 1-24
0.1	20	R1TJ20	$1.65	4	3	4HJ3	$1.65
	60	R1M60	1.65		4	4S4	1.65
0.2	20	R2TK20	1.65		20	4B20	1.78
	150	R2E150	3.44	5	30	5C30	2.56
0.5	10	R5TK10	1.65		60	5E60	3.44
	16	R5TJ16	1.65	6	1.25	6HJ1R25	1.65
	20	R5S20	1.65	8	1.25	8S1R25	1.65
	80	R5B80	2.19		4	8M4	1.65
1.0	4	1TK4	1.65	10	8	10B8	1.78
	8	1HK8	1.65		16	10C16	1.78
	10	1HJ10	1.65		30	10E30	3.44
	20	1M20	1.65	15	1.25	15M1R25	1.65
	60	1B60	2.19	20	2	20B2	1.78
	80	1C80	2.56	25	6	25C6	1.78
2	1.25	2TK1R25	1.65	30	10	30E10	2.89
	4	2HJ4	1.65	50	2	50C2	1.78
	8	2S8	1.65	60	4	60E4	2.89
	40	2B40	2.19	75	2	75E2	2.89
3	1.25	3HK1R25	1.65				
	80	3E80	3.44				
	4	3HJ4	1.65				

*Middle letters in Stock No. indicate case size.

STOCK TANTALUM SLUG CAPACITORS

STOCK "HAT-SHAPE" CAPACITORS — CASE SIZES U, F, G
MIL STYLES CL44, CL45 — CASE SIZES T1, T2, T3

Mfd.	D.C. Volts 85° C	125° C	Commercial Case Size	Stock No. (Incomplete†)	MIL-C-3965B Case Size	Type Designation (Incomplete*)
30	6	—	U	30UB6_	T1	CL4_BB300_P3
30	6	4	U	30UC4_	T1	CL4_CB300_P3
140	6	—	F	140FB6_	T2	CL4_BB141_P3
140	6	4	F	140FC4_	T2	CL4_CB141_P3
330	6	—	G	330GB6_	T3	CL4_BB331_P3
330	6	4	G	330GC4_	T3	CL4_CB331_P3
25	8	—	U	25UB8_	T1	CL4_BC250_P3
25	8	5	U	25UC5_	T1	CL4_CC250_P3
20	10	—	U	20UB10_	T1	CL4_BD200_P3
20	10	7	U	20UC7_	T1	CL4_CD200_P3
100	10	—	F	100FB10_	T2	CL4_BD101_P3
100	10	7	F	100FC7_	T2	CL4_CD101_P3
250	10	—	G	250GB10_	T3	CL4_BD251_P3
250	10	7	G	250GC7_	T3	CL4_CD251_P3
15	15	—	U	15UB15_	T1	CL4_BE150_P3
15	15	10	U	15UC10_	T1	CL4_CE150_P3
70	15	—	F	70FB15_	T2	CL4_BE700_P3
70	15	10	F	70FC10_	T2	CL4_CE700_P3
170	15	—	G	170GB15_	T3	CL4_BE171_P3
170	15	10	G	170GC10_	T3	CL4_CE171_P3
10	25	—	U	10UB25_	T1	CL4_BG100_P3
10	25	17	U	10UC17_	T1	CL4_CG100_P3
8	30	—	U	8UB30_	T1	CL4_BH080_P3
8	30	20	U	8UC20_	T1	CL4_CH080_P3
40	30	—	F	40FB30_	T2	CL4_BH400_P3
40	30	20	F	40FC20_	T2	CL4_CH400_P3
100	30	—	G	100GB30_	T3	CL4_BH101_P3
100	30	20	G	100GC20_	T3	CL4_CH101_P3

Mfd.	D.C. Volts 85° C	125° C	Commercial Case Size	Stock No. (Incomplete†)	MIL-C-3965B Case Size	Type Designation (Incomplete*)
5	50	—	U	5UB50_	T1	CL4_BJ050_P3
5	50	33	U	5UC33_	T1	CL4_CJ050_P3
25	50	—	F	25FB50_	T2	CL4_BJ250_P3
25	50	33	F	25FC33_	T2	CL4_CJ250_P3
60	50	—	G	60GB50_	T3	CL4_BJ600_P3
60	50	33	G	60GC33_	T3	CL4_CJ600_P3
4	60	—	U	4UB60_	T1	CL4_BK040_P3
4	60	40	U	4UC40_	T1	CL4_CK040_P3
20	60	—	F	20FB60_	T2	CL4_BK200_P3
20	60	40	F	20FC40_	T2	CL4_CK200_P3
50	60	—	G	50GB60_	T3	CL4_BK500_P3
50	60	40	G	50GC40_	T3	CL4_CK500_P3
3.5	75	—	U	3R5UB75_	T1	CL4_BL3R5_P3
3.5	75	50	U	3R5UC50_	T1	CL4_CL3R5_P3
15	75	—	F	15FB75_	T2	CL4_BL150_P3
15	75	50	F	15FC50_	T2	CL4_CL150_P3
40	75	—	G	40GB75_	T3	CL4_BL400_P3
40	75	50	G	40GC50_	T3	CL4_CL400_P3
2.5	100	—	U	2R5UB100_	T1	CL4_BN2R5_P3
2.5	100	70	U	2R5UC70_	T1	CL4_CN2R5_P3
11	100	—	F	11FB100_	T2	CL4_BN110_P3
11	100	70	F	11FC70_	T2	CL4_CN110_P3
30	100	—	G	30GB100_	T3	CL4_BN300_P3
30	100	70	G	30GC70_	T3	CL4_CN300_P3
1.7	125	—	U	1R7UB125_	T1	CL4_BP1R7_P3
1.7	125	85	U	1R7UC85_	T1	CL4_CP1R7_P3
9	125	—	F	9FB125_	T2	CL4_BP090_P3
9	125	85	F	9FC85_	T2	CL4_CP090_P3
25	125	—	G	25GB125_	T3	CL4_BP250_P3
25	125	85	G	25GC85_	T3	CL4_CP250_P3

†Add "S" or "K" to indicate tolerance. "S" tolerance is −15+20%; "K" tolerance is ±10%. If insulating sleeve is desired, add "A" after the tolerance letter.
*For un-insulated unit, insert "4" after "CL4_" or after "CL6_"; for insulated unit insert "5" instead. Also insert "S" or "T" before "_P3" to indicate tolerance except for high-capacitance (‡) units, see footnote ‡. "S" tolerance is −15+20%; "T" tolerance is −15+50%.
‡High-capacitance series. Available only in "M" tolerance, ±20%.
§Tolerances as shown by suffix letter (S or M—see above notes). For insulating sleeve, add "A."

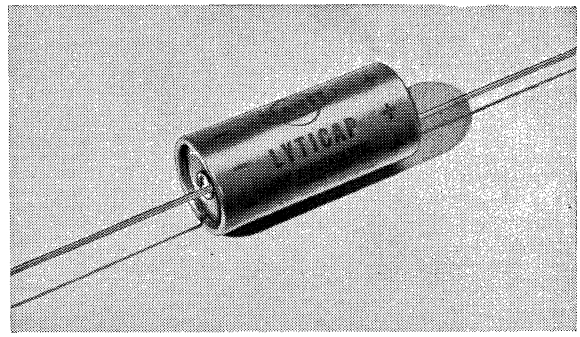
STOCK STRAIGHT CYLIND. — CASE SIZE SU
MIL STYLES CL64, CL65 — CASE SIZE T1

Mfd.	D.C. Volts 85° C	Commercial Case SU Stock No. §	MIL-C-3965B Case T1 Type Designation (Incomplete*)
30	6	30SUB6S	CL6_BB300_P3
68‡	6	68SUB6M	CL6_BB680MP3
25	8	25SUB8S	CL6_BC250_P3
56‡	8	56SUB8M	CL6_BC560MP3
20	10	20SUB10S	CL6_BD200_P3
47‡	10	47SUB10M	CL6_BD470MP3
15	15	15SUB15S	CL6_BE150_P3
33‡	15	33SUB15M	CL6_BE330MP3
10	25	10SUB25S	CL6_BG100_P3
22‡	25	22SUB25M	CL6_BG220MP3
8	30	8SUB30S	CL6_BH080_P3
15‡	30	15SUB30M	CL6_BH150MP3
5	50	5SUB50S	CL6_BJ050_P3
10‡	50	10SUB50M	CL6_BJ100MP3
4	60	4SUB60S	CL6_BK040_P3
8.2‡	60	8R2SUB60M	CL6_BK8R2MP3
3.5	75	3R5SUB75S	CL6_BL3R5_P3
6.8‡	75	6R8SUB75M	CL6_BL6R8MP3
2.5	100	2R5SUB100S	CL6_BN2R5_P3
4.7‡	100	4R7SUB100M	CL6_BN4R7MP3
1.7	125	1R7SUB125S	CL6_BP1R7_P3

PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY

Universal Replacement Type Capacitors
"LYTICAP"
Single Section Electrolytics — Type "L"

Hermetically sealed in aluminum tubes, covered with red Kraftboard insulating jackets — tinned brass leads, guaranteed for one year.

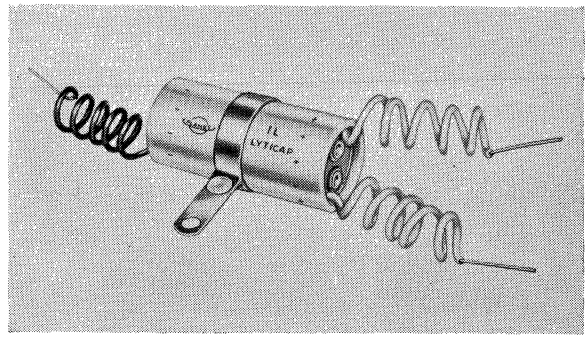


CAT. NO.	MFD.	SIZE*	LIST PRICE
		500 WVDC	
L-5-500	5	3/4 x 1 5/8	$1.25
L-10-500	10	7/8 x 2 1/16	1.35
L-20-500	20	1 x 2 3/8	1.60
L-30-500	30	1 x 2 11/16	1.75
		450 WVDC	
L-4-450	4	5/8 x 1 5/8	1.15
L-8-450	8	3/4 x 1 5/8	1.25
L-10-450	10	3/4 x 1 5/8	1.30
L-12-450	12	7/8 x 1 5/8	1.35
L-16-450	16	7/8 x 2 1/16	1.40
L-20-450	20	1 x 2 1/16	1.55
L-30-450	30	1 x 2 3/8	1.70
L-40-450	40	1 x 2 11/16	1.80
L-50-450	50	1 1/4 x 2 11/16	2.10
L-60-450	60	1 1/4 x 2 11/16	2.40
L-80-450	80	1 3/8 x 2 11/16	2.80
L-100-450	100	1 3/8 x 2 11/16	3.20
		350 WVDC	
L-8-350	8	5/8 x 1 5/8	1.20
L-16-350	16	7/8 x 1 5/8	1.40
L-20-350	20	7/8 x 1 5/8	1.45
L-30-350	30	7/8 x 2 1/16	1.65
L-40-350	40	1 x 2 1/16	1.75
		250 WVDC	
L-5-250	5	5/8 x 1 5/8	1.00
L-10-250	10	5/8 x 1 5/8	1.20
L-20-250	20	3/4 x 1 5/8	1.35
L-24-250	24	3/4 x 1 5/8	1.35
L-30-250	30	3/4 x 1 5/8	1.45
L-40-250	40	7/8 x 1 3/4	1.55
		150 WVDC	
L-5-150	5	5/8 x 1 1/8	$1.00
L-8-150	8	1/2 x 1 5/8	1.05
L-10-150	10	1/2 x 1 5/8	1.05
L-16-150	16	5/8 x 1 5/8	1.15
L-20-150	20	5/8 x 1 5/8	1.20
L-30-150	30	3/4 x 1 5/8	1.30
L-40-150	40	3/4 x 1 5/8	1.35

CAT. NO.	MFD.	SIZE*	LIST PRICE
		150 WVDC (Cont'd)	
L-50-150	50	3/4 x 2 1/16	1.40
L-80-150	80	7/8 x 2 1/16	1.60
L-100-150	100	7/8 x 2 3/8	1.75
L-150-150	150	1 x 2 11/16	1.90
L-200-150	200	1 1/16 x 3 15/16	2.20
		50 WVDC	
L-1-50	1	1/2 x 1 1/8	.90
L-2-50	2	1/2 x 1 1/8	.90
L-3-50	3	1/2 x 1 1/8	.90
L-5-50	5	1/2 x 1 1/8	1.00
L-10-50	10	1/2 x 1 1/8	1.00
L-25-50	25	1/2 x 1 5/8	1.05
L-50-50	50	5/8 x 1 5/8	1.20
L-100-50	100	3/4 x 1 5/8	1.40
L-150-50	150	7/8 x 1 5/8	1.55
L-250-50	250	1 x 2 1/16	1.75
L-500-50	500	1 x 3	2.75
		25 WVDC	
L-10-25	10	1/2 x 1 1/8	1.00
L-25-25	25	1/2 x 1 5/8	1.00
L-50-25	50	5/8 x 1 5/8	1.10
L-100-25	100	5/8 x 1 5/8	1.35
L-250-25	250	7/8 x 2 1/16	1.70
L-500-25	500	1 x 2 3/8	2.30
		15 WVDC	
L-1000-15	1000	1 x 3	2.30
		12 WVDC	
L-100-12	100	5/8 x 1 11/16	1.20
L-250-12	250	3/4 x 2 1/16	1.45
L-500-12	500	7/8 x 2 3/8	1.70
		6 WVDC	
L-500-6	500	3/4 x 1 5/8	1.55
L-1000-6	1000	7/8 x 2 1/16	1.90
L-1500-6	1500	7/8 x 2 3/8	2.10
L-2000-6	2000	1 x 2 3/8	2.30
		3 WVDC	
L-500-3	500	5/8 x 1 5/8	1.55
L-1000-3	1000	7/8 x 2 1/16	1.80
L-1500-3	1500	7/8 x 2 1/16	2.10
L-2000-3	2000	1 x 2 3/8	2.30

Dual Section Electrolytics — Type "IL"

Hermetically sealed in aluminum tubes with completely flexible leads. U/L Approved, plastic coated leads are rivetted directly to the condenser end disc, eliminating the use of rigid terminal risers, allowing capacitor to fit into smaller space and eliminating lead breakage. IL capacitors have wrap around mounting strap and are common negative, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		450 WVDC	
IL-2x8-450	8+ 8	7/8 x 2 1/16	$1.70
IL-2x20-450	20+20	1 x 2 1/16	2.50
IL-2x30-450	30+30	1 1/4 x 2 1/16	3.00
IL-2x40-450	40+40	1 3/8 x 2 1/16	3.40

* Dimensions are for metal tubes. Add 1/16" to diameter and 1/8" to length for over-all dimensions over cardboard insulating tube.

CAT. NO.	MFD.	SIZE*	LIST PRICE
		150 WVDC	
IL-2x20x150	20+20	3/4 x 1 5/8	1.65
IL-2x30-150	30+30	7/8 x 1 5/8	1.80
IL-4020-150	40+20	7/8 x 1 5/8	1.75
IL-2x40-150	40+40	7/8 x 2 1/16	1.85
IL-5030-150	50+30	7/8 x 2 1/16	1.95
IL-2x50-150	50+50	1 x 2 1/16	2.10
IL-8040-150	80+40	1 x 2 3/8	2.25

All Prices Subject to Change Without Notice

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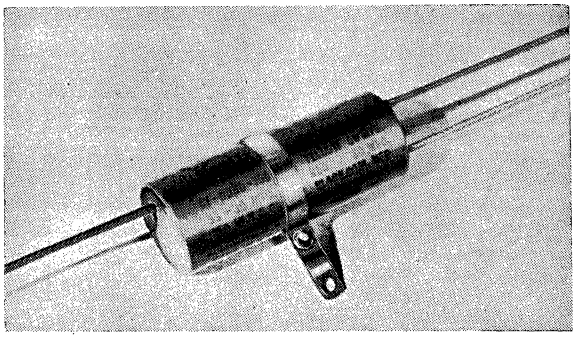
BLOOMFIELD, NEW JERSEY



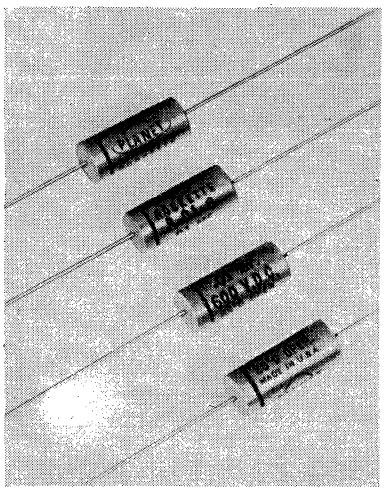
Universal Replacement Type Capacitors

Cardboard Tube Electrolytics — Type "CT"

Constructed in strong red cardboard tubes, wax impregnated — long insulated stranded leads of U/L approved wire — high temperature wax end-fill — wrap around mounting strap. Guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
DUAL UNITS — COMMON NEGATIVE				
CT-2x20-150	20+20	150	¾ x 2½	$1.65
CT-2x30-150	30+30	150	⅞ x 2½	1.80
CT-4020-150	40+20	150	⅞ x 2½	1.75
CT-2x40-150	40+40	150	1 x 2½	1.85
CT-5030-150	50+30	150	1 x 2½	1.95
CT-2x50-150	50+50	150	1 x 3	2.10
CT-8040-150	80+40	150	1 x 3¼	2.25
CTC-100+50-150	100+50	150	1 x 3⅜	2.50

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TRIPLE UNITS — COMMON NEGATIVE				
CT-3x20-150	20+20+20	150	1 x 2½	$2.20
CT-302520-150	30+25+30	150	1 x 2½	2.25
CT-3x30-150	30+30+30	150	1 x 3	2.35
CT-402020-150	40+20+20	150	1 x 3	2.25
CT-403020-150	40+30+20	150	1 x 3	2.35
CT-404020-150	40+40+20	150	1 x 3	2.40
CT-3x40-150	40+40+40	150	1 x 3¼	2.45
CT-503020-150	50+30+20	150	1 x 3	2.45
CT-804020-150	80+40+20	150	1 x 3⅝	2.75
CT-302	30+20/20	150/25	1 x 2½	2.10
CT-303	40+30/20	150/25	1 x 3	2.20
CT-304	50+50/20	150/25	1 x 3¼	2.50
CT-305	50+30/20	150/25	1 x 3	2.35
CTC-306	100+50/30	150/25	1⅛ x 3½	2.85



All Purpose Paper Capacitors

"ROCKETTES"

Planet ROCKETTES are impregnated and jacketed with a HARD-as-ROCK plastic which will not dry out, shrink away from the leads nor develop fissures nor cracks, thus guaranteeing against the entrance of moisture and guaranteeing good shelf life and long service life. The coiled heads of the leads are securely soldered to the foil, which is imbedded in the same plastic used as an impregnant, making it impossible for them to work loose or pull out. ROCKETTES have exceptionally high insulation resistance which is maintained proportionately over the entire temperature range of —30° to +85° C.

CAT. NO.	MFD.	SIZE	LIST PRICE
600 WVDC			
R-001-6	.001	1/32 x 1	$ .25
R-002-6	.002	1/32 x 1	.25
R-003-6	.003	3/64 x 1	.25
R-004-6	.004	3/64 x 1	.25
R-0047-6	.0047	3/64 x 1	.25
R-005-6	.005	3/64 x 1	.25
R-006-6	.006	3/64 x 1	.25
R-01-6	.01	7/64 x 1	.30
R-02-6	.02	7/64 x 1 1/4	.30
R-03-6	.03	7/64 x 1 1/2	.35
R-04-6	.04	5/32 x 1 1/2	.35
R-047-6	.047	1/2 x 1 5/8	.40
R-05-6	.05	7/32 x 1 5/8	.40
R-1-6	.1	1/16 x 1 5/8	.45

CAT. NO.	MFD.	SIZE	LIST PRICE
600 WVDC (Cont'd)			
R-2-6	.2	1/16 x 2	.55
R-25-6	.25	1/16 x 2	.55
R-5-6	.5	1/16 x 2 1/8	.80
1600 WVDC			
R-001-16	.001	5/64 x 1 1/8	.55
R-002-16	.002	3/64 x 1 1/8	.55
R-003-16	.003	7/64 x 1 1/4	.55
R-005-16	.005	1/2 x 1 1/4	.55
R-0075-16	.0075	7/64 x 1 1/4	.60
R-008-16	.008	9/64 x 1 1/4	.60
R-01-16	.01	9/64 x 1 1/2	.60
R-02-16	.02	9/64 x 1 3/4	.60
R-05-16	.05	1/16 x 2	.70

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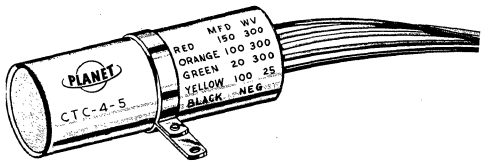
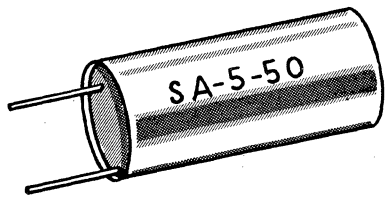


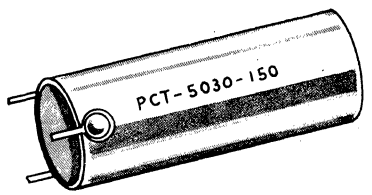
Type "CTC" . . . cardboard tube electrolytics especially designed for exact replacement in television sets . . . one end closed . . . long insulated leads out other end . . . sealed with high melting point wax . . . guaranteed for one year . . . individually packaged.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
CTC-1-5	300	150	1⅜ x 3⅞	$2.55
CTC-1-10	150	200	1½ x 3¾	3.95
CTC-1-15	200	200	1⅜ x 3⅜	2.90
CTC-1-20	140	300	1⅜ x 3½	3.15
CTC-1-25	200	300	1½ x 4	3.95
CTC-2-1	10/100	100/3	¾ x 1¾	1.90
CTC-2-5	200+5	150	1 x 3⅞	2.65
CTC-2-6	200+5	200	1⅜ x 3⅜	3.55
CTC-2-15	250+50	150	1⅜ x 3	3.25
CTC-2-20	80+120	200	1⅜ x 3	3.85
CTC-2-24	200+100	300/50	1¼ x 4½	4.30
CTC-2-25	150+100	300	1⅜ x 4½	5.35
CTC-3-1	30/1000+1000	100/15	1⅜ x 3½	3.60
CTC-3-2	60+60+60	300	1⅜ x 3½	4.70
CTC-3-3	250+120/50	150/25	1⅜ x 3⅞	4.40
CTC-3-4	250+200+10	150	1⅜ x 3⅝	4.60
CTC-3-5	5/80+40	450/400	1⅜ x 4⅛	4.55
CTC-4-5	150+100+20/100	300/25	1⅝ x 5¼	7.65
CTC-4-10	120+40+40/10	300/250	1⅜ x 4⅝	6.20
CTC-4-15	140/5/200+30	350/300/200	1⅝ x 4⅜	7.65
CTC-4-20	80+60/40/20	350/300/150	1⅝ x 4½	5.90
CTC-4-22	60+40+4	350	1⅜ x 3¼	3.85
CTC-4-25	10/80/40/100	450/300/250/50	1⅜ x 4⅛	4.80
CTC-4-26	10/80+40/100	450/300/50	1⅜ x 4⅛	4.95
CTC-4-30	20/120/40/100	450/300/250/50	1½ x 4⅜	6.15
CTC-4-35	10/80/40+40	450/300/250	1⅜ x 4⅜	4.95
CTC-4-36	10/80+40+40	450/300	1⅜ x 4⅜	5.25
CTC-4-40	40+40+20+20	450	1½ x 4⅜	5.45
CTC-5-5	40+20+20+20/50	300/75	1⅜ x 3	5.00



Type "SA" . . . small single section electrolytics for printed circuit boards . . . hermetically sealed in aluminum tubes covered with red kraftboard insulating jackets . . . extra heavy tinned terminals anchored for proper spacing by a high melting point wax . . . for 85°C operation . . . individually packaged. Recommended for TV, radio and industrial applications . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
SA-8-3	8	3	5/16 x 1 1/16	$1.05
SA-50-6	50	6	11/16 x 1¾	1.05
SA-100-6	100	6	5/16 x 1 1/16	1.30
SA-5-10	5	10	5/16 x 1 1/16	1.05
SA-25-10	25	10	5/16 x 1 1/16	1.10
SA-10-25	10	25	5/16 x 1 1/16	1.10
SA-50-25	50	25	11/16 x 2⅛	1.20
SA-100-25	100	25	23/32 x 2	1.45
SA-1-50	1	50	5/16 x 1 1/16	1.00
SA-4-50	4	50	5/16 x 1 1/16	1.10
SA-10-50	10	50	5/16 x 1 1/16	1.10
SA-25-50	25	50	19/32 x 2	1.15
SA-50-50	50	50	11/16 x 2⅛	1.30
SA-100-50	100	50	27/32 x 2	1.50



Type "PCT" . . . constructed in strong red cardboard tubes, wax impregnated, one end closed, printed circuit board terminals.

Type "PCTL" . . . has insulated lead out top providing for low voltage section.

For 65°C operation . . . recommended for table and clock radios . . . individually packaged . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		DUALS		
PCT-2-5	50+30	150	1 x 2½	1.95
PCT-2-10	50+50	150	1 x 3	2.10
PCT-2-15	75+30	150	1 x 3	2.20
PCT-2-20	100+50	150	1 x 3⅝	2.50
		TRIPLES		
PCTL-3-5	40+20/5	150/25	1 x 2¾	2.20
PCTL-3-10	60+20/5	150/25	1 x 3	2.40

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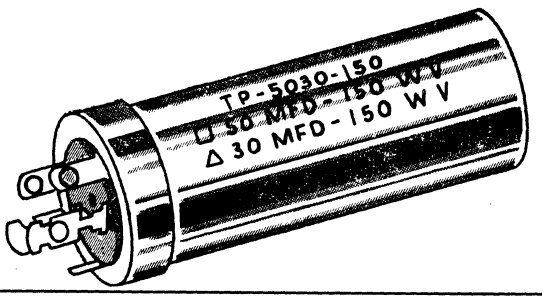
Type "TP" . . . twist-prong can electrolytics with mounting ring and solder lug terminals. The mounting ring is grounded by two spot welded connections to the negative tab . . . for 85°C operation . . . complete with metal grounding plate . . . individually packaged. Guaranteed for one year.

Type "PTP" . . . same as Type "TP" except made with printed circuit board terminals.



CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
TP-1-5	2000	12	1 x 3½	$3.25
PTP-1-10	1000	15	1 x 2½	2.55
PTP-1-15	50	150	1 x 2½	1.65
TP-1-20	80	150	1 x 2	1.85
PTP-1-25	100	150	1 x 2½	2.00
TP-1-30	120	150	1 x 3	2.15
TP-1-31	120	150	1⅜ x 2½	2.15
PTP-1-35	140	150	1 x 3½	2.15
TP-1-40	150	150	1⅜ x 2½	2.15
TP-1-45	150	150	1 x 3	2.15
TP-1-50	200	150	1⅜ x 2½	2.45
TP-1-55	300	150	1⅜ x 3	2.80
PTP-1-60	150	165	1 x 3½	2.35
PTP-1-65	375	165	1⅜ x 3½	4.25
PTP-1-70	80	175	1 x 2½	1.95
TP-1-75	125	350	1⅜ x 3½	3.90
TP-1-80	10	450	1 x 2	1.55
TP-1-85	20	450	1 x 2	1.80
TP-1-90	40	450	1 x 3	2.05
TP-1-95	80	450	1⅜ x 3	3.05
		DUALS		
PTP-2-5	500+150	15	1 x 2	$3.25
PTP-2-10	250+250	16	1 x 2	2.50
PTP-2-15	70+30	150	1 x 2⅛	2.20
TP-2-20	50+50	150	1 x 2½	2.15
PTP-2-25	50+30	150	1 x 2	2.00
TP-2-30	50+30	150	1 x 2	2.00
TP-2-35	40+40	150	1 x 2	1.90
TP-2-40	20+20	150	1 x 2	1.70
TP-2-45	100+80	200	1⅜ x 2½	3.35
TP-2-50	200+5	200	1⅜ x 2½	3.40
TP-2-55	30+30	250	1 x 2½	2.75
TP-2-60	200+15	250	1⅜ x 2½	4.00
TP-2-65	30+10	300	1 x 3	2.40
TP-2-70	60/10	300/200	1 x 3	3.15
TP-2-75	125/100	350/10	1⅜ x 3½	5.20
TP-2-80	5/100	350/50	1 x 2	$1.90
PTP-2-85	10/10	350/50	1 x 2	2.00
TP-2-90	100/80	350/175	1⅜ x 3½	4.60
TP-2-95	100+50	350	1⅜ x 3½	5.80
TP-2-100	100+100	350	1⅜ x 4	6.15
TP-2-105	140+20	350	1⅜ x 4	4.30
TP-2-110	30+10	400	1 x 3	2.95
TP-2-115	10+10	450	1 x 2	1.90
TP-2-120	20+20	450	1 x 3	2.55
TP-2-125	40+40	450	1⅜ x 3	3.45
		TRIPLES		
TP-3-5	90+40/400	150/10	1 x 3½	$5.25
PTP-3-10	70+30/10	150/25	1 x 2½	2.55
TP-3-15	40+40+40	150	1 x 2½	2.60
PTP-3-20	50+25+150	150	1⅜ x 2½	3.75
TP-3-25	50+50+50	150	1 x 3	3.00
TP-3-30	40+20+20	250	1 x 3	2.90
TP-3-35	30+10/20	300/25	1 x 3	4.15
PTP-3-40	60+10/25	300/25	1⅜ x 2	4.85
PTP-3-45	30/25/100	350/25/6	1 x 2½	4.65
PTP-3-50	125/5/100	350/150/10	1⅜ x 3½	6.60
PTP-3-51	60/200+300	300/150	1⅜ x 4	5.00
TP-3-55	20+20/20	350/25	1 x 2½	2.90
TP-3-60	100+100/25	350/25	1⅜ x 4½	7.00
TP-3-65	80+40/100	350/50	1⅜ x 4	6.50
TP-3-70	10/40+40	350/200	1 x 3	3.25
TP-3-75	80+40+40	350	1⅜ x 4	7.95
TP-3-80	30+10/20	400/25	1 x 3	2.85
TP-3-85	40+40+40	450	1⅜ x 3½	4.90
		QUADS		
PTP-4-5	250+30+20/100	150/10	1⅜ x 3½	$5.30
PTP-4-9	60+100/100/100	350/150/10	1⅜ x 5	8.50
PTP-4-10	100+60/60/40	350/200/75	1⅜ x 4½	8.50
TP-4-15	40+40+10/100	450/50	1⅜ x 3½	5.45
TP-4-20	20+20+20+20	450	1⅜ x 3	4.50
PTP-4-25	30+30+30+30	450	1⅜ x 4	5.65
TP-4-30	40+40+40+40	450	1⅜ x 4	6.45

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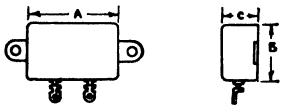
Plastic Capacitors, INC.

CHICAGO ILLINOIS

Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

TYPE PX — CLOSE TOLERANCE

BATH TUB CONTAINER



TYPE PX Capacitors are close tolerance polystyrene capacitors housed in hermetically sealed bathtub containers. Terminals are solder lugs mounted on glass solder-seal bushings. Extended foil (non-inductive) construction is used.

CAPACITANCE TOLERANCE available is plus or minus 1%, 0.5%, 0.25% or 0.1%. Add the suffix "E" and the numbers 1 for 1%, 05 for 5%, 025 for 0.25% and 01 for 0.1% capacitance tolerance to the part number required.

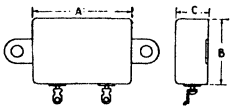
PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PX05-124	.12	50	1 1/8	1	13/16
PX05-154	.15	50	1 1/8	1	13/16
PX05-224	.22	50	1 1/8	1	13/16
PX05-254	.25	50	1 3/4	1	3/4
PX05-304	.30	50	1 3/4	1	3/4
PX05-334	.33	50	1 3/4	1	3/4
PX05-404	.40	50	1 3/4	1	3/4
PX05-474	.47	50	1 3/4	1 1/4	7/8
PX05-504	.50	50	1 3/4	1 1/4	7/8
PX05-604	.60	50	1 3/4	1 1/4	7/8
PX05-684	.68	50	1 3/4	1 1/4	7/8
PX05-804	.80	50	1 3/4	1 1/4	7/8
PX05-824	.82	50	1 3/4	1 1/4	7/8
PX05-105	1.0	50	2	1 3/4	7/8

POLYSTYRENE CAPACITORS

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PX05-205	2	50	2	2	1 1/8
PX05-305	3	50	2	2	1 1/4
PX05-405	4	50	2	2	1 1/2
PX1-803	.08	100	1 1/8	1	13/16
PX1-823	.082	100	1 1/8	1	13/16
PX1-104	0.1	100	1 1/8	1	13/16
PX1-124	.12	100	1 3/4	1	3/4
PX1-154	.15	100	1 3/4	1	3/4
PX1-204	.20	100	1 3/4	1	3/4
PX1-224	.22	100	1 3/4	1 1/4	7/8
PX1-254	.25	100	1 3/4	1 1/4	7/8
PX1-304	.30	100	1 3/4	1 1/4	7/8
PX1-334	.33	100	1 3/4	1 1/4	7/8
PX1-404	.40	100	1 3/4	1 1/4	7/8
PX1-474	.47	100	2	1 3/4	7/8
PX1-504	.50	100	2	1 3/4	7/8
PX1-604	.60	100	2	1 3/4	7/8
PX1-804	.80	100	2	1 3/4	7/8
PX1-824	.82	100	2	2	1 1/8
PX1-105	1.0	100	2	2	1 1/8
PX1-205	2	100	2	2	1 1/2
PX2-303	.03	200	1 1/8	1	13/16
PX2-333	.033	200	1 1/8	1	13/16
PX2-403	.04	200	1 1/8	1	13/16
PX2-473	.047	200	1 1/8	1	13/16
PX2-503	.05	200	1 1/8	1	13/16
PX2-603	.06	200	1 1/8	1	13/16
PX2-683	.068	200	1 1/8	1	13/16
PX2-803	.08	200	1 3/4	1	3/4
PX2-823	.082	200	1 3/4	1	3/4
PX2-104	0.1	200	1 3/4	1	3/4
PX2-124	.12	200	1 3/4	1 1/4	7/8
PX2-154	.15	200	1 3/4	1 1/4	7/8
PX2-204	.20	200	1 3/4	1 1/4	7/8
PX2-224	.22	200	1 3/4	1 1/4	7/8
PX2-254	.25	200	1 3/4	1 1/4	7/8
PX2-304	.30	200	2	1 3/4	7/8
PX2-334	.33	200	2	1 3/4	7/8
PX2-404	.40	200	2	1 3/4	7/8
PX2-474	.47	200	2	1 3/4	7/8
PX2-504	.50	200	2	2	1 1/8

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PX2-604	.60	200	2	2	1 1/8
PX2-684	.68	200	2	2	1 1/8
PX2-804	.80	200	2	2	1 1/8
PX2-824	.82	200	2	2	1 1/8
PX2-105	1.0	200	2	2	1 1/4
PX4-102	.001	400	1 1/8	1	13/16
PX4-122	.0012	400	1 1/8	1	13/16
PX4-152	.0015	400	1 1/8	1	13/16
PX4-202	.002	400	1 1/8	1	13/16
PX4-222	.222	400	1 1/8	1	13/16
PX4-302	.003	400	1 1/8	1	13/16
PX4-332	.0033	400	1 1/8	1	13/16
PX4-402	.004	400	1 1/8	1	13/16
PX4-472	.0047	400	1 1/8	1	13/16
PX4-502	.005	400	1 1/8	1	13/16
PX4-602	.006	400	1 1/8	1	13/16
PX4-682	.0068	400	1 1/8	1	13/16
PX4-802	.008	400	1 1/8	1	13/16
PX4-822	.0082	400	1 1/8	1	13/16
PX4-103	.01	400	1 1/8	1	13/16
PX4-123	.012	400	1 1/8	1	13/16
PX4-153	.015	400	1 1/8	1	13/16
PX4-203	.02	400	1 1/8	1	13/16
PX4-223	.022	400	1 1/8	1	13/16
PX4-303	.03	400	1 3/4	1	3/4
PX4-333	.033	400	1 3/4	1	3/4
PX4-403	.04	400	1 3/4	1	3/4
PX4-473	.047	400	1 3/4	1 1/4	7/8
PX4-503	.05	400	1 3/4	1 1/4	7/8
PX4-603	.06	400	1 3/4	1 1/4	7/8
PX4-683	.068	400	1 3/4	1 1/4	7/8
PX4-803	.08	400	1 3/4	1 1/4	7/8
PX4-823	.082	400	1 3/4	1 1/4	7/8
PX4-104	0.1	400	2	1 3/4	7/8
PX4-124	.12	400	2	1 3/4	7/8
PX4-154	.15	400	2	1 3/4	7/8
PX4-204	.2	400	2	2	1 1/8
PX4-224	.22	400	2	2	1 1/8
PX4-254	.25	400	2	2	1 1/8
PX4-304	.3	400	2	2	1 1/4

TYPE PA

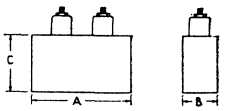


TYPE PA capacitors are non-inductive (extended foil) polystyrene capacitors, hermetically sealed in hot-tinned or terne-plate steel bathtub containers. Terminals are solder lugs mounted in compression type glass solder-seal bushings.

CAPACITANCE TOLERANCE is 5% as standard and 2% upon request. For 1% tolerance and less, see listings on types PV, PW, and PX.

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PA05-304	.3	50	1 1/8	1	13/16
PA05-404	.4	50	1 1/8	1	13/16
PA05-504	.5	50	1 1/8	1	13/16
PA05-604	.6	50	1 3/4	1	3/4
PA05-804	.8	50	1 3/4	1	3/4
PA05-105	1.0	50	2	1 3/4	7/8
PA05-205	2.0	50	2	2	1 1/8
PA05-305	3.0	50	2	2	1 1/2
PA1-204	0.2	100	1 1/8	1	13/16
PA1-254	.25	100	1 1/8	1	13/16
PA1-304	.3	100	1 3/4	1	3/4
PA1-404	.4	100	1 3/4	1	3/4
PA1-504	.5	100	1 3/4	1 1/4	7/8
PA1-604	.6	100	1 3/4	1 1/4	7/8
PA1-804	.8	100	2	1 3/4	7/8
PA1-105	1.0	100	2	1 3/4	7/8
PA1-205	2	100	2	2	1 1/8
PA2-104	0.1	200	1 1/8	1	13/16
PA2-204	.2	200	1 3/4	1	3/4
PA2-254	.25	200	1 3/4	1	3/4
PA2-304	.3	200	1 3/4	1 1/4	7/8
PA2-404	.4	200	1 3/4	1 1/4	7/8
PA2-504	.5	200	2	1 3/4	7/8
PA2-604	.6	200	2	1 3/4	7/8
PA2-804	.8	200	2	2	1 1/8
PA2-105	1.0	200	2	2	1 1/8
PA4-603	.06	400	1 1/8	1	13/16
PA4-803	.08	400	1 3/4	1	3/4
PA4-104	0.1	400	1 3/4	1	3/4
PA4-204	.2	400	2	1 3/4	7/8
PA4-254	.25	400	2	1 3/4	7/8
PA4-304	.3	400	2	1 3/4	7/8
PA4-404	.4	400	2	2	1 1/8
PA4-504	.5	400	2	2	1 1/8
PA4-604	.6	400	2	2	1 1/4
PA6-103	.01	600	1 1/8	1	13/16
PA6-203	.02	600	1 1/8	1	13/16
PA6-303	.03	600	1 1/8	1	13/16
PA6-403	.04	600	1 1/8	1	13/16
PA6-503	.05	600	1 1/8	1	13/16
PA6-603	.06	600	1 3/4	1	3/4
PA6-803	.08	600	1 3/4	1	3/4
PA6-104	0.1	600	1 3/4	1 1/4	7/8
PA6-204	.2	600	2	1 3/4	1 1/8
PA6-254	.25	600	2	2	1 1/8
PA6-304	.3	600	2	2	1 1/8
PA6-404	.4	600	2	2	1 1/4
PA6-504	.5	600	1 1/8	1 1/4	1 1/2

TYPE PD



TYPE PD capacitors are housed in hermetically sealed fabricated CP70 style containers and meet the most stringent environmental conditions. Windings are extended foil (non-inductive) construction.

CAPACITANCE TOLERANCE Standard tolerance is 5%. Also available are 2%, 1% and 0.5% tolerances.

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PD05-205	2	50	1 3/4	1	2 1/4
PD05-305	3	50	1 3/4	1	2 1/2
PD05-405	4	50	2 1/2	1 3/16	2 1/4
PD05-505	5	50	2 1/2	1 3/16	2 1/2
PD05-605	6	50	3 3/4	1 1/4	2 1/4
PD05-805	8	50	3 3/4	1 1/4	2 1/2
PD05-106	10	50	3 3/4	1 3/4	2 1/4
PD1-105	1	100	1 3/4	1	2 1/4
PD1-205	2	100	2 1/2	1 3/16	2 1/4
PD1-305	3	100	2 1/2	1 3/16	3
PD1-405	4	100	3 3/4	1 1/4	2 1/2
PD1-505	5	100	3 3/4	1 1/4	3
PD1-605	6	100	3 3/4	1 3/4	2 1/2
PD1-805	8	100	3 3/4	2 1/4	2 1/2
PD1-106	10	100	3 3/4	2 1/4	3
PD2-105	1	200	1	1 3/4	3
PD2-205	2	200	2 1/2	1 3/16	3
PD2-305	3	200	3 3/4	1 1/4	3
PD2-405	4	200	3 3/4	1 1/4	3 1/2
PD2-505	5	200	3 3/4	1 3/4	3 1/2
PD2-605	6	200	3 3/4	1 3/4	3 1/2
PD2-805	8	200	3 3/4	2 1/4	3 1/2
PD2-106	10	200	3 3/4	3 3/16	3 1/2
PD4-254	.25	400	1 3/4	1	2 1/4
PD4-504	.5	400	2 1/2	1 3/16	2 1/4
PD4-105	1.0	400	3 3/4	1 1/4	2 1/2
PD4-205	2	400	3 3/4	1 1/4	4
PD4-305	3	400	3 3/4	1 3/4	4
PD4-405	4	400	3 3/4	2 1/4	4
PD4-505	5	400	3 3/4	3 3/16	4
PD4-605	6	400	3 3/4	3 3/16	4
PD4-805	8	400	3 3/4	4 9/16	4
PD4-106	10	400	3 3/4	3 3/16	7 1/2
PD6-254	.25	600	1 3/4	1	2 1/2
PD6-504	.5	600	1 3/4	1	4
PD6-105	1.0	600	2 1/2	1 3/16	4
PD6-205	2	600	3 3/4	1 3/4	4
PD6-305	3	600	3 3/4	2 1/4	4
PD6-405	4	600	3 3/4	3 3/16	4
PD6-505	5	600	3 3/4	4 9/16	3 1/2
PD6-605	6	600	3 3/4	4 9/16	4
PD6-805	8	600	3 3/4	3 3/16	7 1/2
PD6-106	10	600	3 3/4	4 9/16	6 1/2

This is but a partial listing of capacitances and voltages available.

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Plastic Capacitors, INC.

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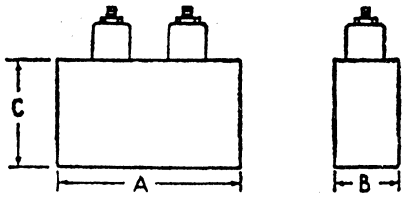
Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

New TYPE LK New
DC FILTER CAPACITORS



Type LK capacitors are an entirely new design which have been proved by rigorous testing in the laboratory and by usage in the field for several years. This is the first listing to be published.

Type LK capacitors are smaller and have a reliability factor which is unexcelled. Their primary usage is for DC filtering and DC blocking applications.

Temperature Range is minus 65°C to 105°C. With full rated voltage from −65°C to 85°C.

Life 2500 hours at rated voltage at 85°C.

Case is the CP70 style terne plate metal, primed and finished with a synthetic enamel.

ENVIRONMENTAL and other testing may be performed per MIL-C-25A, Characteristic E. Type LK exceeds the best characteristics of paper capacitors in a much smaller size. Comparison of sizes will show that the volume is much less than required for MIL-C-25A equivalents in Characteristic F and are better than characteristic E quality.

PART NUMBER	CAP. MFD	VOLTS DC	CASE SIZE A	B	C
LK10-504	0.5	1000	1 3/4	1	2 1/8
LK10-105	1.0	1000	1 3/4	1	2 1/8
LK10-205	2	1000	1 3/4	1	3 1/2
LK10-405	4	1000	1 3/4	1	5 3/4
LK10-605	6	1000	2 1/2	1 3/16	5
LK10-805	8	1000	2 1/2	1 3/16	6 1/4
LK10-106	10	1000	3 3/4	1 1/4	5
LK10-126	12	1000	3 3/4	1 1/4	5 3/4
LK10-156	15	1000	3 3/4	1 3/4	5 1/4
LK10-206	20	1000	3 3/4	1 3/4	6 1/4
LK20-104	0.1	2000	1 3/4	1	2 1/8
LK20-254	.25	2000	1 3/4	1	2 1/8
LK20-504	.5	2000	1 3/4	1	2 1/8
LK20-105	1.0	2000	1 3/4	1	3 1/4
LK20-205	2	2000	2 1/2	1 3/16	3 1/2
LK20-405	4	2000	2 1/2	1 3/16	5 1/2
LK20-605	6	2000	3 3/4	1 1/4	5
LK20-805	8	2000	3 3/4	1 3/4	6 1/4
LK20-106	10	2000	3 3/4	1 3/4	5 1/4
LK20-126	12	2000	3 3/4	1 3/4	6 1/4
LK20-156	15	2000	3 3/4	2 1/4	6
LK30-104	0.1	3000	1 3/4	1	2 1/8
LK30-254	.25	3000	1 3/4	1	2 1/2
LK30-504	.5	3000	1 3/4	1	3 1/4
LK30-105	1.0	3000	1 3/4	1	5 1/4
LK30-205	2	3000	2 1/2	1 3/16	5 1/2
LK30-405	4	3000	3 3/4	1 1/4	6 1/4
LK30-605	6	3000	3 3/4	1 3/4	6 1/4
LK30-805	8	3000	3 3/4	2 1/4	6 1/2
LK30-106	10	3000	3 3/4	3 3/16	5 3/4
LK40-503	.05	4000	1 3/4	1	2 1/8
LK40-104	0.1	4000	1 3/4	1	2 1/4
LK40-254	.25	4000	1 3/4	1	2 3/4
LK40-504	.5	4000	1 3/4	1	4
LK40-105	1.0	4000	2 1/2	1 3/16	4
LK40-205	2	4000	2 1/2	1 3/16	6 3/4
LK40-405	4	4000	3 3/4	1 3/4	6
LK40-605	6	4000	3 3/4	2 1/4	6 1/2
LK40-805	8	4000	3 3/4	3 3/16	6
LK40-106	10	4000	4 9/16	3 3/4	5 1/2

PART NUMBER	CAP. MFD	VOLTS DC	CASE SIZE A	B	C
LK 50-503	.05	5000	1 3/4	1	2 1/8
LK 50-104	0.1	5000	1 3/4	1	2 1/8
LK 50-254	.25	5000	1 3/4	1	3
LK 50-504	.5	5000	1 3/4	1	4 3/4
LK 50-105	1.0	5000	2 1/2	1 3/16	5
LK 50-205	2	5000	3 3/4	1 1/4	6
LK 50-405	4	5000	3 3/4	2 1/4	6 1/4
LK 50-605	6	5000	3 3/4	3 3/16	6 1/2
LK 50-805	8	5000	4 9/16	3 3/4	6 1/4
LK 50-106	10	5000	4 9/16	3 3/4	8
LK 60-503	.05	6000	3 3/4	1 1/4	2 1/4
LK 60-104	0.1	6000	3 3/4	1 1/4	2 1/4
LK 60-254	.25	6000	3 3/4	1 1/4	2 1/2
LK 60-504	.5	6000	3 3/4	1 1/4	3 3/4
LK 60-105	1.0	6000	3 3/4	1 1/4	6 1/2
LK 60-205	2	6000	3 3/4	2 1/4	6 1/4
LK 60-405	4	6000	4 9/16	3 3/4	6
LK 60-605	6	6000	4 9/16	3 3/4	8 1/4
LK 60-805	8	6000	4 9/16	3 3/4	10 1/4
LK 60-106	10	6000	8	4	9 1/4
LK 80-503	.05	8000	3 3/4	1 1/4	2 1/4
LK 80-104	0.1	8000	3 3/4	1 1/4	2 1/2
LK 80-254	.25	8000	3 3/4	1 1/4	3 3/4
LK 80-504	.5	8000	3 3/4	1 1/4	5 3/4
LK 80-105	1.0	8000	3 3/4	1 3/4	7
LK 80-205	2	8000	3 3/4	3 3/16	7
LK 80-405	4	8000	4 9/16	3 3/4	10
LK 80-605	6	8000	8	4	9 1/4
LK 80-805	8	8000	13 1/2	4 1/8	7
LK 80-106	10	8000	13 1/2	4 1/8	9 1/4
LK100-503	.05	10KV	3 3/4	1 3/4	3 1/4
LK100-104	0.1	10KV	3 3/4	1 3/4	3 1/4
LK100-254	.25	10KV	3 3/4	1 3/4	3 3/4
LK100-504	.5	10KV	3 3/4	1 3/4	5 3/4
LK100-105	1.0	10KV	3 3/4	2 1/4	7 1/4
LK100-205	2	10KV	4 9/16	3 3/4	6 3/4
LK100-405	4	10KV	8	4	9 1/4
LK100-605	6	10KV	13 1/2	4 1/8	7
LK100-805	8	10KV	13 1/2	4 1/8	9 1/4
LK100-106	10	10KV	13 1/2	4 1/8	11

HIGH VOLTAGE POWER PACKS

HV STANDARD TYPE have as their major feature special tube wells which permit easy access for replacement of the rectifier tubes.
118 V 60 cycles input.

The **HV STANDARD TYPE** is designed for sea level to 10,000 feet operation in the temperature range of minus 40°C to plus 70°C. They must be operated in an upright position.

The height indicated is the height including the terminals.

We do not guarantee rectifier tube life.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	OVERALL HEIGHT	NET PRICE
HV50-502	0-5	5	6 5/8	4 3/8	7 1/4	$ 89.40
HV100-102	0-10	1	7 1/2	5	7 1/4	108.00
HV100-502	0-10	5	8 1/4	6	8 1/4	120.00
HV150-102	0-15	1	7 1/2	5	8	118.80
HV150-502	0-15	5	8 1/4	6	8	130.80
HV200-102	0-20	1	7 1/2	5	8 1/2	138.00
HV200-502	0-20	5	10 1/4	7	12 3/4	191.40
HV300-102	0-30	1	8 3/4	6 3/4	11	207.00
HV300-502	0-30	5	10 1/4	7	12 3/4	222.00
HV500-502	0-50	5	12 1/2	11	17 1/2	426.00
HV750-202	0-75	2	19	11 1/2	20	744.00

HV SELENIUM RECTIFER TYPE

HV SELENIUM RECTIFIER TYPE is smaller than the **HV SEALED TUBE.**

INPUT 118 volts 60 to 400 cycles. **HV SELENIUM RECTIFIER TYPE** is designed to avoid rectifier type failures by the use of long life selenium rectifiers with an estimated life of 20,000 hours at 50°C temperature. Lower ambient temperature will increase life.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	H	NET PRICE
HV20-202S	2	2	3 3/4	3 3/16	5	$ 45.80
HV50-302S	0-5	3	3 3/4	4 9/16	5 1/2	70.60
HV100-102S	0-12	1	3 3/4	4 9/16	7 1/2	102.30
HV150-102S	0-15	1	3 3/4	4 9/16	8 1/2	134.00

HV SEALED TUBE TYPE

HV SEALED TUBE TYPE is smaller than the **HV STANDARD TYPE.** **INPUT** 118 volts 60 to 400 cycles.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	H	NET PRICE
HV20-202H	2	2	3 3/4	3 3/16	5 1/2	$ 54.00
HV50-302H	5	3	3 3/4	4 9/16	6	74.40
HV100-102H	0-12	1	3 3/4	4 9/16	8	93.60
HV150-102H	0-15	1	3 3/4	4 9/16	9	108.00

This is but a partial listing of capacitances and voltages available.

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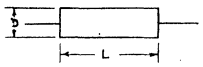
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

METALLIZED MYLAR* CAPACITORS

PART	CAP. MFD.	VOLTS D.C.	SIZE D	SIZE L	NET PRICES 1/24	NET PRICES 25/49	NET PRICES 50/99
AM2-103	.01	200	.174	5/8	$1.08	$ .83	$ .77
AM2-153	.015	200	.174	5/8	1.08	.83	.77
AM2-223	.022	200	.187	5/8	1.08	.84	.77
AM2-333	.033	200	.235	5/8	1.15	.88	.82
AM2-473	.047	200	.235	5/8	1.16	.89	.83
AM2-683	.068	200	.235	13/16	1.16	.90	.83
AM2-104	0.1	200	.235	13/16	1.17	.90	.84
AM2-154	.15	200	.312	13/16	1.18	.91	.84
AM2-224	.22	200	.312	13/16	1.21	.93	.86
AM2-334	.33	200	.400	13/16	1.36	1.05	.97
AM2-474	.47	200	.400	1-1/8	1.40	1.08	1.00
AM26-684	.68	200	.400	1-1/8	1.46	1.13	1.04
AM2-105	1.0	200	.562	1-1/8	1.70	1.31	1.21
AM2-155	1.5	200	.562	1-5/16	1.85	1.43	1.32
AM2-205	2	200	.670	1-5/16	2.31	1.79	1.65
AM2-305	3	200	.670	1-9/16	2.65	2.05	1.89
AM2-405	4	200	.670	1-13/16	2.93	2.26	2.09
AM2-505	5	200	.750	1-13/16	3.08	2.38	2.20
AM2-805	8	200	1.0	1-13/16	4.52	3.49	3.23
AM2-106	10	200	1.0	2-5/16	5.81	4.49	4.15
AM3-103	.01	300	.174	5/8	1.08	.84	.77
AM3-153	.015	300	.174	5/8	1.08	.84	.77
AM3-223	.022	300	.187	5/8	1.09	.84	.78
AM3-333	.033	300	.235	5/8	1.14	.88	.81
AM3-473	.047	300	.235	13/16	1.14	.88	.81
AM3-683	.068	300	.312	13/16	1.18	.91	.84
AM3-104	0.1	300	.312	13/16	1.19	.92	.85
AM3-154	.15	300	.400	13/16	1.29	1.00	.92
AM3-224	.22	300	.400	1-1/8	1.32	1.02	.95
AM3-334	.33	300	.400	1-1/8	1.38	1.07	.99
AM3-474	.47	300	.562	1-1/8	1.65	1.27	1.18
AM3-684	.68	300	.562	1-1/8	1.75	1.35	1.25
AM3-105	1.0	300	.562	1-5/16	1.90	1.47	1.36
AM3-155	1.5	300	.670	1-5/16	2.41	1.86	1.72
AM3-205	2	300	.750	1-5/16	2.93	2.26	2.09
AM3-305	3	300	.750	1-13/16	3.40	2.63	2.43
AM3-405	4	300	1.0	1-7/16	4.06	3.13	2.90
AM3-705	7	300	1.0	2-5/16	6.11	4.72	4.37
AM4-103	.01	400	.187	13/16	1.08	.84	.77
AM4-153	.015	400	.235	13/16	1.09	.84	.78
AM4-223	.022	400	.235	13/16	1.10	.85	.78
AM4-333	.033	400	.312	13/16	1.12	.87	.80
AM4-473	.047	400	.312	13/16	1.14	.88	.81
AM4-683	.068	400	.400	13/16	1.23	.95	.88
AM4-104	0.1	400	.400	1-1/8	1.25	.97	.90
AM4-154	.15	400	.400	1-1/8	1.29	1.00	.92
AM4-224	.22	400	.400	1-5/16	1.34	1.03	.96
AM4-334	.33	400	.562	1-1/8	1.59	1.23	1.14
AM4-474	.47	400	.562	1-5/16	1.69	1.31	1.21
AM4-684	.68	400	.670	1-5/16	2.05	1.58	1.46
AM4-105	1	400	.670	1-7/16	2.53	1.95	1.81
AM4-155	1.5	400	1.0	1-5/16	3.05	2.36	2.18
AM4-205	2	400	1.0	1-13/16	3.42	2.64	2.44
AM4-305	3	400	1.0	2-5/16	4.66	3.59	3.33
AM4-405	4	400	1.0	2-9/16	5.38	4.15	3.84

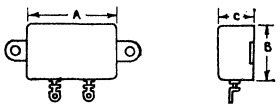
TYPE AM LISTING

METALLIZED MYLAR* has several advantages that are outstanding. The self-healing characteristics are well-known and extend the useful life of the capacitor. The second, and most over-looked feature, is the possibility of making full use of the highest volts-per-mil rating of the film by eliminating all the weak dielectric areas. This results in extra small size without sacrificing life, reliability and economy.



Sizes and net prices are given for the floating case style and 20% capacitance tolerance. Each part number shown should be ordered with the suffix "BW 20" added. Other styles and tolerances are also available.

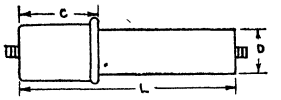
BATH TUB CONTAINER



TYPE AB Capacitors are metallized Mylar* elements hermetically sealed in a bathtub style container. The self-healing and clearing characteristics make possible the smallest high quality capacitor for the given rating.

200 VOLTS D.C. PART NUMBER	CAP. MFD.	CASE SIZE A	B	C	300 VOLTS D.C. PART NUMBER	CAP. MFD.	CASE SIZE A	B	C	400 VOLTS D.C. PART NUMBER	CAP MFD.	CASE SIZE A	B	C
AB2-504	0.5	1 1/8	1	13/16						AB4-104	0.1	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16	AB3-504	0.5	1 1/8	1	13/16	AB4-254	0.25	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16	AB3-105	1.0	1 1/8	1	13/16	AB4-504	0.5	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4	AB3-205	2.0	1 3/4	1	3/4	AB4-105	1.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4	AB3-405	4.0	1 3/4	1 1/4	7/8	AB4-205	2.0	1 3/4	1 1/4	7/8
AB2-605	6.0	1 3/4	1 1/4	7/8	AB3-505	5.0	2	1 3/4	7/8	AB4-405	4.0	2	1 3/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8	AB3-605	6.0	2	1 3/4	7/8	AB4-505	5.0	2	2	1 1/8
AB2-106	10.0	2	1 3/4	7/8	AB3-805	8.0	2	1 3/4	7/8	AB4-605	6.0	2	2	1 1/8
AB2-126	12.0	2	1 3/4	7/8	AB3-106	10.0	2	2	1 1/8	AB4-805	8.0	2	2	1 1/4
AB2-156	15.0	2	1 3/4	7/8	AB3-126	12.0	2	2	1 1/8					
AB2-206	20.0	2	2	1 1/8	AB3-156	15.0	2	2	1 1/4					
AB2-306	30.0	2	2	1 1/4										

TYPE OT – TUBULAR TO 120KV



TYPE OT capacitors are designed for long life at high voltage in the medium temperature range. Type OT capacitors are the smallest and most economical capacitors available for high voltage DC filtering.

CASE is hermetically sealed and designed for operation under oil. Many of the lower voltage units may be operated in air. Many capacitance values at stated voltages are available in two physical sizes, providing the design engineer flexibility in placement of parts and circuit wiring.

MOUNTING. Must be mounted vertically, corona cap at top.

TEMPERATURE RANGE. Type OT capacitors will give long life in the temperature range of −40°C to 55°C with the rated voltage applied.

TERMINALS and mounting studs are axial 3/8-16x3/4" long.

PART NUMBER	CAP MFD.	KILO-VOLTS	D ±1/16	L ±1/8
OT100-104	.1	10	2 1/8	5
OT100-254	.25	10	2 3/4	5 3/4
OT100-504	.5	10	3 3/4	8 5/8
OT200-203	.02	20	1 1/2	7 5/8
OT200-503	.05	20	2 1/8	7 5/8
OT200-104	.1	20	2 3/4	8 7/8
OT200-254	.25	20	2 3/4	14 1/2
OT200-254A	.25	20	3 3/4	9 3/4
OT200-504	.5	20	3 3/4	12 3/4
OT300-103	.01	30	1 1/2	8 5/8
OT300-203	.02	30	2 1/8	8
OT300-203A	.02	30	1 1/2	11 5/8
OT300-503	.05	30	2 3/4	10 3/8
OT300-104	0.1	30	2 3/4	13 7/8
OT300-104A	0.1	30	3 3/4	9 3/8
OT300-254	.25	30	3 3/4	18
OT400-502	.005	40	1 1/2	9 3/4
OT400-103	.01	40	1 1/2	12 3/4
OT400-203	.02	40	1 1/2	18 3/4
OT400-203A	.02	40	2 1/8	11 3/4
OT400-503	.05	40	2 1/8	19 3/4
OT400-503A	.05	40	2 3/4	13 3/4
OT400-104	0.1	40	3 3/4	14 3/4
OT500-202	.002	50	1 1/2	8
OT500-502	.005	50	1 1/2	11 1/2
OT500-103	.01	50	1 1/2	16 1/2
OT500-103A	.01	50	2 1/8	11 1/2
OT500-203	.02	50	2 3/4	11 1/2
OT500-503	.05	50	2 3/4	17 3/4
OT500-503A	.05	50	3 3/4	11 1/2
OT500-104	0.1	50	3 3/4	19
OT600-202	.002	60	1 1/2	10 3/8
OT600-502	.005	60	1 1/2	14 7/8
OT600-502A	.005	60	2 1/8	11 7/8

PART NUMBER	CAP MFD.	KILO-VOLTS	D ±1/16	L ±1/8
OT600-103	.01	60	2 1/8	14 7/8
OT600-103A	.01	60	2 3/4	11 7/8
OT600-203	.02	60	2 3/4	14 7/8
OT600-203A	.02	60	3 3/4	10 3/8
OT600-503	.05	60	3 3/4	16 3/8
OT600-104	0.1	60	3 3/4	27 1/4
OT800-102	.001	80	1 1/2	13
OT800-202	.002	80	1 1/2	15
OT800-502	.005	80	1 1/2	22
OT800-502A	.005	80	2 1/8	15
OT800-103	.01	80	2 1/8	21
OT800-103A	.01	80	2 3/4	15
OT800-203	.02	80	2 3/4	21
OT800-203A	.02	80	3 3/4	15
OT800-503	.05	80	3 3/4	27 1/2
OT1000-501	.0005	100	1 1/2	15 5/8
OT1000-102	.001	100	1 1/2	15 5/8
OT1000-202	.002	100	1 1/2	20 5/8
OT1000-202A	.002	100	2 1/8	15 5/8
OT1000-502	.005	100	2 1/8	20 5/8
OT1000-502A	.005	100	2 3/4	15 5/8
OT1000-103	.01	100	2 3/4	20 5/8
OT1000-103A	.01	100	3 3/4	15 5/8
OT1000-203	.02	100	3 3/4	20 5/8
OT1000-303	.03	100	3 3/4	25 3/8
OT1200-501	.0005	120	1 1/2	18 1/4
OT1200-102	.001	120	1 1/2	18 1/4
OT1200-202	.002	120	1 1/2	24 1/4
OT1200-202A	.002	120	2 1/8	18 1/4
OT1200-502	.005	120	2 3/4	21 1/4
OT1200-103	.01	120	2 3/4	27 1/4
OT1200-103A	.01	120	3 3/4	27 1/4
OT1200-203	.02	120	3 3/4	27 1/4

MOUNTING. Must be mounted vertically, corona cap at top.

TEMPERATURE RANGE. Type OT capacitors will give long life in the temperature range of −40°C to 55°C with the rated voltage applied.

TERMINALS and mounting studs are axial 3/8-16x3/4" long.

***DU PONT POLYESTER FILM**

This is but a partial listing of capacitances and voltages available.

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Net

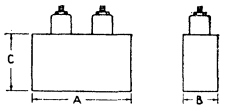
Plastic Capacitors, INC.
CHICAGO ILLINOIS

Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

TYPE EP HIGH VOLTAGE CAPACITORS

NUMBER	CAP. MFD.	VOLTS DC	A	B	C	NET PRICES 1/4	5/9	10/24	25/49	50/99
EP20-105	1.0	2,000	2-1/2	1-3/16	2-3/4	$ 5.28	$ 5.28	$ 2.74	$ 2.44	$ 2.33
EP20-205	2	2,000	2-1/2	1-3/16	4	6.55	6.55	3.40	3.02	2.90
EP20-405	4	2,000	3-3/4	1-3/4	3-1/2	9.05	9.05	4.70	4.18	4.00
EP20-605	6	2,000	3-3/4	1-3/4	4-3/4	11.78	11.78	6.12	5.44	5.21
EP20-805	8	2,000	3-3/4	2-1/4	4-3/4	14.12	14.12	7.33	6.52	6.24
EP20-106	10	2,000	3-3/4	3-3/16	4-1/2	18.72	18.72	9.72	8.64	8.28
EP30-104	0.1	3,000	2-1/2	1-3/16	2-1/8	4.72	4.72	3.37	3.03	2.80
EP30-254	.25	3,000	2-1/2	1-3/16	2-1/8	4.96	4.96	3.54	3.18	2.95
EP30-504	.5	3,000	2-1/2	1-3/16	2-1/2	5.45	5.45	3.90	3.52	3.25
EP30-105	1	3,000	2-1/2	1-3/16	3-3/4	6.33	6.33	4.52	4.07	3.77
EP30-205	2	3,000	3-3/4	1-1/4	4-1/2	8.60	8.60	6.11	5.50	5.11
EP30-405	4	3,000	3-3/4	2-1/4	4-3/4	13.00	13.00	9.37	8.40	7.80
EP30-805	8	3,000	4-9/16	3-3/4	4-3/4	20.20	20.20	14.40	12.80	12.00
EP40-504	0.5	4,000	2-1/2	1-3/16	3-1/4	5.90	5.90	4.22	3.79	3.52
EP40-105	1	4,000	3-3/4	1-1/4	3-1/2	7.55	7.55	5.40	4.86	4.48
EP40-205	2	4,000	3-3/4	1-3/4	4-1/2	11.50	11.50	8.20	7.36	6.85
EP40-405	4	4,000	4-9/16	3-3/4	3-3/4	20.30	20.30	14.50	13.00	12.10
EP50-104	0.1	5,000	2-1/2	1-3/16	2-1/8	4.85	4.85	3.13	2.90	2.55
EP50-254	.25	5,000	2-1/2	1-3/16	2-3/4	5.46	5.46	3.90	3.52	3.25
EP50-504	.5	5,000	2-1/2	1-3/16	4	6.43	6.43	4.60	4.13	3.83
EP50-105	1	5,000	3-3/4	1-3/4	2	9.90	9.90	7.10	6.35	5.88
EP50-205	2	5,000	3-3/4	2-1/4	4-3/4	14.65	14.65	10.42	9.40	8.70
EP50-405	4	5,000	4-9/16	3-3/4	4-3/4	24.30	24.30	17.35	15.60	14.40
EP60-104	0.1	6,000	3-3/4	1-1/4	2-1/2	10.80	7.76	6.97	6.46	5.68
EP60-254	.25	6,000	3-3/4	1-3/4	2-1/2	12.65	9.00	8.12	7.53	6.62
EP60-504	.5	6,000	3-3/4	1-3/4	4	14.80	10.60	9.52	8.81	7.76
EP60-105	1	6,000	3-3/4	2-1/4	5-1/4	19.80	14.20	12.80	11.85	10.42
EP60-205	2	6,000	4-9/16	3-3/4	5-1/4	29.70	21.20	19.22	17.70	15.60
EP60-405	4	6,000	4-9/16	3-3/4	9-1/2	53.20	38.00	34.20	31.65	27.80
EP80-104	0.1	8,000	3-3/4	1-3/4	2-1/2	11.60	8.28	7.46	6.92	6.08
EP80-254	.25	8,000	3-3/4	1-3/4	2-1/2	13.65	9.75	8.75	8.12	7.16
EP80-504	.5	8,000	3-3/4	2-1/4	4-3/4	15.90	11.35	10.22	9.43	8.31
EP80-105	1	8,000	3-3/4	3-3/16	5-1/4	21.50	15.35	13.84	12.75	11.25
EP80-205	2	8,000	4-9/16	3-3/4	8-1/2	33.60	24.05	21.60	20.00	17.62
EP100-104	0.1	10,000	3-3/4	1-3/4	3	12.80	8.86	7.97	7.40	6.52
EP100-254	.25	10,000	3-3/4	1-3/4	4-1/4	14.90	10.62	9.56	8.86	7.79
EP100-504	.5	10,000	3-3/4	2-1/4	5-3/4	18.40	13.17	11.82	10.98	9.64
EP100-105	1	10,000	4-9/16	3-3/4	5-1/2	28.00	20.00	17.98	16.63	14.62
EP100-205	2	10,000	4-9/16	3-3/4	10	49.50	35.40	31.80	29.40	25.95

TYPE EP



TYPE EP capacitors are designed for commercial service. Economy and reliability were the determination factors for the resulting physical construction and electrical characteristics.

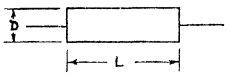
TEMPERATURE RANGE is minus 60°C to 85°C. Full nameplate voltage rating applies in the temperature range from minus 50°C to plus 60°C.

LIFE CHARACTERISTICS At full nameplate DC voltage in the temperature range of minus 50°C to plus 60°C mean life is 10,000 hours of operation. For temperatures above 60°C to 85°C derate the operating voltage according to the derating curve to maintain the 10,000 hour life expectancy. For increased life at any temperature range voltage derating to 87% will double and derating to 75% will quadruple life expectancy.

TYPE PM POLYSTYRENE DIELECTRIC CAPACITORS

PART NUMBER	CAP. MFD.	VOLTS DC	SIZE D	L	NET PRICE 1/24	25/49	50/99
PM05-402	.004	50	.175	3/4	$1.08	.83	.77
PM05-502	.005	50	.175	3/4	1.08	.84	.77
PM05-602	.006	50	.175	3/4	1.09	.84	.77
PM05-103	.01	50	.185	3/4	1.09	.84	.78
PM05-203	.02	50	.312	7/8	1.19	.92	.85
PM05-303	.03	50	.312	7/8	1.21	.93	.86
PM05-403	.04	50	.312	7/8	1.22	.94	.87
PM05-503	.05	50	.400	7/8	1.28	.99	.92
PM05-603	.06	50	.400	7/8	1.30	1.00	.93
PM05-104	0.1	50	.400	1-1/8	1.35	1.04	.97
PM05-204	.2	50	.562	1-1/8	1.70	1.31	1.21
PM05-254	.25	50	.562	1-5/8	1.74	1.34	1.24
PM05-304	.3	50	.562	1-5/8	1.81	1.40	1.29
PM05-404	.4	50	.562	1-7/8	1.92	1.48	1.37
PM05-504	.5	50	.670	1-5/8	2.47	1.91	1.77
PM05-604	.6	50	.670	1-13/16	2.58	1.99	1.85
PM05-105	1.0	50	1.0	1-13/16	3.58	2.76	2.56
PM05-155	1.5	50	1.0	1-13/16	4.21	3.25	3.01
PM1-302	.003	100	.175	3/4	1.08	.83	.77
PM1-402	.004	100	.185	3/4	1.08	.84	.77
PM1-502	.005	100	.185	3/4	1.09	.84	.78
PM1-103	.01	100	.312	7/8	1.16	.89	.83
PM1-203	.02	100	.312	7/8	1.18	.91	.84
PM1-303	.03	100	.400	7/8	1.27	.98	.91
PM1-403	.04	100	.400	1-1/8	1.30	1.00	.93
PM1-503	.05	100	.400	1-1/8	1.32	1.02	.94
PM1-104	0.1	100	.562	1-1/8	1.63	1.26	1.16
PM1-204	.2	100	.562	1-7/8	1.81	1.40	1.29
PM1-254	.25	100	.670	1-5/8	2.25	1.74	1.61
PM1-304	.3	100	.670	1-13/16	2.33	1.80	1.67
PM1-404	.4	100	.750	1-13/16	2.80	2.16	2.00
PM1-504	.5	100	1.0	1-13/16	3.14	2.43	2.25
PM1-604	.6	100	1.0	1-13/16	3.33	2.57	2.38
PM2-102	.001	200	.175	3/4			
PM2-202	.002	200	.185	3/4			
PM2-302	.003	200	.185	3/4			
PM2-402	.004	200	.235	3/4			
PM2-502	.005	200	.312	7/8			
PM2-103	.01	200	.312	7/8			
PM2-203	.02	200	.400	7/8			
PM2-303	.03	200	.562	1-1/8			
PM2-403	.04	200	.562	1-1/8			
PM2-503	.05	200	.562	1-1/8			
PM2-104	0.1	200	.670	1-5/8			
PM2-204	.2	200	.750	1-13/16			
PM2-254	.25	200	.750	1-13/16			
PM2-304	.3	200	1.0	1-13/16			
PM2-404	.4	200	1.0	1-13/16			
PM4-402	.004	400	.312	7/8			
PM4-502	.005	400	.400	7/8			
PM4-103	.01	400	.400	1-1/8			
PM4-203	.02	400	.562	1-1/8			
PM4-303	.03	400	.562	1-1/8			
PM4-403	.04	400	.562	1-5/8			
PM4-503	.05	400	.562	1-7/8			
PM4-104	0.1	400	.750	1-13/16			
PM4-204	.2	400	1.0	1-13/16			
PM6-102	.001	600	.312	7/8			
PM6-202	.002	600	.312	7/8			
PM6-302	.003	600	.312	7/8			
PM6-402	.004	600	.312	7/8			
PM6-502	.005	600	.400	7/8			

TYPE PM



TYPE PM polystyrene dielectric capacitors are hermetically sealed tubular capacitors with tinned copper wire axial leads. Sizes and net prices are given for the floating case style and 20% capacitance tolerance. Each part number shown should be ordered with the suffix "BW 20" added. Other styles and tolerances are also available.

ADJUSTABLE TYPE PW

TYPE PW capacitors are adjustable hermetically sealed polystyrene capacitors in bathtub cases. The construction permits an external adjustment to be made to control the capacitance in a range of plus and minus 1% of the nominal capacitance. Terminals are solder lugs mounted on glass solder-seal bushings. Extended foil (non-inductive) construction is used.

APPLICATIONS: Type PW capacitors are especially suited to applications using LC or RC networks. Since the capacitor is adjustable over a 2% range of nominal capacitance, "on the button" frequency or tuning characteristics is easily attained. The adjustability feature permits compensating for other components which are not exactly nominal. The low power factor and dielectric absorption assure very little distortion of the AC wave, even at very low frequencies.

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C	PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PW05-124	.12	50	1-1/8	1	1-3/16	PW1-803	.08	100	1-1/8	1	1-3/16
PW05-154	.15	50	1-1/8	1	1-3/16	PW1-823	.082	100	1-1/8	1	1-3/16
PW05-224	.22	50	1-1/8	1	1-3/16	PW1-104	0.1	100	1-1/8	1	1-3/16
PW05-254	.25	50	1-3/4	1	3/4	PW1-124	.12	100	1-3/4	1	3/4
PW05-304	.30	50	1-3/4	1	3/4	PW1-154	.15	100	1-3/4	1	3/4
PW05-334	.33	50	1-3/4	1	3/4	PW1-204	.20	100	1-3/4	1	3/4
PW05-404	.40	50	1-3/4	1	3/4	PW1-224	.22	100	1-3/4	1-1/4	7/8
PW05-474	.47	50	1-3/4	1-1/4	7/8	PW1-254	.25	100	1-3/4	1-1/4	7/8
PW05-504	.50	50	1-3/4	1-1/4	7/8	PW1-304	.30	100	1-3/4	1-1/4	7/8
PW05-604	.60	50	1-3/4	1-1/4	7/8	PW1-334	.33	100	1-3/4	1-1/4	7/8
PW05-684	.68	50	1-3/4	1-1/4	7/8	PW1-404	.40	100	1-3/4	1-1/4	7/8
PW05-804	.80	50	1-3/4	1-1/4	7/8	PW1-474	.47	100	2	1-3/4	7/8
PW05-824	.82	50	1-3/4	1-1/4	7/8	PW1-504	.50	100	2	1-3/4	7/8
PW05-105	1.0	50	2	1-3/4	7/8	PW1-604	.60	100	2	1-3/4	7/8
PW05-205	2	50	2	2	1-1/8	PW1-804	.80	100	2	1-3/4	7/8
PW05-305	3	50	2	2	1-1/4	PW1-824	.82	100	2	2	1-1/8
PW05-405	4	50	2	2	1-1/2	PW1-105	1.0	100	2	2	1-1/8
						PW1-205	2	100	2	2	1-1/2

This is but a partial listing of capacitances and voltages available.

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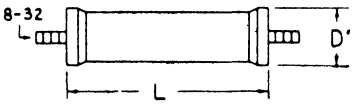
Plastic Capacitors, INC.

CHICAGO ILLINOIS

Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

GLASS CAPS TYPE OF Voltage rated for operation from —65°C to 85°C. Glass style container with 8-32x3/8" axial studs, except 19/32 diameter which has #18x2½" hot tinned copper wire. This capacitor is capable of passing environment at and electrical tests of MIL-L-25A characteristic E terminal D.



PART NUMBER	CAP. MFD	VOLTS DC	DIMENSIONS LGTH.	DIMENSIONS DIA.	LIST PRICE
OF20-502	.005	2000	1 3/16	19/32	$3.50
OF20-103	.01	2000	1 3/16	19/32	3.50
OF20-203	.02	2000	1 9/16	19/32	3.60
OF20-503	.05	2000	1 3/4	3/4	3.90
OF20-104	0.1	2000	2 1/4	3/4	4.00
OF20-254	0.25	2000	2 3/4	29/32	4.50
OF30-502	.005	3000	1 3/16	19/32	4.30
OF30-103	.01	3000	1 9/16	19/32	4.50
OF30-203	.02	3000	1 3/4	3/4	5.10
OF30-503	.05	3000	2 1/4	3/4	5.50
OF30-104	0.1	3000	1 3/4	1 1/8	6.00
OF30-254	0.25	3000	2	1 3/8	6.60
OF40-502	.005	4000	1 3/16	19/32	5.90
OF40-103	.01	4000	1 3/16	3/4	6.10
OF40-203	.02	4000	1 3/4	3/4	6.40
OF40-503	.05	4000	2	13/16	6.50
OF40-104	0.1	4000	2	1 1/8	7.40
OF40-254	0.25	4000	2 1/4	1 5/8	8.10
OF50-502	.005	5000	1 5/8	19/32	6.50
OF50-103	.01	5000	1 3/4	3/4	6.80
OF50-203	.02	5000	2 1/4	3/4	7.20
OF50-503	.05	5000	2 1/4	29/32	7.60
OF50-104	0.1	5000	2 1/4	1 3/8	8.50
OF50-254	0.25	5000	3	1 5/8	9.40
OF80-202	.002	8000	1 3/4	19/32	6.80
OF80-502	.005	8000	1 3/4	3/4	7.00
OF80-103	.01	8000	2 1/4	3/4	7.50
OF80-203	.02	8000	2 3/4	29/32	8.60
OF80-503	.05	8000	2 3/4	1 3/8	11.00
OF80-104	0.1	8000	3 5/8	1 5/8	12.50
OF100-102	.001	10 KV	1 5/8	19/32	7.20
OF100-202	.002	10 KV	1 5/8	3/4	7.40
OF100-502	.005	10 KV	1 3/4	13/16	8.50
OF100-103	.01	10 KV	2 1/4	29/32	9.20
OF100-203	.02	10 KV	2 3/4	1 1/8	11.40
OF100-503	.05	10 KV	2 3/4	1 5/8	14.60
OF100-603	.06	10 KV	3	1 5/8	15.50
OF150-102	.001	15 KV	2 1/4	3/4	13.80
OF150-202	.002	15 KV	2 1/4	3/4	14.60
OF150-502	.005	15 KV	2 3/4	1 1/8	17.00
OF150-103	.01	15 KV	3 3/4	1 1/8	20.00
OF150-203	.02	15 KV	4 1/4	1 3/8	22.00
OF150-503	.05	15 KV	7	1 5/8	26.00
OF200-501	.0005	20 KV	3 1/2	19/32	18.00
OF200-102	.001	20 KV	3 1/2	3/4	19.00
OF200-202	.002	20 KV	3 1/2	13/16	21.00
OF200-502	.005	20 KV	3 1/2	1 1/8	22.50
OF200-103	.01	20 KV	4 1/2	1 1/8	24.00
OF200-203	.02	20 KV	4 1/2	1 5/8	27.00
OF300-201	.0002	30 KV	4 9/16	19/32	21.00
OF300-501	.0005	30 KV	4 9/16	19/32	21.00
OF300-102	.001	30 KV	5	3/4	23.50
OF300-202	.002	30 KV	5	29/32	26.00
OF300-502	.005	30 KV	5	1 3/8	28.00
OF300-103	.01	30 KV	6 1/2	1 5/8	35.00
OF400-101	.0001	40 KV	5 3/4	3/4	22.50
OF400-201	.0002	40 KV	5 3/4	3/4	22.50
OF400-501	.0005	40 KV	5 3/4	3/4	22.50
OF400-102	.001	40 KV	6 1/2	13/16	26.00
OF400-202	.002	40 KV	6 1/2	1 1/8	28.00
OF400-502	.005	40 KV	6 1/2	1 5/8	33.00
OF500-101	.0001	50 KV	8 1/4	3/4	23.50
OF500-201	.0002	50 KV	8 1/4	3/4	23.50
OF500-501	.0005	50 KV	8 1/4	3/4	24.50
OF500-102	.001	50 KV	8 1/4	13/16	28.00
OF500-202	.002	50 KV	8 1/4	1 1/8	31.50
OF500-502	.005	50 KV	10 3/4	1 3/8	36.00
OF600-101	.0001	60 KV	10	3/4	24.50
OF600-201	.0002	60 KV	10	3/4	24.50
OF600-501	.0005	60 KV	10	3/4	28.00
OF600-102	.001	60 KV	10	29/32	34.00
OF600-202	.002	60 KV	10	1 3/8	36.50
OF600-502	.005	60 KV	11 1/2	1 5/8	41.50

RF AND PULSE GLASS CAPS The plastic films used in the manufacture of RF and PULSE GLASS CAPS have very low losses. These capacitors will handle large peak currents such as encountered in a 25 ohm type E plus forming network charged to the peak pulse voltage at a repetition rate of 1000 PPS.

TYPE TF VOLTAGE RATED FOR —65°C TO 125°C

PART NUMBER	CAP. MFD	VOLTS DC	PP VOLTS	DIMENSIONS LGTH.	DIMENSIONS DIA.	LIST PRICE
TF40-501	.0005	4000	3500	1 5/8	19/32	$13.10
TF40-102	.001	4000	3500	1 5/8	3/4	13.10
TF40-202	.002	4000	3500	1 5/8	13/16	14.20
TF40-502	.005	4000	3500	1 5/8	1 1/8	15.40
TF40-103	.01	4000	3500	2 1/8	1 1/8	21.10
TF40-203	.02	4000	3500	2 1/8	1 5/8	24.20
TF60-101	.0001	6000	5000	2 1/8	3/4	15.20
TF60-201	.0002	6000	5000	2 1/8	3/4	15.20
TF60-501	.0005	6000	5000	2 1/8	3/4	15.20
TF60-102	.001	6000	5000	2 1/8	3/4	15.20
TF60-202	.002	6000	5000	2 1/8	13/16	16.80
TF60-502	.005	6000	5000	2 1/8	1 3/8	18.60
TF60-103	.01	6000	5000	2 5/8	1 3/8	24.10
TF80-101	.0001	8000	7000	2 7/8	3/4	16.10
TF80-201	.0002	8000	7000	2 7/8	3/4	16.10
TF80-501	.0005	8000	7000	2 7/8	3/4	16.10
TF80-102	.001	8000	7000	2 7/8	13/16	21.20
TF80-202	.002	8000	7000	2 7/8	1 1/8	22.40
TF80-502	.005	8000	7000	2 7/8	1 5/8	29.00
TF80-103	.01	8000	7000	3 7/8	1 1/8	36.90
TF120-101	.0001	12 KV	10 KV	3 1/8	3/4	16.90
TF120-201	.0002	12 KV	10 KV	3 1/8	3/4	16.90
TF120-501	.0005	12 KV	10 KV	3 1/8	13/16	16.90
TF120-102	.001	12 KV	10 KV	3 1/8	29/32	22.50
TF120-202	.002	12 KV	10 KV	3 7/8	1 1/8	29.70
TF120-502	.005	12 KV	10 KV	4 7/8	1 3/8	40.20
TF180-101	.0001	18 KV	15 KV	4 1/4	3/4	18.00
TF180-201	.0002	18 KV	15 KV	4 1/4	3/4	18.00
TF180-501	.0005	18 KV	15 KV	4 1/4	1 1/8	25.20
TF180-102	.001	18 KV	15 KV	5 3/4	1 1/8	35.20
TF180-202	.002	18 KV	15 KV	5 3/4	1 3/8	44.10

TYPE HG VOLTAGE RATED FOR —65°C TO 65°C

PART NUMBER	CAP. MFD	VOLTS DC	P P VOLTS	DIMENSIONS LGTH.	DIMENSIONS DIA.	LIST PRICE
HG25-103	.01	2500	1500	1	1 1/8	$6.50
HG25-203	.02	2500	1500	1 1/2	1 1/8	7.10
HG25-503	.05	2500	1500	2	1 3/8	8.60
HG25-104	0.1	2500	1500	2 1/2	1 5/8	11.40
HG35-502	.005	3500	2500	1	1 1/8	7.50
HG35-103	.01	3500	2500	1	1 5/8	8.10
HG35-203	.02	3500	2500	1 1/2	1 3/8	8.50
HG35-503	.05	3500	2500	2 1/2	1 5/8	11.60
HG50-502	.005	5000	3000	2	1 1/8	10.50
HG50-103	.01	5000	3000	2	1 3/8	11.50
HG50-203	.02	5000	3000	3	1 3/8	12.50
HG50-503	.05	5000	3000	6	1 3/8	18.50
HG70-202	.002	7000	5000	2	29/32	11.00
HG70-502	.005	7000	5000	2	1 5/8	14.20
HG70-103	.01	7000	5000	4	1 1/8	17.00
HG70-203	.02	7000	5000	4	1 5/8	18.60
HG100-102	.001	10 KV	7000	3	29/32	12.00
HG100-202	.002	10 KV	7000	3	1 1/8	13.50
HG100-502	.005	10 KV	7000	6	1 1/8	21.00
HG100-103	.01	10 KV	7000	6	1 3/8	24.00
HG140-102	.001	14 KV	10 KV	4	29/32	15.30
HG140-202	.002	14 KV	10 KV	4	1 3/8	20.00
HG140-502	.005	14 KV	10 KV	8	1 1/8	24.00
HG140-103	.01	14 KV	10 KV	8	1 5/8	27.00
HG200-201	.0002	20 KV	15 KV	5 3/4	3/4	17.00
HG200-501	.0005	20 KV	15 KV	5 3/4	29/32	20.00
HG200-102	.001	20 KV	15 KV	5 3/4	1 1/8	22.50
HG200-202	.002	20 KV	15 KV	5 3/4	1 5/8	24.50
HG250-201	.0002	25 KV	20 KV	7 1/4	3/4	20.00
HG250-501	.0005	25 KV	20 KV	7 1/4	29/32	25.00
HG250-102	.001	25 KV	20 KV	7 1/4	1 3/8	31.00
HG250-202	.002	25 KV	20 KV	7 1/4	1 5/8	35.00

THE ABOVE ARE PARTIAL LISTINGS. WRITE FOR COMPLETE ENGINEERING INFORMATION.

This is but a partial listing of capacitances and voltages available.

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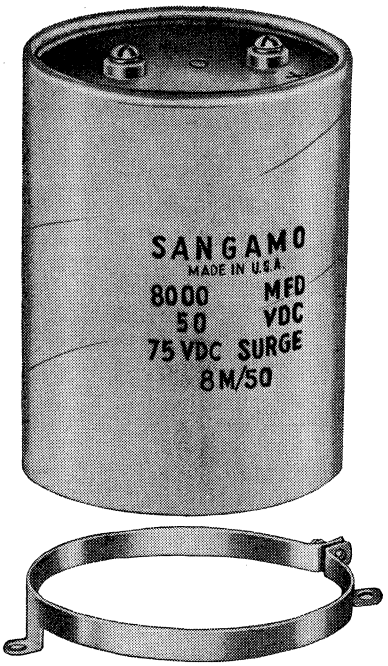
SANGAMO Electric Company capacitors Springfield, Illinois



Type DCM

COMPUTER GRADE

FILTER AND

ENERGY STORAGE

ELECTROLYTIC

The **SANGAMO** Type **DCM** is a high quality, long life, electrolytic capacitor, specially designed for use as an energy storage or filter capacitor. The Type **DCM** is enclosed in an aluminum can. As present stocks with cardboard sleeve are exhausted, units will be furnished with a clear plastic insulating sleeve. Aluminum terminals include a #10 32 machine screw and are permanently molded in the top. A pressure-sensitive vent is provided as a safety mechanism in each top. A footed, wrap-around mounting bracket is available at extra cost. For more complete information write for Engineering Bulletin 2231.

Catalog Number	Capacitance in Mf.	Working Volts DC	Diameter in inches	Length in inches	List Price
33M/5	33,000	5	2 1/16	4 1/2	$17.80
125M/5	125,000	5	3 1/16	6	39.25
10M/10	10,000	10	1 7/16	4 1/2	12.00
15M/10	15,000	10	1 13/16	4 1/2	13.50
20M/10	20,000	10	2 1/16	4 1/2	18.30
35M/10	35,000	10	2 1/16	6	25.70
60M/10	60,000	10	3 1/16	4 1/2	36.25
90M/10	90,000	10	3 1/16	6	46.50
6M/15	6,000	15	1 7/16	4 1/2	10.00
10M/15	10,000	15	1 13/16	4 1/2	12.60
14M/15	14,000	15	1 13/16	4 1/2	16.70
18M/15	18,000	15	2 1/16	4 1/2	20.00
25M/15A	25,000	15	2 1/16	6	25.75
33M/15	33,000	15	2 5/16	4 1/2	26.50
40M/15	40,000	15	3 1/16	4 1/2	29.40
50M/15	50,000	15	3 1/16	6	35.60
5M/25	5,000	25	1 7/16	4 1/2	11.15
10M/25	10,000	25	2 1/16	4 1/2	17.00
15M/25A	15,000	25	2 1/16	6	24.00
20M/25A	20,000	25	2 5/16	4 1/2	24.90
40M/25	40,000	25	3 1/16	6	41.30
1M500/35	1,500	35	1 7/16	3 1/2	7.50
4M/35	4,000	35	1 7/16	4 1/2	12.30
5M/35	5,000	35	1 13/16	4 1/2	13.80
8M/35	8,000	35	2 1/16	4 1/2	20.10
10M/35	10,000	35	2 1/16	6	24.00
15M/35	15,000	35	2 5/16	4 1/2	26.40
20M/35	20,000	35	3 1/16	4 1/2	27.00
30M/35	30,000	35	3 1/16	6	29.70
2M500/50	2,500	50	1 7/16	4 1/2	9.60
4M/50	4,000	50	1 13/16	4 1/2	12.90
5M/50	5,000	50	2 1/16	4 1/2	16.75
8M/50A	8,000	50	2 1/16	6	20.70
10M/50	10,000	50	2 5/16	4 1/2	27.00
15M/50	15,000	50	3 1/16	4 1/2	32.10
20M/50	20,000	50	3 1/16	6	39.30
1M/75	1,000	75	1 7/16	4 1/2	9.50
3M/75	3,000	75	2 1/16	4 1/2	14.75
5M/75	5,000	75	2 5/16	4 1/2	24.05
10M/75	10,000	75	3 1/16	6	38.10
1M/100	1,000	100	1 7/16	4 1/2	10.40
1M500/100A	1,500	100	1 13/16	4 1/2	11.40
3M/100A	3,000	100	2 1/16	6	22.15
4M/100A	4,000	100	2 5/16	4 1/2	$23.45
5M/100	5,000	100	3 1/16	4 1/2	25.20
5C/150	500	150	1 7/16	4 1/2	9.05
7C/150	700	150	1 7/16	4 1/2	10.15
1M/150	1,000	150	1 13/16	4 1/2	11.45
1M250/150	1,250	150	1 13/16	4 1/2	12.30
2M/150A	2,000	150	2 1/16	6	19.70
2M500/150	2,500	150	2 5/16	4 1/2	22.50
4M/150	4,000	150	3 1/16	4 1/2	29.70
6M/150	6,000	150	3 1/16	6	35.70
5C/200	500	200	1 7/16	4 1/2	9.85
7C50/200	750	200	1 13/16	4 1/2	12.65
1M500/200A	1,500	200	2 1/16	6	18.00
2M/200	2,000	200	2 5/16	4 1/2	21.60
2M500/200	2,500	200	3 1/16	4 1/2	25.44
5C/250	500	250	1 13/16	4 1/2	10.55
1M/250A	1,000	250	2 1/16	6	23.10
1M500/250	1,500	250	2 5/16	4 1/2	25.50
2C75/300	275	300	1 7/16	4 1/2	10.60
4C50/300	450	300	1 13/16	4 1/2	12.00
1M/300	1,000	300	2 5/16	4 1/2	26.40
1M500/300	1,500	300	3 1/16	4 1/2	41.70
1C50/350	150	350	1 7/16	4 1/2	8.70
3C50/350	350	350	1 13/16	4 1/2	12.95
1M/350	1,000	350	3 1/16	4 1/2	27.60
2C50/450	250	450	1 13/16	4 1/2	14.05
3C/450	300	450	2 1/16	4 1/2	14.90
5C/450A	500	450	2 1/16	6	18.90
6C/450	600	450	2 5/16	4 1/2	23.30
8C/450	800	450	3 1/16	4 1/2	27.00

NOTE—Capacitor dimensions include insulating sleeve.

NOTE—All units are supplied with screw terminals.

NOTE—Mounting brackets are furnished at extra cost.

MOUNTING BRACKETS FOR TYPE DCM

Capacitor Diameter in Inches	List Price
1 7/16	.45
1 13/16	.65
2 1/16	.70
2 5/16	.95
3 1/16	1.20

NOTE—1 7/16 bracket available with two feet only. All others available with two or three feet. Specify required number of feet.

Trade Discount Applies to List Prices Only

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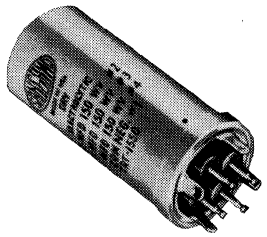
SANGAMO capacitors Electric Company Springfield, Illinois

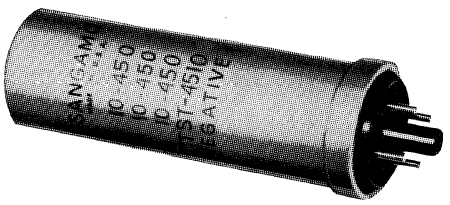
Type TR *TELEPHONE GRADE HIGH RELIABILITY ELECTROLYTIC*



SANGAMO Type **TR** "High Reliability" electrolytic capacitors are specially designed and manufactured for applications requiring an extremely high level of reliability over long periods of time. The Type **TR** is ideally suited for low-frequency filter, by-pass and coupling applications in communications equipment, electronic industrial controls, laboratory test instruments, computers and similar equipment where a high degree of reliability over a period of 10 years is essential to the operation of the equipment in which it is used. The **SANGAMO** Type **TR** "High Reliability" capacitors are designed to operate throughout the temperature range from −20°C to +85°C. For more complete information write for Engineering Bulletin 2227.

Catalog Number	Capacitance in Mf.	Working Voltage DC	Diameter In Inches	Length In Inches	List Price
SINGLE SECTION					
TR-620	2000	6	1⅜	2½	$ 8.00
TR-0110	1000	15	1	4	7.55
TR-0250	500	25	1	4	7.80
TR-0520	200	50	1	3½	7.30
TR-1510	100	150	1	4	7.70
TR-2550	50	250	1	3	6.95
TR-3520	20	350	1	2½	6.70
TR-3550	50	350	1	4	7.30
TR-4520	20	450	1	3	6.95
TR-4550	50	450	1⅜	3	8.00
DUAL SECTIONS					
TRD-1550	50-50	150	1	4	8.15
TRD-2520	20-20	250	1	3½	8.10
TRD-4510	10-10	450	1	4	7.75
TRD-4520	20-20	450	1⅜	3½	8.75
TRD-4540	40-40	450	1⅜	4	9.75
TRIPLE SECTIONS					
TRT-1550	50-50-50	150	1⅜	4	9.50
TRT-2540	40-40-40	250	1⅜	4	9.85
TRT-3520	20-20-20	350	1⅜	4	9.60
TRT-4520	20-20-20	450	1⅜	4	10.15

Type TS *TUBE SOCKET MOUNTED ELECTROLYTIC*



The Type **TS** is ideally suited for all applications where quick capacitor changes are required. These units are equipped with a four-pin octal base mounting for use with standard octal base tube sockets. The special design of the bakelite octal base insures that the aluminum container will not contact the mounting surface. The base pins are molded in the bakelite base and nickel-plated to prevent corrosion and insure good contact with the socket terminals. Case sizes are in accordance with Mil-C-62A specification, Types CE51, CE52 and CE53. For more complete information write for Engineering Bulletin 2233.

Catalog Number	Capacitance in Mf.	Working Voltage DC	Diameter In Inches	Length In Inches	List Price
TS-15850	850	15	1⅜	2½	5.10
TS-25400	400	25	1 5/32	2½	4.70
TS-251500	1500	25	1⅜	4¼	6.70
TS-50800	800	50	1⅜	4¼	5.95
TS-100180	180	100	1⅜	2½	4.95
TS-150350	350	150	1⅜	4¼	5.90
TS-200200	200	200	1⅜	3½	5.60
TS-25085	85	250	1⅜	2½	5.00
TS-300100	100	300	1⅜	3	5.35
TS-35075	75	350	1⅜	3	5.30
TS-40040	40	400	1⅜	2½	5.00
TS-45025	25	450	1 5/32	2½	4.55
TS-45080	80	450	1⅜	4¼	5.95
TSD-150160	160-160	150	1⅜	4¼	6.00
TSD-20045	45-45	200	1 5/32	2½	4.85
TSD-25070	70-70	250	1⅜	3½	4.60
TSD-30030	30-30	300	1 5/32	2½	4.90
TSD-35045	45-45	350	1⅜	3½	5.75
TSD-40030	30-30	400	1⅜	3	5.60
TSD-45020	20-20	450	1⅜	2½	5.30
TSD-45035	35-35	450	1⅜	4¼	6.00
TST-150100	100-100-100	150	1⅜	4¼	6.15
TST-20010	10-10-10	200	1 5/32	2½	4.70
TST-25020	20-20-20	250	1 5/32	2½	5.00
TST-30040	40-40-40	300	1⅜	4¼	6.10
TST-35030	30-30-30	350	1⅜	3½	5.95
TST-40020	20-20-20	400	1⅜	3½	5.85
TST-45010	10-10-10	450	1 5/32	2½	5.10
TST-45015	15-15-15	450	1⅜	3	5.65
TST-45020	20-20-20	450	1⅜	4¼	6.10

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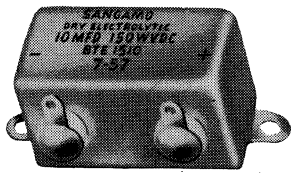
SANGAMO capacitors Electric Company Springfield, Illinois

Type BT

ELECTROLYTIC

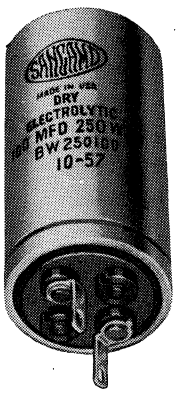
The Sangamo Type BT electrolytic capacitor is ideally suited for filter and by-pass circuits. The capacitor sections are first sealed in aluminum cases and then encased in corrosion resistant, hot tinned steel cases which provide a complete hermetic seal under extreme environmental conditions. Type BTE is furnished with two side mounted compression type silicone rubber seal terminals. Also available, Type BTF has two top terminals, Type BTD has one top terminal and Type BTC has one side terminal. On single terminal types, case is negative grounded. Case sizes are in accordance with Mil-C-62A specification, Types CE63, CE64, CE62 and CE61 respectively. For more complete information write for Bulletin No. 2233.



Catalog Number	Capacitance in Mf.	Working Voltage DC	Width In Inches	Length In Inches	Height In Inches	List Price
BTE-15100	100	15	1	1 13/16	1	4.65
BTE-2525	25	25	1	1 13/16	1	4.50
BTE-2550	50	25	1	1 13/16	1	4.60
BTE-2575	75	25	1	1 13/16	1	4.75
BTE-5025	25	50	1	1 13/16	1	4.55
BTE-5050	50	50	1	1 13/16	1	4.70
BTE-15010	10	150	1	1 13/16	1	4.65
BTE-15020	20	150	1	1 13/16	1	4.70
BTE-25010	10	250	1	1 13/16	1	4.70
BTE-30010	10	300	1	1 13/16	1	4.75
BTE-3508	8	350	1	1 13/16	1	4.75
BTE-4006	6	400	1	1 13/16	1	4.75
BTE-4504	4	450	1	1 13/16	1	5.00

Type BW

ELECTROLYTIC



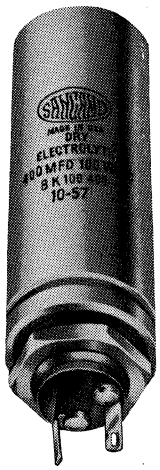
Sangamo Type BW electrolytic capacitors are contained in round drawn aluminum cans. A Neoprene rubber gasket is used between the container and the cover terminal assembly to assure a positive seal against moisture and leakage. A two footed mounting ring bracket can be furnished for one and three eights inch (1-3/8") diameter units only. Case sizes are in accordance with Mil-C-62A specifications, Types CE31, CE32 and CE33. For more complete information write for Bulletin No. 2233.

Catalog Number	Capacitance in Mf.	Working Voltage DC	Diameter In Inches	Length In Inches	List Price
BW-15320	320	15	1	3 1/4	3.50
BW-25250	250	25	1	2 3/4	3.60
BW-50150	150	50	1	2 3/4	3.50
BW-50450	450	50	1 3/8	3 1/4	4.50
BW-100400	400	100	1 3/8	4 1/4	5.00
BW-150100	100	150	1 3/8	2 1/4	4.00
BW-25025	25	250	1	2 1/4	3.45
BW-35035	35	350	1	3 1/4	3.65
BW-45025	25	450	1	3 1/4	3.70
BW-45045	45	450	1 3/8	2 3/4	4.45
BWD-150150	150-150	150	1 3/8	4 1/4	5.40
BWD-25040	40-40	250	1 3/8	2 3/4	4.70
BWD-30025	25-25	300	1 3/8	2 1/4	4.55
BWD-45010	10-10	450	1 3/8	2 1/4	4.95
BWT-15020	20-20-20	150	1 3/8	2 1/4	5.05
BWT-20050	50-50-50	200	1 3/8	3 3/4	5.75
BWT-30040	40-40-40	300	1 3/8	4 1/4	6.10
BWT-45012	12-12-12	450	1 3/8	2 3/4	5.50

NOTE: 1 3/8" Two or Three Footed Bracket available. Add $.45 to List Price.

Type BK

ELECTROLYTIC



Sangamo Type BK electrolytic capacitors are sealed in a drawn aluminum case with the cover terminal assembly sealed by a Neoprene rubber gasket to provide a positive seal against moisture and leakage. The cover terminal assembly is equipped with a 7/8-16 threaded neck with a hex nut for mounting purposes. Case sizes are in accordance with Mil-C-62A specifications, Types CE41 and CE42. For more complete information write for Bulletin No. 2233.

Catalog Number	Capacitance in Mf.	Working Voltage DC	Diameter In Inches	Length In Inches	List Price
BK-152000	2000	15	1 3/8	4 1/4	6.40
BK-5050	50	50	1 3/8	2 1/4	5.10
BK-50750	750	50	1 3/8	4 1/4	5.95
BK-150100	100	150	1 3/8	2 1/4	4.85
BK-150200	200	150	1 3/8	3 1/4	5.35
BK-20010	10	200	1 3/8	2 1/4	4 55
BK-250160	160	250	1 3/8	4 1/4	5.80
BK-30050	50	300	1 3/8	2 1/4	4.95
BK-300150	150	300	1 3/8	4 1/4	6.05
BK-45010	10	450	1 3/8	2 1/4	4.65
BK-45025	25	450	1 3/8	2 1/4	4.90
BK-45080	80	450	1 3/8	4 1/4	6.05
BKD-150150	150-150	150	1 3/8	4 1/4	6.55
BKD-35020	20-20	350	1 3/8	2 1/4	5.70
BKD-45020	20-20	450	1 3/8	2 3/4	6.00
BKD-45040	40-40	450	1 3/8	4 1/4	6.80

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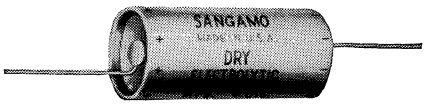
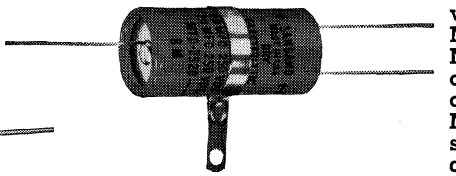
SANGAMO capacitors Electric Company Springfield, Illinois

Types MT, MMT and MTD, Electrolytics



TYPE MT

TYPE MMT


TYPE MTD

SANGAMO Types MT, MTD and MMT are specially designed for radio and television applications and other electronic equipment operating at temperatures up to 85°C. They are encased in drawn aluminum containers with cardboard insulating sleeves on which polarity is clearly marked. The Type MMT, which is a miniature version of the MT, is ideally suited to meet the precise operating requirements of low voltage circuits. Because of their small physical size the MMT and MT, up to ¾" diameter, are self-supported by means of reinforced bare tinned copper wire leads. The MT and MTD units are provided with mounting straps in ⅞" and 1" diameters.

SINGLE SECTION MT AND MMT

Catalog Number	Capacitance in Mf	Working Volts DC	Diameter In Inches	Length In Inches	List Price	Catalog Number	Capacitance in Mf	Working Volts DC	Diameter In Inches	Length In Inches	List Price
MMT-325	25	3	3/8	1 1/16	$ .85	MT-1520	20	150	5/8	1 1/16	1.20
MMT-350	50	3	3/8	1 1/16	.95	MT-1525	25	150	5/8	1 5/16	1.25
MT-101	200	3	1/2	1 1/16	1.25	MT-1530	30	150	5/8	1 5/16	1.30
MT-103	500	3	5/8	1 5/16	1.50	MT-1540	40	150	5/8	1 5/16	1.35
MT-105	1000	3	3/4	1 5/16	1.75	MT-1550	50	150	3/4	1 5/16	1.40
MMT-605	5	6	3/8	1 1/16	.80	MT-1560	60	150	3/4	1 5/16	1.45
MMT-625	25	6	3/8	1 1/16	.85	MT-1580	80	150	3/4	1 13/16	1.60
MMT-650	50	6	3/8	1 1/16	.95	MT-15100	100	150	7/8	1 5/16	1.75
MMT-680	80	6	1/2	1 1/16	.90	MT-15150	150	150	1	1 5/16	1.90
MT-107	100	6	1/2	1 1/16	1.20	MT-15200	200	150	1	2 5/16	2 20
MT-109	250	6	1/2	1 5/16	1.35	MT-15300	300	150	1	2 7/8	2.55
MT-111	500	6	5/8	1 5/16	1.55	MT-2504	4	250	1/2	1 1/16	1.00
MT-113	1000	6	3/4	1 5/16	1.90	MT-2508	8	250	5/8	1 1/16	1.15
MT-115	1500	6	3/4	1 13/16	2.10	MT-2510	10	250	5/8	1 5/16	1.20
MT-117	2000	6	7/8	2 1/16	2.30	MT-2512	12	250	5/8	1 5/16	1.25
MT-119	100	12	1/2	1 5/16	1.20	MT-2516	16	250	5/8	1 5/16	1.30
MT-121	250	12	5/8	1 5/16	1.45	MT-2520	20	250	5/8	1 13/16	1.35
MT-123	500	12	3/4	1 5/16	1.70	MT-2530	30	250	3/4	1 13/16	1.45
MT-125	1000	12	7/8	2 1/16	2.25	MT-2540	40	250	7/8	1 5/16	1 55
MT-127	100	15	1/2	1 5/16	1.25	MT-25100	100	250	1	2 5/16	2.40
MT-129	250	15	5/8	1 5/16	1.55	MMT-3003	3	300	1/2	1 1/16	1.00
MT-131	500	15	3/4	1 5/16	1.75	MT-3504	4	350	5/8	1 1/16	1.05
MT-133	1000	15	7/8	2 1/16	2.30	MT-3508	8	350	5/8	1 5/16	1.20
MT-135	2000	15	1	2 7/8	3.20	MT-3510	10	350	5/8	1 13/16	1.25
MMT-0210	10	25	3/8	1 1/16	1.00	MT-3516	16	350	3/4	1 13/16	1.40
MMT-0220	20	25	3/8	1 1/16	1.00	MT-3520	20	350	7/8	1 5/16	1.50
MT-0225	25	25	1/2	1 1/16	1.05	MT-3530	30	350	1	1 13/16	1.65
MT-0250	50	25	1/2	1 1/16	1.10	MT-3540	40	350	1	2 1/16	1.75
MT-02100	100	25	5/8	1 1/16	1.35	MT-3560	60	350	1	2 7/8	1.95
MT-02250	250	25	3/4	1 5/16	1.70	MMT-4501	1	450	3/8	1 1/16	1.00
MT-02500	500	25	3/4	1 13/16	2.30	MT-4502A	2	450	1/2	1 1/16	1.00
MT-0501	1	50	1/2	1 1/16	.90	MMT-4503	3	450	1/2	1 5/16	1.00
MT-0502	2	50	1/2	1 1/16	.95	MT-4504	4	450	5/8	1 5/16	1.15
MT-0504	4	50	1/2	1 1/16	1.00	MT-4508	8	450	3/4	1 5/16	1.25
MMT-0505	5	50	3/8	1 1/16	1.00	MT-4510	10	450	3/4	1 5/16	1.30
MMT-0510	10	50	3/8	1 1/16	1.00	MT-4512	12	450	3/4	1 13/16	1.35
MT-0520	20	50	1/2	1 1/16	1.05	MT-4516	16	450	3/4	2 5/16	1.40
MT-0525	25	50	1/2	1 1/16	1.05	MT-4520	20	450	7/8	1 13/16	1.55
MMT-0530	30	50	1/2	1 5/16	1.05	MT-4530	30	450	1	1 13/16	1.70
MT-0550	50	50	5/8	1 1/16	1.20	MT-4540	40	450	1	2 5/16	1.85
MT-05100	100	50	5/8	1 5/16	1.40	MT-4550	50	450	1	2 7/8	2.10
MT-05150	150	50	3/4	1 5/16	1.55	MT-4560	60	450	1	3 3/16	2.35
MT-05250	250	50	7/8	1 5/16	1.75	MT-4580	80	450	1	3 11/16	2.80
MT-1504	4	150	1/2	1 1/16	1.00	MT-4710	10	475	3/4	1 13/16	1.35
MMT-1505	5	150	3/8	1 1/16	1.00	MT-4720	20	475	7/8	2 5/16	1.60
MT-1508	8	150	1/2	1 1/16	1.00	MT-5008	8	500	7/8	1 5/16	1.30
MT-1510	10	150	1/2	1 1/16	1.05	MT-5010	10	500	7/8	1 5/16	1.40
MT-1512	12	150	1/2	1 5/16	1.10	MT-5016	16	500	7/8	2 1/16	1.50
MT-1516	16	150	5/8	1 1/16	1.15	MT-5020	20	500	1	1 13/16	1.60

DUAL SECTION MTD

MTD-1520	20-20	150	7/8	1 1/16	1.65	MTD-3520	20-20	350	1	2 7/8	2.25
MTD-1530	30-30	150	7/8	1 5/16	1.75	MTD-4508	8-8	450	7/8	1 5/16	1.70
MTD-302	40-20	150	7/8	1 5/16	1.75	MTD-4510	10-10	450	7/8	1 13/16	1.85
MTD-304	40-30	150	7/8	1 13/16	1.85	MTD-4520	20-20	450	1	2 7/8	2.50
MTD-1540	40-40	150	7/8	1 13/16	1.95	MTD-4530	30-30	450	1	3 3/16	3.00
MTD-301	50-30	150	7/8	1 13/16	1.95	MTD-4540	40-40	450	1	3 11/16	3.40
MTD-1550	50-50	150	7/8	2 1/16	2.10						
MTD-303	80-40	150	7/8	2 1/16	2.25						
MTD-2520	20-20	250	7/8	1 13/16	1.85						

NOTE: Dimensions are for metal cases. Add 1/16" to diameter and 3/16" to length for cardboard insulating sleeve.

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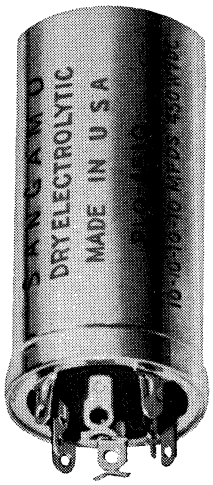
SANGAMO *Electric Company*
capacitors *Springfield, Illinois*

Type PL and Type PLP Electrolytic

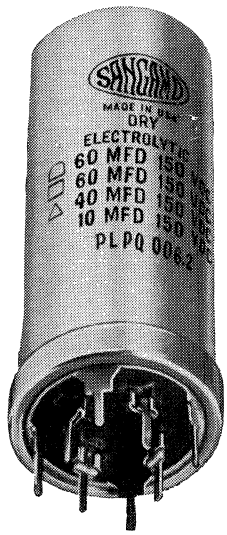


TYPE PL
For Twist Tab Mounting

The Sangamo Types PL and PLP, "Twist Tab", electrolytic capacitors are specially designed for television and electronic applications requiring long life and dependable performance at 85°C. They are sealed in round aluminum cans with the element tabs securely clamped and staked to the terminal lugs, thus insuring permanent, low resistance connections. In all cases the aluminum can and mounting ring are negative. Because of the rigid replacement applications found in most television receivers, all units are manufactured to satisfy conditions of high ripple currents and high surge voltages in Selenium Rectifier Circuits.

The Type PLP has a combination base allowing interchangeable use for mounting in printed circuit boards and also for conventional twist tab mounting.

The listing in this catalog includes over 300 new values to give more complete coverage of combination capacitances and higher voltages. The new numbering system combines the type designation with the former stock numbering system. "Old PL Numbers" are to be used for reference purposes only and will be discontinued at a later date.



TYPE PLP
For Printed Circuit Mounting

SINGLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price	New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
‡PLPS-002		750	6	¾x2	2.00	PLS-140	PL-2540	40	250	1 x2	2.10
PLS-005	PL-7001	2000	6	1⅜x2	3.00	†PLS-150	PL-2560	60	250	1 x2½	2.25
‡PLPS-012		2500	10	1 x3	2.95	PLS-155	PL-2580	80	250	1 x3	2.50
PLS-015	PL-700	3000	10	1⅜x2	3.65	‡PLS-157		100	250	1 x3	2.70
‡PLPS-016		225	15	¾x2	1.75	†PLS-160	PL-25150	150	250	1⅜x3	3.10
‡PLPS-018		400	15	¾x2	1.95	‡PLPS-161		150	250	1⅜x2½	3.10
*PLPS-020	PL-701	1000	15	1 x2	2.55	‡PLPS-163		200	250	1⅜x2½	3.70
*PLS-025	PL-703	2000	15	1⅜x2	3.45	†PLS-170	PL-3030	30	300	1 x2	2.05
‡PLS-026		3000	15	1⅜x2	3.75	PLS-175	PL-3050	50	300	1 x2½	2.40
PLPS-030	PL-0240	40	25	¾x2	1.35	PLS-185	PL-3080	80	300	1 x3	2.55
PLS-035	PL-02100	100	25	¾x2	1.85	*PLS-190	PL-30100	100	300	1 x3	2.90
‡PLPS-038		400	25	1 x2	2.35	*PLS-195	PL-30125	125	300	1⅜x3	3.50
*PLPS-040	PL-02500	500	25	1 x2	2.55	*PLS-200	PL-30150	150	300	1⅜x3	3.50
PLS-045	PL-705	1000	25	1⅜x2	3.65	*PLS-201	PL-30200	200	300	1⅜x3½	4.50
‡PLPS-047		1500	25	1 x2½	3.75	PLS-205	PL-3520	20	350	1 x2	1.90
‡PLPS-052		100	50	¾x2	1.70	PLS-210	PL-3530	30	350	1 x2	1.90
PLS-055	PL-05150	150	50	1 x2	1.80	PLS-215	PL-3540	40	350	1 x2	2.00
PLS-057	PL-05250	250	50	1 x2	2.50	PLS-220	PL-3550	50	350	1 x2½	2.10
*PLS-060	PL-05500	500	50	1⅜x2	2.65	PLS-225	PL-3580	80	350	1⅜x2½	2.85
‡PLS-062		1000	50	1⅜x2	3.70	*PLS-230	PL-35125	125	350	1⅜x3	3.15
‡PLPS-063		1250	50	1⅜x2½	3.85	PLS-232	PL-35150	150	350	1⅜x3	3.95
‡PLS-064		1500	50	1⅜x2½	4.00	PLS-240	PL-4080	80	400	1⅜x2½	3.65
*PLS-065	PL-1520	20	150	1 x2	1.80	PLS-241	PL-40100	100	400	1⅜x2½	3.75
PLS-070	PL-1530	30	150	1 x2	1.55	†PLS-245	PL-4504	4	450	1 x2	1.50
PLS-075	PL-1540	40	150	1 x2	1.85	PLPS-250	PL-4510	10	450	1 x2	1.55
PLS-080	PL-1550	50	150	1 x2	1.65	PLPS-255	PL-4515	15	450	1 x2	1.70
PLS-085	PL-1580	80	150	1 x2	1.85	PLS-260	PL-4520	20	450	1 x2	1.80
PLS-090	PL-15100	100	150	1 x2	2.00	‡*PLPS-260.1		20	450	1 x2	1.80
*PLS-095	PL-15120	120	150	1⅜x2	2.25	*PLS-265	PL-4530	30	450	1 x2½	1.95
‡*PLPS-096		120	150	1 x2½	2.25	*PLS-270	PL-4540	40	450	1 x2½	2.05
†PLS-100	PL-15140	140	150	1⅜x2½	2.15	*PLS-275	PL-4550	50	450	1 x2½	2.35
‡*PLPS-101		140	150	1 x2½	2.15	PLS-277	PL-4560	60	450	1⅜x2½	2.60
†PLS-105	PL-15150	150	150	1⅜x2½	2.25	*PLS-280	PL-4580	80	450	1⅜x2½	3.05
‡*PLPS-106		150	150	1 x2½	2.25	*PLS-285	PL-45100	100	450	1⅜x3	3.45
*PLS-110	PL-15200	200	150	1⅜x2	2.45	*PLS-290	PL-45125	125	450	1⅜x3	3.85
†PLS-115	PL-15300	300	150	1⅜x3½	3.10	PLPS-295	PL-4730	30	475	1 x2½	2.40
‡*PLPS-116		300	150	1⅜x3	3.10	PLS-300	PL-4740	40	475	1⅜x2	2.50
‡PLPS-117		375	165	1⅜x3	3.10	†PLS-305	PL-4790	90	475	1⅜x3½	4.40
PLS-120	PL-2040	40	200	1 x2	2.10	PLS-310	PL-5010	10	500	1 x2	1.60
‡PLS-122		120	200	1⅜x2	2.20	PLS-315	PL-5020	20	500	1 x2	1.85
‡PLPS-124		160	200	1⅜x2½	3.00	PLPS-325	PL-5030	30	500	1 x2½	2.00
†PLS-125	PL-2515	15	250	1 x2	1.55	‡PLPS-327		40	500	1 x2½	2.50
PLS-130	PL-2520	20	250	1 x2	1.60	‡PLS-329		80	500	1⅜x3	3.20
PLS-135	PL-2530	30	250	1 x2	2.00	‡PLS-330		90	500	1⅜x3	3.50

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

Trade Discount Applies to List Prices Only
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SANGAMO capacitors Electric Company Springfield, Illinois

TYPE PL and TYPE PLP *electrolytic*—continued . . .

DOUBLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price	New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
†PLD-010	PLD-7059	100-100	10	1 x2	1.75	‡PLD-197.1		80-60	400	1⅜x3	4.85
PLD-015	PLD-706	1000-1000	15	1⅜x2½	4.40	‡PLD-198.1		120-40	400	1⅜x4	5.20
‡PLPD-016		250-250	16	1 x2	2.75	‡PLD-199		5-5	450	1 x2	1.70
‡PLPD-016.1		800-250	16	1 x2	3.35	*PLD-200	PLD-4510	10-10	450	1 x2	1.90
‡PLPD-017		250-250	20	1 x2	2.85	PLD-207	PLD-4515	15-15	450	1 x2½	2.25
‡PLPD-018		500-100	20	1 x2	3.10	PLD-210	PLD-7185	20-10	450	1 x2½	2.25
‡PLPD-019		800-250	20	1 x2	3.85	*PLD-215	PLD-4520	20-20	450	1 x2½	2.55
†PLD-020		40-40	25	1 x2	2.00	PLD-220	PLD-7186	25-20	450	1 x3	2.65
PLD-025		150-50	25	1 x2	2.40	‡PLD-223		30-10	450	1 x3	2.50
‡PLPD-026		400-200	25	1 x2	3.00	*PLD-225	PLD-4530	30-30	450	1⅜x2½	3.05
‡PLPD-027		1000-1000	25	1⅜x2½	6.00	PLD-230	PLD-7187	40-20	450	1⅜x2½	3.05
‡PLPD-029		1500-1500	25	1⅜x2½	6.85	*PLD-235	PLD-4540	40-40	450	1⅜x2½	3.45
PLD-030	PLD-0550	50-50	50	1 x2	1.70	‡PLD-236		50-50	450	1⅜x3	3.85
‡PLD-036		100-100	50	1 x2	2.10	‡PLD-237		60-20	450	1⅜x3	3.55
PLD-040	PLD-1520	20-20	150	1 x2	1.70	*PLD-240	PLD-7188	60-40	450	1⅜x3	3.95
†PLD-045	PLD-707	30-15	150	1 x2	2.20	‡PLD-243		60-60	450	1⅜x3	4.50
‡PLD-047		30-20	150	1 x2	2.00	*PLD-245	PLD-719	80-10	450	1⅜x3	3.60
PLD-050	PLD-1530	30-30	150	1 x2	1.85	‡PLD-247		80-20	450	1⅜x3	3.85
*PLD-055	PLD-712	40-20	150	1 x2	1.85	PLD-250	PLD-7193	80-30	450	1⅜x3½	4.15
PLD-057	PLD-713	40-30	150	1 x2	1.85	PLD-255	PLD-7195	80-40	450	1⅜x3½	4.50
*PLD-060	PLD-1540	40-40	150	1 x2	1.90	‡PLD-257		100-40	450	1⅜x4	4.80
*PLD-065	PLD-716	50-30	150	1 x2	2.00	‡PLD-258		15-15	475	1 x2½	2.35
‡PLPD-067		50-30	150	1 x2	2.00	†PLD-260	PLD-4720	20-20	475	1 x3	3.35
*PLD-070	PLD-1550	50-50	150	1 x2	2.15	‡PLD-262		30-10	475	1⅜x2	2.65
PLD-075	PLD-7163	60-20	150	1 x2	2.10	‡PLD-263		40-10	475	1⅜x2	3.10
PLD-080	PLD-1560	60-60	150	1 x2	2.35	*PLD-265	PLD-4740	40-40	475	1⅜x2½	4.75
‡PLPD-082		70-30	150	1 x2	2.20	‡PLD-267		80-50	475	1⅜x4	5.05
‡PLD-084		75-75	150	1 x3	2.60	‡PLD-268		10-10	500	1 x2	2.00
PLPD-085	PLD-7165	80-40	150	1 x2½	2.30	PLD-270	PLD-5020	20-20	500	1⅜x2½	2.85
‡PLD-085.2		80-80	150	1⅜x2	2.65	‡PLD-272		30-10	500	1⅜x2½	2.85
PLD-086	PLD-71653	100-30	150	1 x2½	2.80	‡PLPD-273		30-30	500	1⅜x3	3.25
‡PLPD-086.1		100-50	150	1 x2½	2.75	PLD-275	PLD-5040	40-40	500	1⅜x3	4.30
PLPD-087	PLD-15120	120-120	150	1⅜x2½	3.35	‡PLD-277		60-40	500	1⅜x3½	4.60
‡PLPD-087.1		125-100	150	1⅜x2½	3.45	PLD-285	PLD-7197	250/1000	10/6	1⅜x2	2.85
PLD-088	PLD-71656	200-5	150	1⅜x2½	2.90	PLD-288	PLD-7196	50/500	150/5	1 x2½	2.45
‡PLPD-089		200-5	150	1⅜x2½	2.90	†PLD-290	PLD-7198	40/20	150/25	1 x2	2.15
PLPD-090	PLD-7166	200-125	150	1⅜x2½	3.75	†PLD-295	PLD-7199	40/150	150/25	1 x2	2.55
‡PLPD-092		200-150	150	1⅜x2½	3.75	‡PLD-297		50/150	150/25	1 x2	2.60
PLD-095	PLD-15200	200-200	150	1⅜x4	4.00	PLPD-300	PLD-7199.5	150/100	150/25	1⅜x2½	2.70
‡PLPD-095.1		200-200	150	1⅜x2½	4.00	‡PLPD-303		50/100	200/150	1⅜x2	2.80
‡PLPD-096.1		40-20	200	1 x2	2.05	‡PLD-305.1		100/150	250/50	1⅜x2½	3.65
PLD-097	PLD-2060	60-60	200	1⅜x2	2.75	‡PLD-305.3		35/500	300/6	1 x2½	2.80
PLD-100	PLD-20100	100-100	200	1⅜x2	3.50	‡PLPD-305.5		2/20	300/25	1 x2	1.50
‡PLPD-102		200-5	200	1⅜x2½	3.00	†PLD-310	PLD-720	20/20	300/25	1 x2	2.30
†PLD-105	PLD-2510	10-10	250	1 x2	1.70	‡PLPD-312		10/10	300/50	1 x2	1.65
PLPD-110	PLD-2520	20-20	250	1 x2	1.90	‡PLPD-314		150/100	300/150	1⅜x3½	4.50
*PLPD-115	PLD-2540	40-40	250	1 x2	2.50	PLD-322	PLD-7202.5	80/100	350/50	1⅜x2½	5.65
‡PLD-117		150-150	250	1⅜x4	5.10	†PLD-325	PLD-7203	20/30	350/250	1 x3	2.90
‡PLD-118		200-200	250	1⅜x4	6.00	†PLD-330	PLD-7204	60/80	350/250	1⅜x3½	4.30
PLPD-120	PLD-3010	10-10	300	1⅜x2	1.95	†PLD-340	PLD-7205	30/30	350/300	1 x3	3.30
†PLD-130	PLD-3040	40-40	300	1⅜x2½	3.25	‡PLD-341		35/100	400/50	1 x3	2.60
†PLD-140	PLD-7167	80-40	300	1⅜x3	4.00	†PLD-342	PLD-7206	40/100	400/50	1⅜x2	3.40
PLD-145	PLD-3080	80-80	300	1⅜x3	4.05	PLD-343	PLD-7206.1	100/30	400/50	1⅜x3	3.90
PLD-148	PLD-30100	100-100	300	1⅜x3½	4.10	PLD-344	PLD-7206.2	80/80	400/200	1⅜x3	3.95
PLD-150	PLD-715	120-20	300	1⅜x3	4.00	†PLD-344.2	PLD-7206.5	100/80	400/350	1⅜x4	3.95
‡PLD-153		120-40	300	1⅜x3½	4.35	PLPD-345	PLD-7207	10/20	450/25	1 x2	1.70
PLD-155	PLD-3515	15-15	350	1 x2	2.25	PLPD-350	PLD-7209	20/20	450/25	1 x2	2.50
PLD-160	PLD-3520	20-20	350	1 x2	2.30	PLD-355	PLD-7215	40/20	450/25	1 x3	3.05
PLD-166	PLD-3530	30-30	350	1 x3	2.90	‡PLD-363		50/100	450/50	1⅜x2½	3.00
PLD-167	PLD-3540	40-40	350	1⅜x2½	4.00	PLD-365	PLD-726	80/50	450/50	1⅜x2½	3.50
PLD-170	PLD-7177	50-30	350	1⅜x2½	3.15	‡PLD-367		80/100	450/50	1⅜x2½	3.75
‡PLD-171		80-20	350	1⅜x2½	3.50	PLD-370	PLD-7261	20/100	450/100	1⅜x2½	2.95
‡PLD-173		80-40	350	1⅜x2½	3.80	†PLD-375	PLD-7263	30/40	450/150	1⅜x2	3.15
PLD-175	PLD-3580	80-80	350	1⅜x3½	4.70	‡PLD-377		30/200	450/150	1⅜x2½	3.50
†PLD-176	PLD-7178	90-40	350	1⅜x3	4.30	‡PLD-385.2		20/50	450/250	1 x3	2.75
PLD-177	PLD-7179	100-40	350	1⅜x3	5.75	PLD-390	PLD-721	20/80	450/350	1⅜x3	3.65
*PLD-178	PLD-7179.1	100-60	350	1⅜x3½	4.80	†PLD-395	PLD-7217	25/15	450/350	1 x3	3.20
‡PLD-178.1		100-100	350	1⅜x3½	6.15	PLD-400	PLD-722	40/10	450/350	1⅜x2	2.60
‡PLD-179		160-10	350	1⅜x3	4.30	‡PLPD-406		2/20	450/400	1 x2	1.45
PLD-185	PLD-4040	40-40	400	1⅜x3	4.00	‡PLD-413		20/100	475/400	1⅜x3½	4.50
PLD-190	PLD-4060	60-60	400	1⅜x3	4.75	‡PLD-414		60/80	500/150	1⅜x3	3.90
PLD-195	PLD-717	80-10	400	1⅜x2½	4.25	PLD-415	PLD-728	40/50	500/200	1⅜x3	3.95
PLD-197	PLD-717.1	80-20	400	1⅜x2½	4.55						

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

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SANGAMO Electric Company capacitors Springfield, Illinois

TYPE PL and TYPE PLP *electrolytic*—continued . . .

TRIPLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price	New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
‡PLPT-001		250-250-50	16	1 x2	3.25	†PLT-185	PLT-4710	10-10-10	475	1 x3	3.50
‡PLPT-002		500-250-250	16	1 x2	4.30	*PLT-190	PLT-742	30-30-20	475	1⅜x3	4.45
*PLT-005	PLT-0220	20-20-20	25	1 x2	1.95	‡PLT-195.1		40-20-20	475	1⅜x3	4.60
*PLT-010	PLT-0240	40-40-40	25	1 x2	2.15	‡PLT-196		40-30-10	475	1⅜x3	4.60
†PLT-015	PLT-0530	30-30-30	50	1 x2	3.25	‡*PLT-196.1		40-30-30	475	1⅜x3½	5.10
*PLT-020	PLT-1520	20-20-20	150	1 x2	2.30	†PLT-197	PLT-7421	40-35-10	475	1⅜x3	6.85
PLT-025	PLT-730	30-30-10	150	1 x2	3.00	PLT-200	PLT-5010	10-10-10	500	1 x3	3.50
PLPT-028		30-30-30	150	1 x2	2.55	PLT-205	PLT-7425	30-20-20	500	1⅜x3	4.20
PLT-030	PLT-7305	40-20-10	150	1 x2	2.35	‡PLT-208.1		40-10-10	500	1⅜x3	4.00
*PLT-035	PLT-731	40-20-20	150	1 x2	2.40	‡PLT-209		40-40-10	500	1⅜x3½	5.00
PLT-040	PLT-738	40-30-20	150	1 x2	2.50	†PLT-225	PLT-7471	30-20/100	150-150/10	1 x2	3.60
‡PLPT-043		40-40-20	150	1 x2	2.60	†PLT-230	PLT-7473	30-30/200	150-150/10	1 x2	3.75
*PLT-045	PLT-1540	40-40-40	150	1 x2	2.60	†PLT-235	PLT-7475	40-20/150	150-150/10	1 x2	2.40
‡PLPT-046		50-30-20	150	1 x2	2.60	PLT-240	PLT-7477	40-20/200	150-150/10	1 x2½	3.00
‡PLT-047		50-40-10	150	1 x2	2.60	‡PLPT-240.1		70-30/100	150-150/10	1 x2½	2.80
‡PLPT-048		50-40-30	150	1 x2	2.75	‡PLT-240.2		80-30/300	150-150/10	1⅜x2	3.15
*PLT-050	PLT-1550	50-50-50	150	1 x2½	3 00	‡PLPT-241		80-60/250	150-150/10	1 x2½	3.30
‡*PLT-051		60-40-20	150	1 x2½	2.70	‡PLPT-241.1		90-40/400	150-150/10	1 x2½	3.50
†PLT-052	PLT-7381	60-40-40	150	1 x3	3.00	PLT-242	PLT-7479	100-80/200	150-150/10	1⅜x2	3.60
‡PLPT-052.1		60-60-40	150	1⅜x2	3.00	†PLT-245	PLT-748	20-20/20	150-150/25	1 x2	3.25
‡PLPT-053		70-15-15	150	1 x2½	2.65	†PLT-250	PLT-750	30-20/20	150-150/25	1 x2	3.40
‡PLT-054		70-40-40	150	1 x2½	3 50	†PLT-255	PLT-751	30-30/20	150-150/25	1 x2	3.55
PLT-055	PLT-7385	80-40-20	150	1 x2½	2.90	PLPT-260	PLT-749	40-20/20	150-150/25	1 x2	2.30
‡PLPT-058		80-60-20	150	1 x2½	3.10	PLT-265	PLT-7517	40-20/100	150-150/25	1 x2½	3.00
†PLT-060	PLT-1580	80-80-80	150	1⅜x3	5.65	PLT-270	PLT-7519	40-20/200	150-150/25	1 x2½	3.25
PLT-065	PLT-7387	120-80-40	150	1⅜x3	3.80	†PLT-275	PLT-752	40-30/20	150-150/25	1 x2	3.55
‡PLT-066		120-120-40	150	1⅜x3	4.10	PLT-285	PLT-7525	40-40/20	150-150/25	1 x2	2.40
‡*PLT-066.1		200-100-60	150	1⅜x3½	4.60	†PLT-290	PLT-7526	40-40/40	150-150/25	1 x2½	3.95
‡PLT-066.2		200-150-150	150	1⅜x3½	7.25	‡PLT-292		40-40/250	150-150/25	1 x2½	3.15
†PLT-070	PLT-739	10-15-15	250	1 x2	3.70	*PLT-295	PLT-7527	50-30/20	150-150/25	1 x2	2.60
†PLT-075	PLT-7393	20-20-10	250	1 x2½	3.75	PLT-300	PLT-753	50-30/100	150-150/25	1 x2½	2.70
PLT-076	PLT-7394	20-20-20	250	1 x2	2.60	PLT-305	PLT-754	50-50/20	150-150/25	1 x2½	2.70
†PLT-085	PLT-7397	40-20-10	250	1⅜x2	4.25	†PLT-310	PLT-7541	60-40/25	150-150/25	1 x3	3.85
*PLT-090	PLT-740	40-20-20	250	1 x2½	2.90	‡PLPT-311		70-30/20	150-150/25	1 x2½	3.50
‡PLT-091		80-10-10	250	1 x2½	3.20	‡PLT-312		80-40/20	150-150/25	1 x2½	2.85
‡PLT-092		80-80-60	250	1⅜x3	4.85	‡PLT-313		80-40/300	150-150/25	1⅜x2	3.70
†PLT-095	PLT-3010	10-10-10	300	1 x2	2.40	†PLT-315	PLT-7543	120-60/20	150-150/25	1⅜x2½	5.00
†PLT-100	PLT-3020	20-20-20	300	1 x3	3.00	‡PLT-316		60/200-140	200/150-150	1⅜x3½	4.80
‡PLPT-102.1		60-20-10	300	1⅜x2	3.50	†PLT-320	PLT-7545	30-20/20	200-200/25	1 x2½	3.75
‡PLT-103		80-40-40	300	1⅜x3	4.65	PLT-321	PLT-7542	60-5/20	200-200/50	1 x2	2.50
‡PLPT-103.1		120-50-40	300	1⅜x4	5.80	†PLT-323	PLT-7544	80-10/20	200-200/50	1 x3	2.80
‡PLPT-104		150-100-30	300	1⅜x4	5.85	‡PLT-326.1		30-20/40	200-200/150	1 x2	2.65
PLT-105	PLT-3510	10-10-10	350	1 x2	2.50	‡PLT-328		80/40/50	250/150/50	1⅜x2	2.60
PLPT-107	PLT-3520	20-20-20	350	1 x3	3.20	PLT-330	PLT-757	15-15/20	250-250/25	1 x2	2.35
‡PLT-107.1		30-20-10	350	1 x2½	3.20	†PLT-335	PLT-7575	20-15/20	250-250/25	1 x2	3.55
PLPT-108	PLT-3540	40-40-40	350	1⅜x3	5.45	PLT-340	PLT-758	30-30/20	250-250/25	1 x2½	2.80
PLPT-110		60-40-20	350	1⅜x3	4.25	†PLT-345	PLT-7585	70-70/20	250-250/50	1⅜x3	5.85
PLPT-111	PLT-7408	60-40-40	350	1⅜x3	6.00	‡PLT-347		90-90/20	250-250/50	1⅜x3	4.50
‡PLT-113		60-50-50	350	1⅜x3½	4.90	†PLT-350	PLT-7587	40-20/10	250-250/150	1⅜x2	4.15
PLT-115	PLT-7409	80-60-60	350	1⅜x4	5 50	†PLT-355	PLT-7588	40-40/10	250-250/200	1⅜x3	4.35
‡*PLT-116		90-40-20	350	1⅜x4	5.25	†PLT-360	PLT-759	80-80/60	250-250/200	1⅜x3½	6.75
‡PLT-118		100-100-10	350	1⅜x4	6.20	‡PLT-363		10/500-500	300/15-15	1⅜x2	3.90
†PLT-120	PLT-4010	10-10-10	400	1 x2½	2.60	‡PLPT-368		10/10/20	300/50/25	1 x2	2.15
†PLT-122	PLT-74092	80-40-30	400	1⅜x4	5.95	†PLT-370	PLT-7595	100/60/20	300/150/25	1⅜x3	6.00
‡PLT-123		90-10-5	400	1⅜x3	4.40	‡PLPT-371		10/20-10	300/150-150	1 x2	2.25
*PLT-125	PLT-4510	10-10-10	450	1 x2½	2.60	‡PLT-372		20/150-80	300/150-150	1⅜x3	4.00
†PLT-130	PLT-741	15-15-10	450	1 x3	4.45	‡PLT-372.1		100/200-30	300/150-150	1⅜x4	5.10
PLT-131	PLT-4515	15-15-15	450	1 x3	3.10	‡*PLT-373		100/200-60	300/150-150	1⅜x4	5.20
*PLT-135	PLT-7412	20-10-10	450	1 x3	2.90	‡PLPT-374		150/60/200	300/200/150	1⅜x4	5.75
*PLT-140	PLT-4520	20-20-20	450	1⅜x2½	3.60	PLT-375	PLT-7597	100/60-20	300/250-250	1⅜x3	4.85
PLT-145	PLT-7413	30-20-20	450	1⅜x3	3.85	‡PLT-376		200/60-20	300/250-250	1⅜x4	5.65
†PLT-150	PLT-7414	30-30-20	450	1⅜x3	6.10	†PLT-380	PLT-762	20-20/20	300-300/25	1 x2½	4.15
*PLT-155	PLT-4530	30-30-30	450	1⅜x3	4.35	†PLT-385	PLT-763	40-15/20	300-300/25	1 x3	4.45
‡PLT-157		40-10-10	450	1⅜x3	3.40	†PLT-390	PLT-7631	40-20/20	300-300/25	1⅜x2	4.65
PLT-160	PLT-74145	40-30-20	450	1⅜x3	4.30	‡PLPT-392		60-10/25	300-300/25	1⅜x2	3.75
PLT-165	PLT-7415	40-40-10	450	1⅜x3	4.15	†PLT-395	PLT-7632	30-30/25	300-300/50	1 x3	4.35
‡PLT-167		40-40-20	450	1⅜x3	4.40	‡PLT-396.1		100-10/60	300-300/50	1⅜x2½	4.00
*PLT-170	PLT-4540	40-40-40	450	1⅜x3½	4.90	‡PLT-396.2		140-100/60	300-300/50	1⅜x3½	6.00
‡PLT-172		50-40-30	450	1⅜x3½	4.90	PLT-397	PLT-7634	200-20/10	300-300/100	1⅜x4	4.90
‡PLT-173		60-20-20	450	1⅜x3	4.70	‡PLT-398		140-10/200	300-300/150	1⅜x3½	5.40
PLT-175		60-30-10	450	1⅜x3	4.60	†PLT-400	PLT-7635	10-10/15	300-300/250	1 x2	3.70
‡PLT-175.1		60-40-20	450	1⅜x3½	4.95	‡PLT-403		4/100-40	350/25-25	1 x2	3.35
*PLT-180	PLT-7419	80-40-20	450	1⅜x4	5.45	PLT-410	PLT-7636	10/50/100	350/100/75	1 x3	4.30

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

Trade Discount Applies to List Prices Only
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SANGAMO Electric Company capacitors Springfield, Illinois

TYPE PL and TYPE PLP *electrolytic*—continued . . .

TRIPLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
‡PLT-412		20/50/100	350/100/75	1 x3	3.05
‡PLPT-413		125/5/100	350/150/10	1⅜x3½	4.50
PLT-415	PLT-7638	10/50/100	350/150/50	1 x2½	2.85
‡PLT-416		40/200-100	350/150-150	1⅜x3	4.75
‡PLT-416.2		60/200-30	350/150-150	1⅜x3	4.50
PLPT-417	PLT-76382	125/5/100	350/200/75	1⅜x3½	5.30
‡PLT-418		50/10/500	350/250/5	1⅜x2	5.45
†PLT-425	PLT-760	30/20-10	350/250-250	1 x3	4.50
*PLT-430	PLT-7639	30/30/20	350/300/25	1 x3	3.15
‡PLT-431		30/50/20	350/300/25	1⅜x2	3.60
†PLT-435	PLT-7605	20/40/10	350/300/150	1 x3½	4.75
PLT-440	PLT-764	40/20/10	350/300/200	1⅜x2	4.95
†PLT-447	PLT-766	15-15/20	350-350/20	1 x2½	5.00
†PLT-450	PLT-765	10-10/20	350-350/25	1 x2	3.50
*PLT-455	PLT-7655	15-10/20	350-350/25	1 x2	2.50
‡PLT-460		20-5/100	350-350/25	1 x2	2.60
*PLT-465	PLT-7665	20-10/20	350-350/25	1 x2	2.60
*PLT-470	PLT-7671	20-20/20	350-350/25	1 x2½	2.80
†PLT-475	PLT-7672	30-10/20	350-350/25	1 x2½	4.30
PLT-480	PLT-767	30-20/20	350-350/25	1 x2½	3.10
PLT-485	PLT-7674	30-30/20	350-350/25	1⅜x2	3.40
†PLT-490	PLT-76745	40-40/50	350-350/25	1⅜x2½	5.65
‡PLT-491		200-10/50	350-350/25	1⅜x4	5.15
†PLT-494	PLT-76373	10-5/30	350-350/50	1 x2½	3.00
†PLT-495	PLT-7675	10-5/150	350-350/50	1 x3	4.05
‡PLT-497		20-5/150	350-350/50	1 x2½	2.90
‡PLT-498		20-10/100	350-350/50	1⅜x2½	2.90
‡PLT-499		80-40/400	350-350/50	1⅜x3½	4.70
‡PLT-499.1		150-4/30	350-350/50	1⅜x3½	4.75
PLT-500		40-20/10	350-350/100	1⅜x2	4.30
‡*PLT-500.1		30-20/100	350-350/150	1⅜x2½	4.00
‡PLT-501		80-40/100	350-350/200	1⅜x3½	5.45
*PLT-502		100-60/20	350-350/200	1⅜x4	5.50
PLT-505	PLT-7677	20-10/5	350-350/250	1 x2½	2.55
‡PLPT-512		10-10/60	350-350/300	1⅜x2	3.20
†PLT-515	PLT-768	60/40/20	400/300/25	1⅜x3	6.00
†PLT-520	PLT-7681	10/40/10	400/300/150	1⅜x2	4.35
†PLT-525	PLT-7682	80/20-10	400/300-300	1⅜x3½	5.90
†PLT-530	PLT-7687	10/50/30	400/350/25	1 x3½	4.00
†PLT-536	PLT-76882	80/20/100	400/350/50	1⅜x3½	6.75
PLT-537	PLT-76885	100/10/20	400/350/50	1⅜x3½	6.75
‡PLPT-538.1		40/30/20	400/350/300	1⅜x2½	4.50
PLT-540	PLT-7689	60/20-20	400/350-350	1⅜x3	5.70
†PLT-545	PLT-769	15-15/40	400-400/25	1 x2½	4.20
*PLT-550	PLT-770	20-20/20	400-400/25	1 x3	2.85
†PLT-552	PLT-7704	80-40/100	400-400/50	1⅜x4	5.40
‡PLT-552.1		80-40/150	400-400/50	1⅜x3½	5.15
‡PLT-554		100-10/20	400-400/50	1⅜x3½	4.50
†PLT-555	PLT-7707	40-20/20	400-400/300	1⅜x3½	5.60
‡PLT-555.2		20-20/10	400-400/350	1 x3	2.95
‡PLT-555.4		60-30/20	400-400/350	1⅜x3	4.60
‡PLT-555.6		80-20/10	400-400/350	1⅜x3	4.30
*PLT-555.8		100-10/80	400-400/350	1⅜x4	6.05
†PLT-556	PLT-7708	10/20-10	450/25-25	1 x2	3.25
†PLT-560	PLT-771	30/100-25	450/25-25	1⅜x2	4.45
†PLT-561	PLT-7711	80/100-20	450/50-50	1⅜x3½	6.25
PLT-565	PLT-7712	40/40/130	450/150/50	1⅜x2½	3.65
†PLT-570	PLT-7714	40/100/50	450/150/50	1⅜x3	5.95
‡PLT-572		10/50/100	450/150/75	1 x3	3.20
PLT-575	PLT-7715	40/90-50	450/150-150	1⅜x2½	4.00
†PLT-580	PLT-77152	20/80/50	450/200/50	1⅜x2½	4.00
PLT-585	PLT-7716	20/60/100	450/250/25	1⅜x2	3.65
PLT-595	PLT-77168	10/80-80	450/250-250	1⅜x3½	4.15
†PLT-600	PLT-7717	20/40-10	450/250-250	1⅜x2	4.75
‡PLT-601		80/40-40	450/250-250	1⅜x4	4.85
‡PLT-601.2		10/40/10	450/300/150	1⅜x2	3.10
PLT-602	PLT-7718	5/80-40	450/300-300	1⅜x3	4.15
†PLT-605	PLT-7719	20/15-10	450/300-300	1 x3½	4.30
PLT-610	PLT-772	10/10/20	450/350/25	1 x2	3.45
‡*PLT-617		30/15/40	450/350/25	1⅜x2	3.00
‡*PLT-619		30/40/50	450/350/25	1 x4	3.65
PLT-620	PLT-7735	20/80/100	450/350/50	1⅜x3½	6.60
PLT-625	PLT-774	15/20/20	450/350/250	1⅜x2	4.40
‡*PLT-631.2		20/40-10	450/350-350	1⅜x2½	3.50
‡*PLT-631.5		20/80-10	450/350-350	1⅜x2½	4.20
PLT-632	PLT-7747	60/40-20	450/350-350	1⅜x3½	6.90
‡PLT-632.3		30/50/40	450/400/25	1⅜x3	5.80
‡PLT-632.5		60/80/20	450/400/250	1⅜x4	5.45
†PLT-633	PLT-7748	4/40/40	450/400/300	1⅜x2½	4.00
†PLT-635	PLT-775	10/30/30	450/400/300	1⅜x2½	5.00
PLT-640	PLT-776	10-10/10	450-450/25	1 x2½	2.35
*PLT-645	PLT-777	10-10/20	450-450/25	1 x2	2.40
†PLT-650	PLT-779	15-15/20	450-450/25	1 x3	4.05
‡PLT-652		15-15/40	450-450/25	1 x2½	2.70
PLT-655	PLT-778	20-10/20	450-450/25	1 x2½	2.60
†PLT-660	PLT-780	20-15/20	450-450/25	1 x3	4.35
*PLT-665	PLT-782	20-20/20	450-450/25	1 x3	3.05
†PLT-670	PLT-7825	30-20/20	450-450/25	1⅜x2½	4.35
PLT-675	PLT-783	30-30/20	450-450/25	1⅜x2½	3.55
‡PLT-676		30-30/125	450-450/25	1⅜x2½	4.00
‡PLT-678		40-20/20	450-450/25	1⅜x2½	3.55
PLT-680	PLT-7831	40-40/20	450-450/25	1⅜x3	3.90
PLT-685	PLT-7832	40-40/40	450-450/25	1⅜x3	4.00
‡PLT-688		80-10/125	450-450/25	1⅜x3	4.40
PLT-690	PLT-7834	8-40/100	450-450/25	1⅜x3½	5.10
PLT-695	PLT-7835	10-10/40	450-450/50	1 x2	2.75
PLT-700	PLT-7837	20-10/50	450-450/50	1 x3	2.85
PLT-702	PLT-78372	30-10/150	450-450/50	1⅜x2½	3.50
†PLT-705	PLT-78375	30-30/40	450-450/50	1⅜x3	5.50
†PLT-710	PLT-78377	40-10/40	450-450/50	1⅜x2½	4.90
‡PLT-712		40-10/100	450-450/50	1⅜x3	4.25
†PLT-715	PLT-7839	40-40/40	450-450/50	1⅜x3	5.10
PLT-720	PLT-78395	40-40/100	450-450/50	1⅜x3½	4.30
‡PLT-721		60-40/75	450-450/50	1⅜x3½	4.65
‡PLT-723		80-20/100	450-450/50	1⅜x3½	4.75
PLT-725	PLT-784	40-40/40	450-450/150	1⅜x3½	4.15
PLT-730	PLT-785	40-10/80	450-450/200	1⅜x3	3.90
PLT-735	PLT-7855	40-10/100	450-450/200	1⅜x3	4.15
‡PLT-737		40-40/60	450-450/200	1⅜x3½	4.40
*PLT-740	PLT-7857	40-40/100	450-450/200	1⅜x3½	4.95
†PLT-745	PLT-7859	15-10/120	450-450/300	1⅜x3½	6.70
†PLT-750	PLT-786	15-15/10	450-450/300	1 x3	4.30
†PLT-755	PLT-7865	15-5/15	450-450/350	1 x3	4.30
†PLT-760	PLT-787	20-20/60	450-450/350	1⅜x3½	6.20
PLT-765	PLT-789	40-10/10	450-450/350	1⅜x3	4.95
‡*PLT-766		40-40/80	450-450/350	1⅜x3½	5.50
PLT-768	PLT-7893	20/50/20	475/50/25	1 x2½	2.75
‡PLT-769		80/80/50	475/150/50	1⅜x3½	4.80
†PLT-770	PLT-7895	10/100/40	475/200/50	1⅜x2½	5.00
†PLT-772	PLT-7896	40/40/100	475/250/50	1⅜x3	6.45
†PLT-775	PLT-7897	40/40-10	475/250-250	1⅜x3	6.00
†PLT-780	PLT-790	20/20/40	475/300/25	1⅜x2	4.65
†PLT-780.3	PLT-791	40/80-10	475/300-300	1⅜x3½	5.10
†PLT-781	PLT-7901	10/4/100	475/350/50	1 x2½	3.90
‡PLT-783		10/4/40	475/350/250	1⅜x2	3.00
‡PLT-787		10/40/100	475/450/200	1⅜x3	4.25
†PLT-790	PLT-793	40/20-20	475/450-450	1⅜x3	6.75
‡PLT-791		40/80-10	475/450-450	1⅜x3½	5.30
‡PLT-793		20-10/100	475-475/400	1⅜x3½	5.30
†PLT-795	PLT-794	20-20/60	475-475/400	1⅜x3½	6.90
‡PLPT-798		40/40/60	500/200/50	1⅜x2½	3.90
†PLT-800	PLT-7945	40/40/100	500/250/50	1⅜x3	6.00
†PLT-805	PLT-795	20/20/40	500/300/25	1⅜x2	4.60
‡PLPT-807		40/40/20	500/350/250	1⅜x3	4.40
PLT-810	PLT-7955	10-10/100	500-500/50	1 x3	4.35
‡*PLT-812		20-10/100	500-500/50	1 x3	3.35
PLT-815	PLT-796	30-10/20	500-500/50	1⅜x2	4.60
‡PLT-817		40-40/100	500-500/200	1⅜x4	5.85
‡*PLT-824		20-20/60	500-500/450	1⅜x3	4.85

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

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SANGAMO Electric Company capacitors Springfield, Illinois

TYPE PL and TYPE PLP *electrolytic*—continued . . .

QUADRUPLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price	New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
PLQ-005	PLQ-797	40-40-40-30	150	1⅜x2	3.30	PLQ-160	PLQ-8059	200/20/100/20	300/250/50/25	1⅜x4	5.80
‡PLPQ-006.2		60-60-40-10	150	1⅜x2	3.60	‡PLQ-161		80-5/60/20	300-300/150/25	1⅜x2½	4.35
‡PLQ-007.2		100-80-60-40	150	1⅜x3	4.60	‡PLQ-161.5		140-10/10/100	300-300/150/50	1⅜x3½	5.00
PLQ-009.2		40-20-10-10	300	1⅜x2	3.90	*PLQ-162	PLQ-8059.3	100-10/200-30	300-300/150-150	1⅜x4	5.90
PLQ-010	PLQ-798	40-40-20-10	300	1⅜x2½	4.55	‡PLQ-162.2		140-10/200-30	300-300/150-150	1⅜x4	6.25
‡*PLQ-010.2		40-40-30-20	300	1⅜x2½	4.90	*PLQ-163	PLQ-80595	100-10/200/30	300-300/200/150	1⅜x4	6.00
‡PLQ-010.4		60-40-10-10	300	1⅜x2½	4.50	‡PLQ-164.2		150-20/10/250	300-300/250/50	1⅜x3½	6.05
†PLQ-011	PLQ-79811	100-40-20-20	300	1⅜x4	6.50	PLQ-165.2	PLQ-80541	40-20-20/25	300-300-300/25	1⅜x2	4.10
‡PLQ-011.2		200-20-20-20	300	1⅜x4	6.20	PLQ-170	PLQ-808	60-40-20/50	300-300-300/25	1⅜x2½	4.70
‡PLQ-011.4		40-20-20-10	350	1⅜x2½	4.30	‡PLQ-172		150-20-10/250	300-300-300/50	1⅜x3½	6.05
PLQ-012	PLQ-3540	40-40-40-40	350	1⅜x3½	6.00	‡PLQ-173		150-30-30/150	300-300-300/50	1⅜x3½	6.10
‡PLQ-013		80-60-40-20	350	1⅜x4	6.30	‡PLPQ-174		20-20-20/100	300-300-300/150	1⅜x2½	4.55
†PLQ-015	PLQ-7981	30-30-20-20	400	1⅜x3½	7.30	PLQ-175	PLQ-8085	40-40-40/20	300-300-300/150	1⅜x2½	4.90
PLQ-017	PLQ-7982	50-40-30-20	400	1⅜x3½	5.65	‡*PLQ-176		120-40-40/10	300-300-300/250	1⅜x3½	6.00
†PLQ-020	PLQ-7983	80-10-10-10	400	1⅜x3½	7.05	‡PLQ-177		20/150-80/20	350/150-150/25	1⅜x3	6.85
PLQ-025	PLQ-7984	80-25-10-10	400	1⅜x4	5.25	‡PLQ-178		60/60-30/160	350/150-150/25	1⅜x3	5.20
PLQ-027	PLQ-4505	5-5-5-5	450	1⅜x2	3.00	†PLQ-180	PLQ-809	15/80-40/200	350/200-200/25	1⅜x3	5.75
*PLQ-030	PLQ-4510	10-10-10-10	450	1⅜x2	3.35	‡PLQ-185.2		160/60-10-4	350/300-300-300	1⅜x4	6.35
PLQ-035	PLQ-7986	20-10-10-10	450	1⅜x2½	3.70	‡PLQ-185.4		40-10/100-25	350-350/25-25	1⅜x2	3.80
PLQ-040	PLQ-4520	20-20-20-20	450	1⅜x3	4.70	*PLQ-186	PLQ-8101	60-4/100-40	350-350/25-25	1⅜x2	3.90
PLQ-045	PLQ-799	30-15-15-15	450	1⅜x3	4.45	PLPQ-187.5	PLQ-81021	100-60/60/40	350-350/200/75	1⅜x4	6.50
†PLQ-050	PLQ-800	30-30-15-10	450	1⅜x3½	6.95	PLQ-188	PLQ-8103	60-40/60/20	350-350/200/150	1⅜x3½	5.00
PLQ-051	PLQ-8001	30-30-20-20	450	1⅜x3	5.20	‡PLQ-188.2		60-40/60/20	350-350/250/150	1⅜x3½	5.35
‡PLQ-053		35-35-10-5	450	1⅜x3	4.65	PLQ-195	PLQ-811	10-10/10-10	350-350/300-300	1⅜x2	4.65
PLQ-055	PLQ-8002	40-10-10-10	450	1⅜x2½	4.15	PLQ-200	PLQ-8113	20-10-5/10	350-350-350/25	1⅜x2	3.10
PLQ-060	PLQ-8004	40-20-10-10	450	1⅜x2½	4.40	PLQ-205	PLQ-8115	20-10-5/20	350-350-350/25	1⅜x2	3.15
‡PLQ-060.2		40-35-10-10	450	1⅜x3	4.75	‡PLQ-205.2		30-10-5/200	350-350-350/25	1⅜x2	3.75
‡PLQ-060.4		40-40-4-4	450	1⅜x3	4.65	‡PLQ-205.4		30-20-20/20	350-350-350/25	1⅜x2	6.05
*PLQ-061	PLQ-8005	40-40-20-20	450	1⅜x4	5.55	PLQ-210	PLQ-8116	40-20-20/25	350-350-350/25	1⅜x2½	6.00
‡PLQ-063		40-40-30-30	450	1⅜x4	6.00	‡PLQ-211		40-40-20/20	350-350-350/25	1⅜x3	4.70
*PLQ-065	PLQ-4540	40-40-40-40	450	1⅜x4	6.45	‡PLQ-213		40-40-30/10	350-350-350/25	1⅜x3	4.90
PLQ-066	PLQ-80051	60-20-20-20	450	1⅜x3½	5.65	*PLQ-215	PLQ-8117	40-40-40/40	350-350-350/25	1⅜x3	5.20
‡PLQ-066.2		60-30-10-2	450	1⅜x3	5.10	‡PLQ-216		15-15-15/50	350-350-350/50	1⅜x2	4.50
†PLQ-067	PLQ-8006	70-10-10-5	450	1⅜x3	5.50	‡PLPQ-217		40-20-10/100	350-350-350/50	1⅜x2½	4.35
‡PLQ-068		80-10-10-10	450	1⅜x3½	5.00	PLQ-220	PLQ-8119	40-40-40/150	350-350-350/50	1⅜x3	5.65
†PLQ-070	PLQ-4710	10-10-10-10	475	1⅜x2	3.50	‡PLQ-221.1		70-40-10/50	350-350-350/50	1⅜x3	5.20
‡PLQ-070.2		20-20-10-10	475	1⅜x2½	4.30	‡PLQ-221.3		100-10-10/20	350-350-350/50	1⅜x3	5.10
‡PLQ-070.4		20-20-20-20	475	1⅜x3	5.10	*PLQ-221.4	PLQ-811912	100-20-10/20	350-350-350/50	1⅜x3	5.40
PLQ-075	PLQ-801	40-20-10-10	475	1⅜x3	5.10	*PLQ-221.5	PLQ-81191.5	100-40-30/50	350-350-350/50	1⅜x3½	6.50
‡PLQ-075.2		10-10-10-10	500	1⅜x2	3.55	*PLQ-222	PLQ-81192	90-30-5/100	350-350-350/75	1⅜x3½	6.10
‡PLQ-075.4		40-40-8-8	500	1⅜x3½	5.65	‡PLQ-222.2		30-10-5/100	350-350-350/200	1⅜x2½	4.50
‡PLQ-077		50-20/150-30	150-150/15-15	1⅜x2	3.25	‡PLQ-223.2		40/120-10/150	400/250-250/50	1⅜x3½	5.85
‡PLQ-078		20-20/160-40	150-150/25-25	1⅜x2	3.20	PLQ-225	PLQ-81195	80/40-20-10	400/300-300-300	1⅜x3½	7.95
PLQ-080	PLQ-8012	40-40/100-100	150-150/25-25	1⅜x2	5.05	‡PLQ-230.2		40/80/100/25	400/350/200/50	1⅜x4	6.00
†PLQ-085	PLQ-8013	30-20-20/200	150-150-150/10	1⅜x2	4.65	PLQ-237	PLQ-8123	80/40-10/10	400/350-350/25	1⅜x3½	7.00
‡PLQ-087		40-40-20/200	150-150-150/10	1⅜x2	3.25	‡PLQ-238		20/50-40/80	400/350-350/50	1⅜x3	5.05
*PLQ-090	PLQ-8015	60-40-20/200	150-150-150/10	1⅜x2	3.45	‡PLQ-238.5		30/60-20/100	400/350-350/50	1⅜x3	6.75
‡PLPQ-091		290-30-10/100	150-150-150/10	1⅜x3½	4.55	‡PLPQ-239		40/30-20-20	400/350-350-350	1⅜x3	5.00
‡PLQ-092		20-20-20/20	150-150-150/25	1⅜x2	4.30	†PLQ-241	PLQ-8126	50-40/100/100	400-400/50/25	1⅜x4	5.20
PLQ-095	PLQ-802	30-30-30/40	150-150-150/25	1⅜x2	3.10	*PLQ-242	PLQ-81261	100-10/30-20	400-400/50-50	1⅜x3	5.10
PLQ-096	PLQ-8021	40-20-20/20	150-150-150/25	1⅜x2	2.95	†PLQ-245	PLQ-8127	40-10/80-10	400-400/250-250	1⅜x3½	7.05
*PLQ-100	PLQ-803	40-40-30/20	150-150-150/25	1⅜x2	3.10	PLQ-246	PLQ-8128	50-20/20/25	400-400/350/25	1⅜x2½	4.50
PLQ-105	PLQ-8035	40-40-40/20	150-150-150/25	1⅜x2	3.15	‡PLQ-247.5		60-40/40/10	400-400/350/50	1⅜x3½	6.50
†PLQ-110	PLQ-804	40-40-40/100	150-150-150/25	1⅜x2	5.05	PLQ-248	PLQ-813	100-10/20/20	400-400/350/50	1⅜x3½	5.75
‡PLQ-111		40-40-40/160	150-150-150/25	1⅜x2	3.50	PLQ-250	PLQ-814	20-20-20/20	400-400-400/25	1⅜x2½	5.80
‡*PLQ-112		50-20-20/200	150-150-150/25	1⅜x2	3.45	‡PLQ-250.5		80-40-10/20	400-400-400/25	1⅜x3½	5.30
‡*PLQ-113		50-30-30/100	150-150-150/25	1⅜x2	3.40	PLQ-251	PLQ-8141	80-40-30/40	400-400-400/25	1⅜x3½	5.95
‡PLPQ-114		50-40-10/50	150-150-150/25	1⅜x2	3.20	‡PLQ-252.3		80-40-10/100	400-400-400/200	1⅜x4	6.25
PLQ-115		50-50-50/20	150-150-150/25	1⅜x2	3.50	‡PLQ-252.5		10/80-40/100	450/200-200/50	1⅜x2½	6.25
†PLQ-116	PLQ-80501	75-75-75/30	150-150-150/25	1⅜x2½	5.55	PLQ-255	PLQ-8145	20/80-20/50	450/200-200/50	1⅜x2½	4.10
‡PLQ-118		80-40-40/30	150-150-150/25	1⅜x2	3.60	†PLQ-260	PLQ-8147	40/40-40/20	450/250-250/25	1⅜x3	6.70
PLQ-120	PLQ-8050	80-40-40/40	150-150-150/25	1⅜x2	3.60	‡PLQ-262		60/80-40/20	450/250-250/150	1⅜x3½	5.60
*PLQ-125	PLQ-80502	80-40-40/100	150-150-150/25	1⅜x2	3.75	†PLQ-265	PLQ-8149	10/10/60/100	450/300/200/50	1⅜x2½	5.70
‡PLPQ-125.2		100-40-10/50	150-150-150/25	1⅜x2	3.65	‡PLQ-265.5		25/100-10/60	450/300-300/50	1⅜x3	6.00
‡PLQ-125.4		100-90-60/200	150-150-150/25	1⅜x2½	4.90	‡PLQ-266		40/40-40/20	450/300-300/150	1⅜x3	4.90
‡PLQ-125.6		200-200-100/10	150-150-150/75	1⅜x3	5.90	‡PLQ-266.5		10/100-20/20	450/300-300/200	1⅜x3	5.50
*PLQ-140	PLQ-8052	100-40-10/100	250-250-250/50	1⅜x2½	5.15	‡PLQ-267		10/100-20-20	450/300-300-300	1⅜x3	5.20
PLQ-150	PLQ-8055	100/40/80-20	300/50/25-25	1⅜x2½	5.75	‡PLQ-268		10/40/100/100	450/350/250/50	1⅜x3	5.50
‡*PLQ-151		20/150-150/100	300/150-150/30	1⅜x3	5.25	*PLQ-275	PLQ-8152	10/60-40/25	450/350-350/25	1⅜x3½	4.60
PLQ-152	PLQ-8056	10/200-140-30	300/150-150-150	1⅜x3½	5.10	*PLQ-280	PLQ-8154	10/100-10/20	450/350-350/25	1⅜x3	5.20
‡*PLQ-152.2		10/200-200-30	300/150-150-150	1⅜x3½	5.30	*PLQ-282	PLQ-8155	20/80-50/100	450/350-350/50	1⅜x3½	5.95
PLQ-154	PLQ-8056.5	100/60/10/20	300/200/150/50	1⅜x3	4.85	PLQ-285	PLQ-8156	30/40-40/10	450/350-350/200	1⅜x3½	7.75
PLQ-155	PLQ-8057	120/20/100/20	300/250/50/25	1⅜x4	7.25	PLQ-290	PLQ-8158	80/10/30/40	450/400/300/150	1⅜x4	7.90

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

 Trade Discount Applies to List Prices Only © U.C.P., Inc.

SANGAMO capacitors Electric Company Springfield, Illinois

TYPE PL and TYPE PLP *electrolytic*—continued . . .

QUADRUPLE SECTION

New Catalog Number	Former PL Number	Capacitance Mf.	Working Voltage DC	Can Size	List Price
‡PLQ-292		80/10/40-30	450/400/300-300	1⅜x4	5.85
PLQ-295	PLQ-8159	10-10/20-20	450-450/25-25	1⅜x2	4.45
PLQ-300	PLQ-816	20-15/20-20	450-450/25-25	1⅜x2	3.45
PLQ-305	PLQ-817	20-20/20-20	450-450/25-25	1⅜x2	3.60
‡PLQ-305.2		30-30/125-125	450-450/25-25	1⅜x2½	5.50
‡PLQ-305.4		20-20/60/100	450-450/150/25	1⅜x2½	4.20
‡PLQ-305.6		40-40/125/125	450-450/150/25	1⅜x4	5.65
‡PLQ-305.8		10-10/60/100	450-450/200/50	1⅜x2½	3.75
PLQ-307	PLQ-8172	35-25/20/100	450-450/200/50	1⅜x3	4.65
‡PLQ-307.5		40-40/100-60	450-450/200-200	1⅜x4	6.00
‡PLQ-317		20-20/30-30	450-450/350-350	1⅜x3	7.65
PLQ-320	PLQ-819	40-10/35-10	450-450/350-350	1⅜x3	6.00
*PLQ-325	PLQ-8195	40-40/30-30	450-450/350-350	1⅜x4	5.90
*PLQ-330	PLQ-820	10-10-10/20	450-450-450/25	1⅜x2	3.15
‡PLQ-332		10-10-10/100	450-450-450/25	1⅜x2	5.00
PLQ-335	PLQ-8202	20-10-10/100	450-450-450/25	1⅜x2	5.50
PLQ-340	PLQ-8205	20-20-20/20	450-450-450/25	1⅜x2½	4.20
PLQ-345	PLQ-82055	30-20-20/20	450-450-450/25	1⅜x2½	6.60
PLQ-350	PLQ-82057	30-30-10/20	450-450-450/25	1⅜x2½	6.55
‡PLQ-352		30-30-10/125	450-450-450/25	1⅜x3	4.60
PLQ-355	PLQ-8206	30-30-20/20	450-450-450/25	1⅜x2½	7.00
PLQ-360	PLQ-8207	40-10-10/250	450-450-450/25	1⅜x2½	4.70
‡PLQ-366		40-15-10/25	450-450-450/25	1⅜x3	4.50
‡PLQ-367		40-20-10/20	450-450-450/25	1⅜x3	6.35
PLQ-370	PLQ-8208	40-20-20/20	450-450-450/25	1⅜x3	4.50
PLQ-375	PLQ-8209	40-20-20/40	450-450-450/25	1⅜x3	4.65
*PLQ-380	PLQ-821	40-30-10/20	450-450-450/25	1⅜x3	4.50
*PLQ-385	PLQ-8215	40-40-10/20	450-450-450/25	1⅜x3	4.60
‡PLQ-386		40-40-20/20	450-450-450/25	1⅜x3	4.95
*PLQ-390	PLQ-8216	40-40-40/40	450-450-450/25	1⅜x3½	5.50
‡PLQ-391		60-40-40/10	450-450-450/25	1⅜x3½	5.95
‡PLQ-393		60-50-5/20	450-450-450/25	1⅜x3½	5.40
PLQ-395	PLQ-8217	20-20-20/100	450-450-450/50	1⅜x2½	4.55
PLQ-400	PLQ-822	30-30-15/30	450-450-450/50	1⅜x3	4.55
‡PLQ-401		30-30-15/100	450-450-450/50	1⅜x3	6.85
PLQ-405	PLQ-8225	40-20-10/100	450-450-450/50	1⅜x3	4.65
PLQ-410	PLQ-8226	40-40-10/25	450-450-450/50	1⅜x3	4.85
PLQ-411		40-40-10/50	450-450-450/50	1⅜x3	4.25
PLQ-413		60-40-10/25	450-450-450/50	1⅜x3½	5.15
*PLQ-415	PLQ-8227	40-40-10/100	450-450-450/100	1⅜x3½	5.35
†PLQ-420	PLQ-823	10-10-10/10	450-450-450/150	1⅜x2	4.75
PLQ-430	PLQ-824	60-10-10/20	450-450-450/150	1⅜x3	4.55
PLQ-432	PLQ-824.5	35-35-10/10	450-450-450/200	1⅜x3	6.90
‡PLQ-433		40-20-10/100	450-450-450/250	1⅜x3½	5.90
‡PLQ-433.2		40-10-10/40	450-450-450/350	1⅜x3	4.70
‡PLQ-433.5		40-20-20/20	450-450-450/350	1⅜x3	6.00
*PLQ-435	PLQ-8250	40/40/50/80	475/250/150/50	1⅜x3	5.00
PLQ-440	PLQ-8241	20/40/100/80	475/300/50/25	1⅜x3	4.50
‡PLQ-440.3		10/100-10/100	475/300-300/25	1⅜x3	4.95
‡PLQ-440.5		20/80-20-10	475/300-300-300	1⅜x3½	4.95
‡PLQ-440.7		20/40/80/100	475/350/200/100	1⅜x3½	5.40
‡PLQ-440.9		10/40/80/100	475/350/300/100	1⅜x3½	5.50
‡PLQ-441.1		10/30-5/80	475/350-350/50	1⅜x2½	4.00
‡PLQ-441.3		10/140-4/100	475/350-350/50	1⅜x3½	5.40
‡PLQ-441.5		10/130-20-10	475/350-350-350	1⅜x4	5.95
‡PLQ-441.7		20/60-40-10	475/350-350-350	1⅜x3½	6.50
‡PLQ-441.9		30/130-10-10	475/350-350-350	1⅜x4	6.35
PLQ-442	PLQ-82415	10/40/100/10	475/400/50/25	1⅜x2½	5.95
PLQ-446	PLQ-82421	10/40/4/100	475/400/350/50	1⅜x2½	4.00
‡PLQ-448		5/70-25-5	475/400-400-400	1⅜x3	5.00
PLQ-450	PLQ-8243	25/20/20/100	475/450/300/50	1⅜x2½	4.60
PLQ-455	PLQ-8244	25/20/40/100	475/450/300/50	1⅜x2½	7.45
PLQ-460	PLQ-8246	10/60/30/125	475/450/400/50	1⅜x3	5.55
‡PLQ-461		10/50-30/30	475/450-450/25	1⅜x3	4.65
‡PLQ-462		10/40-10/100	475/450-450/50	1⅜x2½	4.35
PLQ-465	PLQ-8247	15-15/80/40	475-475/300/50	1⅜x3	4.80
PLQ-467	PLQ-8248	40-10/4/40	475-475/350/300	1⅜x3	4.95
‡PLQ-468		20-10/20/100	475-475/450/25	1⅜x2½	4.30
PLQ-470	PLQ-8249	10-5/80/40	475-475/450/50	1⅜x3	7.35
†PLQ-475	PLQ-8250	30-30-10/20	475-475-475/25	1⅜x3	6.85
†PLQ-480	PLQ-825	40-20-10/10	475-475-475/25	1⅜x3	7.25
PLQ-485	PLQ-826	20-20-10/10	475-475-475/300	1⅜x2½	4.35
‡PLQ-486		50-30-10/20	475-475-475/300	1⅜x3½	5.60
‡PLQ-487		10/100-30/100	500/300-300/25	1⅜x3	7.75
‡PLQ-488		5/100-10/200	500/300-300/150	1⅜x3½	8.00
‡PLQ-489		20/80-20-10	500/300-300-300	1⅜x3½	5.50
‡PLQ-490		30/10/150-30	500/450/50-50	1⅜x2½	4.25
‡PLQ-491		20-20-10/10	500-500-500/300	1⅜x2½	4.35
PLQ-492		50-30-10/20	500-500-500/300	1⅜x3½	5.55

TYPE KCT CARDBOARD INSULATING SLEEVES

for TYPE PL CAPACITORS

Catalog Number	Can Size		List Price
	Diameter In Inches	Length In Inches	
KCT-13	¾	2	.10
KCT-1	1	2	.10
KCT-2	1	2½	.10
KCT-3	1	3	.10
KCT-10	1	3½	.10
KCT-4	1	4	.10
KCT-5	1⅜	2	.10
KCT-6	1⅜	2½	.10
KCT-7	1⅜	3	.10
KCT-8	1⅜	3½	.10
KCT-9	1⅜	4	.10

* Popular Stock Item
† To be discontinued when stock is exhausted
‡ New Items

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SANGAMO Electric Company capacitors

Springfield, Illinois

Type EM MOTOR STARTING ELECTROLYTIC

The SANGAMO Type EM motor starting capacitor is designed for maximum capacity, heavy duty motor starting applications and extended life characteristics—all of which provide dependable performance under severe environmental conditions.

These units are encased in an aluminum can and normally furnished with a cardboard insulating sleeve. All units above 1″ diameter are equipped with a combination lug and screw terminal adaptable for solder, quick disconnect or screw connection. The terminal on 1″ diameter provides for solder or screw connection. For more complete engineering information write for Bulletin No. 2228.

Catalog Number	Capacitance Mf.	Diameter In Inches	Length In Inches	List Price
110 VOLTS AC				
EM-11021E	21-25	1	2 1/8	$ 2.05
EM-11025E	25-30	1	2 1/8	2.10
EM-11030E	30-36	1	2 1/8	2.10
EM-11036E	36-43	1	2 1/8	2.10
EM-11043E	43-53	1	2 1/8	2.10
EM-11047E	47-56	1	2 1/8	2.10
EM-11053E	53-64	1	2 1/8	2.15
EM-11064E	64-77	1	2 1/8	2.25
EM-11072E	72-88	1	2 5/8	2.30
EM-11088F	88-108	1 3/8	2 5/8	2.65
EM-11108F	108-130	1 3/8	2 5/8	2.85
EM-11124F	124-149	1 3/8	2 5/8	2.95
EM-11130F	130-156	1 3/8	2 5/8	2.95
EM-11145F	145-175	1 3/8	2 5/8	3.20
EM-11161F	161-193	1 3/8	2 5/8	3.25
EM-11189F	189-227	1 3/8	3 1/8	3.75
EM-11216F	216-259	1 3/8	3 1/8	4.05
EM-11233F	233-280	1 3/8	3 1/8	4.50
EM-11243F	243-292	1 3/8	4 1/8	4.70
EM-11270F	270-324	1 3/8	4 1/8	4.75
EM-11340F	340-408	1 3/8	4 1/8	5.65
EM-11378F	378-440	1 3/8	4 1/8	6.00
EM-11400F	400-480	1 3/4	4 1/8	6.05
EM-11430F	430-516	1 3/4	4 1/8	6.95
EM-11460F	460-552	1 3/4	4 1/8	7.60
EM-11540F	540-648	1 3/4	4 1/8	8.20
EM-11590F	590-708	2	4 1/8	8.80
125 VOLTS AC				
EM-12021E	21-25	1	2 1/8	$ 2.25
EM-12025E	25-30	1	2 1/8	2.25
EM-12030E	30-36	1	2 1/8	2.30
EM-12036E	36-43	1	2 1/8	2.30
EM-12043E	43-53	1	2 5/8	2.30
EM-12047E	47-56	1	2 5/8	2.35
EM-12053E	53-64	1	2 5/8	2.40
EM-12064E	64-77	1	2 5/8	2.50
EM-12072E	72-88	1	2 5/8	2.60
EM-12088F	88-108	1 3/8	2 5/8	2.75
EM-12108F	108-130	1 3/8	2 5/8	3.15
EM-12124F	124-149	1 3/8	2 5/8	3.25
EM-12130F	130-156	1 3/8	2 5/8	3.25
EM-12145F	145-175	1 3/8	2 5/8	3.65
EM-12161F	161-193	1 3/8	3 1/8	3.85
EM-12189F	189-227	1 3/8	3 1/8	4.30
EM-12216F	216-259	1 3/8	4 1/8	4.65
EM-12233F	233-280	1 3/8	4 1/8	5.00
EM-12243F	243-292	1 3/8	4 1/8	5.20
EM-12270F	270-324	1 3/8	4 1/8	5.40
EM-12340F	340-408	1 3/4	4 1/8	6.50
EM-12378F	378-440	1 3/4	4 1/8	6.70
EM-12400F	400-480	1 3/4	4 1/8	6.80
EM-12430F	430-516	1 3/4	4 1/8	8.10
EM-12460F	460-552	1 3/4	4 1/8	8.95
EM-12540F	540-648	2	4 1/8	9.60
EM-12590F	590-708	2	4 1/8	10.35

Catalog Number	Capacitance Mf.	Diameter In Inches	Length In Inches	List Price
160 VOLTS AC				
EM-16021F	21-25	1 3/8	2 5/8	$ 2.90
EM-16025F	25-30	1 3/8	2 5/8	2.95
EM-16030F	30-36	1 3/8	2 5/8	3 00
EM-16036F	36-43	1 3/8	2 5/8	3.05
EM-16043F	43-53	1 3/8	2 5/8	3.15
EM-16047F	47-56	1 3/8	2 5/8	3.20
EM-16053F	53-64	1 3/8	3 1/8	3.45
EM-16064F	64-77	1 3/8	4 1/8	3.70
EM-16072F	72-88	1 3/8	4 1/8	3.85
EM-16088F	88-108	1 3/8	4 1/8	4.60
EM-16108F	108-130	1 3/4	4 1/8	4.90
EM-16124F	124-149	1 3/4	4 1/8	5 55
EM-16130F	130-156	1 3/4	4 1/8	5.65
EM-16145F	145-175	1 3/4	4 1/8	5.95
EM-16161F	161-193	1 3/4	4 1/8	6.80
EM-16189F	189-227	2	4 1/8	7.65
EM-16216F	216-259	2	4 1/8	7.95
EM-16233F	233-280	2	4 1/8	8.40
EM-16243F	243-292	2	4 1/8	8.70
EM-16270F	270-324	2 1/2	4 1/8	9.60
220 VOLTS AC				
EM-22021F	21-25	1 3/8	2 5/8	$ 4.40
EM-22025F	25-30	1 3/8	2 5/8	4.60
EM-22030F	30-36	1 3/8	2 5/8	4.95
EM-22036F	36-43	1 3/8	3 1/8	5.25
EM-22043F	43-53	1 3/8	3 1/8	5.55
EM-22047F	47-56	1 3/8	4 1/8	5.65
EM-22053F	53-64	1 3/8	4 1/8	5.75
EM-22064F	64-77	1 3/8	4 1/8	6.70
EM-22072F	72-88	1 3/4	4 1/8	7.00
EM-22088F	88-108	1 3/4	4 1/8	7.60
EM-22108F	108-130	1 3/4	4 1/8	8.45
EM-22124F	124-149	1 3/4	4 1/8	9.00
EM-22130F	130-156	1 3/4	4 1/8	9.40
EM-22145F	145-175	2	4 1/8	10.00
EM-22161F	161-193	2	4 1/8	11.10
320 VOLTS AC				
EM-32021F	21-25	1 3/8	4 1/8	$ 4.90
EM-32025F	25-30	1 3/8	4 1/8	5.05
EM-32030F	30-36	1 3/4	4 1/8	5.35
EM-32036F	36-43	1 3/4	4 1/8	5.65
EM-32043F	43-53	1 3/4	4 1/8	5.90
EM-32047F	47-56	1 3/4	4 1/8	6.50
EM-32053F	53-64	1 3/4	4 1/8	6.70
EM-32064F	64-77	2	4 1/8	7.80
EM-32072F	72-88	2	4 1/8	8.10
EM-32088F	88-108	2 1/2	4 1/8	9.85
EM-32108F	108-130	2 1/2	4 1/8	11.75

NOTE: When units are supplied with sleeve, add 5/8″ to length and 1/16″ to diameter for overall dimensions.

Trade Discount Applies to List Prices Only

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SANGAMO capacitors Electric Company Springfield, Illinois

Type MJ MOTOR STARTING ELECTROLYTIC

The **SANGAMO** Type **MJ** motor starting capacitor is designed for maximum capacity per unit volume, heavy duty applications and long life—all of which provide dependable performance under unusual environmental conditions.

These capacitors are encased in black plastic cases. **A** plastic end cap is available at extra cost. All units are equipped with combination lug and screw terminals adaptable for solder, quick disconnect or screw connections. For more complete engineering information write for Bulletin No. 2228.

Catalog Number	Capacitance in Mf.	Diameter In Inches	Length In Inches	List Price
110 VOLTS AC				
MJ-11021F	21-25	1 7/16	2 3/4	$ 2.05
MJ-11025F	25-30	1 7/16	2 3/4	2.10
MJ-11030F	30-36	1 7/16	2 3/4	2.10
MJ-11036F	36-43	1 7/16	2 3/4	2.10
MJ-11043F	43-53	1 7/16	2 3/4	2.10
MJ-11047F	47-56	1 7/16	2 3/4	2.10
MJ-11053F	53-64	1 7/16	2 3/4	2.15
MJ-11064F	64-77	1 7/16	2 3/4	2.25
MJ-11072F	72-88	1 7/16	2 3/4	2.30
MJ-11088F	88-108	1 7/16	2 3/4	2.65
MJ-11108F	108-130	1 7/16	2 3/4	2.85
MJ-11124F	124-149	1 7/16	2 3/4	2.95
MJ-11130F	130-156	1 7/16	2 3/4	2.95
MJ-11145F	145-175	1 7/16	2 3/4	3.20
MJ-11161F	161-193	1 7/16	3 3/8	3.25
MJ-11189F	189-227	1 7/16	3 3/8	3.75
MJ-11216F	216-259	1 7/16	3 3/8	4.05
MJ-11233F	233-280	1 13/16	3 3/8	4.50
MJ-11243F	243-292	1 13/16	3 3/8	4.70
MJ-11270F	270-324	1 13/16	3 3/8	4.75
MJ-11340F	340-408	1 13/16	3 3/8	5.65
MJ-11378F	378-440	1 13/16	3 3/8	6.00
MJ-11400F	400-480	1 13/16	3 3/8	6.05
MJ-11430F	430-516	1 13/16	4 3/8	6.95
MJ-11460F	460-552	1 13/16	4 3/8	7.60
MJ-11540F	540-648	1 13/16	4 3/8	8.20
MJ-11590F	590-708	1 13/16	4 3/8	8.80
125 VOLTS AC				
MJ-12021F	21-25	1 7/16	2 3/4	$ 2.25
MJ-12025F	25-30	1 7/16	2 3/4	2.25
MJ-12030F	30-36	1 7/16	2 3/4	2.30
MJ-12036F	36-43	1 7/16	2 3/4	2.30
MJ-12043F	43-53	1 7/16	2 3/4	2.30
MJ-12047F	47-56	1 7/16	2 3/4	2.35
MJ-12053F	53-64	1 7/16	2 3/4	2.40
MJ-12064F	64-77	1 7/16	2 3/4	2.50
MJ-12072F	72-88	1 7/16	2 3/4	2.60
MJ-12088F	88-108	1 7/16	2 3/4	2.75
MJ-12108F	108-130	1 7/16	2 3/4	3.15
MJ-12124F	124-149	1 7/16	2 3/4	3.25
MJ-12130F	130-156	1 7/16	2 3/4	3.25
MJ-12145F	145-175	1 7/16	3 3/8	3.65
MJ-12161F	161-193	1 7/16	3 3/8	3.85
MJ-12189F	189-227	1 7/16	3 3/8	4.30
MJ-12216F	216-259	1 13/16	3 3/8	4.65
MJ-12233F	233-280	1 13/16	3 3/8	5.00
MJ-12243F	243-292	1 13/16	3 3/8	5.20
MJ-12270F	270-324	1 13/16	3 3/8	5.40
MJ-12340F	340-408	1 13/16	3 3/8	6.50
MJ-12378F	378-440	1 13/16	3 3/8	6.70
MJ-12400F	400-480	1 13/16	4 3/8	6.80
MJ-12430F	430-516	2 1/16	3 3/8	8.10
MJ-12460F	460-552	2 1/16	3 3/8	8.95
MJ-12540F	540-648	2 1/16	4 3/8	9 60
MJ-12590F	590-708	2 1/16	4 3/8	10.35

Catalog Number	Capacitance in Mf.	Diameter In Inches	Length In Inches	List Price
160 VOLTS AC				
MJ-16021F	21-25	1 7/16	2 3/4	$ 2.90
MJ-16025F	25-30	1 7/16	2 3/4	2.95
MJ-16030F	30-36	1 7/16	2 3/4	3.00
MJ-16036F	36-43	1 7/16	2 3/4	3.05
MJ-16043F	43-53	1 7/16	2 3/4	3.15
MJ-16047F	47-56	1 7/16	2 3/4	3.20
MJ-16053F	53-64	1 7/16	3 3/8	3.45
MJ-16064F	64-77	1 7/16	3 3/8	3.70
MJ-16072F	72-88	1 7/16	3 3/8	3.85
MJ-16088F	88-108	1 13/16	3 3/8	4.60
MJ-16108F	108-130	1 13/16	3 3/8	4.90
MJ-16124F	124-149	1 13/16	3 3/8	5.55
MJ-16130F	130-156	1 13/16	3 3/8	5.65
MJ-16145F	145-175	1 13/16	3 3/8	5.95
MJ-16161F	161-193	1 13/16	4 3/8	6.80
MJ-16189F	189-227	1 13/16	4 3/8	7.65
MJ-16216F	216-259	1 13/16	4 3/8	7.95
MJ-16233F	233-280	1 13/16	4 3/8	8.10
MJ-16243F	243-292	1 13/16	4 3/8	8.25
MJ-16270F	270-324	2 5/16	4 3/8	8.65
220 VOLTS AC				
MJ-22021F	21-25	1 7/16	2 3/4	$ 4.40
MJ-22025F	25-30	1 7/16	2 3/4	4.60
MJ-22030F	30-36	1 7/16	2 3/4	4.95
MJ-22036F	36-43	1 7/16	3 3/8	5.25
MJ-22043F	43-53	1 7/16	3 3/8	5.55
MJ-22047F	47-56	1 7/16	3 3/8	5.65
MJ-22053F	53-64	1 13/16	3 3/8	5.75
MJ-22064F	64-77	1 13/16	3 3/8	6.70
MJ-22072F	72-88	1 13/16	3 3/8	7.00
MJ-22088F	88-108	1 13/16	3 3/8	7.60
MJ-22108F	108-130	1 13/16	4 3/8	7.80
MJ-22124F	124-149	1 13/16	4 3/8	8.25
MJ-22130F	130-156	1 13/16	4 3/8	8.55
MJ-22145F	145-175	2 1/16	4 3/8	10.00
MJ-22161F	161-193	2 1/16	4 3/8	10.95
320 VOLTS AC				
MJ-32021F	21-25	1 7/16	3 3/8	$ 4.90
MJ-32025F	25-30	1 13/16	3 3/8	5.05
MJ-32030F	30-36	1 13/16	3 3/8	5.35
MJ-32036F	36-43	1 13/16	3 3/8	5.65
MJ-32043F	43-53	1 13/16	4 3/8	5.90
MJ-32047F	47-56	1 13/16	4 3/8	6.50
MJ-32053F	53-64	1 13/16	4 3/8	6.70
MJ-32064F	64-77	2 1/16	4 3/8	7.80
MJ-32072F	72-88	2 1/16	4 3/8	8.10
MJ-32088F	88-108	2 5/16	4 3/8	10.15
MJ-32108F	108-130	2 5/16	4 3/8	12.40

NOTE: To include end cap in overall length, add ½ inch to capacitor length.

TYPE MJ END-CAP

Diam. In Inches	List Price
1 7/16	.25
1 13/16	.30
2 1/16	.35
2 5/16	.35

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SANGAMO Electric Company capacitors Springfield, Illinois

GENERAL SPECIFICATIONS FOR MICA CAPACITORS

Mica capacitors have been continuously manufactured and improved by Sangamo for over 35 years. The quality of Sangamo mica capacitor is the result of long experience in the selection of superior grades of India ruby mica, and know-how in the formulation and selection of unique enclosing materials such as molding compounds. Our laboratory and manufacturing facilities are equipped with specialized and modern equipment and are staffed to provide constant attention to continuing development of quality and customer service. All Sangamo micas are designed to exceed the performance requirements of applicable Military Specifications such as Mil-C-5B and Mil-C-10950B.

NOTE: In line with industry standardization, the use of pf in place of mmf is used in this catalog.

MARKING

Sangamo wire lead mica capacitors can be marked by either ink stamping or color coding. Ink stamping can be supplied to the Sangamo identification or the Military designation, both of which are defined below. Color coding can be supplied for Mil-C-5 or E. I. A. Other ink stampings and color codes are available on request.

INK STAMPING

COMMERCIAL

DR 5 B 100 K N

- DR — SANGAMO TYPE, TABLE I
- 5 — DC VOLTAGE IN HUNDREDS
- B — CHARACTERISTIC, TABLE II
- 100 — CAPACITANCE (PF), TABLE VI
- K — TOLERANCE, TABLE III
- N — TEMPERATURE, TABLE V

MIL-C-5B

CM15 B 100 K N 3

- CM15 — MIL TYPE, TABLE I
- B — CHARACTERISTIC, TABLE II
- 100 — CAPACITANCE (PF), TABLE VI
- K — TOLERANCE, TABLE III
- N — TEMP. RANGE, TABLE V
- 3 — VIBRATION GRADE, TABLE IV

Table I Comparable Case Size

MIL Type	Sangamo Type
CM15	RR-DR
CM20	K-KR
CM30	C-CR (Thin)
CM35	CK-CRK
CM45	HT
CM50	HK
CM55	AT
CM56	AT

MIL Type	Sangamo Type
CM60	AK
CM61	AK
CM65	FI
CM70	F2
CM75	GI
CM80	G2
CM85	G3
CM90	G4
CM95	G5

Table II Characteristic

Letter designation	Temperature coefficient Parts/million/°C.	Capacitance drift
B	Not specified	Not specified
C	—200 to +200	±0.5 percent
D	—100 to +100	±0.3 percent
E	—20 to +100	±(0.1 percent +0.1 uuf.)
F	0 to +70	±(0.05 percent +0.1 uuf.)

Table III Tolerance

Letter designation	% Tolerance
F	± 1
G	± 2
J	± 5
K	± 10
M	± 20

Table IV Vibration Grade

Symbol	Vibration Condition
	Cycles per second (cps)
1	10 to 55
3	10 to 2,000

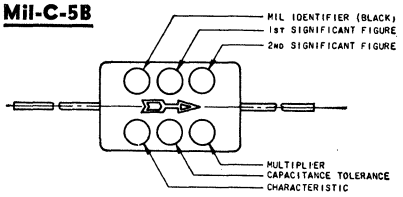
All Commercial units supplied to Vibration grade 3 at no additional charge

Table V Operating Temperature Range

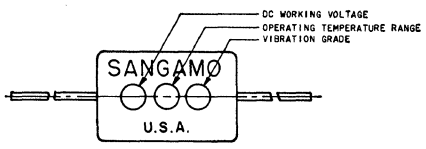
Letter designation	Temperature Range °C
M	—55 to +70
N	—55 to +85
O	—55 to +125
P	—55 to +150

COLOR CODE

Mil-C-5B



Front



Back

Table VI

COLOR	CHARACTERISTIC	CAPACITANCE 1st & 2nd SIGNIFICANT FIGURES	CAPACITANCE MULTIPLIER	CAPACITANCE TOLERANCE PERCENT (±)	DC WORKING VOLTAGE	OPERATING TEMPERATURE RANGE	VIBRATION GRADE
BLACK	---	0	1	---	---	(M)-55° TO +70°C	(1) 10-55 CPS
BROWN	B	1	10	---	---	---	---
RED	C	2	100	2(G)	---	(N)-55° TO +85°C	---
ORANGE	D	3	1000	---	300	---	---
YELLOW	E	4	---	---	---	(O)-55° TO +125°C	(3) 10-2000 CPS
GREEN	F	5	---	5(J)	500	---	---
BLUE	---	6	---	---	---	(P)-55° TO +150°C	---
PURPLE(VIOLET)	---	7	---	---	---	---	---
GRAY	---	8	---	---	---	---	---
WHITE	---	9	---	---	---	---	---
GOLD	---	---	0.1	---	---	---	---
SILVER	---	---	---	10 (K)	---	---	---

*THE MULTIPLIER IS THE FACTOR BY WHICH THE TWO SIGNIFICANT FIGURES ARE MULTIPLIED TO YIELD THE NOMINAL CAPACITANCE.

Mil-C-5A

Same as Mil-C-5B except

1) dots on reverse side are omitted (w.v.d.c., temp., vibration)
2) 5% tolerance coded GOLD
3) 20% tolerance coded BLACK

E. I. A.

Same as Mil-C-5A except

1) first dot coded WHITE
2) "A" characteristic coded BLACK
3) 10,000 multiplier coded YELLOW
4) 0.01 multiplier coded SILVER
5) 1% tolerance coded BROWN
6) 3% tolerance coded ORANGE

Capacitance: First 2 digits are significant figures. 3rd digit indicates number of zeros following significant figures.

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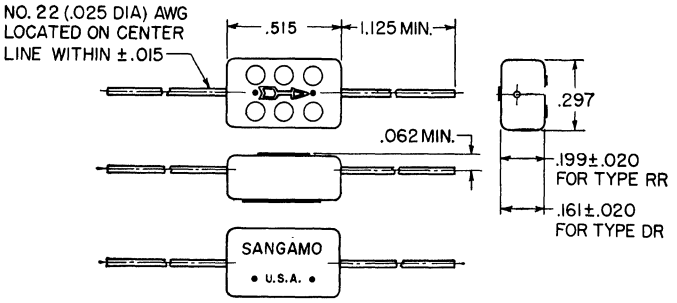
SANGAMO capacitors Electric Company Springfield, Illinois

Type DR-RR *SILVERED MICA*

Type DR and RR capacitors are molded in red Humiditite. These units are normally supplied as ±5%, "C" characteristic 20 pf and below, and "E" characteristic above 20 pf. Units can be supplied to ±½ pf or ±½% tolerance whichever is greater. For more complete engineering information write for Bulletin TSC-108.

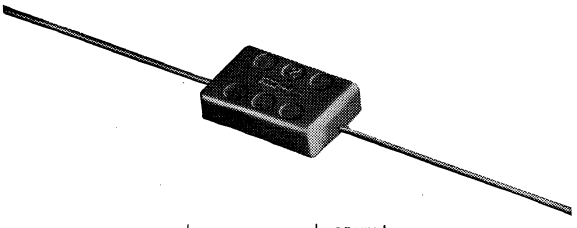


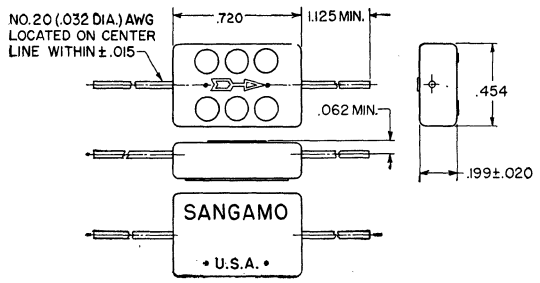
TYPE DR and RR
(125°C)
500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price Tolerance 5% J	2% G	1% F	Catalog Number	Capacitance pf (mmf)	List Price Tolerance 5% J	2% G	1% F
DR-1550	5	$0.40	$	$	DR-1310	100	.45	.52	.56
DR-1410	10	.40			DR-1311	110	.45	.52	.56
DR-1412	12	.40			DR-1312	120	.45	.52	.56
DR-1415	15	.40			DR-1313	130	.45	.52	.56
DR-1418	18	.40			DR-1315	150	.45	.52	.56
DR-1420	20	.40			DR-1316	160	.50	.58	.63
DR-1422	22	.40			DR-1318	180	.50	.58	.63
DR-1424	24	.40			DR-1320	200	.50	.58	.63
DR-1427	27	.40	.46		DR-1322	220	.55	.63	.69
DR-1430	30	.40	.46		DR-1324	240	.55	.63	.69
DR-1433	33	.40	.46		DR-1325	250	.55	.63	.69
DR-1436	36	.40	.46		DR-1327	270	.60	.69	.75
DR-1439	39	.40	.46		DR-1330	300	.60	.75	.81
DR-1443	43	.40	.46		*DR-06333	330	.65	.75	.81
DR-1447	47	.40	.46		*DR-06336	360	.70	.81	.88
DR-1450	50	.40	.46	.50	*DR-06339	390	.70	.81	.88
DR-1451	51	.40	.46	.50	RR-1339	390	.70	.81	.88
DR-1456	56	.40	.46	.50	RR-1343	430	.75	.92	1.00
DR-1462	62	.40	.46	.50	*RR-06347	470	.80	.92	1.00
DR-1468	68	.40	.46	.50	*RR-06350	500	.80	.92	1.00
DR-1475	75	.40	.46	.50	*RR-06351	510	.80	.92	1.00
DR-1482	82	.45	.52	.56	*RR-06356	560	.85	.92	1.00
DR-1491	91	.45	.52	.56	NOTE: *Voltage Rating 300 W.V.D.C.				

Type K and KR *MICA*

Type KR capacitors are molded in red Humiditite. These capacitors are normally supplied at ±5% tolerance, "C" characteristic 20 pf and below, and "E" characteristic above 20 pf. Units can be supplied to ±½ pf or ±½% tolerance whichever is greater. Type K capacitors, available only in 10% or 20% tolerance and "B" characteristic, are molded in tan Humiditite. Where Type K units are required, specify the type designation as K rather than KR. For more complete information write for Bulletin TSC-108.





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SANGAMO Electric Company capacitors Springfield, Illinois

Type K and KR *Mica* (continued)

(125°C)

500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price and Tolerance M ±20%	K ±10%	J ±5%	G ±2%	F ±1%
KR-1550	5	$0.30	$	$	$	$
KR-1410	10	.30	.33	.40		
KR-1412	12	.30	.33	.40		
KR-1415	15	.30	.33	.40		
KR-1418	18	.30	.33	.40		
KR-1420	20	.30	.33	.40		
KR-1422	22	.30	.33	.40		
KR-1424	24	.30	.33	.40		
KR-1427	27	.30	.33	.40		
KR-1430	30	.30	.33	.40		
KR-1433	33	.20	.22	.40		
KR-1436	36	.20	.22	.40		
KR-1439	39	.20	.22	.40		
KR-1443	43	.20	.22	.40		
KR-1447	47	.20	.22	.40		
KR-1450	50	.20	.22	.40	.46	
KR-1451	51	.20	.22	.40	.46	
KR-1456	56	.20	.22	.40	.46	
KR-1462	62	.20	.22	.40	.46	
KR-1468	68	.20	.22	.40	.46	
KR-1475	75	.20	.22	.40	.46	
KR-1482	82	.20	.22	.40	.46	
KR-1491	91	.20	.22	.40	.46	
KR-1310	100	.20	.22	.40	.46	.50
KR-1311	110	.20	.22	.45	.52	.56
KR-1312	120	.20	.22	.45	.52	.56
KR-1313	130	.25	.28	.45	.52	.56
KR-1315	150	.25	.28	.45	.52	.56
KR-1316	160	.25	.28	.45	.52	.56
KR-1318	180	.25	.28	.45	.52	.56
KR-1320	200	.25	.28	.45	.52	.56
KR-1322	220	.25	.28	.45	.52	.56
KR-1324	240	.30	.33	.55	.63	.69
KR-1325	250	.30	.33	.55	.63	.69
KR-1327	270	.30	.33	.55	.63	.69
KR-1330	300	.30	.33	.55	.63	.69
KR-1333	330	.30	.33	.55	.63	.69
KR-1336	360	.30	.33	.55	.63	.69
KR-1339	390	.30	.33	.65	.75	.81
KR-1340	400	.30	.33	.65	.75	.81
KR-1343	430	.30	.33	.65	.75	.81
KR-1347	470	.30	.33	.70	.81	.88
KR-1350	500	.30	.33	.70	.81	.88
KR-1351	510	.30	.33	.70	.81	.88
KR-1356	560	.35	.39	.75	.86	.94
KR-1360	600	.35	.39	.75	.86	.94
KR-1362	620	.35	.39	.75	.86	.94
KR-1368	680	.35	.39	.80	.92	1.00
KR-1370	700	.35	.39	.80	.92	1.00
KR-1375	750	.35	.39	.80	.92	1.00
KR-1380	800	.35	.39	.80	.92	1.00
KR-1382	820	.40	.44	.85	.98	1.06
KR-1390	900	.45	.50	.85	.98	1.06
KR-1391	910	.45	.50	.85	.98	1.06
KR-1210	1000	.45	.50	.90	1.04	1.13
KR-1211	1100	.50	.55	.90	1.04	1.13
KR-1212	1200	.50	.55	1.00	1.15	1.25
KR-1213	1300	.50	.55	1.00	1 15	1.25
KR-1215	1500	.60	.66	1.10	1.27	1.38
KR-1216	1600	.60	.66	1.10	1.27	1.38
KR-1218	1800	.70	.77	1.20	1.38	1.50
*KR-06220	2000	.75	.83	1.30	1.50	1.63
*KR-06222	2200	.80	.88	1.40	1.61	1.75
*KR-06224	2400	.85	.94	1.45	1.67	1.81
*KR-06225	2500	.90	.99	1.50	1.73	1.88
*KR-06227	2700	.95	1.05	1.60	1.84	2.00
*KR-06230	3000	1.00	1.10	1.80	2.07	2.25

Type KR *Silvered Mica*

(125°C)

1000 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price and Tolerance M ±20%	K ±10%	J ±5%	G ±2%	F ±1%
KR-2312	120	$0.35	$0.40	$0.50	$0.58	$0.63
KR-2313	130	.35	.40	.50	.58	.63
KR-2315	150	.35	.40	.50	.58	.63
KR-2318	180	.35	.40	.55	.63	.69
KR-2320	200	.40	.46	.55	.63	.69
KR-2322	220	.40	.46	.60	.69	.75
KR-2324	240	.40	.46	.60	.69	.75
KR-2327	270	.40	.46	.65	.75	.81
KR-2330	300	.45	.52	.70	.81	.88
KR-2333	330	.45	.52	.70	.81	.88
KR-2336	360	.45	.52	.70	.81	.88
KR-2339	390	.45	.52	.70	.81	.88
KR-2343	430	.50	.58	.75	.86	.94
KR-2345	450	.50	.58	.75	.86	.94
†KR-2347	470	.50	.58	.75	.86	.94
†KR-2351	510	.50	.58	.75	.86	.94
†KR-2356	560	.55	.66	.80	.92	1.00
†KR-2362	620	.55	.66	.85	.98	1.06
†KR-2368	680	.60	.72	.90	1.04	1.13
†KR-2375	750	.60	.72	.95	1.09	1.19
†KR-2382	820	.65	.78	1.00	1.15	1.25
†KR-2392	920	.70	.84	1.05	1.21	1.31

1500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price and Tolerance M ±20%	K ±10%	J ±5%	G ±2%	F ±1%
KR-3475	75	$0.35	$0.40	$0.55	$0.63	$
KR-3482	82	.35	.40	.55	.63	
KR-3491	91	.40	.46	.60	.69	
KR-3310	100	.40	.46	.60	.69	.75
KR-3311	110	.40	.46	.60	.69	.75
KR-3312	120	.40	.46	.60	.69	.75
KR-3313	130	.40	.46	.60	.69	.75
KR-3315	150	.40	.46	.70	.81	.88
KR-3316	160	.40	.46	.70	.81	.88
KR-3318	180	.40	.46	.70	.81	.88
KR-3320	200	.45	.52	.80	.92	1.00
KR-3322	220	.45	.52	.80	.92	1.00
KR-3323	230	.45	.52	.80	.92	1.00
†KR-3325	250	.55	.66	1.00	1.15	1.25
†KR-3327	270	.55	.66	1.00	1.15	1.25
†KR-3330	300	.60	.72	1.10	1.27	1.38
†KR-3333	330	.60	.72	1.10	1.27	1.38
†KR-3336	360	.60	.72	1.15	1.32	1.44
†KR-3339	390	.65	.78	1.15	1.32	1.44
†KR-3343	430	.65	.78	1.15	1.32	1.44
†KR-3345	450	.70	.84	1.25	1.44	1.56

2500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price and Tolerance M ±20%	K ±10%	J ±5%	G ±2%	F ±1%
KR-5415	15	$0.35	$0.40			
KR-5418	18	.35	.40			
KR-5420	20	.35	.40	.50		
KR-5422	22	.35	.40	.50		
KR-5424	24	.35	.40	.50		
KR-5427	27	.35	.40	.50		
KR-5430	30	.40	.46	.60		
KR-5433	33	.40	.46	.60		
KR-5436	36	.40	.46	.60		
KR-5439	39	.40	.46	.60		
KR-5443	43	.40	.46	.60		
KR-5447	47	.40	.46	.70		
KR-5450	50	.40	.46	.70	.81	
KR-5451	51	.40	.46	.70	.81	
KR-5456	56	.40	.46	.70	.81	
KR-5462	62	.40	.46	.70	.81	
KR-5468	68	.45	.52	.80	.92	
KR-5475	75	.50	.58	.90	1.04	
KR-5482	82	.50	.58	.90	1.04	
KR-5491	91	.50	.58	.90	1.04	
KR-5310	100	.55	.66	1.00	1.15	1.25
KR-5311	110	.60	.72	1.10	1.27	1.38
KR-5312	120	.60	.72	1.20	1.38	1.50
†KR-5313	130	.60	.72	1.20	1.35	1.63

NOTE: *Voltage Rating 300 W.V.D.C.

NOTE: †Temperature Rating 85°C

Trade Discount Applies to List Prices Only

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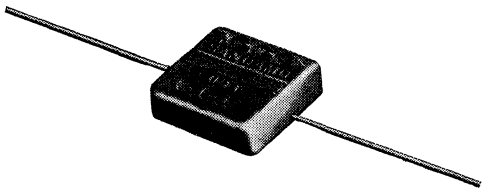
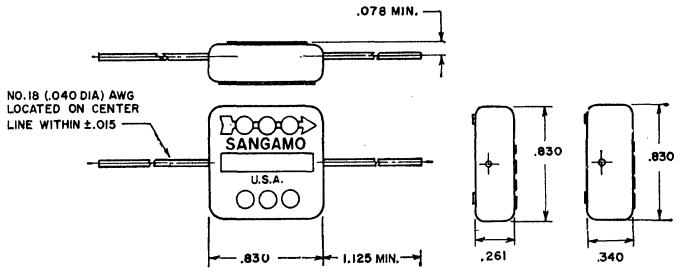
SANGAMO capacitors Electric Company Springfield, Illinois

Type C-CR *MICA CAPACITOR*





Type C foil mica capacitors are molded in tan Humiditite in either 10% or 20% tolerance. These units are only supplied as "B" characteristic.

Type CR silvered mica capacitors are molded in red Humiditite. These units are normally supplied as 5% tolerance and "C" characteristic. Units can be supplied to ±½% pf or ±½% whichever is greater, as well as D, E or F characteristic.

Both Types C and CR are available in two thicknesses. Where the thicker version is required, the letter "K" should follow the type designation (for example) CRK-1280.

TYPE C (Foil Mica)
(125°C)
500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price Tolerance M ±20%	K ±10%	Catalog Number	Capacitance pf (mmf)	List Price Tolerance M ±20%	K ±10%
	.281" MAX. THICKNESS				.281" MAX. THICKNESS		
C-1347	470	$0.30	$0.36	C-1239	3900	.65	.75
C-1350	500	.30	.36	C-1240	4000	.65	.75
C-1351	510	.30	.36	C-1243	4300	.65	.75
C-1356	560	.30	.36	C-1247	4700	.65	.75
C-1362	620	.30	.36	C-1250	5000	.70	.81
C-1368	680	.30	.36	C-1251	5100	.70	.81
C-1375	750	.30	.36	C-1256	5600	.70	.81
C-1380	800	.30	.36	C-1260	6000	.70	.81
C-1382	820	.30	.36	C-1262	6200	.90	1.04
C-1390	900	.30	.36	*C-1268	6800	.95	1.05
C-1391	910	.30	.36	C-1275	7500	1.00	1.10
C-1210	1000	.35	.39	*C-06280	8000	1.00	1.10
C-1211	1100	.35	.39	*C-06282	8200	1.15	1.27
C-1212	1200	.35	.39	*C-06291	9100	1.15	1.27
C-1213	1300	.35	.39	*C-06295	9500	1.25	1.38
C-1215	1500	.40	.44		.359" MAX. THICKNESS		
C-1216	1600	.40	.44				
C-1218	1800	.45	.50	C-1280	8000	1.00	1.10
C-1220	2000	.45	.50	C-1282	8200	1.15	1.27
C-1222	2200	.45	.50	C-1291	9100	1.15	1.27
C-1224	2400	.50	.55	C-1110	10000	1.40	1.54
C-1225	2500	.50	.55	*C-06112	12000	1.60	1.76
C-1227	2700	.50	.55	*C-06113	13000	1.80	2.00
C-1230	3000	.60	.66	*C-061145	14500	2.00	2.20
C-1233	3300	.60	.66				
C-1236	3600	.60	.66	NOTE: *Voltage Rating 300 W.V.D.C.			

TYPE CR (Silvered Mica)
(125°C)
500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price Tolerance J ±5%	G ±2%	F ±1%	Catalog Number	Capacitance pf (mmf)	List Price Tolerance J ±5%	G ±2%	F ±1%
	.281" MAX. THICKNESS					.281" MAX. THICKNESS			
CR-1347	470	$0.70	$0.81	$0.88	CR-1239	3900	2.00	2.30	2.50
CR-1350	500	.70	.81	.88	CR-1240	4000	2.00	2.30	2.50
CR-1351	510	.70	.81	.88	CR-1243	4300	2.10	2.42	2.63
CR-1356	560	.75	.86	.94	CR-1247	4700	2.10	2.42	2.63
CR-1362	620	.75	.86	.94	CR-1250	5000	2.15	2.47	2.69
CR-1368	680	.80	.92	1.00	CR-1251	5100	2.15	2.47	2.69
CR-1375	750	.80	.92	1.00	CR-1256	5600	2.25	2.59	2.81
CR-1380	800	.80	.96	1.04	CR-1260	6000	2.30	2.65	2.90
CR-1382	820	.85	.98	1.06	CR-1262	6200	2.40	2.76	3.00
CR-1390	900	.90	1.04	1.13	*CR-06268	6800	2.65	3.05	3.31
CR-1391	910	.90	1.04	1.13	*CR-06275	7500	2.80	3.22	3.50
CR-1210	1000	1.00	1.15	1.25	*CR-06280	8000	2.80	3.22	3.50
CR-1211	1100	1.00	1.15	1.25	*CR-06282	8200	3.00	3.45	3.75
CR-1212	1200	1.15	1.32	1.44	*CR-06290	9000	3.00	3.45	3.75
CR-1213	1300	1.15	1.32	1.44		.359" MAX. THICKNESS			
CR-1215	1500	1.25	1.44	1.56					
CR-1216	1600	1.25	1.44	1.56	CR-1268	6800	2 65	3.05	3.31
CR-1218	1800	1.25	1.44	1.56	CR-1275	7500	2.80	3.22	3.50
CR-1220	2000	1 35	1.55	1.69	CR-1280	8000	2.80	3.22	3.50
CR-1222	2200	1 35	1.55	1.69	CR-1282	8200	3.00	3.45	3.75
CR-1224	2400	1.60	1.84	2.00	CR-1290	9000	3.00	3.45	3.75
CR-1225	2500	1.60	1.84	2.00	CR-1110	10000	3.50	4.03	4.38
CR-1227	2700	1.80	2.07	2.25	*CR-06112	12000	4.25	4.89	5.31
CR-1230	3000	1.90	2.19	2.38	*CR-06115	15000	5.00	5.75	6.25
CR-1233	3300	1.90	2.19	2.38	*CR-06116	16000	5.00	5.75	6.25
CR-1236	3600	2.00	2.30	2.50	NOTE: *Voltage Rating 300 W.V.D.C.				

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SANGAMO Electric Company capacitors Springfield, Illinois

TYPE CR HIGH VOLTAGE (Silvered Mica) continued

(125°C)

1000 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price Tolerance J ±5%	G ±2%	F ±1%
CR-2212	1200	$1.30	$1.50	$1.63
CR-2215	1500	1.50	1.73	1.88
CR-2218	1800	1.60	1.84	2.00
CR-2220	2000	1.70	1.96	2.13
CR-2222	2200	1.90	2.19	2.38
CR-2227	2700	2.10	2.42	2.63
CR-2223	3000	2.30	2.65	2.88
CR-2233	3300	2.40	2.76	3.00
CR-2236	3600	2.70	3.10	3.38
CR-2242	4200	3.00	3.45	3.75
†CR-2251	5100	3.40	3.91	4.25
†CR-2262	6200	4.30	4.95	5 38
†CR-2268	6800	4.60	5.29	5.75
†CR-2274	7400	4.90	5.64	6.13

1500 W.V.D.C.

CR-3368	680	1.50	1.73	1.88
CR-3375	750	1.50	1.73	1.88
CR-3382	820	1.70	1.96	2 13
CR-3391	910	1.80	2.07	2.25
CR-3210	1000	1.80	2.07	2.25
CR-3212	1200	2.20	2.53	2.75
CR-3215	1500	2.60	2.99	3.25
CR-3218	1800	2.90	3.34	3.63
CR-3220	2000	3.20	3.68	4.00
CR-3222	2200	3.40	3.91	4.25
CR-3224	2400	3.60	4.14	4.50
†CR-3227	2700	4.00	4.60	5.00
†CR-3223	3000	4.40	5.06	5.50
†CR-3233	3300	4 60	5.29	5.75
†CR-3236	3600	4.80	5.52	6.00
†CR-3242	4200	5.00	5.75	6.25

2000 W.V.D.C.

CR-4343	430	1.25	1.44	1.56
CR-4347	470	1.25	1.44	1.56
CR-4350	500	1.35	1.55	1.69
CR-4351	510	1.35	1.55	1.69
CR-4356	560	1.44	1.66	1.80
CR-4362	620	1.53	1.76	1.91
CR-4368	680	1.87	2.16	2.35
CR-4375	750	1.87	2.16	2.35
CR-4382	820	2.12	2.45	2.66
CR-4391	910	2.25	2.57	2.81
CR-4210	1000	2.25	2.57	2.81
CR-4211	1100	2.37	2.74	2.97
CR-4212	1200	2.76	3.16	3 44
CR-4213	1300	2.87	3 31	3.59
CR-4215	1500	3.25	3.73	4.06
†CR-4216	1600	3.25	3.73	4.06
†CR-4218	1800	3.62	4.17	4.54
†CR-4220	2000	4.00	4.57	5.00
†CR-4222	2200	4.25	4.90	5 30
†CR-4224	2400	4.50	5.16	5.63

2500 W.V.D.C.

Catalog Number	Capacitance pf (mmf)	List Price Tolerance J ±5%	G ±2%	F ±1%
CR-5324	240	$1.20	$1.38	$1.50
CR-5325	250	1.20	1.38	1.50
CR-5327	270	1.20	1.38	1.50
CR-5330	300	1.30	1.50	1.63
CR-5333	330	1.30	1.50	1.63
CR-5336	360	1.50	1.73	1.88
CR-5339	390	1.60	1.84	2.00
CR-5343	430	1.60	1.84	2.00
CR-5347	470	1.60	1.84	2.00
CR-5350	500	1.70	1.96	2.13
CR-5351	510	1.70	1.96	2.13
CR-5356	560	1.80	2.07	2.25
CR-5362	620	1.90	2.19	2.38
CR-5368	680	2.10	2.42	2.63
CR-5375	750	2.20	2.53	2.75
CR-5382	820	2.30	2.65	2.88
CR-5391	910	2.70	3.10	3.38
CR-5210	1000	2.80	3.22	3.50
CR-5211	1100	2.80	3.22	3.50
CR-5212	1200	3.00	3.45	3.75
CR-5214	1400	3.30	3.80	4.13
†CR-5215	1500	3.70	4.20	4.63

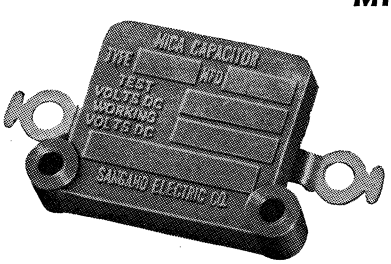
3000 W.V.D.C.

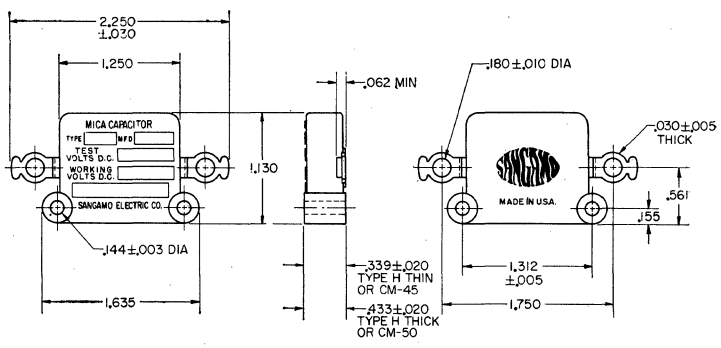
†CR-6312	120	1.40	1.61	1.72
†CR-6315	150	1.40	1.61	1.72
†CR-6316	160	1.40	1.61	1.72
†CR-6318	180	1.45	1.67	1.81
†CR-6320	200	1.45	1.67	1.81
†CR-6324	240	1.50	1.72	1.87
†CR-6325	250	1.50	1.72	1.87
†CR-6327	270	1.50	1.72	1.87
†CR-6330	300	1.62	1.87	2 04
†CR-6333	330	1.62	1.87	2 04
†CR-6336	360	1.87	2 16	2.35
†CR-6339	390	2.00	2.30	2.50
†CR-6343	430	2.00	2.30	2.50
†CR-6347	470	2.00	2.30	2.50
†CR-6350	500	2.13	2.45	2.66
†CR-6351	510	2.13	2.45	2.66
†CR-6356	560	2.25	2.57	2.81
†CR-6362	620	2.37	2.74	2 98
†CR-6368	680	2.63	3 03	3.30
†CR-6375	750	2.76	3.15	3.44
†CR-6382	820	2.87	3.32	3.60
†CR-6391	910	3.37	3.87	4.23
†CR-6210	1000	3.50	4.01	4.37
†CR-6211	1100	3.50	4.01	4.37
†CR-6212	1200	3.75	4.32	4.70
†CR-6213	1300	4.12	4.75	5.15
†CR-6214	1400	4.62	5 25	5.80

NOTE: †Temperature rating 85°C

Type H

MICA





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SANGAMO capacitors Electric Company Springfield, Illinois

TYPE H—*Mica Capacitor* (continued)

Catalog Number	Capacitance Mf	List Price
600 W.V.D.C.		
HT-1450	.00005	$1 20
HT-1310	.0001	1.20
HT-1320	.0002	1.20
HT-1325	.00025	1.20
HT-1330	.0003	1.20
HT-1340	.0004	1.20
HT-1350	.0005	1.20
HT-1210	.001	1.20
HT-1215	.0015	1.20
HT-1220	.002	1 30
HT-1225	.0025	1 30
HT-1230	.003	1.45
HT-1240	.004	1.50
HT-1250	.005	1.55
HT-1260	.006	1.80
HT-1270	.007	1.85
HT-1280	.008	1.90
HT-1110	.01	2.15
HT-1116	.016	2.65
*HK-1120	.02	3.05
*HK-1125	.025	3.60
*HK-1130	.03	4 45
1200 W.V.D.C.		
HT-2450	.00005	1.60
HT-2310	.0001	1.60
HT-2320	.0002	1.60
HT-2325	.00025	1.60
HT-2330	.0003	1.60
HT-2340	.0004	1.60
HT-2350	.0005	1.60
HT-2210	.001	1.80
HT-2215	.0015	$2.30
HT-2220	.002	2.40
HT-2225	.0025	2.80
HT-2230	.003	3.05
HT-2240	.004	3.05
HT-2250	.005	3.30
HT-2260	.006	3.30
HT-2280	.008	3.85
*HK-2110	.01	5.10
*HK-2116	.016	5.70
2500 W.V.D.C.		
HT-5450	.00005	1.90
HT-5310	.0001	1.90
HT-5320	.0002	1.90
HT-5325	.00025	2.20
HT-5330	.0003	2.25
HT-5340	.0004	2.30
HT-5350	.0005	2.40
HT-5210	.001	2.80
HT-5215	.0015	3.55
HT-5220	.002	4.15
HT-5230	.003	4.90
*HK-5240	.004	5.65
*HK-5250	.005	6.40
*HK-5255	.0055	6.90

NOTE—*.433 inches thick.

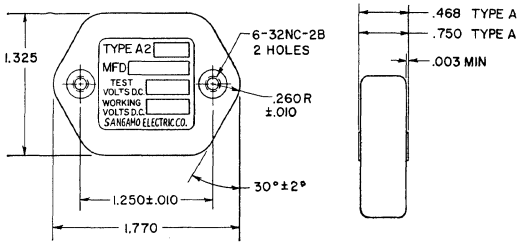
NOTE—For meter mounting bracket add letter "E" to type designation. (Example: HTE-1450). Add $.20 to List Price and specify case size.

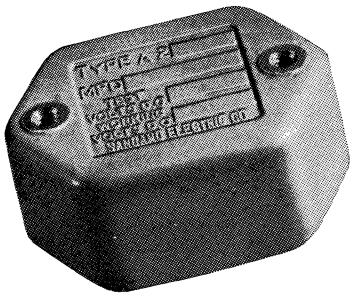
NOTE—Standard tolerance ±10%. B Characteristic unless otherwise specified.

NOTE—For 5% Tolerance add 10% to list prices.
For 2% Tolerance add 50% to list price.

Type A

MICA





Catalog Number	Capacitance Mf	List Price
600 W.V.D.C.		
AT-1450	.00005	$1.45
AT-1310	.0001	1.45
AT-1315	.00015	1.45
AT-1320	.0002	1.45
AT-1325	.00025	1.45
AT-1350	.0005	1.45
AT-1210	.001	1.45
AT-1220	.002	1.65
AT-1225	.0025	1.70
AT-1230	.003	1.85
AT-1240	.004	2.00
AT-1250	.005	2.10
AT-1260	.006	2.20
AT-1280	.008	2.45
AT-1110	.01	2.80
AT-1115	.015	3.05
AT-1120	.02	3.55
AT-1125	.025	4.35
AT-1130	.03	4.55
*AK-1140	.04	5 85
*AK-1150	.05	7.10
*AK-1160	.06	8 05
AK-1170	.07	9.00
1200 W.V.D.C.		
AT-2450	.00005	$1.60
AT-2310	.0001	1.60
AT-2315	.00015	1.60
AT-2320	.0002	1.60
AT-2325	.00025	1.60
AT-2350	.0005	1.60
AT-2210	.001	1.90
AT-2220	.002	2.50
AT-2225	.0025	2.80
AT-2230	.003	2.95
AT-2240	.004	3.10
AT-2250	.005	3.30
AT-2260	.006	3.45
AT-2280	.008	4.10
AT-2110	.01	4.70
AT-2115	.015	5.80
AT-2118	.018	6.50
*AK-2120	.02	7.05
*AK-2125	.025	7.90
*AK-2130	.03	8.10
*AK-2140	.04	9.00
2500 W.V.D.C.		
AT-5450	.00005	$1.90
AT-5310	.0001	1.90
AT-5325	.00025	2.15
AT-5350	.0005	2.55
AT-5210	.001	2.90
AT-5220	.002	4.25
AT-5225	.0025	4 60
AT-5230	.003	5.10
AT-5240	.004	5.65
AT-5250	.005	6.20
AT-5270	.007	6.35
*AK-5280	.008	6.85
*AK-5110	.01	7.30
*AK-5116	.016	8.05

NOTE—If .144 inch clearance holes are desired, designate by adding letter "A" to Type Number. (Example: AAT-1450).

NOTE—*indicates .750 overall thickness.

NOTE—Standard Tolerance ±10%. B characteristic unless otherwise specified.

NOTE—For 5% Tolerance add 10% to list price.
For 2% Tolerance add 50% to list price.

NOTE—Stand-off insulators are available if desired. Add $.20 to List Price.

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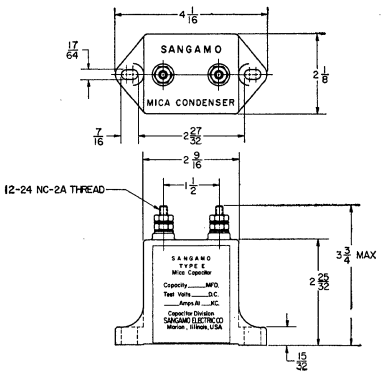
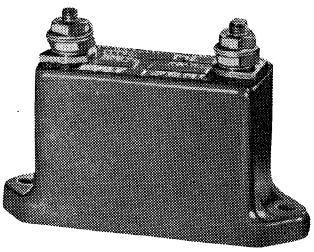
Type E MICA

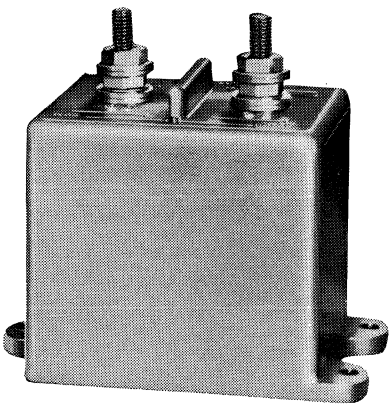


Catalog Number	Capacitance Mf	WVDC	List Price
E-1245	.00005	12500	$18.00
E-1231	.0001	12500	18.00
E-12325	.00025	12500	18.00
E-1235	.0005	12500	18.00
E-1221	.001	12500	18.00
E-12215	.0015	12500	21.00
E-1222	.002	12500	25.00
E-1022	.002	10000	26.00
E-1023	.003	10000	27.00
E-1024	.004	10000	29.00
E-1025	.005	10000	32.40
E-721	.001	7000	16.10
E-722	.002	7000	21.00
E-723	.003	7000	23.00
E-711	.01	7000	34.00
E-3524	.004	3500	21.00
E-3525	.005	3500	21.30
E-3511	.01	3500	32.40
E-3512	.02	3500	32.40
E-3515	.05	3500	37.60
E-215	.05	2000	32.20
E-201	.1	2000	37.60

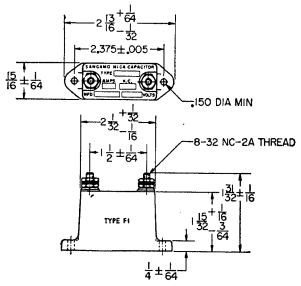
NOTE—Available in ±20% tolerance only. This type capacitor specifically designed for amateur use only. Not recommended for commercial applications.

Types F1-F2 MICA Type F3

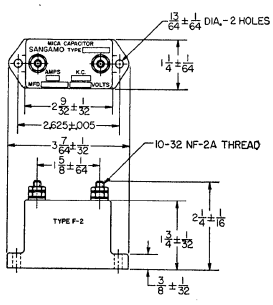




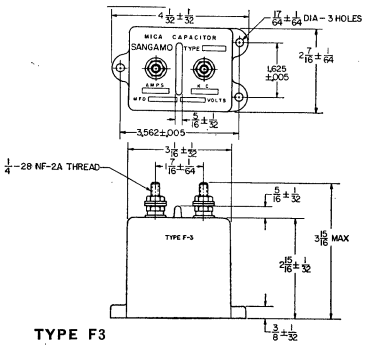
Types F1, F2, and F3 capacitors, the smallest of the Sangamo line of transmitting types, possess a range of voltage and current ratings suitable for many applications. They are housed in low loss molded bakelite cases. The mica and foil sections are permanently clamped, vacuum impregnated, and installed in the case in such a manner as to provide stable characteristics and adequate moisture proofing.



TYPE F1



TYPE F2



TYPE F3

Catalog Number	Capacitance Mf	Peak Working Voltage	List Price
F1-331	.0001	3000	$12.60
F1-332	.0002	3000	12.60
F1-3325	.00025	3000	12.60
F1-335	.0005	3000	12.60
F1-321	.001	3000	12.60
F1-322	.002	3000	12.60
F1-223	.003	2000	12.60
F1-224	.004	2000	12.60
F1-225	.005	2000	12.60
F1-226	.006	2000	12.60
F1-1528	.008	1500	12.60
F1-111	.01	1000	12.60
F1-112	.02	1000	14.30
F1-0215	.05	250	14.30
F1-0201	.1	250	15.10

Catalog Number	Capacitance Mf	Peak Working Voltage	List Price
F2-531	.0001	5000	$17.30
F2-5325	.00025	5000	17.30
F2-535	.0005	5000	17.30
F2-536	.0006	5000	17.30
F2-521	.001	5000	17.30
F2-522	.002	5000	17.30
F2-523	.003	5000	17.30
F2-325	.005	3000	17.30
F2-326	.006	3000	17.30
F2-211	.01	2000	17.30
F2-212	.02	2000	17.30
F2-1515	.05	1500	17.30
F2-0501	.1	500	19.20
F2-0202	.2	250	25.25
F2-02025	.25	250	27.90

Catalog Number	Capacitance Mf	Peak Working Voltage	List Price
F3-8325	.00025	8000	$35.25
F3-835	.0005	8000	35.25
F3-821	.001	8000	39.25
F3-822	.002	8000	39.25
F3-825	.005	8000	48.60
F3-811	.01	8000	55.20
F3-415	.05	4000	61.85
F3-201	.1	2000	48.60
F3-06025	.25	600	44.60
F3-0605	.5	600	52.55
F3-0410	1.0	400	81.85

NOTE—Standard tolerance ±5%.
NOTE—B Characteristic only in stock.
NOTE—For ±2% tolerance, add 20% to List Price.

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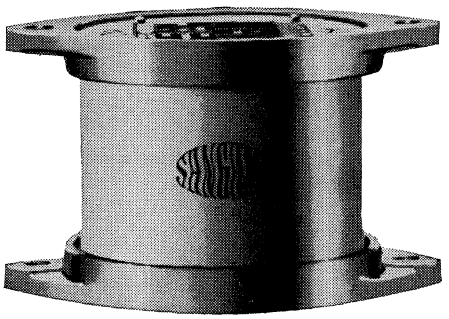
SANGAMO capacitors Electric Company Springfield, Illinois

Types G1-G2-G3-G4-G5 MICA

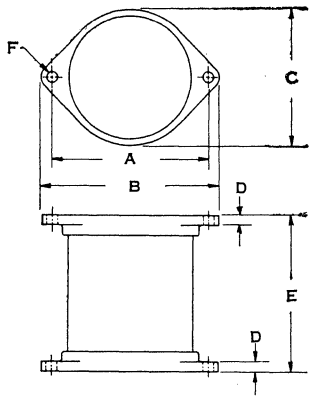


Type G ceramic cased capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5B specification covering type CM75, 80, 85, 90 and 95. For additional engineering information write for Bulletin TS-106.

TYPE G MICA CAPACITOR DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3¼	3 13/16	2 13/16	¼	2½	17/64
G2	4¼	5	3½	¼	3	.272
G3	5¾	6½	5	⅜	4	.377
G4	5¾	6½	5	⅜	5¾	.377
G5	8	9	6¾	½	10	13/32

NOTE: Standard tolerance all Type G Capacitors ±5%, B characteristic.



TYPES G1, G2, G3, G4 and G5

TYPE G1

Catalog Number	Capacitance Mf.	Peak Working Voltage	List Price
G1-641	.00001	6000	$ 35.45
G1-645	.00005	6000	38.20
G1-631	.0001	6000	40.60
G1-632	.0002	6000	40.60
G1-634	.0004	6000	44.35
G1-635	.0005	6000	46 65
G1-621	.001	6000	46 65
G1-6215	.0015	6000	48.90
G1-622	.002	6000	48.90
G1-623	.003	6000	50.60
G1-624	.004	6000	50.60
G1-625	.005	6000	50.60
G1-526	.006	5000	51.45
G1-511	.01	5000	51.45
G1-4115	.015	4000	51.45
G1-312	.02	3000	51.45

TYPE G2

Catalog Number	Capacitance Mf.	Peak Working Voltage	List Price
G2-1031	.0001	10000	$ 65.55
G2-10315	.00015	10000	65.55
G2-1032	.0002	10000	65.55
G2-10325	.00025	10000	65.55
G2-1035	.0005	10000	65.55
G2-1021	.001	10000	65.55
G2-10212	.0012	10000	65.55
G2-10215	.0015	10000	65.55
G2-1022	.002	10000	65.55
G2-823	.003	8000	65.55
G2-824	.004	8000	65.55
G2-525	.005	5000	65.55
G2-526	.006	5000	69.15
G2-511	.01	5000	69.15
G2-4115	.015	4000	69.15
G2-312	.02	3000	69.15

TYPE G3

Catalog Number	Capacitance Mf.	Peak Working Voltage	List Price
G3-2045	.00005	20000	$110.90
G3-2031	.0001	20000	121.00
G3-2032	.0002	20000	131.10
G3-20325	.00025	20000	131.10
G3-2033	.0003	20000	131.10
G3-2035	.0005	20000	137.15
G3-2038	.0008	20000	137.15
G3-2021	.001	20000	141.15
G3-15215	.0015	15000	143.20
G3-1522	.002	15000	143.20
G3-1523	.003	15000	151.25
G3-1524	.004	15000	151.25
G3-1025	.005	10000	151.25
G3-1026	.006	10000	151.25
G3-1028	.008	10000	151.25
G3-1011	.01	10000	151.25
G3-512	.02	5000	151.25
G3-313	.03	3000	151.25

TYPE G4

Catalog Number	Capacitance Mf.	Peak Working Voltage	List Price
G4-3043	.00003	30000	$167.90
G4-3045	.00005	30000	167.90
G4-3031	.0001	30000	210.30
G4-30315	.00015	30000	210.30
G4-30325	.00025	30000	221.16
G4-3035	.0005	30000	221.16
G4-3038	.0008	30000	221.16
G4-3021	.001	30000	229.10
G4-25215	.0015	25000	229.10
G4-2022	.002	20000	229.10
G4-2023	.003	20000	229.10
G4-2024	.004	20000	234.35
G4-1525	.005	15000	242.00
G4-2025	.005	20000	238.00
G4-1526	.006	15000	252.25
G4-1228	.008	12000	260 00
G4-1011	.01	10000	272.44
G4-612	.02	6000	272.44
G4-514	.04	5000	272.44

TYPE G5

Catalog Number	Capacitance Mf.	Peak Working Voltage	List Price
G5-5045	.00005	50000	$443.00
G5-3531	.0001	35000	464.00
G5-35325	.00025	35000	504.00
G5-3534	.0004	35000	504.00
G5-3535	.0005	35000	544.00
G5-3521	.001	35000	561.00
G5-3022	.002	30000	538.00
G5-30225	.0025	30000	548.00
G5-3023	.003	30000	568.00
G5-2525	.005	25000	568.00
G5-2026	.006	20000	568.00
G5-1511	.01	15000	568.00

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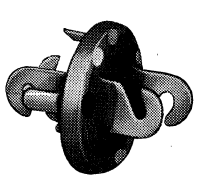
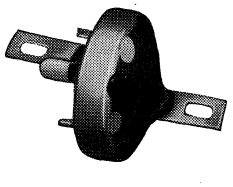
SANGAMO Electric Company capacitors Springfield, Illinois

Type M BUTTON® CAPACITORS (Silvered Mica)


M63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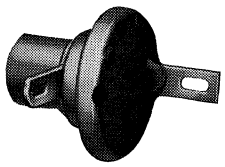
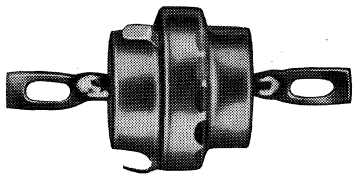
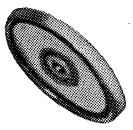

M72

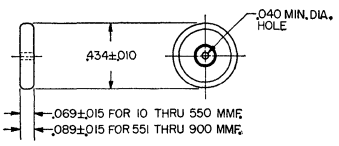

MHC519


M100

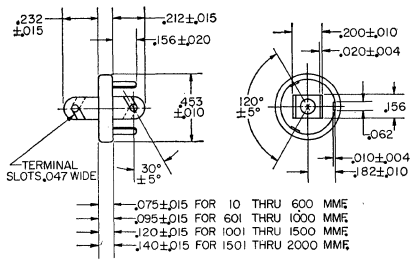
Small and light in weight **SANGAMO** Type **M** Silvered Mica Button Capacitors are designed particularly for application in high frequency circuits. Their high "Q" is indicative of their low loss. These units meet all requirements for **V.H.F.** and **U.H.F.** applications and are constructed to be electrically and mechanically stable.

The silver plated case design performs the dual purpose of shielding and being the low potential terminal. The high potential terminal through the center of the Capacitor allows 360 degrees electrical current distribution, resulting in extremely low series inductance and more efficient performance in high frequency applications.

All units are normally furnished in characteristic "E" and in 500 working volts **D.C.** Case sizes are in accordance with **Mil-C-10950B** as general types **CB11, CB21, CB75** and **CB76.** The types **MHC** are hermetically sealed and will far exceed the environmental requirements of **Mil-C-10950B.** For more complete engineering information write for Catalog **2311A.**



M100



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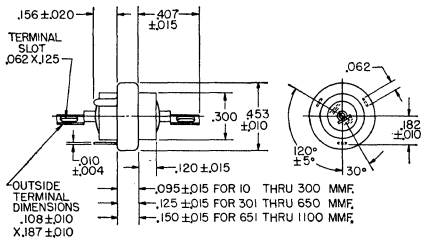
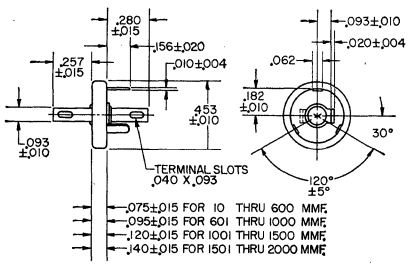


MHC519



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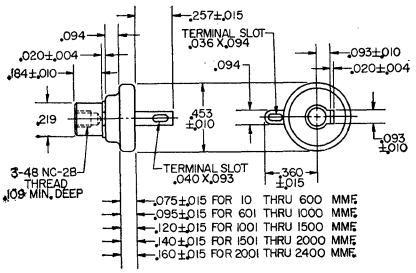

M72

Catalog Number	Capacitance Pf (Mmf)	Capacitance Tolerance	List Price—Catalog Number M23, M63 M72	M100	MHC519
M-415K	15	10%	1.65	1.55	6.55
M-415J	15	5%	2.10	2.00	7.95
M-425K	25	10%	1.65	1.55	6.55
M-425J	25	5%	2.10	2.00	7.95
M-450K	50	10%	1.65	1.55	6.55
M-450J	50	5%	2.10	2.00	7.95
M-310K	100	10%	1.65	1.55	6.55
M-310J	100	5%	2.10	2.00	7.00
M-315K	150	10%	1.65	1.55	6.55
M-315J	150	5%	2.10	2.00	7.00
M-320K	200	10%	1.65	1.55	6.55
M-320J	200	5%	2.10	2.00	7.00
M-325K	250	10%	1.65	1.55	6.55
M-325J	250	5%	2.10	2.00	7.00
M-330K	300	10%	1.80	1.65	6.65
M-330J	300	5%	2.15	2.05	7.25
M-340K	400	10%	1.90	1.80	6.90
M-340J	400	5%	2.30	2.20	7.45
M-350K	500	10%	2.00	1.90	7.10
M-350J	500	5%	2.45	2.35	7.75
M-375K	750	10%	2.85	2.80	7.60
M-375J	750	5%	3.55	3.40	8.35
M-210K	1000	10%	3.35	3.20	8.00
M-210J	1000	5%	4.20	4.00	8.80

NOTE: For complete Catalog Number add Type Designation. Example: M23 415K.

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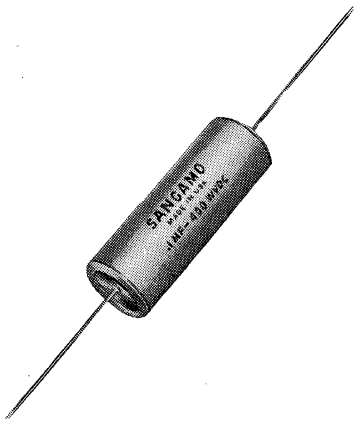

Type S *Subminiature hermetically sealed metal tubular paper dielectric capacitors*

SANGAMO Types **SBA** and **SDA** are designed to meet the demands for a subminiaturized, high quality, hermetically sealed paper tubular capacitor. These units are encased in brass tubular cases finished with a high tin content alloy. Hermetic sealing is accomplished by using glass-to-metal, solder-seal terminals. The impregnant used in the Type **SBA** and Type **SDA** is Etherm—an impregnating oil of high thermal stability and superior electrical characteristics over the temperature range of −55°C to +125°C. Both types are supplied with the case floating (circuit o——| |——o) and without an insulating sleeve. The Type **S** capacitor is available in many other designs. For more detailed information write for Catalog 2421 or Catalog 2422 type **SM**, High Reliability. Case sizes are in accordance with Mil-C-25-C specification, types CP04 and CP08.

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
TYPE SBA (Inserted Tab)					
SBA1K01102M	.001	100	.235	¾	$2.60
SBA1K01152M	.0015	100	.235	¾	2.60
SBA1K01222M	.0022	100	.235	¾	2.60
SBA1K01332M	.0033	100	.235	¾	2.60
SBA1K01472M	.0047	100	.235	¾	2.60
SBA1K01682M	.0068	100	.235	¾	2.60
SBA1K01103M	.01	100	.235	¾	2.65
SBA1K01153M	.015	100	.235	¾	2.65
SBA1K01223M	.022	100	.235	¾	2.65
SBA1K01333M	.033	100	.235	¾	2.70
SBA1K01473M	.047	100	.312	⅞	2.80
SBA1K01683M	.068	100	.312	⅞	2.85
SBA1K01104M	.1	100	.312	⅞	2.90
SBA1K01154M	.15	100	.400	⅞	2.95
SBA1K01224M	.22	100	.400	1⅛	3.00
SBA1K01334M	.33	100	.400	1⅜	3.10
SBA1K01474M	.47	100	.562	1⅛	3.35
SBA1K01684M	.68	100	.562	1⅜	3.55
SBA1K01105M	1.0	100	.562	1⅞	3.80
SBA1K02102M	.001	200	.235	¾	2.70
SBA1K02152M	.0015	200	.235	¾	2.70
SBA1K02222M	.0022	200	.235	¾	2.70
SBA1K02332M	.0033	200	.235	¾	2.75
SBA1K02472M	.0047	200	.235	¾	2.75
SBA1K02682M	.0068	200	.235	¾	2.75
SBA1K02103M	.01	200	.235	¾	2.75
SBA1K02153M	.015	200	.235	¾	2.75
SBA1K02223M	.022	200	.235	¾	2.75
SBA1K02333M	.033	200	.312	⅞	2.85
SBA1K02473M	.047	200	.312	⅞	2.95
SBA1K02683M	.068	200	.312	⅞	2.95
SBA1K02104M	.1	200	.400	⅞	3.00
SBA1K02154M	.15	200	.400	1⅛	3.05
SBA1K02224M	.22	200	.400	1⅜	3.20
SBA1K02334M	.33	200	.562	1⅛	3.40
SBA1K02474M	.47	200	.562	1⅜	3.65
SBA1K02684M	.68	200	.562	1⅞	3.85
SBA1K02105M	1.0	200	1.0	1⅞	4.20
SBA1K04102M	.001	400	.235	¾	2.80
SBA1K04152M	.0015	400	.235	¾	2.80
SBA1K04222M	.0022	400	.235	¾	2.80
SBA1K04332M	.0033	400	.235	¾	2.80
SBA1K04472M	.0047	400	.235	¾	2.80
SBA1K04682M	.0068	400	.235	¾	2.80
SBA1K04103M	.01	400	.235	¾	2.85
SBA1K04153M	.015	400	.312	⅞	2.95
SBA1K04223M	.022	400	.312	⅞	2.95
SBA1K04333M	.033	400	.312	⅞	3.00
SBA1K04473M	.047	400	.400	⅞	3.05
SBA1K04683M	.068	400	.400	1⅛	3.15
SBA1K04104M	.1	400	.400	1⅜	3.25
SBA1K04154M	.15	400	.562	1⅛	3.40
SBA1K04224M	.22	400	.562	1⅜	3.65
SBA1K04334M	.33	400	.562	1⅞	3.80
SBA1K04474M	.47	400	.670	1⅞	4.20
SBA1K04684M	.68	400	.750	2⅛	4.50
SBA1K04105M	1.0	400	1.0	1⅞	5.00
SBA1K06102M	.001	600	.235	¾	2.80
SBA1K06152M	.0015	600	.235	¾	2.80
SBA1K06222M	.0022	600	.235	¾	2.80
SBA1K06332M	.0033	600	.235	¾	2.85
SBA1K06472M	.0047	600	.235	¾	2.85
SBA1K06682M	.0068	600	.235	¾	2.85
SBA1K06103M	.01	600	.312	⅞	2.95
SBA1K06153M	.015	600	.312	⅞	3.00
SBA1K06223M	.022	600	.312	⅞	3.00
SBA1K06333M	.033	600	.400	⅞	3.10
SBA1K06473M	.047	600	.400	1⅛	3.15
SBA1K06683M	.068	600	.400	1⅜	3.30
SBA1K06104M	.1	600	.562	1⅛	3.50
SBA1K06154M	.15	600	.562	1⅜	3.60
SBA1K06224M	.22	600	.562	1⅞	3.90
SBA1K06334M	.33	600	.670	1⅞	4.30
SBA1K06474M	.47	600	.750	2⅛	4.60
SBA1K06684M	.68	600	1.0	1⅞	4.80
TYPE SDA (Extended Foil)					
SDA1K01102M	.001	100	.235	¾	2.70
SDA1K01152M	.0015	100	.235	¾	2.70
SDA1K01222M	.0022	100	.235	¾	2.70
SDA1K01332M	.0033	100	.235	¾	2.75
SDA1K01472M	.0047	100	.235	¾	2.75
SDA1K01682M	.0068	100	.235	¾	2.75
SDA1K01103M	.01	100	.235	¾	2.80
SDA1K01153M	.015	100	.235	¾	2.85
SDA1K01223M	.022	100	.312	⅞	2.95
SDA1K01333M	.033	100	.312	⅞	2.95
SDA1K01473M	.047	100	.312	⅞	3.00
SDA1K01683M	.068	100	.400	⅞	3.00
SDA1K01104M	.1	100	.400	⅞	3.05
SDA1K01154M	.15	100	.400	1⅛	3.10
SDA1K01224M	.22	100	.400	1⅜	3.25
SDA1K01334M	.33	100	.562	1⅛	3.45
SDA1K01474M	.47	100	.562	1⅜	3.70
SDA1K01684M	.68	100	.562	1⅝	3.85
SDA1K01105M	1.0	100	.670	1⅝	4.30
SDA1K02102M	.001	200	.235	¾	2.80
SDA1K02152M	.0015	200	.235	¾	2.80
SDA1K02222M	.0022	200	.235	¾	2.80
SDA1K02332M	.0033	200	.235	¾	2.85
SDA1K02472M	.0047	200	.235	¾	2.85
SDA1K02682M	.0068	200	.235	¾	2.85
SDA1K02103M	.01	200	.312	⅞	2.95
SDA1K02153M	.015	200	.312	⅞	3.00
SDA1K02223M	.022	200	.312	⅞	3.00
SDA1K02333M	.033	200	.312	⅞	3.05
SDA1K02473M	.047	200	.400	⅞	3.10
SDA1K02683M	.068	200	.400	⅞	3.15
SDA1K02104M	.1	200	.400	1⅛	3.15
SDA1K02154M	.15	200	.400	1⅜	3 30
SDA1K02224M	.22	200	.562	1⅛	3.50
SDA1K02334M	.33	200	.562	1⅜	3.75

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SANGAMO Electric Company capacitors Springfield, Illinois

Type S (continued)

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
SDA1K02474M	.47	200	.562	1 5/8	3.95
SDA1K02684M	.68	200	.670	1 5/8	4.30
SDA1K02105M	1.0	200	.750	2 1/8	4.50
SDA1K04102M	.001	400	.235	3/4	2.90
SDA1K04152M	.0015	400	.235	3/4	2.90
SDA1K04222M	.0022	400	.235	3/4	2.90
SDA1K04332M	.0033	400	.235	3/4	2.95
SDA1K04472M	.0047	400	.312	7/8	3.00
SDA1K04682M	.0068	400	.312	7/8	3.10
SDA1K04103M	.01	400	.312	7/8	3.10
SDA1K04153M	.015	400	.312	7/8	3.10
SDA1K04223M	.022	400	.400	7/8	3.15
SDA1K04333M	.033	400	.400	7/8	3.20
SDA1K04473M	.047	400	.400	1 1/8	3.25
SDA1K04683M	.068	400	.400	1 3/8	3 35
SDA1K04104M	.1	400	.562	1 1/8	3.50
SDA1K04154M	.15	400	.562	1 3/8	3 75
SDA1K04224M	.22	400	.562	1 5/8	3.90
SDA1K04334M	.33	400	.670	1 5/8	4.30
SDA1K04474M	.47	400	.750	2 1/8	4.55
SDA1K06102M	.001	600	.235	3/4	2.90
SDA1K06152M	.0015	600	.235	3/4	2.95
SDA1K06222M	.0022	600	.235	3/4	2.95
SDA1K06332M	.0033	600	.312	7/8	3.00
SDA1K06472M	.0047	600	.312	7/8	3.05
SDA1K06682M	.0068	600	.312	7/8	3.10
SDA1K06103M	.01	600	.312	7/8	3.10
SDA1K06153M	.015	600	.400	7/8	3.20
SDA1K06223M	.022	600	.400	7/8	3.25
SDA1K06333M	.033	600	.400	1 1/8	3.25
SDA1K06473M	.047	600	.400	1 3/8	3.40
SDA1K06683M	.068	600	.562	1 1/8	3.60
SDA1K06104M	.1	600	.562	1 3/8	3.75
SDA1K06154M	.15	600	.562	1 5/8	4.00
SDA1K06224M	.22	600	.670	1 5/8	4.40
SDA1K06334M	.33	600	.750	2 1/8	4.60
SDA1K06474M	.47	600	.750	2 3/8	4.90

NOTE—Standard tolerance 20% (M). For 10% tolerance, no extra charge. Change last letter of catalog number to K.

NOTE—If insulating sleeve is required, add 5% to list price and change catalog number to SBB or SDB.

Type 33

MOLDED PAPER TUBULAR CAPACITORS

The **SANGAMO** "Telechief" is molded in Humiditite to provide more stable capacitance values, unsurpassed moisture resistance, excellent seal and operation up to +125°C without derating. Small in physical size and rugged in construction, this tubular paper capacitor is especially adaptable to television, auto radio, AC-DC sets and other uses. The leads are firmly imbedded in the hard plastic case and have been specially designed to resist breakage. The Type 33 assures operating dependability under extremes of heat, humidity and physical stress.

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
330221	.001	200	5/16	1	.25
330225	.005	200	5/16	1	.25
330211	.01	200	3/8	1 1/8	.25
330212	.02	200	3/8	1 1/8	.25
3302147	.047	200	7/16	1 1/4	.25
330215	.05	200	7/16	1 1/4	.25
330201	.1	200	1/2	1 1/2	.35
3302015	.15	200	9/16	1 5/8	.35
3302022	.22	200	9/16	2	.40
3302025	.25	200	5/8	2	.45
3302047	.47	200	3/4	2	.60
330205	.5	200	3/4	2	.60
330421	.001	400	5/16	1	.25
330425	.005	400	5/16	1	.25
330411	.01	400	3/8	1 1/8	.25
330412	.02	400	7/16	1 3/16	.25
3304122	.022	400	7/16	1 3/16	.30
3304147	.047	400	15/32	1 1/2	.30
330415	.05	400	15/32	1 1/2	.30
3304168	.068	400	1/2	1 1/2	.35
330401	.1	400	9/16	1 5/8	.35
3304015	.15	400	9/16	2	.40
330402	.2	400	5/8	2	.40
3304022	.22	400	5/8	2	.40
3304025	.25	400	5/8	2	.40
330635	.0005	600	5/16	1	.25
330621	.001	600	5/16	1	.25
3306215	.0015	600	5/16	1	.25
330622	.002	600	5/16	1	.25
3306222	.0022	600	5/16	1	.25
3306225	.0025	600	5/16	1	.25
330623	.003	600	5/16	1	.25
3306233	.0033	600	5/16	1	.25
330624	.004	600	5/16	1	.25
3306247	.0047	600	5/16	1	.25
330625	.005	600	5/16	1	.25
330626	.006	600	3/8	1 1/8	.25
3306268	.0068	600	3/8	1 1/8	.30
330628	.008	600	7/16	1 3/16	.30
330611	.01	600	7/16	1 3/16	.30
3306115	.015	600	7/16	1 3/16	.30
330612	.02	600	7/16	1 1/4	.30
3306122	.022	600	7/16	1 1/4	.30
3306125	.025	600	15/32	1 1/2	.35
330613	.03	600	15/32	1 1/2	.35
3306133	.033	600	15/32	1 1/2	.35
330614	.04	600	1/2	1 1/2	.35
3306147	.047	600	1/2	1 1/2	.40
330615	.05	600	1/2	1 1/2	.40
330616	.06	600	9/16	1 5/8	.40
3306168	.068	600	9/16	1 5/8	.45
330601	.1	600	9/16	2	.45
3306015	.15	600	5/8	2	.50
330602	.2	600	3/4	2	.55
3306022	.22	600	3/4	2	.55
3306025	.25	600	3/4	2	.55

NOTE—Standard Tolerances:
.0005 Mf up to .001 Mf ±40%
.001 Mf up to .1 Mf ±20%
.1 Mf and up ±10%

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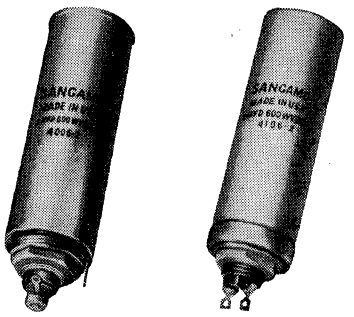
SANGAMO capacitors Electric Company Springfield, Illinois

Types 40-41-42-43 PAPER



Sangamo Types 40, 41, 42, and 43 paper dielectric capacitors are ideal for use in high voltage filter applications. Enclosed in aluminum containers, they mount to the chassis by means of a 3/4-16 threaded neck. In the type 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case and washer with a solder lug. In the type 41 and 43, both terminals are completely insulated from the case. Each of the 4 types is provided with mounting nut and lockwasher. The type 40 and 41 are impregnated with Diaclor to provide an **F** characteristic. Types 42 and 43 are impregnated with mineral oil to provide an **E** characteristic. All units are designed in accordance with electrical characteristics of Mil-C-25C.

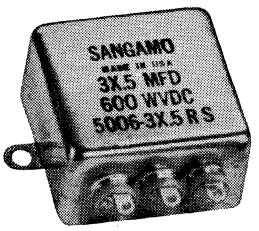
Catalog Number	Capacitance Mf	Working Volts D.C.	Diameter In Inches	Length In Inches Type 40-41	Length In Inches Type 42-43	List Price
TYPE 40-42						
4_06-1	1	600	1 1/2	1 5/8	2	$3.95
4_06-2	2	600	1 1/2	2 3/8	2 7/8	4.60
4_06-4	4	600	1 1/2	3 5/8	5 1/4	6.50
4_10-1	1	1000	1 1/2	2 3/8	2 7/8	4.50
4_10-2	2	1000	1 1/2	3 5/8	5	6.00
4_15-.25	.25	1500	1 1/2	1 5/8	2	4.85
4_15-.5	.5	1500	1 1/2	2 3/8	2 7/8	5.25
4_15-1	1	1500	1 1/2	3 3/8	4 1/2	6.10

NOTE—Complete Catalog Number includes type designation. Example: 4206-1.

Catalog Number	Capacitance Mf	Working Volts D.C.	Diameter In Inches	Length In Inches Type 40-41	Length In Inches Type 42-43	List Price
TYPE 41-43						
4_06-1	1	600	1 1/2	1 5/8	2	4.70
4_06-2	2	600	1 1/2	2 3/8	2 7/8	5.40
4_06-4	4	600	1 1/2	3 5/8	5 1/4	7.10
4_10-1	1	1000	1 1/2	2 3/8	2 7/8	5.00
4_10-2	2	1000	1 1/2	3 5/8	5	6.30
4_15-.25	.25	1500	1 1/2	1 5/8	2	5.65
4_15-.5	.5	1500	1 1/2	2 3/8	2 7/8	5.85
4_15-1	1	1500	1 1/2	3 3/8	4 1/2	6.30

NOTE—Standard Tolerance +20%, —10%.

Type 50 PAPER



SANGAMO Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitance values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between —55° and 85°C. All units are designed in accordance with electrical characteristics of Mil-C-25-C.

Catalog Number	Capacitance Mf	Length In Inches	Width In Inches	Height In Inches	List Price
600 W.V.D.C.					
5006-.05	.05	1 13/16	1	3/4	$2.90
5006-.1	.1	1 13/16	1	3/4	2.95
5006-.25	.25	1 13/16	1	3/4	3.10
5006-.5	.5	1 13/16	1	1	3.30
5006-1	1.0	2	1 3/4	7/8	3.75
*5006-2	2.0	2	2	1 1/8	5.00
5006-2x.05	.05-.05	1 13/16	1	3/4	3.65
5006-2x.1	.1-.1	1 13/16	1	3/4	3.70
5006-2x.25	.25-.25	1 13/16	1	7/8	3.75
5006-2x.5	.5-.5	2	1 3/4	7/8	4.30
*5006-2x1	1.0-1.0	2	2	1 1/8	5.30
5006-3x.1	.1-.1-.1	1 13/16	1	3/4	4.20
5006-3x.25	.25-.25-.25	2	1 3/4	7/8	4.75
*5006-3x.5	.5-.5-.5	2	2	1 1/8	5 75

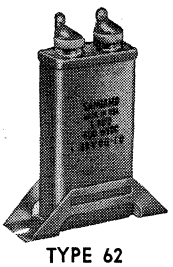
NOTE—*For bottom or top terminal, case size becomes 2" x 2" x 1 1/4".
NOTE—Standard capacity tolerance: +20%-10%

Catalog Number	Capacitance Mf	Length In Inches	Width In Inches	Height In Inches	List Price
1000 W.V.D.C.					
5010-.05	.05	1 13/16	1	3/4	3.05
5010-.1	.1	1 13/16	1	3/4	3.15
5010-.25	.25	1 13/16	1	7/8	3.25
5010-.5	.5	2	1 3/4	7/8	3.55
*5010-1	1.0	2	2	1 1/8	4.40
5010-2x.05	.05-.05	1 13/16	1	3/4	3.85
5010-2x.1	.1-.1	1 13/16	1	7/8	4.00
5010-2x.25	.25-.25	2	1 3/4	7/8	4.20
*5010-2x.5	.5-.5	2	2	1 1/8	5.45
5010-3x.1	.1-.1-.1	2	1 3/4	7/8	4.60
*5010-3x.25	.25-.25-.25	2	2	1 1/8	5.50

NOTE—Units supplied with side terminals unless otherwise specified.
NOTE—For top terminals add the letters "RT" following the catalog number.
NOTE—For bottom terminals add the letters "RB" following the catalog number.

Types 60-62-64-66-68 PAPER

TYPE 60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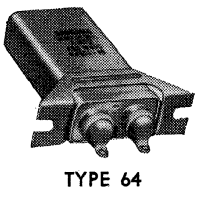
TYPE 64

TYPE 66

TYPE 68

SANGAMO Types 60, 62, 64, 66, and 68 noninductively wound paper capacitors are impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of —55°C and +85°C. The standard capacitance tolerance is +20%, —10%. Mounting brackets are supplied as shown. All units are designed in accordance with electrical characteristics of Mil-C-25C.

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SANGAMO Electric Company capacitors Springfield, Illinois

Type 60-62-64-66-68 (continued)

TYPE 60-62-64

Catalog Number	Capacitance Mf	Length In Inches Add .75" Max. for terminals	Width In Inches	Thickness In Inches	List Price Type 60	List Price Type 62-64
600 W.V.D.C.						
6-V06.01	.01	1 1/16	1 5/16	.725	$3.40	$3.80
6-V03-.05	.05	1 1/16	1 5/16	.725	3.45	3.85
6-V06-.1	.1	1 3/8	1 5/16	.725	3 70	4.10
6-V06-.25	.25	1 5/8	1 5/16	.725	3 90	4.30
6-V06-.5	.5	2	1 5/16	.725	4.30	4 60
6-V06-1 0	1.0	2 3/4	1 5/16	.725	4.75	5 15
6-V06-2.0	2.0	2 1/4	1 5/16	1.188	6.00	6.40
1000 W.V.D.C.						
6-V10-.05	.05	1 3/8	1 5/16	.725	3.50	3.90
6-V10-.1	.1	1 3/8	1 5/16	.725	3.60	4.00
6-V10-.25	.25	2	1 5/16	.725	4.00	4.40
6-V10-.5	.5	2 3/4	1 5/16	.725	4.10	4.50
6-V10-1.0	1.0	2 1/4	1 5/16	1.188	5.00	5.40

NOTE—Complete Catalog Number will include Type designation. Example: 62V06-.01.

NOTE—Type 60 without bracket; Type 62 with channel bracket, 2 terminals at the top. Type 64 with channel bracket, 2 terminals at the bottom.

NOTE—Type 60 can be furnished with spade (S) or footed (F) bracket. When ordering, state type of bracket desired following Catalog Number. Add $.40 to list price.

NOTE—Overall bracket dimensions for Type 62-64: Length 2 5/16", width .766". Mounting screw slots center-to-center 1 15/16.

TYPE 66-68

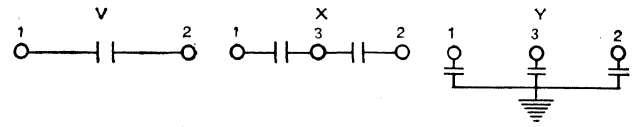
Catalog Number	Capacitance Mf	Length In Inches Add .75" Max. for terminals	Width In Inches	Thickness In Inches	List Price
600 W.V.D.C.					
6-V06-.05	.05	1 1/16	1 3/4	.580	$3.55
6-V06-.1	.1	1 1/16	1 3/4	.580	3.60
6-V06-.25	.25	1 1/2	1 3/4	.580	3.90
6-V06-.5	.5	2	1 3/4	.580	4.15
6-V06-1.0	1.0	2 3/4	1 3/4	.580	4.75
6-X06-2X.05	.05-.05	1 1/16	1 3/4	.580	3.75
6-X06-2X.1	.1-.1	1 1/2	1 3/4	.580	4.65
6-X06-2X.25	.25-.25	2	1 3/4	.580	4.70
6-X06-2X.5	.5-.5	2 3/4	1 3/4	.580	5.45
6-Y06-3X.05	.05-.05-.05	1 1/2	1 3/4	.580	5.30
6-Y06-3X.1	.1-.1-.1	1 1/2	1 3/4	.580	5.60
6-Y06-3X.25	.25-.25-.25	2 3/4	1 3/4	.580	5.80
1000 W.V.D.C.					
6-V10-.05	.05	1 1/16	1 3/4	.580	3.75
6-V10-.1	.1	1 1/2	1 3/4	.580	4.00
6-V10-.25	.25	2	1 3/4	.580	4.10
6-V10-.5	.5	2 3/4	1 3/4	.580	4.45
6-X10-2X.05	.05-.05	1 1/2	1 3/4	.580	4 35
6-X10-2X.1	.1-.1	2	1 3/4	.580	4.90
6-X10-2X.25	.25-.25	2 3/4	1 3/4	.580	5.15
6-Y10-3X.05	.05-.05-.05	1 1/2	1 3/4	.580	5.75
6-Y10-3X.1	.1-.1-.1	2 1/2	1 3/4	.580	6.20

NOTE—Overall bracket dimensions for Type 66-68: Length 2 7/16", width .640". Mounting screw slots center-to-center 2-1/8.

NOTE—Complete Catalog Number will include Type designation. Example: 66V06-.05.

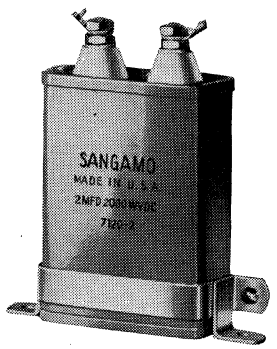
NOTE—Type 66 with channel bracket and the terminals at the top; Type 68 with channel bracket and the terminals at the bottom.

NOTE—Letter V, X and Y denote electrical circuit as follows:

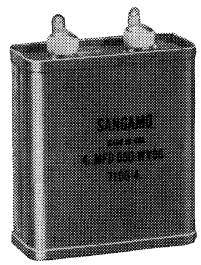


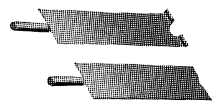
Type 71 PAPER

SANGAMO Type 71 paper dielectric capacitors are impregnated with Diaclor—a specially compounded, chemically pure, chlorinated dielectric oil. SANGAMO Diaclor is a synthetic impregnant whose characteristics can be controlled with great uniformity and possesses a high dielectric constant, high resistivity, low power factor, high dielectric strength and is non-flammable and non-explosive. The Type 71 is an excellent choice in medium and high voltage circuits where light weight per unit volume is an important factor. Each unit is finished with grey lacquer paint over a zinc chromate under coat. All units are built in accordance with applicable paragraphs of Specification Mil-C-25C. All units are designed in accordance with Mil-C-25C.

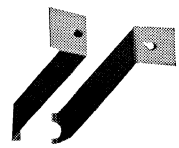


TYPE C
UNIVERSAL WRAP-AROUND BRACKET





TYPE A
SPADE BRACKET



TYPE B
FOOTED BRACKET

Catalog Number	Capacitance Mf	Working Voltage D.C.	Height In Inches	Width In Inches	Thickness In Inches	List Price	Catalog Number	Capacitance Mf	Working Voltage D.C.	Height In Inches	Width In Inches	Thickness In Inches	List Price
7106-.5	.5	600	1 5/8	1 13/16	1 1/16	$ 4.70	7110-12	12	1000	3 7/8	3 3/4	2 1/4	18.15
7106-1	1	600	2	1 13/16	1 1/16	5.80	7110-15	15	1000	4 5/8	3 3/4	2 1/2	20.10
7106-2	2	600	2 3/4	1 13/16	1 1/16	7.15	7115-.5	.5	1500	2 1/4	1 13/16	1 1/16	6.35
7106-4	4	600	2 7/8	2 1/2	1 3/16	9.10	7115-1	1	1500	3 1/4	1 13/16	1 1/16	7.45
7106-6	6	600	3 3/4	2 1/2	1 3/16	11.30	7115-2	2	1500	3 5/8	2 1/2	1 3/16	10.20
7106-8	8	600	3 1/4	3 3/4	1 1/4	13 50	7115-4	4	1500	4 1/4	3 3/4	1 1/4	14.05
7106-10	10	600	3 7/8	3 3/4	1 1/4	15.15	7115-6	6	1500	4 1/2	3 3/4	1 3/4	17.05
7110-.1	.1	1000	1 5/8	1 13/16	1 1/16	4.15	7115-8	8	1500	4 5/8	3 3/4	2 1/2	20.90
7110-.25	.25	1000	1 5/8	1 13/16	1 1/16	4.70	7115-10	10	1500	4 1/8	3 3/4	3 3/16	25.05
7110-.5	.5	1000	2	1 13/16	1 1/16	4.95	7115-12	12	1500	4 3/4	3 3/4	3 3/16	27.25
7110-1	1	1000	2 1/8	1 13/16	1 1/16	6.35	7115-15	15	1500	4 1/4	3 3/4	4 3/16	30.00
7110-2	2	1000	3 7/8	1 13/16	1 1/16	8.25	7120-.1	.1	2000	1 5/8	1 13/16	1 1/16	6.60
7110-4	4	1000	4 1/8	2 1/2	1 3/16	10.45	7120-.25	.25	2000	2	1 13/16	1 1/16	7.15
7110-6	6	1000	3 7/8	3 3/4	1 1/4	14.05	7120-.5	.5	2000	2 7/8	1 13/16	1 1/16	7.45
7110-8	8	1000	4 5/8	3 3/4	1 1/4	15.15	7120-1	1	2000	3 1/4	2 1/2	1 3/16	9.10
7110-10	10	1000	4 1/4	3 3/4	1 3/4	16.80	7120-2	2	2000	3 3/4	3 3/4	1 1/4	10 75

Trade Discount Applies to List Prices Only
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SANGAMO capacitors Electric Company Springfield, Illinois

TYPE 71 (continued)

Catalog Number	Capacitance Mf	Working Voltage D.C.	Height In Inches	Width In Inches	Thickness In Inches	List Price
7120-4	4	2000	3¾	3¾	2¼	$15.15
7120-6	6	2000	4¾	3¾	2½	20.10
7120-8	8	2000	4¾	3¾	3 3/16	25.05
7120-10	10	2000	4¾	3¾	4 5/16	30.55
7120-12	12	2000	5⅛	3¾	4 5/16	33.30
7125-5	.5	2500	2⅞	2½	1 3/16	11.55
7125-1	1	2500	3¼	3¾	1¼	13.20
7125-2	2	2500	4¾	3¾	1¾	21.45
7125-4	4	2500	5⅛	3¾	2¼	30.00
7125-10	10	2500	6	3¾	4 5/16	75.10
7130-.1	.1	3000	2	2½	1 3/16	14.05
7130-.25	.25	3000	2½	2½	1 3/16	14.85
7130-.5	.5	3000	3¾	2½	1 3/16	16.80
7130-1	1	3000	4¼	3¾	1¼	20.10
7130-2	2	3000	4½	3¾	2¼	25.05
7130-4	4	3000	4¼	3¾	4 5/16	36.85
7140-.1	.1	4000	3¼	3¾	1¾	18.50
7140-.25	.25	4000	3¼	3¾	1¾	20.00
7140-.5	.5	4000	3½	3¾	1¾	22.50
7140-1	1	4000	4¼	3¾	2¼	29.25
7140-2	2	4000	5½	3¾	3 3/16	38.50
7140-4	4	4000	7	3¾	4 5/16	60.00

Catalog Number	Capacitance Mf	Working Voltage D.C.	Height In Inches	Width In Inches	Thickness In Inches	List Price
7150-.1	.1	5000	3¼	3¾	1¾	19.25
7150-.25	.25	5000	3¼	3¾	1¾	22.00
7150-.5	.5	5000	4¼	3¾	2¼	24.50
7150-1	1	5000	4¼	3¾	4 5/16	34.00
7150-2	2	5000	5¾	3¾	4 5/16	51.00
7160-.1	.1	6000	3¼	3¾	1¾	27.50
7160-.25	.25	6000	4¼	3¾	1¾	32.00
7160-.5	.5	6000	5⅛	3¾	2¼	45.00
7160-1	1	6000	5	3¾	4 5/16	49.00
7175-.1	.1	7500	3⅞	3¾	1¾	29.00
7175-.25	.25	7500	4½	3¾	2¼	34.50
7175-.5	.5	7500	6	3¾	3 3/16	57.00

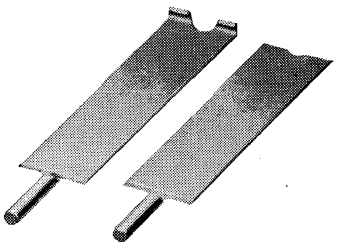
NOTE—All units supplied with spade type mounting bracket. Universal wrap-around or footed bracket may be substituted. Designate Bracket by adding Type Letter to Catalog Number. Example: 7106-.5C.

NOTE—All units 1500 W.V.D.C. and below are supplied with riveted silicone rubber bushing solder terminals. All units above 1500 W.V.D.C. are supplied with ceramic pillar terminals with removable solder lugs.

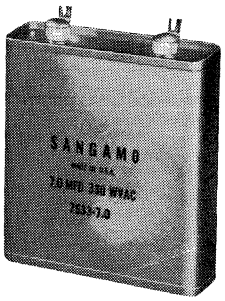
NOTE—Standard tolerance ±10%.

NOTE—Voltage Ratings up to 50KV available upon request.

Type 75 MOTOR-RUN AND BALLAST CAPACITORS



SPADE BRACKET



SANGAMO Type 75 paper dielectric capacitors are impregnated with Diaclor and designed for continuous A.C. duty in ambient temperatures up to 70°C. They are recommended for use in motor-run, ballast and light-duty power factor correction applications. For more complete engineering information write for Bulletin TSC 205-C.

Cat No.	Capacitance Mf	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Terminal Spacing ±1/16	List Price
7522-1	1	220	1 13/16	1 1/16	1⅝	3/16	$ 4.40
7522-2	2	220	1 13/16	1 1/16	2¼	3/16	5.55
7522-3	3	220	1 13/16	1 1/16	2⅞	3/16	6.10
7522-3.75	3.75	220	1 13/16	1 1/16	3¼	3/16	6.50
7522-4	4	220	1 13/16	1 1/16	3¼	3/16	6.70
7522-5	5	220	2 1/2	1 3/16	2⅞	1 1/8	7.25
7522-6	6	220	2 1/2	1 3/16	3½	1 1/8	8.00
7522-7.5	7.5	220	2 1/2	1 3/16	3⅞	1 1/8	8.45
7522-8	8	220	2 1/2	1 3/16	3⅞	1 1/8	8.75
7522-10	10	220	2 1/2	1 3/16	4¾	1 1/8	10.35
7522-12	12	220	3 ¾	1¼	3⅞	2	11.10
7522-15	15	220	3 ¾	1¼	4¼	2	13.60
7522-20	20	220	3 ¾	1¾	4	2	18.35
7522-25	25	220	3 ¾	2¼	4⅛	2	21.45
7533-1	1	330	1 13/16	1 1/16	2⅛	3/16	5.00
7533-2	2	330	1 13/16	1 1/16	2⅞	3/16	5.60
7533-3	3	330	1 13/16	1 1/16	3⅞	3/16	6.80
7533-4	4	330	1 13/16	1 1/16	4¾	3/16	7.60
7533-5	5	330	2 1/2	1 3/16	3½	1 1/8	8.00
7533-6	6	330	2 1/2	1 3/16	3⅞	1 1/8	9.10
7533-7	7	330	3 ¾	1¼	3¼	2	10.00
7533-9	9	330	3 ¾	1¼	3⅞	2	11.60
7533-10	10	330	3 ¾	1¼	3⅞	2	12.15
7533-12	12	330	3 ¾	1¾	3⅞	2	13.00
7533-15	15	330	3 ¾	1¾	4¼	2	15.90
7533-20	20	330	3 ¾	2¼	4½	2	20.40
7533-25	25	330	3 ¾	2½	4¾	2	24.85
7533-30	30	330	3 ¾	3 3/16	4½	2	27.20

Cat No.	Capacitance Mf	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Terminal Spacing ±1/16	List Price
7544-1	1	440	1 13/16	1 1/16	2¼	3/16	5.65
7544-2	2	440	1 13/16	1 1/16	3¼	3/16	6.00
7544-3	3	440	1 13/16	1 1/16	4¾	3/16	7.70
7544-3.75	3.75	440	2 1/2	1 3/16	3⅞	1 1/8	8.10
7544-4	4	440	2 1/2	1 3/16	3⅞	1 1/8	8.25
7544-5	5	440	2 1/2	1 3/16	4¾	1 1/8	10.00
7544-6	6	440	3 ¾	1¼	4⅛	2	10.70
7544-8	8	440	3 ¾	1¼	4¼	2	12.10
7544-10	10	440	3 ¾	2¼	3⅜	2	13.85
7544-12	12	440	3 ¾	2¼	3⅞	2	16.30
7544-15	15	440	3 ¾	2¼	4½	2	19.25
7544-20	20	440	3 ¾	3 3/16	4⅛	2	23.75
7544-25	25	440	3 ¾	3 3/16	4¾	2	28.35
7544-30	30	440	3 ¾	3 3/16	5½	2	32.35
7566-1	1	660	1 13/16	1 1/16	3⅞	3/16	6.10
7566-2	2	660	2 1/2	1 3/16	3⅞	1 1/8	7.70
7566-4	4	660	3 ¾	1¼	4¾	2	11.15
7566-5	5	660	3 ¾	1¾	4¼	2	12.00
7566-6	6	660	3 ¾	1¾	4¾	2	14.50
7566-8	8	660	3 ¾	2¼	3⅞	2	18.10
7566-10	10	660	3 ¾	3 3/16	4⅛	2	19.70

NOTE—All units supplied with riveted silicone rubber bushing terminals with solder lugs. Cup type terminal insulator available at no extra cost.

NOTE—Standard Tolerance ±10%.

NOTE—Spade type bracket supplied with all units at above prices. Universal wrap-around or footed brackets may be substituted.

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SANGAMO Electric Company capacitors Springfield, Illinois

Type 80 MOTOR-RUN AND BALLAST CAPACITORS

The SANGAMO Type 80 paper dielectric capacitor is designed for continuous duty in fluorescent-light ballast, heating, ventilating and air conditioning motor run applications. These units are impregnated with Diaclor and hermetically sealed in drawn oval metal containers. Normally furnished with silicone rubber bushings and forked lug terminals. For more complete engineering information write for Bulletin TSC 205-C.

Catalog Number	Capacitance Mf	Working Voltage A.C.	Base Dim. W±1/16	Base Dim. D±1/16	Height H±1/16	List Price
8022-2	2	236	2 1/16	1 1/4	2 1/4	$ 5.50
8022-3	3	236	2 1/16	1 1/4	2 1/4	6.10
8022-4	4	236	2 1/16	1 1/4	2 7/8	6.70
8022-5	5	236	2 1/16	1 1/4	2 7/8	7.25
8022-6	6	236	2 1/16	1 1/4	3 3/4	8.00
8022-7.5	7.5	236	2 13/16	2 1/8	2 17/32	8.40
8022-10	10	236	2 13/16	2 1/8	3 1/32	10.30
8022-15	15	236	2 13/16	2 1/8	4 5/32	13.60
8022-20	20	236	2 13/16	2 1/8	4 7/8	18.35
8033-2	2	330	2 1/16	1 1/4	2 1/4	5.60
8033-3	3	330	2 1/16	1 1/4	2 7/8	6.70
8033-3.75	3.75	330	2 1/16	1 1/4	3 1/8	7.40
8033-4	4	330	2 1/16	1 1/4	3 1/8	7.60
8033-5	5	330	2 1/16	1 1/4	3 3/4	8.00
8033-6	6	330	2 1/16	1 1/4	3 3/4	9.00
8033-7	7	330	2 13/16	2 1/8	3 1/32	10.00
8033-7.5	7.5	330	2 13/16	2 1/8	3 1/32	10.50
8033-8	8	330	2 13/16	2 1/8	3 3/8	11.00
8033-10	10	330	2 13/16	2 1/8	3 3/8	12.15
8033-12.5	12.5	330	2 13/16	2 1/8	4 5/32	13.55
8033-14.5	14.5	330	2 13/16	2 1/8	4 21/32	15.45
8033-15	15	330	2 13/16	2 1/8	4 21/32	15.90
8033-17.5	17.5	330	2 13/16	2 1/8	5 3/16	$18.15
8033-20	20	330	2 13/16	2 1/8	5 3/16	20.30
8044-2	2	440	2 1/16	1 1/4	2 1/4	6.00
8044-3	3	440	2 1/16	1 1/4	3 1/8	7.70
8044-4	4	440	2 1/16	1 1/4	3 3/4	8.25
8044-5	5	440	2 13/16	2 1/8	2 17/32	10.00
8044-6	6	440	2 13/16	2 1/8	2 25/32	10.70
8044-7	7	440	2 13/16	2 1/8	3 13/32	11.40
8044-7.5	7.5	440	2 13/16	2 1/8	3 13/32	11.75
8044-8	8	440	2 13/16	2 1/8	3 25/32	12.10
8044-10	10	440	2 13/16	2 1/8	4 5/32	13.75
8044-12.5	12.5	440	2 13/16	2 1/8	5 3/16	16.80
8044-15	15	440	2 13/16	2 1/8	6 1/4	19 20
8066-1	1	660	2 1/16	1 1/4	2 1/4	6.20
8066-2	2	660	2 1/16	1 1/4	3 3/4	7.90
8066-3	3	660	2 13/16	2 1/8	2 25/32	9.25
8066-4	4	660	2 13/16	2 1/8	3 3/8	11.10
8066-5	5	660	2 13/16	2 1/8	4 5/32	12.00
8066-6	6	660	2 13/16	2 1/8	4 21/32	14.50

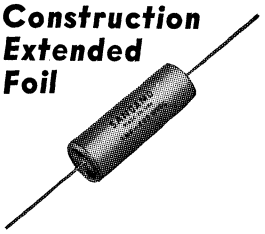
NOTE—Type 80 not a stock item. Minimum order quantity is 10 of any value.
NOTE—Cup type terminal insulator available at no extra cost.
NOTE—Add 3/32" to above dimensions for lip on can.

PLASTIC FILM CAPACITORS

Sangamo plastic film capacitors exhibit exceptional electrical characteristics which are necessary to meet the critical application requirements of the electronic industry. Sangamo's extensive experience with plastic films will enable you to select the most suitable capacitors in a variety of sizes, ratings, and styles. The following is a representative listing of our hermetically sealed tubular construction capacitors which are manufactured with the highest grade of material to insure the most reliable product available. Other sizes, ratings, and styles are available upon request.

TYPE SPTX TEFLON® *Film Capacitors*

Construction Extended Foil

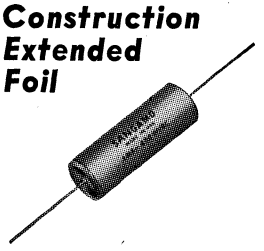


* Dielectric-Teflon® Film
* Temperature Range —55°C to +165°C Full Rating —55°C to +200°C 50% De-Rating
* Insulation Resistance— 100,000 megohm-microfarads
* Dissipation Factor—0.05% maximum
* Temperature Coefficient of Capacitance—200±20ppm/°C
* Dielectric Absorption—.01% maximum

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
SPTX0221	.001	200	.235	7/8	$24.80
SPTX0211	.01	200	.400	7/8	25.40
SPTX0215	.05	200	.562	1 3/8	27.35
SPTX0201	.1	200	.670	1 1/2	33.21
SPTX02025	.25	200	.750	2	49.60
SPTX0421	.001	400	.235	7/8	25.40
SPTX0411	.01	400	.400	7/8	25.80
SPTX0415	.05	400	.562	1 1/2	27.94
SPTX0401	.1	400	.750	1 1/2	38.80
SPTX04025	.25	400	1.000	7/8	51.40
SPTX0621	.001	600	.235	7/8	26.30
SPTX0611	.01	600	.400	7/8	27.60
SPTX0615	.05	600	.562	1 1/2	28 70
SPTX0601	.1	600	1.000	2	40.70

TYPE SPSX POLYSTYRENE *Film Capacitors*

Construction Extended Foil



* Dielectric-Polystyrene Film
* Temperature Range— —55°C to +70°C Full Rating
* Insulating Resistance— 100,000 megohm-microfarads
* Dissipation Factor—.02% maximum
* Temperature coefficient of capacitance —100±20ppm/°C
* Stability ±0.1% maximum

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
SPSX0121	.001	100	.235	13/16	$4.86
SPSX0121	.01	100	.235	13/16	4.98
SPSX0101	.1	100	.400	1 1/8	5.74
SPSX01022	.22	100	.562	1 1/8	7.78
SPSX0221	.001	200	.235	13/16	4.96
SPSX0211	.01	200	.312	7/8	5.08
SPSX0201	.1	200	.562	1 3/8	6.64
SPSX02022	.22	200	.670	1 7/8	9.91
SPSX0421	.001	400	.235	13/16	5.06
SPSX0411	.01	400	.312	1	5.10
SPSX0401	.1	400	.562	1 7/8	7.78
SPSX0621	.001	600	.235	1 3/16	4.86
SPSX0611	.01	600	.400	1	5.34
SPSX0601	.1	600	.670	1 5/8	9.40

NOTE—Standard capacitance tolerance .001 mfd. to .047 ±20%; .047 mfd. and up ±10%. Other tolerances available.

Trade Discount Applies to List Prices Only
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SANGAMO capacitors Electric Company Springfield, Illinois

Type SPX Polyester FILM CAPACITORS

CONSTRUCTION:
EXTENDED FOIL

CIRCUIT O——| |——O

* Dielectric—Mylar® Film
* Temperature Range—55° to +85°C Full Rating
  —55°C to +125°C 50% Derating
* Insulation Resistance—50,000 megohm-microfarads
* Dissipation Factor—1% maximum
* Dielectric Absorption—0.1% maximum
* Stability Retrace—±0.2% maximum

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price	Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
SPX0121	.001	100	.235	13/16	$3.24	SPX0210	1.0	200	.670	1 7/8	5.39
SPX01268	.0068	100	.235	13/16	3.28	SPX0421	.001	400	.235	13/16	3.46
SPX0111	.01	100	.235	13/16	3 35	SPX04268	.0068	400	.312	13/16	3.69
SPX01122	.022	100	.235	13/16	3.53	SPX0411	.01	400	.312	15/16	3.72
SPX01147	.047	100	.312	15/16	3.56	SPX04122	.022	400	.400	15/16	3.80
SPX01168	.068	100	.312	15/16	3.63	SPX04147	.047	400	.400	1 1/4	3.89
SPX0101	.1	100	.400	15/16	3.66	SPX04168	.068	400	.400	1 3/8	4.03
SPX01022	.22	100	.400	1 5/16	3.87	SPX0401	.1	400	.562	1 1/4	4.21
SPX01047	.47	100	.562	1 1/8	4.42	SPX04022	.22	400	.670	1 1/2	4.68
SPX0110	1.0	100	.562	1 7/8	5 16	SPX04047	.47	400	.670	1 7/8	5.42
SPX0221	.001	200	.235	13/16	3.31	SPX0621	.001	600	.235	13/16	3.51
SPX02268	.0068	200	.235	13/16	3.42	SPX06268	.0068	600	.312	15/16	3.71
SPX0211	.01	200	.235	13/16	3.56	SPX0611	.01	600	.312	15/16	3.73
SPX02122	.022	200	.235	13/16	3.62	SPX06122	.022	600	.400	1	3.89
SPX02147	.047	200	.312	15/16	3.71	SPX06147	.047	600	.400	1 1/2	4.08
SPX02168	.068	200	.400	15/16	3.76	SPX06168	.068	600	.562	1 1/8	4.32
SPX0201	.1	200	.400	1 1/16	3.86	SPX0601	.1	600	.562	1 3/8	4.48
SPX02022	.22	200	.400	1 7/16	4.21	SPX06022	.22	600	.670	1 7/8	5.27
SPX02047	.47	200	.562	1 7/16	4.73	NOTE—Standard Tolerance ±10%					

Type 33M MOLDED MYLAR TUBULAR CAPACITORS

The Sangamo Type 33M, which uses a Mylar® di-electric is molded in thermosetting plastic to provide more stable capacitance values, high moisture resistance, excellent seal and operation up to 125°C when the voltage is derated to 50% of the 85°C value.

They are especially recommended for use in test equipment, instrumentation and filter networks all of which require small physical size and dependability under extreme heat, humidity and physical stress. The type 33M is manufactured to meet moisture requirements of Mil-C-91A Specifications.

Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price	Catalog Number	Capacitance Mf	Working Voltage D.C.	Diameter In Inches	Length In Inches	List Price
33M0121	.001	100	5/16	1	$ .25	33M04025	.25	400	7/16	2	.50
33M0125	.005	100	5/16	1	.25	33M0405	.5	400	3/4	2	.70
33M0111	.01	100	5/16	1	.25	33M0635	.0005	600	5/16	1	.25
33M0112	.02	100	5/16	1	.25	33M0621	.001	600	5/16	1	.25
33M01147	.047	100	5/16	1	.25	33M06215	.0015	600	5/16	1	.25
33M0115	.05	100	5/16	1	.25	33M0622	.002	600	5/16	1	.25
33M0101	.1	100	3/8	1 1/8	.35	33M06222	.0022	600	5/16	1	.25
33M01015	.15	100	7/16	1 3/16	.35	33M06225	.0025	600	5/16	1	.25
33M01022	.22	100	7/16	1 1/4	.40	33M0623	.003	600	5/16	1	.25
33M01025	.25	100	7/16	1 1/4	.45	33M06233	.0033	600	5/16	1	.25
33M01047	.47	100	7/16	1 5/8	.60	33M0624	.004	600	5/16	1	.25
33M0105	.5	100	7/16	1 5/8	.60	33M06247	.0047	600	5/16	1	.25
33M0110	1.0	100	5/8	2	1.00	33M0625	.005	600	5/16	1	.25
33M0221	.001	200	5/16	1	.25	33M0626	.006	600	5/16	1	.25
33M0225	.005	200	5/16	1	.25	33M06268	.0068	600	5/16	1	.30
33M0211	.01	200	5/16	1	.25	33M0628	.008	600	5/16	1	.30
33M0212	.02	200	5/16	1	.25	33M0611	.01	600	3/8	1 1/8	.30
33M02147	.047	200	3/8	1 1/8	.25	33M06115	.015	600	3/8	1 1/8	.30
33M0215	.05	200	3/8	1 1/8	.25	33M0612	.02	600	7/16	1 3/16	.30
33M0201	.1	200	7/16	1 3/16	.35	33M06122	.022	600	7/16	1 3/16	.30
33M02015	.15	200	7/16	1 1/4	.35	33M06125	.025	600	7/16	1 3/16	.35
33M02022	.22	200	1/2	1 1/2	.40	33M0613	.03	600	7/16	1 1/4	.35
33M02025	.25	200	1/2	1 1/2	.45	33M06133	.033	600	7/16	1 1/4	.35
33M02047	.47	200	5/16	2	.60	33M0614	.04	600	15/32	1 1/2	.35
33M0205	.5	200	5/16	2	.60	33M06147	.047	600	15/32	1 1/2	.40
33M0210	1.0	200	3/4	2	1.00	33M0615	.05	600	15/32	1 1/2	.40
33M0421	.001	400	5/16	1	.25	33M0616	.06	600	5/16	1 5/8	.40
33M0425	.005	400	5/16	1	.25	33M06168	.068	600	5/16	1 5/8	.45
33M0411	.01	400	5/16	1	.25	33M0601	.1	600	5/16	2	.45
33M0412	.02	400	3/8	1 1/8	.25	33M06015	.15	600	5/8	2	.50
33M04122	.022	400	3/8	1 1/8	.30	33M0602	.2	600	3/4	2	.65
33M04147	.047	400	7/16	1 3/16	.30	33M06022	.22	600	3/4	2	.70
33M0415	.05	400	7/16	1 3/16	.30	33M06025	.25	600	3/4	2	.70
33M04168	.068	400	15/32	1 1/2	.35						
33M0401	.1	400	1/2	1 1/2	.35	NOTE—Standard Capacitance Tolerance:					
33M04015	.15	400	5/16	1 5/8	.40	.0005 Mf up to .001 Mf ±40%					
33M0402	.2	400	5/16	2	.45	.001 Mf up to .04 Mf ±20%					
33M04022	.22	400	5/16	2	.45	.04 Mf and up ±10%					

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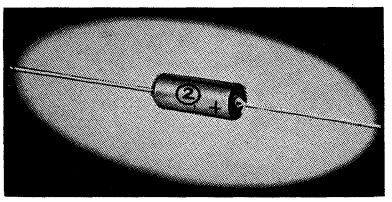
SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of —80°C to +85°C. With Appropriate Voltage Derating, May Be Operated to +125°C.
- Listed Units have Plastic Sleeves. For Bare Case, end Cat. No. in "0" instead of "2" and subtract $.05 from unit price.
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.

µF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
6 WVDC — 8 VDC SURGE			
.22	A	150D224X0006A2	150D224X9006A2
.27	A	———	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	———	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	———	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	———	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	———	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	———	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	———	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	———	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	———	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	———	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	———	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	———	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	———	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	———	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	———	150D566X9006B2
60	B	150D606X0006B2	———
68	R	150D686X0006R2	———
100	R	150D107X0006R2	———
120	R	150D127X0006R2	———
150	R	150D157X0006R2	———
180	R	150D187X0006S2	———
220	S	150D227X0006S2	———
330	S	150D337X0006S2	———
10 WVDC — 13 VDC SURGE			
.22	A	150D224X0010A2	150D224X9010A2
.27	A	———	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	———	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	———	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	———	150D824X9010A2
1.0	A	150D105X0010A2	150D105X9010A2
1.2	A	———	150D125X9010A2
1.5	A	150D155X0010A2	150D155X9010A2
1.8	A	———	150D185X9010A2
2.2	A	150D225X0010A2	150D225X9010A2
2.7	A	———	150D275X9010A2
3.3	A	150D335X0010A2	150D335X9010A2
3.9	A	———	150D395X9010A2
4.7	A	150D475X0010A2	150D475X9010A2
5.6	B	———	150D565X9010B2
6.8	B	150D685X0010B2	150D685X9010B2
8.2	B	———	150D825X9010B2
10	B	150D106X0010B2	150D106X9010B2
12	B	———	150D126X9010B2
15	B	150D156X0010B2	150D156X9010B2
18	B	———	150D186X9010B2
22	B	150D226X0010B2	150D226X9010B2
27	B	———	150D276X9010B2
33	B	150D336X0010B2	150D336X9010B2
39	B	———	150D396X9010B2
40	B	150D406X0010B2	———
68	R	150D686X0010R2	———
100	R	150D107X0010R2	———
120	R	150D127X0010R2	———
150	S	150D157X0010S2	———
220	S	150D227X0010S2	———
15 WVDC — 18 VDC SURGE			
.22	A	150D224X0015A2	150D224X9015A2
.27	A	———	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	———	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	———	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	———	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	———	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	———	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	———	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	———	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	———	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	———	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	———	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	———	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
33	R	150D336X0015R2	———
47	R	150D476X0015R2	———
68	R	150D686X0015R2	———
100	S	150D107X0015S2	———
150	S	150D157X0015S2	———
20 WVDC — 23 VDC SURGE			
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	———	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	———	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	———	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	———	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	———	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	———	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	———	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	———	150D823X9020A2
.1	A	150D104X0020A2	150D104X9020A2
.12	A	———	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	———	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	———	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	———	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	———	150D564X9020A2
.68	A	150D684X0020A2	150D684X9020A2
.82	A	———	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	———	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	———	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	———	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2
3.9	B	———	150D395X9020B2
4.7	B	150D475X0020B2	150D475X9020B2
5.6	B	———	150D565X9020B2
6.8	B	150D685X0020B2	150D685X9020B2
8.2	B	———	150D825X9020B2
10	B	150D106X0020B2	150D106X9020B2
12	B	———	150D126X9020B2
15	B	150D156X0020B2	150D156X9020B2
22	R	150D226X0020R2	———
33	R	150D336X0020R2	———
47	R	150D476X0020R2	———
68	S	150D686X0020S2	———
100	S	150D107X0020S2	———
35 WVDC — 40 VDC SURGE			
.0047	A	150D472X0035A2	150D472X9035A2
.0056	A	———	150D562X9035A2
.0068	A	150D682X0035A2	150D682X9035A2
.0082	A	———	150D822X9035A2
.01	A	150D103X0035A2	150D103X9035A2
.012	A	———	150D123X9035A2
.015	A	150D153X0035A2	150D153X9035A2
.018	A	———	150D183X9035A2
.022	A	150D223X0035A2	150D223X9035A2
.027	A	———	150D273X9035A2
.033	A	150D333X0035A2	150D333X9035A2
.039	A	———	150D393X9035A2
.047	A	150D473X0035A2	150D473X9035A2
.056	A	———	150D563X9035A2
.068	A	150D683X0035A2	150D683X9035A2
.082	A	———	150D823X9035A2
.10	A	150D104X0035A2	150D104X9035A2
.12	A	———	150D124X9035A2
.15	A	150D154X0035A2	150D154X9035A2
.18	A	———	150D184X9035A2
.22	A	150D224X0035A2	150D224X9035A2
.27	A	———	150D274X9035A2
.33	A	150D334X0035A2	150D334X9035A2
.39	A	———	150D394X9035A2
.47	A	150D474X0035A2	150D474X9035A2
.56	A	———	150D564X9035A2
.68	A	150D684X0035A2	150D684X9035A2
.82	A	———	150D824X9035A2
1.0	A	150D105X0035A2	150D105X9035A2
1.2	B	———	150D125X9035B2
1.5	B	150D155X0035B2	150D155X9035B2
1.8	B	———	150D185X9035B2
2.2	B	150D225X0035B2	150D225X9035B2
2.7	B	———	150D275X9035B2
3.3	B	150D335X0035B2	150D335X9035B2
3.9	B	———	150D395X9035B2
4.7	B	150D475X0035B2	150D475X9035B2
5.6	B	———	150D565X9035B2
6.8	B	150D685X0035B2	150D685X9035B2
10	R	150D106X0035R2	———
15	R	150D156X0035R2	———
22	R	150D226X0035R2	———
33	S	150D336X0035S2	———
47	S	150D476X0035S2	———

DIMENSIONS AND NET PRICES (1-24*)

Code	D. x L.	±20% Tol.	±10% Tol.
A	.104" x .312"	$1.35 (thru .1µF)	$1.75 (thru .1µF)
		1.51 (above .1µF)	1.95 (above .1µF)
B	.190" x .500"	1.57	2.03
R	.285" x .759"	2.57	3.33
S	.347" x .859"	4.75	6.15

*For quantity prices on 25 to 499 pieces, see your Sprague distributor.

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REM-1-6128

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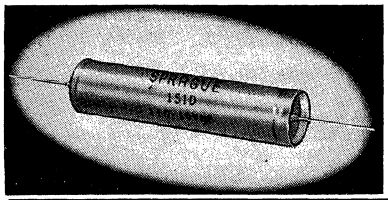
SPRAGUE CAPACITORS

151D NON-POLARIZED SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Truly miniature units offer excellent electrical characteristics and outstanding service life.
- Hermetically sealed in metal case.
- May be used at full rated operating voltages up to 85°C. With derating, may be used up to 125°C.
- For use where non-polarized solid electrolyte tantalums excel—in servo systems, low-frequency tuned circuits, crossover networks, etc.
- Listed units have plastic sleeves.
- For bare case end Cat. No. in "0" instead of "2".
- For complete technical data, refer to latest issue of Engineering Bulletin 3521.

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
6 WVDC — 8 VDC SURGE			
.11	W	151D114X0006W2	151D114X9006W2
.13	W	———	151D134X9006W2
.16	W	151D164X0006W2	151D164X9006W2
.19	W	———	151D194X9006W2
.23	W	151D234X0006W2	151D234X9006W2
.28	W	———	151D284X9006W2
.34	W	151D344X0006W2	151D344X9006W2
.41	W	———	151D414X9006W2
.50	W	151D504X0006W2	151D504X9006W2
.60	W	———	151D604X9006W2
.75	W	151D754X0006W2	151D754X9006W2
.90	W	———	151D904X9006W2
1.1	W	151D116X0006W2	151D115X9006W2
1.3	W	———	151D135X9006W2
1.6	W	151D165X0006W2	151D165X9006W2
1.9	W	———	151D195X9006W2
2.3	W	151D235X0006W2	151D235X9006W2
2.8	W	———	151D285X9006W2
3.4	W	151D345X0006W2	151D345X9006W2
4.1	X	———	151D415X9006W2
5.0	X	151D505X0006W2	151D505X9006W2
6.0	X	———	151D605X9006W2
7.5	X	151D755X0006W2	151D755X9006W2
9.0	X	———	151D905X9006W2
11	X	151D116X0006W2	151D116X9006W2
13	X	———	151D136X9006W2
16	X	151D166X0006W2	151D166X9006W2
19	X	———	151D196X9006W2
23	X	151D236X0006W2	151D236X9006W2
28	X	———	151D286X9006W2
30	X	151D306X0006W2	151D306X9006W2
34	Y	151D346X0006W2	151D346X9006W2
41	Y	———	151D416X9006W2
50	Y	151D506X0006W2	151D506X9006W2
60	Y	151D606X0006W2	151D606X9006W2
75	Y	151D756X0006W2	151D756X9006W2
90	Y	151D906X0006W2	151D906X9006W2
110	Z	151D117X0006W2	151D117X9006W2
130	Z	151D137X0006W2	151D137X9006W2
160	Z	151D167X0006W2	151D167X9006W2
10 WVDC — 13 VDC SURGE			
.11	W	151D114X0010W2	151D114X9010W2
.13	W	———	151D134X9010W2
.16	W	151D164X0010W2	151D164X9010W2
.19	W	———	151D194X9010W2
.23	W	151D234X0010W2	151D234X9010W2
.28	W	———	151D284X9010W2
.34	W	151D344X0010W2	151D344X9010W2
.41	W	———	151D414X9010W2
.50	W	151D504X0010W2	151D504X9010W2
.60	W	———	151D604X9010W2
.75	W	151D754X0010W2	151D754X9010W2
.90	W	———	151D904X9010W2
1.1	W	151D115X0010W2	151D115X9010W2
1.3	W	———	151D135X9010W2
1.6	W	151D165X0010W2	151D165X9010W2
1.9	W	———	151D195X9010W2
2.3	W	151D235X0010W2	151D235X9010W2
2.8	X	———	151D085X9010W2
3.4	X	151D345X0010W2	151D345X9010W2
4.1	X	———	151D415X9010W2
5.0	X	151D505X0010W2	151D505X9010W2
6.0	X	———	151D605X9010W2
7.5	X	151D755X0010W2	151D755X9010W2
9.0	X	———	151D905X9010W2
11	X	151D116X0010W2	151D116X9010W2
13	X	———	151D136X9010W2
16	X	151D166X0010W2	151D166X9010W2
19	X	———	151D196X9010W2
20	X	151D206X0010W2	151D206X9010W2
23	Y	151D236X0010W2	151D236X9010W2
28	Y	———	151D286X9010W2
34	Y	151D346X0010W2	151D346X9010W2
41	Y	———	151D416X9010W2
50	Y	151D506X0010W2	151D506X9010W2
60	Y	151D606X0010W2	151D606X9010W2
75	Z	151D756X0010W2	151D756X9010W2
90	Z	———	151D906X9010W2
110	Z	151D117X0010W2	151D117X9010W2
15 WVDC — 20 VDC SURGE			
.11	W	151D114X0015W2	151D114X9015W2
.13	W	———	151D134X9015W2
.16	W	151D164X0015W2	151D164X9015W2
.19	W	———	151D194X9015W2
.23	W	151D234X0015W2	151D234X9015W2
.28	W	———	151D284X9015W2
.34	W	151D344X0015W2	151D344X9015W2
.41	W	———	151D414X9015W2
.50	W	151D504X0015W2	151D504X9015W2
.60	W	———	151D604X9015W2
.75	W	151D754X0015W2	151D754X9015W2
.90	W	———	151D904X9015W2
1.1	W	151D115X0015W2	151D115X9015W2
1.3	W	———	151D135X9015W2
1.6	W	151D165X0015W2	151D165X9015W2
1.9	X	———	151D195X9015W2
2.3	X	151D235X0015W2	151D235X9015W2
2.8	X	———	151D285X9015W2
3.4	X	151D345X0015W2	151D345X9015W2
4.1	X	———	151D415X9015W2
5.0	X	151D505X0015W2	151D505X9015W2
6.0	X	———	151D605X9015W2
7.5	X	151D755X0015W2	151D755X9015W2
9.0	X	———	151D905X9015W2
11	X	151D116X0015W2	151D116X9015W2
13	Y	———	151D136X9015W2
16	Y	151D166X0015W2	151D166X9015W2
19	Y	———	151D196X9015W2
23	Y	151D236X0015W2	151D236X9015W2
28	Y	———	151D286X9015W2
34	Y	151D346X0015W2	151D346X9015W2
41	Z	———	151D416X9015W2
50	Z	151D506X0015W2	151D506X9015W2
60	Z	———	151D606X9015W2
75	Z	151D756X0015W2	151D756X9015W2
20 WVDC — 26 VDC SURGE			
.0023	W	151D232X0020W2	151D232X9020W2
.0028	W	———	151D282X9020W2
.0034	W	151D342X0020W2	151D342X9020W2
.0041	W	———	151D412X9020W2
.005	W	151D502X0020W2	151D502X9020W2
.006	W	———	151D602X9020W2
.007	W	151D702X0020W2	151D702X9020W2
.009	W	———	151D902X9020W2
.011	W	151D113X0020W2	151D113X9020W2
.013	W	———	151D133X9020W2
.016	W	151D163X0020W2	151D163X9020W2
.019	W	———	151D193X9020W2
.023	W	151D233X0020W2	151D233X9020W2
.028	W	———	151D283X9020W2
.034	W	151D343X0020W2	151D343X9020W2
.041	W	———	151D413X9020W2
.05	W	151D503X0020W2	151D503X9020W2
.06	W	———	151D603X9020W2
.07	W	151D703X0020W2	151D703X9020W2
.09	W	———	151D903X9020W2
.11	W	151D114X0020W2	151D114X9020W2
.13	W	———	151D134X9020W2
.16	W	151D164X0020W2	151D164X9020W2
.19	W	———	151D194X9020W2
.23	W	151D234X0020W2	151D234X9020W2
.28	W	———	151D284X9020W2
.34	W	151D344X0020W2	151D344X9020W2
.41	W	———	151D414X9020W2
.50	W	151D504X0020W2	151D504X9020W2
.60	W	———	151D604X9020W2
.75	W	151D754X0020W2	151D754X9020W2
.90	W	———	151D904X9020W2
1.1	W	151D115X0020W2	151D115X9020W2
1.3	X	———	151D135X9020W2
1.6	X	151D165X0020W2	151D165X9020W2
1.9	X	———	151D195X9020W2
2.3	X	151D235X0020W2	151D235X9020W2
2.8	X	———	151D285X9020W2
3.4	X	151D345X0020W2	151D345X9020W2
4.1	X	———	151D415X9020W2
5.0	X	151D505X0020W2	151D505X9020W2
6.0	X	———	151D605X9020W2
7.5	X	151D755X0020W2	151D755X9020W2
9.0	Y	———	151D905X9020W2
11	Y	151D116X0020W2	151D116X9020W2
13	Y	———	151D136X9020W2
16	Y	151D166X0020W2	151D166X9020W2
19	Y	———	151D196X9020W2
23	Y	151D236X0020W2	151D236X9020W2
28	Z	———	151D286X9020W2
34	Z	151D346X0020W2	151D346X9020W2
41	Z	———	151D416X9020W2
50	Z	151D506X0020W2	151D506X9020W2
35 WVDC — 46 VDC SURGE			
.0023	W	151D232X0035W2	151D232X9035W2
.0028	W	———	151D282X9035W2
.0034	W	151D342X0035W2	151D342X9035W2
.0041	W	———	151D412X9035W2
.005	W	151D502X0035W2	151D502X9035W2
.006	W	———	151D602X9035W2
.007	W	151D702X0035W2	151D702X9035W2
.009	W	———	151D902X9035W2
.011	W	151D113X0035W2	151D113X9035W2
.013	W	———	151D133X9035W2
.016	W	151D163X0035W2	151D163X9035W2
.019	W	———	151D193X9035W2
.023	W	151D233X0035W2	151D233X9035W2
.028	W	———	151D283X9035W2
.034	W	151D343X0035W2	151D343X9035W2
.041	W	———	151D413X9035W2
.050	W	151D503X0035W2	151D503X9035W2
.060	W	———	151D603X9035W2
.075	W	151D753X0035W2	151D753X9035W2
.090	W	———	151D903X9035W2
.11	W	151D114X0035W2	151D114X9035W2
.13	W	———	151D134X9035W2
.16	W	151D164X0035W2	151D164X9035W2
.19	W	———	151D194X9035W2
.23	W	151D234X0035W2	151D234X9035W2
.28	W	———	151D284X9035W2
.34	W	151D344X0035W2	151D344X9035W2
.41	W	———	151D414X9035W2
.50	W	151D504X0035W2	151D504X9035W2
.60	X	———	151D604X9035W2
.75	X	151D754X0035W2	151D754X9035W2
.90	X	———	151D904X9035W2
1.1	X	151D115X0035W2	151D115X9035W2
1.3	X	———	151D135X9035W2
1.6	X	151D165X0035W2	151D165X9035W2
1.9	X	———	151D195X9035W2
2.3	X	151D235X0035W2	151D235X9035W2
2.8	X	———	151D285X9035W2
3.4	X	151D345X0035W2	151D345X9035W2
4.1	Y	———	151D415X9035W2
5.0	Y	151D505X0035W2	151D505X9035W2
6.0	Y	———	151D605X9035W2
7.5	Y	151D755X0035W2	151D755X9035W2
9.0	Y	———	151D905X9035W2
11	Y	151D116X0035W2	151D116X9035W2
13	Z	———	151D136X9035W2
16	Z	151D166X0035W2	151D166X9035W2
19	Z	———	151D196X9035W2
23	Z	151D236X0035W2	151D236X9035W2

PRICES AVAILABLE UPON REQUEST

Code	Diam x Length	Code	Diam. x Length
W	.161" x .625"	Y	.314" x 1.435"
X	.207" x .955"	Z	.376" x 1.635"

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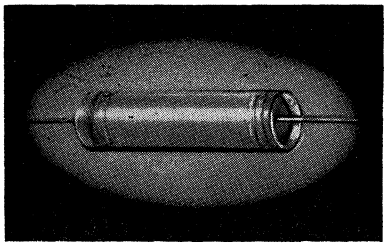
All sizes subject to change without notice.

SPRAGUE CAPACITORS

85°C FOIL TANTALEX® CAPACITORS



- For applications where small physical size, stable electrical characteristics, and long service life are important.
- Type 110D and 112D also available marked to meet MIL-C-3965B. Order by complete military type designation.
- High capacitance stability even at low operating temperatures, unlike aluminum-foil electrolytics.
- Extremely low leakage current.
- Standard capacitance tolerance: Types 110D and 111D. ±20%; Type 112D and 113D +75, −15%.
- Listed units have plastic wrap. For bare case, end Cat. No. in "0" instead of "1" and subtract $.10 from price.
- For complete technical data refer to latest issue Engineering Bulletin 3601.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

TYPE 110D
POLARIZED PLAIN-FOIL

μF	Size Code	Catalog Number	Net Price (1-24)
3 WORKING VOLTS D-C			
10	D	110D106X0003D1	$ 4.51
55	G	110D556X0003G1	6.78
160	J	110D167X0003J1	10.68
350	M	110D357X0003M1	14.94
440	P	110D447X0003P1	19.95
6 WORKING VOLTS D-C			
8	D	110D805X0006D1	4.51
30	G	110D306X0006G1	6.78
35	G	110D356X0006G1	6.78
100	J	110D107X0006J1	10.68
200	M	110D207X0006M1	14.94
300	P	110D307X0006P1	19.95
10 WORKING VOLTS D-C			
6	D	110D605X0010D1	4.51
25	G	110D256X0010G1	6.78
80	J	110D806X0010J1	10.68
160	M	110D167X0010M1	14.94
220	P	110D227X0010P1	19.95
15 WORKING VOLTS D-C			
4.5	D	110D455X0015D1	4.51
18	G	110D186X0015G1	6.78
55	J	110D556X0015J1	10.68
110	M	110D117X0015M1	14.94
160	P	110D167X0015P1	19.95
25 WORKING VOLTS D-C			
3	D	110D305X0025D1	4.51
12	G	110D126X0025G1	6.78
35	J	110D356X0025J1	10.68
70	M	110D706X0025M1	14.94
100	P	110D107X0025P1	19.95
30 WORKING VOLTS D-C			
2.5	D	110D255X0030D1	4.51
10	G	110D106X0030G1	6.78
30	J	110D306X0030J1	10.68
60	M	110D606X0030M1	14.94
85	P	110D856X0030P1	19.95
50 WORKING VOLTS D-C			
1.5	D	110D155X0050D1	4.51
6	G	110D605X0050G1	6.78
20	J	110D206X0050J1	10.68
40	M	110D406X0050M1	14.94
55	P	110D556X0050P1	19.95
60 WORKING VOLTS D-C			
1.2	D	110D125X0060D1	4.51
5	G	110D505X0060G1	6.78
17	J	110D176X0060J1	10.68
34	M	110D346X0060M1	14.94
48	P	110D486X0060P1	19.95
75 WORKING VOLTS D-C			
1	D	110D105X0075D1	4.51
4	G	110D405X0075G1	6.78
14	J	110D146X0075J1	10.68
28	M	110D286X0075M1	14.94
40	P	110D406X0075P1	19.95
100 WORKING VOLTS D-C			
.8	D	110D804X0100D1	4.51
3	G	110D305X0100G1	6.78
10	J	110D106X0100J1	10.68
20	M	110D206X0100M1	14.94
30	P	110D306X0100P1	19.95
150 WORKING VOLTS D-C			
.5	D	110D504X0150D1	$ 4.51
1	G	110D105X0150G1	6.78
2	G	110D205X0150G1	6.78
7	J	110D705X0150J1	10.68
14	M	110D146X0150M1	14.94
20	P	110D206X0150P1	19.95
200 WORKING VOLTS D-C			
.35	D	110D354X8200D1	10.65
1.5	G	110D155X8200G1	14.35
5.0	J	110D505X8200J1	20.58
10.0	M	110D106X8200M1	25.41
15.0	P	110D156X8200P1	32.02
250 WORKING VOLTS D-C			
.3	D	110D304X8250D1	10.65
1.2	G	110D125X8250G1	14.35
4.0	J	110D405X8250J1	20.58
8.0	M	110D805X8250M1	25.41
12.0	P	110D126X8250P1	32.02

TYPE 111D
NON-POLARIZED PLAIN-FOIL

μF	Size Code	Catalog Number	Net Price (1-24)
6 WORKING VOLTS N.P.			
5	D	111D505X0006D1	4.51
25	G	111D256X0006G1	6.78
85	J	111D856X0006J1	10.68
170	M	111D177X0006M1	14.94
250	P	111D257X0006P1	19.95
10 WORKING VOLTS N.P.			
3	D	111D305X0010D1	4.51
16	G	111D166X0010G1	6.78
55	J	111D556X0010J1	10.68
110	M	111D117X0010M1	14.94
150	P	111D157X0010P1	19.95
15 WORKING VOLTS N.P.			
2.5	D	111D255X0015D1	4.51
10	G	111D106X0015G1	6.78
35	J	111D356X0015J1	10.68
70	M	111D706X0015M1	14.94
100	P	111D107X0015P1	19.95
25 WORKING VOLTS N.P.			
1.5	D	111D155X0025D1	4.51
6	G	111D605X0025G1	6.78
20	J	111D206X0025J1	10.68
40	M	111D406X0025M1	14.94
60	P	111D606X0025P1	19.95
30 WORKING VOLTS N.P.			
1.4	D	111D145X0030D1	4.51
5.5	G	111D555X0030G1	6.78
18	J	111D186X0030J1	10.68
36	M	111D366X0030M1	14.94
45	P	111D456X0030P1	19.95
50 WORKING VOLTS N.P.			
.8	D	111D804X0050D1	4.51
3	G	111D305X0050G1	6.78
10	J	111D106X0050J1	10.68
20	M	111D206X0050M1	14.94
30	P	111D306X0050P1	19.95
60 WORKING VOLTS N.P.			
.6	D	111D604X0060D1	4.51
2.5	G	111D255X0060G1	6.78
8.5	J	111D855X0060J1	10.68
17	M	111D176X0060M1	14.94
24	P	111D246X0060P1	19.95
75 WORKING VOLTS N.P.			
.5	D	111D504X0075D1	$ 4.51
2	G	111D205X0075G1	6.78
7	J	111D705X0075J1	10.68
14	M	111D146X0075M1	14.94
20	P	111D206X0075P1	19.95
100 WORKING VOLTS N.P.			
.4	D	111D404X0100D1	4.51
1.5	G	111D155X0100G1	6.78
5	J	111D505X0100J1	10.68
10	M	111D106X0100M1	14.94
15	P	111D156X0100P1	19.95
150 WORKING VOLTS N.P.			
.25	D	111D254X0150D1	4.51
1	G	111D105X0150G1	6.78
3.5	J	111D355X0150J1	10.68
7	M	111D705X0150M1	14.94
10	P	111D106X0150P1	19.95
200 WORKING VOLTS D-C			
.15	D	111D154X8200D1	12.53
.75	G	111D754X8200G1	16.52
2.5	J	111D255X8200J1	23.66
5.0	M	111D505X8200M1	29.15
7.5	P	111D755X8200P1	36.85
250 WORKING VOLTS D-C			
.15	D	111D154X8250D1	12.53
.6	G	111D604X8250G1	16.52
2.0	J	111D205X8250J1	23.66
4.0	M	111D405X8250M1	29.15
6.0	P	111D605X8250P1	36.85

TYPE 112D
POLARIZED ETCHED-FOIL

μF	Size Code	Catalog Number	Net Price (1-24)
15 WORKING VOLTS D-C			
15	D	112D156C7015D1	4.51
60	G	112D606C7015G1	7.44
200	J	112D207C7015J1	12.89
400	M	112D407C7015M1	20.93
580	P	112D587C7015P1	27.86
25 WORKING VOLTS D-C			
10	D	112D106C7025D1	4.51
40	G	112D406C7025G1	7.44
120	J	112D127C7025J1	12.89
250	M	112D257C7025M1	20.93
350	P	112D357C7025P1	27.86
30 WORKING VOLTS D-C			
8	D	112D805C7030D1	4.51
32	G	112D326C7030G1	7.44
110	J	112D117C7030J1	12.89
220	M	112D227C7030M1	20.93
300	P	112D307C7030P1	27.86
50 WORKING VOLTS D-C			
4.5	D	112D455C7050D1	4.51
18	G	112D186C7050G1	7.44
60	J	112D606C7050J1	12.89
100	M	112D107C7050M1	20.93
150	P	112D157C7050P1	27.86
60 WORKING VOLTS D-C			
4	D	112D405C7060D1	4.51
75 WORKING VOLTS D-C			
3	D	112D305C7075D1	4.51
12	G	112D126C7075G1	7.44
30	J	112D306C7075J1	12.89
70	M	112D706C7075M1	20.93
100	P	112D107C7075P1	27.86
100 WORKING VOLTS D-C			
2	D	112D205C7100D1	$ 4.51
8	G	112D805C7100G1	7.44
25	J	112D256C7100J1	12.89
50	M	112D506C7100M1	20.93
70	P	112D706C7100P1	27.86
150 WORKING VOLTS D-C			
1	D	112D105C7150D1	4.51
4	G	112D405C7150G1	7.44
13	J	112D136C7150J1	12.89
25	M	112D256C7150M1	20.93
36	P	112D366C7150P1	27.86

TYPE 113D
NON-POLARIZED ETCHED-FOIL

μF	Size Code	Catalog Number	Net Price (1-24)
15 WORKING VOLTS N.P.			
10	D	113D106C7015D1	4.51
40	G	113D406C7015G1	7.44
120	J	113D127C7015J1	12.89
250	M	113D257C7015M1	20.93
350	P	113D357C7015P1	27.86
25 WORKING VOLTS N.P.			
5	D	113D505C7025D1	4.51
20	G	113D206C7025G1	7.44
70	J	113D706C7025J1	12.89
140	M	113D147C7025M1	20.93
200	P	113D207C7025P1	27.86
30 WORKING VOLTS N.P.			
4.5	D	113D455C7030D1	4.51
18	G	113D186C7030G1	7.44
60	J	113D606C7030J1	12.89
20	M	113D127C7030M1	20.93
70	P	113D177C7030P1	27.86
50 WORKING VOLTS N.P.			
2.5	D	113D255C7050D1	4.51
10	G	113D106C7050G1	7.44
30	J	113D306C7050J1	12.89
60	M	113D606C7050M1	20.93
80	P	113D806C7050P1	27.86
75 WORKING VOLTS N.P.			
1.5	D	113D155C7075D1	4.51
6	G	113D605C7075G1	7.44
15	J	113D156C7075J1	12.89
35	M	113D356C7075M1	20.93
50	P	113D506C7075P1	27.86
100 WORKING VOLTS N.P.			
1	D	113D105C7100D1	4.51
4	G	113D405C7100G1	7.44
12	J	113D126C7100J1	12.89
25	M	113D256C7100M1	20.93
35	P	113D356C7100P1	27.86
150 WORKING VOLTS N.P.			
.5	D	113D504C7150D1	4.51
2	G	113D205C7150G1	7.44
6	J	113D605C7150J1	12.89
12	M	113D126C7150M1	20.93
18	P	113D186C7150P1	27.86

DIMENSIONS

D	13/64 diam. x 3/4 long
G	19/64 diam. x 15/16 long
J	25/64 diam. x 1 1/2 long
M	25/64 diam. x 2 3/16 long
P	25/64 diam. x 2 13/16 long

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Net

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SPRAGUE CAPACITORS

125°C FOIL TANTALEX® CAPACITORS

- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965-B units.
- Tol., 120D, 121D, ±20%; 122D, 123D, —15, +75%.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1" and subtract $.10 from the unit price.

SIZE CODE (Diam. x Length)

E (13/16" x 23/32"), H (19/64" x 15/16"), K (25/64" x 15/32"), N (25/64" x 2 5/32"), Q (25/64" x 2 25/32").

TYPE 120D POLARIZED PLAIN-FOIL

µF	Code	Catalog Number	Net Ea. (1-24)
10 WORKING VOLTS D-C			
4.5	E	120D455X0010E1	$7.47
18	H	120D186X0010H1	9.90
55	K	120D556X0010K1	14.28
110	N	120D117X0010N1	18.41
160	Q	120D167X0010Q1	23.64
15 WORKING VOLTS D-C			
3	E	120D305X0015E1	7.47
12	H	120D126X0015H1	9.90
35	K	120D356X0015K1	14.28
70	N	120D706X0015N1	18.41
100	Q	120D107X0015Q1	23.64
30 WORKING VOLTS D-C			
1.5	E	120D155X0030E1	7.47
6	H	120D605X0030H1	9.90
20	K	120D206X0030K1	14.28
40	N	120D406X0030N1	18.41
55	Q	120D556X0030Q1	23.64
50 WORKING VOLTS D-C			
1	E	120D105X0050E1	7.47
4	H	120D405X0050H1	9.90
14	K	120D146X0050K1	14.28
28	N	120D286X0050N1	18.41
40	Q	120D406X0050Q1	23.64
65 WORKING VOLTS D-C			
.8	E	120D804X0065E1	7.47
3	H	120D305X0065H1	9.90
10	K	120D106X0065K1	14.28
20	N	120D206X0065N1	18.41
30	Q	120D306X0065Q1	23.64
100 WORKING VOLTS D-C			
.5	E	120D504X0100E1	7.47
2	H	120D205X0100H1	9.90
7	K	120D705X0100K1	14.28
14	N	120D146X0100N1	18.41
20	Q	120D206X0100Q1	23.64
150 WORKING VOLTS D-C			
.35	E	120D354X0150E1	7.47
1.5	H	120D155X0150H1	9.90
5	K	120D505X0150K1	14.28
10	N	120D106X0150N1	18.41
15	Q	120D156X0150Q1	23.64
200 WORKING VOLTS D-C			
1.0	H	120D105X8200H1	14.35
3.0	K	120D305X8200K1	20.58
7.0	N	120D705X8200N1	25.41
10.0	Q	120D106X8200Q1	32.02

TYPE 121D NON-POLARIZED PLAIN-FOIL

µF	Code	Catalog Number	Net Ea. (1-24)
10 WORKING VOLTS N.P.			
2.5	E	121D255X0010E1	7.47
10	H	121D106X0010H1	9.90
35	K	121D356X0010K1	14.28
70	N	121D706X0010N1	18.41
100	Q	121D107X0010Q1	23.64
15 WORKING VOLTS N.P.			
1.5	E	121D155X0015E1	7.47
6	H	121D605X0015H1	9.90
20	K	121D206X0015K1	14.28
40	N	121D406X0015N1	18.41
60	Q	121D606X0015Q1	23.64
30 WORKING VOLTS N.P.			
.8	E	121D804X0030E1	7.47
3	H	121D305X0030H1	9.90
10	K	121D106X0030K1	14.28
20	N	121D206X0030N1	18.41
30	Q	121D306X0030Q1	23.64
50 WORKING VOLTS N.P.			
.5	E	121D504X0050E1	7.47
2	H	121D205X0050H1	9.90
7	K	121D705X0050K1	14.28
14	N	121D146X0050N1	18.41
20	Q	121D206X0050Q1	23.64
65 WORKING VOLTS N.P.			
.4	E	121D404X0065E1	7.47
1.5	H	121D155X0065H1	9.90
5	K	121D505X0065K1	14.28
10	N	121D106X0065N1	18.41
15	Q	121D156X0065Q1	23.64
100 WORKING VOLTS N.P.			
.25	E	121D254X0100E1	7.47
1.0	H	121D105X0100H1	9.90
3.5	K	121D335X0100K1	14.28
7	N	121D705X0100N1	18.41
10	Q	121D106X0100Q1	23.64
150 WORKING VOLTS N.P.			
.15	E	121D154X0150E1	7.47
.75	H	121D754X0150H1	9.90
2.5	K	121D255X0150K1	14.28
5.0	N	121D505X0150N1	18.41
7.5	Q	121D755X0150Q1	23.64
200 WORKING VOLTS N. P.			
0.5	H	121D504X8200H1	16.52
1.5	K	121D155X8200K1	23.66
3.5	N	121D355X8200N1	29.15
5.0	Q	121D505X8200Q1	36.85

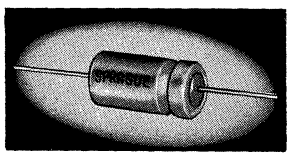
TYPE 122D POLARIZED ETCHED-FOIL

µF	Code	Catalog Number
15 WORKING VOLTS D-C		
9	E	122D905C7015E1
37	H	122D376C7015H1
120	K	122D127C7015K1
250	N	122D257C7015N1
350	Q	122D357C7015Q1
30 WORKING VOLTS D-C		
4.5	E	122D455C7030E1
18	H	122D186C7030H1
60	K	122D606C7030K1
100	N	122D107C7030N1
150	Q	122D157C7030Q1
50 WORKING VOLTS D-C		
3	E	122D305C7050E1
12	H	122D126C7050H1
30	K	122D306C7050K1
70	N	122D706C7050N1
100	Q	122D107C7050Q1
65 WORKING VOLTS D-C		
2	E	122D205C7065E1
8	H	122D805C7065H1
25	K	122D256C7065K1
50	N	122D506C7065N1
70	Q	122D706C7065Q1
100 WORKING VOLTS D-C		
1	E	122D105C7100E1
4	H	122D405C7100H1
13	K	122D136C7100K1
25	N	122D256C7100N1
36	Q	122D366C7100Q1

TYPE 123D NON-POLARIZED ETCHED-FOIL

µF	Code	Catalog Number
10 WORKING VOLTS N.P.		
10	E	123D106C7010E1
40	H	123D406C7010H1
120	K	123D127C7010K1
250	N	123D257C7010N1
350	Q	123D357C7010Q1
15 WORKING VOLTS N.P.		
5	E	123D505C7015E1
20	H	123D206C7015H1
70	K	123D706C7015K1
140	N	123D147C7015N1
200	Q	123D207C7015Q1
30 WORKING VOLTS N.P.		
2.5	E	123D255C7030E1
10	H	123D106C7030H1
30	K	123D306C7030K1
60	N	123D606C7030N1
80	Q	123D806C7030Q1
50 WORKING VOLTS N.P.		
1.5	E	123D155C7050E1
6	H	123D605C7050H1
15	K	123D156C7050K1
35	N	123D356C7050N1
50	Q	123D506C7050Q1
65 WORKING VOLTS N.P.		
1	E	123D105C7065E1
4	H	123D405C7065H1
12	K	123D126C7065K1
25	N	123D256C7065N1
35	Q	123D356C7065Q1
100 WORKING VOLTS N.P.		
0.5	E	123D504C7100E1
2	H	123D205C7100H1
6	K	123D605C7100K1
12	N	123D126C7100N1
18	Q	123D186C7100Q1

125°C SINTERED-ANODE TANTALEX® CAPACITORS



- Meets 2000 cy. MIL Vibration Requirements
- Listed Units Have Plastic Wrap
- For Complete Data, See Engineering Bulletin 3701
- For Prices on 25 to 499 pieces, See Your Sprague Industrial Distributor.

Case Size	Dia. x L.	Net Ea.
C	13/64" x 33/64"	$4.30
F	19/64/ x 45"64"	9.90
T	25/64" x 53/64"	11.10

SIZE CODE: C=13/64" dia. x 33/64" L., F=19/64" Dia. x 45/64" L., T=25/64 dia. x 53/64" L.

GROUP 1: +20%, —15% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number +20, —15% Tol.	Catalog Number ±10% Tol.
30	4	C	130D306C2004C2	130D306X9004C2
140	4	F	130D147C2004F2	130D147X9004F2
330	4	T	130D337C2004T2	130D337X9004T2
25	5	C	130D256C2005C2	130D256X9005C2
120	5	F	130D127C2005F2	130D127X9005F2
290	5	T	130D297C2005T2	130D297X9005T2
20	7	C	130D206C2007C2	130D206X9007C2
100	7	F	130D107C2007F2	130D107X9007F2
250	7	T	130D257C2007T2	130D257X9007T2
15	10	C	130D156C2010C2	130D156X9010C2
70	10	F	130D706C2010F2	130D706X9010F2
170	10	T	130D177C2010T2	130D177X9010T2
10	15	C	130D106C2015C2	130D106X9015C2
50	15	F	130D506C2015F2	130D506X9015F2
110	15	T	130D117C2015T2	130D117X9015T2
8	20	C	130D805C2020C2	130D805X9020C2
40	20	F	130D406C2020F2	130D406X9020F2
100	20	T	130D107C2020T2	130D107X9020T2
5	30	C	130D505C2030C2	130D505X9030C2
25	30	F	130D256C2030F2	130D256X9030F2
60	30	T	130D606C2030T2	130D606X9030T2
4	40	C	130D405C2040C2	130D405X9040C2
20	40	F	130C206C2040F2	130D206X9040F2
50	40	T	130D506C2040T2	130D506X9040T2
3.5	50	C	130D355C2050C2	130D355X9050C2
15	50	F	130D156C2050F2	130D156X9050F2
40	50	T	130D406C2050T2	130D406X9050T2
2.5	70	C	130D255C2070C2	130D255X9070C2
11	70	F	130D116C2070F2	130D116X9070F2
30	70	T	130D306C2070T2	130D306X9070T2

GROUP 2: ±20% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number +20, —15% Tol.	Catalog Number ±10% Tol.
68	4	C	130D686X0004C2	130D686X9004C2
270	4	F	130D277X0004F2	130D277X9004F2
560	4	T	130D567X0004T2	130D567X9004T2
47	7	C	130D476X0007C2	130D476X9007C2
180	7	F	130D187X0007F2	130D187X9007F2
390	7	T	130D397X0007T2	130D397X9007T2
33	10	C	130D336X0010C2	130D336X9010C2
120	10	F	130D127X0010F2	130D127X9010F2
270	10	T	130D277X0010T2	130D277X9010T2
22	15	C	130D226X0015C2	130D226X9015C2
100	15	F	130D107X0015F2	130D107X9015F2
180	15	T	130D187X0015T2	130D187X9015T2
15	20	C	130D156X0020C2	130D156X9020C2
68	20	F	130D686X0020F2	130D686X9020F2
150	20	T	130D157X0020T2	130D157X9020T2
10	30	C	130D106X0030C2	130D106X9030C2
47	30	F	130D476X0030F2	130D476X9030F2
82	30	T	130D826X0030T2	130D826X9030T2
8.2	40	C	130D825X0040C2	130D825X9040C2
39	40	F	130D396X0040F2	130D396X9040F2
68	40	T	130D686X0040T2	130D686X9040T2
6.8	50	C	130D685X0050C2	130D685X9050C2
33	50	F	130D336X0050F2	130D336X6050F2
56	50	T	130D566X0050T2	130D566X9050T2
4.7	70	C	130D475X0070C2	130D475X9070C2
22	70	F	130D226X0070F2	130D226X9070F2
43	70	T	130D436X0070T2	130D436X9070T2

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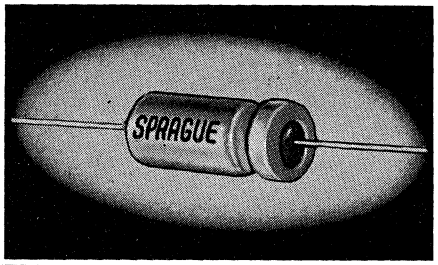
SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



- Intended for applications where reliable design in military equipment is required.
- Double spun TFE-fluorocarbon elastomer high temp. end seals.
- Large values of capacitance in small physical size.
- Listed units have plastic sleeves.

For bare case, end Cat. No. in "0" instead of "2," and subtract $.05 from price.

- May be operated at 85°C at rated voltage and to 105°C with 15% voltage derating.
- Will meet 2000 cycle missile vibration requirements.
- For complete technical data refer to latest issue of Engineering Bulletin 3700.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

DIMENSIONS AND NET PRICES (1-24)

Code	Dia. x Length	±10%	±20%	+20, −15%	+75, −15%
C	3/16 x 29/64	$1.35	$1.35	$3.05	$1.53
F	9/32 x 41/64	7.25	7.25	6.55	3.43
T	3/8 x 49/64	8.85	8.85	7.90	4.35

GROUP 1: Available in Capacitance Tolerances of ±10%, +20, −15%; +75, −15%

µF	Size Code	Catalog Number ±10%	+20, −15%	+75, −15%
6 WORKING VOLTS D-C				
27	C	109D276X9006C2	109D276C2006C2	109D276C7006C2
30	C	109D306X9006C2	109D306C2006C2	109D306C7006C2
120	F	109D127X9006C2	109D127C2006C2	109D127C7006C2
140	F	109D147X9006C2	109D147C2006C2	109D147C7006C2
290	T	109D297X9006C2	109D297C2006C2	109D297C7006C2
330	T	109D337X9006C2	109D337C2006C2	109D337C7006C2
8 WORKING VOLTS D-C				
22	C	109D226X9008C2	109D226C2008C2	109D226C7008C2
25	C	109D256X9008C2	109D256C2008C2	109D256C7008C2
100	F	109D107X9008C2	109D107C2008C2	109D107C7008C2
120	F	109D127X9008C2	109D127C2008C2	109D127C7008C2
260	T	109D267X9008C2	109D267C2008C2	109D267C7008C2
290	T	109D297X9008C2	109D297C2008C2	109D297C7008C2
10 WORKING VOLTS D-C				
18	C	109D186X9010C2	109D186C2010C2	109D186C7010C2
20	C	109D206X9010C2	109D206C2010C2	109D206C7010C2
85	F	109D856X9010C2	109D856C2010C2	109D856C7010C2
100	F	109D107X9010C2	109D107C2010C2	109D107C7010C2
220	T	109D227X9010C2	109D227C2010C2	109D227C7010C2
250	T	109D257X9010C2	109D257C2010C2	109D257C7010C2
15 WORKING VOLTS D-C				
13	C	109D136X9015C2	109D136C2015C2	109D136C7015C2
15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2
55	F	109D556X9015C2	109D556C2015C2	109D556C7015C2
70	F	109D706X9015C2	109D706C2015C2	109D706C7015C2
150	T	109D157X9015C2	109D157C2015C2	109D157C7015C2
170	T	109D177X9015C2	109D177C2015C2	109D177C7015C2
25 WORKING VOLTS D-C				
9	C	109D905X9025C2	109D905C2025C2	109D905C7025C2
10	C	109D106X9025C2	109D106C2025C2	109D106C7025C2
45	F	109D456X9025C2	109D456C2025C2	109D456C7025C2
50	F	109D506X9025C2	109D506C2025C2	109D506C7025C2
100	T	109D107X9025C2	109D107C2025C2	109D107C7025C2
110	T	109D117X9025C2	109D117C2025C2	109D117C7025C2
30 WORKING VOLTS D-C				
7	C	109D705X9030C2	109D705C2030C2	109D705C7030C2
8	C	109D805X9030C2	109D805C2030C2	109D805C7030C2
35	F	109D356X9030C2	109D356C2030C2	109D356C7030C2
40	F	109D406X9030C2	109D406C2030C2	109D406C7030C2
80	T	109D806X9030C2	109D806C2030C2	109D806C7030C2
100	T	109D107X9030C2	109D107C2030C2	109D107C7030C2
50 WORKING VOLTS D-C				
4.5	C	109D455X9050C2	109D455C2050C2	109D455C7050C2
5	C	109D505X9050C2	109D505C2050C2	109D505C7050C2
22	F	109D226X9050C2	109D226C2050C2	109D226C7050C2
25	F	109D256X9050C2	109D256C2050C2	109D256C7050C2
55	T	109D556X9050C2	109D556C2050C2	109D556C7050C2
60	T	109D606X9050C2	109D606C2050C2	109D606C7050C2
60 WORKING VOLTS D-C				
3.6	C	109D365X9060C2	109D365C2060C2	109D365C7060C2
4	C	109D405X9060C2	109D405C2060C2	109D405C7060C2
18	F	109D186X9060C2	109D186C2060C2	109D186C7060C2
20	F	109D206X9060C2	109D206C2060C2	109D206C7060C2
45	T	109D456X9060C2	109D456C2060C2	109D456C7060C2
50	T	109D506X9060C2	109D506C2060C2	109D506C7060C2
75 WORKING VOLTS D-C				
3	C	109D305X9075C2	109D305C2075C2	109D305C7075C2
3.5	C	109D355X9075C2	109D355C2075C2	109D355C7075C2
13	F	109D136X9075C2	109D136C2075C2	109D136C7075C2
15	F	109D156X9075C2	109D156C2075C2	109D156C7075C2
35	T	109D356X9075C2	109D356C2075C2	109D356C7075C2
40	T	109D406X9075C2	109D406C2075C2	109D406C7075C2
100 WORKING VOLTS D-C				
2.5	C	109D255X9100C2	109D255C2100C2	109D255C7100C2
10	F	109D106X9100C2	109D106C2100C2	109D106C7100C2
11	F	109D116X9100C2	109D116C2100C2	109D116C7100C2
27	T	109D276X9100C2	109D276C2100C2	109D276C7100C2
30	T	109D306X9100C2	109D306C2100C2	109D306C7100C2

GROUP 2. Available in Capacitance Tolerances of ±20% and ± 10%

These capacitors have approximately twice the capacitance of Group I Capacitors of the same physical size at a given voltage rating.

µF	Size Code	Catalog Number ±20% Tol.	±10% Tol.
6 WORKING VOLTS D-C			
68	C	109D686X0006C2	109D686X9006C2
270	F	109D277X0006C2	109D277X9006C2
560	T	109D567X0006C2	109D567X9006C2
8 WORKING VOLTS D-C			
56	C	109D566X0008C2	109D566X9008C2
220	F	109D227X0008C2	109D227X9008C2
430	T	109D437X0008C2	109D437X9008C2
10 WORKING VOLTS D-C			
47	C	109D476X0010C2	109D476X9010C2
180	C	109D187X0010C2	109D187X9010C2
390	T	109D397X0010C2	109D397X9010C2
15 WORKING VOLTS D-C			
33	C	109D336X0015C2	109D336X9015C2
120	F	109D127X0015C2	109D127X9015C2
270	T	109D277X0015C2	109D277X9015C2
25 WORKING VOLTS D-C			
22	C	109D226X0025C2	109D226X9025C2
100	F	109D107X0025C2	109D107X9025C2
180	T	109D187X0025C2	109D187X9025C2
30 WORKING VOLTS D-C			
15	C	109D156X0030C2	109D156X9030C2
68	F	109D686X0030C2	109D686X9030C2
150	T	109D157X0030C2	109D157X9030C2
50 WORKING VOLTS D-C			
10	C	109D106X0050C2	109D106X9050C2
47	F	109D476X0050C2	109D476X9050C2
82	T	109D826X0050C2	109D826X9050C2
60 WORKING VOLTS D-C			
8.2	C	109D825X0060C2	109D825X9060C2
39	F	109D396X0060C2	109D396X9060C2
68	T	109D686X0060C2	109D686X9060C2
75 WORKING VOLTS D-C			
6.8	C	109D685X0075C2	109D685X9075C2
33	F	109D336X0075C2	109D336X9075C2
56	T	109D566X0075C2	109D566X9075C2
100 WORKING VOLTS D-C			
4.7	C	109D475X0100C2	109D475X9100C2
22	F	109D226X0100C2	109D226X9100C2
43	T	109D436X0100C2	109D436X9100C2

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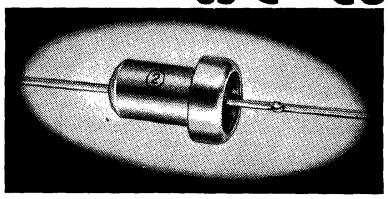
SPRAGUE CAPACITORS

85°C "CUP STYLE" TANTALEX® CAPACITORS



Size Code	Dimensions Dia. x Length	1-24 Net Prices (Type 132D only) ±10%	−15, +20%
U	7/32 x 15/32	$2.30	$3.00
V	9/32 x 11/16	7.20	6.50
T	3/8 x 49/64	8.80	7.90

- −55°C to +85°C operation at full rating. 100°C operation with 15% derating.
- Stable in performance characteristics over entire temp. range.
- Large capacitance in small size.
- Extremely low leakage currents.
- 132D designed to withstand severe military vibration tests. Also available as CL44 and CL45 capacitors to meet MIL-C-3965B. See MIL listings elsewhere in these pages.
- 131D for industrial electronics is similar to 132D but designed for static use in ground equipment.
- For plastic tube on units, change "0" to "4" at end of Cat. No. and add $.10 to price.
- For complete technical data refer to latest issue Engineering Bulletin 3710.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor. Prices for types 131D and 133D available upon request.

INDUSTRIAL TYPE 131D

µF	Size Code	Catalog Number −15, +75% Tol.
6 WVDC — 7 VDC SURGE		
27	U	131D276C7006U0
30	U	131D306C7006U0
120	V	131D127C7006V0
140	V	131D147C7006V0
290	T	131D297C7006T0
320	T	131D327C7006T0
8 WVDC — 10 VDC SURGE		
22	U	131D226C7008U0
25	U	131D256C7008U0
10 WVDC — 12 VDC SURGE		
18	U	131D186C7010U0
20	U	131D206C7010U0
85	V	131D856C7010V0
100	V	131D107C7010V0
220	T	131D227C7010T0
250	T	131D257C7010T0
15 WVDC — 18 VDC SURGE		
13	U	131D136C7015U0
15	U	131D156C7015U0
55	V	131D556C7015V0
70	V	131D706C7015V0
150	T	131D157C7015T0
170	T	131D177C7015T0
25 WVDC — 30 VDC SURGE		
9	U	131D905C7025U0
10	U	131D106C7025U0
30 WVDC — 36 VDC SURGE		
7	U	131D705C7030U0
8	U	131D805C7030U0
35	V	131D356C7030V0
40	V	131D406C7030V0
80	T	131D806C7030T0
100	T	131D107C7030T0
50 WVDC — 60 VDC SURGE		
4.5	U	131D455C7050U0
5	U	131D505C7050U0
22	V	131D226C7050V0
25	V	131D256C7050V0
55	T	131D556C7050T0
60	T	131D606C7050T0
60 WVDC — 72 VDC SURGE		
3.6	U	131D365C7060U0
4	U	131D405C7060U0
18	V	131D186C7060V0
20	V	131D206C7060V0
45	T	131D456C7060T0
50	T	131D506C7060T0
75 WVDC — 87 VDC SURGE		
3.0	U	131D305C7075U0
3.5	U	131D355C7075U0
13	V	131D136C7075V0
15	V	131D156C7075V0
35	T	131D356C7075T0
40	T	131D406C7075T0
100 WVDC — 115 VDC SURGE		
1.8	U	131D185C7100U0
2	U	131D205C7100U0
10	V	131D106C7100V0
11	V	131D116C7100V0
27	T	131D276C7100T0
30	T	131D306C7100T0
125 WVDC — 140 VDC SURGE		
1.7	U	131D175C7125U0
8	V	131D805C7125V0
9	V	131D905C7125V0
20	T	131D206C7125T0
25	T	131D256C7125T0

VIBRATION-PROOF TYPE 132D

µF	Size Code	Catalog Number ±10%	−15, +20% Tol.
6 WVDC — 7 VDC SURGE			
30	U	132D306X9006U0	132D306C2006U0
140	V	132D147X9006V0	132D147C2006V0
320	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
25	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
20	U	132D206X9010U0	132D206C2010U0
100	V	132D107X9010V0	132D107C2010V0
250	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
15	U	132D156X9015U0	132D156C2015U0
70	V	132D706X9015V0	132D706C2015V0
170	T	132D177X9015T0	132D177C2015T0
25 WVDC — 30 VDC SURGE			
10	U	132D106X9025U0	132D106C2025U0
30 WVDC — 36 VDC SURGE			
8	U	132D805X9030U0	132D805C2030U0
40	V	132D406X9030V0	132D406C2030V0
100	T	132D107X9030T0	132D107C2030T0
50 WVDC — 60 VDC SURGE			
5	U	132D505X9050U0	132D505C2050U0
25	V	132D256X9050V0	132D256C2050V0
60	T	132D606X9050T0	132D606C2050T0
60 WVDC — 72 VDC SURGE			
4	U	132D405X9060U0	132D405C2060U0
20	V	132D206X9060V0	132D206C2060V0
50	T	132D506X9060T0	132D506C2060T0
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

125°C 'CUP STYLE' TANTALEX® CAPACITORS

- −55°C to +125°C operation at full rating. May be up-rated 50% for operation at 85°C.
- Meet stringent requirements in military and missile applications.
- Sintered anode for unusual capacitance stability, large values of capacitance in small physical size.
- Non-tarnish finish to prevent discoloration during storage or use.
- For units with outer plastic insulating tube, substitute "4" for "0" at end of Cat. No.
- Housed in miniature silver thimble.

µF	Size Code	Catalog Number −15, +20% Tol.	±10%
4 WORKING VOLTS D-C			
30	U	133D306C2004U0	133D306X9004U0
140	V	133D147C2004V0	133D147X9004V0
320	T	133D327C2004T0	133D327X9004T0
5 WORKING VOLTS D-C			
25	U	133D256C2005U0	133D256X9005U0
7 WORKING VOLTS D-C			
20	U	133D206C2007U0	133D206X9007U0
100	V	133D107C2007V0	133D107X9007V0
250	T	133D257C2007T0	133D257X9007T0
10 WORKING VOLTS D-C			
15	U	133D156C2010U0	133D156X9010U0
70	V	133D706C2010V0	133D706X9010V0
170	T	133D177C2010T0	133D177X9010T0
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D156C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

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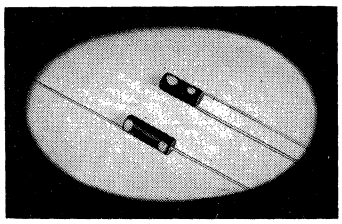
SPRAGUE CAPACITORS

TYPE 160D SOLID ELECTROLYTE TANTALEX® CAPACITORS



For Hearing Aids, Ultra-Miniature Radios, and Allied Applications

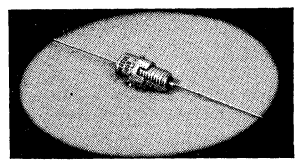
- Meet the need for a tiny, leakproof high-capacitance capacitor with long trouble-free service life.
- Solid, non-corrosive electrolyte—nothing to leak.
- Long shelf and service life.
- Completely moisture-proof—capacitor element sealed in polyester film tube with epoxy end-fill.
- Available with axial as well as single-ended leads.
- For complete technical data refer to latest issue Engineering Bulletin 3515.
- Prices available upon request.

Case Size A—.065" D. x .150" L.			Case Size A—.065" D. x .150" L.			Case Size B—.065" D. x .190" L.			Case Size C—.065" D. x .240" L.		
μF	WVDC	Cat. No.	μF	WVDC	Cat. No.	μF	WVDC	Cat. No.	μF	WVDC	Cat. No.
3.0	2	160D28	0.2	15	160D32	8.0	2	160D19	10.0	2	160D22
2.0	4	160D27	0.15	15	160D33	5.0	4	160D36	8.0	4	160D18
1.5	4	160D29	0.1	15	160D34	4.0	4	160D10	5.0	8	160D39
1.0	8	160D25	0.05	15	160D35	2.0	8	160D20	4.0	8	160D24
0.8	8	160D41	0.01	15	160D42	1.5	8	160D37	2.0	15	160D23
0.5	15	160D30	0.02	15	160D43	1.0	15	160D21	1.5	15	160D40
0.4	15	160D31				0.8	15	160D38			

TYPE 180D SOLID ELECTROLYTE TANTALEX® FEED-THRU CAPACITORS

- Effectively bypasses r-f interference on low voltage d-c power circuits
- First of its kind available to designers. Positive mounting is assured with Sprague's new design.
- Large values of capacitance available in small physical size. Will carry 5 amperes d-c at 25C, 2 amperes d-c at 125C.
- Hermetically sealed in corrosion-resistant cases. Glass-to-metal solder seal terminals for maximum protection.
- Performance characteristics similar to Sprague Type 150D solid electrolyte Tantalex capacitors.
- Case measures .312 in. dia. x .689 in. long. Leads measure 1½ inches.

μF	WVDC	Surge VDC	Cat. No.
60	6	8	180D606X0006
39	10	13	180D396X0010
22	15	20	180D226X0015
15	20	26	180D156X0020
6.8	35	46	180D685X0035



- For complete technical data refer to latest issue Engineering Bulletin 3525.
- Prices available upon request.

TYPE 200D TANTAPAK® TANTALUM ELECTROLYTIC CAPACITORS

Code	Height	Width	Thickness
A1	1 1/16	1 9/32	3/4
A2	1 3/8	1 9/32	3/4
A3	1 5/8	1 9/32	3/4
A4	2	1 9/32	3/4
A5	2 1/2	1 9/32	3/4

- For high capacitance, low voltage applications—meet difficult operating conditions. Dual rated for operation at both 85C and 125C.
- Find wide application in filtering, coupling, bypass, and time delay circuits in computer, missile, radar and fire control equipment.
- Porous anode construction offers better leakage and temperature coefficient characteristics than foil type capacitor section of comparable ratings.
- Superior to foil units at high temperatures and higher frequencies.
- For complete technical data refer to latest issue Engineering Bulletin 3705.
- Prices available upon request.

μF	WVDC 125C	WVDC 85C	Size Code	Catalog Number	μF	WVDC 125C	WVDC 85C	Size Code	Catalog Number
960	10	15	A1	200D130	1000	30	45	A4	200D173
1200	10	15	A2	200D131	1100	30	45	A5	200D174
1400	10	15	A3	200D132	1000	35	50	A5	200D180
2100	10	15	A4	200D133	270	50	75	A1	200D190
2400	10	15	A5	200D134	330	50	75	A2	200D191
520	20	30	A1	200D150	400	50	75	A3	200D192
660	20	30	A2	200D151	600	50	75	A4	200D193
820	20	30	A3	200D152	660	50	75	A5	200D194
1200	20	30	A4	200D153	140	75	110	A1	200D200
1300	20	30	A5	200D154	180	75	110	A2	200D201
430	30	45	A1	200D170	220	75	110	A3	200D202
550	30	45	A2	200D171	320	75	110	A4	200D203
660	30	45	A3	200D172	360	75	110	A5	200D204

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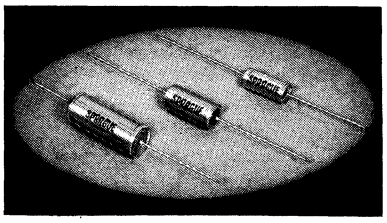
SPRAGUE CAPACITORS

MIL-C-3965-B FOIL TANTALUM CAPACITORS TYPES CL24 and CL25



DIMENSIONS AND NET PRICES (1-24)

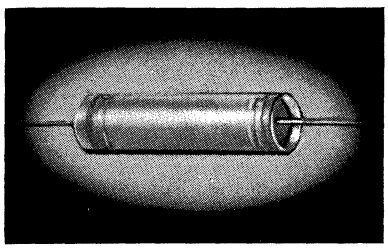
Code	D. x L.	CL24	CL25
D	3/16 x 11/16	$ 4.41	$ 4.51
G	9/32 x 7/8	7.34	7.44
J	3/8 x 1 7/16	12.79	12.89
M	3/8 x 2 1/8	20.83	20.93
P	3/8 x 2 3/4	27.76	27.86

- For −55C to +85C operation up to 150 volts in military and industrial electronic equipment.
- Low leakage current and stable temperature coefficient makes possible its use in many circuits where aluminum foil designs are undesirable.
- The electrolyte system used assures long operating and shelf life, excellent low temperature performance, chemical stability and inertness.
- MIL version of Sprague Type 112D.
- Type CL24 is a bare metal-case unit. If an outer insulating sleeve is desired, order Type CL25.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

µF	WVDC	Size Code	Military Designation*	
15	15	D	CL24BE150UP3	CL25BE150UP3
60	15	G	CL24BE600UP3	CL25BE600UP3
200	15	J	CL24BE201UP3	CL25BE201UP3
400	15	M	CL24BE401UP3	CL25BE401UP3
580	15	P	CL24BE581UP3	CL25BE581UP3
10	25	D	CL24BG100UP3	CL25BG100UP3
40	25	G	CL24BG400UP3	CL25BG400UP3
120	25	J	CL24BG121UP3	CL25BG121UP3
250	25	M	CL24BG251UP3	CL25BG251UP3
350	25	P	CL24BG351UP3	CL25BG351UP3
8	30	D	CL24BH080UP3	CL25BH080UP3
32	30	G	CL24BH320UP3	CL25BH320UP3
110	30	J	CL24BH111UP3	CL25BH111UP3
220	30	M	CL24BH221UP3	CL25BH221UP3
300	30	P	CL24BH301UP3	CL25BH301UP3
4.5	50	D	CL24BJ4R5UP3	CL25BJ4R5UP3
18	50	G	CL24BJ180UP3	CL25BJ180UP3
60	50	J	CL24BJ600UP3	CL25BJ600UP3
100	50	M	CL24BJ101UP3	CL25BJ101UP3
150	50	P	CL24BJ151UP3	CL25BJ151UP3
3	75	D	CL24BL030UP3	CL25BL030UP3
12	75	G	CL24BL120UP3	CL25BL120UP3
30	75	J	CL24BL300UP3	CL25BL300UP3
70	75	M	CL24BL700UP3	CL25BL700UP3
100	75	P	CL24BL101UP3	CL25BL101UP3
2	100	D	CL24BN020UP3	CL25BN020UP3
8	100	G	CL24BN080UP3	CL25BN080UP3
25	100	J	CL24BN250UP3	CL25BN250UP3
50	100	M	CL24BN500UP3	CL25BN500UP3
70	100	P	CL24BN700UP3	CL25BN700UP3
1	150	D	CL24BQ010UP3	CL25BQ010UP3
4	150	G	CL24BQ040UP3	CL25BQ040UP3
13	150	J	CL24BQ130UP3	CL25BQ130UP3
25	150	M	CL24BQ250UP3	CL25BQ250UP3
36	150	P	CL24BQ360UP3	CL25BQ360UP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

MIL-C-3965-B FOIL TANTALUM CAPACITORS TYPES CL34 and CL35



- For use in military and industrial electronic equipment. Designed to operate over the temperature range of −55C to +85C up to 150 volts.
- Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics.
- For use in circuits where aluminum foil units are unsatisfactory. Low leakage current and good temperature coefficient.
- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35.
- MIL version of Sprague Type 110D.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

DIMENSIONS AND NET PRICES (1-24)

Code	D. x L.	CL34	CL35
D	3/16 x 11/16	$ 4.41	$ 4.51
G	9/32 x 7/8	6.68	6.78
J	3/8 x 1 7/16	10.58	10.68
M	3/8 x 2 1/8	14.84	14.94
P	3/8 x 2 3/4	19.85	19.95

µF	WVDC	Size Code	Military Designation*	
10	3	D	CL34BA100MP3	CL35BA100MP3
50	3	G	CL34BA500MP3	CL35BA500MP3
8	6	D	CL34BB080MP3	CL35BB080MP3
30	6	G	CL34BB300MP3	CL35BB300MP3
100	6	J	CL34BB101MP3	CL35BB101MP3
200	6	M	CL34BB201MP3	CL35BB201MP3
300	6	P	CL34BB301MP3	CL35BB301MP3
6	10	D	CL34BD060MP3	CL35BD060MP3
25	10	G	CL34BD250MP3	CL35BD250MP3
80	10	J	CL34BD800MP3	CL35BD800MP3
160	10	M	CL34BD161MP3	CL35BD161MP3
220	10	P	CL34BD221MP3	CL35BD221MP3
4.5	15	D	CL34BE4R5MP3	CL35BE4R5MP3
10	15	G	CL34BE100MP3	CL35BE100MP3
18	15	G	CL34BE180MP3	CL35BE180MP3
55	15	J	CL34BE550MP3	CL35BE550MP3
110	15	M	CL34BE111MP3	CL35BE111MP3
160	15	P	CL34BE161MP3	CL35BE161MP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R5MP3
30	30	J	CL34BH300MP3	CL35BH300MP3
60	30	M	CL34BH600MP3	CL35BH600MP3
85	30	P	CL34BH850MP3	CL35BH850MP3
1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3
6	50	G	CL34BJ060MP3	CL35BJ060MP3
20	50	J	CL34BJ200MP3	CL35BJ200MP3
40	50	M	CL34BJ400MP3	CL35BJ400MP3
55	50	P	CL34BJ550MP3	CL35BJ550MP3
1	75	D	CL34BL010MP3	CL35BL010MP3
4	75	G	CL34BL040MP3	CL35BL040MP3
14	75	J	CL34BL140MP3	CL35BL140MP3
28	75	M	CL34BL280MP3	CL35BL280MP3
40	75	P	CL34BL400MP3	CL35BL400MP3
0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3
3	100	G	CL34BN030MP3	CL35BN030MP3
10	100	J	CL34BN100MP3	CL35BN100MP3
20	100	M	CL34BN200MP3	CL35BN200MP3
30	100	P	CL34BN300MP3	CL35BN300MP3
0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3
2	150	G	CL34BQ020MP3	CL35BQ020MP3
4	150	G	CL34BQ040MP3	CL35BQ040MP3
7	150	J	CL34BQ070MP3	CL35BQ070MP3
8	150	J	CL34BQ080MP3	CL35BQ080MP3
12	150	M	CL34BQ120MP3	CL35BQ120MP3
14	150	M	CL34BQ140MP3	CL35BQ140MP3
20	150	P	CL34BQ200MP3	CL35BQ200MP3

*Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

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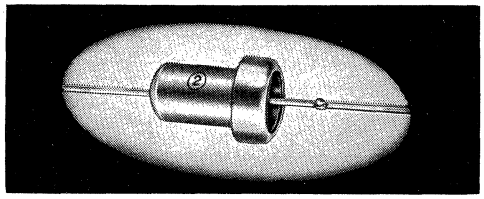
SPRAGUE CAPACITORS

MIL-C-3965-B 'CUP-TYPE' TANTALEX® CAPACITORS TYPES CL44 and CL45



DIMENSIONS AND NET PRICES (1-24)

Code	D. x L.	Tol. M	Tol. S	Tol. T
U	7/32 x 15/32	$ 4.70	$ 4.70	$ 4.20
V	9/32 x 11/16	9.20	9.20	8.50
T	3/8 x 49/64	11.50	11.50	10.50

- Type CL44 and CL45 Tantalex capacitors are manufactured to specification MIL-3965-B. Also available as Sprague Industrial Type 131D and 132D.
- Large capacitance values in small physical size.
- Intended for industrial, communication and ground military electronic equipment.
- Extremely low leakage currents and virtually no shelf aging.
- CL44 is a bare metal-case unit. CL45 has outer insulating sleeve.
- Capacitance tolerance: M = +20, −20%; S = +30, −15%; T = +50, −15%.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

TYPE CL44

µF	WVDC	Size Code	Type Number*
30	6	U	CL44BB300MP
30	6	U	CL44BB300SP
30	6	U	CL44BB300TP
140	6	V	CL44BB141MP
140	6	V	CL44BB141SP
140	6	V	CL44BB141TP
330	6	T	CL44BB331MP
330	6	T	CL44BB331SP
330	6	T	CL44BB331TP
25	8	U	CL44BC250MP
25	8	U	CL44BC250SP
25	8	U	CL44BC250TP
20	10	U	CL44BD200MP
20	10	U	CL44BD200SP
20	10	U	CL44BD200TP
100	10	V	CL44BD101MP
100	10	V	CL44BD101SP
100	10	V	CL44BD101TP
250	10	T	CL44BD251MP
250	10	T	CL44BD251SP
250	10	T	CL44BD251TP
15	15	U	CL44BE150MP
15	15	U	CL44BE150SP
15	15	U	CL44BE150TP
70	15	V	CL44BE700MP
70	15	V	CL44BE700SP
70	15	V	CL44BE700TP
170	15	T	CL44BE171MP
170	15	T	CL44BE171SP
170	15	T	CL44BE171TP
10	25	U	CL44BG100MP
10	25	U	CL44BG100SP
10	25	U	CL44BG100TP
8	30	U	CL44BH080MP
8	30	U	CL44BH080SP
8	30	U	CL44BH080TP
40	30	V	CL44BH400MP
40	30	V	CL44BH400SP
40	30	V	CL44BH400TP
100	30	T	CL44BH101MP
100	30	T	CL44BH101SP
100	30	T	CL44BH101TP
5	50	U	CL44BJ050MP
5	50	U	CL44BJ050SP
5	50	U	CL44BJ050TP
25	50	V	CL44BJ250MP
25	50	V	CL44BJ250SP
25	50	V	CL44BJ250TP
60	50	T	CL44BJ600MP
60	50	T	CL44BJ600SP
60	50	T	CL44BJ600TP
4	60	U	CL44BK040MP
4	60	U	CL44BK040SP
4	60	U	CL44BK040TP
20	60	V	CL44BK200MP
20	60	V	CL44BK200SP
20	60	V	CL44BK200TP
50	60	T	CL44BK500MP
50	60	T	CL44BK500SP
50	60	T	CL44BK500TP
3.5	75	U	CL44BL3R5MP
3.5	75	U	CL44BL3R5SP
3.5	75	U	CL44BL3R5TP
15	75	V	CL44BL150MP
15	75	V	CL44BL150SP
15	75	V	CL44BL150TP
40	75	T	CL44BL400MP
40	75	T	CL44BL400SP
40	75	T	CL44BL400TP
2.5	100	U	CL44BN2R5MP
2.5	100	U	CL44BN2R5SP
2.5	100	U	CL44BN2R5TP
11	100	V	CL44BN110MP
11	100	V	CL44BN110SP
11	100	V	CL44BN110TP
30	100	T	CL44BN300MP
30	100	T	CL44BN300SP
30	100	T	CL44BN300TP
1.7	125	U	CL44BP1R7MP
1.7	125	U	CL44BP1R7SP
1.7	125	U	CL44BP1R7TP
9	125	V	CL44BP090MP
9	125	V	CL44BP090SP
9	125	V	CL44BP090TP
25	125	T	CL44BP250MP
25	125	T	CL44BP250SP
25	125	T	CL44BP250TP

For Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

TYPE CL45

µF	WVDC	Size Code	Type Number*
30	6	U	CL45BB300MP
30	6	U	CL45BB300SP
30	6	U	CL45BB300TP
140	6	V	CL45BB141MP
140	6	V	CL45BB141SP
140	6	V	CL45BB141TP
330	6	T	CL45BB331MP
330	6	T	CL45BB331SP
330	6	T	CL45BB331TP
25	8	U	CL45BC250MP
25	8	U	CL45BC250SP
25	8	U	CL45BC250TP
20	10	U	CL45BD200MP
20	10	U	CL45BD200SP
20	10	U	CL45BD200TP
100	10	V	CL45BD101MP
100	10	V	CL45BD101SP
100	10	V	CL45BD101TP
250	10	T	CL45BD251MP
250	10	T	CL45BD251SP
250	10	T	CL45BD251TP
15	15	U	CL45BE150MP
15	15	U	CL45BE150SP
15	15	U	CL45BE150TP
70	15	V	CL45BE700MP
70	15	V	CL45BE700SP
70	15	V	CL45BE700TP
170	15	T	CL45BE171MP
170	15	T	CL45BE171SP
170	15	T	CL45BE171TP
10	25	U	CL45BG100MP
10	25	U	CL45BG100SP
10	25	U	CL45BG100TP
8	30	U	CL45BH080MP
8	30	U	CL45BH080SP
8	30	U	CL45BH080TP
40	30	V	CL45BH400MP
40	30	V	CL45BH400SP
40	30	V	CL45BH400TP
100	30	T	CL45BH101MP
100	30	T	CL45BH101SP
100	30	T	CL45BH101TP
5	50	U	CL45BJ050MP
5	50	U	CL45BJ050SP
5	50	U	CL45BJ050TP
25	50	V	CL45BJ250MP
25	50	V	CL45BJ250SP
25	50	V	CL45BJ250TP
60	50	T	CL45BJ600MP
60	50	T	CL45BJ600SP
60	50	T	CL45BJ600TP
4	60	U	CL45BK040MP
4	60	U	CL45BK040SP
4	60	U	CL45BK040TP
20	60	V	CL45BK200MP
20	60	V	CL45BK200SP
20	60	V	CL45BK200TP
50	60	T	CL45BK500MP
50	60	T	CL45BK500SP
50	60	T	CL45BK500TP
3.5	75	U	CL45BL3R5MP
3.5	75	U	CL45BL3R5SP
3.5	75	U	CL45BL3R5TP
15	75	V	CL45BL150MP
15	75	V	CL45BL150SP
15	75	V	CL45BL150TP
40	75	T	CL45BL400MP
40	75	T	CL45BL400SP
40	75	T	CL45BL400TP
2.5	100	U	CL45BN2R5MP
2.5	100	U	CL45BN2R5SP
2.5	100	U	CL45BN2R5TP
11	100	V	CL45BN110MP
11	100	V	CL45BN110SP
11	100	V	CL45BN110TP
30	100	T	CL45BN300MP
30	100	T	CL45BN300SP
30	100	T	CL45BN300TP
1.7	125	U	CL45BP1R7MP
1.7	125	U	CL45BP1R7SP
1.7	125	U	CL45BP1R7TP
9	125	V	CL45BP090MP
9	125	V	CL45BP090SP
9	125	V	CL45BP090TP
25	125	T	CL45BP250MP
25	125	T	CL45BP250SP
25	125	T	CL45BP250TP

For Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

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Net
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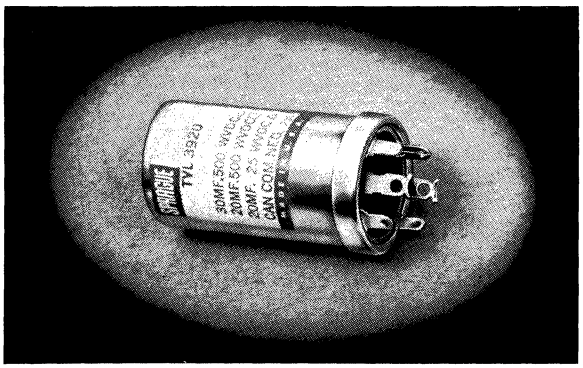
SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS



- Hermetically Sealed in Aluminum Cans for Long Life and Dependable Performance in TV, Radio and Hi-Fi
- Designed for 85°C (185°F) Operation
- Stand Up Under Extremely High Temperatures Often Encountered in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mounting Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the Tabs
- Furnished Complete with Both Phenolic and Metal Mounting Plates

The Twist-lok Capacitors listed here include only those ratings which would be applicable to industrial applications. For the complete line of more than 1000 Twist-loks, refer to Sprague Catalog C-614.

μF	WVDC	Dia. x Length	Cat. No.	Net
		SINGLE UNITS		
2000	6	1⅜ x 2	TVL-1115	$1.83
225	15	¾ x 2	TVL-1160	1.05
1000	15	1 x 2½	TVL-1165	1.53
2000	15	1⅜ x 2	TVL-1168	2.07
3000	15	1⅜ x 3	TVL-1170	2.55
4000	15	1⅜ x 3½	TVL-1173	2.25
40	25	¾ x 2	TVL-1210	.81
500	25	1 x 2	TVL-1220	1.53
1000	25	1⅜ x 2	TVL-1230	2.13
100	50	¾ x 2	TVL-1317	.99
150	50	¾ x 2½	TVL-1320	1.08
250	50	1 x 2½	TVL-1324	1.20
500	50	1⅜ x 2½	TVL-1330	1.59
1000	50	1⅜ x 3½	TVL-1338	2.25
1500	50	1⅜ x 4	TVL-1341	2.64
30	150	1 x 2	TVL-1408	.93
50	150	1 x 2	TVL-1415	.99
80	150	1 x 2½	TVL-1420	1.11
100	150	1 x 2½	TVL-1423	1.20
120	150	1 x 2½	TVL-1425	1.29
120	150	1⅜ x 2½	TVL-1426	1.29
140	150	1 x 3	TVL-1428	1.29
150	150	1 x 3	TVL-1429	1.29
150	150	1⅜ x 3	TVL-1430	1.29
200	150	1⅜ x 4	TVL-1431	1.47
300	150	1⅜ x 3½	TVL-1434	1.68
160	200	1⅜ x 3	TVL-1473	1.89
20	250	1 x 2	TVL-1509	.96
40	250	1 x 2	TVL-1519	1.08
100	250	1 x 3	TVL-1535	1.62
150	250	1⅜ x 2½	TVL-1540	1.86
200	250	1⅜ x 3½	TVL-1547	2.19
80	300	1 x 3½	TVL-1573	1.53
100	300	1 x 4	TVL-1578	1.74
125	300	1⅜ x 3½	TVL-1580	2.10
150	300	1⅜ x 3½	TVL-1584	2.10
250	300	1⅜ x 4	TVL-1590	3.33
30	350	1 x 2	TVL-1617	1.14
40	350	1 x 2	TVL-1621	1.20
50	350	1 x 2	TVL-1622	1.26
60	350	1 x 3	TVL-1624	1.32
80	350	1⅜ x 2	TVL-1630	1.71
125	350	1⅜ x 3½	TVL-1638	2.37
150	350	1⅜ x 4	TVL-1642	2.37
4	450	1 x 2	TVL-1702	.84
10	450	1 x 2	TVL-1705	$ .93
15	450	1 x 2	TVL-1709	1.02
20	450	1 x 2	TVL-1714	1.08
30	450	1 x 2½	TVL-1720	1.17
40	450	1 x 3	TVL-1725	1.23
50	450	1 x 3	TVL-1728	1.41
60	450	1⅜ x 2½	TVL-1730	1.56
80	450	1⅜ x 2½	TVL-1735	1.83
100	450	1⅜ x 3	TVL-1750	2.07
125	450	1⅜ x 4	TVL-1760	2.31
40	475	1⅜ x 2	TVL-1820	1.50
10	500	1 x 2	TVL-1940	1.02
20	500	1 x 2½	TVL-1943	1.11
30	500	1 x 3	TVL-1947	1.20
40	500	1 x 3½	TVL-1950	1.50
80	500	1⅜ x 3	TVL-1958	2.16
90	500	1⅜ x 3½	TVL-1960	2.10
		DUAL UNITS		
20-20	150-150	1 x 2	TVL-2415	$1.02
30-30	150-150	1 x 2	TVL-2422	1.11
40-20	150-150	1 x 2	TVL-2425	1.11
40-30	150-150	1 x 2	TVL-2427	1.11
40-40	150-150	1 x 2½	TVL-2428	1.14
50-30	150-150	1 x 2½	TVL-2432	1.20
50-50	150-150	1 x 2½	TVL-2435	1.29
60-60	150-150	1 x 3½	TVL-2438	1.41
70-30	150-150	1 x 2½	TVL-2439	1.32
75-75	150-150	1 x 3	TVL-2440	1.56
80-40	150-150	1⅜ x 2½	TVL-2442	1.38
80-50	150-150	1 x 2½	TVL-2442.1	1.44
80-80	150-150	1⅜ x 2	TVL-2442.4	1.59
125-100	150-150	1⅜ x 2½	TVL-2443.3	2.01
150-80	150-150	1⅜ x 2½	TVL-2443.5	1.83
200-5	150-150	1⅜ x 3	TVL-2444	1.62
200-125	150-150	1⅜ x 3½	TVL-2445	2.25
200-150	150-150	1⅜ x 4	TVL-2446	2.25
200-200	150-150	1⅜ x 4	TVL-2447	2.40
60-60	200-200	1 x 3	TVL-2461	2.04
60-60	200-200	1⅜ x 2	TVL-2462	2.04
100-100	200-200	1⅜ x 3	TVL-2464	2.10
200-5	200-200	1⅜ x 2	TVL-2470	1.83
20-20	250-250	1 x 2	TVL-2515	1.14
40-40	250-250	1 x 2	TVL-2520	1.50
150-150	250-250	1⅜ x 4	TVL-2535	3.09
200-200	250-250	1⅜ x 4	TVL-2538	3.63

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SPRAGUE CAPACITORS

TVL TWIST-LOK ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.	Net
40-30	300-300	1 x 3	TVL-2574	$1.59
80-80	300-300	1⅜ x 3	TVL-2585	2.43
120-20	300-300	1⅜ x 3½	TVL-2588	2.40
120-40	300-300	1⅜ x 3½	TVL-2589	2.61
15-15	350-350	1 x 2	TVL-2625	1.35
30-30	350-350	1 x 3	TVL-2628	1.74
50-30	350-350	1⅜ x 2½	TVL-2630	1.89
60-30	350-350	1⅜ x 3	TVL-2631	1.89
80-20	350-350	1⅜ x 3	TVL-2633	2.10
80-40	350-350	1⅜ x 3	TVL-2634	2.46
80-80	350-350	1⅜ x 4	TVL-2635	2.82
90-40	350-350	1⅜ x 3	TVL-2637	2.58
100-60	350-350	1⅜ x 3½	TVL-2639	2.88
100-100	350-350	1⅜ x 4	TVL-2641	3.69
160-10	350-350	1⅜ x 3	TVL-2643	2.58
100-30	400-50	1⅜ x 3	TVL-2655	2.34
80-80	400-200	1⅜ x 3½	TVL-2656	2.37
80-60	400-400	1⅜ x 3	TVL-2677	2.82
120-40	400-400	1⅜ x 4	TVL-2679	3.15
30-200	450-150	1⅜ x 3	TVL-2715	2.10
40-10	450-300	1 x 3	TVL-2724	1.56
5-5	450-450	1 x 2	TVL-2748	1.02
10-10	450-450	1 x 2	TVL-2750	1.14
15-15	450-450	1 x 2½	TVL-2753	1.35
20-10	450-450	1 x 2½	TVL-2754	1.35
30-10	450-450	1 x 3	TVL-2757	1.44
30-30	450-450	1⅜ x 2½	TVL-2759	1.83
40-20	450-450	1⅜ x 3	TVL-2762	1.95
40-40	450-450	1⅜ x 3	TVL-2764	2.07
50-50	450-450	1⅜ x 3	TVL-2767	2.31
60-20	450-450	1⅜ x 3	TVL-2768	2.13
60-40	450-450	1⅜ x 3½	TVL-2770	2.37
60-60	450-450	1⅜ x 3½	TVL-2772	2.70
80-10	450-450	1⅜ x 3	TVL-2776	2.16
80-20	450-450	1⅜ x 3	TVL-2776.5	2.34
80-30	450-450	1⅜ x 4	TVL-2777	2.52
80-40	450-450	1⅜ x 3½	TVL-2778	3.03
100-40	450-450	1⅜ x 4	TVL-2780	2.91
15-15	475-475	1 x 2½	TVL-2820	1.41
30-10	475-475	1 x 3	TVL-2824	1.56
40-10	475-475	1⅜ x 2½	TVL-2827	1.86
80-50	475-475	1⅜ x 4	TVL-2851	3.12
10-10	500-500	1 x 2½	TVL-2933	1.17
20-20	500-500	1⅜ x 2½	TVL-2935	1.71
30-10	500-500	1⅜ x 3	TVL-2936	1.56
30-30	500-500	1⅜ x 3	TVL-2937	1.95
40-40	500-500	1⅜ x 3	TVL-2940	2.58
60-40	500-500	1⅜ x 3½	TVL-2944	2.76

TRIPLE UNITS

40-20-20	150-150-25	1 x 2½	TVL-3422	$1.38
50-30-20	150-150-25	1 x 2½	TVL-3426.7	1.50
50-50-20	150-150-25	1 x 3	TVL-3430	1.59
80-40-20	150-150-25	1 x 2½	TVL-3432	1.68
80-40-300	150-150-25	1⅜ x 2½	TVL-3432.4	2.22
20-20-20	150-150-150	1 x 2	TVL-3433	1.38
30-30-10	150-150-150	1 x 2	TVL-3435	1.71
40-20-10	150-150-150	1 x 2	TVL-3436	1.41
40-20-20	150-150-150	1 x 2½	TVL-3437	1.44
40-30-20	150-150-150	1 x 2	TVL-3438	1.50
40-40-40	150-150-150	1 x 3½	TVL-3440	1.56
50-40-10	150-150-150	1 x 2½	TVL-3441	1.53
50-50-50	150-150-150	1 x 3	TVL-3442	1.80
60-40-20	150-150-150	1 x 3	TVL-3443	1.65
70-15-15	150-150-150	1 x 2½	TVL-3443.3	1.62
70-40-40	150-150-150	1 x 3	TVL-3443.4	2.43
80-30-10	150-150-150	1 x 3	TVL-3443.8	1.65
80-40-20	150-150-150	1 x 3	TVL-3444	1.74
100-30-10	150-150-150	1 x 3	TVL-3447	1.83
120-80-40	150-150-150	1⅜ x 3½	TVL-3448	2.28
120-120-40	150-150-150	1⅜ x 3	TVL-3448.2	2.43
200-100-60	150-150-150	1⅜ x 3½	TVL-3450	2.73
200-150-150	150-150-150	1⅜ x 4	TVL-3452	4.50
80-10-20	200-200-50	1 x 3	TVL-3471	1.68
20-20-20	250-250-250	1 x 2	TVL-3532	1.56
40-20-20	250-250-250	1 x 3½	TVL-3540	1.74
80-10-10	250-250-250	1 x 3	TVL-3543	$1.92
80-80-60	250-250-250	1⅜ x 3	TVL-3545	2.94
10-10-10	300-300-300	1 x 2	TVL-3580	1.44
60-20-10	300-300-300	1⅜ x 2	TVL-3581	2.07
80-40-40	300-300-300	1⅜ x 2½	TVL-3583	2.85
120-50-40	300-300-300	1⅜ x 4	TVL-3585	3.51
140-100-20	300-300-300	1⅜ x 4½	TVL-3585.5	3.72
20-10-10	350-350-350	1 x 2	TVL-3639.6	1.62
30-20-10	350-350-350	1 x 2½	TVL-3639.8	1.95
60-40-20	350-350-350	1⅜ x 4	TVL-3640	2.55
60-50-50	350-350-350	1⅜ x 4	TVL-3641	2.94
80-60-60	350-350-350	1⅜ x 4	TVL-3642	3.33
90-40-20	350-350-350	1⅜ x 4	TVL-3645	3.15
20-20-20	400-400-25	1 x 3	TVL-3678	1.71
10-10-10	400-400-400	1 x 2½	TVL-3690	1.44
90-10-5	400-400-400	1⅜ x 3	TVL-3696	2.64
10-10-10	450-450-25	1 x 2½	TVL-3729	1.44
10-10-20	450-450-25	1 x 2	TVL-3731	1.44
40-20-20	450-450-25	1⅜ x 2½	TVL-3743.7	2.10
10-10-10	450-450-450	1 x 3	TVL-3776	1.56
15-15-15	450-450-450	1 x 3	TVL-3778.2	1.86
20-10-10	450-450-450	1 x 3	TVL-3779	1.74
20-20-20	450-450-450	1⅜ x 2½	TVL-3780	2.16
30-10-10	450-450-450	1⅜ x 2	TVL-3780.5	1.89
30-20-20	450-450-450	1⅜ x 3	TVL-3781	2.31
30-30-30	450-450-450	1⅜ x 3½	TVL-3782	2.61
40-10-10	450-450-450	1⅜ x 3	TVL-3783	2.01
40-30-20	450-450-450	1⅜ x 3	TVL-3784	2.58
40-40-10	450-450-450	1⅜ x 2½	TVL-3785	2.49
40-40-20	450-450-450	1⅜ x 3	TVL-3786	2.67
40-40-40	450-450-450	1⅜ x 3½	TVL-3787	2.94
50-40-30	450-450-450	1⅜ x 3½	TVL-3788	2.94
60-20-20	450-450-450	1⅜ x 3	TVL-3789	2.76
60-30-10	450-450-450	1⅜ x 3	TVL-3790	2.70
60-40-20	450-450-450	1⅜ x 3½	TVL-3791	3.00
80-40-20	450-450-450	1⅜ x 4	TVL-3793	3.24
30-30-20	475-475-475	1⅜ x 3	TVL-3840	2.67
40-30-10	475-475-475	1⅜ x 3	TVL-3842.6	2.70
40-30-30	475-475-475	1⅜ x 4	TVL-3843	3.09
10-10-10	500-500-500	1 x 3	TVL-3952	1.62
30-20-20	500-500-500	1⅜ x 3	TVL-3956	2.52
40-10-10	500-500-500	1⅜ x 3	TVL-3962	2.34
40-40-10	500-500-500	1⅜ x 3½	TVL-3965	3.03

QUADRUPLE UNITS

40-40-40-30	150-150-150-150	1⅜ x 2	TVL-4441	$1.98
100-80-60-40	150-150-150-150	1⅜ x 3	TVL-4445	2.79
200-200-60-30	175-175-175-175	1⅜ x 4⅜	TVL-4450	3.33
60-40-20-50	300-300-300-25	1⅜ x 3½	TVL-4570	2.82
40-20-10-10	300-300-300-300	1⅜ x 2	TVL-4578	2.37
40-40-20-10	300-300-300-300	1⅜ x 3½	TVL-4579	2.73
40-40-30-20	300-300-300-300	1⅜ x 3	TVL-4580	2.91
60-40-10-10	300-300-300-300	1⅜ x 2½	TVL-4583	2.73
200-20-20-20	300-300-300-300	1⅜ x 4	TVL-4590	3.75
40-20-20-10	350-350-350-350	1⅜ x 2½	TVL-4635	2.61
40-40-40-40	350-350-350-350	1⅜ x 4	TVL-4635.3	3.60
80-60-40-20	350-350-350-350	1⅜ x 4	TVL-4635.7	3.84
90-40-30-30	350-350-350-350	1⅜ x 4	TVL-4635.8	4.08
50-40-30-20	400-400-400-400	1⅜ x 4	TVL-4674	3.39
80-25-10-10	400-400-400-400	1⅜ x 4	TVL-4680	3.15
30-30-20-20	450-450-450-450	1⅜ x 3	TVL-4769.4	3.12
35-35-10-5	450-450-450-450	1⅜ x 3½	TVL-4771	2.76
40-10-10-10	450-450-450-450	1⅜ x 3	TVL-4771.3	2.46
40-35-10-10	450-450-450-450	1⅜ x 3	TVL-4771.8	2.88
40-40-20-20	450-450-450-450	1⅜ x 4	TVL-4773	3.33
40-40-30-30	450-450-450-450	1⅜ x 4	TVL-4774	3.63
40-40-40-40	450-450-450-450	1⅜ x 4	TVL-4775	3.87
60-20-20-20	450-450 450-450	1⅜ x 4	TVL-4778	3.39
60-30-10-2	450-450-450-450	1⅜ x 3	TVL-4779	3.06
80-10-10-10	450-450-450-450	1⅜ x 4	TVL-4783	3.03
20-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4832	2.61
20-20-20-20	475-475-475-475	1⅜ x 3	TVL-4834	3.06
40-20-10-10	475-475-475-475	1⅜ x 3	TVL-4840	3.06
10-10-10-10	500-500-500-500	1⅜ x 2	TVL-4940	2.10
40-40-8-8	500-500-500-500	1⅜ x 4	TVL-4944	3.42

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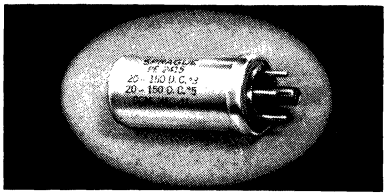
SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



Terminal Code

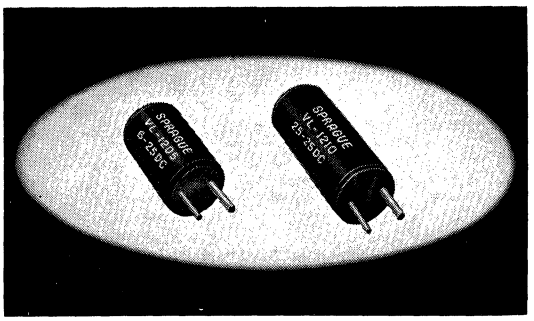
Sections	−	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

μF	WVDC	Diam. x Lgth.	Cat. No.	Net
100	350	1⅜ x 3	PE-1636	$3.51
10	450	1 5/32 x 2½	PE-1705	2.43
20	450	1 5/32 x 2½	PE-1714	2.58
40	450	1⅜ x 2½	PE-1725	2.73
80	450	1⅜ x 3½	PE-1730	3.33
20-20	150-150	1 5/32 x 2½	PE-2415	2.52
40-40	150-150	1 5/32 x 2½	PE-2428	2.64
10-10	450-450	1 5/32 x 2½	PE-2750	2.64
20-20	450-450	1⅜ x 2½	PE-2755	3.03
40-40	450-450	1⅜ x 3½	PE-2764	3.57
10-10-10	450-450-450	1 5/32 x 2½	PE-3776	3.06
20-20-20	450-450-450	1⅜ x 3	PE-3780	3.66
30-30-10-20	450-450-450-50	1⅜ x 3½	PE-4741	4.11

VL VERTI-LYTIC* ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead

*Trademark



μF	D. x L.	Cat. No.	Net
3 WVDC			
1	⅜ x ¾	VL-1031	$ .87
2	⅜ x ¾	VL-1032	.87
3	⅜ x ¾	VL-1033	.87
4	⅜ x ¾	VL-1034	.87
5	⅜ x ¾	VL-1035	.87
6	⅜ x ¾	VL-1036	.87
8	⅜ x ¾	VL-1037	.87
10	⅜ x ¾	VL-1038	.87
15	⅜ x ¾	VL-1039	.87
20	⅜ x ¾	VL-1040	.87
25	⅜ x ¾	VL-1041	.87
35	⅜ x ¾	VL-1043	.90
50	⅜ x ¾	VL-1045	.93
75	⅜ x ¾	VL-1048	1.02
100	⅜ x ⅞	VL-1051	1.05
150	7/16 x ⅞	VL-1055	1.05
200	7/16 x ⅞	VL-1059	1.08
250	½ x ⅞	VL-1063	1.17
290	½ x ⅞	VL-1067	1.20
6 WVDC			
1	⅜ x ¾	VL-1080	.87
2	⅜ x ¾	VL-1081	.87
3	⅜ x ¾	VL-1082	.87
4	⅜ x ¾	VL-1083	.87
5	⅜ x ¾	VL-1084	.87
6	⅜ x ¾	VL-1085	.87
8	⅜ x ¾	VL-1086	.87
10	⅜ x ¾	VL-1087	.87
15	⅜ x ¾	VL-1088	.87
20	⅜ x ¾	VL-1089	.87
25	⅜ x ¾	VL-1090	.87
35	⅜ x ¾	VL-1092	.90
50	⅜ x ¾	VL-1094	.93
75	⅜ x ⅞	VL-1097	1.02
100	7/16 x ⅞	VL-1100	1.05
150	½ x ⅞	VL-1104	1.08
200	½ x ⅞	VL-1108	1.17

μF	D. x L.	Cat. No.	Net
12 WVDC			
1	⅜ x ¾	VL-1120	$ .87
2	⅜ x ¾	VL-1121	.87
3	⅜ x ¾	VL-1122	.87
4	⅜ x ¾	VL-1123	.87
5	⅜ x ¾	VL-1124	.90
6	⅜ x ¾	VL-1125	.90
8	⅜ x ¾	VL-1126	.90
10	⅜ x ¾	VL-1127	.90
15	⅜ x ¾	VL-1128	.93
20	⅜ x ¾	VL-1129	.93
25	⅜ x ¾	VL-1130	.93
35	⅜ x ¾	VL-1132	.93
50	⅜ x ⅞	VL-1134	.99
75	7/16 x ⅞	VL-1137	1.05
100	½ x ⅞	VL-1140	1.14
140	½ x ⅞	VL-1144	1.17
15 WVDC			
1	⅜ x ¾	VL-1160	.87
2	⅜ x ¾	VL-1161	.87
3	⅜ x ¾	VL-1162	.87
4	⅜ x ¾	VL-1163	.87
5	⅜ x ¾	VL-1164	.90
6	⅜ x ¾	VL-1165	.90
8	⅜ x ¾	VL-1166	.90
10	⅜ x ¾	VL-1167	.93
15	⅜ x ¾	VL-1168	.93
20	⅜ x ¾	VL-1169	.93
25	⅜ x ¾	VL-1170	.93
35	⅜ x ⅞	VL-1172	.93
50	7/16 x ⅞	VL-1174	.99
75	½ x ⅞	VL-1177	1.08
90	½ x ⅞	VL-1180	1.17
25 WVDC			
1	⅜ x ¾	VL-1200	.90
2	⅜ x ¾	VL-1201	.90

μF	D. x L.	Cat. No.	Net
25 WVDC ctd.			
3	⅜ x ¾	VL-1202	$ .93
4	⅜ x ¾	VL-1203	.99
5	⅜ x ¾	VL-1204	.99
6	⅜ x ¾	VL-1205	.99
8	⅜ x ¾	VL-1206	.99
10	⅜ x ¾	VL-1207	.99
15	⅜ x ¾	VL-1208	.99
20	⅜ x ⅞	VL-1209	.99
25	⅜ x ⅞	VL-1210	.99
35	7/16 x ⅞	VL-1212	1.05
50	½ x ⅞	VL-1215	1.05
70	½ x ⅞	VL-1218	1.17
50 WVDC			
1	⅜ x ¾	VL-1300	.90
2	⅜ x ¾	VL-1301	.90
3	⅜ x ¾	VL-1302	.93
4	⅜ x ¾	VL-1303	.99
5	⅜ x ¾	VL-1304	.99
6	⅜ x ¾	VL-1305	.99
8	⅜ x ¾	VL-1306	.99
10	⅜ x ⅞	VL-1307	.99
15	7/16 x ⅞	VL-1308	.99
20	7/16 x ⅞	VL-1309	.99
25	½ x ⅞	VL-1310	.99
6-6 WVDC			
100-30	7/16 x 1 3/16	VL-2150	1.26
10-10 WVDC			
50-50	½ x ⅞	VL-2250	1.17
80-80	½ x ⅞	VL-2350	1.32
8-8-8 WVDC			
100-100-60	½ x 1 7/16	VL-3320	2.07
10-10-3 WVDC			
50-50-15	½ x ⅞	VL-3350	1.80

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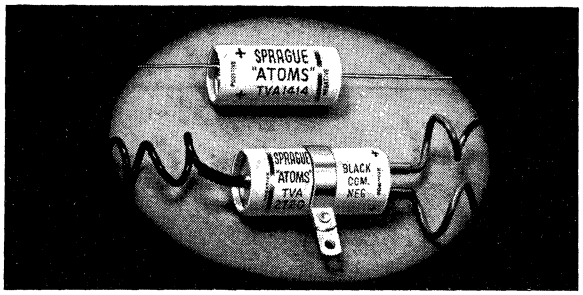
Net

SPRAGUE CAPACITORS

ATOM® ELECTROLYTICS



- The Smallest Dependable Standard Tubular — Designed for 85°C (185°F) Operation in Voltages to 450 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phono Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements — No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign

SINGLE UNITS

μF	WVDC	Diam. x Length*	Cat. No.	Net
50	6	3/8 x 1 1/4	TVA-1100	$ .57
100	6	1/2 x 1 1/8	TVA-1101	.72
250	6	5/8 x 1 7/16	TVA-1102	.81
500	6	5/8 x 2 3/16	TVA-1103	.93
1000	6	3/4 x 2 3/16	TVA-1104	1.14
1500	6	13/16 x 2 11/16	TVA-1105	1.26
2000	6	13/16 x 2 15/16	TVA-1106	1.38
100	12	9/16 x 1 3/16	TVA-1130	.72
250	12	5/8 x 1 11/16	TVA-1131	.87
500	12	3/4 x 1 11/16	TVA-1132	1.02
1000	12	13/16 x 2 3/16	TVA-1133	1.35
100	15	5/8 x 1 3/16	TVA-1160	.75
250	15	5/8 x 1 11/16	TVA-1161	.93
500	15	11/16 x 2 3/16	TVA-1162	1.05
1000	15	7/8 x 2 3/16	TVA-1163	1.38
2	25	3/8 x 1 1/4	TVA-1201	.54
5	25	3/8 x 1 1/4	TVA-1203	.60
10	25	3/8 x 1 1/4	TVA-1204	.60
25	25	3/8 x 1 1/4	TVA-1205	.60
50	25	9/16 x 1 3/16	TVA-1206	.66
100	25	9/16 x 1 11/16	TVA-1207	.81
250	25	3/4 x 1 11/16	TVA-1208	1.02
500	25	7/8 x 2 3/16	TVA-1209	1.38
1	50	3/8 x 1 1/4	TVA-1300	.54
2	50	3/8 x 1 1/4	TVA-1301	.54
5	50	3/8 x 1 1/4	TVA-1303	.60
10	50	3/8 x 1 1/4	TVA-1304	.60
20	50	7/16 x 1 3/8	TVA-1305.5	.60
25	50	7/16 x 1 3/8	TVA-1306	.63
50	50	9/16 x 1 11/16	TVA-1308	.72
100	50	3/4 x 1 11/16	TVA-1310	.84
150	50	3/4 x 1 11/16	TVA-1311	.93
250	50	15/16 x 1 11/16	TVA-1312	1.05
500	50	1 x 1 15/16	TVA-1315	1.44
4	150	3/8 x 1 1/4	TVA-1402	.60
5	150	3/8 x 1 1/4	TVA-1403	.60
8	150	3/8 x 1 3/4	TVA-1405	.63
10	150	3/8 x 1 3/4	TVA-1406	.63
12	150	1/2 x 1 5/8	TVA-1407	.66
16	150	9/16 x 1 11/16	TVA-1409	.69
20	150	9/16 x 1 11/16	TVA-1410	.72
25	150	5/8 x 1 11/16	TVA-1411	.75
30	150	5/8 x 1 11/16	TVA-1412	.78
40	150	3/4 x 1 11/16	TVA-1413	.81
50	150	13/16 x 1 11/16	TVA-1414	.84
60	150	7/8 x 1 11/16	TVA-1415	.90
80	150	7/8 x 1 15/16	TVA-1418	.96
100	150	7/8 x 2 3/16	TVA-1420	1.05
150	150	1 x 2 3/16	TVA-1422	1.14
200	150	1 x 3 13/16	TVA-1423	1.32
300	150	1 3/8 x 3 7/8	TVA-1425†	1.53
150	200	1 3/8 x 3 3/8	TVA-1447	1.53
200	200	1 3/8 x 3 3/8	TVA-1480†	1.74
4	250	7/16 x 1 5/8	TVA-1501	.60
8	250	1/2 x 1 5/8	TVA-1503	.69
10	250	9/16 x 1 11/16	TVA-1504	$ .72
12	250	9/16 x 1 11/16	TVA-1505	.75
16	250	5/8 x 1 11/16	TVA-1507	.78
20	250	11/16 x 1 11/16	TVA-1508	.87
30	250	11/16 x 2 3/16	TVA-1510	.81
40	250	3/4 x 2 3/16	TVA-1511	.93
50	250	3/4 x 2 3/16	TVA-1512	1.02
60	250	13/16 x 2 3/16	TVA-1513	1.08
140	300	1 3/8 x 3 3/8	TVA-1575†	1.89
4	350	1/2 x 1 5/8	TVA-1601	.63
8	350	5/8 x 1 11/16	TVA-1603	.72
10	350	11/16 x 1 11/16	TVA-1604	.75
12	350	11/16 x 1 11/16	TVA-1605	.78
16	350	3/4 x 1 11/16	TVA-1607	.84
20	350	13/16 x 1 11/16	TVA-1608	.87
30	350	13/16 x 2 3/16	TVA-1610	.99
40	350	7/8 x 2 7/16	TVA-1611	1.05
60	350	1 x 2 7/16	TVA-1613	1.17
10	400NP	1 1/16 x 2 1/16	TVAN-1650	.90
1	450	7/16 x 1 1/8	TVA-1700	.66
2	450	7/16 x 1 5/8	TVA-1701	.66
4	450	9/16 x 1 11/16	TVA-1702	.69
8	450	11/16 x 1 11/16	TVA-1704	.75
10	450	11/16 x 1 11/16	TVA-1705	.78
12	450	3/4 x 1 11/16	TVA-1706	.81
16	450	3/4 x 2 3/16	TVA-1708	.84
20	450	3/4 x 2 3/16	TVA-1709	.93
30	450	7/8 x 2 3/16	TVA-1711	1.02
40	450	7/8 x 2 11/16	TVA-1712	1.08
50	450	7/8 x 3 3/16	TVA-1713	1.26
60	450	1 x 3 11/16	TVA-1714	1.41
80	450	1 x 3 11/16	TVA-1716	1.68
100	450	1 3/8 x 4 1/8	TVA-1718†	1.92
10	475	3/4 x 1 15/16	TVA-1802	.81
20	475	7/8 x 2 7/16	TVA-1804	.96
8	500	7/8 x 1 11/16	TVA-1902	.78
10	500	7/8 x 1 11/16	TVA-1903	.81
16	500	15/16 x 2 3/16	TVA-1905	.90
20	500	1 x 2 3/16	TVA-1906	.96
8	600	1 x 3 1/16	TVA-1962	1.71
10	600	1 x 3 1/16	TVA-1963	1.77
16	600	1 x 4 1/16	TVA-1965	2.07
20	600	1 x 4 1/16	TVA-1966	2.13

DUAL UNITS (COMMON NEGATIVE — 3 LEADS)

10-10	25-25	7/8 x 1 7/16	TVA-2210	$ .84
10-10	50-50	7/8 x 1 7/16	TVA-2315	.84
8-8	150-150	7/8 x 1 7/16	TVA-2415	.90
16-16	150-150	7/8 x 1 7/16	TVA-2420	1.08
20-12	150-150	7/8 x 1 7/16	TVA-2425	.96
20-20	150-150	7/8 x 1 7/16	TVA-2428	.99
30-20	150-150	7/8 x 1 11/16	TVA-2421	1.02
30-30	150-150	7/8 x 1 11/16	TVA-2434	1.08
40-20	150-150	7/8 x 1 11/16	TVA-2438	1.05
40-30	150-150	7/8 x 1 15/16	TVA-2442	1.08
40-40	150-150	7/8 x 1 15/16	TVA-2445	1.11
50-30	150-150	7/8 x 1 15/16	TVA-2450	1.17
50-50	150-150	7/8 x 2 7/16	TVA-2453	1.26

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of Kraftboard construction.

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REM-13-6128

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Net

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SPRAGUE CAPACITORS

ATOM ELECTROLYTICS, continued

μF	WVDC	Diam. x Length*	Cat. No.	Net
80-30	150-150	7/8 x 2 7/16	TVA-2460	$1.32
80-40	150-150	7/8 x 2 7/16	TVA-2461	1.32
80-50	150-150	7/8 x 2 15/16	TVA-2462	1.41
100-100	150-150	1 3/8 x 3 3/8	TVA-2464†	1.92
200-5	150-150	1 x 3 7/8	TVA-2467†	1.59
250-50	150-150	1 3/8 x 3 1/8	TVA-2473	1.86
20-20	250-250	7/8 x 1 15/16	TVA-2515	1.11
40-10	250-250	7/8 x 2 3/16	TVA-2520	1.23
80-10	250-250	15/16 x 3 3/16	TVA-2525	1.53
120-80	250-250	1 3/8 x 3 7/8	TVA-2535†	2.40
140-5	350-350	1 1/4 x 3 7/8	TVA-2640†	2.49
80-100	450-50	1 3/8 x 4 3/8	TVA-2711†	2.22
8-8	450-450	7/8 x 1 11/16	TVA-2720	1.02
10-10	450-450	7/8 x 1 15/16	TVA 2722	1.11
16-8	450-450	7/8 x 2 3/16	TVA-2725	1.20
20-20	450-450	7/8 x 2 15/16	TVA-2730	1.50
30-30	450-450	1 x 3 3/16	TVA-2735	1.80
40-40	450-450	1 x 3 15/16	TVA-2740	2.04
50-30	450-450	1 x 3 15/16	TVA-2743	2.04

DUAL UNITS (SEPARATE SECTIONS — 4 LEADS)

20-20	150-150	1 x 2 3/8	TU-220 †	1.23
40-20	150-150	1 1/16 x 2 5/8	TU-420 †	1.32
16-16	250-250	1 x 2 7/8	TU-216 †	1.32
8-8	450-450	1 1/16 x 3 3/8	TU-88 †	1.29
16-16	450-450	1 3/8 x 3 1/8	TU-1616†	1.68
120-120	150-150	1 1/8 x 5	TU-2120	2.07

TRIPLE UNITS

30-30-100	150-150-12	7/8 x 1 15/16	TVA-3419	1.38
20-20-20	150-150-25	7/8 x 1 7/16	TVA-3415	1.47
40-20-20	150-150-25	7/8 x 1 11/16	TVA-3422.9	1.53
40-30-20	150-150-25	7/8 x 1 15/16	TVA-3423	1.56
40-40-20	150-150-25	7/8 x 2 3/16	TVA-3425	1.59
40-40-100	150-150-25	7/8 x 2 7/16	TVA-3427	1.68
50-30-20	150-150-25	7/8 x 2 3/16	TVA-3430	1.59
50-30-100	150-150-25	7/8 x 2 7/16	TVA-3432	1.68
50-30-200	150-150-25	1 x 2 3/16	TVA-3433	$1.65
50-50-20	150-150-25	15/16 x 2 3/16	TVA-3436	1.65
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†	1.68
80-40-20	150-150 25	1 x 1 15/16	TVA-3437.1	1.68
250-120-50	150-150-25	1 3/8 x 3 7/8	TVA-3437.6	2.61
20-20-20	150-150-150	7/8 x 1 11/16	TVA-3440	1.50
30-30-30	150-150-150	7/8 x 2 3/16	TVA-3444	1.56
40-30-20	150-150-150	7/8 x 2 3/16	TVA-3448	1.56
40-40-20	150-150-150	7/8 x 2 7/16	TVA-3450	1.41
40-40-40	150-150-150	1 x 2 7/16	TVA-3451	1.68
50-30-20	150-150-150	1 x 2 7/16	TVA-3453	1.62
80-40-20	150-150-150	1 x 2 15/16	TVA-3455	1.74
250-200-10	150-150-150	1 3/8 x 3 3/8	TVA-3460	2.76
80-10-100	300-250-50	1 3/8 x 3 3/8	TVA-3556†	2.16
120-40-10	300-300-250	1 1/4 x 3 1/8	TVA-3563†	2.91
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†	4.02
5-80-40	450-400-400	1 3/8 x 4 1/8	TVA-3712†	2.73
12-12-20	450-450-25	1 x 1 15/16	TVA-3716	1.38
20-20-20	450-450-25	1 x 2 7/16	TVA-3718	1.86
40-40-20	450-450-25	1 x 3 15/16	TVA-3720	2.28

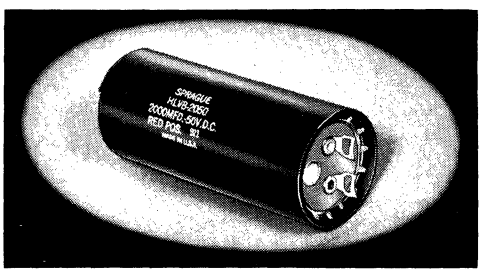
QUADRUPLE UNITS

120-40-40-10	300-300-300-250	1 3/8 x 4 5/8	TVA-4584†	3.72
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†	3.63
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†	4.59
80-60-40-20	350-350-300-150	1 1/2 x 4 5/8	TVA-4618†	3.54
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	TVA-4659†	3.27
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	TVA-4705†	2.88
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	TVA-4706†	3.69
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	TVA-4708†	2.97
10-20-20-10	450-300-300-300	1 3/8 x 3 1/8	TVA-4712†	2.10
20-20-20-10	450-450-450-450	1 3/8 x 3 5/8	TVA-4742†	2.55
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†	2.82
40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	TVA-4750†	3.27

QUINTUPLE UNITS

40-20-20-20-50	300-300-300-300-50	1 3/8 x 4	TVA-5100†	3.03

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of cardboard construction.



TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed for low-voltage filter circuits.
- Large values of capacitance in relatively small physical size.
- Molded phenolic case for physical protection and moisture resistance. Assures long and dependable service life.
- Easily and securely mounted with hardware listed below.

μF	WVDC	Diam. x Length	Cat. No.	Net
500	6	1 7/16 x 2 3/4	HLVB-56	$1.83
1000	6	1 7/16 x 2 3/4	HLVB-106	2.04
1500	6	1 7/16 x 2 3/4	HLVB-156	2.16
2000	6	1 7/16 x 2 3/4	HLVB-206	2.28
4000	10	1 7/16 x 2 3/8	HLVB-4010	2.85
6000	10	1 7/16 x 2 3/8	HLVB-6010	4.50
10000	10	1 13/16 x 4 3/8	HLBV-10010	4.95
500	12	1 7/16 x 2 3/4	HLVB-512	1.92
1000	12	1 7/16 x 2 3/4	HLVB-1012	2.25
1500	12	1 7/16 x 2 3/4	HLVB-1512	2.37
2000	12	1 7/16 x 2 3/4	HLVB-2012	2.49
500	15	1 7/16 x 2 3/4	HLVB-515	1.95
1000	15	1 7/16 x 2 3/4	HLVB-1015	2.28
1500	15	1 7/16 x 2 3/4	HLVB-1515	2.40
2000	15	1 7/16 x 2 3/4	HLVB-2015	2.82
4000	15	1 7/16 x 4 3/8	HLVB-4015	4.26
6000	15	1 13/16 x 4 3/8	HLVB-6015	4.83
6000	20	2 1/16 x 4 3/8	HLVB-6020	5.19
500	25	1 7/16 x 2 3/4	HLVB-525	2.28
1000	25	1 7/16 x 2 3/4	HLVB-1025	2.91
2000	25	1 7/16 x 4 3/8	HLVB-2025	3.45
4000	25	1 13/16 x 4 3/8	HLVB-4025	4.77
500	50	1 7/16 x 3 3/8	HLVB-550	2.55
1000	50	1 13/16 x 3 3/8	HLVB-1050	4.20
2000	50	1 13/16 x 4 3/8	HLVB-2050	5.46
3000	50	1 13/16 x 4 3/8	HLVB-3050	6.90
4000	50	2 1/16 x 4 3/8	HLVB-4050	7.50
1000	150	1 13/16 x 4 3/8	HLVB-10150	6.30
500	200	1 13/16 x 4 3/8	HLVB-5200	5.88

HLVB MOUNTING HARDWARE
HORIZONTAL "U" BRACKETS

Capacitor Size Dia. x Length	Cat. No.	Net
1 7/16 x 2 3/4	ABB-1	$.18
1 7/16 x 3 3/8 1 13/16 x 3 3/8	ABB-2	.21
1 13/16 x 4 3/8 2 1/16 x 4 3/8	ABB-3	.24

END CAPS

Cap. Diam.	Cat. No.	Net
1 7/16	ABC-2	.15
1 13/16	ABC-4	.18
2 1/16	ABC-6	.21

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.	Net
1 13/16	CMC-28A	.18
2 1/16	CMC-32	.36

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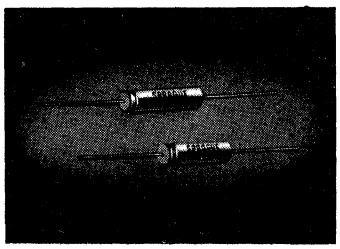
SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS



- Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market
- Reliability at Reasonable Prices
- All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits
- No Corrosion as with Competitive Units
- Extremely Low Leakage Current, Long Shelf Life
- Withstand Temperatures Up to 85°C (185°F)
- Furnished with Clear Plastic Outer Insulating Sleeves
- Packed 5 to a Handy Rigid Kleer Pak® Plastic Box

μF	D. x L.*	Cat. No.	Net
1 WVDC			
5	¼ x 1 1/16	TE-1010	$ .75
3 WVDC			
1	¼ x 1 1/16	TE-1050	.75
2	¼ x 1 1/16	TE-1051	.75
3	¼ x 1 1/16	TE-1052	.75
4	¼ x 1 1/16	TE-1052.1	.75
5	¼ x 1 1/16	TE-1052.2	.75
6	¼ x 1 1/16	TE-1052.3	.75
8	¼ x 1 1/16	TE-1052.5	.75
10	¼ x 1 1/16	TE-1053	.75
15	¼ x 1 1/16	TE-1053.5	.75
20	¼ x 1 1/16	TE-1054	.75
25	¼ x 1 1/16	TE-1055	.75
35	¼ x 1 1/16	TE-1056	.75
40	¼ x 1 1/16	TE-1057	.75
50	¼ x 1 1/16	TE-1058	.75
75	5/16 x 1 1/16	TE-1059	.84
100	5/16 x 1 1/16	TE-1059.5	.84
110	3/8 x 1 1/16	TE-1060	.84
150	3/8 x 1 1/16	TE-1061	.87
200	3/8 x 1 3/16	TE-1064	.90
250	3/8 x 1 5/16	TE-1065	.96
300	3/8 x 1 5/16	TE-1066	.99
400	3/8 x 1 1/4	TE-1067	1.02
500	3/8 x 1 1/2	TE-1068	1.05
6 WVDC			
1	¼ x 1 1/16	TE-1080	.75
2	¼ x 1 1/16	TE-1081	.75
3	¼ x 1 1/16	TE-1082	.75
4	¼ x 1 1/16	TE-1083	.75
5	¼ x 1 1/16	TE-1084	.75
6	¼ x 1 1/16	TE-1085	.75
8	¼ x 1 1/16	TE-1086	.81
10	¼ x 1 1/16	TE-1087	.81
15	¼ x 1 1/16	TE-1089	.81
20	¼ x 1 1/16	TE-1090	.81
25	¼ x 1 1/16	TE-1091	.81
30	¼ x 1 1/16	TE-1092	.84
35	¼ x 1 1/16	TE-1093	.84
40	¼ x 1 1/16	TE-1095	.84
50	5/16 x 1 1/16	TE-1100	.84
60	5/16 x 1 1/16	TE-1101	.84
75	3/8 x 1 1/16	TE-1101.5	.87
100	3/8 x 1 1/16	TE-1102	.90
150	3/8 x 1 5/16	TE-1103	.93
200	3/8 x 1 1/4	TE-1104	.96
250	3/8 x 1 1/4	TE-1105	1.02
300	3/8 x 1 1/2	TE-1106	1.08

μF	D. x L.*	Cat. No.	Net
10 WVDC			
10	¼ x 1 1/16	TE-1114	$ .81
15	¼ x 1 1/16	TE-1116	.81
25	¼ x 1 1/16	TE-1118	.81
50	3/8 x 1 1/16	TE-1119	.90
100	3/8 x 1 3/16	TE-1119.3	1.02
200	3/8 x 1 1/4	TE-1119.6	1.20
12 WVDC			
1	¼ x 1 1/16	TE-1120	.75
2	¼ x 1 1/16	TE-1121	.75
3	¼ x 1 1/16	TE-1122	.75
4	¼ x 1 1/16	TE-1123	.75
5	¼ x 1 1/16	TE-1127	.81
6	¼ x 1 1/16	TE-1127.1	.81
8	¼ x 1 1/16	TE-1127.3	.81
10	¼ x 1 1/16	TE-1128	.81
15	¼ x 1 1/16	TE-1129	.84
20	¼ x 1 1/16	TE-1130	.84
25	¼ x 1 1/16	TE-1131	.84
35	5/16 x 1 1/16	TE-1132	.87
50	3/8 x 1 1/16	TE-1133	.93
75	3/8 x 1 3/16	TE-1134	.99
100	3/8 x 1 3/16	TE-1135	1.05
150	3/8 x 1 1/4	TE-1136	1.14
200	3/8 x 1 1/4	TE-1137	1.23
250	3/8 x 1 1/2	TE-1138	1.32
15 WVDC			
1	¼ x 1 1/16	TE-1148	.75
2	¼ x 1 1/16	TE-1149	.75
3	¼ x 1 1/16	TE-1150	.75
4	¼ x 1 1/16	TE-1151	.78
5	¼ x 1 1/16	TE-1152	.84
6	¼ x 1 1/16	TE-1153	.84
8	¼ x 1 1/16	TE-1154	.84
10	¼ x 1 1/16	TE-1155	.84
15	¼ x 1 1/16	TE-1156	.87
20	¼ x 1 1/16	TE-1157	.87
25	5/16 x 1 1/16	TE-1157.1	.87
30	5/16 x 1 1/16	TE-1158	.90
35	3/8 x 1 1/16	TE-1159	.93
50	3/8 x 1 1/16	TE-1160	.96
75	3/8 x 1 3/16	TE-1161	1.02
100	3/8 x 1 5/16	TE-1162	1.08
150	3/8 x 1 1/4	TE-1163	1.17
200	3/8 x 1 1/2	TE-1164	1.26

μF	D. x L.*	Cat. No.	Net
25 WVDC			
1	¼ x 1 1/16	TE-1200	$ .75
2	¼ x 1 1/16	TE-1201	.78
3	¼ x 1 1/16	TE-1201.1	.78
4	¼ x 1 1/16	TE-1201.2	.78
5	¼ x 1 1/16	TE-1202	.84
6	¼ x 1 1/16	TE-1203	.84
8	¼ x 1 1/16	TE-1203.5	.87
10	¼ x 1 1/16	TE-1204	.87
15	5/16 x 1 1/16	TE-1205	.87
20	3/8 x 1 1/16	TE-1206	.90
25	3/8 x 1 1/16	TE-1207	.93
35	3/8 x 1 3/16	TE-1208	.99
50	3/8 x 1 5/16	TE-1209	1.08
75	3/8 x 1 1/4	TE-1210	1.17
100	3/8 x 1 1/2	TE-1211	1.26
50 WVDC			
1	¼ x 1 1/16	TE-1300	.78
2	¼ x 1 1/16	TE-1301	.81
3	¼ x 1 1/16	TE-1302	.81
4	¼ x 1 1/16	TE-1302.1	.81
5	¼ x 1 1/16	TE-1303	.87
6	5/16 x 1 1/16	TE-1303.1	.87
8	5/16 x 1 1/16	TE-1303.3	.90
10	5/16 x 1 1/16	TE-1304	.90
15	3/8 x 1 1/16	TE-1304.2	.90
20	3/8 x 1 3/16	TE-1305	.90
35	3/8 x 1 1/4	TE-1306	1.02
50	3/8 x 1 1/2	TE-1307	1.11
100 WVDC			
1	3/8 x 1 5/16	TE-1400	.81
2	3/8 x 1 5/16	TE-1401	.84
3	3/8 x 1 5/16	TE-1402	.84
4	3/8 x 1 5/16	TE-1403	.84
5	3/8 x 1 5/16	TE-1404	.90
6	3/8 x 1 5/16	TE-1405	.90
8	3/8 x 1 5/16	TE-1406	.93
10	3/8 x 1 5/16	TE-1407	.93
15	3/8 x 1 1/4	TE-1408	.93
20	3/8 x 1 1/2	TE-1409	.96
150 WVDC			
1	3/8 x 1 5/16	TE-1500	.84
2	3/8 x 1 5/16	TE-1501	.87
3	3/8 x 1 5/16	TE-1502	.87
4	3/8 x 1 5/16	TE-1503	.87
5	3/8 x 1 5/16	TE-1504	.93
6	3/8 x 1 1/4	TE-1505	.93
8	3/8 x 1 1/4	TE-1506	.96
10	3/8 x 1 1/4	TE-1507	.96
12	3/8 x 1 1/2	TE-1508	.96

*Add 1/16" to dimensions to allow for insulating sleeve.

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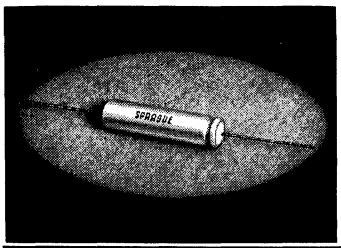
SPRAGUE CAPACITORS

TYPE 40D Miniature Extended-Life 85°C ELECTROLYTICS



- THE MOST RELIABLE TUBULAR ALUMINUM ELECTROLYTIC MANUFACTURED
- Premium quality. Service life of 10 years in actual circuit applications under typical operating conditions
- Special design and processing techniques result in ultra low leakage currents and high stability
- All critical terminations are welded to prevent open circuits even after extended service in the millivolt range
- Operating Temperature: —40°C to +85°C
- Units listed here have thermoplastic insulating sleeves; for rigid phenolic sleeve, change end of catalog number from A2 to A1; for bare metal tubes, delete last letter and digit
- Capacitance tolerance: —10, +100%
- Write for Engineering Bulletin No. 3205 to compare this outstanding capacitor with any other unit on the market.
- Prices available upon request.

3 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D100A2
2	5/16 x 3/4	40D101A2
3	5/16 x 3/4	40D102A2
4	5/16 x 3/4	40D103A2
5	5/16 x 3/4	40D104A2
6	5/16 x 3/4	40D105A2
8	5/16 x 3/4	40D106A2
10	5/16 x 3/4	40D107A2
15	5/16 x 3/4	40D108A2
20	5/16 x 3/4	40D109A2
25	5/16 x 3/4	40D110A2
35	3/8 x 3/4	40D111A2
50	7/16 x 3/4	40D112A2
75	7/16 x 3/4	40D113A2
100	7/16 x 7/8	40D114A2
150	7/16 x 1	40D115A2
200	7/16 x 1 5/16	40D116A2
225	7/16 x 1 5/16	40D117A2
250	7/16 x 1 9/16	40D118A2
300	7/16 x 1 9/16	40D119A2

6 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D120A2
2	5/16 x 3/4	40D121A2
3	5/16 x 3/4	40D122A2
4	5/16 x 3/4	40D123A2
5	5/16 x 3/4	40D124A2
6	5/16 x 3/4	40D125A2
8	5/16 x 3/4	40D126A2
10	5/16 x 3/4	40D127A2
15	5/16 x 3/4	40D128A2
20	3/8 x 3/4	40D129A2
25	3/8 x 3/4	40D130A2
35	7/16 x 3/4	40D131A2
50	7/16 x 3/4	40D132A2
75	7/16 x 7/8	40D133A2
100	7/16 x 1	40D134A2
150	7/16 x 1 5/16	40D135A2
175	7/16 x 1 5/16	40D136A2
200	7/16 x 1 9/16	40D137A2
250	7/16 x 1 9/16	40D138A2

12 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D139A2
2	5/16 x 3/4	40D140A2
3	5/16 x 3/4	40D141A2
4	5/16 x 3/4	40D142A2
5	5/16 x 3/4	40D143A2
6	5/16 x 3/4	40D144A2
8	5/16 x 3/4	40D145A2
10	5/16 x 3/4	40D146A2
15	5/16 x 3/4	40D147A2
20	3/8 x 3/4	40D148A2
25	3/8 x 3/4	40D149A2
35	7/16 x 3/4	40D150A2
50	7/16 x 7/8	40D151A2
75	7/16 x 1	40D152A2
100	7/16 x 1	40D153A2
150	7/16 x 1 5/16	40D154A2
200	7/16 x 1 9/16	40D155A2

15 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D156A2
2	5/16 x 3/4	40D157A2
3	5/16 x 3/4	40D158A2
4	5/16 x 3/4	40D159A2
5	5/16 x 3/4	40D160A2
6	5/16 x 3/4	50D161A2
8	5/16 x 3/4	40D162A2
10	5/16 x 3/4	40D163A2
15	3/8 x 3/4	40D164A2
20	7/16 x 3/4	40D165A2
25	7/16 x 3/4	40D166A2
35	7/16 x 7/8	40D167A2
50	7/16 x 7/8	40D168A2
75	7/16 x 1	40D169A2
100	7/16 x 1 5/16	40D170A2
150	7/16 x 1 9/16	40D171A2

25 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D172A2
2	5/16 x 3/4	40D173A2
3	5/16 x 3/4	40D174A2
4	5/16 x 3/4	40D175A2
5	5/16 x 3/4	40D176A2
6	3/8 x 3/4	40D177A2
8	3/8 x 3/4	40D178A2
10	7/16 x 3/4	40D179A2
15	7/16 x 3/4	40D180A2
20	7/16 x 7/8	40D181A2
25	7/16 x 1	40D182A2
35	7/16 x 1	40D183A2
50	7/16 x 1 5/16	40D184A2
75	7/16 x 1 9/16	40D185A2

50 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D186A2
2	3/8 x 3/4	40D187A2
3	3/8 x 3/4	40D188A2
4	7/16 x 3/4	40D189A2
5	7/16 x 3/4	40D190A2
6	7/16 x 3/4	40D191A2
8	7/16 x 7/8	40D192A2
10	7/16 x 7/8	40D193A2
15	7/16 x 1	40D194A2
20	7/16 x 1 5/16	40D195A2
25	7/16 x 1 9/16	40D196A2
30	7/16 x 1 9/16	40D197A2

100 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D198A2
2	7/16 x 1	40D199A2
3	7/16 x 1	40D200A2
4	7/16 x 1	40D201A2
5	7/16 x 1	40D202A2
6	7/16 x 1	40D203A2
8	7/16 x 1	40D204A2
10	7/16 x 1 5/16	40D205A2
15	7/16 x 1 9/16	40D206A2
18	7/16 x 1 9/16	40D207A2

150 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D208A2
2	7/16 x 1	40D209A2
3	7/16 x 1	40D210A2
4	7/16 x 1	40D211A2
5	7/16 x 1	40D212A2
6	7/16 x 1 5/16	40D213A2
8	7/16 x 1 5/16	40D214A2
10	7/16 x 1 9/16	40D215A2

PHOTOFLASH ELECTROLYTICS and ACCESSORIES

Build your own Electronic Flash!

Now you can build up-to-the-minute electronic photoflash units using the very latest low voltage circuits. These units are comparable to commercially manufactured gear in size, weight, and efficiency, yet can be built for considerably less than ready-made units. Your electronic flash eliminates flash bulb costs, too, and it stops action with better results. Sprague Booklet C-703 gives you step-by-step instructions for building four different models. Every detail is clearly illustrated and explained, making it easy to put one together in several hours. Photoflash accessories, listed below, are fully described and illustrated in this invaluable guide. These special items, plus a few standard parts and miscellaneous material, are all you need to build this outfit.

Description	Cat. No.	Dealer's Net
Sprague Photoflash Booklet	C-703	$ .35
Plug-in base with built-in trigger coil, 100 w-s nominal rating, Kemlite Type DX, for 450 V operation	FA-100	12.00
Reflector for Type DX lamp as used with vertical adapter	FA-101	2.75
Vertical adapter for medium Edison base sockets with cable	FA-102	2.60
Jaidinger miniature relay for 5-25 m-s delay synchronization from 3 to 4½ V cell flashguns	FA-103	3.50
"U" lamp, 100 w-s nominal rating, wafer base, for 450 V operation, Kemlite "U-5W", interchangeable with GE FT-105	FA-104	7.50
Reflector for Kemlite U-5W or GE FT-105	FA-105	3.50
4 volt vibrator, Oak V-6815, for 225 to 450 V voltage doubler power supplies. (See March, 1952 P. S. A. Journal for details).	FA-106	8.50

- Ultra-low Leakage for Either Dry Battery or A-C Operated Power Supplies — Eliminate Rectifier Burnouts
- Weighs Only 11 oz.
- One-half the Size of Competitive Capacitors which Have More Than Twice the Leakage Current
- Highly Stable Film Formation Assures Long Life
- 525 MF, 450 WVDC, 53 Watt-Seconds 2⅛" Diam. x 4 7/16" long

Cat. No. **FF-1**, Net price **$13.50**

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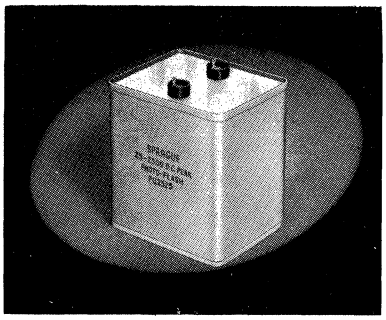
SPRAGUE CAPACITORS

PQ PHOTOFLASH CAPACITORS

DESIGNED EXPRESSLY FOR PHOTOFLASH USE — NOT COMPARABLE TO STANDARD HEAVY-DUTY CAPACITORS SUCH AS THE CR TRANSMITTING TYPES



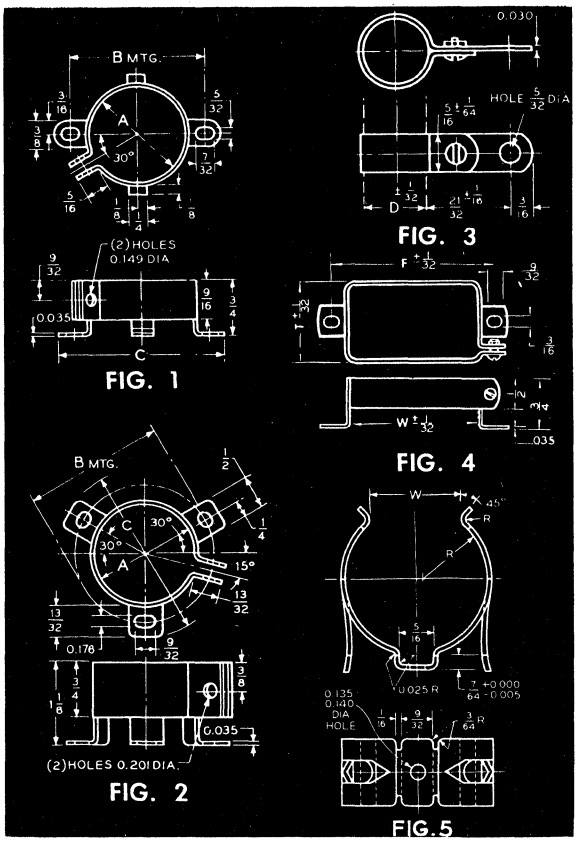
- Oil-Impregnated, Oil Filled
- Hermetically Sealed
- Compact Energy Storage Design
- High Insulation Resistance
- Smallest Possible Construction with Maximum Dependability

μF	DC Peak* Volts	Watt/Sec. Total	Dimensions T. x W. x H.	Weight lbs.	Cat. No.	Net Price
10	2500	31	2¼ x 3¾ x 4½	1¾	PQ-2510	$10.20
15	2500	47	3 3/16 x 3¾ x 4⅝	2½	PQ-2515	12.00
25	2500	78	4 5/16 x 3¾ x 5¼	4¼	PQ-2525	15.90
35	2500	109	4 5/16 x 3¾ x 7	6	PQ-2535	19.50
15	3000	67	3 3/16 x 3¾ x 4⅞	3	PQ-315	14.70
25	4000	200	4 5/16 x 3¾ x 9¼	7¼	PQ-425	25.50

*Do not exceed Peak Voltage Rating under highest line voltage condition.

CAPACITOR HARDWARE

- Sprague Mounting Clamps and Straps Provide Quick, Dependable Means for Securing a Wide Variety of Capacitors and Resistors to a Mounting Surface
- All Clamps and Straps are Made from Plated Steel



VERTICAL MOUNTING CLAMPS FOR CYLINDRICAL CAPACITORS

Catalog No.	A Diameter	B Mounting	Figure No.	Net Price
CMC-16	1	1 7/16	1	$.15
CMC-20	1¼	1 11/16	1	.15
CMC-22	1⅜	1 25/32	1	.15
CMC-24	1½	1 15/16	1	.18
CMC-28	1¾	2 3/16	1	.18
CMC-28A	1¾	2 3/16	2	.18
CMC-32	2	2½	2	.36
CMC-40	2½	3	2	.36

WRAP AROUND CLAMPS FOR RECTANGULAR CAPACITORS

Catalog No.	Dimensions T	W	F	Figure No.	Net Price
RMC-17	1 1/16	1 13/16	2¼	4	$.30
RMC-19	1 3/16	2½	3	4	.30
RMC-20	1¼	3¾	4⅜	4	.30
RMC-28	1¾	3¾	4⅜	4	.30
RMC-36	2¼	3¾	4⅜	4	.33
RMC-40	2½	3¾	4⅜	4	.33
RMC-51	3 3/16	3¾	4⅜	4	.36
RMC-73	4 5/16	3¾	4⅜	4	.39

MOUNTING STRAPS FOR TUBULAR CAPACITORS

Catalog No.	Tube Diameter	Figure No.	Net Price	Catalog No.	Tube Diameter	Figure No.	Net Price
TMS-4	¼	3	$.04	TMS-14	⅞	3	$.04
TMS-5	5/16	3	.04	TMS-15	15/16	3	.04
TMS-6	⅜	3	0.4	TMS-16	1	3	.06
TMS-7	7/16	3	.04	TMS-17	1 1/16	3	.06
TMS-8	½	3	.04	TMS-18	1⅛	3	.06
TMS-9	9/16	3	.04	TMS-19	1 3/16	3	.06
TMS-10	⅝	3	.04	TMS-20	1¼	3	.09
TMS-11	11/16	3	.04	TMS-21	1 5/16	3	.09
TMS-12	¾	3	.04	TMS-22	1⅜	3	.09
TMS-13	13/16	3	.04				

HORIZONTAL MOUNTING CLIPS FOR CYLINDRICAL CAPACITORS

Catalog No.	Capacitor Diameter	Figure No.	Net Price	Catalog No.	Capacitor Diameter	Figure No.	Net Price
UMC-6	⅜	5	$.04	UMC-14	⅞	5	$.04
UMC-8	½	5	.04	UMC-16	1	5	.06
UMC-10	⅝	5	.04	UMC-22	1⅜	5	.09
UMC-12	¾	5	.04				

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Net
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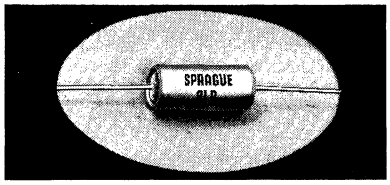
SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Hermetically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: −55°C to +85°C and −55°C to +125°C. Because of their Vitamin Q impregnation, these subminiature capacitors have a higher insulation resistance and longer life than comparable units with ordinary oils.

Sprague Subminiature paper capacitors exceed the performance requirements of military specification MIL-C-25A. A limited number of the ratings shown here are listed in the military specification and should be ordered by their MIL type designation where equipment specifications so require. (See page after next.)

Listed below are the most popular insulated section (ungrounded case) capacitors. For technical data on these and other types, ratings, and tolerances, as well as on wax-impregnated units for absolute minimum size, refer to the latest issue of Engineering Bulletin 2110.

For prices on quantities from 10 to 499, see your Sprague Industrial Distributor.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses are likely to be lower in the extended foil type. This is because the resistive component of impedance is likely to be higher at resonance in the inserted tab type of construction. Unless unusual circuit requirements make the losses at resonance a critical factor, the inserted tab construction is recommended, primarily because of the smaller size of the capacitor roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
μF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.175 x ¾	91P10201S2	$1.440	91P10201S4	$1.504	91P10291S2	$1.584	91P10291S4	$1.648
	200	.235 x ¾	91P10202S2	1.360	91P10202S4	1.424	91P10292S2	1.496	91P10292S4	1.560
.001	300	.235 x ¾	91P10203S2	1.380	91P10203S4	1.444	91P10293S2	1.518	91P10293S4	1.582
	400	.235 x ¾	91P10204S2	1.400	91P10204S4	1.464	91P10294S2	1.540	91P10294S4	1.604
	600	.235 x ¾	91P10206S2	1.420	91P10206S4	1.484	91P10296S2	1.562	91P10296S4	1.626
	100	.175 x ¾	91P15201S2	1.440	91P15201S4	1.504	91P15291S2	1.584	91P15291S4	1.648
	200	.235 x ¾	91P15202S2	1.360	91P15202S4	1.424	91P15292S2	1.496	91P15292S4	1.560
.0015	300	.235 x ¾	91P15203S2	1.380	91P15203S4	1.444	91P15293S2	1.518	91P15293S4	1.582
	400	.235 x ¾	91P15204S2	1.400	91P15204S4	1.464	91P15294S2	1.540	91P15294S4	1.604
	600	.235 x ¾	91P15206S2	1.420	91P15206S4	1.484	91P15296S2	1.562	91P15296S4	1.626
	100	.175 x ¾	91P22201S2	1.440	91P22201S4	1.504	91P22291S2	1.584	91P22291S4	1.648
	200	.235 x ¾	91P22202S2	1.360	91P22202S4	1.424	91P22292S2	1.496	91P22292S4	1.560
.0022	300	.235 x ¾	91P22203S2	1.380	91P22203S4	1.444	91P22293S2	1.518	91P22293S4	1.582
	400	.235 x ¾	91P22204S2	1.400	91P22204S4	1.464	91P22294S2	1.540	91P22294S4	1.604
	600	.235 x ¾	91P22206S2	1.420	91P22206S4	1.484	91P22296S2	1.562	91P22296S4	1.626
	100	.175 x ¾	91P33201S2	1.440	91P33201S4	1.504	91P33291S2	1.584	91P33291S4	1.648
	200	.235 x ¾	91P33202S2	1.360	91P33202S4	1.424	91P33292S2	1.496	91P33292S4	1.560
.0033	300	.235 x ¾	91P33203S2	1.380	91P33203S4	1.444	91P33293S2	1.418	91P33293S4	1.582
	400	.235 x ¾	91P33204S2	1.400	91P33204S4	1.464	91P33294S2	1.540	91P33294S4	1.604
	600	.235 x ¾	91P33206S2	1.420	91P33206S4	1.484	91P33296S2	1.562	91P33296S4	1.626
	100	.175 x ¾	91P47201S2	1.480	91P47201S4	1.544	91P47291S2	1.628	91P47291S4	1.692
	200	.235 x ¾	91P47202S2	1.360	91P47202S4	1.424	91P47292S2	1.496	91P47292S4	1.560
.0047	300	.235 x ¾	91P47203S2	1.380	91P47203S4	1.444	91P47293S2	1.518	91P47293S4	1.582
	400	.235 x ¾	91P47204S2	1.400	91P47204S4	1.464	91P47294S2	1.540	91P47294S4	1.604
	600	.235 x ¾	91P47206S2	1.420	91P47206S4	1.484	91P47296S2	1.562	91P47296S4	1.626
	100	.175 x ¾	91P68201S2	1.480	91P68201S4	1.554	91P68291S2	1.628	91P68291S4	1.692
	200	.235 x ¾	91P68202S2	1.360	91P68202S4	1.424	91P68292S2	1.496	91P68292S4	1.560
.0068	300	.235 x ¾	91P68203S2	1.380	91P68203S4	1.444	91P68293S2	1.518	91P68293S4	1.582
	400	.235 x ¾	91P68204S2	1.400	91P68204S4	1.464	91P68294S2	1.540	91P68294S4	1.604
	600	.235 x ¾	91P68206S2	1.420	91P68206S4	1.484	91P68296S2	1.562	91P68296S4	1.626

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 91P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.175 x ¾	91P10301S2	$1.480	91P10301S4	$1.544	91P10391S2	$1.628	91P10391S4	$1.692
	200	.235 x ¾	91P10302S2	1.380	91P10302S4	1.444	91P10392S2	1.518	91P10392S4	1.582
.01	300	.235 x ¾	91P10303S2	1.400	91P10303S4	1.464	91P10393S2	1.540	91P10393S4	1.604
	400	.235 x ¾	91P10304S2	1.440	91P10304S4	1.464	91P10394S2	1.540	91P10394S4	1.604
	600	.312 x ⅞	91P10306S2	1.440	91P10306S4	1.504	91P10396S2	1.584	91P10396S4	1.648
	100	.175 x ¾	91P15301S2	1.480	91P15301S4	1.544	91P15391S2	1.628	91P15391S4	1.692
	200	.235 x ¾	91P15302S2	1.380	91P15302S4	1.444	91P15392S2	1.518	91P15392S4	1.582
.015	300	.235 x ¾	91P15303S2	1.400	91P15303S4	1.464	91P15393S2	1.540	91P15393S4	1.604
	400	.312 x ⅞	91P15304S2	1.440	91P15304S4	1.504	91P15394S2	1.584	91P15394S4	1.648
	600	.312 x ⅞	91P15306S2	1.480	91P15306S4	1.544	91P15396S2	1.628	91P15396S4	1.692
	100	.195 x ¾	91P22301S2	1.480	91P22301S4	1.544	91P22391S2	1.628	91P22391S4	1.692
	200	.235 x ¾	91P22302S2	1.380	91P22302S4	1.444	19P22392S2	1.518	91P22392S4	1.582
.022	300	.312 x ⅞	91P22303S2	1.480	91P22303S4	1.544	91P22393S2	1.628	91P22393S4	1.692
	400	.312 x ⅞	91P22304S2	1.500	91P22304S4	1.564	91P22394S2	1.650	91P22394S4	1.714
	600	.312 x ⅞	91P22306S2	1.520	91P22306S4	1.584	91P22396S2	1.672	91P22396S4	1.736
	100	.235 x ¾	91P33301S2	1.440	91P33301S4	1.504	91P33391S2	1.584	91P33391S4	1.648
	200	.312 x ⅞	91P33302S2	1.480	91P33302S4	1.544	91P33392S2	1.628	91P33392S4	1.648
.033	300	.312 x ⅞	91P33303S2	1.480	91P33303S4	1.544	91P33393S2	1.628	91P33393S4	1.692
	400	.312 x ⅞	91P33304S2	1.500	91P33304S4	1.564	91P33394S2	1.650	91P33394S4	1.714
	600	.400 x ⅞	91P33306S2	1.560	91P33306S4	1.632	91P33396S2	1.716	91P33396S4	1.942
	100	.312 x ⅞	91P47301S2	1.460	91P47301S4	1.524	91P47391S2	1.606	91P47391S4	1.670
	200	.312 x ⅞	91P47302S2	1.480	91P47302S4	1.544	91P47392S2	1.628	91P47392S4	1.648
.047	300	.312 x ⅞	91P47303S2	1.520	91P47303S4	1.584	91P47393S2	1.672	91P47393S4	1.736
	400	.400 x ⅞	91P47304S2	1.540	91P47304S4	1.612	91P47394S2	1.694	91P47394S4	1.766
	600	.400 x 1⅜	91P47306S2	1.560	91P47306S4	1.632	91P47396S2	1.716	91P47396S4	1.788
	100	.312 x ⅞	91P68301S2	1.460	91P68301S4	1.524	91P68391S2	1.606	91P68391S4	1.670
	200	.312 x ⅞	91P68302S2	1.480	91P68302S4	1.544	91P68392S2	1.628	91P68392S4	1.648
.068	300	.400 x ⅞	91P68303S2	1.560	91P68303S4	1.632	91P68393S2	1.716	91P68393S4	1.788
	400	.400 x 1⅛	91P68304S2	1.600	91P68304S4	1.672	91P68394S4	1.694	91P68394S4	1.832
	600	.400 x 1⅛	91P68306S2	1.680	91P68306S4	1.752	91P68396S2	1.848	91P68396S4	1.880
	100	.312 x ⅞	91P10401S2	1.480	91P10401S4	1.544	91P10491S2	1.628	91P10491S4	1.692
	200	.400 x ⅞	91P10402S2	1.500	91P10402S4	1.572	91P10492S2	1.650	91P10492S4	1.722
.1	300	.400 x 1⅛	91P10403S2	1.640	91P10403S4	1.712	91P10493S2	1.804	91P10493S4	1.876
	400	.400 x 1⅛	91P10404S2	1.720	91P10404S4	1.792	91P10494S2	1.892	91P10494S4	1.964
	600	.562 x 1⅛	91P10406S2	1.760	91P10406S4	1.856	91P10496S2	1.936	91P10496S4	2.032
	100	.400 x ⅞	91P15401S2	1.580	91P15401S4	1.652	91P15491S2	1.738	91P15491S4	1.810
	200	.400 x 1⅛	91P15402S2	1.600	91P15402S4	1.672	91P15492S2	1.760	91P15492S4	1.830
.15	300	.400 x 1⅜	91P15403S2	1.720	91P15403S4	1.792	91P15493S2	1.892	91P15493S4	1.964
	400	.562 x 1⅛	91P15404S2	1.880	91P15404S4	1.976	91P15494S2	2.068	91P15494S4	2.164
	600	.562 x 1⅜	91P15406S2	1.900	91P15406S4	1.996	91P15496S2	2.090	91P15496S4	2.188
	100	.400 x 1⅛	91P22401S2	1.640	91P22401S4	1.712	91P22491S2	1.804	91P22491S4	1.876
	200	.400 x 1⅜	91P22402S2	1.800	91P22402S4	1.872	91P22492S2	1.980	91P22492S4	2.052
.22	300	.562 x 1⅛	91P22403S2	1.840	91P22403S4	1.936	91P22493S2	2.024	91P22493S4	2.080
	400	.562 x 1⅜	91P22404S2	2.000	91P22404S4	2.072	91P22494S2	2.200	91P22494S4	2.296
	600	.562 x 1⅞	91P22406S2	2.040	91P22406S4	2.136	91P22496S2	2.244	91P22496S4	2.340
	100	.400 x 1⅜	91P33401S2	1.880	91P33401S4	1.952	91P33491S2	2.068	91P33491S4	2.140
	200	.562 x 1⅛	91P33402S2	1.920	91P33402S4	2.016	91P33492S2	2.112	91P33492S4	2.208
.33	300	.562 x 1⅜	91P33403S2	2.000	91P33403S4	2.096	91P33493S2	2.200	91P33493S4	2.296
	400	.562 x 1⅞	91P33404S2	2.020	91P33404S4	2.116	91P33494S2	2.222	91P33494S4	2.318
	600	.670 x 1⅞	91P33406S2	2.240	91P33406S4	2.380	91P33496S2	2.464	91P33496S4	2.604
	100	.562 x 1⅛	91P47401S2	2.000	91P47401S4	2.096	91P47491S2	2.200	91P47491S4	2.296
	200	.562 x 1⅜	91P47402S2	2.040	91P47402S4	2.136	91P47492S2	2.244	91P47492S4	2.340
.47	300	.562 x 1⅞	91P47403S2	2.440	91P47403S4	2.536	91P47493S2	2.684	91P47493S4	2.780
	400	.670 x 1⅞	91P47404S2	2.464	91P47404S4	2.604	91P47494S2	2.710	91P47494S4	2.850
	600	.750 x 2⅛	91P47406S2	2.680	91P47406S4	2.840	91P47496S2	2.948	91P47496S4	3.108
	100	.562 x 1⅜	91P68401S2	2.080	91P68401S4	2.176	91P68491S2	2.288	91P68491S4	2.384
	200	.562 x 1⅞	91P68402S2	2.116	91P68402S4	2.212	91P68492S2	2.328	91P68492S4	2.424
.68	300	.670 x 1⅞	91P68403S2	2.600	91P68403S4	2.740	91P68493S2	2.860	91P68493S4	3.000
	400	.750 x 2 1/16	91P68404S2	3.280	91P68404S4	3.440	91P68494S2	3.630	91P68494S4	3.768
	600	1.000 x 1 15/16	91P68406S2	3.360	91P68406S4	3.520	91P68496S2	3.696	91P68496S4	3.852
	100	.562 x 1⅞	91P10501S2	2.520	91P10501S4	2.616	91P10591S2	2.772	91P10591S4	2.868
1.0	200	.670 x 1⅞	91P10502S2	2.600	91P10502S4	2.740	91P10592S2	2.860	91P10592S4	3.000
	300	.750 x 2 1/16	91P10503S2	3.360	91P10503S4	3.520	91P10593S2	3.696	91P10593S4	3.856
	400	1.000 x 1 15/16	91P10504S2	3.400	91P10504S4	3.600	91P10594S2	3.740	91P10594S4	3.940

*For Style 4 units add .0625" to diameter and 1/16" to length.

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Net
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SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.175 x 3/4	96P10201S2	$1.500	96P10201S4	$1.572	96P10291S2	$1.650	96P10201S4	$1.722
	200	.235 x 3/4	96P10202S2	1.440	96P10202S4	1.512	96P10292S2	1.584	96P10202S4	1.656
.001	300	.235 x 3/4	96P10203S2	1.480	96P10203S4	1.552	96P10293S2	1.628	96P10203S4	1.700
	400	.235 x 3/4	96P10204S2	1.500	96P10204S4	1.572	96P10294S2	1.650	96P10204S4	1.722
	600	.235 x 3/4	96P10206S2	1.520	96P10206S4	1.592	96P10296S2	1.672	96P10206S4	1.744
.0012	600	.235 x 1 1/16	———	———	———	———	96P12296S2	1.672	96P12296S4	1.744
	100	.175 x 3/4	96P15201S2	1.500	96P15201S4	1.572	96P15291S2	1.650	96P15291S4	1.722
	200	.235 x 3/4	96P15202S2	1.440	96P15202S4	1.512	96P15292S2	1.584	96P15292S4	1.656
.0015	300	.235 x 3/4	96P15203S2	1.480	96P15203S4	1.552	96P15293S2	1.628	96P15293S4	1.700
	400	.235 x 3/4	96P15204S2	1.500	96P15204S4	1.572	96P15294S2	1.650	96P15294S4	1.722
	600	.235 x 3/4	96F15206S2	1.520	96P15206S4	1.592	96P15296S2	1.672	96P15296S4	1.744
.0018	600	.235 x 1 1/16	———	———	———	———	96P18296S2	1.672	96P18296S4	1.744
	100	.175 x 3/4	96P22201S2	1.500	96P22201S4	1.572	96P22291S2	1.650	96P22201S4	1.722
	200	.235 x 3/4	96P22202S2	1.440	96P22202S4	1.512	96P22292S2	1.584	96P22202S4	1.656
.0022	300	.235 x 3/4	96P22203S2	1.480	96P22203S4	1.552	96P22293S2	1.628	96P22203S4	1.700
	400	.235 x 3/4	96P22204S2	1.500	96P22204S4	1.572	96P22294S2	1.650	96P22204S4	1.722
	600	.235 x 3/4	96P22206S2	1.520	96P22206S4	1.592	96P22296S2	1.672	96P22026S4	1.744
.0027	600	.235 x 1 1/16	———	———	———	———	96P27296S2	1.716	96P27296S4	1.788
	100	.175 x 3/4	96P33201S2	1.500	96P33201S4	1.572	96P33291S2	1.650	96P33291S4	1.722
	200	.235 x 3/4	97P33202S2	1.480	96P33202S4	1.552	96P33292S2	1.628	96P33292S4	1.700
.0033	300	.235 x 3/4	96P33203S2	1.480	96P33203S4	1.552	96P33293S2	1.628	96P33293S4	1.700
	400	.235 x 3/4	96P33204S2	1.540	96P33204S4	1.612	96P33294S2	1.694	96P33294S4	1.766
	600	.235 x 3/4	96P33206S2	1.560	96P33206S4	1.632	96P33296S2	1.716	96P33296S4	1.788
.0039	600	.235 x 1 1/16	———	———	———	———	96P39296S2	1.716	96P33296S4	1.788
	100	.175 x 3/4	96P47201S2	1.520	96P47201S4	1.592	96P47291S2	1.672	96P47291S4	1.744
	200	.235 x 3/4	96P47202S2	1.480	96P47202S4	1.552	96P47292S2	1.628	96P47292S4	1.700
.0047	300	.235 x 3/4	96P47203S2	1.480	96P47203S4	1.552	96P47293S2	1.628	96P47293S4	1.700
	400	.235 x 3/4	96P47204S2	1.540	96P47204S4	1.612	96P47294S2	1.694	96P47294S4	1.766
	600	.235 x 3/4	96P47206S2	1.560	96P47206S4	1.632	96P47296S2	1.716	96P47296S4	1.788
.0056	600	.235 x 1 1/16	———	———	———	———	96P56296S2	1.716	96P56296S4	1.788
	100	.175 x 3/4	96P68201S2	1.520	96P68201S4	1.592	96P68291S2	1.672	96P68391S4	1.744
	200	.235 x 3/4	96P68202S2	1.480	96P68202S4	1.552	96P68292S2	1.628	96P68392S4	1.700
.0068	300	.235 x 3/4	96P68203S2	1.520	96P68203S4	1.592	96P68293S2	1.672	96P68393S4	1.744
	400	.235 x 3/4	96P68204S2	1.540	96P68204S4	1.612	96P68294S2	1.694	96P68394S4	1.766
	600	.235 x 3/4	96P68206S2	1.560	96P68206S4	1.632	96P68296S2	1.716	96P68396S4	1.788
.0082	400	.400 x 1 5/16	———	———	———	———	96P82294S2	1.716	96P82294S4	1.796
	600	.562 x 1 1/16	———	———	———	———	96P82296S2	1.760	96P82296S4	1.840
	100	.175 x 3/4	96P10301S2	1.520	96P10301S4	1.592	96P10391S2	1.672	96P10391S4	1.744
	200	.235 x 3/4	96P10302S2	1.480	96P10302S4	1.552	96P10392S2	1.628	96P10392S4	1.700
.01	300	.235 x 3/4	96P10303S2	1.520	96P10303S4	1.592	97P10393S2	1.672	96P10393S4	1.744
	400	.235 x 3/4	96P10304S2	1.560	96P10304S4	1.632	96P10394S2	1.716	96P10394S4	1.796
	600	.312 x 7/8	96P10306S2	1.600	96P10306S4	1.680	96P10396S2	1.760	96P10396S4	1.840
.012	200	.235 x 1 1/16	———	———	———	———	96P12392S2	1.672	96P12392S4	1.722
	600	.312 x 1 1/16	———	———	———	———	96P12396S2	1.804	96P12396S4	1.884
	100	.175 x 3/4	96P15301S2	1.520	96P15301S4	1.592	96P15391S2	1.672	96P15391S4	1.744
	200	.235 x 3/4	96P15302S2	1.500	96P15302S4	1.572	96P15392S2	1.650	96P15392S4	1.722
.015	300	.235 x 3/4	96P15303S2	1.540	96P15303S4	1.612	96P15393S2	1.694	96P15393S4	1.766
	400	.312 x 7/8	96P15304S2	1.600	96P15304S4	1.680	96P15394S2	1.750	96P15394S4	2.192
	600	.312 x 7/8	96P15306S2	1.640	96P15306S4	1.720	96P15396S2	1.804	96P15396S4	1.884
	1000	.400 x 1 1/16	———	———	———	———	96P153910S2	2.068	96P153910S4	2.156
	200	.235 x 1 1/16	———	———	———	———	96P18392S2	1.650	96P18392S4	1.722
.018	600	.312 x 1 3/16	———	———	———	———	96P18396S2	1.804	96P18396S4	1.884
	1000	.400 x 1 1/16	———	———	———	———	96P183910S2	2.068	96P183910S4	2.156
	100	.195 x 3/4	96P22301S2	1.520	96P22301S4	1.592	96P22391S2	1.672	96P22391S4	1.744
	200	.235 x 3/4	96P22302S2	1.500	96P22302S4	1.572	96P22392S2	1.650	96P22392S4	1.722
.022	300	.312 x 7/8	96P22303S2	1.600	96P22303S4	1.680	96P22393S2	1.760	96P22393S4	1.840
	400	.312 x 7/8	96P22304S2	1.620	96P22304S4	1.700	96P22394S2	1.782	96P22394S4	1.862
	600	.312 x 7/8	96P22306S2	1.640	96P22306S4	1.720	96P22396S2	1.804	96P22396S4	1.884
	1000	.400 x 1 1/16	———	———	———	———	96P223910S2	2.068	96P223910S4	2.156
	100	.235 x 1 11/16	———	———	———	———	96P27391S2	1.628	96P27391S4	1.700
.027	400	.312 x 1 3/16	———	———	———	———	96P27394S2	1.782	96P27394S4	1.862
	600	.312 x 1 3/16	———	———	———	———	96P27396S2	1.870	96P27396S4	1.958
	1000	.400 x 1 1/16	———	———	———	———	96P273910S2	2.134	96P273910S4	2.222
	100	.235 x 3/4	96P33301S2	1.480	96P33301S4	1.552	96P33391S2	1.628	96P33391S4	1.700
	200	.312 x 7/8	96P33302S2	1.520	96P33302S4	1.600	96P33392S2	1.672	96P33392S4	1.752
.033	300	.312 x 7/8	96P33303S2	1.600	96P33303S4	1.680	96P33393S2	1.760	96P33393S4	1.840
	400	.312 x 7/8	96P33304S2	1.620	96P33304S4	1.700	96P33394S2	1.782	96P33394S4	1.862
	600	.400 x 7/8	96P33306S2	1.700	96P33306S4	1.788	96P33396S2	1.870	96P33396S4	1.958
	1000	.400 x 1 3/16	———	———	———	———	96P333910S2	2.134	96P333910S4	2.222
	200	.312 x 1 3/16	———	———	———	———	96P39392S2	1.716	96P39392S4	1.796
.039	400	.400 x 1 3/16	———	———	———	———	96P39394S2	1.848	96P39394S4	1.936
	600	.400 x 1 1/16	———	———	———	———	96P39396S2	1.892	96P39396S4	1.980
	1000	.562 x 1 1/16	———	———	———	———	96P393910S2	2.156	96P393910S4	2.284
	100	.312 x 7/8	96P47301S2	1.480	96P47301S4	1.560	96P47391S2	1.628	96P47391S4	1.708
	200	.312 x 7/8	96P47302S2	1.560	96P47302S4	1.640	96P47392S2	1.716	96P47392S4	1.796
.047	300	.312 x 7/8	96P47303S2	1.640	96P47303S4	1.720	96P473932S	1.804	96P47393S4	1.884
	400	.400 x 7/8	96P47304S2	1.680	96P47304S4	1.768	96P47394S2	1.848	96P47394S4	1.936
	600	.400 x 1 1/8	96P47306S2	1.720	96P47306S4	1.808	96P47396S2	1.892	96P47396S4	1.980
	1000	.562 x 1 5/16	———	———	———	———	96P473910S2	2.156	96P473910S4	2.284
	200	.312 x 1 3/16	———	———	———	———	96P56392S2	1.760	96P56392S4	1.840
.056	400	.400 x 1 1/16	———	———	———	———	96P56394S2	1.892	96P56394S4	1.972
	600	.400 x 1 3/16	———	———	———	———	96P56396S2	1.980	96P56396S4	2.068
	1000	.562 x 1 5/16	———	———	———	———	96P563910S2	2.244	96P563910S4	2.372

*For Style 4 units add .0625" to diameter and 1/16" to length.

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Net

SPRAGUE CAPACITORS

TYPE 96P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20% — Style 2 (bare metal case) Cat. No.	Net (1-9)	Style 4 (w/plastic sleeve)* Cat. No.	Net (1-9)	Capacitance Tolerance ±10% — Style 2 (bare metal case) Cat. No.	Net (1-9)	Style 4 (w/plastic sleeve)* Cat. No.	Net (1-9)
	100	.312 x 7/8	96P68301S2	$1.560	96P68301S4	$1.640	96P68391S2	$1.716	96P68391S4	$1.788
	200	.312 x 7/8	96P68302S2	1.600	96P68302S4	1.680	96P68392S2	1.760	96P68392S4	1.840
.068	300	.400 x 7/8	96P68303S2	1.680	96P68303S4	1.768	96P68393S2	1.848	96P68393S4	1.936
	400	.400 x 1 1/8	96P68304S2	1.720	96P68304S4	1.808	96P68394S2	1.892	96P68394S4	1.980
	600	.400 x 1 3/8	96P68306S2	1.800	96P68306S4	1.888	96P68396S2	1.980	96P68396S4	2.068
	1000	.562 x 1 5/16	———	———	———	———	96P683910S2	2.420	96P683910S4	2.372
	100	.312 x 13/16	———	———	———	———	96P82391S2	1.760	96P82391S4	1.840
	200	.400 x 13/16	———	———	———	———	96P82392S2	1.804	96P82392S4	1.892
.082	400	.400 x 1 5/16	———	———	———	———	96P82394S2	1.936	96P82394S4	2.024
	600	.562 x 1 1/16	———	———	———	———	96P82396S2	2.112	96P82396S4	2.240
	1000	.562 x 1 5/16	———	———	———	———	96P823910S2	2.376	96P823910S4	2.504
	100	.312 x 7/8	96P10401S2	1.600	96P10401S4	1.680	96P10491S2	1.760	96P10491S4	1.840
	200	.400 x 7/8	96P10402S2	1.640	96P10402S4	1.728	96P10492S2	1.804	96P10492S4	1.892
.1	300	.400 x 1 1/8	96P10403S2	1.680	96P10403S4	1.768	96P10493S2	1.848	96P10493S4	1.936
	400	.400 x 1 3/8	96P10404S2	1.760	96P10404S4	1.848	96P10494S2	1.936	96P10494S4	2.024
	600	.562 x 1 1/8	96P10406S2	1.920	96P10406S4	2.048	96P10496S2	2.112	96P10496S4	2.240
	1000	.562 x 1 5/16	———	———	———	———	96P104910S2	2.376	96P104910S4	2.504
	100	.400 x 13/16	———	———	———	———	96P12491S2	1.848	96P12491S4	1.936
	200	.400 x 1 1/16	———	———	———	———	96P12492S2	1.826	96P12492S4	1.912
.12	400	.562 x 1 1/16	———	———	———	———	96P12494S2	2.112	96P12494S4	2.332
	600	.562 x 1 5/16	———	———	———	———	96P12496S2	2.200	96P12496S4	2.328
	1000	.670 x 1 5/16	———	———	———	———	96P124910S2	2.464	96P124910S4	2.580
	100	.400 x 7/8	96P15491S2	1.680	96P15401S4	2.768	96P15491S2	1.848	96P15491S4	1.936
	200	.400 x 1 1/8	96P15492S2	1.660	96P15402S4	1.748	96P15492S2	1.826	96P15492S4	1.914
.15	300	.400 x 1 3/8	96P15493S2	1.760	96P15403S4	1.848	96P15493S2	1.936	96P15493S4	2.024
	400	.562 x 1 1/8	96P15494S2	1.920	96P15404S4	2.048	96P15494S2	2.112	96P15494S4	2.332
	600	.562 x 1 3/8	96P15496S2	2.000	96P15406S4	2.128	96P15496S2	2.200	96P15496S4	2.328
	1000	.670 x 1 5/16	———	———	———	———	96P154910S2	2.464	96P154910S4	2.580
	100	.400 x 1 1/16	———	———	———	———	96P18491S2	1.848	96P18491S4	1.936
	200	.400 x 1 5/16	———	———	———	———	96P18492S2	2.002	96P18492S4	2.090
.18	400	.562 x 1 5/16	———	———	———	———	96P18494S2	2.244	96P18494S4	2.372
	600	.562 x 1 13/16	———	———	———	———	96P18496S2	2.376	96P18496S4	2.504
	1000	.750 x 2 1/16	———	———	———	———	96P184910S2	2.640	96P184910S4	2.860
	100	.400 x 1 1/8	96P22401S2	1.680	96P22401S4	1.768	96P22491S2	1.848	96P22491S4	1.936
	200	.400 x 1 3/8	96P22402S2	1.820	96P22402S4	1.908	96P22492S2	2.002	96P22492S4	2.090
.22	300	.562 x 1 1/8	96P22403S2	1.880	96P22403S4	2.008	96P22493S2	2.068	96P22493S4	2.196
	400	.562 x 1 3/8	96P22404S2	2.040	96P22404S4	2.168	96P22494S2	2.244	96P22494S4	2.372
	600	.562 x 1 7/8	96P22406S2	2.160	96P22406S4	2.288	96P22496S2	2.376	96P22496S4	2.504
	1000	.750 x 2 1/16	———	———	———	———	96P224910S2	2.640	96P224910S4	2.860
	100	.400 x 1 1/16	———	———	———	———	96P27491S2	2.112	96P27491S4	2.200
	200	.562 x 1 5/16	———	———	———	———	96P27492S2	2.156	96P27492S4	2.284
.27	400	.562 x 1 5/16	———	———	———	———	96P27494S2	2.288	96P27494S4	2.416
	600	.562 x 1 13/16	———	———	———	———	96P27496S2	2.640	96P27496S4	2.768
	1000	.750 x 2 1/16	———	———	———	———	96P274910S2	2.904	96P274910S4	3.124
	100	.400 x 1 3/8	96P33401S2	1.920	96P33401S4	2.008	96P33491S2	2.112	96P33491S4	2.200
	200	.562 x 1 1/8	96P33402S2	1.960	96P33402S4	2.088	96P33492S2	2.156	96P33492S4	2.284
.33	300	.562 x 1 3/8	96P33403S2	2.040	96P33403S4	2.168	96P33493S2	2.244	96P33493S4	2.372
	400	.562 x 1 7/8	96P33404S2	2.080	96P33404S4	2.208	96P33494S2	2.288	96P33494S4	2.416
	600	.670 x 1 7/8	96P33406S2	2.400	96P33406S4	2.560	96P33496S2	2.640	96P33496S4	2.768
	1000	.750 x 1 5/16	———	———	———	———	96P334910S2	2.904	96P334910S4	3.124
	100	.562 x 1 1/16	———	———	———	———	96P39491S2	2.244	96P39491S4	2.372
	200	.562 x 1 5/16	———	———	———	———	96P39492S2	2.288	96P39492S4	2.416
.39	400	.670 x 1 13/16	———	———	———	———	96P39494S2	2.728	96P39494S4	2.948
	600	.750 x 2 1/16	———	———	———	———	96P39496S2	2.970	96P39496S4	3.190
	1000	1.000 x 2 1/16	———	———	———	———	96P394910S2	3.234	96P394910S4	3.514
	100	.562 x 1 1/8	96P47401S2	2.040	96P47401S4	2.178	96P47491S2	2.244	96P47491S4	2.372
	200	.562 x 1 3/8	96P47402S2	2.080	96P47402S4	2.208	96P47492S2	2.288	96P47492S4	2.416
.47	300	.562 x 1 7/8	96P47403S2	2.480	96P47403S4	2.608	96P47493S2	2.728	96P47493S4	2.888
	400	.670 x 1 7/8	96P47404S2	2.480	96P47404S4	2.640	96P47494S2	2.728	96P47494S4	2.948
	600	.750 x 2 1/8	96P47406S2	2.700	96P47406S4	2.840	96P47496S2	2.970	96P47496S4	3.190
	1000	1.000 x 2 1/16	———	———	———	———	96P474910S2	3.234	96P474910S4	3.514
	100	.562 x 1 5/16	———	———	———	———	96P56491S2	2.332	96P56491S4	2.460
.56	200	.562 x 1 13/16	———	———	———	———	96P56492S2	2.420	96P56492S4	2.548
	400	.750 x 2 1/16	———	———	———	———	96P56494S2	3.630	96P56494S4	3.850
	600	1.000 x 1 13/16	———	———	———	———	96P56496S2	3.696	96P56496S4	3.976
	100	.562 x 1 3/8	96P68401S2	2.120	96P68401S4	2.248	96P68491S2	2.332	96P68491S4	2.460
	200	.562 x 1 7/8	96P68402S2	2.200	96P68402S4	2.328	96P68492S2	2.420	96P68492S4	2.548
.68	300	.670 x 1 7/8	96P68403S2	2.640	96P68403S4	2.800	96P68493S2	2.900	96P68493S4	3.064
	400	.750 x 2 1/16	96P68404S2	3.300	96P68404S4	3.520	96P68494S2	3.630	96P68494S4	3.850
	600	1.000 x 1 13/16	96P68406S2	3.360	96P68406S4	3.640	96P68496S2	3.696	96P68496S4	3.976
	100	.562 x 1 13/16	———	———	———	———	96P82491S2	2.376	96P82491S4	2.504
.82	200	.670 x 1 13/16	———	———	———	———	96P82492S2	2.904	96P82492S4	3.064
	400	1.000 x 1 13/16	———	———	———	———	96P82494S2	3.762	96P82494S4	4.042
	100	.562 x 1 7/8	96P10501S2	2.160	96P10501S4	2.288	96P10591S2	2.376	96P10591S4	2.504
1.0	200	.670 x 1 7/8	96P10502S2	2.640	96P10502S4	2.800	96P10592S2	2.904	96P10592S4	3.064
	300	.750 x 2 1/16	96P10503S2	3.400	96P10503S4	3.620	96P10593S2	3.740	96P10593S4	3.960
	400	1.000 x 1 13/16	96P10504S2	3.420	96P10504S4	3.700	96P10594S2	3.762	96P10594S4	4.042

*For Style 4 units add .0625" to diameter and 1/16" to length.

REM-21-6128

All prices and sizes subject to change without notice.

Net

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SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
		Size	Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
μF	WVDC	D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.175 x ¾	191P10201S2	$1.480	191P10201S4	$1.544	191P10291S2	$1.628	191P10291S4	$1.692
	200	.235 x ¾	191P10202S2	1.388	191P10202S4	1.452	191P10292S2	1.527	191P10292S4	1.591
.001	300	.235 x ¾	191P10203S2	1.400	191P10203S4	1.464	191P10293S2	1.540	191P10293S4	1.604
	400	.235 x ¾	191P10204S2	1.440	191P10204S4	1.504	191P10294S2	1.584	191P10294S4	1.648
	600	.235 x ¾	191P10206S2	1.460	191P10206S4	1.524	191P10296S2	1.606	191P10296S4	1.670
	100	.175 x ¾	191P15201S2	1.480	191P15201S4	1.544	191P15291S2	1.628	191P15291S4	1.692
	200	.235 x ¾	191P15202S2	1.388	191P15202S4	1.452	191P15292S2	1.527	191P15292S4	1.591
.0015	300	.235 x ¾	191P15203S2	1.400	191P15203S4	1.464	191P15293S2	1.540	191P15293S4	1.604
	400	.235 x ¾	191P15204S2	1.440	191P15204S4	1.504	191P15294S2	1.584	191P15294S4	1.648
	600	.235 x ¾	191P15206S2	1.460	191P15206S4	1.524	191P15296S2	1.606	191P15296S4	1.670
	100	.175 x ¾	191P22201S2	1.480	191P22201S4	1.544	191P22291S2	1.628	191P22291S4	1.692
	200	.235 x ¾	191P22202S2	1.388	191P22202S4	1.452	191P22292S2	1.527	191P22292S4	1.591
.0022	300	.235 x ¾	191P22203S2	1.420	191P22203S4	1.484	191P22293S2	1.562	191P22293S4	1.626
	400	.235 x ¾	191P22204S2	1.480	191P22204S4	1.504	191P22294S2	1.584	191P22294S4	1.648
	600	.235 x ¾	191P22206S2	1.500	191P22206S4	1.524	191P22296S2	1.606	191P22296S4	1.670
	100	.175 x ¾	191P33201S2	1.480	191P33201S4	1.544	191P33291S2	1.628	191P33291S4	1.692
	200	.235 x ¾	191P33202S2	1.388	191P33202S4	1.452	191P33292S2	1.527	191P33292S4	1.591
.0033	300	.235 x ¾	191P33203S2	1.420	191P33203S4	1.484	191P33293S2	1.562	191P33293S4	1.626
	400	.235 x ¾	191P33204S2	1.480	191P33204S4	1.504	191P33294S2	1.584	191P33294S4	1.648
	600	.235 x ¾	191P33206S2	1.500	191P33206S4	1.544	191P33296S2	1.628	191P33296S4	1.692
	100	.175 x ¾	191P47201S2	1.480	191P47201S4	1.544	191P47291S2	1.628	191P47291S4	1.692
	200	.235 x ¾	191P47202S2	1.388	191P47202S4	1.452	191P47292S2	1.527	191P47292S4	1.591
.0047	300	.235 x ¾	191P47203S2	1.420	191P47203S4	1.484	191P47293S2	1.562	191P47293S4	1.626
	400	.235 x ¾	191P47204S2	1.480	191P47204S4	1.544	191P47294S2	1.628	191P47294S4	1.692
	600	.235 x ¾	191P47206S2	1.500	191P47206S4	1.564	191P47296S2	1.650	191P47296S4	1.714
	100	.175 x ¾	191P68201S2	1.480	191P68201S4	1.544	191P68291S2	1.628	191P68291S4	1.692
	200	.235 x ¾	191P68202S2	1.388	191P68202S4	1.452	191P68292S2	1.527	191P68292S4	1.591
.0068	300	.235 x ¾	191P68203S2	1.420	191P68203S4	1.504	191P68293S2	1.562	191P68293S4	1.648
	400	.235 x ¾	191P68204S2	1.480	191P68204S4	1.544	191P68294S2	1.628	191P68294S4	1.692
	600	.235 x ¾	191P68206S2	1.500	191P68206S4	1.584	191P68296S2	1.672	191P68296S4	1.736
	100	.175 x ¾	191P10301S2	1.480	191P10301S4	1.544	191P10391S2	1.628	191P10391S4	1.692
	200	.235 x ¾	191P10302S2	1.460	191P10302S4	1.524	191P10392S2	1.606	191P10392S4	1.670
.01	300	.235 x ¾	191P10303S2	1.480	191P10303S4	1.544	191P10393S2	1.628	191P10393S4	1.692
	400	.235 x ¾	191P10304S2	1.520	191P10304S4	1.584	191P10394S2	1.672	191P10394S4	1.736
	600	.312 x ⅞	191P10306S2	1.540	191P10306S4	1.604	191P10396S2	1.694	191P10396S4	1.718
	100	.175 x ¾	191P15301S2	1.440	191P15301S4	1.544	191P15391S2	1.584	191P15391S4	1.648
	200	.235 x ¾	191P15302S2	1.460	191P15302S4	1.524	191P15392S2	1.606	191P15392S4	1.670
.015	300	.235 x ¾	191P15303S2	1.500	191P15303S4	1.564	191P15393S2	1.650	191P15393S4	1.714
	400	.312 x ⅞	191P15304S2	1.520	191P15304S4	1.584	191P15394S2	1.672	191P15394S4	1.736
	600	.312 x ⅞	191P15306S2	1.560	191P15306S4	1.632	191P15396S2	1.716	191P15396S4	1.788
	100	.195 x ¾	191P22301S2	1.440	191P22301S4	1.504	191P22391S2	1.584	191P22391S4	1.648
	200	.235 x ¾	191P22302S2	1.460	191P22302S4	1.524	191P22392S2	1.606	191P22392S4	1.670
.022	300	.312 x ⅞	191P22303S2	1.500	191P22303S4	1.564	191P22393S2	1.650	191P22393S4	1.714
	400	.312 x ⅞	191P22304S2	1.520	191P22304S4	1.584	191P22394S2	1.672	191P22394S4	1.744
	600	.312 x ⅞	191P22306S2	1.560	191P22306S4	1.632	191P22396S2	1.716	191P22394S4	1.788

*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 191P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.235 x ¾	191P33301S2	$1.600	191P33301S4	$1.504	191P33391S2	$1.584	191P33391S4	$1.648
	200	.312 x ⅞	191P33302S2	1.480	191P33302S4	1.544	191P33392S2	1.628	191P33392S4	1.692
.033	300	.312 x ⅞	191P33303S2	1.500	191P33303S4	1.564	191P33393S2	1.650	191P33393S4	1.722
	400	.312 x ⅞	191P33304S2	1.520	191P33304S4	1.584	191P33394S2	1.672	191P33394S4	1.744
	600	.400 x ⅞	191P33306S2	1.600	191P33306S4	1.672	191P33396S2	1.760	191P33396S4	1.832
	100	.312 x ⅞	191P47301S2	1.540	191P47301S4	1.584	191P47391S2	1.694	191P47391S4	1.758
	200	.312 x ⅞	191P47302S2	1.560	191P47302S4	1.632	191P47392S2	1.716	191P47392S4	1.788
.047	300	.312 x ⅞	191P47303S2	1.568	191P47303S4	1.640	191P47393S2	1.725	191P47393S4	1.797
	400	.400 x ⅞	191P47304S2	1.600	191P47304S4	1.672	191P47394S2	1.760	191P47394S4	1.832
	600	.400 x 1⅛	191P47306S2	1.680	191P47306S4	1.752	191P47396S2	1.848	191P47396S4	1.920
	100	.312 x ⅞	191P68301S2	1.540	191P68301S4	1.584	191P68391S2	1.694	191P68391S4	1.766
	200	.312 x ⅞	191P68302S2	1.560	191P68302S4	1.632	191P68392S2	1.716	191P68392S4	1.788
.068	300	.400 x ⅞	191P68303S2	1.600	191P68303S4	1.672	191P68393S2	1.760	191P68393S4	1.832
	400	.400 x 1⅛	191P68304S2	1.660	191P68304S4	1.732	191P68394S2	1.826	191P68394S4	1.898
	600	.400 x 1⅜	191P68306S2	1.760	191P68306S4	1.856	191P68396S2	1.936	191P68396S4	2.032
	100	.312 x ⅞	191P10401S2	1.600	191P10401S4	1.672	191P10491S2	1.760	191P10491S4	1.832
	200	.400 x ⅞	191P10402S2	1.604	191P10402S4	1.676	191P10492S2	1.764	191P10492S4	1.836
.1	300	.400 x 1⅛	191P10403S2	1.660	191P10403S4	1.732	191P10493S2	1.826	191P10493S4	1.898
	400	.400 x 1⅜	191P10404S2	1.720	191P10404S4	1.816	191P10494S2	1.892	191P10494S4	1.988
	600	.562 x 1⅛	191P10406S2	1.840	191P10406S4	1.936	191P10496S2	2.024	191P10496S4	2.120
	100	.400 x ⅞	191P15401S2	1.640	191P15401S4	1.712	191P15491S2	1.804	191P15491S4	1.875
	200	.400 x 1⅛	191P15402S2	1.700	191P15402S4	1.772	191P15492S2	1.870	191P15492S4	1.942
.15	300	.400 x 1⅜	191P15403S2	1.880	191P15403S4	1.976	191P15493S2	2.068	191P15493S4	2.164
	400	.562 x 1⅛	191P15404S2	1.900	191P15404S4	1.996	191P15494S2	2.090	191P15494S4	2.186
	600	.562 x 1⅜	191P15406S2	1.960	191P15406S4	2.056	191P15496S2	2.156	191P15496S4	2.472
	100	.400 x 1⅛	191P22401S2	1.640	191P22401S4	1.712	191P22491S2	1.804	191P22491S4	1.876
	200	.400 x 1⅜	191P22402S2	1.840	191P22402S4	1.936	191P22492S2	2.024	191P22492S4	2.120
.22	300	.562 x 1⅛	191P22403S2	1.960	191P22403S4	2.055	191P22493S2	2.156	191P22493S4	2.252
	400	.562 x 1⅜	191P22404S2	2.040	191P22404S4	2.136	191P22494S2	2.244	191P22494S4	2.340
	600	.562 x 1⅞	191P22406S2	2.160	191P22406S4	2.300	191P22496S2	2.376	191P22496S4	2.516
	100	.400 x 1⅜	191P33401S2	1.880	191P33401S4	1.976	191P33491S2	2.068	191P33491S4	2.164
	200	.562 x 1⅛	191P33402S2	2.000	191P33402S4	2.096	191P33492S2	2.200	191P33492S4	2.296
.33	300	.562 x 1⅜	191P33403S2	2.000	191P33403S4	2.096	191P33493S2	2.200	191P33493S4	2.296
	400	.562 x 1⅞	191P33404S2	2.120	191P33404S4	2.260	191P33494S2	2.332	191P33494S4	2.472
	600	.670 x 1⅞	191P33406S2	2.640	191P33406S4	2.800	191P33496S2	2.904	191P33496S4	3.000
	100	.562 x 1⅛	191P47401S2	2.000	191P47401S4	2.096	191P47491S2	2.200	191P47491S4	2.296
.47	200	.562 x 1⅜	191P47402S2	2.040	191P47402S4	2.136	191P47492S2	2.240	191P47492S4	2.340
	300	.562 x 1⅞	191P47403S2	2.560	191P47403S4	2.700	191P47493S2	2.816	191P47493S4	2.956
	400	.670 x 1⅞	191P47404S2	2.640	191P47404S4	2.800	191P47494S2	2.904	191P47494S4	3.064
	600	.750 x 2⅛	191P47406S2	2.760	191P47406S4	2.920	191P47496S2	2.036	191P47496S4	3.196
	100	.562 x 1⅜	191P68401S2	2.120	191P68401S4	2.216	191P68491S2	2.332	191P68491S4	2.428
.68	200	.562 x 1⅞	191P68402S2	2.360	191P68402S4	2.500	191P68492S2	2.596	191P68492S4	2.736
	300	.670 x 1⅞	191P68403S2	2.640	191P68403S4	2.800	191P68493S2	2.900	191P68493S4	3.064
	100	.562 x 1⅞	191P10501S2	2.320	191P10501S4	2.460	191P10591S2	2.552	191P10591S4	2.692
1.0	200	.670 x 1⅞	191P10502S2	2.680	191P10502S4	2.840	191P10592S2	2.946	191P10592S4	3.108

*For Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
.001	100	.175 x 3/4	196P10201S2	$1.520	196P10201S4	$1.592	196P10291S2	$1.672	196P10291S4	$1.744
	200	.235 x 3/4	196P10202S2	1.500	196P10202S4	1.572	196P10292S2	1.650	196P10292S4	1.722
	300	.235 x 3/4	196P10203S2	1.560	196P10203S4	1.632	196P10293S2	1.716	196P10293S4	1.788
	400	.235 x 3/4	196P10204S2	1.580	196P10204S4	1.652	196P10294S2	1.738	196P10294S4	1.810
	600	.235 x 3/4	196P10206S2	1.600	196P10206S4	1.672	196P10296S2	1.760	196P10296S4	1.830
	1000	.400 x 13/16	———	———	———	———	196P102910S2	2.024	196P102910S4	2.112
.0012	600	.235 x 11/16	———	———	———	———	196P12296S2	1.760	196P12296S4	1.830
	1000	.400 x 13/16	———	———	———	———	196P122910S2	2.024	196P122810S4	2.112
.0015	100	.175 x 3/4	196P15201S2	1.520	196P15201S4	1.592	196P15291S2	1.672	196P15291S4	1.744
	200	.235 x 3/4	196P15202S2	1.500	196P15202S4	1.572	196P15292S2	1.650	196P15292S4	1.722
	300	.235 x 3/4	196P15203S2	1.560	196P15203S4	1.632	196P15293S2	1.716	196P15293S4	1.788
	400	.235 x 3/4	196P15204S2	1.580	196P15204S4	1.652	196P15294S2	1.738	196P15294S4	1.810
	600	.235 x 3/4	196P15206S2	1.600	196P15206S4	1.672	196P15296S2	1.760	196P15296S4	1.830
	1000	.400 x 13/16	———	———	———	———	196P152910S2	2.024	196P152910S4	2.112
.0018	600	.235 x 11/16	———	———	———	———	196P18296S2	1.760	196P18296S4	1.830
	1000	.400 x 13/16	———	———	———	———	196P182910S2	2.024	196P182910S4	2.112
.0022	100	.175 x 3/4	196P22201S2	1.520	196P22201S4	1.592	196P22291S2	1.672	196P22291S4	1.744
	200	.235 x 3/4	196P22202S2	1.500	196P22202S4	1.572	196P22292S2	1.650	196P22292S4	1.722
	300	.235 x 3/4	196P22203S2	1.560	196P22203S4	1.632	196P22292S2	1.716	196P22293S4	1.788
	400	.235 x 3/4	196P22204S2	1.580	196P22204S4	1.652	196P22294S2	1.738	196P22294S4	1.810
	600	.235 x 3/4	196P22206S2	1.600	196P22206S4	1.720	196P22296S2	1.760	196P22296S4	1.830
	1000	.400 x 13/16	———	———	———	———	196P222910S2	2.024	196P222910S4	2.112
.0027	400	.312 x 13/16	———	———	———	———	196P27294S2	1.760	196P27294S4	1.832
	600	.235 x 11/16	———	———	———	———	196P27296S2	1.804	196P27296S4	1.884
	1000	.400 x 13/16	———	———	———	———	196P272910S2	2.024	196P272910S4	2.112
.0033	100	.175 x 3/4	196P33201S2	1.520	196P33201S4	1.592	196P33291S2	1.672	196P33291S4	1.744
	200	.235 x 3/4	196P33202S2	1.540	196P33202S4	1.612	196P33292S2	1.694	196P33292S4	1.766
	300	.235 x 3/4	196P33203S2	1.560	196P33203S4	1.632	196P33293S2	1.716	196P33293S4	1.788
	400	.235 x 3/4	196P33204S2	1.600	196P33204S4	1.672	196P33294S2	1.760	196P33294S4	1.832
	600	.312 x 7/8	196P33206S2	1.640	196P33206S4	1.720	196P33296S2	1.804	196P33296S4	1.884
	1000	.400 x 13/16	———	———	———	———	196P332910S2	2.024	196P332910S4	2.112
.0039	200	.235 x 11/16	———	———	———	———	196P39292S2	1.694	196P39292S4	2.766
	600	.235 x 11/16	———	———	———	———	196P39296S2	1.870	196P39296S4	1.950
	1000	.400 x 13/16	———	———	———	———	196P392910S2	2.134	196P392910S4	2.222
.0047	100	.175 x 3/4	196P47201S2	1.520	196P47201S4	1.592	196P47291S2	1.672	196P47291S4	1.744
	200	.235 x 3/4	196P47202S2	1.540	196P47202S4	1.612	196P47292S2	1.694	196P47292S4	1.766
	300	.235 x 3/4	196P47203S2	1.560	196P47203S4	1.632	196P47293S2	1.716	196P47293S4	1.788
	400	.235 x 3/4	196P47204S2	1.680	196P47204S4	1.760	196P47294S2	1.848	196P47294S4	1.928
	600	.235 x 3/4	196P47206S2	1.700	196P47206S4	1.780	196P47296S2	1.870	196P47296S4	1.950
	1000	.400 x 13/16	———	———	———	———	196P472910S2	2.134	196P472910S4	2.222
.0056	200	.235 x 11/16	———	———	———	———	196P56292S2	1.716	196P56292S4	1.788
	600	.235 x 11/16	———	———	———	———	196P56296S2	2.156	196P56296S4	1.972
	1000	.400 x 13/16	———	———	———	———	196P562910S2	2.420	196P562910S4	2.244
.0068	100	.175 x 3/4	196P68201S2	1.520	196P68201S4	1.592	196P68291S2	1.672	196P68291S4	1.744
	200	.235 x 3/4	196P68202S2	1.560	196P68202S4	1.632	196P68292S2	1.716	196P68282S4	1.788
	300	.235 x 3/4	196P68203S2	1.640	196P68203S4	1.720	196P68293S2	1.804	196P68293S4	1.884
	400	.235 x 3/4	196P68204S2	1.680	196P68204S4	1.760	196P68294S2	1.848	196P68294S4	1.928
	600	.235 x 3/4	196P68206S2	1.720	196P68206S4	1.800	196P68296S2	2.156	196P68296S4	1.972
	1000	.400 x 13/16	———	———	———	———	196P682910S2	2.420	196P682910S4	2.244
.0082	100	.175 x 11/16	———	———	———	———	196P82291S2	1.672	196P82291S4	1.744
	600	.312 x 13/16	———	———	———	———	196P82296S2	1.914	196P82296S4	1.994
	1000	.400 x 13/16	———	———	———	———	196P822910S2	2.178	196P822910S4	2.266
.01	100	.175 x 3/4	196P10301S2	1.520	196P10301S4	1.592	196P10391S2	1.672	196P10391S4	1.744
	200	.235 x 3/4	196P10302S2	1.640	196P10302S4	1.720	196P10392S2	1.804	196P10392S4	1.884
	300	.235 x 3/4	196P10303S2	1.680	196P10303S4	1.760	196P10393S2	1.848	196P10393S4	1.928
	400	.235 x 3/4	196P10304S2	1.720	196P10304S4	1.800	196P10394S2	1.892	196P10394S4	1.972
	600	.312 x 7/8	196P10306S2	1.740	196P10306S4	1.820	196P10396S2	1.914	196P10396S4	1.994
	1000	.400 x 13/16	———	———	———	———	196P103910S2	2.178	196P103910S4	2.266
.012	100	.175 x 11/16	———	———	———	———	196P12391S2	1.672	196P12391S4	1.744
	400	.312 x 13/16	———	———	———	———	196P12394S2	1.892	196P12394S4	1.972
	600	.312 x 13/16	———	———	———	———	196P12396S2	1.936	196P12396S4	2.024
	1000	.400 x 13/16	———	———	———	———	196P123910S2	2.200	196P123910S4	2.288
.015	100	.175 x 3/4	196P15301S2	1.520	196P15301S4	1.592	196P15391S2	1.672	196P15391S4	1.744
	200	.235 x 3/4	196P15302S2	1.640	196P15302S4	1.720	196P15392S2	1.804	196P15392S4	1.884
	300	.235 x 3/4	196P15303S2	1.700	196P15303S4	1.780	196P15393S2	1.870	196P15393S4	1.950
	400	.312 x 7/8	196P15304S2	1.720	196P15304S4	1.800	196P15394S2	1.892	196P15394S4	1.972
	600	.312 x 7/8	196P15306S2	1.760	196P15306S4	1.848	196P15396S2	1.936	196P15396S4	2.024
	1000	.400 x 13/16	———	———	———	———	196P153910S2	2.200	196P153910S4	2.288
.018	200	.235 x 11/16	———	———	———	———	196P18392S2	1.848	196P18392S4	1.928
	600	.312 x 13/16	———	———	———	———	196P18396S2	1.958	196P18396S4	2.046
	1000	.400 x 1 1/16	———	———	———	———	196P183910S2	2.222	196P183910S4	2.310
.022	100	.195 x 3/4	196P22301S2	1.560	196P22301S4	1.640	196P22391S2	1.716	196P22391S4	1.796
	200	.235 x 3/4	196P22302S2	1.680	196P22302S4	1.760	196P22392S2	1.848	196P22392S4	1.928
	300	.312 x 7/8	196P22303S2	1.720	196P22303S4	1.800	196P22393S2	1.892	196P22393S4	1.994
	400	.312 x 7/8	196P22304S2	1.760	196P22304S4	1.848	196P22394S2	1.936	196P22394S4	2.024
	600	.312 x 7/8	196P22306S2	1.780	196P22306S4	1.868	196P22396S2	1.958	196P22396S4	2.046
	1000	.400 x 1 1/16	———	———	———	———	196P223910S2	2.222	196P223910S4	2.310
.027	200	.312 x 13/16	———	———	———	———	196P27392S2	1.848	196P27392S4	1.928
	400	.312 x 13/16	———	———	———	———	196P27294S2	1.936	196P27394S4	2.024
	600	.400 x 13/16	———	———	———	———	196P27396S2	1.958	196P27396S4	2.046
	1000	.400 x 1 5/16	———	———	———	———	196P273910S2	2.222	196P273910S4	2.350
.033	100	.400 x 1 3/8	196P33301S2	1.600	196P33301S4	1.680	196P33391S2	1.760	196P33391S4	1.840
	200	.562 x 1 1/8	196P33302S2	1.680	196P33302S4	1.760	196P33392S2	1.848	196P33392S4	1.928
	300	.562 x 1 3/8	196P33303S2	1.740	196P33303S4	1.828	196P33393S2	1.910	196P33393S4	1.926
	400	.562 x 1 7/8	196P33304S2	1.760	196P33304S4	1.848	196P33394S2	1.936	196P33394S4	2.024
	600	.670 x 1 7/8	196P33306S2	1.780	196P33306S4	1.868	196P33396S2	1.958	196P33396S4	2.046
	1000	.400 x 1 5/16	———	———	———	———	196P333910S2	2.222	196P333910S4	2.350

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 196P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
	100	.312 x 13/16	———	———	———	———	196P39391S2	1.804	196P39391S4	1.884
	200	.312 x 13/16	———	———	———	———	196P39392S2	1.892	196P39392S4	1.980
.039	400	.400 x 13/16	———	———	———	———	196P39394S2	1.980	196P39394S4	2.068
	600	.400 x 1 1/16	———	———	———	———	196P39396S2	2.024	196P39396S4	2.112
	1000	.562 x 1 1/16	———	———	———	———	196P393910S2	2.288	196P393910S4	2.416
	100	.312 x 7/8	196P47301S2	1.640	196P47301S4	1.720	196P47391S2	1.804	196P47391S4	1.884
	200	.312 x 7/8	196P47302S2	1.720	196P47302S4	1.808	196P47392S2	1.892	196P47392S4	1.980
.047	300	.312 x 7/8	196P47303S2	1.740	196P47303S4	1.828	196P47393S2	1.910	196P47393S4	2.002
	400	.400 x 7/8	196P47304S2	1.800	196P47304S4	1.888	196P47394S2	1.980	196P47394S4	2.068
	600	.400 x 1 1/8	196P47306S2	1.840	196P47306S4	1.928	196P47396S2	2.024	196P47396S4	2.112
	1000	.562 x 1 1/16	———	———	———	———	196P473910S2	2.288	196P473910S4	2.416
	200	.312 x 13/16	———	———	———	———	196P56392S2	1.892	196P56392S4	1.980
.056	400	.400 x 1 1/16	———	———	———	———	196P56394S2	1.980	196P56394S4	2.068
	600	.400 x 1 5/16	———	———	———	———	196P56396S2	2.156	196P56396S4	2.284
	1000	.562 x 1 5/16	———	———	———	———	196P563910S2	2.420	196P563910S4	2.548
	100	.312 x 7/8	196P68301S2	1.640	196P68301S4	1.728	196P68391S2	1.804	196P68391S4	1.892
	200	.312 x 7/8	196P68302S2	1.720	196P68302S4	1.808	196P68392S2	1.892	196P68392S4	1.980
.068	300	.400 x 7/8	196P68303S2	1.740	196P68303S4	1.828	196P68393S2	1.910	196P68393S4	2.002
	400	.400 x 1 1/8	196P68304S2	1.800	196P68304S4	1.888	196P68394S2	1.980	196P68394S4	2.068
	600	.400 x 1 3/8	196P68306S2	1.960	196P68306S4	2.088	196P68396S2	2.156	196P68396S4	2.284
	1000	.562 x 1 5/16	———	———	———	———	196P683910S2	2.420	196P683910S4	2.548
	100	.312 x 13/16	———	———	———	———	196P82391S2	1.848	196P82391S4	1.936
	200	.400 x 13/16	———	———	———	———	196P82392S2	1.914	196P82392S4	2.002
.082	400	.400 x 1 5/16	———	———	———	———	196P82394S2	2.112	196P82394S4	2.240
	600	.562 x 1 1/16	———	———	———	———	196P82396S2	2.200	196P82396S4	2.328
	1000	.562 x 1 5/16	———	———	———	———	196P823910S2	2.420	196P823910S4	2.580
	100	.312 x 7/8	196P10401S2	1.680	196P10401S4	1.768	196P10491S2	1.848	196P10491S4	1.936
	200	.400 x 7/8	196P10402S2	1.740	196P10402S4	1.808	196P10492S2	1.914	196P10492S4	2.002
.1	300	.400 x 1 1/8	196P10403S2	1.760	196P10403S4	1.828	196P10493S2	1.936	196P10493S4	2.024
	400	.400 x 1 3/8	196P10404S2	1.920	196P10404S4	1.888	196P10494S2	2.112	196P10494S4	2.240
	600	.562 x 1 1/8	196P10406S2	2.000	196P10406S4	2.088	196P10496S2	2.200	196P10496S4	2.328
	1000	.562 x 1 5/16	———	———	———	———	196P104910S2	2.420	196P104910S4	2.580
	100	.400 x 13/16	———	———	———	———	196P12491S2	1.848	196P12491S4	1.936
	200	.400 x 1 1/16	———	———	———	———	196P12492S2	1.980	196P12492S4	2.068
.12	400	.562 x 1 1/16	———	———	———	———	196P12494S2	2.200	196P12494S4	2.328
	600	.562 x 1 5/16	———	———	———	———	196P12496S2	2.332	196P12496S4	2.460
	1000	.670 x 1 5/16	———	———	———	———	196P124910S2	2.596	196P124910S4	2.876
	100	.400 x 7/8	196P15401S2	1.680	196P15401S4	1.768	196P15491S2	1.848	196P15491S4	1.936
	200	.400 x 1 1/8	196P15402S2	1.800	196P15402S4	1.888	196P15492S2	1.980	196P15492S4	2.068
.15	300	.400 x 1 3/8	196P15403S2	1.920	196P15403S4	2.008	196P15493S2	2.112	196P15493S4	2.240
	400	.562 x 1 1/8	196P15404S2	2.000	196P15404S4	2.128	196P15494S2	2.200	196P15494S4	2.328
	600	.562 x 1 3/8	196P15406S2	2.120	196P15406S4	2.248	196P15496S2	2.332	196P15496S4	2.460
	1000	.670 x 1 5/16	———	———	———	———	196P154910S2	2.596	196P154910S4	2.876
	100	.400 x 1 1/16	———	———	———	———	196P18491S2	1.980	196P18491S4	2.068
	200	.400 x 1 5/16	———	———	———	———	196P18492S2	2.112	196P18492S4	2.240
.18	400	.562 x 1 5/16	———	———	———	———	196P18494S2	2.332	196P18494S4	2.460
	600	.562 x 1 13/16	———	———	———	———	196P18496S2	2.640	196P18496S4	2.800
	1000	.750 x 2 1/16	———	———	———	———	196P184910S2	2.904	196P184910S4	3.124
	100	.400 x 1 1/8	196P22401S2	1.800	196P22401S4	1.888	196P22491S2	1.980	196P22491S4	2.068
	200	.400 x 1 3/8	196P22402S2	1.920	196P22402S4	2.048	196P22492S2	2.112	196P22492S4	2.240
.22	300	.562 x 1 1/8	196P22403S2	2.040	196P22403S4	2.168	196P22493S2	2.244	196P22493S4	2.372
	400	.562 x 1 3/8	196P22404S2	2.120	196P22404S4	2.252	196P22494S2	2.332	196P22494S4	2.460
	600	.562 x 1 7/8	196P22406S2	2.400	196P22406S4	2.680	196P22496S2	2.640	196P22496S4	2.800
	1000	.750 x 2 1/16	———	———	———	———	196P224910S2	2.904	196P224910S4	3.124
	100	.400 x 1 5/16	———	———	———	———	196P27491S2	2.200	196P27491S4	2.328
	200	.562 x 1 1/16	———	———	———	———	196P27492S2	2.240	196P27492S4	2.372
.27	400	.562 x 1 13/16	———	———	———	———	196P27494S2	2.552	196P27494S4	2.712
	600	.670 x 1 13/16	———	———	———	———	196P27496S2	2.948	196P27496S4	3.168
	1000	.750 x 2 9/16	———	———	———	———	196P274910S2	3.212	196P274910S4	3.492
	100	.400 x 1 3/8	196P33401S2	2.000	196P33401S4	2.128	196P33491S2	2.200	196P33491S4	2.328
	200	.562 x 1 1/8	196P33402S2	2.040	196P33402S4	2.168	196P33492S2	2.240	196P33492S4	2.372
.33	300	.562 x 1 3/8	196P33403S2	2.160	196P33403S4	2.288	196P33493S2	2.376	196P33493S4	2.504
	400	.562 x 1 7/8	196P33404S2	2.320	196P33404S4	2.480	196P33494S2	2.552	196P33494S4	2.712
	600	.670 x 1 7/8	196P33406S2	2.680	196P33406S4	2.900	196P33496S2	2.948	196P33496S4	3.168
	1000	.750 x 2 9/16	———	———	———	———	196P334910S2	3.212	196P334910S4	3.492
	100	.562 x 1 1/16	———	———	———	———	196P39491S2	2.288	196P39491S4	2.416
	200	.562 x 1 5/16	———	———	———	———	196P39492S2	2.332	196P39492S4	2.460
.39	400	.670 x 1 13/16	———	———	———	———	196P39494S2	2.948	196P39494S4	3.168
	600	.750 x 2 1/16	———	———	———	———	196P39496S2	3.080	196P39496S4	2.860
	1000	1.000 x 2 1/16	———	———	———	———	196P394910S2	3.344	196P394910S4	3.624
	100	.562 x 1 1/8	196P47401S2	2.080	196P47401S4	2.208	196P47491S2	2.288	196P47491S4	2.416
	200	.562 x 1 3/8	196P47402S2	2.120	196P47402S4	2.248	196P47492S2	2.332	196P47492S4	2.460
.47	300	.562 x 1 7/8	196P47403S2	2.580	196P47403S4	2.740	196P47493S2	2.838	196P47493S4	2.998
	400	.670 x 1 7/8	196P47404S2	2.680	196P47404S4	2.900	196P47494S2	2.948	196P47494S4	3.168
	600	.750 x 2 1/8	196P47406S2	2.800	196P47406S4	3.020	196P47496S2	3.080	196P47496S4	2.860
	1000	1.000 x 2 1/16	———	———	———	———	196P474910S2	3.344	196P474910S4	3.624
.56	100	.562 x 1 9/16	———	———	———	———	196P56491S2	2.464	196P56491S4	2.592
	200	.670 x 1 9/16	———	———	———	———	196P56492S2	2.640	196P56492S4	2.800
	100	.562 x 1 3/8	196P68401S2	2.240	196P68401S4	2.368	196P68491S2	2.464	196P68491S4	2.592
.68	200	.562 x 1 7/8	196P68402S2	2.400	196P68402S4	2.560	196P68492S2	2.640	196P68492S4	2.800
	300	.670 x 1 7/8	196P68403S2	2.680	196P68403S4	2.840	196P68493S2	2.680	196P68493S4	3.108
.82	100	.670 x 1 9/16	———	———	———	———	196P82491S2	2.640	196P82491S4	2.800
	200	.750 x 2 1/16	———	———	———	———	196P82492S2	2.970	196P82492S4	3.190
1.0	100	.562 x 1 7/8	196P10501S2	2.400	196P10501S4	2.560	196P10591S2	2.640	196P10591S4	2.800
	200	.670 x 1 7/8	196P10502S2	2.700	196P10502S4	1.920	196P10592S2	2.970	196P10592S4	3.190

*For Style 4 units add .0625" to diameter and 1/16" to length.

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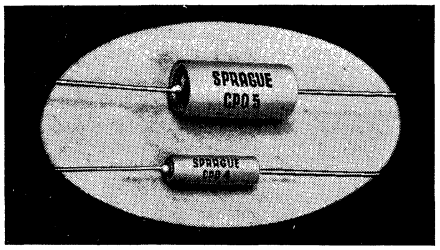
SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25A



- Impregnation with Vitamin Q assures capacitors exceed MIL-C-25A performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.

			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)
.001	600	.235 x ¾	CP04A1EF102M	$1.420	CP04A1EF102K	$1.560	CP04A1KF102M	$1.520	CP04A1KF102K	$1.672
0015	600	.235 x ¾	CP04A1EF152M	1.420	CP04A1EF152K	1.562	CP04A1KF152M	1.520	CP04A1KF152K	1.672
.0022	600	.235 x ¾	CP04A1EF222M	1.420	CP04A1EF222K	1.562	CP04A1KF222M	1.520	CP04A1KF222K	1.672
.0033	600	.235 x ¾	CP04A1EF332M	1.420	CP04A1EF332K	1.562	CP04A1KF332M	1.560	CP04A1KF332K	1.716
.0047	600	.235 x ¾	CP04A1EF472M	1.420	CP04A1EF472K	1.562	CP04A1KF472M	1.560	CP04A1KF472K	1.716
.0068	600	.235 x ¾	CP04A1EF682M	1.420	CP04A1EF682K	1.562	CP04A1KF682M	1.560	CP04A1KF682K	1.716
.01	400	.235 x ¾	CP04A1EE103M	1.420	CP04A1EE103K	1.540	CP04A1KE103M	1.560	CP04A1KE103K	1.716
	600	.312 x ⅞	CP04A1EF103M	1.440	CP04A1EF103K	1.584	CP04A1KF103M	1.600	CP04A1KF103K	1.760
.015	200	.235 x ¾	CP04A1EC153M	1.380	CP04A1EC153K	1.518	CP04A1KC153M	1.500	CP04A1KC153K	1.650
	600	.312 x ⅞	CP04A1EF153M	1.480	CP04A1EF153K	1.628	CP04A1KF153M	1.640	CP04A1KF153K	1.804
.022	200	.235 x ¾	CP04A1EC223M	1.380	CP04A1EC223K	1.518	CP04A1KC223M	1.500	CP04A1KC223K	1.650
	600	.312 x ⅞	CP04A1EF223M	1.520	CP04A1EF223K	1.672	CP04A1KF223M	1.640	CP04A1KF223K	1.804
.033	100	.235 x ¾	CP04A1EB333M	1.440	CP04A1EB333K	1.584	CP04A1KB333M	1.480	CP04A1KB333K	1.628
	400	.312 x ⅞	CP04A1EE333M	1.500	CP04A1EE333K	1.650	CP04A1KE333M	1.620	CP04A1KE333K	1.782
	600	.400 x ⅞	CP04A1EF333M	1.560	CP04A1EF333K	1.716	CP04A1KF333M	1.700	CP04A1KF333K	1.870
.047	200	.312 x ⅞	CP04A1EC473M	1.480	CP04A1EC473K	1.628	CP04A1KC473M	1.560	CP04A1KC473K	1.716
	400	.400 x ⅞	CP04A1EE473M	1.540	CP04A1EE473K	1.694	CP04A1KE473M	1.680	CP04A1KE473K	1.848
	600	.400 x 1⅛	CP04A1EF473M	1.560	CP04A1EF473K	1.716	CP04A1KF473M	1.720	CP04A1KF473K	1.892
.068	200	.312 x ⅞	CP04A1EC683M	1.480	CP04A1EC683K	1.628	CP04A1KC683M	1.600	CP04A1KC683K	1.760
	400	.400 x 1⅛	CP04A1EE683M	1.600	CP04A1EE683K	1.694	CP04A1KE683M	1.720	CP04A1KE683K	1.892
	600	.400 x 1⅜	CP04A1EF683M	1.680	CP04A1EF683K	1.848	CP04A1KF683M	1.800	CP04A1KF683K	1.980
.1	100	.312 x ⅞	CP04A1EB104M	1.480	CP04A1EB104K	1.628	CP04A1KB104M	1.600	CP04A1KB104K	1.760
	200	.400 x ⅞	CP04A1EC104M	1.500	CP04A1EC104K	1.650	CP04A1KC104M	1.640	CP04A1KC104K	1.804
	400	.400 x 1⅜	CP04A1EE104M	1.720	CP04A1EE104K	1.892	CP04A1KE104M	1.760	CP04A1KE104K	1.936
	600	.562 x 1⅛	CP04A1EF104M	1.760	CP04A1EF104K	1.936	CP04A1KF104M	1.920	CP04A1KF104K	2.112
.15	100	.400 x ⅞	CP04A1EB154M	1.580	CP04A1EB154K	1.738	CP04A1KB154M	1.680	CP04A1KB154K	1.848
	200	.400 x 1⅛	CP04A1EC154M	1.600	CP04A1EC154K	1.760	CP04A1KC154M	1.660	CP04A1KC154K	1.826
	400	.562 x 1⅛	CP04A1EE154M	1.880	CP04A1EE154K	2.068	CP04A1KE154M	1.920	CP04A1KE154K	2.112
	600	.562 x 1⅜	CP04A1EF154M	1.900	CP04A1EF154K	2.090	CP04A1KF154M	2.000	CP04A1KF154K	2.200
.22	100	.400 x 1⅜	CP04A1EB224M	1.640	CP04A1EB224K	1.804	CP04A1KB224M	1.680	CP04A1KB224K	1.848
	200	.400 x 1⅜	CP04A1EC224M	1.800	CP04A1EC224K	1.980	CP04A1KC224M	1.820	CP04A1KC224K	2.002
	400	.562 x 1⅜	CP04A1EE224M	2.000	CP04A1EE224K	2.200	CP04A1KE224M	2.040	CP04A1KE224K	2.244
	600	.562 x 1⅞	CP04A1EF224M	2.040	CP04A1EF224K	2.244	CP04A1KF224M	2.160	CP04A1KF224K	2.376
.33	100	.400 x 1⅜	CP04A1EB334M	1.880	CP04A1EB334K	2.068	CP04A1KB334M	1.920	CP04A1KB334K	2.112
	200	.562 x 1⅛	CP04A1EC334M	1.920	CP04A1EC334K	2.112	CP04A1KC334M	1.960	CP04A1KC334K	2.156
	400	.562 x 1⅞	CP04A1EE334M	2.020	CP04A1EE334K	2.222	CP04A1KE334M	2.080	CP04A1KE334K	2.288
	600	.670 x 1⅞	CP04A1EF334M	2.240	CP04A1EF334K	2.464	CP04A1KF334M	2.400	CP04A1KF334K	2.640
.47	100	.562 x 1⅛	CP04A1EB474M	2.000	CP04A1EB474K	2.200	CP04A1KB474M	2.040	CP04A1KB474K	2.244
	200	.562 x 1⅜	CP04A1EC474M	2.040	CP04A1EC474K	2.244	CP04A1KC474M	2.080	CP04A1KC474K	2.288
	400	.670 x 1⅜	CP04A1EE474M	2.464	CP04A1EE474K	2.710	CP04A1KE474M	2.480	CP04A1KE474K	2.728
	600	.750 x 2⅛	CP04A1EF474M	2.680	CP04A1EF474K	2.948	CP04A1KF474M	2.700	CP04A1KF474K	2.970
.68	100	.562 x 1⅜	CP04A1EB684M	2.080	CP04A1EB684K	2.288	CP04A1KB684M	2.120	CP04A1KB684K	2.332
	200	.562 x 1⅞	CP04A1EC684M	2.116	CP04A1EC684K	2.328	CP04A1KC684M	2.200	CP04A1KC684K	2.420
	400	.750 x 2⅛	CP04A1EE684M	2.280	CP04A1EE684K	3.630	CP04A1KE684M	3.300	CP04A1KE684K	3.630
	600	1.0 x 1⅞	CP04A1EF684M	3.360	CP04A1EF684K	3.696	CP04A1KF684M	3.360	CP04A1KF684K	3.696
1.0	100	.562 x 1⅞	CP04A1EB105M	2.520	CP04A1EB105K	2.772	CP04A1KB105M	2.160	CP04A1KB105K	2.376
	200	.670 x 1⅞	CP04A1EC105M	2.600	CP04A1EC105K	2.860	CP04A1KC105M	2.640	CP04A1KC105K	2.904
	400	1.0 x 1⅞	CP04A1EE105M	3.400	CP04A1EE105K	3.740	CP04A1KE105M	3.420	CP04A1KE105K	3.762

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SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.*	Net (1-9)
.001	600	.235 x ¾	CP04A1KF102K3	$1.672
.0012	600	.235 x ¾	CP04A1KF122K3	1.672
.0015	600	.235 x ¾	CP04A1KF152K3	1.672
.0018	600	.235 x ¾	CP04A1KF182K3	1.672
.0022	600	.235 x ¾	CP04A1KF222K3	1.672
.0027	600	.235 x ¾	CP04A1KF272K3	1.716
.0033	600	.235 x ¾	CP04A1KF332K3	1.716
.0039	600	.235 x ¾	CP04A1KF392K3	1.716
.0047	600	.235 x ¾	CP04A1KF472K3	1.716
.0056	600	.235 x ¾	CP04A1KF562K3	1.716
.0068	600	.235 x ¾	CP04A1KF682K3	1.716
.0082	400	.235 x ¾	CP04A1KE822K3	1.716
	600	.312 x ⅞	CP04A1KF822K3	1.760
.01	400	.235 x ¾	CP04A1KE103K3	1.716
	600	.312 x ⅞	CP04A1KF103K3	1.760
.012	200	.235 x ¾	CP04A1KC123K3	1.672
	600	.312 x ⅞	CP04A1KF123K3	1.804
.015	200	.235 x ¾	CP04A1KC153K3	1.650
	600	.312 x ⅞	CP041AKF153K3	1.804
	1000	.400 x ⅞	CP04A1KG153K3	2.068
.018	200	.235 x ¾	CP04A1KC183K3	1.650
	600	.312 x ⅞	CP04A1KF183K3	1.804
	1000	.400 x 1⅛	CP04A1KG183K3	2.068
.022	200	.235 x ¾	CP04A1KC223K3	1.650
	600	.312 x ⅞	CP04A1KF223K3	1.804
	1000	.400 x 1⅛	CP04A1KG223K3	2.068
.027	100	.235 x ¾	CP04A1KB273K3	1.628
	400	.312 x ⅞	CP04A1KE273K3	1.782
	600	.400 x ⅞	CP04A1KF273K3	1.870
	1000	.400 x 1⅜	CP04A1KG273K3	2.134
.033	100	.235 x ¾	CP04A1KB333K3	1.628
	400	.312 x ⅞	CP04A1KE333K3	1.782
	600	.400 x ⅞	CP04A1KF333K3	1.870
	1000	.400 x 1⅜	CP04A1KG333K3	2.134
.039	200	.312 x ⅞	CP04A1KC393K3	1.716
	400	.400 x ⅞	CP04A1KE393K3	1.848
	600	.400 x 1⅛	CP04A1KF393K3	1.892
	1000	.562 x 1⅛	CP04A1KG393K3	2.156
.047	200	.312 x ⅞	CP04A1KC473K3	1.716
	400	.400 x ⅞	CP04A1KE473K3	1.848
	600	.400 x 1⅛	CP041AKF473K3	1.892
	1000	.562 x 1⅛	CP04A1KG473K3	2.156
.056	200	.312 x ⅞	CP04A1KC563K3	1.760
	400	.400 x 1⅛	CP04A1KE563K3	1.892
	600	.400 x 1⅜	CP04A1KF563K3	1.980
	1000	.562 x 1⅜	CP04A1KG563K3	2.244
.068	200	.312 x ⅞	CP04A1KC683K3	1.760
	400	.400 x 1⅛	CP04A1KE683K3	1.892
	600	.400 x 1⅜	CP04A1KF683K3	1.980
	1000	.562 x 1⅜	CP04A1KG683K3	2.420
.082	100	.312 x ⅞	CP04A1KB823K3	1.760
	200	.400 x ⅞	CP04A1KC823K3	1.804
	400	.400 x 1⅜	CP04A1KE823K3	1.936
	600	.562 x 1⅛	CP04A1KF823K3	2.112
	1000	.562 x 1⅝	CP04A1KG823K3	2.376
.1	100	.312 x ⅞	CP04A1KB104K3	$1.760
	200	.400 x ⅞	CP04A1KC104K3	1.804
	400	.400 x 1⅜	CP04A1KE104K3	1.936
	600	.562 x 1⅛	CP04A1KF104K3	2.112
	1000	.562 x 1⅝	CP04A1KG104K3	2.376
.12	100	.400 x ⅞	CP04A1KB124K3	1.848
	200	.400 x 1⅛	CP04A1KC124K3	1.826
	400	.562 x 1⅛	CP04A1KE124K3	2.112
	600	.562 x 1⅜	CP04A1KF124K3	2.200
	1000	.670 x 1⅝	CP04A1KG124K3	2.464
.15	100	.400 x ⅞	CP04A1KB154K3	1.848
	200	.400 x 1⅛	CP04A1KC154K3	1.826
	400	.562 x 1⅛	CP04A1KE154K3	2.112
	600	.562 x 1⅜	CP04A1KF154K3	2.200
	1000	.670 x 1⅝	CP04A1KG154K3	2.464
.18	100	.400 x 1⅛	CP04A1KB184K3	1.848
	200	.400 x 1⅜	CP04A1KC184K3	2.002
	400	.562 x 1⅜	CP04A1KE184K3	2.244
	600	.562 x 1⅞	CP04A1KF184K3	2.376
	1000	.750 x 2⅛	CP04A1KG184K3	2.640
.22	100	.400 x 1⅛	CP04A1KB224K3	1.848
	200	.400 x 1⅜	CP04A1KC224K3	2.002
	400	.562 x 1⅜	CP04A1KE224K3	2.244
	600	.562 x 1⅞	CP04A1KF224K3	2.376
	1000	.750 x 2⅛	CP04A1KG224K3	2.640
.27	100	.400 x 1⅜	CP04A1KB274K3	2.112
	200	.562 x 1⅛	CP04A1KC274K3	2.156
	400	.562 x 1⅞	CP04A1KE274K3	2.288
	600	.670 x 1⅞	CP04A1KF274K3	2.640
	1000	.750 x 2⅝	CP04A1KG274K3	2.904
.33	100	.400 x 1⅜	CP04A1KB334K3	2.112
	200	.562 x 1⅛	CP04A1KC334K3	2.156
	400	.562 x 1⅞	CP04A1KE334K3	2.288
	600	.670 x 1⅞	CP04A1KF334K3	2.640
	1000	.750 x 2⅝	CP04A1KG334K3	2.904
.39	100	.562 x 1⅛	CP04A1KB394K3	2.244
	200	.562 x 1⅜	CP04A1KC394K3	2.288
	400	.670 x 1⅞	CP05A1KE394K3	2.728
	600	.750 x 2⅛	CP04A1KF394K3	2.970
	1000	1.000 x 2⅛	CP04A1KG394K3	3.234
.47	100	.562 x 1⅛	CP04A1KB474K3	2.244
	200	.562 x 1⅜	CP04A1KC474K3	2.288
	400	.670 x 1⅞	CP04A1KE474K3	2.728
	600	.750 x 2⅛	CP04A1KF474K3	2.970
	1000	1.000 x 2⅛	CP04A1KG474K3	3.234
.56	100	.562 x 1⅜	CP04A1K5B64K3	2.332
	200	.562 x 1⅞	CP04A1KC564K3	2.420
	400	.750 x 2⅛	CP04A1KE564K3	3.630
	600	1.000 x 1⅞	CP04A1KF564K3	3.696
.68	100	.562 x 1⅜	CP04A1KB684K3	2.332
	200	.562 x 1⅞	CP04A1KC684K3	2.420
	400	.750 x 2⅛	CP04A1KE684K3	3.630
	600	1.000 x 1⅞	CP04A1KF684K3	3.696
.82	100	.562 x 1⅞	CP04A1KB824K3	2.376
	200	.670 x 1⅞	CP04A1KC824K3	2.904
	400	1.000 x 1⅞	CP04A1KE824K3	3.762
1.0	100	.562 x 1⅞	CP05A1KB105K3	2.376
	200	.670 x 1⅞	CP05A1KC105K3	2.904
	400	1.000 x 1⅞	CP04A1KE105K3	3.762

*For Vibration Grade 1, change last digit of cat. no. to 1

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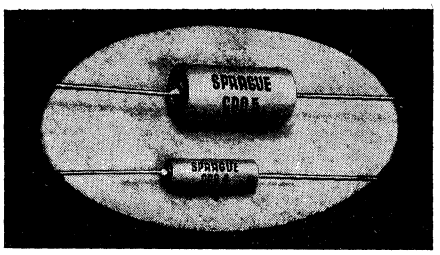
SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25A



- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.

			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
μF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
.001	600	.298 x 13/16	CP05A1EF102M	$1.484	CP05A1EF102K	$1.626	CP05A1KF102M	$1.592	CP05A1KF102K	$1.744
.0015	600	.298 x 13/16	CP05A1EF152M	1.484	CP05A1EF152K	1.626	CP05A1KF152M	1.592	CP05A1KF152K	1.744
.0022	600	.298 x 13/16	CP05A1EF222M	1.484	CP05A1EF222K	1.626	CP05A1KF222M	1.592	CP05A1KF222K	1.744
.0033	600	.298 x 13/16	CP05A1EF332M	1.484	CP05A1EF332K	1.626	CP05A1KF332M	1.632	CP05A1KF332K	1.788
.0047	600	.298 x 13/16	CP05A1EF472M	1.484	CP05A1EF472K	1.626	CP05A1KF472M	1.632	CP05A1KF472K	1.788
.0068	600	.298 x 13/16	CP05A1EF682M	1.484	CP05A1EF862K	1.626	CP05A1KF682M	1.632	CP05A1KF682K	1.788
.01	400	.298 x 13/16	CP05A1EE103M	1.464	CP05A1EE103K	1.604	CP05A1KE103M	1.632	CP05A1KE103K	1.796
	600	.375 x 15/16	CP05A1EF103M	1.504	CP05A1EF103K	1.648	CP05A1KF103M	1.680	CP05A1KF103K	1.840
.015	200	.298 x 13/16	CP05A1EC153M	1.504	CP05A1EC153K	1.648	CP05A1KC153M	1.572	CP05A1KC153K	1.722
	600	.375 x 15/16	CP05A1EF153M	1.544	CP05A1EF153K	1.692	CP05A1KF153M	1.720	CP05A1KF153K	1.884
.022	200	.298 x 13/16	CP05A1EC223M	1.564	CP05A1EC223K	1.714	CP05A1KC223M	1.572	CP05A1KC223K	1.722
	600	.375 x 15/16	CP05A1EF223M	1.584	CP05A1EF223K	1.736	CP05A1KF223M	1.720	CP05A1KF223K	1.884
	100	.298 x 13/16	CP05A1EB333M	1.504	CP05A1EB333K	1.648	CP05A1KB333M	1.552	CP05A1KB333K	1.700
.033	400	.375 x 15/16	CP05A1EE333M	1.564	CP05A1EE333K	1.714	CP05A1KE333M	1.700	CP05A1KE333K	1.862
	600	.463 x 15/16	CP05A1EF333M	1.932	CP05A1EF333K	1.942	CP05A1KF333M	1.788	CP05A1KF333K	1.958
	200	.375 x 15/16	CP05A1EC473M	1.544	CP05A1EC473K	1.648	CP05A1KC473M	1.560	CP05A1KC473K	1.796
.047	400	.463 x 15/16	CP05A1EE473M	1.612	CP05A1EE473K	1.766	CP05A1KE473M	1.768	CP05A1KE473K	1.936
	600	.463 x 15/16	CP05A1EF473M	1.632	CP05A1EF473K	1.788	CP05A1KF473M	1.808	CP05A1KF473K	1.980
	200	.375 x 15/16	CP05A1EC683M	1.544	CP05A1EC683K	1.648	CP05A1KC683M	1.640	CP05A1KC683K	1.840
068	400	.463 x 13/16	CP05A1EE683M	1.672	CP05A1EE683K	1.832	CP05A1KE683M	1.808	CP05A1KE683K	1.980
	600	.463 x 17/16	CP05A1EF683M	1.752	CP05A1EF683K	1.880	CP05A1KF683M	1.888	CP05A1KF683K	2.068
	100	.375 x 15/16	CP05A1EB104M	1.544	CP05A1EB104K	1.692	CP05A1KB104M	1.680	CP05A1KB104K	1.840
.1	200	.463 x 15/16	CP05A1EC104M	1.572	CP05A1EC104K	1.722	CP05A1KC104M	1.728	CP05A1KC104K	1.892
	400	.463 x 17/16	CP05A1EE104M	1.792	CP05A1EE104K	1.964	CP05A1KE104M	1.848	CP05A1KE104K	2.024
	600	.625 x 13/16	CP05A1EF104M	1.856	CP05A1EF104K	2.032	CP05A1KF104M	2.048	CP05A1KF104K	2.240
	100	.463 x 15/16	CP05A1EB154M	1.652	CP05A1EB154K	1.810	CP05A1KB154M	1.768	CP05A1KB154K	1.936
	200	.463 x 13/16	CP05A1EC154M	1.672	CP05A1EC154K	1.830	CP05A1KC154M	1.748	CP05A1KC154K	1.914
.15	400	.625 x 13/16	CP05A1EE154M	1.976	CP05A1EE154K	2.164	CP05A1KE154M	2.048	CP05A1KE154K	2.332
	600	.625 x 17/16	CP05A1EF154M	1.996	CP05A1EF154K	2.188	CP05A1KF154M	2.128	CP05A1KF154K	2.328
	100	.463 x 13/16	CP05A1EB224M	1.712	VP05A1EB224K	1.876	CP05A1KB224M	1.768	CP05A1KB224K	1.936
.22	200	.463 x 17/16	CP05A1EC224M	1.872	CP05A1EC224K	2.052	CP05A1KC224M	1.908	CP05A1KC224K	2.090
	400	.625 x 17/16	CP05A1EE224M	2.072	CP05A1EE224K	2.296	CP05A1KE224M	2.168	CP05A1KE224K	2.372
	600	.625 x 115/16	CP05A1EF224M	2.136	CP05A1EF224K	2.340	CP05A1KF224M	2.288	CP05A1KF224K	2.504
	100	.463 x 17/16	CP05A1EB334M	1.952	CP05A1EB334K	2.140	CP05A1KB334M	2.008	CP05A1KB334K	2.200
	200	.625 x 13/16	CP05A1EC334M	2.016	CP05A1EC334K	2.208	CP05A1KC334M	2.088	CP05A1KC334K	2.284
.33	400	.625 x 115/16	CP05A1EE334M	2.116	CP05A1EE334K	2.318	CP05A1KE334M	2.208	CP05A1KE334K	2.416
	600	.733 x 115/16	CP05A1EF334M	2.380	CP05A1EF334K	2.604	CP05A1KF334M	2.560	CP05A1KF334K	2.768
	100	.625 x 13/16	CP05A1EB474M	2.096	CP05A1EB474K	2.296	CP05A1KB474M	2.048	CP05A1KB474K	2.372
.47	200	.625 x 13/16	CP05A1EC474M	2.136	CP05A1EC474K	2.340	CP05A1KC474M	2.208	CP05A1KC474K	2.416
	400	.733 x 115/16	CP05A1EE474M	2.604	CP05A1EE474K	2.850	CP05A1KE474M	2.640	CP05A1KE474K	2.948
	600	.813 x 23/16	CP05A1EF474M	2.840	CP05A1EF474K	3.108	CP05A1KF474M	2.840	CP05A1KF474K	3.190
	100	.625 x 17/16	CP05A1EB684M	2.176	CP05A1EB684K	2.384	CP05A1KB684M	2.248	CP05A1KB684K	2.460
.68	200	.625 x 115/16	CP05A1EC684M	2.212	CP05A1EC684K	2.424	CP05A1KC684M	2.328	CP05A1KC684K	2.548
	400	.813 x 23/16	CP05A1EE684M	3.440	CP05A1EE684K	3.768	CP05A1KE684M	4.520	CP05A1KE684K	3.850
	600	1.063 x 115/16	CP05A1EF684M	3.520	CP05A1EF684K	3.852	CP05A1KF684M	3.640	CP05A1KF684K	3.976
	100	.625 x 115/16	CP05A1EB105M	2.616	CP05A1EB105K	2.868	CP05A1KB105M	2.288	CP05A1KB105K	2.504
1.0	200	.733 x 115/16	CP05A1EC105M	2.740	CP05A1EC105K	3.000	CP05A1KC105M	2.800	CP05A1KC105K	3.064
	400	1.063 x 115/16	CP05A1EE105M	3.600	CP05A1EE105K	3.940	CP05A1KE105M	3.700	CP05A1KE105K	4.042

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SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.*	Net (1-9)
.001	600	.298 x 13/16	CP05A1KF102K3	$1.744
.0012	600	.298 x 13/16	CP05A1KF122K3	1.744
.0015	600	.298 x 13/16	CP05A1KF152K3	1.744
.0018	600	.298 x 13/16	CP05A1KF182K3	1.744
.0022	600	.298 x 13/16	CP05A1KF222K3	1.744
.0027	600	.298 x 13/16	CP05A1KF272K3	1.778
.0033	600	.298 x 13/16	CP05A1KF332K3	1.788
.0039	600	.298 x 13/16	CP05A1KF392K3	1.788
.0047	600	.298 x 13/16	CP05A1KF472K3	1.788
.0056	600	.298 x 13/16	CP05A1KF562K3	1.788
.0068	600	.298 x 13/16	CP05A1KF682K3	1.788
.0082	400	.298 x 13/16	CP05A1KE822K3	1.796
	600	.375 x 15/16	CP05A1KF822K3	1.840
.01	400	.298 x 13/16	CP05A1KE103K3	1.796
	600	.375 x 15/16	CP05A1KF103K3	1.840
.012	200	.298 x 13/16	CP05A1KC123K3	1.722
	600	.375 x 15/16	CP05A1KF123K3	1.884
.015	200	.298 x 13/16	CP05A1KC153K3	1.722
	600	.375 x 15/16	CP05A1KF153K3	1.884
	1000	.463 x 15/16	CP05A1KG153K3	2.156
.018	200	.298 x 13/16	CP05A1KC183K3	1.722
	600	.375 x 15/16	CP05A1KF183K3	1.884
	1000	.463 x 13/16	CP05A1KG183K3	2.156
.022	200	.298 x 13/16	CP05A1KC223K3	1.722
	600	.375 x 15/16	CP05A1KF223K3	1.884
	1000	.463 x 13/16	CP05A1KG223K3	2.156
.027	100	.298 x 13/16	CP05A1KB273K3	1.700
	400	.375 x 15/16	CP05A1KE273K3	1.862
	600	.463 x 15/16	CP05A1KF273K3	1.958
	1000	1.463 x 17/16	CP05A1KG273K3	2.222
.033	100	.298 x 13/16	CP05A1KB333K3	1.700
	400	.375 x 15/16	CP05A1KE333K3	1.862
	600	.463 x 15/16	CP05A1KF333K3	1.958
	1000	1.463 x 17/16	CP05A1KG333K3	2.222
.039	200	.375 x 15/16	CP05A1KC393K3	1.796
	400	.463 x 15/16	CP05A1KE393K3	1.936
	600	.463 x 13/16	CP05A1KF293K3	1.980
	1000	.625 x 13/16	CP05A1KG393K3	2.284
.047	200	.375 x 15/16	CP05A1KC473K3	1.796
	400	.463 x 15/16	CP05A1KE473K3	1.936
	600	.463 x 13/16	CP05A1KF473K3	1.980
	1000	.625 x 13/16	CP05A1KG473K3	2.284
.056	200	.375 x 15/16	CP05A1KC563K3	1.840
	400	.463 x 13/16	CP05A1KE563K3	1.972
	600	.463 x 17/16	CP05A1KF563K3	2.068
	1000	.625 x 17/16	CP05A1KG563K3	2.372
.068	200	.375 x 15/16	CP05A1KC683K3	1.840
	400	.463 x 13/16	CP05A1KE683K3	1.980
	600	.463 x 17/16	CP05A1KF683K3	2.068
	1000	.625 x 17/16	CP05A1KG683K3	2.372
.082	100	.375 x 15/16	CP05A1KB823K3	1.840
	200	.463 x 15/16	CP05A1KC823K3	1.892
	400	.463 x 17/16	CP05A1KE823K3	2.024
	600	.625 x 13/16	CP05A1KF823K3	$2.240
	1000	.625 x 111/16	CP05A1KG823K3	2.504
.1	100	.463 x 15/16	CP05A1KB104K3	1.840
	200	.463 x 15/16	CP05A1KC104K3	1.892
	400	.463 x 17/16	CP05A1KE104K3	2.024
	600	.625 x 13/16	CP05A1KF104K3	2.240
	1000	.625 x 111/16	CP05A1KG104K3	2.504
.12	100	.463 x 15/16	CP05A1KB124K3	1.936
	200	.463 x 13/16	CP05A1KC124K3	1.914
	400	.625 x 13/16	CP05A1KE124K3	2.332
	600	.625 x 17/16	CP05A1KF124K3	2.328
	1000	.733 x 111/16	CP05A1KG124K3	2.580
.15	100	.463 x 15/16	CP05A1KB154K3	1.936
	200	.463 x 1 1/8	CP05A1KC154K3	1.914
	400	.625 x 13/16	CP05A1KE154K3	2.332
	600	.625 x 17/16	CP05A1KF154K3	2.328
	1000	.733 x 111/16	CP05A1KG154K3	2.580
.18	100	.463 x 13/16	CP05A1KB184K3	1.936
	200	.463 x 17/16	CP05A1KC184K3	2.090
	400	.625 x 17/16	CP05A1KE184K3	2.372
	600	.625 x 115/16	CP05A1KF184K3	2.504
	1000	.813 x 23/16	CP05A1KG184K3	2.860
.22	100	.463 x 13/16	CP05A1KB224K3	1.936
	200	.463 x 17/16	CP05A1KC224K3	2.090
	400	.625 x 17/16	CP05A1KE224K3	2.372
	600	.625 x 115/16	CP05A1KF224K3	2.504
	1000	.813 x 23/16	CP05A1KG224K3	2.860
.27	100	.463 x 17/16	CP05A1KB274K3	2.200
	200	.625 x 13/16	CP05A1KC274K3	2.284
	400	.625 x 115/16	CP05A1KE274K3	2.416
	600	.733 x 115/16	CP05A1KF274K3	2.768
	1000	.813 x 211/16	CP05A1KG274K3	3.124
.33	100	.463 x 17/16	CP05A1KB334K3	2.200
	200	.625 x 13/16	CP05A1KC334K3	2.284
	400	.625 x 115/16	CP05A1KE334K3	2.416
	600	.733 x 115/16	CP05A1KF334K3	2.768
	1000	.813 x 211/16	CP05A1KG334K3	3.124
.39	100	.625 x 13/16	CP05A1KB394K3	2.372
	200	.625 x 17/16	CP05A1KC394K3	2.416
	400	.733 x 115/16	CP05A1KE394K3	2.948
	600	.813 x 23/16	CP05A1KF394K3	3.190
	1000	1.063 x 23/16	CP05A1KG394K3	3.514
.47	100	.625 x 13/16	CP05A1KB474K3	2.372
	200	.625 x 17/16	CP05A1KC474K3	2.416
	400	.733 x 115/16	CP05A1KE474K3	2.948
	600	.813 x 23/16	CP05A1KF474K3	3.190
	1000	1.063 x 23/16	CP05A1KG474K3	3.514
.56	100	.625 x 17/16	CP05A1KB564K3	2.460
	200	.625 x 115/16	CP05A1KC564K3	2.548
	400	.813 x 23/16	CPo5A1KE564K3	3.850
	600	1.063 x 115/16	CP05A1KF564K3	3.976
.68	100	.625 x 17/16	CP05A1KB684K3	2.460
	200	.625 x 115/16	CP05A1KC684K3	2.548
	400	.813 x 23/16	CP05A1KE684K3	3.850
	600	1.063 x 115/16	CP05A1KF684K3	3.976
.82	100	.625 x 113/16	CP05A1KB824K3	2.504
	200	.733 x 115/16	CP05A1KC824K3	3.064
	400	1.063 x 115/16	CP05A1KE824K3	4.042
1.0	100	.625 x 115/16	CP05A1KB105K3	2.504
	200	.733 x 115/16	CP05A1KC105K3	3.064
	400	1.063 x 115/16	CP05A1KE105K3	4.042

*For Vibration Grade 1, change last digit of Catalog Number to 1.

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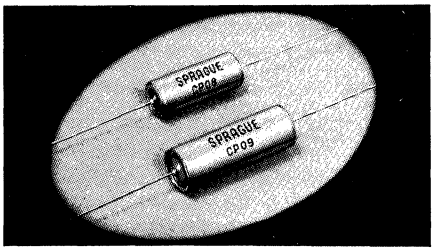
SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.



μF	WVDC	Size D. x L.	Characteristic E —55°C to +85°C ±20% Tol. Cat. No.	Net (1-9)	±10% Tol. Cat. No.	Net (1-9)	Characteristic K —55°C to +125°C ±20% Tol. Cat. No.	Net (1-9)	±10% Tol. Cat. No.	Net (1-9)
.001	600	.235 x ¾	CP08A1EF102M	$1.764	CP08A1EF102K	$1.940	CP08A1KF102M	$1.976	CP08A1KF102K	$2.174
.0015	600	.235 x ¾	CP08A1EF152M	1.764	CP08A1EF152K	1.940	CP08A1KF152M	1.976	CP08A1KF152K	2.174
.022	600	.235 x ¾	CP08A1EF222M	1.764	CP08A1EF222K	1.940	CP08A1KF222M	1.976	CP08A1KF222K	2.174
.0033	400	.235 x ¾	CP08A1EE332M	1.764	CP08A1EE332K	1.940	CP08A1KE332M	1.976	CP08A1KE332K	2.174
	600	.312 x ⅞	CP08A1EF332M	1.840	CP08A1EF332K	2.024	CP08A1KF332M	2.060	CP08A1KF332K	2.266
.0047	200	.235 x ¾	CP08A1EC472M	1.712	CP08A1EC472K	1.883	CP08A1KC472M	1.920	CP08A1KC472K	2.112
	600	.312 x ⅞	CP08A1EF472M	1.848	CP08A1EF472K	2.033	CP08A1KF472M	2.068	CP08A1KF472K	2.275
.0068	200	.235 x ¾	CP08A1EC682M	1.712	CP08A1EC682K	1.883	CP08A1KC682M	1.920	CP08A1KC682K	2.112
	600	.312 x ⅞	CP08A1EF682M	1.860	CP08A1EF682K	2.046	CP08A1KF682M	2.084	CP08A1KF682K	2.292
.01	100	.235 x ¾	CP08A1EB103M	1.688	CP08A1EB103K	1.857	CP08A1KB103M	1.892	CP08A1KB103K	2.081
	600	.312 x ⅞	CP08A1EF103M	1.868	CP08A1EF103K	2.055	CP08A1KF103M	2.092	CP08A1KF103K	2.301
.015	100	.235 x ¾	CP08A1EB153M	1.700	CP08A1EB153K	1.870	CP08A1KB153M	1.904	CP08A1KB153K	2.094
	400	.312 x ⅞	CP08A1EE153M	1.868	CP08A1EE153K	2.055	CP08A1KE153M	2.092	CP08A1KE153K	2.301
	600	.400 x ⅞	CP08A1EF153M	1.940	CP08A1EF153K	2.134	CP08A1KF153M	2.176	CP08A1KF153K	2.394
.022	200	.312 x ⅞	CP08A1EC223M	1.816	CP08A1EC223K	1.998	CP08A1KC223M	2.036	CP08A1KC223K	2.240
	600	.400 x ⅞	CP08A1EF223M	1.952	CP08A1EF223K	2.147	CP08A1KF223M	2.188	CP08A1KF223K	2.407
.033	200	.312 x ⅞	CP08A1EC333M	1.828	CP08A1EC333K	2.011	CP08A1KC333M	2.048	CP08A1KC333K	2.253
	400	.400 x ⅞	CP08A1EE333M	1.920	CP08A1EE333K	2.112	CP08A1KE333M	2.152	CP08A1KE333K	2.367
	600	.400 x 1⅛	CP08A1EF333M	1.964	CP08A1EF333K	2.160	CP08A1KF333M	2.200	CP08A1KF333K	2.420
.047	100	.312 x ⅞	CP08A1EB473M	1.784	CP08A1EB473K	1.962	CP08A1KB473M	2.000	CP08A1KB473K	2.200
	200	.400 x ⅞	CP08A1EC473M	1.868	CP08A1EC473K	2.055	CP08A1KC473M	2.092	CP08A1KC473K	2.301
	400	.400 x 1⅛	CP08A1EE473M	1.952	CP08A1EE473K	2.147	CP08A1KE473M	2.188	CP08A1KE473K	2.407
	600	.400 x 1⅜	CP08A1EF473M	2.040	CP08A1EF473K	2.244	CP08A1KF473M	2.288	CP08A1KF473K	2.517
.068	200	.400 x ⅞	CP08A1EC683M	1.884	CP08A1EC683K	2.072	CP08A1KC683M	2.108	CP08A1KC683K	2.289
	400	.400 x 1⅜	CP08A1EE683M	2.016	CP08A1EE683K	2.218	CP08A1KE683M	2.260	CP08A1KE683K	2.486
	600	.562 x 1⅛	CP08A1EF683M	2.168	CP08A1EF683K	2.385	CP08A1KF683M	2.428	CP08A1KF683K	2.671
.1	100	.400 x ⅞	CP08A1EB104M	1.828	CP08A1EB104K	2.011	CP08A1KB104M	2.048	CP08A1KB104K	2.253
	200	.400 x 1⅛	CP08A1EC104M	1.888	CP08A1EC104K	2.077	CP08A1KC104M	2.116	CP08A1KC104K	2.328
	400	.562 x 1⅛	CP08A1EE104M	2.120	CP08A1EE104K	2.332	CP08A1KE104M	2.372	CP08A1KE104K	2.609
	600	.562 x 1⅜	CP08A1EF104M	2.244	CP08A1EF104K	2.468	CP08A1KF104M	2.512	CP08A1KF104K	2.763
.15	100	.400 x 1⅛	CP08A1EB154M	1.860	CP08A1EB154K	2.046	CP08A1KB154M	2.084	CP08A1KB154K	2.292
	200	.400 x 1⅜	CP08A1EC154M	1.996	CP08A1EC154K	2.196	CP08A1KC154M	2.236	CP08A1KC154K	2.460
	400	.562 x 1⅜	CP08A1EE154M	2.244	CP08A1EE154K	2.468	CP08A1KE154M	2.516	CP08A1KE154K	2.768
	600	.562 x 1⅝	CP08A1EF154M	2.396	CP08A1EF154K	2.636	CP08A1KF154M	2.684	CP08A1KF154K	2.952
.22	100	.400 x 1⅜	CP08A1EB224M	1.940	CP08A1EB224K	2.134	CP08A1KB224M	2.176	CP08A1KB224K	2.398
	200	.562 x 1⅛	CP08A1EC224M	2.120	CP08A1EC224K	2.332	CP08A1KC224M	2.372	CP08A1KC224K	2.609
	400	.562 x 1⅝	CP08A1EE224M	2.352	CP08A1EE224K	2.587	CP08A1KE224M	2.636	CP08A1KE224K	2.900
	600	.670 x 1⅝	CP08A1EF224M	2.648	CP08A1EF224K	2.913	CP08A1KF224M	2.964	CP08A1KF224K	3.260
.33	100	.562 x 1⅛	CP08A1EB334M	2.088	CP08A1EB334K	2.297	CP08A1KB334M	2.340	CP08A1KB334K	2.574
	200	.562 x 1⅜	CP08A1EC334M	2.244	CP08A1EC334K	2.468	CP08A1KC334M	2.516	CP08A1KC334K	2.768
	400	.670 x 1⅝	CP08A1EE334M	2.584	CP08A1EE334K	2.842	CP08A1KE334M	2.892	CP08A1KE334K	3.181
	600	.750 x 2⅛	CP08A1EF334M	2.768	CP08A1EF334K	3.045	CP08A1KF334M	3.096	CP08A1KF334K	3.406
.47	100	.562 x 1⅜	CP08A1EB474M	2.208	CP08A1EB474K	2.429	CP08A1KB474M	2.472	CP08A1KB474K	2.719
	200	.562 x 1⅝	CP08A1EC474M	2.376	CP08A1EC474K	2.614	CP08A1KC474M	2.660	CP08A1KC474K	2.926
	400	.750 x 2⅛	CP08A1EE474M	2.728	CP08A1EE474K	3.001	CP08A1KE474M	2.056	CP08A1KE474K	3.362
	600	.750 x 2⅜	CP08A1EF474M	2.936	CP08A1EF474K	3.230	CP08A1KF474M	3.288	CP08A1KF474K	3.617
68	100	.562 x 1⅝	CP08A1EB684M	2.328	CP08A1EB684K	2.559	CP08A1KB684M	2.608	CP08A1KB684K	2.869
	200	.670 x 1⅝	CP08A1EC684M	2.584	CP08A1EC684K	2.842	CP08A1KC684M	2.892	CP08A1KC684K	3.181
1.0	100	.670 x 1⅝	CP08A1EB105M	2.584	CP08A1EB105K	2.842	CP08A1KB105M	2.892	CP08A1KB105K	3.181
	200	.750 x 2⅛	CP08A1EC105M	2.708	CP08A1EC105K	2.979	CP08A1KC105M	3.032	CP08A1KC105K	3.335

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SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

(± 10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.*	Net (1-9)
.001	600	.235 x ¾	CP08A1KF102K3	$1.760
	1000	.400 x ⅞	CP08A1KG102K3	2.024
.0012	600	.235 x ¾	CP08A1KF122K3	1.760
	1000	.400 x ⅞	CP08A1KG122K3	2.024
.0015	600	.235 x ¾	CP08A1KF152K3	1.760
	1000	.400 x ⅞	CP08A1KG152K3	2.024
.0018	600	.235 x ¾	CP08A1KF182K3	1.760
	1000	.400 x ⅞	CP08A1KG182K3	2.024
.0022	600	.235 x ¾	CP08A1KF222K3	1.760
	1000	.400 x ⅞	CP08A1KG222K3	2.024
	400	.235 x ¾	CP08A1KE272K3	1.760
.0027	600	.312 x ⅞	CP08A1KF272K3	1.804
	1000	.400 x ⅞	CP08A1KG272K3	2.024
	400	.235 x ¾	CP08A1KE332K3	1.760
.0033	600	.312 x ⅞	CP08A1KF332K3	1.804
	1000	.400 x ⅞	CP08A1KG332K3	2.024
	200	.235 x ¾	CP08A1KC392K3	1.694
.0039	600	.312 x ⅞	CP08A1KF392K3	1.870
	1000	.400 x ⅞	CP08A1KG392K3	2.134
	200	.235 x ¾	CP08A1KC472K3	1.694
.0047	600	.312 x ⅞	CP08A1KF472K3	1.870
	1000	.400 x ⅞	CP08A1KG472K3	2.134
	200	.235 x ¾	CP08A1KC562K3	1.716
.0056	600	.312 x ⅞	CP08A1KF562K3	1.892
	1000	.400 x ⅞	CP08A1KG562K3	2.156
	200	.235 x ¾	CP08A1KC682K3	1.716
.0068	600	.312 x ⅞	CP08A1KF682K3	1.892
	1000	.400 x ⅞	CP08A1KG682K3	2.156
	100	.235 x ¾	CP08A1KB822K3	1.672
0082	600	.312 x ⅞	CP08A1KF822K3	1.914
	1000	.400 x ⅞	CP08A1KG822K3	2.178
	100	.235 x ¾	CP08A1KB103K3	1.672
.01	600	.312 x ⅞	CP08A1KF103K3	1.914
	1000	.400 x ⅞	CP08A1KG103K3	2.178
	100	.235 x ¾	CP08A1KB123K3	1.672
.012	400	.312 x ⅞	CP08A1KE123K3	1.892
	600	.400 x ⅞	CP08A1KF123K3	1.936
	1000	.400 x 1⅛	CP08A1KG123K3	2.200
	100	.235 x ¾	CP08A1KB153K3	1.672
.015	400	.312 x ⅞	CP08A1KE153K3	1.892
	600	.400 x ⅞	CP08A1KF153K3	1.936
	1000	.400 x 1⅛	CP08A1KG153K3	2.200
	200	.312 x ⅞	CP08A1KC183K3	1.848
.018	600	.400 x ⅞	CP08A1KF183K3	1.958
	1000	.400 x 1⅜	CP08A1KG183K3	2.222
	200	.312 x ⅞	CP08A1KC223K3	1.848
.022	600	.400 x ⅞	CP08A1KF223K3	1.958
	1000	.400 x 1⅜	CP08A1KG223K3	2.222
	200	.312 x ⅞	CP08A1KC273K3	1.848
.027	400	.400 x ⅞	CP08A1KE273K3	1.936
	600	.400 x 1⅛	CP08A1KF273K3	1.958
	1000	.562 x 1⅛	CP08A1KG273K3	2.222
	200	.312 x ⅞	CP08A1KC333K3	$1.848
.033	400	.400 x ⅞	CP08A1KE333K3	1.936
	600	.400 x 1⅛	CP08A1KF333K3	1.958
	1000	.562 x 1⅛	CP08A1KG333K3	2.222
	100	.312 x ⅞	CP08A1KB393K3	1.804
	200	.400 x ⅞	CP08A1KC393K3	1.892
.039	400	.400 x 1⅛	CP08A1KE393K3	1.980
	600	.400 x 1⅜	CP08A1KF393K3	2.024
	1000	.562 x 1⅜	CP08A1KG393K3	2.288
	100	.312 x ⅞	CP08A1KB473K3	1.804
	200	.400 x ⅞	CP08A1KC473K3	1.892
.047	400	.400 x 1⅛	CP08A1KE473K3	1.980
	600	.400 x 1⅜	CP08A1KF473K3	2.024
	1000	.562 x 1⅜	CP08A1KG473K3	2.288
	200	.400 x ⅞	CP08A1KC563K3	1.892
.056	400	.400 x 1⅜	CP08A1KE563K3	1.980
	600	.562 x 1⅛	CP08A1KF563K3	2.156
	1000	.562 x 1⅝	CP08A1KG563K3	2.420
	200	.400 x ⅞	CP08A1KC683K3	1.892
.068	400	.400 x 1⅜	CP08A1KE683K3	1.980
	600	.562 x 1⅛	CP08A1KF683K3	2.156
	1000	.562 x 1⅝	CP08A1KG683K3	2.420
	100	.400 x ⅞	CP08A1KB823K3	1.848
	200	.400 x 1⅛	CP08A1KC823K3	1.914
.082	400	.562 x 1⅛	CP08A1KE823K3	2.112
	600	.562 x 1⅜	CP08A1KF823K3	2.200
	1000	.670 x 1⅝	CP08A1KG823K3	2.420
	100	.400 x ⅞	CP08A1KB104K3	1.848
	200	.400 x 1⅛	CP08A1KC104K3	1.914
.1	400	.562 x 1⅛	CP08A1KE104K3	2.112
	600	.312 x ⅞	CP08A1KF104K3	2.200
	1000	.670 x 1⅝	CP08A1KG104K3	2.420
	100	.400 x 1⅛	CP08A1KB124K3	1.848
	200	.400 x 1⅜	CP08A1KC124K3	1.980
.12	400	.562 x 1⅜	CP08A1KE124K3	2.200
	600	.400 x ⅞	CP08A1KF124K3	2.332
	1000	.670 x 1⅞	CP08A1KG124K3	2.596
	100	.400 x 1⅛	CP08A1KB154K3	1.848
	200	.400 x 1⅜	CP08A1KC154K3	1.980
.15	400	.562 x 1⅜	CP08A1KE154K3	2.200
	600	.562 x 1⅜	CP08A1KF154K3	2.332
	1000	.670 x 1⅞	CP08A1KG154K3	2.596
	100	.400 x 1⅜	CP08A1KB184K3	1.980
	200	.562 x 1⅛	CP08A1KC184K3	2.112
.18	400	.562 x 1⅝	CP08A1KE184K3	2.332
	600	.400 x ⅞	CP08A1KF184K3	2.640
	1000	.750 x 2⅛	CP08A1KG184K3	2.904
	100	.400 x 1⅜	CP08A1KB224K3	1.980
	200	.562 x 1⅛	CP08A1KC224K3	2.112
.22	400	.562 x 1⅝	CP08A1KE224K3	2.332
	600	.400 x ⅞	CP08A1KF224K3	2.640
	1000	.750 x 2⅛	CP08A1KG224K3	2.904
	100	.562 x 1⅛	CP08A1KB274K3	2.200
	200	.562 x 1⅜	CP08A1KC274K3	2.240
.27	400	.670 x 1⅝	CP08A1KE274K3	2.552
	600	.400 x 1⅛	CP08A1KF274K3	2.948
	1000	1.000 x 2⅛	CP08A1KG274K3	3.212

*For Vibration Grade 1, change last digit in Catalog Number to 1.

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Net

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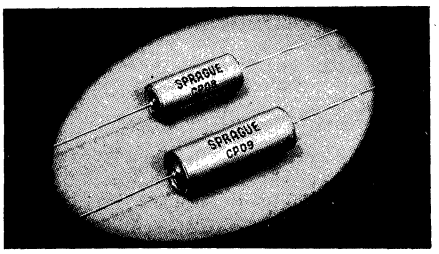
SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.



			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
μF	WVDC	Size D. x L.	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)
.001	600	.298 x 13/16	CP09A1EF102M	$1.524	CP09A1EF102K	$1.670	CP09A1KF102M	$1.672	CP09A1KF102K	$1.830
.0015	600	.298 x 13/16	CP09A1EF152M	1.524	CP09A1EF152K	1.670	CP09A1KF152M	1.672	CP09A1KF152K	1.830
.0022	600	.298 x 13/16	CP09A1EF222M	1.524	CP09A1EF222K	1.670	CP09A1KF222M	1.672	CP09A1KF222K	1.830
.0033	400	.298 x 13/16	CP09A1EE332M	1.504	CP09A1EE332K	1.648	CP09A1KE332M	1.672	CP09A1KE332K	1.832
	600	.375 x 15/16	CP09A1EF332M	1.544	CP09A1EF332K	1.692	CP09A1KF332M	1.720	CP09A1KF332K	1.884
.0047	200	.298 x 13/16	CP09A1EC472M	1.452	CP09A1EC472K	1.591	CP09A1KC472M	1.612	CP09A1KC472K	1.766
	600	.375 x 15/16	CP09A1EF472M	1.564	CP09A1EF472K	1.714	CP09A1KF472M	1.780	CP09A1KF472K	1.950
.0068	200	.298 x 13/16	CP09A1EC682M	1.452	CP09A1EC682K	1.591	CP09A1KC682M	1.632	CP09A1KC682K	1.788
	600	.375 x 15/16	CP09A1EF682M	1.584	CP09A1EF682K	1.736	CP09A1KF682M	1.800	CP09A1KF682K	1.972
.01	100	.298 x 13/16	CP09A1EB103M	1.544	CP09A1EB103K	1.692	CP09A1KB103M	1.592	CP09A1KB103K	1.744
	600	.375 x 15/16	CP09A1EF103M	1.604	CP09A1EF103K	1.718	CP09A1KF103M	1.820	CP09A1KF103K	1.994
	100	.298 x 13/16	CP09A1EB153M	1.544	CP09A1EB153K	1.648	CP09A1KB153M	1.592	CP09A1KB153K	1.744
.015	400	.375 x 15/16	CP09A1EE153M	1.584	CP09A1EE153K	1.736	CP09A1KE153M	1.800	CP09A1KE153K	1.972
	600	.463 x 15/16	CP09A1EF153M	1.632	CP09A1EF153K	1.788	CP09A1KF153M	1.848	CP09A1KF153K	2.024
.022	200	.375 x 15/16	CP09A1EC223M	1.524	CP09A1EC223K	1.670	CP09A1KC223M	1.760	CP09A1KC223K	1.928
	600	.463 x 15/16	CP09A1EF223M	1.632	CP09A1EF223K	1.788	CP09A1KF223M	1.868	CP09A1KF223K	2.046
	200	.375 x 15/16	CP09A1EC333M	1.544	CP09A1E333K	1.692	CP09A1KC333M	1.760	CP09A1KC333K	1.928
.033	400	.463 x 15/16	CP09A1EE333M	1.584	CP09A1EE333K	1.744	CP09A1KE333M	1.848	CP09A1KE333K	2.024
	600	.463 x 13/16	CP09A1EF333M	1.672	CP09A1EF333K	1.832	CP09A1KF333M	1.868	CP09A1KF333K	2.046
	100	.375 x 15/16	CP09A1EB473M	1.584	CP09A1EB473K	1.758	CP09A1KB473M	1.720	CP09A1KB473K	1.884
.047	200	.463 x 15/16	CP09A1EC473M	1.632	CP09A1EC473K	1.788	CP09A1KC473M	1.808	CP09A1KC473K	1.980
	400	.463 x 13/16	CP09A1EE473M	1.672	CP09A1EE473K	1.832	CP09A1KE473M	1.888	CP09A1KE473K	2.068
	600	.463 x 17/16	CP09A1EF473M	1.752	CP09A1EF473K	1.920	CP09A1KF473M	1.928	CP09A1KF473K	2.112
	200	.463 x 15/16	CP09A1EC683M	1.632	CP09A1EC683K	1.788	CP09A1KC683M	1.808	CP09A1KC683K	1.980
.068	400	.463 x 17/16	CP09A1EE683M	1.732	CP09A1EE683K	1.898	CP09A1KE683M	1.880	CP09A1KE683K	2.068
	600	.625 x 13/16	CP09A1EF683M	1.856	CP09A1EF683K	2.032	CP09A1KF683M	2.088	CP09A1KF683K	2.284
	100	.463 x 15/16	CP09A1EB104M	1.672	CP09A1EB104K	1.832	CP09A1KB104M	1.768	CP09A1KB104K	1.936
	200	.463 x 13/16	CP09A1EC104M	1.676	CP09A1EC104K	1.836	CP09A1KC104M	1.828	CP09A1KC104K	2.002
.1	400	.625 x 13/16	CP09A1EE104M	1.816	CP09A1EE104K	1.988	CP09A1KE104M	2.048	CP09A1KE104K	2.240
	600	.625 x 17/16	CP09A1EF104M	1.936	CP09A1EF104K	2.120	CP09A1KF104M	2.128	CP09A1KF104K	2.328
	100	.463 x 13/16	CP09A1EB154M	1.712	CP09A1EB154K	1.876	CP09A1KB154M	1.768	CP09A1KB154K	1.936
.15	200	.463 x 17/16	CP09A1EC154M	1.772	CP09A1EC154K	1.942	CP09A1KC154M	1.888	CP09A1KC154K	2.068
	400	.625 x 17/16	CP09A1EE154M	1.996	CP09A1EE154K	2.186	CP09A1KE154M	2.128	CP09A1KE154K	2.328
	600	.625 x 111/16	CP09A1EF154M	2.056	CP09A1EF154K	2.472	CP09A1KF154M	2.248	CP09A1KF154K	2.460
	100	.463 x 17/16	CP09A1EB224M	1.712	CP09A1EB224K	1.876	CP09A1KB224M	1.888	CP09A1KB224K	2.068
.22	200	.625 x 13/16	CP09A1EC224M	1.936	CP09A1EC224K	2.120	CP09A1KC224M	2.048	CP09A1KC224K	2.240
	400	.625 x 111/16	CP09A1EE224M	2.136	CP09A1EE224K	2.340	CP09A1KE224M	2.252	CP09A1KE224K	2.460
	600	.733 x 111/16	CP09A1EF224M	2.300	CP09A1EF224K	2.516	CP09A1KF224M	2.680	CP09A1KF224K	2.800
	100	.625 x 13/16	CP09A1EB334M	1.976	CP09A1EB334K	2.164	CP09A1KB334M	2.128	CP09A1KB334K	2.328
	200	.625 x 17/16	CP09A1EC334M	2.096	CP09A1EC334K	2.296	CP09A1KC334M	2.168	CP09A1KC334K	2.372
.33	400	.733 x 111/16	CP09A1EE334M	2.260	CP09A1EE334K	2.472	CP09A1KE334M	2.480	CP09A1KE334K	2.712
	600	.813 x 23/16	CP09A1EF334M	2.800	CP09A1EF334K	3.000	CP09A1KF334M	2.900	CP09A1KF334K	3.168
	100	.625 x 17/16	CP09A1EB474M	2.096	CP09A1EB474K	2.296	CP09A1KB474M	2.208	CP09A1KB474K	2.416
.47	200	.625 x 111/16	CP09A1EC474M	2.136	CP09A1EC474K	2.340	CP09A1KC474M	2.248	CP09A1KC474K	2.460
	400	.813 x 23/16	CP09A1EE474M	2.800	CP09A1EE474K	3.064	CP09A1KE474M	2.900	CP09A1KE474K	3.168
	600	.813 x 27/16	CP09A1EF474M	2.920	CP09A1EF474K	3.196	CP09A1KF474M	3.029	CP09A1KF474K	2.860
.68	100	.625 x 111/16	CP09A1EB684M	2.216	CP09A1EB684K	2.428	CP09A1KB684M	2.368	CP09A1KB684K	2.592
	200	.733 x 111/16	CP09A1EC684M	2.500	CP09A1EC684K	2.736	CP09A1KC684M	2.560	CP09A1KC684K	2.800
1.0	100	.733 x 111/16	CP09A1EB105M	2.460	CP09A1EB105K	2.692	CP09A1KB105M	2.560	CP09A1KB105K	2.800
	200	.813 x 23/16	CP09A1EC105M	2.840	CP09A1EC105K	3.108	CP09A1KC105M	2.920	CP09A1KC105K	3.160

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Net

SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

μF	WVDC	D. x L.	Cat. No.	Net (1-9)
.001	600	.298 x 13/16	CP09A1KF102K3	$1.830
	1000	.463 x 15/16	CP09A1KG102K3	2.112
.0012	600	.298 x 13/16	CP09A1KF122K3	1.830
	1000	.463 x 15/16	CP09A1KG122K3	2.112
.0015	600	.298 x 13/16	CP09A1KF152K3	1.830
	1000	.463 x 15/16	CP09A1KG152K3	2.112
.0018	600	.298 x 13/16	CP09A1KF182K3	1.830
	1000	.463 x 15/16	CP09A1KG182K3	2.112
.0022	600	.298 x 13/16	CP09A1KF222K3	1.830
	1000	.463 x 15/16	CP09A1KG222K3	2.112
.0027	400	.298 x 13/16	CP09A1KE272K3	1.832
	600	.375 x 15/16	CP09A1KF272K3	1.884
	1000	.463 x 15/16	CP09A1KG272K3	2.112
.0033	400	.298 x 13/16	CP09A1KE332K3	1.832
	600	.375 x 15/16	CP09A1KF332K3	1.884
	1000	.463 x 15/16	CP09A1KG332K3	2.112
.0039	200	.298 x 13/16	CP09A1KC392K3	1.766
	600	.375 x 15/16	CP09A1KF393K3	1.950
	1000	.463 x 15/16	CP09A1KG393K3	2.222
.0047	200	.298 x 13/16	CP09A1KC472K3	1.766
	600	.375 x 15/16	CP09A1KF472K3	1.950
	1000	.463 x 15/16	CP09A1KG472K3	2.222
.0056	200	.298 x 13/16	CP09A1KC562K3	1.788
	600	.375 x 15/16	CP09A1KF562K3	1.972
	1000	.463 x 15/16	CP09A1KG562K3	2.244
.0068	200	.298 x 13/16	CP09A1KC682K3	1.788
	600	.375 x 15/16	CP09A1KF682K3	1.972
	1000	.463 x 15/16	CP09A1KG682K3	2.244
.0082	100	.298 x 13/16	CP09A1KB822K3	1.744
	600	.375 x 15/16	CP09A1KF822K3	1.994
	1000	.463 x 15/16	CP09A1KG822K3	2.266
.01	100	.298 x 13/16	CP09A1KB103K3	1.744
	600	.375 x 15/16	CP09A1KF103K3	1.994
	1000	463 x 15/16	CP09A1KG103K3	2.266
.012	100	.298 x 13/16	CP09A1KB123K3	1.744
	400	.375 x 15/16	CP09A1KE123K3	1.972
	600	.463 x 15/16	CP09A1KF123K3	2.024
	1000	.463 x 13/16	CP09A1KG123K3	2.288
.015	100	.298 x 13/16	CP09A1KB153K3	1.744
	400	.375 x 15/16	CP09A1KE153K3	1.972
	600	.463 x 15/16	CP09A1KF153K3	2.024
	1000	.463 x 13/16	CP09A1KG153K3	2.288
.018	200	.375 x 15/16	CP09A1KC183K3	1.928
	600	.463 x 15/16	CP09A1KF183K3	2.046
	1000	.463 x 17/16	CP09A1KG183K3	2.310
.022	200	.375 x 15/16	CP09A1KC223K3	1.928
	600	.463 x 15/16	CP09A1KF223K3	2.046
	1000	.463 x 17/16	CP09A1KG223K3	2.310
.027	200	.375 x 15/16	CP09A1KC273K3	$1.928
	400	.463 x 15/16	CP09A1KE273K3	2.024
	600	.463 x 13/16	CP09A1KF273K3	2.046
	1000	.625 x 13/16	CP09A1KG273K3	2.350
.033	200	.375 x 15/16	CP09A1KC333K3	1.928
	400	.463 x 15/16	CP09A1KE333K3	2.024
	600	.463 x 13/16	CP09A1KF333K3	2.046
	1000	.625 x 13/16	CP09A1KG333K3	2.350
.039	100	.375 x 15/16	CP09A1KB393K3	1.884
	200	.463 x 15/16	CP09A1KC393K3	1.980
	400	.463 x 13/16	CP09A1KE393K3	2.068
	600	.463 x 17/16	CP09A1KF393K3	2.112
	1000	.625 x 17/16	CP09A1KG393K3	2.416
.047	100	.375 x 15/16	CP09A1KB473K3	1.884
	200	.463 x 15/16	CP09A1KC473K3	1.980
	400	.463 x 13/16	CP09A1KE473K3	2.068
	600	.463 x 17/16	CP09A1KF473K3	2.112
	1000	.625 x 17/16	CP09A1KG473K3	2.416
.056	200	.463 x 15/16	CP09A1KC563K3	1.980
	400	.463 x 17/16	CP09A1KE563K3	2.068
	600	.625 x 13/16	CP09A1KF563K3	2.284
	1000	.625 x 1 1/16	CP09A1KG563K3	2.548
.068	200	.463 x 15/16	CP09A1KC683K3	1.980
	400	.463 x 17/16	CP09A1KE683K3	2.068
	600	.625 x 13/16	CP09A1KF683K3	2.284
	1000	.625 x 1 1/16	CP09A1KG683K3	2.548
.082	100	.463 x 15/16	CP09A1KB823K3	1.936
	200	.463 x 13/16	CP09A1KC823K3	2.002
	400	.625 x 13/16	CP09A1KE823K3	2.240
	600	.625 x 17/16	CP09A1KF823K3	2.328
	1000	.733 x 1 1/16	CP09A1KG823K3	2.580
.1	100	.463 x 15/16	CP09A1KB104K3	1.936
	200	.463 x 13/16	CP09A1KC104K3	2.002
	400	.625 x 13/16	CP09A1KE104K3	2.240
	600	.625 x 17/16	CP09A1KF104K3	2.328
	1000	.733 x 1 1/16	CP09A1KG104K3	2.580
.12	100	.463 x 13/16	CP09A1KB124K3	1.936
	200	.463 x 17/16	CP09A1KC124K3	2.068
	400	.625 x 17/16	CP09A1KE124K3	2.328
	600	.625 x 1 1/16	CP09A1KF124K3	2.460
	1000	.733 x 1 15/16	CP09A1KG124K3	2.876
.15	100	.463 x 13/16	CP09A1KB154K3	1.936
	200	.463 x 17/16	CP09A1KC154K3	2.068
	400	.625 x 17/16	CP09A1KE154K3	2.328
	600	.625 x 1 1/16	CP09A1KF154K3	2.460
	1000	.733 x 1 15/16	CP09A1KG154K3	2.876
.18	100	.463 x 17/16	CP09A1KB184K3	2.068
	200	.625 x 13/16	CP09A1KC184K3	2.240
	400	.625 x 1 1/16	CP09A1KE184K3	2.460
	600	.733 x 1 1/16	CP09A1KF184K3	2.800
	1000	.813 x 2 3/16	CP09A1KG184K3	3.124
.22	100	.463 x 17/16	CP09A1KB224K3	2.068
	200	.625 x 13/16	CP09A1KC224K3	2.240
	400	.625 x 1 1/16	CP09A1KE224K3	2.460
	600	.733 x 1 1/16	CP09A1KF224K3	2.800
	1000	.813 x 2 3/16	CP09A1KG224K3	3.124

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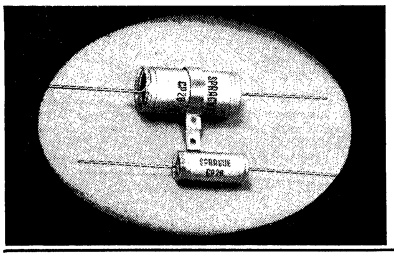
SPRAGUE CAPACITORS

MIL-C-25A CAPACITORS — TYPES CP26 and CP28



- Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A
- Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.
- Hermetically sealed for protection against leakage and contamination
- Meet temperature characteristic E (—55°C to +85°C operation)
- Capacitor sections are insulated from metal cases
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M and subtract $.025 from unit net price.

TYPE CP26 (without Mounting Bracket)

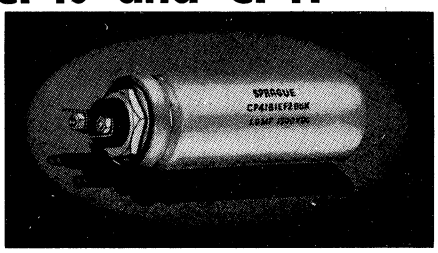
μF	Volts	Diam. x Length	Cat. No.	Net Each (1-24)
.006	600	½ x 1 5/16	CP26A1EF602K	$ .906
.01	600	½ x 1 5/16	CP26A1EF103K	.906
.02	600	½ x 1 13/16	CP26A1EF203K	.919
.05	600	11/16 x 1 11/16	CP26A1EF503K	.998
.5	200	1 1/16 x 2 5/16	CP26A1EC504K	1.797

TYPE CP28 (Radial Mounting Bracket)

μF	Volts	Diam. x Length	Cat. No.	Net Each (1-24)
.1	600	11/16 x 2 1/16	CP28A1EF104K	$1.109
.25	600	1 1/16 x 2 5/16	CP28A1EF254K	1.498
.5	600	1 1/16 x 2 13/16	CP28A1EF504K	1.851

MIL-C-25A CAPACITORS — TYPES CP40 and CP41

- Designed and manufactured for service life and performance characteristics exceeding MIL requirements
- Type CP40 has screw and nut connection on positive terminal, can is negative — Type CP41 has two solder-lug terminals, with capacitor section insulated from metal case
- Impregnated with specially processed mineral oil for characteristic E operation — Will withstand wide temperature variations (—55°C to +85°C)
- Hermetically sealed in metal cases, with threaded screw necks for mounting purposes
- For prices on quantities from 10 to 99 pieces, see your Sprague Industrial Distributor.



NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

TYPE CP40 (One Terminal)

μF	Volts	Diam. x Length	Cat. No.	Net Each (1-9)
2.0	600	1 ½ x 3⅜	CP40C2EF205K	$4.619
4.0	600	1 ½ x 5¼	CP40C2EF405K	5.554

TYPE CP41 (Two Terminals)

μF	Volts	Diam. x Length	Cat. No.	Net Each (1-9)
2.0	600	1 ½ x 3⅜	CP41B1EF204K	$4.789
4.0	600	1 ½ x 5¼	CP41B1EF405K	5.724

MIL-C-25A CAPACITORS—TYPE CP53

- Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A
- Hermetically sealed, with silicone rubber compression terminals
- Rated for—55°C to +85°C operation
- Drawn metal cases have mounting flanges as integral part of containers
- Single and dual capacitance units have insulated sections — triple capacitance units have grounded cases
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.

NOTE: Capacitors listed below have capacitance tolerances of +20%, —10% (V) or ±10% (K). For ±20% units, change last letter in catalog number from K to M or V to M.

μF	Volts	L. x W. x H.	Cat. No.	Net Each (1-9)
Single Capacitance				
.05	600	1 13/16 x 1 x ¾	CP53B1EF503K	$1.792
.05	1000	1 13/16 x 1 x ¾	CP53B1EG503K	1.840
.1	600	1 13/16 x 1 x ¾	CP53B1EF104K	1.849
.1	1000	1 13/16 x 1 x ¾	CP53B1EG104K	1.956
.25	600	1 13/16 x 1 x ¾	CP53B1EF254K	1.912
.25	1000	1 13/16 x 1 x ⅞	CP53B1EG254K	2.022
.5	400	1 13/16 x 1 x ⅞	CP53B1EE504K	2.019
.5	600	1 13/16 x 1 x 1	CP53B1EF504K	2.066
.5	1000	2 x 1¾ x ⅞	CP53B1EG504K	2.161
1.0	600	2 x 1¾ x 1	CP53B1EF105K	2.410
1.0	1000	2 x 2 x 1⅛	CP53B1EG105K	2.901
2.0	100	2 x 1¾ x ⅞	CP53B1EB205K	2.639
2.0	200	2 x 2 x 1	CP53B1EC205K	2.895
2.0	600	2 x 2 x 1⅛	CP53B1EF205K	3.216
4.0	100	2 x 2 x 1⅛	CP53B1EB405K	3.267

μF	Volts	L. x W. x H.	Cat. No.	Net Each (1-9)
Dual Capacitance				
.05 + .05	600	1 13/16 x 1 x ¾	CP53B4EF503V	$2.476
.05 + .05	1000	1 13/16 x 1 x ¾	CP53B4EG503V	2.526
.1 + .1	600	1 13/16 x 1 x ¾	CP53B4EF104V	2.507
.1 + .1	1000	1 13/16 x 1 x ⅞	CP53B4EG104V	2.529
.25 + .25	600	1 13/16 x 1 x 1	CP53B4EF254V	2.589
.25 + .25	1000	2 x 1¾ x ⅞	CP53B4EG254V	2.832
.5 + .5	600	2 x 1¾ x 1	CP53B4EF504V	2.945
.5 + .5	1000	2 x 2 x 1⅛	CP53B4EG504V	3.711
1.0 + 1.0	600	2 x 2 x 1⅛	CP53B4EF105V	3.487
Triple Capacitance				
.05 + .05 + .05	600	1 13/16 x 1 x ¾	CP53B5EF503V	2.819
.1 + .1 + .1	600	1 13/16 x 1 x ⅞	CP53B5EF104V	2.876
.5 + .5 + .5	600	2 x 2 x 1⅛	CP53B5EF504V	3.881

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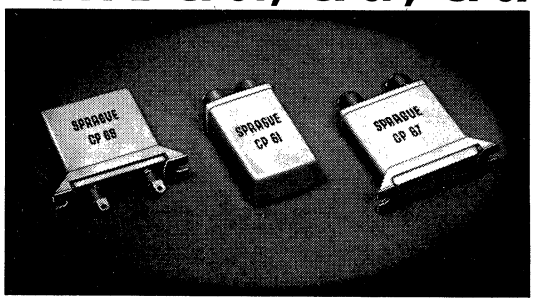
SPRAGUE CAPACITORS

TYPE CP61, CP67, CP69, CP91 CAPACITORS to MIL-C-25A

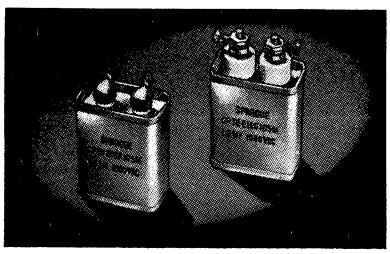


- Mineral Oil Impregnated for Minimum Capacitance Change with Temperature
- Hermetically Sealed in Drawn Metal Cases
- Have Silicone Rubber Compression Terminals for Positive Prevention Against Entrance of Moisture or Leakage of Impregnant
- Designed and Manufactured for Service Life Beyond Specification Requirements
- Units Listed are Most Popular Ratings. Complete Military Line Available from Sprague
- CP61 and CP91 require separate mounting brackets.
- CP67 and CP69 have integral channel brackets
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor

NOTE: These units have capacitance tolerances of ±10% (K) or +20, −10% (V). For ±20% units, change the last letter in the catalog number from K to M or V to M.

µF	WVDC	CAT. NO.	SIZE	NET EA. (1-9)	Mounting Brackets* CAT. NO.
TYPE CP61					
.05	600	CP61B1EF503K	1 5/16 x 1 1/16 x 1 1/16	$1.752	CP06-FA1
.1	600	CP61B1EF104K	1 5/16 x 1 1/16 x 1 3/8	1.869	CP06-FA2
.25	600	CP61B1EF254K	1 5/16 x 1 1/16 x 1 5/8	1.920	CP06-FA3
.5	600	CP61B1EF504K	1 5/16 x 1 1/16 x 2	1.998	CP06-FA4
1.0	600	CP61B1EF105K	1 5/16 x 1 1/16 x 2 1/2	2.235	CP06-FA5
.1 + .1	600	CP61B6EF104K	1 5/16 x 1 1/16 x 1 5/8	2.439	CP06-FA3
.25 + .25	600	CP61B6EF254V	1 5/16 x 1 1/16 x 2	2.580	CP06-FA4
.5 + .5	600	CP61B6EF504V	1 5/16 x 1 1/16 x 2 3/4	2.733	CP06-FA6
TYPE CP91					
.05	600	CP91B1EF503K	1 5/16 x 5/8 x 1 1/16		CP091-FB1
.1	600	CP91B1EF104K	1 5/16 x 5/8 x 1 3/8		CP091-FB2
.25	600	CP91B1EF254K	1 5/16 x 5/8 x 1 5/8	Prices	CP091-FB3
.5	600	CP91B1EF504K	1 5/16 x 5/8 x 2	upon	CP091-FB4
1.0	600	CP91B1EF105K	1 5/16 x 5/8 x 2 3/4	request	CP091-FB6
.1 + .1	600	CP91B6EF104V	1 5/16 x 5/8 x 1 5/8		CP091-FB3
.25 + .25	600	CP91B6EF254V	1 5/16 x 5/8 x 2		CP091-FB4
.5 + .5	600	CP91B6EF504V	1 5/16 x 5/8 x 2 3/4		CP091-FB6
TYPE CP67 Terminals opposite channel bracket					
.1	600	CP67B1EF104K	1 3/4 x 4 1/64 x 1 1/16	2.235	Integral
.25	600	CP67B1EF254K	1 3/4 x 4 1/64 x 1 1/2	2.298	Channel
.5	600	CP67B1EF504K	1 3/4 x 4 1/64 x 2	2.400	Brackets
1.0	600	CP67B1EF105K	1 3/4 x 4 1/64 x 2 3/4	2.631	
TYPE CP69 Terminals on same end as channel bracket					
.05	600	CP69B1EF503K	1 3/4 x 4 1/64 x 1 1/16	2.133	
.1	600	CP69B1EF104K	1 3/4 x 4 1/64 x 1 1/16	2.235	Integral
.25	600	CP69B1EF254K	1 3/4 x 4 1/64 x 1 1/2	2.298	Channel
.5	600	CP69B1EF504K	1 3/4 x 4 1/64 x 2	2.400	Brackets
1.0	600	CP69B1EF105K	1 3/4 x 4 1/64 x 2 3/4	2.631	

*Footed Brackets are listed: for spade type change F in Catalog No. to S



TYPE CP70 CAPACITORS to MIL-C-25A

- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Mineral Oil to Withstand Severe Operating Conditions
- Char. F Units Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Prices on Quantities From 10 to 99 Pieces, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of ±10%. For ±20% tolerance, change the last letter in the catalog number from K to M.

		Char. E (E Term.)		Net Ea.	Char. F (B Term.)		Net Ea.	Char. E (B Term.)		Net Ea.
µF	WVDC	Cat. No.	W x T x H	(1-9)	Cat. No.	W x T x H	(1-9)	Cat. No.	W x T x H	(1-9)
.1	1000	CP70E1EG104K	1 13/16 x 1 1/16 x 1 5/8	$ 2.705	———	———	———	———	———	———
.1	2000	CP70E1EJ104K	2 1/2 x 1 3/16 x 2 1/2	4.129	———	———	———	———	———	———
.25	1000	CP70E1EG254K	1 13/16 x 1 1/16 x 2 1/4	3.058	———	———	———	———	———	———
.25	2000	CP70E1EJ254K	2 1/2 x 1 3/16 x 2 1/2	4.470	———	———	———	———	———	———
.5	600	CP70E1EF504K	1 13/16 x 1 1/16 x 2 1/4	2.919	———	———	———	———	———	———
.5	1000	CP70E1EG504K	1 13/16 x 1 1/16 x 2 1/4	3.245	———	———	———	CP70B1EG504K	1 13/16 x 1 1/16 x 2 1/4	$ 3.108
.5	1500	CP70E1EH504K	1 13/16 x 1 1/16 x 2 7/8	3.950	———	———	———	———	———	———
.5	2000	CP70E1EJ504K	2 1/2 x 1 3/16 x 2 7/8	4.644	———	———	———	———	———	———
.5	2500	CP70E1EK504K	2 1/2 x 1 3/16 x 3 7/8	6.987	———	———	———	———	———	———
1.0	600	CP70E1EF105K	1 13/16 x 1 1/16 x 2 1/4	3.614	———	———	———	CP70B1EF105K	1 13/16 x 1 1/16 x 2 1/4	3.058
1.0	1000	CP70E1EG105K	1 13/16 x 1 1/16 x 2 7/8	4.138	———	———	———	CP70B1EG105K	1 13/16 x 1 1/16 x 2 7/8	3.676
1.0	1500	CP70E1EH105K	1 13/16 x 1 1/16 x 4 3/4	4.643	———	———	———	———	———	———
1.0	2000	CP70E1EJ105K	2 1/2 x 1 3/16 x 4 3/4	5.670	———	———	———	———	———	———
1.0	2500	CP70E1EK105K	3 3/4 x 1 3/4 x 3 7/8	7.970	———	———	———	———	———	———
2.0	600	CP70E1EF205K	1 13/16 x 1 1/16 x 3 1/4	4.288	CP70B1FF205K	1 13/16 x 1 1/16 x 2 7/8	$ 3.770	CP70B1EF205K	1 13/16 x 1 1/16 x 3 1/4	3.963
2.0	1000	CP70E1EG205K	1 13/16 x 1 1/16 x 4 3/4	5.405	CP70B1FG205K	1 13/16 x 1 1/16 x 3 7/8	4.502	CP70B1EG205K	1 13/16 x 1 1/16 x 4 3/4	4.726
2.0	1500	CP70E1EH205K	2 1/2 x 1 3/16 x 4 3/4	6.535	———	———	———	CP70B1EH205K	2 1/2 x 1 3/16 x 4 3/4	5.509
2.0	2000	CP70E1EJ205K	3 3/4 x 1 1/4 x 4 3/4	6.707	———	———	———	———	———	———
2.0	2500	CP70E1EK205K	3 3/4 x 2 1/4 x 4 3/4	12.884	———	———	———	———	———	———
4.0	600	CP70E1EF405K	2 1/2 x 1 3/16 x 3 7/8	5.675	CP70B1FF405K	2 1/2 x 1 3/16 x 3 1/2	5.258	CP70B1EF405K	2 1/2 x 1 3/16 x 3 7/8	5.522
4.0	1000	CP70E1EG405K	3 3/4 x 1 1/4 x 3 7/8	6.844	CP70B1FG405K	2 1/2 x 1 3/16 x 4 3/4	6.225	CP70B1EG405K	3 3/4 x 1 1/4 x 3 7/8	6.383
4.0	1500	CP70E1EH405K	3 3/4 x 1 3/4 x 4 1/4	8.770	———	———	———	CP70B1EH405K	3 3/4 x 1 3/4 x 4 1/4	8.202
4.0	2000	CP70E1EJ405K	3 3/4 x 2 1/4 x 5 1/8	9.451	———	———	———	———	———	———
4.0	2500	CP70E1EK405K	4 5/16 x 3 3/4 x 4 3/8	17.957	———	———	———	———	———	———
6.0	600	CP70E1EF605K	3 3/4 x 1 1/4 x 3 7/8	6.865	CP70B1FF605K	2 1/2 x 1 3/16 x 4 3/4	6.231	CP70B1EF605K	3 3/4 x 1 1/4 x 3 7/8	6.546
6.0	1000	CP70E1EG605K	3 3/4 x 1 3/4 x 4	8.461	CP70B1FG605K	3 3/4 x 1 1/4 x 4 3/4	7.747	CP70B1EG605K	3 3/4 x 1 3/4 x 4	8.130
6.0	1500	CP70E1EH605K	3 3/4 x 2 1/4 x 4 3/4	10.661	———	———	———	CP70B1EH605K	3 3/4 x 2 1/4 x 4 3/4	10.529
8.0	600	CP70E1EF805K	3 3/4 x 1 1/4 x 4 1/4	8.424	CP70B1FF805K	3 3/4 x 1 1/4 x 3 7/8	7.751	CP70B1EF805K	3 3/4 x 1 1/4 x 4 1/4	8.139
8.0	1000	CP70E1EG805K	3 3/4 x 1 3/4 x 4 3/4	9.055	CP70B1FG805K	3 3/4 x 1 3/4 x 3 7/8	9.156	CP70B1EG805K	3 3/4 x 1 3/4 x 4 3/4	8.930
8.0	1500	CP70E1EH805K	3 3/4 x 2 1/2 x 5 3/4	13.066	———	———	———	CP70B1EH805K	3 3/4 x 2 1/2 x 5 3/4	12.936
10.0	600	CP70E1EF106K	3 3/4 x 1 3/4 x 4	9.108	CP70B1FF106K	3 3/4 x 1 1/4 x 4 3/4	8.367	CP70B1EF106K	3 3/4 x 1 3/4 x 4	8.781
10.0	1000	CP70E1EG106K	3 3/4 x 2 1/4 x 4 3/4	10.989	CP70B1FG106K	3 3/4 x 1 3/4 x 4 3/4	10.078	CP70B1EG106K	3 3/4 x 2 1/4 x 4 3/4	10.821
10.0	1500	CP70E1EH106K	3 3/4 x 3 3/16 x 5 1/2	15.639	———	———	———	CP70B1EH106K	3 3/4 x 3 3/16 x 5 1/2	13.791
12.0	1000	CP70E1EG126K	3 3/4 x 2 1/4 x 5 1/8	11.888	———	———	———	CP70B1EG126K	3 3/4 x 2 1/4 x 5 1/8	11.750
15.0	1000	CP70E1EG156K	3 3/4 x 3 3/16 x 4 3/4	13.149	———	———	———	———	———	———

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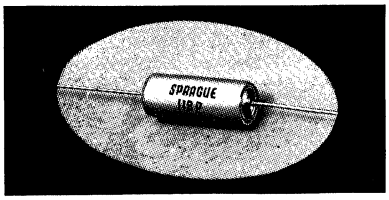
SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS



- The best of their type which it is possible to produce in the present state of the art
- Rated for operation at 125°C WITHOUT VOLTAGE DERATING
- Unique dual dielectric — a combination of metallized paper and of polyester film, impregnated with special high-temperature mineral wax
- Subjected to stringent quality control during manufacture
- Higher insulation resistance than any other metallized paper capacitors — at 125°C, minimum product of insulation resistance and capacitance is 10 megohm-microfarads for 200 V units or 40 megohm-microfarads for 400 and 600 V units
- Capacitor sections are effectively of non-inductive construction, resulting in capacitors unmatched in performance quality by any other metallized capacitors
- Hermetically sealed, with glass-to-metal solder-seal terminals
- Have unusual self-healing characteristics, in the rare event of capacitor dielectric breakdown
- May be used at extremely low voltages where metallized paper construction has previously been unsatisfactory
- For complete performance characteristics, see latest issue of Engineering Bulletin 2211
- For units with outer plastic insulating sleeves, change last digit of cat. no. from 2 to 4 and add $.075 to price.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor
- For prices on quantities from 25 to 999 pieces, see your Sprague Industrial Distributor.

200 WVDC

μF	D. x L.	±20% Tol. Cat. No.	±20% Tol. Net Each (1-24)	±10% Tol. Cat. No.	±10% Tol. Net Each (1-24)
.01	.235 x ¾			118P10392S2	$1.953
.012	.235 x ¾			118P12392S2	1.953
.015	.235 x ¾			118P15392S2	1.953
.018	.235 x ¾			118P18392S2	1.953
.022	.235 x ¾			118P22392S2	1.953
.027	.235 x ¾			118P27392S2	1.971
.033	.235 x ¾			118P33392S2	1.986
.039	.312 x ⅞			118P39392S2	2.001
.047	.312 x ⅞			118P47392S2	2.019
.056	.312 x ⅞			118P56392S2	2.031
.068	.312 x ⅞			118P68392S2	2.067
.082	.312 x ⅞			118P82392S2	2.076
.1	.312 x ⅞	118P10402S2	$1.635	118P10492S2	2.085
.12	.312 x 1⅛			118P12492S2	2.091
.15	.312 x 1⅛	118P15402S2	1.671	118P15492S2	2.121
.18	.400 x ⅞			118P18492S2	2.121
.22	.400 x ⅞	118P22402S2	1.671	118P22492S2	2.121
.27	.400 x 1⅛			118P27492S2	2.226
.33	.400 x 1⅛	118P33402S2	1.821	118P33492S2	2.227
.39	.500 x 1⅛			118P39492S2	2.316
.47	.500 x 1⅛	118P47402S2	1.926	118P47492S2	2.376
.56	.500 x 1⅛			118P56492S2	2.406
.68	.500 x 1⅛	118P68402S2	2.001	118P68492S2	2.451
.82	.562 x 1⅛			118P82492S2	2.511
1.0	.562 x 1⅛	118P10502S2	2.151	118P10592S2	2.601
1.5	.562 x 1⅝			118P15592S2	3.666
2.0	.670 x 1⅝	118P20502S2	3.891	118P20592S2	4.341
3.0	.670 x 1⅞	118P30502S2	4.251	118P30592S2	4.701
4.0	.750 x 1⅞	118P40502S2	5.091	118P40592S2	5.541
5.0	1.000 x 1⅞	118P50502S2	5.601	118P50592S2	6.051
6.0	1.000 x 1⅞	118P60502S2	6.021	118P60592S2	6.471
8.0	1.000 x 1⅞	118P80502S2	6.681	118P80592S2	6.681
10.0	1.000 x 2⅜			118P10692S2	8.421
12.0	1.000 x 2⅝			118P12692S2	9.321

400 WVDC

μF	D. x L.	±20% Tol. Cat. No.	±20% Tol. Net Each (1-24)	±10% Tol. Cat. No.	±10% Tol. Net Each (1-24)
.01	.312 x ⅞			118P10394S2	$2.019
.015	.312 x ⅞			118P15394S2	2.019
.022	.312 x ⅞			118P22394S2	2.055
.033	.312 x 1⅛			118P33394S2	2.055
.047	.400 x 1⅛	118P47304S2	$1.605	118P47394S2	2.055
.068	.400 x 1⅛			118P68394S2	2.151
.1	.500 x 1⅛	118P10404S2	1.731	118P10494S2	2.181
.15	.500 x 1⅛			118P15494S2	2.286
.22	.562 x 1⅜	118P22404S2	1.905	118P22494S2	2.355
.33	.562 x 1⅝	118P33404S2	2.106	118P33494S2	2.556
.47	.670 x 1⅝			118P47494S2	2.796
.68	.670 x 1⅞			118P68494S2	3.141
1.0	.750 x 1⅞	118P10504S2	2.946	118P10594S2	3.396
1.5	1.000 x 1⅞			118P15594S2	4.341
2.0	1.000 x 1⅞	118P20504S2	4.851	118P20594S2	5.301
3.0	1.000 x 2⅝			118P30594S2	6.210

600 WVDC

μF	D. x L.	±20% Tol. Cat. No.	±20% Tol. Net Each (1-24)	±10% Tol. Cat. No.	±10% Tol. Net Each (1-24)
.01	.312 x ⅞	118P10306S2	1.611	118P10396S2	2.061
.015	.312 x ⅞			118P15396S2	2.076
.022	.312 x 1⅛	118P22306S2	1.641	118P22396S2	2.091
.033	.312 x 1⅛			118P33396S2	2.091
.047	.400 x 1⅛	118P47306S2	1.665	118P47396S2	2.115
.068	.400 x 1⅛			118P68396S2	2.211
.1	.500 x 1⅛	118P10406S2	1.791	118P10496S2	2.241
.15	.562 x 1⅛	118P15406S2	1.995	118P15496S2	2.691
.22	.562 x 1⅜	118P22406S2	2.166	118P22496S2	2.616
.33	.562 x 1⅝	118P33406S2	2.451	118P33496S2	2.901
.47	.670 x 1⅝	118P47406S2	2.676	118P47496S2	3.126
.68	.670 x 1⅞	118P68406S2	2.931	118P68496S2	3.381
1.0	1.000 x 1⅞	118P10506S2	3.411	118P10596S2	3.861
1.5	1.000 x 1⅞			118P15596S2	4.641
2.0	1.000 x 2⅛			118P20596S2	5.601
2.5	1.000 x 2⅝			118P25596S2	6.501

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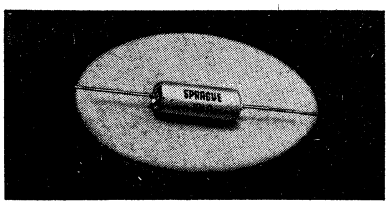
SPRAGUE CAPACITORS

121P METALLIZED PAPER CAPACITORS

- Designed to operate at 125°C WITHOUT VOLTAGE DERATING — extremely important in military and industrial equipment where higher temperatures are encountered.
- Quality of these capacitors is surpassed only by Type 118P units described on opposite page.
- High insulation resistance — at 85°C, minimum product of insulation resistance and capacitance is 20 megohm-microfarads. At 125°C, minimum product is 1.0 megohm-microfarads.
- Hermetically sealed with glass-to-metal solder-seal terminals — capacitor cases are of corrosion resistant materials — similar in appearance to Type 118P.
- May be operated at low voltages, unlike many other metallized capacitors.
- For complete performance data, see latest issue of Engineering Bulletin 2210.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For prices on quantities from 25 to 999 pieces, see your Sprague Industrial Distributor.



- For units with outer plastic insulating sleeve, change last digit in cat. no. from 2 to 4 and add $.075 to price.

		±20% Tol.		±10% Tol.	
μF	D. x L.	Cat. No.	Net Price	Cat. No.	Net Each (1-24)
150 WVDC					
1.5	.562 x 1⅛	121P15501R5S2	Available upon request	121P15591R5S2	$3.186
2.0	.562 x 1⅜	121P20501R55S2		121P20591R5S2	3.186
2.5	.562 x 1⅝	121P25501R5S2		121P25591R5S2	3.501
3.0	.670 x 1⅜	121P30501R5S2		121P30591R5S2	3.801
3.5	.670 x 1⅝	121P35501R5S2		121P35591R5S2	4.071
4.0	.670 x 1⅝	121P40501R5S2		121P40591R5S2	4.341
5.0	.670 x 1⅞	121P50501R5S2		121P50591R5S2	4.551
6.0	.750 x 1⅞	121P60501R5S2		121P60591R5S2	4.761
8.0	.750 x 2⅜	121P80501R5S2		121P80591R5S2	6.201
10	.750 x 2⅝	121P10601R5S2		121P10691R5S2	6.621
12	1.000 x 1⅞	121P12601R5S2		121P12691R5S2	7.551
14	1.000 x 2⅛	121P14601R5S2		121P14691R5S2	8.061
16	1.000 x 2⅜	121P16601R5S2		121P16691R5S2	8.601
18	1.000 x 2⅝	121P18601R5S2		121P18691R5S2	9.261
200 WVDC					
.047	.235 x ¾	121P47302S2	Available upon request	121P47392S2	Available upon request
.056	.312 x ⅞			121P56392S2	
.068	.312 x ⅞	121P68302S2		121P68392S2	
.082	.312 x ⅞			121P82392S2	
.1	.312 x ⅞	121P10402S2		121P10492S2	
.12	.312 x ⅞			121P12492S2	
.15	.312 x ⅞	121P15402S2		121P15492S2	
.18	.312 x 1⅛			121P18492S2	
.22	.312 x 1⅛	121P22402S2		121P22492S2	
.27	.400 x 1⅛			121P27492S2	
.33	.400 x 1⅛	121P33402S2		121P33492S2	
.39	.400 x 1⅛			121P39492S2	
.47	.400 x 1⅛	121P47402S2		121P47492S2	
.56	.500 x 1⅛			121P56492S2	
.68	.500 x 1⅛	121P68402S2		121P68492S2	
.82	.562 x 1⅛			121P82492S2	
1.0	.562 x 1⅛	121P10502S2		121P10592S2	
1.5	.562 x 1⅜	121P15502S2		121P15592S2	
2.0	.562 x 1⅞	121P20502S2		121P20592S2	
2.5	.670 x 1⅝	121P25502S2		121P25592S2	
3.0	.670 x 1⅞	121P30502S2		121P30592S2	
3.5	.750 x 1⅞	121P35502S2		121P35592S2	
4.0	.750 x 1⅞	121P40502S2		121P40592S2	
5.0	.750 x 2⅛	121P50502S2		121P50592S2	
6.0	.750 x 2⅜	121P60502S2		121P60592S2	
8.0	1.000 x 1⅞	121P80502S2		121P80592S2	
10	1.000 x 2⅛	121P10602S2		121P10692S2	
12	1.000 x 2⅝	121P12602S2		121P12692S2	
400 WVDC					
.01	.235 x ¾	121P10304S2	Available upon request	121P10394S2	Available upon request
.012	.312 x ⅞			121P12394S2	
.015	.312 x ⅞	121P15304S2		121P15394S2	
.018	.312 x ⅞			121P18394S2	
.022	.312 x ⅞	121P22304S2		121P22394S2	
.027	.312 x ⅞			121P27394S2	
.033	.312 x ⅞	121P33304S2		121P33394S2	
.039	.312 x 1⅛			121P39394S2	
.047	.312 x 1⅛	121P47304S2		121P47394S2	
.056	.312 x 1⅛			121P56394S2	
.068	.312 x 1⅛	121P68304S2		121P68394S2	
.082	.400 x 1⅛			121P82394S2	

		±20% Tol.		±10% Tol.	
μF	D. x L.	Cat. No.	Net Price	Cat. No.	Net Price ea.
.1	.400 x 1⅛	121P10404S2	Available upon request	121P10494S2	Available upon request
.12	.400 x 1⅜			121P12494S2	
.15	.400 x 1⅜	121P15404S2		121P15494S2	
.18	.500 x 1⅛			121P18494S2	
.22	.500 x 1⅛	121P22404S2		121P22494S2	
.27	.562 x 1⅜			121P27494S2	
.33	.562 x 1⅜	121P33404S2		121P33494S2	
.39	.562 x 1⅝			121P39494S2	
.47	.562 x 1⅝	121P47404S2		121P47494S2	
.56	.670 x 1⅝			121P56494S2	
.68	.670 x 1⅝	121P68404S2		121P68494S2	
.82	.670 x 1⅞			121P82494S2	
1.0	.670 x 1⅞	121P10504S2		121P10594S2	
1.5	.750 x 2⅜	121P15504S2		121P15594S2	
2.0	1.000 x 1⅞	121P20504S2		121P20594S2	
2.5	1.000 x 2⅛	121P25504S2		121P25594S2	
3.0	1.000 x 2⅜	121P30504S2		121P30594S2	
3.5	1.000 x 2⅝	121P35504S2		121P35594S2	
600 WVDC					
.001	.235 x ¾	121P10206S2	Available upon request	121P10296S2	Available upon request
.0012	.235 x ¾			121P12296S2	
.0015	.235 x ¾	121P15206S2		121P15296S2	
.0018	.235 x ¾			121P18296S2	
.0022	.235 x ¾	121P22206S2		121P22296S2	
.0027	.235 x ¾			121P27296S2	
.0033	.235 x ¾	121P33206S2		121P33296S2	
.0039	.235 x ¾			121P39296S2	
.0047	.235 x ¾	121P47206S2		121P47296S2	
.0056	.312 x ⅞			121P56296S2	
.0068	.312 x ⅞	121P68206S2		121P68296S2	
.0082	.312 x ⅞			121P82296S2	
.01	.312 x ⅞	121P10306S2		121P10396S2	
.012	.312 x ⅞			121P12396S2	
.015	.312 x ⅞	121P15306S2		121P15396S2	
.018	.312 x 1⅛			121P18396S2	
.022	.312 x 1⅛	121P22306S2		121P22396S2	
.027	.312 x 1⅛			121P27396S2	
.033	.312 x 1⅛	121P33306S2		121P33396S2	
.039	.400 x 1⅛			121P39396S2	
.047	.400 x 1⅛	121P47306S2		121P47396S2	
.056	.400 x 1⅛			121P56396S2	
.068	.400 x 1⅛	121P68306S2		121P68396S2	
.082	.500 x 1⅛			121P82396S2	
.1	.500 x 1⅛	121P10406S2		121P10496S2	
.12	.562 x 1⅛			121P12496S2	
.15	.562 x 1⅛	121P15406S2		121P15496S2	
.18	.562 x 1⅜			121P18496S2	
.22	.562 x 1⅜	121P22406S2		121P22496S2	
.27	.562 x 1⅞			121P27496S2	
.33	.562 x 1⅞	121P33406S2		121P33496S2	
.39	.670 x 1⅞			121P39496S2	
.47	.670 x 1⅞	121P47406S2		121P47496S2	
.56	.670 x 1⅞			121P56496S2	
.68	.670 x 1⅞	121P68406S2		121P68496S2	
.82	.750 x 2⅜			121P82496S2	
1.0	.750 x 2⅜	121P10506S2		121P10596S2	
1.5	1.000 x 2⅛	121P15506S2		121P15596S2	
2.0	1.000 x 2⅜	121P20506S2		121P20596S2	

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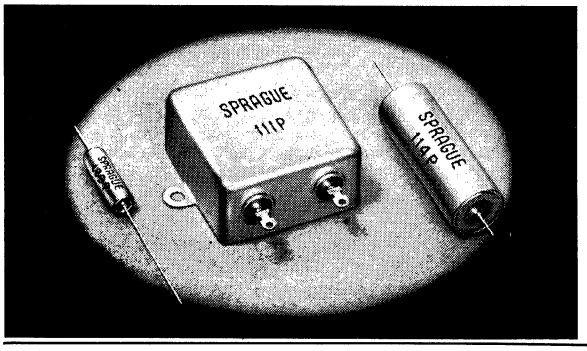
SPRAGUE CAPACITORS



METAL-CLAD FILM CAPACITORS

Polystyrene film dielectric capacitors have the lowest dielectric absorption of all film capacitors. The exceptionally high insulation resistance will generally exceed 10,000,000 megohm-microfarads. They have extremely low power factor, close capacitance tolerance, high capacitance stability with temperature change and high operating temperatures. The unusual properties of these capacitors make them particularly suitable for circuit applications demanding such characteristics. All capacitors listed here are hermetically sealed in metal cases.

114P STYRACON® TUBULARS

Specially processed polystyrene film dielectric ● Operating temperature range, —55°C to +85°C ● High insulation resistance ● Low dielectric absorption (under .05%) ● High capacitance stability (less than ±.2% drift) ● Extremely low power factor (high Q) ● Units listed below have capacitance tolerance of ±5%. For ±20%, change 8th digit in catalog number from 5 to 0; for ±10% change to 9; for ±2% change to 2; for ±1% change to 1 ● Units listed below have plastic insulating sleeves. For plain metal case, change last digit in catalog number from 4 to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2510 ● Prices available upon request.

200 WVDC			400 WVDC			600 WVDC		
μF	Diam. x Length	Cat. No.	μF	Diam. x Length	Cat. No.	μF	Diam. x Length	Cat. No.
.001	.235 x 7/8	114P10252S4	.001	.235 x 7/8	114P10254S4	.001	.400 x 7/8	114P10256S4
.0015	.235 x 7/8	114P15252S4	.0015	.312 x 7/8	114P15254S4	.0015	.400 x 1 1/8	114P15256S4
.0022	.235 x 7/8	114P22252S4	.0022	.312 x 7/8	114P22254S4	.0022	.400 x 1 1/8	114P22256S4
.0033	.312 x 7/8	114P33252S4	.0033	.312 x 7/8	114P33254S4	.0033	.400 x 1 1/8	114P33256S4
.0047	.312 x 7/8	114P47252S4	.0047	.400 x 7/8	114P47254S4	.0047	.400 x 1 1/8	114P47256S4
.0068	.400 x 7/8	114P68252S4	.0068	.400 x 1 1/8	114P68254S4	.0068	.400 x 1 1/8	114P68256S4
.01	.400 x 1 1/8	114P10352S4	.01	.400 x 1 1/8	114P10354S4	.01	.400 x 1 3/8	114P10356S4
.015	.400 x 1 1/8	114P15352S4	.015	.400 x 1 3/8	114P15354S4	.015	.400 x 1 3/8	114P15356S4
.022	.400 x 1 3/8	114P22352S4	.022	.562 x 1 1/8	114P22354S4	.022	.562 x 1 3/8	114P22356S4
.033	.562 x 1 1/8	114P33352S4	.033	.562 x 1 3/8	114P33354S4	.033	.562 x 1 5/8	114P33356S4
.047	.562 x 1 3/8	114P47352S4	.047	.562 x 1 5/8	114P47354S4	.047	.670 x 1 5/8	114P47356S4
.068	.562 x 1 5/8	114P68352S4	.068	.670 x 1 5/8	114P68354S4	.068	.750 x 2 1/8	114P68356S4
.1	.670 x 1 5/8	114P10452S4	.1	.750 x 2 1/8	114P10454S4	.1	.750 x 2 1/8	114P10456S4
.15	.750 x 2 1/8	114P15452S4	.15	.750 x 2 1/8	114P15454S4	.15	1.000 x 2 1/8	114P15456S4
.22	.750 x 2 1/8	114P22452S4	.22	1.000 x 2 1/8	114P22454S4	.22	1.000 x 2 5/8	114P22456S4
.33	1.000 x 2 1/8	114P33452S4	.33	1.000 x 2 1/8	114P33454S4			
.47	1.000 x 2 1/8	114P47452S4	.47	1.000 x 2 5/8	114P47454S4			

111P STYRACON® BATHTUBS

Same electrical characteristics as Type 114P ● Drawn metal bathtub cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2510 ● Prices available upon request.

μF	WVDC	L. x W. x H.	Cat. No.	μF	WVDC	L. x W. x H.	Cat. No.
1.5	50	2 x 1 3/4 x 1	111P7J	2.0	200	2 5/16 x 2 1/16 x 2 1/8	111P16J
2.0	50	2 x 2 x 1 1/4	111P8J	.68	400	2 x 2 x 1 1/4	111P17J
3.0	50	2 x 2 x 1 1/2	111P9J	1.0	400	2 x 2 x 1 1/2	111P18J
5.0	50	2 5/16 x 2 1/16 x 2 1/8	111P10J	1.5	400	2 5/16 x 2 1/16 x 2 1/8	111P19J
1.0	100	2 x 1 3/4 x 7/8	111P11J	.33	600	2 x 1 3/4 x 1	111P20J
2.0	100	2 x 2 x 1 1/2	111P12J	.47	600	2 x 2 x 1 1/8	111P21J
3.0	100	2 5/16 x 2 1/16 x 2 1/8	111P13J	.68	600	2 x 2 x 1 1/2	111P22J
.68	200	2 x 1 3/4 x 1	111P14J	1.0	600	2 5/16 x 2 1/16 x 2 1/8	111P4J
1.0	200	2 x 2 x 1 1/4	111P15J				

139P FILMITE 'F' TUBULARS

For circuit applications requiring constant capacitance with varying temperatures ● Practically zero capacitance change at temperatures from —10°C to +85°C. May be operated at +125°C with not more than 2.5% capacitance change ● Operating temperature: —55°C to +125°C ● Insulation resistance and dielectric absorption characteristics approach those of poly styrene capacitors ● Listed units have capacitance tolerance of ±5%. For ±20% change 8th digit in catalog number from 5 to 0; for ±10%, change to 9; for ±2%, change to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2560 ● Prices available upon request.

200 WVDC			400 WVDC			600 WVDC		
μF	Diam. x Length	Cat. No.	μF	Diam. x Length	Cat. No.	μF	Diam. x Length	Cat No.
.001	.235 x 3/4	139P10252S4	.001	.235 x 3/4	139P10254S4	.001	.235 x 3/4	139P10256S4
.0015	.235 x 3/4	139P15252S4	.0015	.235 x 3/4	139P15254S4	.0015	.312 x 7/8	139P15256S4
.0022	.235 x 3/4	139P22252S4	.0022	.312 x 7/8	139P22254S4	.0022	.312 x 7/8	139P22256S4
.0033	.312 x 7/8	139P33252S4	.0033	.312 x 7/8	139P33254S4	.0033	.312 x 7/8	139P33256S4
.0047	.312 x 7/8	139P47252S4	.0047	.312 x 7/8	139P47254S4	.0047	.312 x 1	139P47256S4
.0068	.312 x 7/8	139P68252S4	.0068	.312 x 1	139P68254S4	.0068	.400 x 1	139P68256S4
.01	.312 x 1	139P10352S4	.01	.400 x 7/8	139P10354S4	.01	.400 x 1 1/8	139P10356S4
.015	.400 x 7/8	139P15352S4	.015	.400 x 1	139P15354S4	.015	.400 x 1 3/8	139P15356S4
.022	.400 x 1	139P22352S4	.022	.400 x 1 1/4	139P22354S4	.022	.562 x 1 1/8	139P22356S4
.033	.400 x 1 1/4	139P33352S4	.033	.562 x 1 1/8	139P33354S4	.033	.562 x 1 3/8	139P33356S4
.047	.500 x 1 1/8	139P47352S4	.047	.562 x 1 1/4	139P47354S4	.047	.670 x 1 5/8	139P47356S4
.068	.562 x 1 1/8	139P68352S4	.068	.670 x 1 5/8	139P68354S4	.068	.750 x 1 7/8	139P68356S4
.1	.670 x 1 5/8	139P10452S4	.1	.750 x 1 7/8	139P10454S4	.1	.750 x 2 1/8	139P10456S4
.15	.750 x 1 7/8	139P15452S4	.15	.750 x 2 1/8	139P15454S4	.15	1.000 x 1 7/8	139P15456S4
.22	.750 x 2 1/8	139P22452S4	.22	1.000 x 1 7/8	139P22454S4	.22	1.000 x 2 3/8	139P22456S4
.33	1.000 x 1 7/8	139P33452S4	.33	1.000 x 2 3/8	139P33454S4			
.47	1.000 x 2 3/8	139P47452S4						

140P FILMITE 'F' BATHTUBS

Same electrical characteristics as Type 139P ● Drawn metal bathtub cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2560 ● Prices available upon request.

μF	WVDC	L. x W. x H.	Cat. No.
.68	200	2 x 2 x 1	140P1J
1.0	200	2 x 2 x 1 1/2	140P2J
.47	400	2 x 2 x 1	140P3J
.68	400	2 x 2 x 1 1/2	140P4J
1.0	400	2 5/16 x 2 1/16 x 1 3/4	140P5J
.33	600	2 x 2 x 1	140P6J
.47	600	2 x 2 x 1 1/2	140P7J
.68	600	2 5/16 x 2 1/16 x 1 3/4	140P8J
1.0	600	2 5/16 x 2 1/16 x 2 1/8	140P9J

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SPRAGUE CAPACITORS

FILM CAPACITORS, continued

127P FILMITE 'E' TUBULARS

Operating temperature range, —55°C to +150°C ● Even at 150°C, insulation resistance is higher than that of best paper capacitors ● These capacitors use polyester-film dielectric ● Dissipation factor will not exceed 1.3% ● Extended foil construction for low series resistance ● For complete technical data, refer to latest issue of Engineering Bulletin 2410 ● For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor ● Dimensions shown are for units with sleeves, for plain cases, subtract 1/16" from length and .032" from diameter.

μF	WVDC	Size D. x L.	±20% Cap. Tol.				±10% Cap. Tol.			
			Plain Case		w/plastic sleeve		Plain Case		w/plastic sleeve	
			Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.
.0068	200	.235 x 13/16	127P68202S2	$3.156	127P68202S4	$3.316	127P68292S2	$3.472	127P68292S4	$3.648
.01	200	.235 x 13/16	127P10302S2	3.312	127P10302S4	3.472	127P10392S2	3.642	127P10392S4	3.819
.015	200	.235 x 13/16	127P15302S2	3.340	127P15302S4	3.500	127P15392S2	3.674	127P15392S4	3.850
.022	200	.235 x 13/16	127P22302S2	3.352	127P22302S4	3.512	127P22392S2	3.687	127P22392S4	3.863
.033	200	.312 x 15/16	127P33302S2	3.388	127P33302S4	3.548	127P33392S2	3.727	127P33392S4	3.903
.047	200	.312 x 15/16	127P47302S2	3.436	127P47302S4	3.596	127P47392S2	3.780	127P47392S4	3.956
.068	200	.312 x 15/16	127P68302S2	3.484	127P68302S4	3.644	127P68392S2	3.832	127P68392S4	4.008
.1	200	.400 x 15/16	127P10402S2	3.496	127P10402S4	3.656	127P10492S2	3.846	127P10492S4	4.022
.15	200	.400 x 1 1/16	127P15402S2	3.688	127P15402S4	3.848	127P15492S2	4.057	127P15492S4	4.233
.22	200	.400 x 1 5/16	127P22402S2	3.924	127P22402S4	4.084	127P22492S2	4.316	127P22492S4	4.492
.33	200	.400 x 1 9/16	127P33402S2	4.172	127P33402S4	4.332	127P33492S2	4.589	127P33492S4	4.765
.47	200	.562 x 1 1/8	127P47402S2	4.392	127P47402S4	4.552	127P47492S2	4.831	127P47492S4	5.007
.68	200	.562 x 1 3/8	127P68402S2	4.804	127P68402S4	4.964	127P68492S2	5.284	127P68492S4	5.460
1.0	200	.562 x 1 7/8	127P10502S2	5.344	127P10502S4	5.504	127P10592S2	5.878	127P10592S4	6.054

141P FILMITE 'G' TUBULARS

TFE fluorocarbon film dielectric ● Operating temperature range, —55°C to +200°C ● Unusually high insulation resistance (in excess of 100,000 megohm-microfarads at 25°C) ● Low dielectric absorption ● Low dissipation factor (less than .02%) ● Excellent humidity resistance ● Small capacitance change with temperature ● Units listed below have capacitance tolerance of ±10%. For ±20%, change 8th digit in catalog number from 9 to 0; For ±5% change to 5; For ±2% change to 2; For ±1% change to 1 ● Units listed below have plastic insulating sleeves. For plain metal case, change last digit in catalog number from 4 to 2 ● For complete technical data, refer to latest issue of Engineering Bulletin 2610 ● Prices available upon request.

μF	Diam. x Length	Cat. No.
200 WVDC		
.0015	.235 x 13/16	141P15292S4
.0039	.312 x 15/16	141P39292S4
.0047	.312 x 15/16	141P47292S4
.0082	.400 x 15/16	141P82292S4
.01	.400 x 15/16	141P10392S4
.012	.400 x 19/16	141P12392S4
.015	.400 x 19/16	141P15392S4
.018	.400 x 15/16	141P18392S4
.022	.400 x 19/16	141P22392S4
.027	.562 x 1 1/8	141P27392S4
.033	.562 x 1 1/8	141P33392S4
.039	.562 x 1 1/4	141P39392S4
.047	.562 x 1 1/4	141P47392S4
.056	.562 x 1 1/2	141P56392S4
.068	.562 x 1 1/2	141P68392S4
.082	.562 x 1 7/8	141P82392S4
.1	.562 x 1 7/8	141P10492S4

μF	Diam. x Length	Cat. No.
400 WVDC		
.1	.670 x 1 7/8	141P10494S4
.12	.750 x 2 1/8	141P12494S4
.15	.750 x 2 1/8	141P15494S4
.18	1.000 x 1 7/8	141P18494S4
.22	1.000 x 1 7/8	141P22494S4
.27	1.000 x 2 3/8	141P27494S4
.33	1.000 x 2 3/8	141P33494S4
600 WVDC		
.001	.235 x 13/16	141P10296S4
.0012	.312 x 15/16	141P12296S4
.0015	.312 x 15/16	141P15296S4
.0018	.312 x 15/16	141P18296S4
.0022	.312 x 15/16	141P22296S4
.0027	.312 x 15/16	141P27296S4
.0033	.312 x 15/16	141P33296S4
.0039	.400 x 15/16	141P39296S4

μF	Diam. x Length	Cat. No.
.0047	.400 x 15/16	141P47296S4
.0056	.400 x 15/16	141P56296S4
.0068	.400 x 15/16	141P68296S4
.0082	.400 x 13/16	141P82296S4
.01	.400 x 13/16	14.P10396S4
.012	.400 x 15/16	141P12396S4
.015	.400 x 15/16	141P15396S4
.018	.562 x 1 1/8	141P18396S4
.022	.562 x 1 1/8	141P22396S4
.027	.562 x 1 1/4	141P27396S4
.033	.562 x 1 1/4	141P33396S4
.039	.562 x 1 1/2	141P39396S4
.047	.562 x 1 1/2	141P47396S4
.056	.562 x 1 7/8	141P56396S4
.068	.562 x 1 7/8	141P68396S4
.082	1.000 x 1 7/8	141P82396S4
.1	1.000 x 1 7/8	141P10496S4
.12	1.000 x 2 3/8	141P12496S4
.15	1.000 x 2 3/8	141P15496S4

142P FILMITE 'G' OVALS

Same electrical characteristics as Type 141P ● Drawn metal oval cases ● Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F ● For complete technical data, refer to latest issue of Engineering Bulletin 2610 ● Prices available upon request.

μF	WVDC	W. x T. x H.	Cat. No.
.68	200	2 5/32 x 1 5/16 x 2 1/8	142P1J
1.0	200	2 5/32 x 1 5/16 x 2 3/4	142P2J
.68	400	2 5/32 x 1 5/16 x 2 1/2	142P3J
1.0	400	2 5/32 x 1 5/16 x 3 3/8	142P4J
.33	600	2 5/32 x 1 5/16 x 2 5/8	142P5J
.47	600	2 5/32 x 1 5/16 x 3 1/2	142P6J

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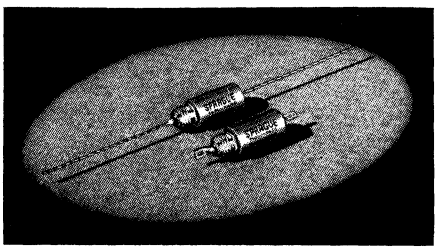
SPRAGUE CAPACITORS

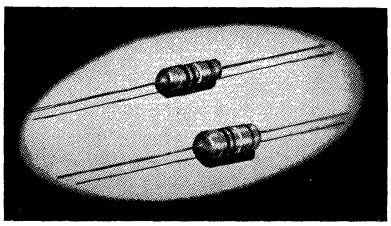
TYPE 102P, 103P 'THRU-PASS' CAPACITORS

- Designed for Radio Interference Reduction in Radar and Communication Equipment
- Performance Closer to That of Theoretically Ideal Capacitor than Any Other Paper Capacitor Ever Made
- Three-Terminal Feed-Thru Design — Connect in a Circuit in Same Manner as Low-Pass Filter
- Hermetically Sealed, with Glass-to-Metal Solder-Seal Terminals
- Impregnated with Vitamin Q, for High Insulation Resistance and Minimum Capacitance Change with Temperature
- Type 102P is Designed for Operation from −55°C to +85°C; Type 103P for −55°C to +125°C
- Capacitors listed below have wire leads. For tab terminals, which are also available, see your Sprague Industrial Distributor.
- For complete technical data, refer to latest issue of Engineering Bulletin 8015
- Prices available upon request



μF	Size Diam. x Length	Catalog Number 85°C	125°C
100 WVDC			
.001	.400 x 3/4	102P101	103P101
.0047	.400 x 3/4	102P106	103P106
.01	.400 x 3/4	102P111	103P111
.047	.400 x 3/4	102P116	103P116
.1	.400 x 7/8	102P121	103P121
.22	.400 x 1 3/8	102P126	103P126
.33	.562 x 1 1/8	102P131	103P131
.47	.562 x 1 3/8	102P136	103P136
.68	.562 x 1 7/8	102P141	103P141
1.0	.670 x 1 7/8	102P146	103P146
200 WVDC			
.001	.400 x 3/4	102P102	103P102
.0047	.400 x 3/4	102P107	103P107
.01	.400 x 3/4	102P112	103P112
.047	.400 x 7/8	102P117	103P117
.1	.400 x 1 1/8	102P122	103P122
.22	.562 x 1 1/8	102P127	103P127
.33	.562 x 1 5/8	102P132	103P132
.47	.562 x 1 7/8	102P137	103P137
.68	.670 x 1 7/8	102P142	103P142
1.0	.750 x 2 1/8	102P147	103P147
300 WVDC			
.001	.400 x 3/4	102P103	103P103
.0047	.400 x 3/4	102P108	103P108
.01	.400 x 3/4	102P113	103P113
.047	.400 x 1 1/8	102P118	103P118
.1	.400 x 1 3/8	102P123	103P123
.22	.562 x 1 3/8	102P128	103P128
.33	.562 x 1 7/8	102P133	103P133
.47	.670 x 1 7/8	102P138	103P138
.68	.750 x 2 1/8	102P143	103P143
400 WVDC			
.001	.400 x 3/4	102P104	103P104
.0047	.400 x 3/4	102P109	103P109
.01	.400 x 3/4	102P114	103P114
.047	.400 x 1 3/8	102P119	103P119
.1	.562 x 1 1/8	102P124	103P124
.22	.562 x 1 7/8	102P129	103P129
.33	.670 x 1 7/8	102P134	103P134
.47	.750 x 2 1/8	102P139	103P139
.68	.750 x 2 3/8	102P144	103P144
600 WVDC			
.001	.400 x 3/4	102P105	103P105
.0047	.400 x 3/4	102P110	103P110
.01	.400 x 3/4	102P115	103P115
.047	.400 x 1 3/8	102P120	103P120
.1	.562 x 1 3/8	102P125	103P125
.22	.670 x 1 7/8	102P130	103P130
.33	.750 x 2 1/8	102P135	103P135
.47	.750 x 2 3/8	102P140	103P140

TYPE 65P PROKAR® MOLDED TUBULARS



- For Applications Requiring Small Paper Capacitors for Continuous Operation at High Temperatures
- No Voltage Derating Required for 125°C Operation
- Impregnated with an Exclusive Sprague Organic Material which Polymerizes to Form a Solid Capacitor Section
- Sections Molded in Mineral-Filled High-Temperature Plastic — All cases are 1 1/16" long
- Capacitance Tolerance of these Capacitors is ±5%
- For complete technical data, refer to latest issue of Engineering Bulletin 2100.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

μF	WVDC	Diam.	Cat. No.	Net (1-24) ea.
.01	200	.175	65P10352	$ .90
.015	200	.195	65P15352	.90
.02	200	.250	65P20352	1.20
.022	200	.250	65P22352	1.20
.03	200	.250	65P30352	1.20
.033	200	.250	65P33352	1.20
.039	200	.375	65P39352	1.50
.047	200	.375	65P47352	1.50
.051	200	.375	65P51352	1.50
.056	200	.375	65P56352	1.50
.062	200	.375	65P62352	1.50
.082	200	.375	65P82352	1.50
.091	200	.375	65P91352	1.50
.1	200	.375	65P10452	1.50
.001	300	.175	65P10253	.90
.0015	300	.175	65P15253	.90
.002	300	.175	65P20253	.90
.0039	300	.175	65P39253	.90
.0047	300	.175	65P47253	.90
.0051	300	.175	65P51253	.90
.0056	300	.175	65P56253	.90
.0068	300	.175	65P68253	.90
.0082	300	.195	65P82253	.90
.0091	300	.195	65P91253	.90

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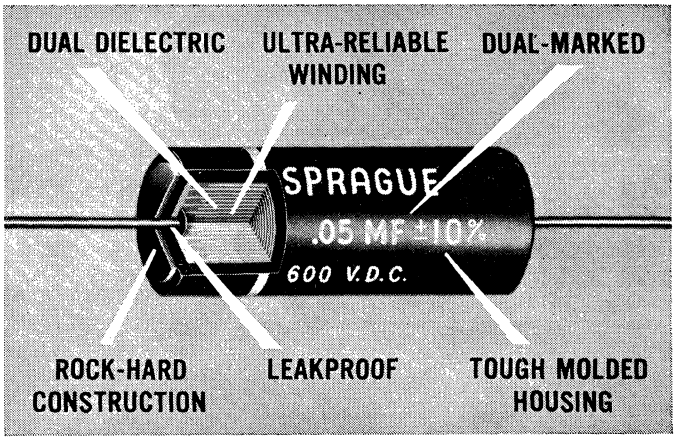
SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS



- Developed especially for long life under high humidity and temperature operating conditions
- Dual dielectric (Mylar®-paper) combines best features of both Mylar® polyester film and paper capacitors
- Exclusive HCX® solid impregnant construction produces rock-hard capacitor section
- Won't leak or drip

LOOK FOR THE RED MARKINGS ON THE BLACK CASE

- No derating for 105°C operation
- Mica-filled, non-flammable molded case. Won't crack when dropped; soldering won't harm it
- Every capacitor marked twice. No twisting the case to read ratings
- Also Available in handy Sprague Kleer Paks
- **Capacitance Tolerance:** ±10% from .001 μF up Except 2TM-M1 ±20%

The World's Best Molded Tubular at No Extra Cost!

μF	D. x L.	Cat. No.	Net
200 WVDC			
.02	3/8 x 1 1/4	2TM-S20	$.15
.022	3/8 x 1 1/4	2TM-S22	.15
.047	7/16 x 1 1/4	2TM-S47	.15
.05	7/16 x 1 1/4	2TM-S50	.15
.1	1/2 x 1 1/2	2TM-P10	.21
.15	1/2 x 1 1/2	2TM-P15	.21
.22	5/8 x 1 7/8	2TM-P22	.24
.25	5/8 x 1 7/8	2TM-P25	.24
.47	3/4 x 2 1/4	2TM-P47	.36
.5	3/4 x 2 1/4	2TM-P50	.36
1.0	3/4 x 2 1/4	2TM-M1	.63
400 WVDC			
.01	3/8 x 1 1/4	4TM-S10	.15
.015	3/8 x 1 1/4	4TM-S15	.15
.02	3/8 x 1 1/4	4TM-S20	.15
.022	3/8 x 1 1/4	4TM-S22	.18
.025	7/16 x 1 1/4	4TM-S25	.18
.03	7/16 x 1 1/4	4TM-S30	.18
.04	7/16 x 1 1/4	4TM-S40	$.18
.047	7/16 x 1 1/4	4TM-S47	.18
.05	7/16 x 1 1/4	4TM-S50	.18
.068	1/2 x 1 1/2	4TM-S68	.21
.1	1/2 x 1 1/2	4TM-P10	.21
.15	5/8 x 1 7/8	4TM-P15	.24
.2	5/8 x 1 7/8	4TM-P20	.27
.22	5/8 x 1 7/8	4TM-P22	.27
.25	3/4 x 2 1/4	4TM-P25	.30
.47	3/4 x 2 1/4	4TM-P47	.45
.5	3/4 x 2 1/4	4TM-P50	.45
1.0	1 x 2 1/2	4TM-M1	.75
600 WVDC			
.0001	5/16 x 1	6TM-T10	.15
.00025	5/16 x 1	6TM-T25	.15
.0004	5/16 x 1	6TM-T40	.15
.0005	5/16 x 1	6TM-T50	.15
.001	5/16 x 1	6TM-D10	.15
.0015	5/16 x 1	6TM-D15	.15
.002	5/16 x 1	6TM-D20	.15
.0022	5/16 x 1	6TM-D22	$.15
.0025	5/16 x 1	6TM-D25	.15
.003	5/16 x 1	6TM-D30	.15
.0033	5/16 x 1	6TM-D33	.15
.004	3/8 x 1 1/4	6TM-D40	.15
.0047	3/8 x 1 1/4	6TM-D47	.15
.005	3/8 x 1 1/4	6TM-D50	.15
.006	3/8 x 1 1/4	6TM-D60	.15
.0068	3/8 x 1 1/4	6TM-D68	.18
.008	3/8 x 1 1/4	6TM-D80	.18
.01	3/8 x 1 1/4	6TM-S10	.18
.015	3/8 x 1 1/4	6TM-S15	.18
.02	7/16 x 1 1/4	6TM-S20	.18
.022	7/16 x 1 1/4	6TM-S22	.18
.03	7/16 x 1 1/4	6TM-S30	.21
.033	7/16 x 1 1/4	6TM-S33	.21
.035	7/16 x 1 1/4	6TM-S35	.21
.04	1/2 x 1 1/2	6TM-S40	.21
.047	1/2 x 1 1/2	6TM-S47	.24

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Net

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SPRAGUE CAPACITORS

DIFILM BLACK BEAUTY MOLDED TUBULARS, continued

μF	D. x L.	Cat. No.	Net
600 WVDC (Cont.)			
.05	½ x 1½	6TM-S50	$.24
.06	½ x 1½	6TM-S60	.24
.068	½ x 1½	6TM-S68	.27
.1	⅝ x 1⅞	6TM-P10	.27
.15	⅝ x 1⅞	6TM-P15	.30
.2	¾ x 2¼	6TM-P20	.39
.22	¾ x 2¼	6TM-P22	.42
.25	¾ x 2¼	6TM-P25	.45
.47	1 x 2½	6TM-P47	.75
.5	1 x 2½	6TM-P50	.75
1.0	1 x 2½	6TM-M1	1.05
1000 WVDC			
.0005	5/16 x 1	10TM-T50	$ .30
.001	5/16 x 1	10TM-D10	.30
.0015	5/16 x 1	10TM-D15	.30
.002	⅜ x 1¼	10TM-D20	.30
.0022	⅜ x 1¼	10TM-D22	.30
.003	⅜ x 1¼	10TM-D30	.30
.004	⅜ x 1¼	10TM-D40	.30
.0047	⅜ x 1¼	10TM-D47	.30
.005	⅜ x 1¼	10TM-D50	.30
.0068	⅜ x 1¼	10TM-D68	.30
1000 WVDC (Cont.)			
.01	7/16 x 1¼	10TM-S10	$ .30
.015	½ x 1½	10TM-S15	.30
.02	½ x 1½	10TM-S20	.30
.022	½ x 1½	10TM-S22	.30
.03	⅝ x 1⅞	10TM-S30	.30
.035	⅝ x 1⅞	10TM-S35	.30
.047	⅝ x 1⅞	10TM-S47	.36
.05	⅝ x 1⅞	10TM-S50	.36
.068	⅝ x 1⅞	10TM-S68	.42
.1	¾ x 2¼	10TM-P10	.45

MINERAL-OIL BLACK BEAUTY® MOLDED TUBULARS

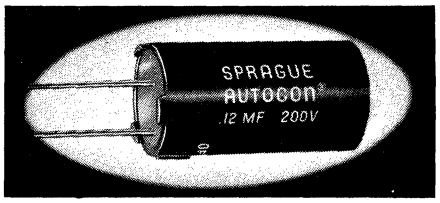
- Similar in appearance to Difilm Black Beauty Capacitors except all paper dielectric, impregnated with mineral oil for best high voltage performance
- Maximum Operating Temperature: 85°C

μF	D. x L.	Cat. No.	Net
1600 WVDC (Buffer)			
.0005	⅜ x 1¼	MB-T5	.39
.001	⅜ x 1¼	MB-D1	.39
.0015	⅜ x 1¼	MB-D15	.39
.002	⅜ x 1¼	MB-D2	.39
.0022	⅜ x 1¼	MB-D22	.39
.003	7/16 x 1¼	MB-D3	.39
.0033	7/16 x 1¼	MB-D33	.39
.004	7/16 x 1¼	MB-D4	.39
.0047	7/16 x 1¼	MB-D47	.39
.005	7/16 x 1¼	MB-D5	.39
.006	½ x 1½	MB-D6	.39
.0068	½ x 1½	MB-D68	.39
.007	½ x 1½	MB-D7	.39
.0075	½ x 1½	MB-D75	.39
.008	½ x 1½	MB-D8	.39
.01	½ x 1½	MB-S1	.42
.015	⅝ x 1⅞	MB-S15	.42
.02	⅝ x 1⅞	MB-S2	.42
.022	⅝ x 1⅞	MB-S22	.42
.03	⅝ x 1⅞	MB-S3	.42
.04	⅝ x 1⅞	MB-S4	.42
.05	¾ x 2⅛	*TR-15	.42
2 x .015	¾ x 2	*TR-215	.48
6000 WVDC			
.0005	½ x 1½	TVM-356	.81
.001	½ x 1½	TVM-216	.81
.005	⅝ x 1⅞	TVM-256	.81
10,000 WVDC			
.0005	⅝ x 1⅞	TVM-351	.90
12,500 WVDC			
.00025	⅝ x 1⅞	12TVM-325	1.02

*Supplied in waxed cardboard units

AUTOCON® MOLDED TUBULAR CAPACITORS

- Generous 1″ Lead Lengths Make Autocons Universal Replacements For All Single Ended Original Equipment Types Used on Printed Wiring Boards
- Pre-molded Thermosetting Plastic Shell with Plastic Resin Endseal for Humidity Protection, Outside Foil Identified by Index Key
- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



μF	WVDC	Diam.	Length	Cat. No.	Net
.001	200	⅜	1⅜	2SE-D10	$.18
.0015	200	⅜	1⅜	2SE-D15	.18
.0022	200	⅜	1⅜	2SE-D22	.18
.0033	200	⅜	1⅜	2SE-D33	.18
.0047	200	⅜	1⅜	2SE-D47	.18
.0068	200	⅜	1⅜	2SE-D68	.18
.01	200	⅜	1⅜	2SE-S10	.18
.015	200	⅜	1⅜	2SE-S15	.18
.022	200	⅜	1⅜	2SE-S22	.21
.033	200	⅜	1⅜	2SE-S33	.21
.047	200	7/16	1⅜	2SE-S47	.21
.068	200	7/16	1⅜	2SE-S68	.21
.1	200	½	1½	2SE-P10	.24
.15	200	⅝	1⅞	2SE-P15	.27
.22	200	⅝	1⅞	2SE-P22	.30
.33	200	⅝	1⅞	2SE-P33	.33
.47	200	¾	1⅞	2SE-P47	.39
.001	400	⅜	1⅜	4SE-D10	.18
.0015	400	⅜	1⅜	4SE-D15	.18
.0022	400	⅜	1⅜	4SE-D22	.18
.0033	400	⅜	1⅜	4SE-D33	.18
.0047	400	⅜	1⅜	4SE-D47	.18
.0068	400	⅜	1⅜	4SE-D68	.18
.01	400	⅜	1⅜	4SE-S10	.18
.015	400	⅜	1⅜	4SE-S15	.18
.022	400	7/16	1⅜	4SE-S22	.21
.033	400	7/16	1⅜	4SE-S33	.21
.047	400	½	1½	4SE-S47	.21
.068	400	½	1½	4SE-S68	.24
.1	400	⅝	1⅞	4SE-P10	.27
.15	400	⅝	1⅞	4SE-P15	.30
.22	400	⅝	1⅞	4SE-P22	.33
.33	400	¾	1⅞	4SE-P33	.39
.001	600	⅜	1⅜	6SE-D10	.18
.0015	600	⅜	1⅜	6SE-D15	.18
.0022	600	⅜	1⅜	6SE-D22	.18
.0033	600	⅜	1⅜	6SE-D33	.18
.0047	600	⅜	1⅜	6SE-D47	.18
.0068	600	⅜	1⅜	6SE-D68	.18
.01	600	⅜	1⅜	6SE-S10	.21
.015	600	7/16	1⅜	6SE-S15	.21
.022	600	7/16	1⅜	6SE-S22	.24
.033	600	½	1½	6SE-S33	.24
.047	600	½	1½	6SE-S47	.27
.068	600	⅝	1⅞	6SE-S68	.30
.1	600	⅝	1⅞	6SE-P10	.33
.15	600	¾	1⅞	6SE-P15	.36

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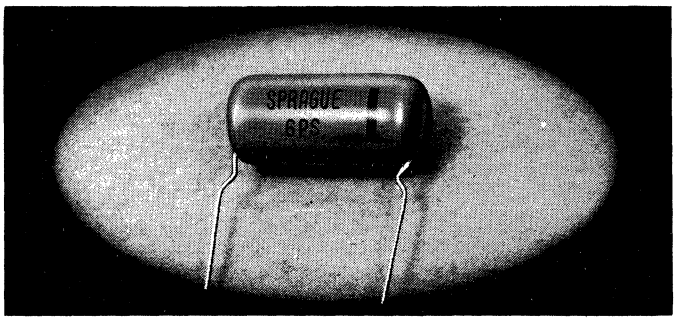
SPRAGUE CAPACITORS

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Especially Made for Exact, Original Replacement
- Dual Dielectric (Mylar®-paper) Solidly Impregnated With Exclusive HCX® — Produces Rock-Hard Capacitor Section
- Outperforms Any Other Dipped Tubular Capacitor
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 1000 VDC
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin — Beats Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak® Boxes

μF	D. x L.	Cat. No.	Net
200 VOLTS D-C			
.02	3/8 x 7/8	2PS-S20	$.15
.022	25/64 x 7/8	2PS-S22	.15
.047	29/64 x 7/8	2PS-S47	.15
.05	15/32 x 7/8	2PS-S50	.15
.1	31/64 x 1 3/16	2PS-P10	.21
.15	9/16 x 1 3/16	2PS-P15	.21
.2	19/32 x 1 5/16	2PS-P20	.24
.22	39/64 x 1 5/16	2PS-P22	.24
.25	5/8 x 1 5/16	2PS-P25	.24
.33	5/8 x 1 5/8	2PS-P33	.30
.47	45/64 x 1 5/8	2PS-P47	.36
.5	23/32 x 1 5/8	2PS-P50	.36
400 VOLTS D-C			
.01	13/32 x 1 1/16	4PS-S10	.15
.015	29/64 x 1 1/16	4PS-S15	.15
.02	13/32 x 7/8	4PS-S20	.15
.022	27/64 x 7/8	4PS-S22	.18
.025	7/16 x 7/8	4PS-S25	.18
.03	29/64 x 7/8	4PS-S30	.18
.033	15/32 x 7/8	4PS-S33	.18
.04	27/64 x 1 3/16	4PS-S40	.18
.047	29/64 x 1 3/16	4PS-S47	.18
.05	29/64 x 1 3/16	4PS-S50	.18
.056	31/64 x 1 3/16	4PS-S56	.21
.068	33/64 x 1 3/16	4PS-S68	.21
.075	33/64 x 1 3/16	4PS-S75	.21
.1	37/64 x 1 3/16	4PS-P10	.21
.15	39/64 x 1 5/16	4PS-P15	.24
.2	19/32 x 1 5/8	4PS-P20	.27
.22	39/64 x 1 5/8	4PS-P22	.27
.25	41/64 x 1 5/8	4PS-P25	.30
600 VOLTS D-C			
.001	21/64 x 1 1/16	6PS-D10	.15
.0012	21/64 x 1 1/16	6PS-D12	.15
.0015	21/64 x 1 1/16	6PS-D15	.15
.0018	21/64 x 1 1/16	6PS-D18	.15
.002	21/64 x 1 1/16	6PS-D20	.15
.0022	21/64 x 1 1/16	6PS-D22	.15
.0025	21/64 x 1 1/16	6PS-D25	.15
.0027	11/32 x 1 1/16	6PS-D27	.15
.003	11/32 x 1 1/16	6PS-D30	.15
.0033	23/64 x 1 1/16	6PS-D33	.15

μF	D. x L.	Cat. No.	Net
600 VOLTS D-C (cont.)			
.0039	3/8 x 1 1/16	6PS-D39	$.15
.004	3/8 x 1 1/16	6PS-D40	.15
.0047	25/64 x 1 1/16	6PS-D47	.15
.005	25/64 x 1 1/16	6PS-D50	.15
.0056	25/64 x 1 1/16	6PS-D56	.15
.006	13/32 x 1 1/16	6PS-D60	.15
.0068	13/32 x 1 1/16	6PS-D68	.18
.0075	23/64 x 7/8	6PS-D75	.18
.008	23/64 x 7/8	6PS-D80	.18
.0082	3/8 x 7/8	6PS-D82	.18
.01	25/64 x 7/8	6PS-S10	.18
.012	25/64 x 7/8	6PS-S12	.18
.015	27/64 x 7/8	6PS-S15	.18
.02	31/64 x 7/8	6PS-S20	.18
.022	31/64 x 7/8	6PS-S22	.18
.025	17/32 x 7/8	6PS-S25	.21
.027	7/16 x 1 3/16	6PS-S27	.21
.03	7/16 x 1 3/16	6PS-S30	.21
.033	15/32 x 1 3/16	6PS-S33	.21
.035	15/32 x 1 3/16	6PS-S35	.21
.039	31/64 x 1 3/16	6PS-S39	.21
.04	1/2 x 1 3/16	6PS-S40	.21
.047	17/32 x 1 3/16	6PS-S47	.24
.05	17/32 x 1 3/16	6PS-S50	.24
.056	35/64 x 1 3/16	6PS-S56	.24
.06	9/16 x 1 3/16	6PS-S60	.24
.068	37/64 x 1 3/16	6PS-S68	.27
.075	9/16 x 1 5/16	6PS-S75	.27
.082	37/64 x 1 5/16	6PS-S82	.27
.1	5/8 x 1 5/16	6PS-P10	.27
.15	43/64 x 1 5/8	6PS-P15	.30
.2	3/4 x 1 5/8	6PS-P20	.39
.22	25/32 x 1 5/8	6PS-P22	.42
.25	13/16 x 1 5/8	6PS-P25	.45
1000 VOLTS D-C			
.001	21/64 x 1 1/16	10PS-D10	.30
.0015	11/32 x 1 1/16	10PS-D15	.30
.002	3/8 x 1 1/16	10PS-D20	.30
.0022	3/8 x 1 1/16	10PS-D22	.30
.003	11/32 x 7/8	10PS-D30	.30
.004	3/8 x 7/8	10PS-D40	.30
.0047	13/32 x 7/8	10PS-D47	.30
.005	13/32 x 7/8	10PS-D50	.30

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SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

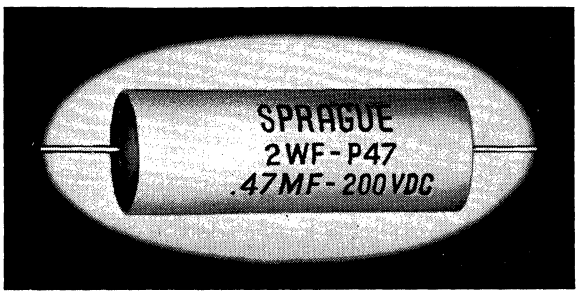
For Applications Where the Best in Tubulars is None too Good

- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors in Most Applications, Yet Considerably Less Expensive
- Constant Capacitance — Will Not Change More Than ±0.5% from Room Temperature to +80°C at Maximum Rated Voltage Will Withstand Operating Temperatures to 85°C (185°F)
- **Capacitance Tolerance:** ±5%
- Also Available in Handy Sprague Kleer-Pak® Boxes.

μF	D. x L.	Cat. No.	Net
	500 WVDC		
.001	3/8 x 1	5BF-D10	$.45
.0012	3/8 x 1	5BF-D12	.45
.0015	3/8 x 1	5BF-D15	.45
.0018	3/8 x 1	5BF-D18	.45
.0022	3/8 x 1	5BF-D22	.45
.0027	3/8 x 1	5BF-D27	.45
.0033	3/8 x 1	5BF-D33	.45
.0039	3/8 x 1	5BF-D39	.48
.0047	3/8 x 1	5BF-D47	.48
.0056	3/8 x 1 1/4	5BF-D56	.48
.0068	3/8 x 1 1/4	5BF-D68	.48
.0082	7/16 x 1 1/4	5BF-D82	.48
.01	7/16 x 1 1/4	5BF-S10	.54
.012	1/2 x 1 1/4	5BF-S12	.54
.015	1/2 x 1 1/4	5BF-S15	.75
.018	1/2 x 1 1/2	5BF-S18	.75
.022	1/2 x 1 1/2	5BF-S22	$.90
.027	5/8 x 1 7/8	5BF-S27	.90
.033	5/8 x 1 7/8	5BF-S33	1.08
.039	5/8 x 1 7/8	5BF-S39	1.08
.047	5/8 x 1 7/8	5BF-S47	1.26
.056	5/8 x 1 7/8	5BF-S56	1.26
.068	5/8 x 1 7/8	5BF-S68	1.59
.082	3/4 x 1 1/4	5BF-S82	2.16
.1	3/4 x 2 1/4	5BF-P10	2.16
.12	7/8 x 2 1/2	5BF-P12	2.94
.15	7/8 x 2 1/2	5BF-P15	2.94
.18	7/8 x 2 1/2	5BF-P18	4.05
.22	7/8 x 2 1/2	5BF-P22	4.05
.27	1 x 2 1/2	5BF-P27	4.95
.33	1 x 2 1/2	5BF-P33	4.95

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

- Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits
- Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gauge Foil
- Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity
- "Smaller Than Small" — These Capacitors Will Fit Anywhere
- Rated to **200 WVDC** — Capacitance Tolerance: ±10%
- Designed for Operation to 85°C (185°F)



μF	Dia. x Length	Cat. No.	Net
	200 WVDC		
.01	13/64 x 1 1/16	2WF-S10	$.57
.012	13/64 x 1 1/16	2WF-S12	.57
.015	13/64 x 1 1/16	2WF-S15	.57
.018	13/64 x 1 1/16	2WF-S18	.57
.022	13/64 x 1 1/16	2WF-S22	.57
.027	7/32 x 1 1/16	2WF-S27	.57
.033	7/32 x 1 1/16	2WF-S33	.60
.039	1/4 x 1 1/16	2WF-S39	.60
.047	1/4 x 1 1/16	2WF-S47	.60
.056	1/4 x 13/16	2WF-S56	.60
.068	1/4 x 13/16	2WF-S68	.60
.082	5/16 x 13/16	2WF-S82	.60
.1	5/16 x 13/16	2WF-P10	.63
.12	23/64 x 13/16	2WF-P12	$.63
.15	23/64 x 13/16	2WF-P15	.63
.18	23/64 x 1 1/16	2WF-P18	.66
.22	23/64 x 1 1/16	2WF-P22	.66
.27	15/32 x 13/16	2WF-P27	.66
.33	15/32 x 13/16	2WF-P33	.66
.39	35/64 x 13/16	2WF-P39	.72
.47	35/64 x 13/16	2WF-P47	.72
.56	35/64 x 1 9/16	2WF-P56	.90
.68	35/64 x 1 9/16	2WF-P68	.90
.82	19/32 x 1 13/16	2WF-P82	.90
1.0	19/32 x 1 13/16	2WF-M1	.90

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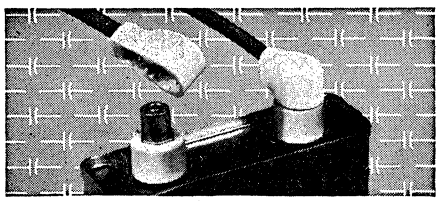
SPRAGUE CAPACITORS

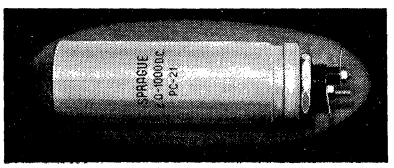
TYPE CR RECTANGULAR OILS

- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications
- Furnished With Adapters (as shown below) to Fit Standard Transmitting Tube Plate Caps



μF	WVDC	T. x W. x L.	Cat. No.	Net
.5	600	1 1/16 x 1 13/16 x 2 1/4	CR-056	$2.82
1.0	600	1 1/16 x 1 13/16 x 2 1/4	CR-10	3.48
2.0	600	1 1/16 x 1 13/16 x 2 7/8	CR-26	4.29
3.0	600	1 1/16 x 1 13/16 x 3 1/4	CR-36	4.95
4.0	600	1 3/16 x 2 1/2 x 3 1/2	CR-46	5.46
6.0	600	1 3/16 x 2 1/2 x 4 3/4	CR-66	6.78
8.0	600	1 1/4 x 3 3/4 x 3 7/8	CR-86	8.10
10.0	600	1 1/4 x 3 3/4 x 4 3/4	CR-106	9.09
.1	1000	1 1/16 x 1 13/16 x 1 5/8	CR-011	2.49
.25	1000	1 1/16 x 1 13/16 x 2 1/4	CR-0251	2.82
.5	1000	1 1/16 x 1 13/16 x 2 1/4	CR-051	2.97
1.0	1000	1 1/16 x 1 13/16 x 2 1/4	CR-11	3.81
2.0	1000	1 1/16 x 1 13/16 x 3 7/8	CR-21	4.95
4.0	1000	1 3/16 x 2 1/2 x 4 3/4	CR-41	6.27
8.0	1000	1 1/4 x 3 3/4 x 4 3/4	CR-81	9.09
10.0	1000	1 3/4 x 3 3/4 x 4 3/4	CR-101	10.08
12.0	1000	2 1/4 x 3 3/4 x 4 1/2	CR-121	10.89
15.0	1000	2 1/2 x 3 3/4 x 4 3/4	CR-151	12.06
.5	1500	1 1/16 x 1 13/16 x 2 7/8	CR-0515	3.81
1.0	1500	1 1/16 x 1 13/16 x 3 7/8	CR-115	4.47
2.0	1500	1 3/16 x 2 1/2 x 4 1/4	CR-215	6.12
4.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-415	8.43
5.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-515	9.09
8.0	1500	2 1/2 x 3 3/4 x 4 3/4	CR-815	12.54
10.0	1500	3 3/16 x 3 3/4 x 4 3/4	CR-1015	15.03
.1	2000	1 3/16 x 2 1/2 x 2 1/2	CR-012	3.96
.25	2000	1 3/16 x 2 1/2 x 2 1/2	CR-0252	4.29
.5	2000	1 3/16 x 2 1/2 x 2 7/8	CR-052	4.47
1.0	2000	1 3/16 x 2 1/2 x 3 1/2	CR-12	5.46
2.0	2000	1 1/4 x 3 3/4 x 4 1/4	CR-22	6.45
3.0	2000	1 1/4 x 3 3/4 x 4 3/4	CR-32	$ 7.92
4.0	2000	2 1/4 x 3 3/4 x 3 7/8	CR-42	9.09
6.0	2000	3 3/16 x 3 3/4 x 4 1/2	CR-62	12.06
10.0	2000	4 3/16 x 3 3/4 x 4 3/4	CR-102	18.33
.1	2500	1 3/16 x 2 1/2 x 2 1/2	CR-0125	6.09
.5	2500	1 1/4 x 3 3/4 x 3 1/4	CR-0525	6.93
1.0	2500	1 3/4 x 3 3/4 x 3 1/4	CR-125	7.92
2.0	2500	1 3/4 x 3 3/4 x 4 3/4	CR-225	12.87
4.0	2500	4 3/16 x 3 3/4 x 4 3/8	CR-425	18.00
.1	3000	1 3/16 x 2 1/2 x 2 1/2	CR-013	8.43
.25	3000	1 3/16 x 2 1/2 x 2 7/8	CR-0253	8.91
.5	3000	1 3/16 x 2 1/2 x 4 1/4	CR-053	10.08
1.0	3000	2 1/4 x 3 3/4 x 3 7/8	CR-13	12.06
2.0	3000	3 3/16 x 3 3/4 x 4 1/2	CR-23	15.03
4.0	3000	4 3/16 x 3 3/4 x 4 3/4	CR-43	22.11
.1	4000	2 1/4 x 3 3/4 x 2 3/4	CR-014	10.80
.25	4000	2 1/4 x 3 3/4 x 2 3/4	CR-0254	12.00
.5	4000	2 1/4 x 3 3/4 x 3 7/8	CR-054	13.80
1.0	4000	2 1/4 x 3 3/4 x 5 1/8	CR-14	17.40
2.0	4000	4 3/16 x 3 3/4 x 5 1/8	CR-24	23.40
.2	5000	1 3/4 x 3 3/4 x 3 7/8	CR-025	12.00
.5	5000	2 1/4 x 3 3/4 x 4 1/2	CR-055	15.00
1.0	5000	4 3/16 x 3 3/4 x 4 3/8	CR-15	20.40
2.0	5000	4 3/16 x 3 3/4 x 6	CR-25	31.20
.1	6000	2 1/4 x 3 3/4 x 3 3/8	CR-0160	16.20
.2	6000	1 3/4 x 3 3/4 x 4 1/4	CR-0260	18.00
1.0	6000	4 3/16 x 3 3/4 x 7 1/2	CR-160	29.40
.1	7500	2 1/4 x 3 3/4 x 3 7/8	CR-0175	17.40
.2	7500	1 3/4 x 3 3/4 x 4 3/4	CR-0275	19.80

SCREWBASE PC OILS

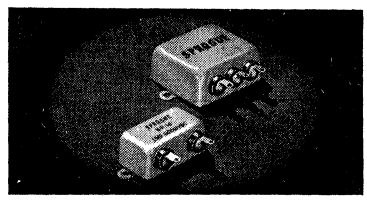


- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

μF	WVDC	Diam. x Lgth.	Cat. No.	Net
2	600	1 1/2 x 2 7/8	PC-26	$3.24
3	600	1 1/2 x 3 1/2	PC-36	3.69
4	600	1 1/2 x 4 1/2	PC-46	4.26
1	1000	1 1/2 x 2 7/8	PC-11	3.00
2	1000	1 1/2 x 4 1/2	PC-21	3.78
0.5	1500	1 1/2 x 2 3/8	PC-515	3.51
1	1500	1 1/2 x 3 7/8	PC-115	3.78

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



μF	L. x W. x H.	Cat. No.	Net
400 WVDC			
.1	1 13/16 x 1 x 3/4	BP-1	$1.32
.25	1 13/16 x 1 x 3/4	BP-25	1.50
.5	1 13/16 x 1 x 7/8	BP-50	1.59
1.0	2 x 1 3/4 x 7/8	BP-10	1.89
.1 + .1	1 13/16 x 1 x 3/4	BP-21	1.98
.25 + .25	1 13/16 x 1 x 7/8	BP-225	2.16
.5 + .5	2 x 1 3/4 x 7/8	BP-250	2.49
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-31	2.40
600 WVDC			
.05	1 13/16 x 1 x 3/4	BP-56	1.74
.1	1 13/16 x 1 x 3/4	BP-16	1.77
.25	1 13/16 x 1 x 3/4	BP-256	1.86
.5	1 13/16 x 1 x 7/8	BP-506	1.98
1.0	2 x 1 3/4 x 7/8	BP-106	2.25
2.0	2 x 2 x 1 1/8	BP-206	3.00
.05 + .05	1 13/16 x 1 x 3/4	BP-2056	2.19
.1 + .1	1 13/16 x 1 x 3/4	BP-216	$2.22
.25 + .25	1 13/16 x 1 x 7/8	BP-2256	2.25
.5 + .5	2 x 1 3/4 x 7/8	BP-2506	2.58
1.0 + 1.0	2 x 2 x 1 1/8	BP-116	3.18
.1 + .1 + .1	1 13/16 x 1 x 3/4	BP-316	2.52
.25 + .25 + .25	2 x 1 3/4 x 7/8	B2-3256	2.85
.5 + .5 + .5	2 x 2 x 1 1/8	BP-356	3.45
1000 WVDC			
.05	1 13/16 x 1 x 3/4	BP-51	1.83
.1	1 13/16 x 1 x 3/4	BP-11	1.89
.25	1 13/16 x 1 x 3/4	BP-251	1.95
.5	2 x 1 3/4 x 7/8	BP-501	2.13
1.0	2 x 2 x 1 1/8	BP-101	2.64
.05 + .05	1 13/16 x 1 x 3/4	BP-2051	2.31
.1 + .1	1 13/16 x 1 x 3/4	BP-211	2.40
.25 + .25	2 x 1 3/4 x 7/8	BP-2251	2.52
.5 + .5	2 x 2 x 1 1/8	BP-2501	3.27
.1 + .1 + .1	1 13/16 x 1 x 7/8	BP-311	2.76
.25 + .25 + .25	2 x 2 x 1 1/8	BP-3251	3.30

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Net

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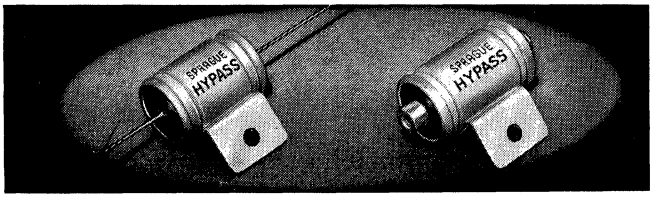
SPRAGUE FILTERS

HYPASS® CAPACITORS

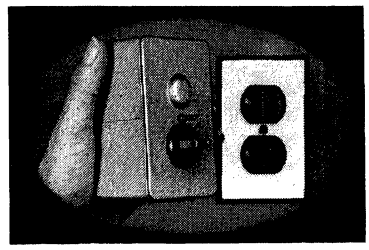


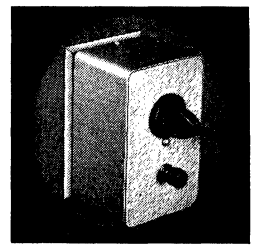
- Exclusive Sprague 3-terminal Network Feed-thru Capacitors
- Bypass V-H-F Currents Where Ordinary Capacitors are Ineffective
- Suppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc.
- Eliminate Interference caused by Line-conducted Radiation Between Neighboring TV Sets
- Install Leads in Series with Circuit Being Filtered and Ground the Case

μF	Amps.	WVDC	Dia. x Length	Cat. No.	Net
.5	40	50	1 x 1 13/16	*48P18	$2.28
.25	20	200	3/4 x 1 13/16	*48P10	1.56
5	20	200	1 x 1 13/16	*48P14	1.89
.1	20	250(VAC)	1 1/16 x 1 13/16	*48P9	1.56
.1	20	400	1 1/16 x 1 13/16	*48P6	1.53
.1	20	400	1 1/16 x 1 13/16	†80P1	1.74
.002	15	600	1/4 x 1 3/8	46P12	1.29
.005	15	600	1/4 x 1 5/8	46P8	1.29
.01	20	600	7/16 x 1 1/4	47P6	1.41
.02	20	600	7/16 x 1 1/2	47P8	1.44
.1	20	600	1 1/16 x 1 13/16	*48P8	1.56
.1	20	600	1 1/16 x 1 13/16	*†80P3	1.77
.25	20	600	1 x 1 13/16	*48P12	1.65
.5	20	600	1 x 2 1/4	*48P16	2.10
.005	20	1000	7/16 x 1 1/4	47P12	1.44
.01	20	1000	7/16 x 1 1/2	47P13	1.56
.005	20	2500	1 x 1 9/16	47P14	1.74
.01	20	2500	1 x 1 9/16	47P15	1.86
.002	20	5000	1 x 1 9/16	47P16	1.92

*Has female screw terminals †Bulkhead mounting.

TYPE F-400 MIRACLE FILTEROL®





A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filtero F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400.
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

TYPE F-400 FILTEROL..... $7.45 ne

TYPE IF FILTERS

IF-15 IF-11 IF-21 IF-S1 IF-37

IF-15 — TRIPLE-SECTION FILTER for small motor-operated devices such as fans, drills, etc. designed to prevent shocks from discharge of filter capacitors.

IF-11 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp up to 220 volts ac-dc. Also used on high-current arcing devices.

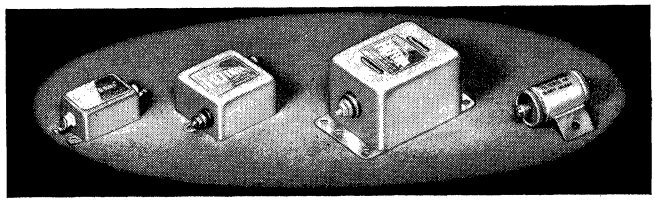
IF-21 — COMPACT DUAL FILTER for use on fractional horsepower motors with case grounded to motor frame. Also used across line terminals of motors.

IF-S1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break contacts, such as thermostats, circuit breakers, etc.

IF-37 — 3-SECTION DELTA-CONNECTED FILTER especially designed for fluorescent fixtures. Also used on governor-type motors. *UL Approved.*

Cat. No.	Volts AC or DC	Dia. x Length	Net
IF-15	220	1 x 2 3/16	$1.56
IF-11	220	1 3/8 x 5 1/4	4.68
IF-21	220	1 x 2 3/16	1.05
IF-S1	220	3/4 x 2 1/16	.69
IF-37	220	1 x 2"	1.35

FILTEROL® FILTERS



FILTEROL 1 FILTEROL 2 FILTEROL 3 FILTEROL 4

Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices . . . A 3-terminal network with the case as one terminal . . . The selected filter should have a rating higher than the continuous operating current of the offending device . . . A single Filterol connected to the high side of the line is usually sufficient . . . In severe cases a Filterol in each leg of the power line may be necessary . . . For three or four-wire systems, a Filterol in each wire is necessary.

Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor . . . Provides exceptionally high attenuation at frequencies above 5 megacycles . . . Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amps.	Volts AC or DC	Size	Net
Filterol 1	1	115	7/8 x 1 1/4 x 1 3/4	$ 8.10
Filterol 2	10	115	1 1/8 x 2 x 2	8.88
Filterol 3	35	115	1 7/8 x 2 7/8 x 3 1/8	16.44
Filterol 4	20	115	1" dia. x 1 13/16" long	1.83

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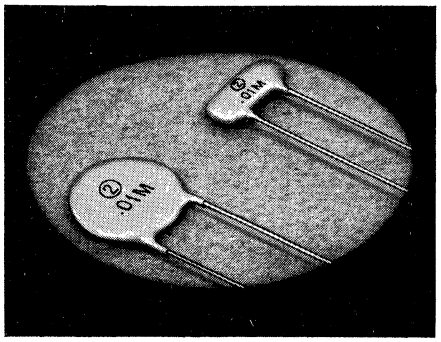
Net

SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-pass Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubular Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assures Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiature Tube Sockets
- Designed For 85°C (185°F) Continuous Operation

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Application Capacitors Such as Molded Micas, Tubular Ceramics, and Paper Tubulars

300 WVDC (plates)
Std. Tolerance: ±20%

μμF	Cat. No.	Net
470	†3GAB-T47	$.21
1000	†3GAB-D1	.21
2200	†3GAB-D22	.27
4700	†3GAB-D47	.27
.01MF	†3GAB-S1	.39
.022	†3GAB-S22	.39
.047	†3GAB-S47	.42
.1	†3GAB-P1	.45
.15	†3GAB-P15	.48

400 WVDC (discs)
Std. Tolerance: ±20%

μμF	Cat. No.	Net
10	†4GA-Q1	$.15
15	†4GA-Q15	.15
22	†4GA-Q22	.15
33	†4GA-Q33	.15
47	†4GA-Q47	.15
68	†4GA-Q68	.15
100	†4GA-T1	.15
150	†4GA-T15	.15
220	†4GA-T22	.15
330	†4GA-T33	.15
470	†4GA-T47	.15

500 WVDC (plates)
Std. Tolerance: ±20%

μμF	Cat. No.	Net
470	5GAB-T47	$.21
.001μF	5GAB-D10	.21
.0022	5GAB-D22	.27
.0047	5GAB-D47	.27
.01	5GAB-S10	.39
.022	5GAB-S22	.39
.047	5GAB-S47	.42
.1	5GAB-P10	.45
.15	5GAB-P15	.48

1000 WVDC (discs)
Std. Tolerance: ±20%

μμF	Cat. No.	Net
5	5GA-V50	$.15
6	5GA-V60	.15
7.5	5GA-V75	.15
8	5GA-V80	.15
10	5GA-Q10	$.15
12	5GA-Q12	.15
15	5GA-Q15	.15
18	5GA-Q18	.15
20	5GA-Q20	.15
22	5GA-Q22	.15
25	5GA-Q25	.15
27	5GA-Q27	.15
30	5GA-Q30	.15
33	5GA-Q33	.15
39	5GA-Q39	.15
47	5GA-Q47	.15
50	5GA-Q50	.15
56	5GA-Q56	.15
68	5GA-Q68	.15
75	5GA-Q75	.15
82	5GA-Q82	.15
91	5GA-Q91	.15
100	5GA-T10	.15
120	5GA-T12	.15
130	5GA-T13	.15
150	5GA-T15	.15
180	5GA-T18	.15
200	5GA-T20	.15
220	5GA-T22	.15
240	5GA-T24	.15
250	5GA-T25	.15
270	5GA-T27	.15
300	5GA-T30	.15
330	5GA-T33	.15
350	5GA-T35	.15
360	5GA-T36	.15
390	5GA-T39	.15
400	5GA-T40	.15
470	5GA-T47	.15
500	5GA-T50	.15
560	5GA-T56	.15
600	5GA-T60	.15
680	5GA-T68	$.15
750	5GA-T75	.15
800	5GA-T80	.15
820	5GA-T82	.15
.001μF	5GA-D10	.15
.0012	5GA-D12	.15
.0013	5GA-D13	.15
.0015	5GA-D15	.15
.0016	5GA-D16	.15
.0018	5GA-D18	.15
.002	5GA-D20	.15
.0022	5GA-D22	.15
.0025	5GA-D25	.15
.0027	5GA-D27	.15
.003	5GA-D30	.15
.0033	5GA-D33	.15
.0039	5GA-D39	.15
.004	5GA-D40	.15
.0043	5GA-D43	.18
.0047	5GA-D47	.18
.005	5GA-D50	.18
.01	5GA-S10	.18
.015	5GA-S15	.18
.02	5GA-S20	.18

1000 WVDC (plates)
Std. Tolerances: Type 10GAB-V47 ±.5 MMF, other types 10GAB ±20%, types 10HKB MRC

μμF	Cat. No.	Net
4.7	†10GAB-V47	$.18
10	†10GAB-Q1	.18
18	†10GAB-Q18	.18
22	†10GAB-Q22	.18
25	†10GAB-Q25	.18
33	†10GAB-Q33	.18
39	†10GAB-Q39	.18
47	†10GAB-Q47	.18
68	†10GAB-Q68	.18
75	†10GAB-Q75	.18
82	†10GAB-Q82	.18
100	†10GAB-T1	.18
120	†10GAB-T12	$.18
150	†10GAB-T15	.18
180	†10GAB-T18	.18
200	†10GAB-T2	.18
220	†10GAB-T22	.18
250	†10GAB-T25	.18
270	†10GAB-T27	.18
300	†10GAB-T3	.18
330	†10GAB-T33	.18
390	†10GAB-T39	.18
470	†10GAB-T47	.18
500	†10GAB-T5	.18
560	†10GAB-T56	.30
680	†*10HKB-T68	.30
1000	†*10HKB-D1	.30
1200	†*10HKB-D12	.30
1500	†*10HKB-D15	.30
2200	†*10HKB-D22	.30
3300	†*10HKB-D33	.30
4700	†*10HKB-D47	.30
.01MF	†*10HKB-S1	.36
.015	†*10HKB-S15	.66
.022	†*10HKB-S22	.81

1500 WVDC (plates)
Std. Tolerances: thru 4.7 MMF ±.5 MMF, all others ±20%

μμF	Cat. No.	Net
3.3	†15GAB-V33	$.18
4.7	†15GAB-V47	.18
6	†15GAB-V6	.18
7.5	†15GAB-V75	.18
10	†15GAB-Q1	.18
12	†15GAB-Q12	.18
15	†15GAB-Q15	.18
18	†15GAB-Q18	.18
20	†15GAB-Q2	.18
22	†15GAB-Q22	.18
33	†15GAB-Q33	.18
47	†15GAB-Q47	.18
56	†15GAB-Q56	.18
62	†15GAB-Q62	.18
68	†15GAB-Q68	.18
82	†15GAB-Q82	.21
100	†15GAB-T1	.21
150	†15GAB-T15	.21
180	†15GAB-T18	$.21
220	†15GAB-T22	.21
300	†15GAB-T3	.21
330	†15GAB-T33	.21
390	†15GAB-T39	.21
470	†15GAB-T47	.21

2000 WVDC (discs)
Std. Tolerances: thru 5MMF ±.5 MMF, thru 82 MMF ±10%, thru 1000 MMF ±20%, thru 6000 MMF MRC

μμF	Cat. No.	Net
3.3	†20GA-V33	$.21
5	†20GA-V5	.21
7.5	†20GA-V75	.21
10	†20GA-Q1	.21
12	†20GA-Q12	.21
15	†20GA-Q15	.21
18	†20GA-Q18	.21
20	†20GA-Q2	.21
22	†20GA-Q22	.21
33	†20GA-Q33	.21
39	†20GA-Q39	.21
47	†20GA-Q47	.21
56	†20GA-Q56	.21
62	†20GA-Q62	.21
68	†20GA-Q68	.21
75	†20GA-Q75	.21
82	†20GA-Q82	.21
100	†20GA-T1	.21
120	†20GA-T12	.21
150	†20GA-T15	.21
180	†20GA-T18	.21
200	†20GA-T2	.21
220	†20GA-T22	.21
300	†20GA-T3	.21
330	†20GA-T33	.21
390	†20GA-T39	.21
470	†20GA-T47	.21
500	†20GA-T5	.21
1000	†20GA-D1	.33
4000	†*20HK-D4	.33
5000	†*20HK-D5	.42
6000	†*20HK-D6	.42

*High-K Types †Available Until Present Stocks Are Exhausted

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Net
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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

2000 WVDC (plates)
Standard Tolerances:
5MMF ± .5 MMF,
other types 20GAB ± 20%,
types 20HKB MRC

μμF	Cat. No.	Net
5	†20GAB-V5	$.21
10	†20GAB-Q1	.21
15	†20GAB-Q15	.21
22	†20GAB-Q22	.21
30	†20GAB-Q3	.21
33	†20GAB-Q33	.21
39	†20GAB-Q39	.21
47	†20GAB-Q47	.21
100	†20GAB-T1	.21
150	†20GAB-T15	.21
200	†20GAB-T2	.21
220	†*20HKB-T22	.21
300	†*20HKB-T3	.21
500	†*20HKB-T5	.21
1000	†*20HKB-D1	.33
5000	†*20HKB-D5	.42
8000	†*20HKB-D8	.42
10000	†*20HKB-S1	.42

3000 WVDC (discs)
Standard Tolerances:
1.5 μμF ± .25 μμF
thru 5μμF ± .5 μμF
thru 68 μμF ± 10%
thru .002 μF ±20%

1.5	30GA-V15	$.24
3.3	30GA-V33	.24
4.7	30GA-V47	.24
5	30GA-V50	.24
6	30GA-V60	.24
6.8	30GA-V68	.24
7.5	30GA-V75	.24
8.2	30GA-V82	.24
10	30GA-Q10	.24
12	30GA-Q12	.24
15	30GA-Q15	.24
18	30GA-Q18	.24
20	30GA-Q20	.24
22	30GA-Q22	$.24
25	30GA-Q25	.24
27	30GA-Q27	.24
30	30GA-Q30	.24
33	30GA-Q33	.24
39	30GA-Q39	.24
47	30GA-Q47	.24
50	30GA-Q50	.24
56	30GA-Q56	.24
60	30GA-Q60	.24
62	30GA-Q62	.24
68	30GA-Q68	.24
75	30GA-Q75	.24
82	30GA-Q82	.24
100	30GA-T10	.24
120	30GA-T12	.24
150	30GA-T15	.24
180	30GA-T18	.24
200	30GA-T20	.24
220	30GA-T22	.24
250	30GA-T25	.24
270	30GA-T27	.24
300	30GA-T30	.24
330	30GA-T33	.24
390	30GA-T39	.24
400	30GA-T40	.24
470	30GA-T47	.24
500	30GA-T50	.24
560	30GA-T56	.24
680	30GA-T68	.24
750	30GA-T75	.24
820	30GA-T82	.24
.001μF	30GA-D10	.24
.0012	30GA-D12	.24
.0015	30GA-D15	.24
.002	30GA-D20	.24
.0022	30GA-D22	.24
.0025	30GA-D25	.24
.0027	30GA-D27	.24
.003	30GA-D30	.24
.0033μF	30GA-D33	$.24
.0039	30GA-D39	.24
.004	30GA-D40	.24
.0047	30GA-D47	.24
.005	30GA-D50	.27
.006	30GA-D60	.27
.0068	30GA-D68	.27
.008	30GA-D80	.27
.0082	30GA-D82	.27
.01	30GA-S10	.27

3000 WVDC (plates)
Standard Tolerances:
1.5 μμF ±.25 μμF,
4.7 μμF ±.25 μμF,
other types 30GAB ±20%

1.5	†30GAB-V15	$.24
4.7	†30GAB-V47	.24
10	†30GAB-Q1	.24
15	†30GAB-Q15	.24
47	†30GAB-Q47	.24
60	†30GAB-Q6	.24
68	†30GAB-Q68	.24
100	†30GAB-T1	.24
120	†30GAB-T12	.24
150	†30GAB-T15	.24
180	†30GAB-T18	.24

5000 WVDC (discs)
Standard Tolerances:
4.7 μμF ±.5 μμF,
thru 22 μμF ±10%
thru 500 μμF ±20%

4.7	†50GA-V47	$.27
10	†50GA-Q1	.27
22	†50GA-Q22	.27
47	†50GA-Q47	.27
100	†50GA-T1	.27
220	†50GA-T22	.27
330	†50GA-T33	.33
500	†50GA-T5	.60

6000 WVDC (discs)
Standard Tolerance: ±20%

1.5	60GA-V15	$.30
4.7	60GA-V47	$.30
6.8	60GA-V68	.30
8.2	60GA-V82	.30
10	60GA-Q10	.30
12	60GA-Q12	.30
15	60GA-Q15	.30
18	60GA-Q18	.30
20	60GA-Q20	.30
22	60GA-Q22	.30
25	60GA-Q25	.30
27	60GA-Q27	.30
30	60GA-Q30	.30
33	60GA-Q33	.30
39	60GA-Q39	.30
47	60GA-Q47	.30
50	60GA-Q50	.30
56	60GA-Q56	.30
60	60GA-Q60	.30
68	60GA-Q68	.30
75	60GA-Q75	.30
82	60GA-Q82	.30
100	60GA-T10	.30
120	60GA-T12	.30
150	60GA-T15	.30
180	60GA-T18	.30
200	60GA-T20	.30
220	60GA-T22	.30
250	60GA-T25	.33
270	60GA-T27	.33
300	60GA-T30	.33
330	60GA-T33	.33
390	60GA-T39	.33
400	60GA-T40	.33
470	60GA-T47	.33
500	60GA-T50	.33
560	60GA-T56	.33
680	60GA-T68	.33
750	60GA-T75	.33
820	60GA-T82	.33
.001μF	60GA-D10	.36
.0012	60GA-D12	$.36
.0015	60GA-D15	.36
.0022	60GA-D22	.36

7500 WVDC (discs)
Standard Tolerances:
4.7 μF ±.5 μμF
thru 18 μF ±10%
thru 470 μF ±20%

4.7	75GA-V47	$.30
8.2	75GA-V82	.30
10	75GA-Q10	.30
12	75GA-Q12	.30
15	75GA-Q15	.30
18	75GA-Q18	.30
20	75GA-Q20	.30
22	75GA-Q22	.30
30	75GA-Q30	.30
33	75GA-Q33	.30
47	75GA-Q47	.30
56	75GA-Q56	.30
100	75GA-T10	.30
470	75GA-T47	.39

6000 WVDC (plates)
Standard Tolerances:
4.7 μμF ±.5 μμF,
other types 60GAB ±20%
types 60HKB MRC

4.7	†60GAB-V47	$.30
8.2	†60GAB-V82	.30
10	†60GAB-Q1	.30
12	†60GAB-Q12	.30
15	†60GAB-Q15	.30
18	†60GAB-Q18	.30
20	†60GAB-Q2	.30
22	†60GAB-Q22	.30
30	†60GAB-Q3	.30
33	†60GAB-Q33	.30
47	†60GAB-Q47	.30
100	†*60HKB-T1	.30
470	†*60HKB-T47	.39

*High-K Types †Available Until Present Stocks Are Exhausted

HIGH-K TYPES

- Designed for By-pass and Coupling Applications Where Additional Capacitance Will Not Affect Circuit Operation
- Smallest Physical Size
- 5HK-S15 thru 5HK-P10, 5HK-2S20, **500 WVDC**, Capacitance Tolerance: +80-20%
- All Other 5HK are **1000 WVDC**, capacitance Tolerance: GMV

μF	Cat. No.	Net
SINGLE UNITS		
.001	5HK-D10	$.15
.0015	5HK-D15	.15
.002	5HK-D20	.15
.0022	5HK-D22	.15
.0025	5HK-D25	.15
.0033	5HK-D33	.15
.004	5HK-D40	.15
.0047	5HK-D47	.15
.005	5HK-D50	.15
.0068	5HK-D68	.15
.01	5HK-S10	.18
.015	5HK-S15	.24
02	5HK-S20	.36
.022	5HK-S22	$.39
.025	5HK-S25	.39
.03	5HK-S30	.39
.04	5HK-S40	.42
.05	5HK-S50	.42
.1	5HK-P10	.96
DUAL UNITS		
2 x .001	5HK-2D10	$.24
2 x .0015	5HK-2D15	.24
2 x .002	5HK-2D20	.24
2 x .0022	5HK-2D22	.24
2 x .004	5HK-2D40	.27
2 x .0047	5HK-2D47	.27
2 x .01	5HK-2S10	.30
2 x .02	5HK-2S20	.42

TEMPERATURE-STABLE TYPES

- Used where minimum capacitance change with temperature is an important consideration
- Standard capacitance tolerance: ±10% except 10TS-S15, 10TS-S20, ±15%
- Rated at **1000 WVDC**

μμF	Cat. No.	Net
3.3	10TS-V33	$.15
5	10TS-V50	.15
6	10TS-V60	.15
6.8	10TS-V68	.15
7.5	10TS-V75	.15
8	10TS-V80	.15
10	10TS-Q10	.15
12	10TS-Q12	.15
15	10TS-Q15	.15
18	10TS-Q18	.15
20	10TS-Q20	.15
22	10TS-Q22	.15
25	10TS-Q25	.15
27	10TS-Q27	.15
30	10TS-Q30	.15
33	10TS-Q33	.15
39	10TS-Q39	.15
47	10TS-Q47	.15
50	10TS-Q50	.15
56	10TS-Q56	.15
68	10TS-Q68	.15
75	10TS-Q75	.15
82	10TS-Q82	.15
91	10TS-Q91	.15
100	10TS-T10	$.15
120	10TS-T12	.15
130	10TS-T13	.15
150	10TS-T15	.15
180	10TS-T18	.15
200	10TS-T20	.15
220	10TS-T22	.15
240	10TS-T24	.15
250	10TS-T25	.15
270	10TS-T27	.15
300	10TS-T30	.15
330	10TS-T33	.15
350	10TS-T35	.15
360	10TS-T36	.15
390	10TS-T39	.15
400	10TS-T40	.15
470	10TS-T47	.15
500	10TS-T50	.15
560	10TS-T56	.15
600	10TS-T60	.15
680	10TS-T68	.15
750	10TS-T75	.15
800	10TS-T80	.15
820	10TS-T82	.15
.001	10TS-D10	.$15
.0012	10TS-D12	.15
.0013	10TS-D13	.15
.0015	10TS-D15	.15
.0016	10TS-D16	.15
.0018	10TS-D18	.15
.002	10TS-D20	.15
.0022	10TS-D22	.15
.0025	10TS-D25	.15
.0027	10TS-D27	.15
.003	10TS-D30	.15
.0033	10TS-D33	.15
.0039	10TS-D39	.15
.004	10TS-D40	.15
.0043	10TS-D43	.18
.0047	10TS-D47	.18
.005	10TS-D50	.18
.0056	10TS-D56	.18
.0068	10TS-D68	.18
.0075	10TS-D75	.18
.01	10TS-S10	.18
.015	10TS-S15	.18
.02	10TS-S20	.18

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SPRAGUE CAPACITORS

CERA-MITE CERAMIC CAPACITORS, continued

NPO TYPES

- Zero Temperature-coefficient Capacitors used Where Capacitance Change with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q", and Insulation Resistance
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of 5μμF and up: ±5%. On 4.7μμF and below: ±.25μμF
- Units listed below are discs

μμF	Cat. No.	Net	μμF	Cat. No.	Net
1	10TCC-V10	$.30	27	10TCC-Q27	$.30
1.2	10TCC-V12	.30	30	10TCC-Q30	.30
1.5	10TCC-V15	.30	33	10TCC-Q33	.30
1.8	10TCC-V18	.30	39	10TCC-Q39	.33
2.2	10TCC-V22	.30	47	10TCC-Q47	.33
2.7	10TCC-V27	.30	50	10TCC-Q50	.33
3.3	10TCC-V33	.30	56	10TCC-Q56	.33
3.9	10TCC-V39	.30	68	10TCC-Q68	.33
4.7	10TCC-V47	.30	75	10TCC-Q75	.33
5	10TCC-V50	.30	82	10TCC-Q82	.33
5.6	10TCC-V56	.30	100	10TCC-T10	.33
6.8	10TCC-V68	.30	120	10TCC-T12	.36
8.2	10TCC-V82	.30	150	10TCC-T15	.36
10	10TCC-Q10	.30	175	10TCC-T175	.30
12	10TCC-Q12	.30	180	10TCC-T18	.36
15	10TCC-Q15	.30	200	10TCC-T20	.42
18	10TCC-Q18	.30	220	10TCC-T22	.42
20	10TCC-Q20	.30	270	10TCC-T27	.48
22	10TCC-Q22	.30	300	10TCC-T30	.48
25	10TCC-Q25	.30	330	10TCC-T33	.48

TEMPERATURE-COMPENSATING TYPES

- Eliminate oscillator drift in TV, f-m, v-h-f, and a-m receivers
- Negative Temperature Coefficient is 150 ppm/°C for N150 types, 220 ppm/°C for N220, 330 ppm/°C for N330, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of 5μμF and up; ±5%. On 4.7μμF and below: ±.25μμF.

μμF	Cat. No.	Net
N150		
5	10TCP-V50	$.30
6.8	10TCP-V68	.30
8.2	10TCP-V82	.30
10	10TCP-Q10	.30
12	10TCP-Q12	.30
15	10TCP-Q15	.30
18	10TCP-Q18	.30
22	10TCP-Q22	.30
27	10TCP-Q27	.30
33	10TCP-Q33	.30
39	10TCP-Q39	.33
47	10TCP-Q47	.33
56	10TCP-Q56	.33
68	10TCP-Q68	.33
82	10TCP-Q82	.33
100	10TCP-T10	.33
120	10TCP-T12	.36
150	10TCP-T15	.36
N220		
3	10TCR-V30	.30
3.3	10TCR-V33	.30
3.9	10TCR-V39	.30
4.7	10TCR-V47	.30
5	10TCR-V50	.30
5.6	10TCR-V56	.30
6.8	10TCR-V68	.30
8.2	10TCR-V82	.30
10	10TCR-Q10	.30
12	10TCR-Q12	.30
15	10TCR-Q15	$.30
18	10TCR-Q18	.30
22	10TCR-Q22	.30
27	10TCR-Q27	.30
33	10TCR-Q33	.30
39	10TCR-Q39	.33
47	10TCR-Q47	.33
56	10TCR-Q56	.33
68	10TCR-Q68	.33
82	10TCR-Q82	.33
100	10TCR-T10	.33
120	10TCR-T12	.36
150	10TCR-T15	.36
N330		
10	10TCS-Q10	.30
12	10TCS-Q12	.30
15	10TCS-Q15	.30
18	10TCS-Q18	.30
22	10TCS-Q22	.30
27	10TCS-Q27	.30
33	10TCS-Q33	.30
39	10TCS-Q39	.33
47	10TCS-Q47	.33
56	10TCS-Q56	.33
68	10TCS-Q68	.33
82	10TCS-Q82	.33
100	10TCS-T10	.33
120	10TCS-T12	.36
150	10TCS-T15	.36
N750		
2.2	10TCU-V22	$.30
3.3	10TCU-V33	.30
5	10TCU-V50	.30
10	10TCU-Q10	.30
12	10TCU-Q12	.30
15	10TCU-Q15	.30
18	10TCU-Q18	.30
20	10TCU-Q20	.30
22	10TCU-Q22	.30
25	10TCU-Q25	.30
27	10TCU-Q27	.30
33	10TCU-Q33	.30
39	10TCU-Q39	.30
47	10TCU-Q47	.30
56	10TCU-Q56	.30
68	10TCU-Q68	.30
75	10TCU-Q75	.30
82	10TCU-Q82	.30
100	10TCU-T10	.30
120	10TCU-T12	.30
150	10TCU-T15	.30
180	10TCU-T18	.30
200	10TCU-T20	.30
220	10TCU-T22	.30
270	10TCU-T27	.30
330	10TCU-T33	.30
390	10TCU-T39	.36
470	10TCU-T47	.42
560	10TCU-T56	.48
680	10TCU-T68	.48

DISC CERAMICS FOR AC APPLICATIONS

- Rated at **125 VAC**
- Std. Tolerance ±20%
- The Only Ceramic Capacitor Which Meets Underwriter's Laboratories, Inc., Requirements for AC Line Bypass Application

μF	Cat. No.	Net
.001	125L-D10	$.15
.0015	125L-D15	.15
.002	125L-D20	.15
.0047	125L-D47	.18
.005	125L-D50	.18
.01	125L-S10	.18
.015	125L-S15	.30
.02	125L-S20	.30
2 x .005	125L-2D50	.30
2 x .01	125L-2S10	.33

DISC CERAMICS FOR BUFFER APPLICATIONS

- Rated at **2000 WVDC**
- Std. Tolerance ±20%

μF	Cat. No.	Net
.001	BL-D10	$.21
.002	BL-D20	.21
.003	BL-D30	.21
.004	BL-D40	.21
.005	BL-D50	.21
.006	BL-D60	.21
.007	BL-D70	.21
.0075	BL-D75	.21
.008	BL-D80	.21
.01	BL-S10	.21

MINIATURIZED DISC TYPES FOR TRANSISTORIZED CIRCUITRY

- High-K Type for Coupling and Bypass

μF	Volts	Cat. No.	Net
.005	50	TG-D50	$.27
.01	50	TG-S10	.39
.02	50	TG-S20	.39
.025	50	TG-S25	.39
.03	50	TG-S30	.39
.05	50	TG-S50	.42
.1	50	TG-P10	.54
.005	200	TH-D50	.27
.01	200	TH-S10	.39
.02	200	TH-S20	.39
.025	200	TH-S25	.39
.03	200	TH-S30	.39
.05	200	TH-S50	.42
.1	200	TH-P10	.54

TV YOKE CAPACITORS

- 30 TCY rated at **3000 WVDC**
- 50 TCY rated at **5000 WVDC**
- Std. Tolerance ±10%

μμF	Cat. No.	Net
50	30TCY-Q50	$.24
75	30TCY-Q75	.24
100	30TCY-T10	.24
135	30TCY-T135	.24
150	30TCY-T15	.24
180	30TCY-T18	.24
50	50TCY-Q50	.30
75	50TCY-Q75	.30
100	50TCY-T10	.30
135	50TCY-T135	.30
150	50TCY-T15	.30
180	50TCY-T18	.30

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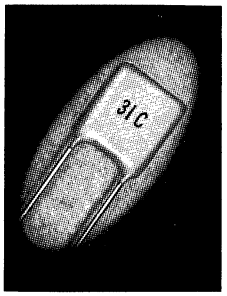
SPRAGUE CAPACITORS

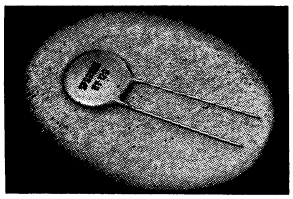
MONOLYTHIC® CERAMIC CAPACITORS

- Special Monolythic Construction For Very High Resonant Frequencies
- Radial Lead, Resin-coated. Developed For Miniature Electronic Equipment. Size ½" x ½" x 3/16".
- For Prices on Quantities from 25 to 499 Pieces, see your Sprague Industrial Distributor.
- For Complete Technical Data, Refer to Latest Issue of Sprague Engineering Bulletin 6201.

μF	WVDC	Cat. No.	Net Ea. (1-24)	μF	WVDC	Cat. No.	Net Ea. (1-24)
.1	25	5C7	$ .60	1.5	25	5C14	$ 1.89
.15	25	5C8	.69	2.2	25	5C15	2.265
.22	25	5C9	.795	.1	50	5C50	.795
.33	25	5C10	.90	.15	50	5C51	.90
.47	25	5C11	1.035	.22	50	5C52	1.035
.68	25	5C12	1.11	.33	50	5C53	1.50
1.0	25	5C13	1.47	.47	50	5C54	1.89



HYPERCON® CERAMIC DISCS

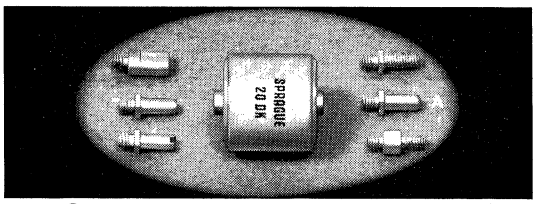


- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercon Capacitors
- Capacitance Tolerance: GMV

μF	Cat. No.	Net Ea
3 VOLTS D-C		
.1	HY-120	$.54
.22	HY-125	.33
.47	HY-130	.33
1.0	HY-135	.45
2.2	HY-150	.54
10 VOLTS D-C		
.047	HY-310	.33
.1	HY-320	.33
.22	HY-325	.45
.47	HY-330	.54

HIGH-VOLTAGE DOORKNOB CERAMICS

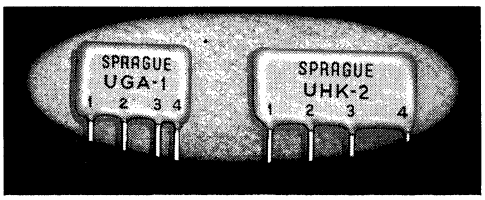
- Molded Guard Rings Lengthen Surface Creepage Path.
- 20DK-T5 Comes Complete with 7 Terminals, as illustrated. (Packaged 2 per Plastic Box, with 14 terminals.)
- 30DK-T5 is Supplied with 2 Terminals, as per Style Marked "A".



μμF	KV	Diam. x Length	Cat. No.	Net Ea
500	20	1 x 3 1/32	20DK-T5	$1.11
500	30	1 5/16 x 1 1/4	30DK-T5	1.80

- Capacitor Body has Female Threads for Interchangeable Screw-in Terminals.
- Molded in Non-Flammable, Moisture-resistant, Thermosetting Plastic.

"UNIVERSAL" CERAMIC CAPACITORS



- Another EXCLUSIVE Sprague Development Designed for the Convenience of Dealers and Service Technicians
- Intended for Field or Shop Use as Replacements for Conventional Capacitors Which Cannot Be Immediately Obtained
- These Remarkable New Units are Ceramic Plate Capacitors with four leads. By Using Certain Leads for Terminals, Soldering Certain Leads Together, and Cutting Off Certain Leads, Many Ratings May Be Obtained
- UGA-1 and UGA-2 Are General Application Types Intended for Bypass and Coupling Applications. Ideal for Replacing Older G-A Types, such as Molded Micas, Tubular Ceramics, Paper Tubulars
- UHK-1 and UHK-2 Are High-K Types for Use Where Minimum Capacitance is Required. Can Also Be Used for Bypass and Coupling Where Additional Capacitance Is Not Important
- "Universal" Ceramics Come Complete With Simple Instructions on How to Make Up Desired Ratings

"UNIVERSAL" CERAMICS CAN BE QUICKLY CONVERTED TO RATINGS (μF) SHOWN IN TABLE BELOW

UGA-1	UGA-2	UHK-1	UHK-2
.0004	.0006		
.00047	.00068	.001	.0025
	.00075		
.0005	.0008	.0015	.0033
.00056	.00082		
.0006	.001	.002	.004
.00068	.0012		.0047
	.0013	.0022	
.00075	.0015		.005
.0008	.0016	.0025	
.00082	.0018		.0068
.001	.002	.0033	
.0012	.0022		.01
	.0025	.004	
.0013	.0027		.015

Cat. No.	Type	Ratings Available	Capacitance (Range μF)	Tolerance	WVDC	L. x W. x T.	Net
UGA-1	G-A	12	.0004 to .0013	±20%	500	2 5/32 x 5/8 x 5/32	$.30
UGA-2	G-A	15	.0006 to .0027	±20%	500	1 1/8 x 5/8 x 5/32	.36
UHK-1	High-K	7	.001 to .004	GMV	500	2 5/32 x 5/8 x 5/32	.30
UHK-2	High-K	8	.0025 to .015	GMV	500	1 1/8 x 5/8 x 5/32	.36

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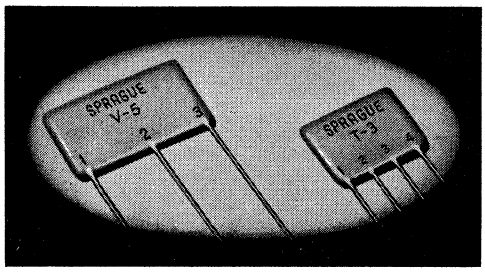
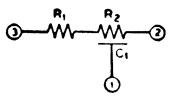
SPRAGUE PRINTED CIRCUITS

BULPLATE® and MULTI-COMP® PRINTED CIRCUITS

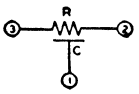
- Bulplates (rectangular plates) and Multi-comps (circular discs) are especially designed to save space and reduce assembly time
- Combinations of resistors and capacitors of maximum compactness
- Integral connections are "printed" and brought out to external leads which are anchored to the basic ceramic plate
- Completed units are protected by a tough moisture-proof coating
- Maximum voltage to be applied across these units is 250 volts d-c, except on D-1 which is rated at 100 volts d-c
- Types V-14 and V-15 are Multi-comp disc-type units — All others are Bulplate rectangular plates





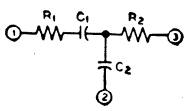
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	R_2	Net
V1/V3	.012μF	22KΩ	16.4KΩ	$.75



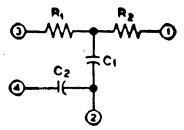
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	Net
V-4	.012μF	16.4KΩ	$.78



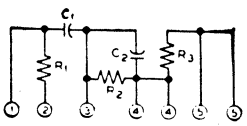
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	Net
V-5	.0047μF	.0047μF	22KΩ	10KΩ	$.78



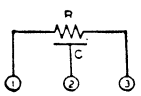
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	Net
V-9	.0025μF	.00033μF	33KΩ	15KΩ	$.54



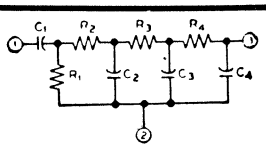
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	R_3	Net
V-12	.05μF	.002μF	1000Ω	1000Ω	10KΩ	$2.40



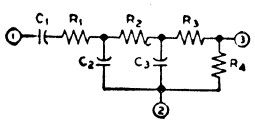
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	Net
V-14	.001μF	70KΩ	$.42
V-15	.001μF	90KΩ	.42



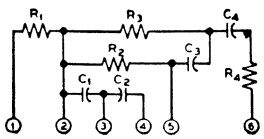
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	R_4	Net
V-2	.01μF	.002μF	.005μF	.005μF	22KΩ	22KΩ	8.2KΩ	8.2KΩ	$1.08



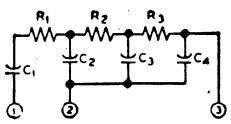
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	R_4	Net
V-6	.004μF	.01μF	.01μF	10KΩ	10KΩ	10KΩ	100KΩ	$.75



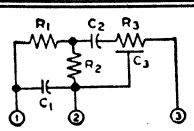
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	R_4	Ne
V-7	.00018μF	.00013μF	.0008μF	.0008μF	47KΩ	47KΩ	68KΩ	100KΩ	$.75



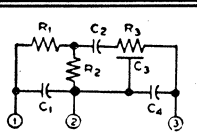
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	Net
V-8	.01μF	.002μF	.005μF	.005μF	22KΩ	8.2KΩ	8.2KΩ	$.90



VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	Net
V-10	.00015μF	.005μF	.004μF	.004μF	33KΩ	33KΩ	90KΩ	$1.29



VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
V-11	.00015μF	.005μF	.004μF	33KΩ	33KΩ	90KΩ	$1.26

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Net

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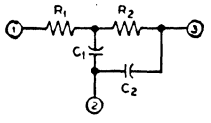
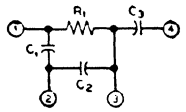
SPRAGUE PRINTED CIRCUITS

BULPLATE and MULTI-COMP PRINTED CIRCUITS, continued



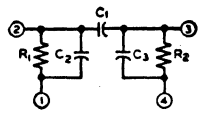
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	Net
V-16	.001μF	.002μF	82KΩ	39KΩ	$.90



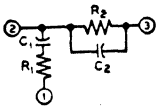
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	R_1	Net
V-17	.001μF	.004μF	.01μF	22KΩ	$.75



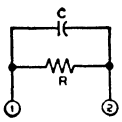
TRIODE COUPLING

Cat. No.	C_1	C_2-C_3	R_1	R_2	Net
T-1	.01 μF	250μμF	500KΩ	500KΩ	$.63
T-2	.01 μF	250μμF	250KΩ	500KΩ	.63
T-3	.005μF	250μμF	500KΩ	500KΩ	.63
T-4	.005μF	250μμF	250KΩ	500KΩ	.63



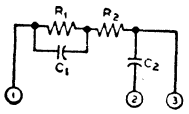
RETRACE SUPPRESSION

Cat. No.	C_1	C_2	R_1	R_2	Net
RS-2	.005μF	.002μF	10KΩ	1MΩ	$.78
RS-3	.01 μF	.01 μF	2.7KΩ	56KΩ	.78



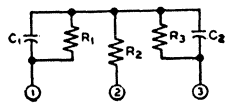
PARALLEL RESISTOR-CAPACITOR

Cat. No.	C_1	R_1	Net
PRC-2	330μF	220KΩ	$.30



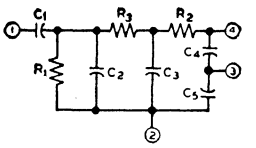
SYNC TAKEOFF

Cat. No.	C_1	C_2	R_1	R_2	Net
ST-5	.005μF	.0014μF	4700KΩ	220KΩ	$.60



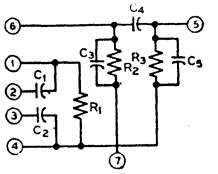
SYNC TAKEOFF

Cat. No.	C_1	C_2	R_1	R_2	R_3	Net
ST-12	.00033μF	.00033μF	270KΩ	2.2MΩ	460KΩ	$.75
ST-15	.00033μF	.00033μF	1MΩ	2.2MΩ	270KΩ	.75



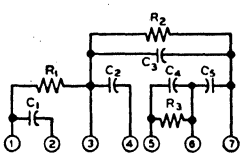
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
V-13	.0051μF	.01μF	.0022μF	.001μF	470μμF	47KΩ	33KΩ	82KΩ	$1.14



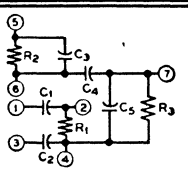
DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-1	.0022μF	220μμF	220μμF	.0047μF	220μμF	6.8MΩ	470KΩ	470KΩ	$.90
DT-2	.005 μF	220μμF	220μμF	.005 μF	220μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-3	.002 μF	220μμF	500μμF	.005 μF	500μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-4	.002 μF	220μμF	250μμF	.005 μF	250μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-5	.005 μF	220μμF	250μμF	.005 μF	250μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-6	.005 μF	220μμF	250μμF	.005 μF	250μμF	10MΩ	470KΩ	470KΩ	.90



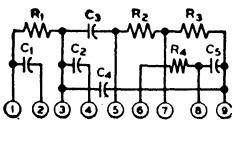
DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-8	.002μF	400μμF	220μμF	.00022μF	5000μμF	6.8MΩ	470KΩ	470KΩ	$.93



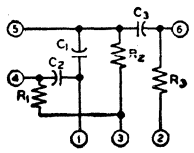
DETECTOR PENTODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-9	.002μF	400μμF	220μμF	.005μF	220μμF	6.8MΩ	470KΩ	470KΩ	$.75



DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2, C_3	C_4	C_5	R_1	R_2	R_3	R_4	Net
DP-1	.002μF	150μμF	.01μF	.005 μF	10MΩ	4.7MΩ	1.0MΩ	3.3MΩ	$1.20
DP-4	.001μF	68μμF	.01μF	.0025μF	10MΩ	4.7MΩ	1.0MΩ	3.3MΩ	1.08



PENTODE COUPLING

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
P-2	100μμF	.0047μF	.0047μF	4.7MΩ	1.0MΩ	2.2MΩ	$.96

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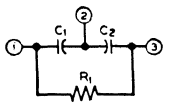
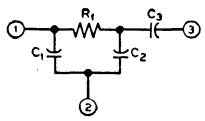
SPRAGUE PRINTED CIRCUITS

BULPLATE and MULTI-COMP PRINTED CIRCUITS, continued



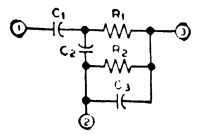
DIODE FILTER

Cat. No.	C_1	C_2	R_1	Net
D-1	100μμF	100μμF	47KΩ	$.42
D-2	150μμF	150μμF	47KΩ	.42
D-3	50μμF	50μμF	47KΩ	.42
D-4	100μμF	100μμF	100KΩ	.42



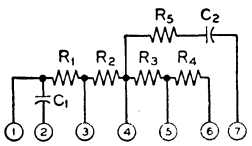
DIODE FILTER

Cat. No.	C_1	C_2	C_3	R_1	Net
D-5	330μμF	680μμF	.01μF	100KΩ	$.75



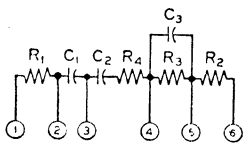
VERTICAL FEEDBACK

Cat. No.	C_1, C_2	C_3	R_1, R_2	Net
VF-1	.001μF	.002μF	100KΩ	$.78



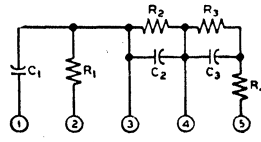
VERTICAL FEEDBACK

Cat. No.	C_1, C_2	R_1	R_2	R_3	R_4	R_5	Net
VF-2	.01μF	6.8MΩ	520KΩ	470KΩ	680KΩ	1KΩ	.14



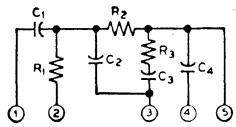
VERTICAL FEEDBACK

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
VF-3	.0033μF	.002μF	.0047μF	2.2KΩ	27KΩ	180KΩ	$1.02



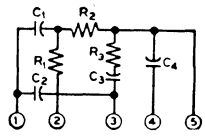
PHASE COMPARATOR

Cat. No.	C_1	C_2	C_3	R_1, R_2	R_3	R_4	Net
C-1	82μμF	100μμF	1000μμF	680KΩ	4.7KΩ	200KΩ	$.75



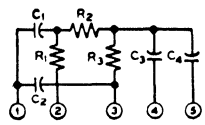
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	Net
HN-1	.001μF	.0015μF	390μμF	.003μF	10KΩ	39KΩ	5.6KΩ	$1.05



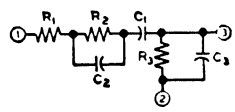
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	Net
HN-2	.001μF	.002μF	390μμF	.003μF	15KΩ	39KΩ	5.6KΩ	$1.02



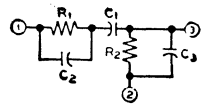
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	Net
HN-3	.001	001μF	390μμF	.003μF	8.2KΩ	39KΩ	8.2KΩ	$1.02



SYNC TAKEOFF

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
ST-1	.01μF	.00027μF	25μμF	10KΩ	330KΩ	2200Ω	$.90
ST-2	.01μF	.00027μF	25μμF	10KΩ	220KΩ	2200Ω	.90



SYNC TAKEOFF

Cat. No.	C_1	C_2	C_3	R_1	R_2	Net
ST-3	.01μF	.00027μF	25μμF	220KΩ	2200Ω	$.90

FOR SPRAGUE'S COMPLETE LINE OF 179 PRINTED CIRCUITS, SEE LATEST ISSUE OF CATALOG C-614

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Net
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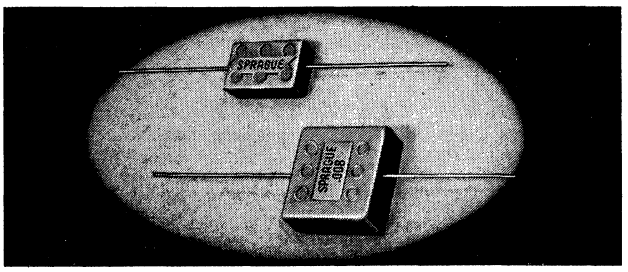
SPRAGUE CAPACITORS

MICA CAPACITORS

TYPE MS and 1FM MICAS



- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micas are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPE MS — SILVERED MICA
(Standard Capacitance Tolerance ±5%)

MF	Cat. No.	Net Ea
500 WVDC, 1000 V Test		
.000005	MS-55	$.27
.000010	MS-41	.24
.000012	MS-412	.24
.000015	MS-415	.24
.000018	MS-418	.24
.000020	MS-42	.24
.000022	MS-422	.24
.000024	MS-424	.24
.000025	MS-425	.24
.000027	MS-427	.24
.000030	MS-43	.24
.000033	MS-433	.24
.000036	MS-436	.24
.000039	MS-439	.24
.000040	MS-44	.24
.000043	MS-443	.24
.000047	MS-447	.24
.000050	MS-45	.24
.000051	MS-451	.24
.000056	MS-456	.24
.000060	MS-46	.24
.000062	MS-462	.24
.000068	MS-468	.24
.000070	MS-47	.24
.000075	MS-475	.24
.000082	MS-482	.24
.000091	MS-491	.24
.000100	MS-31	.24
.000110	MS-311	.27
.000120	MS-312	$.27
.000130	MS-313	.27
.000150	MS-315	.27
.000160	MS-316	.27
.000180	MS-318	.27
.000200	MS-32	.27
.000220	MS-322	.27
.000240	MS-324	.33
.000250	MS-325	.33
.000270	MS-327	.33
.000300	MS-33	.33
.000330	MS-333	.33
.000360	MS-336	.33
.000390	MS-339	.39
.000400	MS-34	.39
.000430	MS-343	.39
.000470	MS 347	.42
.000500	MS-35	.42
.000510	MS-351	.42
.000560	MS-356	.45
.000600	MS-36	.48
.000620	MS-362	.48
.000680	MS-368	.51
.000700	MS-37	.51
.000750	MS-375	.54
.000800	MS-38	.57
.000820	MS-382	.57
.000900	MS-39	.60
.000910	MS-391	.60
.001000	MS-21	.66
.001100	MS-211	.72
.001200	MS-212	.78
.001300	MS-213	$.75
.001500	MS-215	.81
.001600	MS-216	.81
.001800	MS-218	.81
.002000	MS-22	.81
.002200	MS-222	.90
.002400	MS-224	1.08
.002500	MS-225	1.08
.002700	MS-227	1.14
.003000	MS-23	1.23
.003300	MS-233	1.23
.003600	MS-236	1.26
.003900	MS-239	1.29
.004000	MS-24	1.29
.004300	MS-243	1.29
.004700	MS-247	1.29
.005000	MS-25	1.35
.005100	MS-251	1.35
.005600	MS-256	1.50
.006000	MS-26	1.44
.006200	MS-262	1.56
300 WVDC, 600 V Test		
.006800	MS-268	1.56
.007000	MS 27	1.56
.007500	MS-275	1.68
.008000	MS-28	1.68
.008200	MS-282	1.68
.009000	MS-29	1.86
.009100	MS-291	1.86
.010000	MS-11	2.04

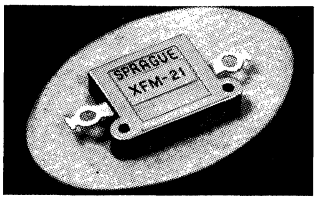
TYPE 1FM
(Standard Capacitance Tolerance ±20%)

MF	Cat. No.	Net Ea.
500 WVDC, 1000 V Test		
.000010	1FM-41	$.15
.000012	1FM-412	.15
.000015	1FM-415	.15
.000018	1FM-418	.15
.000020	1FM-42	.15
.000022	1FM-422	.15
.000024	1FM-424	.15
.000027	1FM-427	.15
.000030	1FM-43	.15
.000033	1FM-433	.15
.000036	1FM-436	.15
.000039	1FM 439	.15
.000040	1FM-44	.15
.000043	1FM-443	.12
.000047	1FM-447	.12
.000050	1FM-45	.12
.000051	1FM-451	.12
.000056	1FM-456	.12
.000062	1FM 462	.12
.000068	1FM-468	.12
.000075	1FM-475	.12
.000082	1FM-482	.12
.000091	1FM-491	.12
.000100	1FM-31	.12
.000110	1FM-311	.12
.000120	1FM-312	.12
.000130	1FM-313	.12
.000150	1FM-315	$.12
.000160	1FM-316	.12
.000180	1FM-318	.12
.000200	1FM-32	.12
.000220	1FM-322	.15
.000240	1FM-324	.15
.000250	1FM-325	.15
.000270	1FM-327	.15
.000300	1FM-33	.15
.000330	1FM-333	.15
.000350	1FM-335	.15
.000360	1FM-336	.15
.000390	1FM-339	.15
.000400	1FM-34	.15
.000430	1FM-343	.15
.000470	1FM-347	.15
.000500	1FM-35	.15
.000510	1FM-351	.15
.000560	1FM-356	.15
.000620	1FM-362	.15
.000680	1FM-368	.15
.000700	1FM-37	.15
.000750	1FM-375	.18
.000820	1FM-382	.18
.000910	1FM-391	.18
.001000	1FM-21	.18
.001100	1FM 211	.18
.001200	1FM-212	.18
.001300	1FM-213	.18
.001500	1FM-215	$.18
.001600	1FM-216	.18
.001800	1FM-218	.24
.002000	1FM-22	.24
.002200	1FM-222	.24
.002400	1FM-224	.30
.002500	1FM-225	.30
.002700	1FM-227	.30
.003000	1FM-23	.30
.003300	1FM-233	.36
.003600	1FM-236	.36
.003900	1FM-239	.36
.004000	1FM-24	.33
.004300	1FM-243	.36
.004700	1FM-247	.36
.005000	1FM-25	.36
.005100	1FM-251	.36
.005600	1FM-256	.39
.006000	1FM-26	.39
.006200	1FM-262	.39
300 WVDC, 600 V Test		
.006800	1FM-268	.51
.007000	1FM-27	.51
.007500	1FM-275	.51
.008000	1FM-28	.60
.008200	1FM-282	.60
.009000	1FM-29	.60
.009100	1FM-291	.60
.010000	1FM-11	.72

MS and 1FM Dimensions

Catalog Numbers	L x W x T
MS-55 through MS-356	$21/32 \times 13/32 \times 7/32$
MS-36 through MS-236	$25/32 \times 25/32 \times 9/32$
MS-239 through MS-282	$25/32 \times 25/32 \times 11/32$
MS-29 through MS-11	$1 \times 5/8 \times 5/16$
1FM-41 through 1 FM-356	$51/64 \times 15/32 \times 7/32$
1FM-362 through 1FM-236	$53/64 \times 53/64 \times 9/32$
1FM-239 through 1FM-282	$53/64 \times 53/64 \times 11/32$
1FM-29 through 1FM-11	$1 \times 5/8 \times 5/16$

TYPES XFM, YFM and ZFM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
XFM — 600 WVDC, 1200 V TEST		
.00005	XFM-45	$ .72
.0001	XFM-31	.72
.0002	XFM-32	.72
.00025	XFM-325	.72
.0003	XFM-33	.72
.0004	XFM-34	.72
.0005	XFM-35	.72
.001	XFM-21	.72
.0015	XFM-215	.72
.002	XFM-22	.78
.0025	XFM-225	.78
.003	XFM-23	.87
.004	XFM-24	.90
.005	XFM-25	.93
.006	XFM-26	1.08
.007	XFM-27	1.11
.008	XFM-28	1.14
.01	XFM-11	1.29
.02	XFM-12	1.83
.03	XFM-13	2.67

Catalog Numbers	L x W x T
XFM-45 thru XFM-11	$15/8 \times 11/8 \times 11/32$
XFM-12 thru XFM-13	$15/8 \times 11/8 \times 7/16$

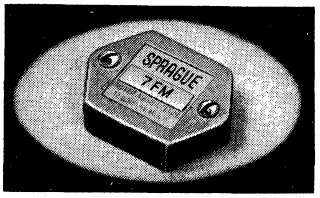
MF	Cat. No.	Net Ea.
YFM — 1200 WVDC, 2500 V TEST		
.00005	YFM-45	.96
.0001	YFM-31	.96
.0002	YFM-32	.96
.00025	YFM-325	.96
.0003	YFM-33	.96
.0004	YFM-34	.96
.0005	YFM-35	.96
.001	YFM-21	1.08
.0015	YFM-215	1.38
.002	YFM-22	1.44
.0025	YFM-225	1.68
.003	YFM-23	1.83
.004	YFM-24	1.83
.005	YFM-25	1.98
.006	YFM-26	1.98
.007	YFM-27	2.07
.008	YFM-28	2.31
.01	YFM-11	3.06

Catalog Numbers	L x W x T
YFM-45 thru YFM-24	$15/8 \times 11/8 \times 11/32$
YFM-25 thru YFM-11	$15/8 \times 11/8 \times 7/16$

MF	Cat. No.	Net Ea.
ZFM — 2500 WDVC, 5000 V TEST		
.00005	ZFM-45	1.14
.0001	ZFM-31	1.14
.0002	ZFM-32	1.14
.00025	ZFM-325	1.32
.0003	ZFM-33	1.35
.0004	ZFM-34	1.38
.0005	ZFM-35	1.44
.001	ZFM-21	1.68
.0015	ZFM-215	2.13
.002	ZFM-22	2.49
.003	ZFM-23	2.94
.004	ZFM-24	3.39
.005	ZFM-25	3.84

Catalog Numbers	L x W x T
ZFM-45 thru ZFM-22	$15/8 \times 11/8 \times 11/32$
ZFM-23 thru ZFM-25	$15/8 \times 11/8 \times 7/16$

TYPES 7FM, 8FM and 9FM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
7FM — 600 WVDC, 1200 V TEST		
.00005	7FM-45	$ .87
.0001	7FM-31	.87
.00015	7FM-315	.87
.0002	7FM-32	.87
.00025	7FM-325	.87
.0005	7FM-35	.87
.001	7FM-21	.87
.002	7FM-22	.99
.0025	7FM-225	1.02
.003	7FM-23	1.11
.004	7FM-24	1.20
.005	7FM-25	1.26
.006	7FM-26	1.32
.008	7FM-28	1.47
.01	7FM-11	1.68
.015	7FM-115	1.83
.02	7FM-12	2.13
.03	7FM-13	2.73
.04	7FM-14	3.51
.05	7FM-15	4.26
.06	7FM-16	4.83

Catalog Numbers	L x W x T
7FM-45 thru 7FM-13	$13/4 \times 15/16 \times 7/16$
7FM-14 thru 7FM-16	$13/4 \times 15/16 \times 3/4$

MF	Cat. No.	Net Ea.
8FM — 1200 WVDC, 2500 V TEST		
.00005	8FM-45	.96
.0001	8FM-31	.96
.00015	8FM-315	.96
.0002	8FM-32	.96
.00025	8FM-325	.96
.0005	8FM-35	.96
.001	8FM-21	1.14
.002	8FM-22	1.50
.0025	8FM-225	1.68
.003	8FM-23	1.77
.004	8FM-24	1.86
.005	8FM-25	1.98
.006	8FM-26	2.07
.008	8FM-28	2.46
.01	8FM-11	2.82
.015	8FM-115	3.48
.02	8FM-12	4.23
.025	8FM-125	4.74
.03	8FM-13	4.86

Catalog Numbers	L x W x T
8FM-45 thru 8FM-115	$13/4 \times 15/16 \times 7/16$
8FM-12 thru 8FM-13	$13/4 \times 15/16 \times 3/4$

MF	Cat. No.	Net Ea.
9FM — 2500 WVDC, 5000 V TEST		
.00005	9FM-45	1.14
.0001	9FM-31	1.14
.00025	9FM-325	1.29
.0005	9FM-35	1.53
.001	9FM-21	1.74
.002	9FM-22	2.55
.0025	9FM-225	2.76
.003	9FM-23	3.06
.004	9FM-24	3.39
.005	9FM-25	3.72
.006	9FM-26	3.81
.008	9FM-28	4.11
.01	9FM-11	4.28
.015	9FM-115	4.83

Catalog Numbers	L x W x T
9FM-45 thru 9FM-26	$13/4 \times 15/16 \times 7/16$
9FM-28 thru 9FM-115	$13/4 \times 15/16 \times 3/4$

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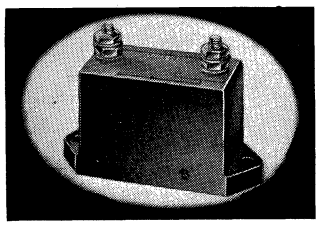
SPRAGUE CAPACITORS

MICA CAPACITORS, continued

TYPES 1MC & 2MC



(Standard Capacity Tolerance ±5%)

TYPE 1MC

Dimensions — 2" L. x 15/16" W. x 1 13/32" H.

MF	VAC Peak	Cat. No.	Net
.00005	3000	1MC-45	$ 7.56
.0001	3000	1MC-31	7.56
.00015	3000	1MC-315	7.56
.0002	3000	1MC-32	7.56
.00025	3000	1MC-325	7.56
.0003	3000	1MC-33	7.56
.0004	3000	1MC-34	7.56
.0005	3000	1MC-35	7.56
.0006	3000	1MC-36	7.56
.0007	3000	1MC-37	7.56
.0008	3000	1MC-38	7.56
.001	3000	1MC-21	7.56
.0015	3000	1MC-215	7.56
.002	3000	1MC-22	7.56
.003	2000	1MC-23	7.56
.004	2000	1MC-24	7.56
.005	2000	1MC-25	7.56
.006	2000	1MC-26	7.56
.007	2000	1MC-27	7.56
.008	1500	1MC-28	7.56
.01	1000	1MC-11	7.56
.015	1000	1MC-115	7.56
.02	1000	1MC-12	8.58
.03	500	1MC-13	8.58
.04	500	1MC-14	8.58
.05	250	1MC-15	8.58
.1	250	1MC-1	9.06

TYPE 2MC

Dimensions — 2 1/4" L. x 1 1/4" W. x 1 13/16" H.

MF	VAC Peak	Cat. No.	Net
.00005	5000	2MC-45	$10.38
.0001	5000	2MC-31	10.38
.00015	5000	2MC-315	10.38
.0002	5000	2MC-32	10.38
.00025	5000	2MC-325	10.38
.0003	5000	2MC-33	10.38
.0004	5000	2MC-34	10.38
.0005	5000	2MC-35	10.38
.0006	5000	2MC-36	10.38
.0007	5000	2MC-37	10.38
.0008	5000	2MC-38	10.38
.001	5000	2MC-21	10.38
.0015	5000	2MC-215	10.38
.002	5000	2MC-22	10.38
.003	3000	2MC-23	10.38
.004	3000	2MC-24	10.38
.005	3000	2MC-25	10.38
.006	3000	2MC-26	10.38
.007	3000	2MC-27	10.38
.008	2000	2MC-28	10.38
.01	2000	2MC-11	10.38
.015	2000	2MC-115	10.38
.02	2000	2MC-12	10.38
.03	1500	2MC-13	10.38
.04	1500	2MC-14	10.38
.05	1500	2MC-15	10.38
.06	1000	2MC-16	11.16
.07	1000	2MC-17	11.16
.08	500	2MC-18	11.52
.1	500	2MC-1	11.52

TYPES 1CC, 2CC, 3CC & 4CC

(Standard Capacity Tolerance ±5%)

TYPE 1CC

Dimensions — 2 1/16" D. x 2 1/2" H.

MF	Cat. No.	Net
6000 VAC Peak		
.00005	1CC-45	$22.92
.000075	1CC-475	24.00
.0001	1CC-31	24.36
.00015	1CC-315	24.36
.0002	1CC-32	24.36
.00025	1CC-325	24.36
.0003	1CC-33	26.61
.0004	1CC-34	26.61
.0005	1CC-35	27.99
.0006	1CC-36	27.99
.0007	1CC-37	27.99
.0008	1CC-38	27.99
.001	1CC-21	27.99
.0015	1CC-215	29.34
.002	1CC-22	29.34
.003	1CC-23	30.36
.004	1CC-24	30.36
4000 VAC Peak		
.005	1CC-25	30.36
.006	1CC-26	30.87
.007	1CC-27	30.37
.008	1CC-28	30.87
.01	1CC-11	30.87
3000 VAC Peak		
.015	1CC-115	30.87
2000 VAC Peak		
.02	1CC-12	30.87
.025	1CC-125	31.08
1500 VAC Peak		
.03	1CC-13	33.45
.04	1CC-14	35.10
.05	1CC-15	36.45
.06	1CC-16	37.68
1000 VAC Peak		
.07	1CC-17	38.55
.08	1CC-18	39.45
.1	1CC-1	41.10

TYPE 2CC

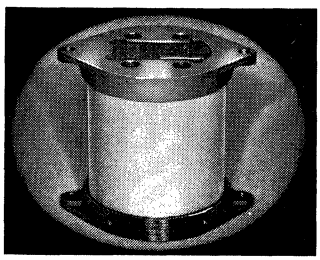
Dimensions — 3 1/2" D. x 3" H.

MF	Cat. No.	Net
10,000 VAC Peak		
.00005	2CC-45	39.33
.000075	2CC-475	39.33
.0001	2CC-31	39.33
.00015	2CC-315	39.33
.0002	2CC-32	39.33
.0003	2CC-33	39.33
.0004	2CC-34	39.33
.0005	2CC-35	39.33
.0006	2CC-36	39.33
.0007	2CC-37	29.33
.0008	2CC-38	39.33
.001	2CC-21	39.33
.0015	2CC-215	39.33
.002	2CC-22	39.33
8000 VAC Peak		
.003	2CC-23	39.33
.004	2CC-24	39.33
6000 VAC Peak		
.005	2CC-25	39.33
5000 VAC Peak		
.006	2CC-26	41.49
.007	2CC-27	41.49
.008	2CC-28	41.49
.01	2CC-11	41.49
4000 VAC Peak		
.015	2CC-115	41.49
3000 VAC Peak		
.02	2CC-12	41.49
.025	2CC-125	43.70
2000 VAC Peak		
.03	2CC-13	44.10
.04	2CC-14	46.68
.05	2CC-15	48.45
.06	2CC-16	49.80
1500 VAC Peak		
.07	2CC-17	51.00
.08	2CC-18	51.90
.1	2CC-1	54.00

TYPE 3CC

Dimensions — 5" D. x 4" H.

MF	Cat. No.	Net
20,000 VAC Peak		
.00005	3CC-45	66.54
.000075	3CC-475	72.60
.0001	3CC-31	72.60
.00015	3CC-315	78.66
.0002	3CC-32	78.66
.0003	3CC-33	78.66
.0004	3CC-34	82.29
.0005	3CC-35	82.29
.0006	3CC-36	82.29
.0007	3CC-37	82.29
.0008	3CC-38	82.29
.001	3CC-21	84.69
15,000 VAC Peak		
.0015	3CC-215	85.92
.002	3CC-22	85.92
12,000 VAC Peak		
.003	3CC-23	90.75
.004	3CC-24	90.75
10,000 VAC Peak		
.005	3CC-25	90.75
.006	3CC-26	90.75
.007	3CC-27	90.75
.008	3CC-28	90.75
8000 VAC Peak		
.01	3CC-11	90.75
5000 VAC Peak		
.015	3CC-115	90.75
.02	3CC-12	90.75
3000 VAC Peak		
.025	3CC-125	90.75
.03	3CC-13	90.75
.04	3CC-14	90.75
.05	3CC-15	90.75
.06	3CC-16	95.10
2000 VAC Peak		
.07	3CC-17	98.40
.08	3CC-18	103.20
.1	3CC-1	109.20



TYPE 4CC

Dimensions — 5" D. x 5 3/4" H.

MF	Cat. No.	Net
30,000 VAC Peak		
.0001	4CC-31	$126.18
.00015	4CC-315	126.18
.0002	4CC-32	132.70
.0003	4CC-33	132.70
.0004	4CC-34	132.70
.0005	4CC-35	132.70
.0006	4CC-36	132.70
.0007	4CC-37	132.70
.0008	4CC-38	132.70
.001	4CC-21	132.70
25,000 VAC Peak		
.0015	4CC-215	137.46
20,000 VAC Peak		
.002	4CC-22	137.46
.003	4CC-23	137.46
15,000 VAC Peak		
.004	4CC-24	140.61
.005	4CC-25	145.20
.006	4CC-26	151.35
.007	4CC-27	156.00
12,000 VAC Peak		
.008	4CC-28	156.00
.009	4CC-29	156.00
10,000 VAC Peak		
.01	4CC-11	163.46
8000 VAC Peak		
.015	4CC-115	163.46
6000 VAC Peak		
.02	4CC-12	163.46
.03	4CC-13	163.46
5000 VAC Peak		
.04	4CC-14	163.46
.05	4CC-15	163.46
.06	4CC-16	174.00
4000 VAC Peak		
.07	4CC-17	180.00
3000 VAC Peak		
.08	4CC-18	184.80
.1	4CC-1	195.60

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Net

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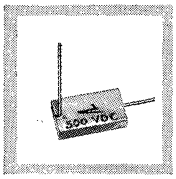
Vitramon® CAPACITORS

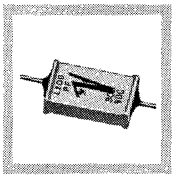
stable • rugged • low loss • miniature
low noise • humidity immunity
wide temperature range

VY T.M. solid state PORCELAIN CAPACITORS

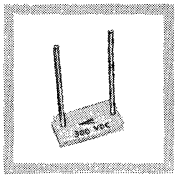
Conforms with MIL-C-11272B



AXIAL-RADIAL
VY 12

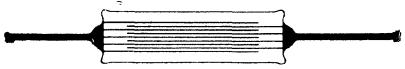


AXIAL
VY 17



RADIAL
VY 04

The superior electrical and mechanical characteristics exhibited by Vitramon® capacitors are attributes of their solid state composition — fine silver electrodes molecularly fused within a solid block of high grade porcelain, forming a monolithic unit that requires no case or hermetic seal.



"Layering" of electrodes makes possible a much greater active dielectric area within the same cubic content. Perfect bonding of materials minimizes loss and noise and results in greater stability over a temperature range of —55°C to 200°C.

Vitramon® capacitors are used extensively in guided missiles, jet ignition, proximity fuses, and in radar, servo, guidance, fire control, telemetering, and carrier telephone systems.

STANDARD TYPES AND VALUES

All series A, AR and R are available in the following values from factory or distributor stocks in 10%, 5%, 2% and 1% tolerances.

VY 12C or VY 13C
0.5 to 200 mmf at 500 vdc
220 to 300 mmf at 300 vdc

VY 16C or VY 17C
220 to 470 mmf at 500 vdc
510 to 1000 mmf at 300 vdc

VY 21C or VY 22C
510 to 1000 mmf at 500 vdc
1100 to 2400 mmf at 300 vdc*

VY 31C or VY 32C
1100 to 3300 mmf at 500 vdc
3600 to 6800 mmf at 300 vdc**

VY 05C
300 to 620 mmf at 100 vdc
680 to 1200 mmf at 50 vdc

VY 04C
0.5 to 22 mmf at 500 vdc
24 to 100 mmf at 300 vdc
110 to 220 mmf at 100 vdc
240 to 510 mmf at 50 vdc

*2200 and 2400 not available in - Axial Series
**6200 and 6800 not available in - Axial-Radial Series

HIGH RELIABILITY SPECIFICATION S-1002

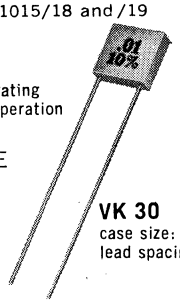
Every VITRAMON® Capacitor purchased against our High Reliability Specification S-1002 is accompanied by a detailed documentation verifying a reliability of better than 0.5% per 1000 hours. Continuous control testing of in-process material for all parameters, including 300,000 unit hours of life tests every six weeks, has consistently demonstrated an A.Q.L. for VITRAMON® Capacitors 12 times higher than Mil Specifications.

VK® micro-miniature CERAMIC CAPACITORS

Conforms with MIL-C-11015/18 and /19

47-10,000 mmf
200 vdc without derating
—55°C to 150°C operation

MOLDED CASE



VK 20
case size: 0.2" square
lead spacing: 0.2"

VK 30
case size: 0.3" square
lead spacing: 0.2"

GENERAL CHARACTERISTICS

Temperature Co-efficient: Maximum deviation from 25°C measurement over range of —55°C to +150°C is ± 15%.

Voltage Co-efficient: Negative at the average rate of 0.025% per volt above 25 vdc for values through 680 mmf, and 0.1% per volt above 680 mmf.

Insulation Resistance: Minimum of 1,000 ohmfarads (100,000 megohms) at 25°C and 10 ohmfarads (1,000 megohms) at 150°C.

Dissipation Factor (at 1 kc): Less than 1.5% at 25°C and less than 1.0% at 150°C through 680 mmf; from 820 through 10,000 mmf, DF is less than 2.5% and 1.5% respectively.

Lead Strength: Withstands a force of five pounds exerted in the direction of the leads as required by MIL-C-11015B.

Dip-soldering: All units thermal shock proofed, may be dip-soldered up to the case at 600°F.

Dielectric Strength: A potential of 400% of rated voltage may be applied for 10 seconds at 25°C.

Part Number	Capacity mmf.	Part Number	Capacity mmf.	Part Number	Capacity mmf.
VK 20CW470*	47	VK 20CW151*	150	VK 20CW471*	470
VK 20CW560*	56	VK 20CW181*	180	VK 20CW561*	560
VK 20CW680*	68	VK 20CW221*	220	VK 20CW681*	680
VK 20CW820*	82	VK 20CW271*	270	VK 20CW821*	820
VK 20CW101*	100	VK 20CW331*	330	VK 20CW102*	1000
VK 20CW121*	120	VK 20CW391*	390	VK 30CW122*	1200

Part Number	Capacity mmf.	Part Number	Capacity mmf.
VK 30CW152*	1500	VK 30CW472*	4700
VK 30CW182*	1800	VK 30CW562*	5600
VK 30CW222*	2200	VK 30CW682*	6800
VK 30CW272*	2700	VK 30CW822*	8200
VK 30CW332*	3300	VK 30CW103*	10000
VK 30CW392*	3900		

*Tolerance code to be added to complete part number.
K = 10%, M = 20%.
NOTE: When ordering against MIL Specifications, substitute CK 05 for VK 20 and CK 06 for VK 30 in Part Number.

ALSO AVAILABLE IN DIPPED CASE FOR COMPLETE ASSEMBLY ENCAPSULATION

Same electrical characteristics as standard "VK" series. Each unit coated with a resilient protective compound. Leads .016 Diam. (nominal); .032 max. recommended hole diam. Dimensions: 10-100 mmf., .12" square; 120-470 mmf., .145" square; 560-1000 mmf., .170" square; 1200-10,000 mmf., .270" square. When ordering, substitute VK 21 for VK 20 and VK 31 for VK 30.

VITRAMON® INCORPORATED
BRIDGEPORT, CONNECTICUT

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CAIG LABORATORIES

NEW HYDE PARK, LONG ISLAND, NEW YORK

CRAMOLIN®

A NEW CONCEPT ON IMPROVING CONTACT PERFORMANCE

. . . *and here are* 14 REASONS WHY . . .

1. Reduces contact resistances to their minimum values.
2. Reduces sparking of brushes on commutators.
3. Improves performance of contacts and collector rings.
4. Protects against salt air and sulfidic atmosphere and will not absorb moisture.
5. Applied on moving parts, Cramolin will stay on. Cramolin contains a chemical compound which is strongly attracted by metal surfaces and cannot be removed completely, even by high pressure friction.
6. Fungus growth will not develop on Cramolin-films, because Cramolin contains mineral and synthetic ingredients only.
7. Cramolin is not aggressive on baked varnishes, although it may affect some nitro-cellulose lacquers.
8. Max. effective operating temperature range is —34°C to +150°C (these are conservative values, consult us for higher ranges.)
9. Cramolin can be safely used at a relative humidity of 95% and temperatures up to 100°C.
10. Cramolin will perform equally as well under air pressure as well as in a vacuum.
11. Insulation resistance of 10^{13} ohms between contacts at distance of 1 cm on Trolitul (phenol-formaldehyde resin).
12. Tests have indicated that no injurious secondary effects arise.
13. Cramolin may be applied on old contacts without special precautions. All non-metallic layers, dust, resin, etc., will be dissolved and removed at once by rubbing it off, or by operating the contact several times.
14. Under general operating conditions Cramolin should be reapplied after two to three years (on high frequency and low current contacts). In highly corrosive atmosphere (containing acid, sulphide, etc.) reapplication should take place after one year. If the air contains unusual quantities of ammonia, contacts should be cleaned with our modified Cramolin.

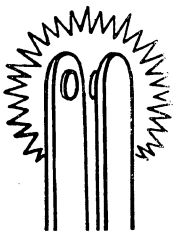
FEATURES

- ANTI-CORROSIVE
- CLEANER
- PRESERVATIVE
- LUBRICANT

FOR BETTER CONTACTS START WITH A CONTACT THAT'S CRAMOLINIZED

LIST PRICES

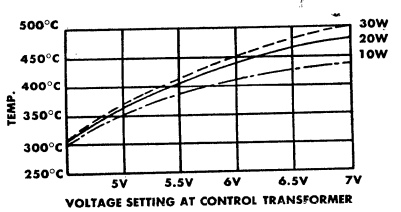
2 oz.	$1.95
½ pt.	6.75
1 pt.	13.00
1 qt.	25.50

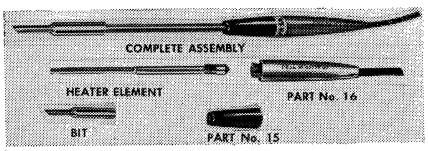


ERSA-MINIATURE SOLDERING IRON

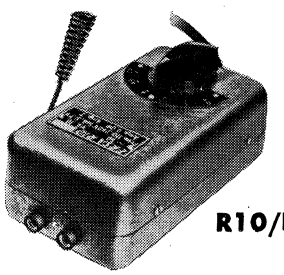
A NEW STREAMLINED LOW TENSION SOLDERING IRON

The power supply for this low voltage (6 volts) iron may come from a battery or a special low voltage transformer.
The ERSA MINIATURE with its 5 foot, light-weight, twin-cable, securely molded to the plastic handle and plug, weighs only 3 ounces.
The streamlined handle rests comfortably, like a fountain pen, in the hand and permits tireless operation in production work. The slim shaped heating units of 10, 20 or 30 watts may be interchanged in the same handle, in a matter of seconds to the desired wattage. Heating units are screwed into the handle as easily as one would insert a bulb into a flashlight. This method guarantees reliable and continuous contact performance. The soldering tips are simply pushed on the heating unit, and can just as easily be removed.
A heat-up period of 40 seconds is sufficient to make the ERSA MINIATURE ready for use and has built-in protection against capacitative stray effects from mains which could damage transistors or endanger the operator.
The specially designed Control Transformer Models R10 and R30 will solve the most complicated soldering problems. Both transformer models have a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 7 volts, thus making it possible to select a temperature range between 300 to 500°C. When not in use, the ERSA MINIATURE iron rests on a special nozzle provided on the transformer. This protects against overheating.
Control Transformer R10 was solely made for use with the ERSA MINIATURE Iron Model 10W. The R30, with a greater output, permits universal use of all the various ERSA MINIATURE irons with their different capacities. Several ERSA MINIATURE irons may be hooked up to total 30 watts.





DESCRIPTION	MODEL OR PART NO.	ELECTRIC RATING	WEIGHT APPROX.	PRICE COMPLETE	SPARE HEATER ELEMENTS PART NO.	SPARE HEATER ELEMENTS PRICE	SPARE SOLDERING BITS PART NO.	SPARE SOLDERING BITS PRICE
ERSA-MINIATURE Soldering Iron (Complete Assy.) 6 Volt Rating *	10 W	10 WATTS	2.65 OZ.	$5.00	11-10W	$3.60	12-10	$0.50
	20 W	20 WATTS	2.65 OZ.	5.00	11-20W	3.60	12-20	0.50
	30 W	30 WATTS	3.0 OZ.	5.00	11-30W	3.60	12-30	0.50
Cable with End of Handle	#16	—	2.0 OZ.	$3.30	A Universal Handle Suitable For Elements: #11-10W, #11-20W & #11-30W			
Front of Handle	#15	—	0.1 OZ.	0.35				
Control Transformer	R10	10 VA	3.5 LB.	$15.00	Use Only With Ersa-Miniature Iron #10W			
Control Transformer	R30	30 VA	5.1 LB.	$25.00	Use Ersa-Miniature Irons #10W, #20W & #30W			



R10/R30

* Overall Length Iron - 8"
Handle Grip is Approx. 4"

Prices & Specifications Subject To Change Without Notice
Prices F.O.B. New Hyde Park, L. I., N. Y.

Trade Discount Applies To List Prices Only

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THE NEW MIRACLE T. V. TUNER CLEANER

CHEMICALLY ENGINEERED FOR ELECTRONIC TECHNICIANS

HUSH®

"Spray It and Forget It"

Chemically engineered for that tuner and switching mechanism. Hush comes in a 6 oz. pressure can with sufficient pressure to reach all contacts to wash-a-way that dirt, leaving clean and positive contacts, protected with a lasting lubricant film and with no powder residue.

FREE 6" Plastic Extender With Every Can

6 oz. ECONOMY SPRAY CAN $2.25

Hush also available in 2 oz., 8 oz. and 32 oz. containers. Net

---

STOPS

Corrosion

Corona Loss

Short Circuits

NEW TRANSPARENT

PLASTIC SEALER

INSULATES and WATER PROOFS

with HIGH DIELECTRIC STRENGTH

16 ounces $1.95 Net

A FEW DROPS DOES THE JOB

2 oz. Net 79c

(32 oz. sizes available)

SINCE 1949 THE ORIGINAL

SUPER EVER-QUIET®

VOLUME CONTROL and CONTACT RESTORER

EVER-QUIET is a free-flowing liquid that leaves no power residue. Scientifically designed to seep around the shaft and penetrate the control or potentiometer, cleaning the contacts and leaving a safe protecting film.

EVER-QUIET is harmless to metals, wire or carbon.

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN $1.59 Net

EVER-KLEER T.V. Picture Tubes, Protecting Glass Cleaner

CHEMICAL ELECTRONIC ENGINEERING, INC.

MATAWAN, NEW JERSEY

© U.C.P., Inc.

ECONOMICAL! A LITTLE DOES A LOT!
6 oz. spray can $3.50 Net
with FREE 5" plastic extender push button assembly

always insist on . . . PROVED BRAND NAMES

ask by name for GENUINE "NO NOISE" PRODUCTS

• LUBRICATES
• CLEANS
• CONDITIONS All ELECTRICAL CONTACTS

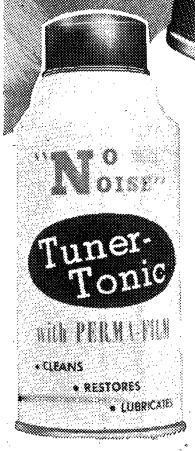
EC-44

electronic chemical new formula . . .

now available FREE!

5" PLASTIC EXTENDER
with Push Button Assembly

Fastens easily and securely for the finest pin-point applications. Invaluable on all kinds of jobs. Positively won't cause shorts.

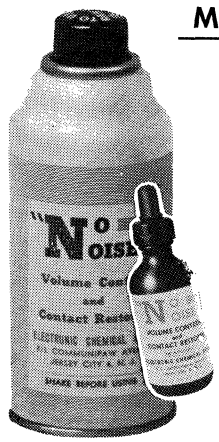


"NO NOISE"
Tuner-Tonic
with
Perma-Film

- Economical—a little does a lot.
- Cleans, lubricates, restores all tuners — including wafer type.
- Non-toxic, non-inflammable.
- Use for TV, radio and FM.

6 oz. Aerosol Can NET To Servicemen $3.25

WITH ALL "NO-NOISE" PRODUCTS SOLD MONEY BACK GUARANTEE



"NO NOISE"
Volume Control
and
Contact Restorer

- CLEANS
- PROTECTS • LUBRICATES

NOT A CARBON TET SOLUTION

2 oz. Bottle $1
6 oz. Spray Can $2.25
NET To Servicemen

At Your DISTRIBUTOR Only

ELECTRONIC CHEMICAL Corp.

JERSEY CITY, NEW JERSEY

electronic chemical
• new formula EC-44

Economical! A little does a lot!
6 oz. spray can $3.50 Net

LUBRICATES • CLEANS CONDITIONS
ALL ELECTRICAL CONTACTS
with FREE 5" plastic extender push button assembly

Net
© U.C.P., Inc.

GC CHEMICALS AND KITS

GC ELECTRONICS

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in handy 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.

G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers, repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net $ .48

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knots in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net $ .48

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net $ .70

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net $ .48

G-C HOUSEHOLD and MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement"; will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net $ .48

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net $ .53

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net $ .48

G-C No. 28 CEMENT THINNER— This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net $ .45

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net $ .45

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray, touch-up lacquers.
Cat. No. 29-2 2-oz. Net $ .45

G-C No. 67 PAINT THINNER—Excellent for Ruf-Koat, Krome-Koat, B-K Cement, Insulating Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net $ .45

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and disolve polystyrene rods, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net $ .45

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT Specially prepared for cementing ruber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net $ .53

G-C PLIOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net $ .53

G-C ELECTRICAL AND RESISTOR CEMENT—Here's the heat-proof cement that hardens like porcelain, same as used on resistors, flat irons, electrical appliances, etc.
Cat. No. 27-2 2-oz. Net $ .48

G-C ACRYLIC-PLEXIGLASS CEMENT — Specially prepared for cementing Lucite, Plexiglass and other arcylic materials.
Cat. No. 40-2 2-oz. Net $ .53

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net $ .53

G-C VINYL PLASTIC FABRIC CEMENT—Made for cementing vinyl plastic sheets together. Ideal for vinyl insulating tubings, patching plastic rain coats, covers, etc.
Cat. No. 16-2 2-oz. Net $ .53

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net $ .48

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in Television sets.
Cat. No. 47-2 2-oz. Net $ .72

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net $ .72

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net $ .72

G-C TV LINE SEAL FOR UHF AND VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net $ .53

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2 2-oz. Net $ .90

G-C RED GLYPTAL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net $ .59

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cabels and belts.
Cat. No. 1210 Non-Slip, 2-o Net $ .45

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 ½-oz. Net $ .33

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net $ .67
19-2 2-oz. Net $ .97

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net $ .45

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net $ .53

G-C DE-NOIZ ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-1 1-oz. Net $ .97
51-2 2-oz. Net $ .96

G-C CARBON CONTROL CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net $ .45

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-inflammable. For cleaning electrical controls and contacts.
Cat. No. 211-2 2-oz. Net $ .38

G-C LUBE-REX—The best contact cleaner on the market. Fine for attenuators, push-button switches, all-wave switches, contacts, etc. Cleans contacts and prevents corrosion.
Cat. No. 1206 2-oz. Net $ .45

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net $ .48

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net $ .80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net $ .48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net $ .48

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and paints in "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net $ .48

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net $ .53

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, oil-proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net $ .54

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2-oz. Net $ .57

G-C STRIP-X—Removes insulating enamel from wires for easy soldering. Use on magnet wire, etc.
Cat. No. 26-2 2-oz. Net $ .67

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net $ .45

G-C MAG-NETIK RECORDING HEAD CLEANER—Cleans without injury to the recording head that gradually lose their sensitivity if oxide accumulates.
Cat. No. 53-1 1-oz. Net $ .57
53-2 2-oz. $ .97

G-C RUF-KOAT—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color)).
Cat. No. 60-2 2-oz. Net $ .67

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net $1.30

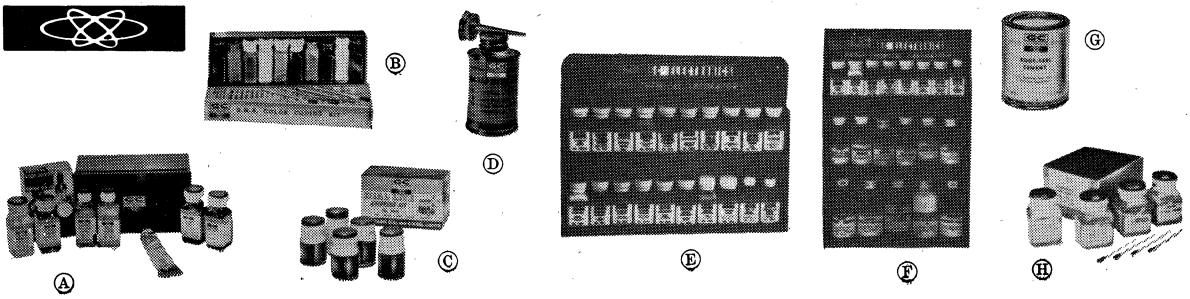
G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net $ .37

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net $ .50

G-C CEMENT SAMPLER KIT—A sampler kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, Pli-O-Bond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Resistor, Neoprene, Label and Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net $5.97

G-C RADIO AND TELEVISION CEMENT—High grade speaker cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc., on antennas, rotators, etc.
Cat. No. 34-2
2-oz. tube Net $ .48

GC ELECTRONICS CHEMICALS AND KITS



(A) G-C TV CHEMICAL KIT—A complete kit of essential chemicals needed for servicing TV sets. Complete in a handy metal box you can carry with you on the job or keep in the shop.
Cat. No. 904 TV Chemical Kit Net **$6.30**

(B) G-C E.I.A. COLOR CODING KIT—Complete kit of all standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey and White. Brushes furnished and E.I.A. color chart is on box.
Cat. No. 677 Color Coding Kit Net **$1.47**

(C) G-C DIAL AND SIGNAL LIGHT COLORING—Long-lasting coloring for signal systems, radio dials, decorative lighting, etc. Instant drying. Bright, durable colors of Red, Green, Blue, Amber, Purple and solvent.
Cat. No. 66-5 Kit of 5, no purple Net **$1.23**
66-6 Kit of 6 Net **$1.43**

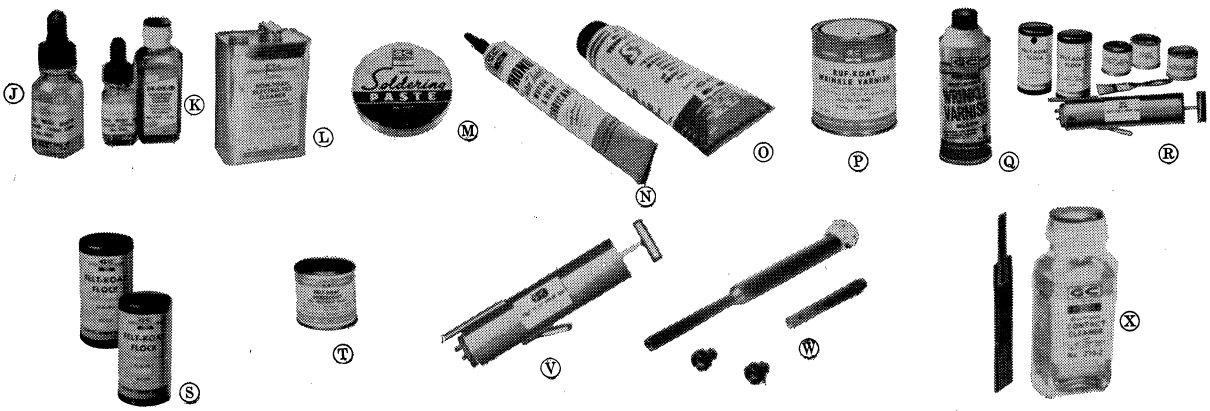
(D) G-C DIAL AND APPLIANCE OIL—A fine free-running oil for lubricating dial mechanisms, loosening and freeing controls, shafts, etc. Also use on small motors, appliances, etc.
Cat. No. 1245 4-oz. Net **$ .67**

(E) G-C RADIO-TV CHEMICAL LAB—Twenty 2-oz. bottles in permanent rack that can be placed on your bench or hung on the wall. Every needed chemical and cement is included for all kinds of repairs, speakers, coils, contacts, dials, controls. etc.
Cat. No. 997 Net **$12.75**

(F) G-C DELUXE RADIO-TV CHEMICAL LAB—For service shop and industrial plant. Complete practical laboratory designed to the needs of all service men in their everyday work. Ideal for the service man, engineer, experimenter, etc.
Cat. No. 998 Net **$16.17**

(G) G-C ROOF-SEEL COMPOUND—Eliminate call-backs on roof antenna installations by sealing all contacts or fastenings; to the roof.
Cat. No. 18-16 Pint Net **$ .92**

(H) G-C LUMINOUS LITE-KOAT KIT—Long-life, non-poisonous luminous coating that absorbs light in daytime and glows in the dark. Coat or stripe dials, knobs, switch plates, meter boxes, key holes, panels, instruments, hallways, staircases, etc.
Cat. No. 184-0 Net **$3.23**



(J) G-C ELECTRONIC CONTACT CLEANER HYPODERMIC NEEDLE INJECTOR—Here's a handy applicator made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places.
Cat. No. 8383 Net **$ .48**

(K) G-C DE-OX-ID KIT WITH NEEDLE INJECTOR—Kit contains 2 oz. bottle of De-Ox-Id and a hypodermic needle type injector for making it easy to apply.
Cat. No. 8460 Net **$1.42**

G-C CONTROL KLEENER—Cleans and lubricates Volume, Brightness, Tone and other controls. Also good for push buttons, switches, contacts and tuners.
Cat. No. 65-16 16-oz. Net **$1.95**

(L) G-C NON-TOXIC ELECTRO-TET CLEANER—Chlorothene, one of the least toxic of the Chlorinated Solvents. Closely parallels Carbon Tetrachloride, but much safer. Non-inflammable and fast drying.
Cat. No. 10-G 1 Gallon Net **$7.08**

G-C KLEEN-TEX CLEANER—A safe, slow-burning, high flash, inexpensive cleaner for motors, chassis, vacuum cleaners, etc. Removes grease, oil, wax and tars.
Cat. No. 11-G 1-Gallon Net **$3.27**

(M) G-C SOLDERING PASTE—New high quality, non-corrosive soldering paste for radio and electrical work.
Cat. No. 1207 2-oz. Net **$ .42**

(N) G-C PHONO-TURNTABLE MOTOR & GEAR LUBRICANT—A new special lubricant for phonographs. Formulated so that the lubricant clings to the surface of the parts. Eliminate trouble on phono repairs by using the best.
Cat. No. 1223 2-oz. Net **$ .53**

(O) TRANSISTOR Z5 SILICONE COMPOUND—G-C Silicone Compound is applied to transistor and chassis at the factory. IT MUST BE RE-APPLIED to transistor and chassis when replacing transistors.
Cat. No. 8101 1-oz. Net **$2.10**

(P) G-C RUF-KOAT WRINKLE VARNISH—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color).
Cat. No. 60-2 2-oz. Net **$ .67**

(Q) RUF-KOAT SPRA-KOAT—In power spray cans.
Cat. No. 60-12 12-oz. Black Net **$2.25**
60-13 12-oz. Gray **$2.25**

(R) G-C FELT-KOAT FLOCK FINISH SPRAY KITS—The new G-C method of applying flock with the G-C patented gun. It distributes flock evenly and blows each fibre into the undercoat vertically with great power. The flock in reality "flocks to the undercoat in a heavy velvet coat."
Cat. No. 180-2 Deluxe Kit Complete Net **$11.10**

(S) G-C FELT-KOAT FLOCK—Genuine rayon flock 1/16" length fibers. Colors available: Brown, Taupe, Blue, Black, Ivory, Red, Green and Gold. Specify Color wanted.
Cat. No. 180-5 Flock, Kit Size, 2-oz. Sifter/Can Net **$1.07**

(T) G-C FLOCK SIZING UNDERCOAT—A neutral base undercoat. This is first applied to the surface being flocked and then the flock spread over the wet surface.
Cat. No. 180-4 4-oz. Net **$ .72**

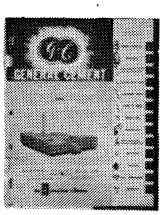
(V) G-C FELT-KOAT SPECIAL FLOCK PATENTED BLOWER GUN—This gun distributes the flock evenly and blows each fibre into the undercoat vertically with great force, thereby giving a smooth, velvet finish.
Cat. No. 180-3 Flock Blower Gun Net **$4.50**

(W) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust.
Cat. No. 9285 Net **$4.50**

(X) CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operating conditions.
Cat. No. 9339 Complete Kit Net **$ .75**

FREE 400-PAGE CATALOG

shows all GC products. Ask your jobber or write direct.



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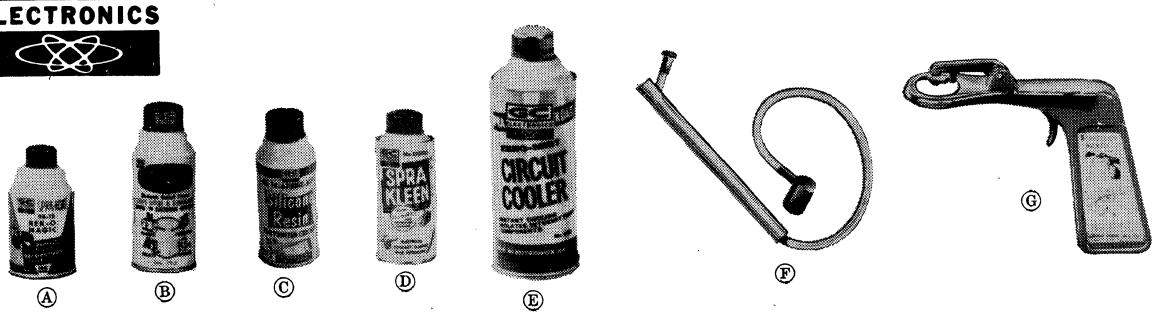
GC ELECTRONICS CHEMICALS AND KITS



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(A) NEW REK-O-MAGIC ANTI-STATIC SPRAY—Eliminates abrasive dust that ruins records. Cleans and keeps clean. Easy to use.
Cat. No. 98-12 12 oz. Net **$1.88**

(B) DE-OX-ID—Electrical contact cleaner for silver, detent and radar contacts. Use in television, radio, telephone, relays, instruments, etc., the greatest development in electronic contact fluids.
Cat. No. 19-6 6 oz. Net **$2.33**

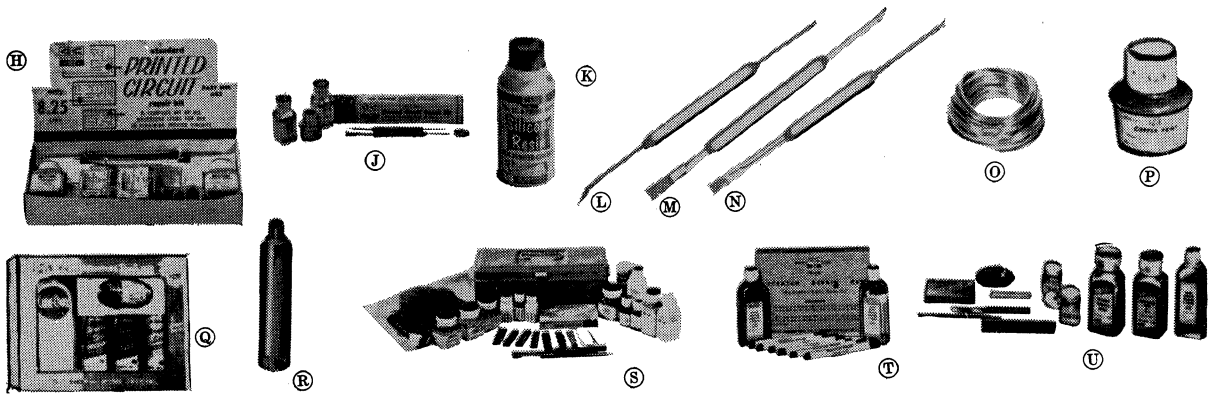
(C) K-27 PRINT-KOTE—T-V Silicone resin for printed circuits. This is the original clear silicone resin as used by manufacturers on all printed circuit sets. It insulates, protects and prevents shorts.
Cat. No. 14-6 6 oz. Net **$2.42**

(D) SPRA-KLEEN—Eliminates noise due to dust, dirt and corrosion on electrical contacts the easy way. Just spray onto the contacts or control for a quick, easy job.
Cat. No. 8666 6-oz. Net **$ .99**

(E) ZERO-MIST SPRA KOAT—Instantly locates defective circuit components of an intermittent nature due to temperature change. Circuits cooled instantly . . . intermittent components isolated.
Cat. No. 8667 16-oz. Net **$2.42**

(F) G-C FLEX-SOL SPRA-CAN EXTENSION—The device that adapts Spra-Cans to ANY use. Now you can reach and clean controls and tuners without removing them from the chassis. Speeds up and simplifies bench work.
Cat. No. 9344 Net **$ .68**

(G) NEW GUN TYPE SPRAY CAN HANDLE—Converts any spray can to a professional spray gun. The easy method of applying paints, service chemicals, cleaners, special finishes, etc. is made even easier!
Cat. No. 9288 Net **$ .89**



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(H) NEW G-C STANDARD PRINTED CIRCUIT KIT—Includes one box each of foil, solder washers, solder wire, one solder probe tool and brush, silicone resin lacquer and solvent, tweezers and complete instructions.
Cat. No. 682 Net **$4.95**

(1) G-C MASTER PRINTED CIRCUIT KIT—Includes all items in G-C standard kit plus one Ungar Soldering with one special tip and a 6-oz. spray can G-C No. 14-6 Print-Kote Silicone Resin Spray and complete instructions.
Cat. No. 683 Net **$9.50**

(J) G-C No. 680—PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—Here's a complete kit with the materials you need to repair any Printed Circuits in radio and TV sets using Printed Circuits. Used by leading set manufacturers.
Cat. No. 680 Net **$5.85**

G-C No. 681—TV PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—No. 681 kit is the same kit as No. 680, except the 21-1 Pure Silver Print is not included in kit.
Cat. No. 681 Net **$3.48**

(K) G-C PRINT-KOTE SILICONE RESIN SPRAY—Genuine Silicone Resin as used by leading TV set manufacturers to protect printed circuits. After repairing or replacing parts in printed circuit sets.
Cat. No. 14-6 6-oz. Net **$2.42**

(L) G-C No. 9093 PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 Net **$1.00**

(M) G-C No. 9094 PRINT-KOTE BRUSH AND SCRAPER—Fine stainless steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits before any repair can be made.
Cat. No. 9094 Net **$ .98**

(N) G-C HEAVY DUTY SOLDERING AID TOOL—One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold the wires while being soldered.
Cat. No. 9088 Net **$1.00**

(O) G-C PRINT-KOTE SOLDER—Special non-corrosive flux and low-melting solder combined with Pure Silver.
Cat. No. 9131 11-foot Coil Net **$ .52**

(P) G-C SILVER PRINT—Same Pure Silver compounded as used by manufacturers in printed circuit design. Repair those printed circuits, touch up circuit around eyelets, rivets, parts, etc.
Cat. No. 21-1 ½ Troy oz. Net **$2.49**
21-2 1 Troy oz. **$4.75**

NEW G-C COPPERPRINT—Excellent for repairing printed circuits. A high conductive, fast drying compound to touch up printed circuits.
Cat. No. 20-2 2 oz. Net **$1.43**

(Q) G-C TV AND FURNITURE BEAUTY KIT—Famous G-C Creme-O-Wax Furniture Polish. Also Walnut, Light Wood and Mahogany Skratch Stiks and free bottle of Kleer Lens.
Cat. No. 902 Net **$1.80**

(R) G-C SKRATCH STIKS—Available for Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of woods—makes them vanish like magic.
Cat. No. 909-W Net **$ .48**

(S) G-C No. 900 MASTER DELUXE CABINET REPAIR KIT—With this Master Repair Kit all repairs can be made even for the most exacting customer. All of the essentials for a really satisfactory repair job are included in this Kit. Our new spirit stains, varnishes and enamels are included in this kit (all spirit solvent).
Cat. No. 900 Master Deluxe Kit Net **$9.10**

G-C No. 901 CABINET REPAIR KIT—Here's a kit that is second to none. It is a complete kit that will meet any emergency or do any repair job. With this kit you can repair wood cabinets, as well as plastic and bakelite cabinets, knobs, etc. On dents or nicks you can use the shellac sticks and melt them in with the spatula and alcohol lamp.
Cat. No. 901 Net **$6.57**

No. 907 MASTER CABINET TOUCH-UP KIT—A high-grade, complete fast Touch-Up Kit for repairing scratches and dents on radio cabinets and furniture.
Cat. No. 907 Touch-Up Kit Net **$4.78**

(T) G-C MAGIC SCRATCH REMOVER KIT—This kit is a combination of 6 shades of Scratch Crayon fillers and Light and Dark Scratch Fluid.
Cat. No. 915 Net **$2.25**

CHEMTRONICS

ELECTRONIC CHEMICALS FOR SERVICEMEN

302 820 850 870 860 880 830 840 810 301

TROL-AID CONTROL AND ELECTRICAL CONTACT CLEANER

CHEMTRONICS' TROL-AID is a highly successful control and contact cleaner. A multi-purpose product, TROL-AID cleans as well as lubricates electronic controls and switches, thus extending their operational life.
Cat. No. 820 Net Wt. 8 oz. Dealer Net **$1.98**
Convenient "CADDY SIZE" Cat. No. 302 Net Wt. 3 oz. Dealer Net **98c**

FROST-AID FOR LOCATING THERMAL INTERMITTENT COMPONENTS

FROST AID is used to instantly cool and pinpoint suspected intermittent resistors, condensers, coils, and other components, for instant detection . . . thus saving hours of trial and error operations. FROST-AID is very effective in chilling leads of transistors and phono cartridges to reduce possibility of heat damage during soldering.
Cat. No. 850 Net Wt. 8 oz. Dealer Net **$1.98**

CHEM-OIL A NEW PENETRATING & LUBRICATING OIL • FROZEN YOKE REMOVER Electronic CHEM-OIL is a revolutionary new penetrating and lubricating oil based on an exclusive formula of chemicals and oils, highly recommended for use in record changers, tape recorders and instruments . . . and also as a "FROZEN YOKE REMOVER".
Cat. No. 870 Net Wt. 8 oz. Dealer Net **$1.79**

WIPE-A-WAY A NEW WATERLESS HAND CLEANER

CHEMTRONICS' WIPE-A-WAY is an exclusive formulated waterless hand cleaner. Immediately removes grease, grime, and cements . . . ideal for every type of hand cleaning problem. Contains no harsh abrasives or strong chemicals, and is fortified with activated lanolin and germ-killing trichlorphenate.
Cat. No. 860 Net Wt. 6 oz. Dealer Net **$1.49**

SOL-VENT A UNIVERSAL SOLVENT AND THINNER FOR ALL CEMENTS

SOL-VENT is a non-inflammable, non-toxic, all purpose thinner and solvent especially prepared to thin all types of cements, liquid insulators and dopes.
Cat. No. 880 Net Wt. 8 oz. Dealer Net **98c**

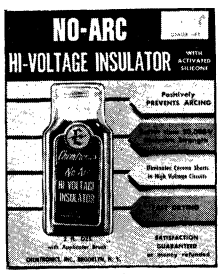
NO-ARC HI-VOLTAGE INSULATOR WITH 20,000 VOLTS DIELECTRIC STRENGTH A revolutionary approach to Hi-Voltage insulation and protective coating for H.V. transformers, yokes, HV leads and printed circuits. Waterproofs and protects exposed wiring, etc. Employs NEW JET STREAM ACTION—Not a Spray. **MEETS MIL-C-12599**
Cat. No. 830 Net Wt. 8 oz. Dealer Net **$2.79**

MASK-N-GLAS GLASS AND PLASTIC CLEANER AND POLISHER

Another CHEMTRONICS Service-Aid is the new MASK-N-GLAS Cleaner and Polisher. This exclusive anti-static glass and plastic cleaner is a non-staining, non-abrasive dirt and grime remover . . . for the cleaning of TV masks, safety glass and picture tubes.
Cat. No. 840 Net Wt. 6 oz. Dealer Net **$1.79**

TUN-O-LUBE MIRACLE ACTIVATED TUNER CLEANER

CHEMTRONICS' "Non-Drift" TUN-O-LUBE with activated TC-3 is a non-inflammable, non-toxic tuner cleaner . . . designed to clean and lubricate all types of tuners in one operation.
Cat. No. 810 Net. Wt. 8 oz. Dealer Net **$1.98**
Convenient "CADDY SIZE" Cat. No. 301 Net Wt. 3 oz. Dealer Net **98c**



CHEMTRONICS NO-ARC

MEETS MIL-C-12599

The same high quality, Hi-Voltage insulation and protection provided in the aerosol can above. Provides excellent HV insulation protection for HV transformers, yokes, etc. Supplied with brush applicator.

Cat. No. 501-1
2 oz. Bottle
Dealer Net **98c**

CHEMTRONICS TV-RADIO CEMENT

is an unexcelled high grade cement especially prepared for repairing speakers. It can also be used for glass or bakelite.

Cat. No. 502-2
2 oz. Bottle
Dealer Net **55c**

CHEMTRONICS ALL-PURPOSE GLUE

The best all-purpose glue for servicemen. Stronger, faster drying, easy to use. Dries to a permanent clear bond. Excellent for joining plastic, glass, wood and metals.

Cat. No. 503-6
2 oz. Bottle
Dealer Net **55c**

CHEMTRONICS TAPE RECORDER CLEANER

With miracle activated TR-2 is scientifically designed to clean heads, tape guides, capstan rollers and all other critical parts. Improves fidelity, eliminates tape squeal.

Cat. No. 504-3
2 oz. Bottle
Dealer Net **89c**

CHEMTRONICS TUN-O-LUBE

A bottled version of the high quality aerosol unit described above. The extremely popular non-drift miracle activated cleaner —cleans and lubricates all types of tuners. Non-inflammable, non-toxic.

Cat. No. 505-4
2 oz. Bottle
Dealer Net **79c**

CHEMTRONICS TROL-AID

Equivalent of the Aerosol version described above. A highly successful control and contact cleaner; cleans as well as lubricates. Eyedropper included.

Cat. No. 506-5
2 oz. Bottle
Dealer Net **79c**

BOTTLED ITEMS ALSO AVAILABLE IN PINTS, QUARTS AND GALLONS

CHEMTRONICS INC.
BROOKLYN, N. Y.

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INJECTORALL CHEMICALS

INJECTORALL REG. U.S. PAT. OFF.

TUNER CLEANERS

TUNER CLEANER
WITH PLASTIC NEEDLE
Cleaner and lubricant, non-toxic, non-flammable for tuners and controls.
no. 899-3WN 3 oz. spray list $1.50

TUNER CLEANER
WITH 6" STEEL NEEDLE
High quality cleaner and lubricant for contacts and controls, non-toxic, non-flammable. list
no. 899WN 6 oz. spray can $3.25

TUNER CLEANER
CANS ONLY
no. 899 6 oz. spray can list $2.99

TUNER CLEANER
CANS ONLY, ECONOMY SIZE
no. 899-16 16 oz. spray list $5.00

NEEDLES ONLY

INJECTORALL NEEDLE
6 inch stainless steel tube with special fitting to reach hard to get at contacts.
no. 6N list $1.00

CONTACT CLEANERS

CONTACT CLEANER
WITH 4" STEEL NEEDLE
A superior non-toxic spray solvent than carbontet that evaporates quickly, leaving a clean surface. list
no. 999WN 6 oz. spray can $2.99

CHEMICAL SERVICE AIDS

E-Z OFF YOKE REMOVER
WITH PLASTIC NEEDLE
Penetrates and loosens frozen yokes on picture tubes.
no. 40 3 oz. spray can list $1.99

CHILL-IT CIRCUIT FREEZER
An aid in pinpointing faulty capacitors, resistors, transistors and cold solder joints.
no. 179 16 oz. spray can list $2.99

GRIP-WELL
FOR DIAL CORDS
A non-slip compound for belts and dial cords; brush in cap.
no. 68 2 oz. glass bottle list $.80

CEMENTS

SPEAKER CEMENT
FOR REPAIRING SPEAKER CONES
Vibration proof, fast drying and forms a flexible bond; with brush.
no. 201 2 oz. glass bottle list $.80

GLUE

STIK-IT
An all purpose glue for wood, cloth and all porous surfaces; spreads white, dries clear. list
no. 39 2 oz. squeeze bottle $.39

CHEMICAL INSULATORS

HI-VOLT
A red fast drying insulating spray to prevent arcing and corona in high voltage circuits.
no. 129 6 oz. spray can list $1.89

CLEAR SPRAY
A transparent plastic spray; water-proofs, insulates and prevents rust.
no. 399 16 oz. spray can list $1.89

LUBRICATING OILS

SPOT
WITH PLASTIC APPLICATOR
A non-gumming high quality oil, excellent for tape recorders and record players.
no. 10 3 oz. spray can list $1.50

FURNITURE POLISH

RENEW
Furniture scratch cover polish that makes scratches disappear as you polish; for dark finishes; with cloth.
no. 30WC 6 oz. spray can list $1.50

TAPE RECORDER CHEMICALS

TAPE CLEANER
WITH PLASTIC APPLICATOR
Washes tape recorder heads clean; safe to use; prevents wow, flutter and squeal.
no. 250 3 oz. spray can list $1.99

RECORD CLEANER CHEMICALS

FIDELITY
Antistatic record cleaner designed to make records sound better and last longer; with cloth. list
no. 70WC 3 oz. spray can $1.25

PLASTIC CLEANERS

LENS KLEEN
Antistatic plastic cleaner for plastic TV windows and instrument panels.
no. 20 6 oz. spray can list $1.65

INJECTORALL COMPANY BROOKLYN NEW YORK

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Trade Discount Applies to List Prices Only

NEW . . . FROM KRYLON!

Complete with Applicator Hose

Krylon Cleaner Lubricant provides long-lasting protection from corrosion and oxidation, removes dirt and gummy deposits from electrical contacts, and provides a non-drying film which lubricates the contact surface. A new tool; it is already a regular item with several of the world's largest electronic original equipment firms. It is a Krylon quality product of outstanding utility. Each can comes fitted with a 5-inch plastic hose for controlled spraying in hard-to-reach areas.

16 oz.
List price
$1.79
(No. 1317)

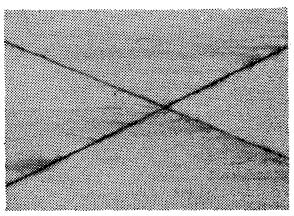
Also available in brush type. Ask your Krylon jobber.

Brush or Spray Types!

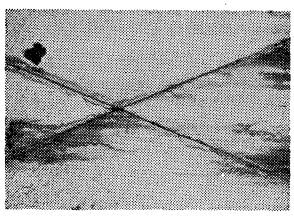
KRYLON RUST MAGIC *Metal Primer*

DRY IN 20 MINUTES
TOPCOAT IN 2 HOURS

Penetrates rust in minutes, bonds itself to the metal, positively prevents further corrosive action... seals the metal pores, locks out air and moisture. Activated with exclusive GL-358. Compatible with almost any finish...lacquers, enamels varnishes, acrylics, epoxies, vinyls, latex, oil-base and water-base paints. Earns a near-perfect 9.1 rating in ASTM Rust Prevention Index tests...530% higher than other leading brands!



RUST MAGIC



BRAND A

RUST MAGIC SUPERIORITY

Metal panels subjected to extreme salt spray for 325 hours. Rust Magic panel film shows no defect or corrosion except where purposely scribed through to bare metal. Brand A shows severe blistering, underfilm corrosion, widespread lifting and creeping.

KRYLON Dulling Spray

A "must" in TV, movie and photographic studios

- Reduces glare, bothersome highlights
- Simplifies lighting arrangements
- For black-and-white and color use

16 oz., list price, **$1.95** (No. 1310)

KRYLON Silicone All-Purpose Spray

Stops sticking drawers...stops squeaky doors...repels water...lubricates and protects at the same time.

16 oz., list price **$1.95** (No. 1325)
6 oz., list price .98 (No. 1325A)

KRYLON Rust Release *Penetrating Oil Spray*

Instantly...easily...frees rusty bolts and nuts that a wrench can't budge...as well as "frozen" parts. Lubricates as it penetrates.

16 oz., list price **$1.69** (No. 1324)
6 oz., list price .98 (No. 1324A)

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KRYLON CRYSTAL-CLEAR Acrylic Spray Coating

For television, radio, electronic use

- **Prevents corona in high-voltage sections**
- **Prevents rusting and pitting of antennas**
- **Keeps lead-in connections tight.**
- **Just spray it on — that's all!**

Protects radio, TV and hi-fi equipment indefinitely against humidity and dust. High dielectric strength, excellent weatherproof qualities. IF YOU PRIZE IT... KRYLON-IZE IT!

CHARACTERISTICS

Dielectric constant of 3.2 to 3.7 (1000 cycles). Dielectric strength of 400 to 800 (number of volts necessary to cause an electric arc through a Krylon coat one mil thick). Electrical resistance of 10^{10} ohms/cm^3.

6 oz. list price (No. 1300A)	**.98**
16 oz. list price (No. 1302)	**$1.95**

KRYLON SPRAY ENAMELS

Perfect Painting the "Push-Button" Way! No Muss, No Fuss, No Lost Time!

DRY IN MINUTES!

6 oz. Order No.	16 oz. Order No.	Color
1401A	1401	Bright Silver (Alum)
1501A	1501	Glossy White
1502A	1502	Flat White
——	1503	Antique Ivory
1601A	1601	Glossy Black
1602A	1602	Flat Black
1603A	1603	Machine Grey
1604A	1604	Light Grey
1605A	1605	Dove Grey
1701A	1701	Bright Gold
1801A	1801	Chrome Yellow
——	1802	Pastel Yellow
——	1803	Caterpillar Yellow
1901A	1901	Regal Blue
1902A	1902	Baby Blue
——	1903	Champion Blue
2001A	2001	Hunter Green
——	2002	Surf Green
2101A	2101	Cherry Red
2102A	2102	Baby Pink
——	2103	Int'l. Harvester Red
2201A	2201	Bright Copper
2202A	2202	Brass
——	2301	O.K. Khaki
——	2401	Int'l. Orange
——	2501	Leather Brown

6-oz. colors each **.98**

16-oz. colors each **$1.79**

KRYLON Glowing Fluorescent SPRAY PAINTS

6 brilliant fluorescent colors that produce 400% greater visibility! Red Orange-633 and Yellow Orange-634 colors conform to Spec. MIL-P-21600 (Aer).

...brilliant colors give unexcelled visibility...attract attention at great distances...stand out sharply from their surroundings. More and more fluorescent paints are being used in industry, aviation, military, business and the home because of their high visual impact.

6 oz. Order No.	16 oz. Order No.	Color
3101A	3101	Red Orange-633
3102A	3102	Yellow Orange-634
3103A	3103	Sunset Gold
3104A	3104	Lemon Yellow
3105A	3105	Cerise
3106A	3106	Green

16-oz. can List price **$2.79**

6-oz. size List price **$1.19**

Other KRYLON Spray products you will want to keep handy:

METAL PRIMER • STENCIL INK • HIDE-A-MARK • CLEANER AND DEGREASER

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Heeger, Inc., Los Angeles, California, as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.

From the laboratories of

H. M. H. INDUSTRIES

PROPELLON INSTANT FREEZE

Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittance. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.

PACKED IN 6 OZ. CANS WITH 12″ EXTENDER FREE WITH EACH CAN

6 OZ. CAN WITH 12″ EXTENDER ..... ea. $1.45

From BEAVER LABORATORIES

GTC-59

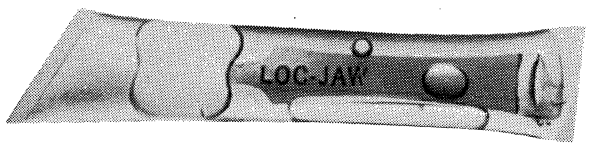
GLASS TREATMENT COMPOUND

Produces super-smooth surfaces on glass and plastics. Water repellent, smear proof and anti-static and imparts a lustrous glaze that stays dust and dirt free 10 times longer.

1. Cleans and degreases in one application.
2. Deposits tough, super-smooth and water repellent protective hard surface.
3. Cancels static fields which attract dirt and dust.
4. Keeps surface free of carbon dust build-up and other foreign matter 10 times longer.

Satisfaction guaranteed.

6 oz. bottle with sprayer....1.00 16 oz. can....2.00 32 oz. can....3.50 Gal. can....12.00



From the laboratories of

HASCOL ENTERPRISES

LOC-JAW

A SCIENTIFICALLY COMPOUNDED ADHERENT FORMULA

"Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER ..... ea. 50c

BAG OF 10 ..... per bag 4.50

From BEAVER LABORATORIES

LIQUI-TAPE

LIQUID INSULATING TAPE

A superior insulating compound that's faster and easier to use. This unique product was developed to meet the specialized demands of industry. Close spacing, moisture barriers, mechanical seals and electrical insulation are only a few of the uses for Liqui-Tape. May be applied after hard to get at equipment is installed. Dries to a hard pliable surface that will not crack, chip or peel.

SOME OF MANY USES

Damp proofing, for added insulation, motor winding, electrical connections, sealing compound, tool handles, rust proofing, all terminal connections, cementing compound, shock proofing, anti-corona compound, weather seal.

2 oz. Bottle....$ 1.00 32 oz. Bottle....$10.00
16 oz. Bottle....$ 6.00 Gallon $26.75

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

- **SOLDERS COPPER TO ALUMINUM**
- **ALUMINUM TO ALUMINUM**
- **SOLDERS ALL METALS**

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes ..... ea. .72c
1 lb. Can ..... ea. $5.65

PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

© U.C.P., Inc.

"QUIETROLE"...

TRADE MARK REG. U.S. PAT. OFF.

the original LUBRICANT CLEANER

SPRAY IT or DROP IT...

the New QUIETROLE SPRAY-PACK

or the

QUIETROLE BOTTLE with the Eye Dropper

"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today—developed through years of factual and authentic research.

There is no substitute for QUALITY . . . get QUIETROLE TODAY

A First of the Industry . . . A Twelve Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price

QUIETROLE BOTTLE

Size	Cat. No.	Min. Order	Min. Re-order	Distr. Net Resale Price
2 oz.	10-2	24	24	$1.69
4 oz.	10-3	16	8	2.54
8 oz.	10-4	8	6	5.07

Effective Savings on Gross Lot Purchase 10-2 Size

QUIETROLE SPRAY-PACK (CAN)

6 oz.	10-5	12	12	2.79

Mfd. by

QUIETROLE COMPANY, SPARTANBURG, S. C.

Walsco ELECTRONICS CHEMICALS

WALSCO SPRAY CHEMICALS

WALSCO FREEZ-MIST

Saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freez-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances.

Cat. No. 214-12 16 oz. **Net $2.19**

NEW SPRAY CAN HANDLE

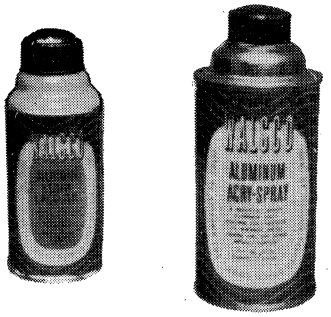
Converts any spray can to a professional spray gun. The Walsco spray can handle keeps hands clean, eliminates hand fatigue, yet maintains an even, accurate spray. Readily adaptable to any spray can and easily changed from one can to another.

Cat. No. 150 **Net $ .89**

PRINTED CIRCUIT INSULATING VARNISH

A special formula providing a tough, protective coating for "printed" circuits. May also be used on exposed coil windings, etc. Fast air-drying.

Cat. No. 120-06 6 oz. **Net $2.17**



WALSCO ACRY-SPRAY

This famous Walsco Acrylic Spray for the prevention of corrosion, rust and oxidation on all metals is now available in the new, handy spray cans. Easier to carry, easier to apply, does a better job.

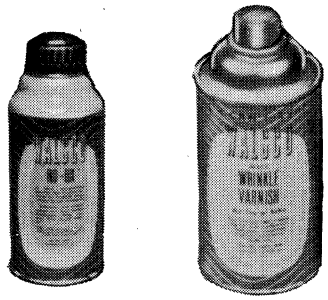
Cat. No. 140-12 Clear Acry Spray—16 oz. **Net $1.19**

Cat. No. 141-12 Aluminum Acry Spray—16 oz. **Net $1.13**

WALSCO "NO-OX"

Another popular Walsco product in the handy spray can. This amazing cleaner dissolves corrosion quickly and efficiently without the use of drastic solvents. Works by chemical action and not as solvent cleaner.

Cat. No. 100-06 6 oz. **Net $2.34**



AIR-DRY WRINKLE VARNISH

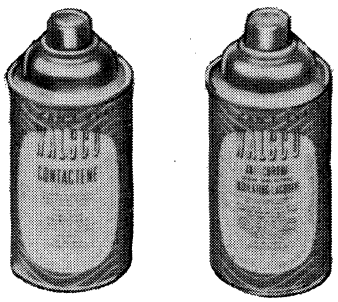
Just spray it on, let it air-dry and you have a professional factory wrinkle finish without baking. Gives a hard, durable, attractive wrinkle finish to metal, plastic or wood.

Cat. No. 145-06 6 oz., Black	**Net $1.35**
Cat. No. 146-06 6 oz., Grey	**Net 1.35**
Cat. No. 145-12 16 oz., Black	**Net 1.83**
Cat. No. 146-12 16 oz., Grey	**Net 1.83**

WALSCO CONTACTENE

Now in the handy spray cans. Contactene lubricates as it cleans with fast action and is quick drying. Eliminates noise on controls, switches, tuners, etc.

Cat. No. 80-06 6 oz.	**Net $ .99**
Cat. No. 80-12 16 oz.	**Net 1.95**



ANTI-CORONA LACQUER

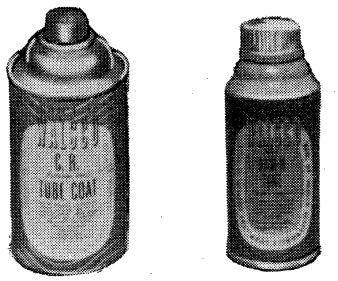
Just a thin coat sprayed from this can and you have protection from corona discharge up to 15,000 volts. A quick, easy application of Walsco Anti-Corona Lacquer may prevent trouble before it happens.

Cat. No. 195-06 6 oz.	**Net $1.03**
Cat. No. 195-12 16 oz.	**Net 2.17**

C-R TUBECOAT

Spray over scratches and peeled off sections of the television picture tube applying a fresh new coating. Easy to use—takes but a few seconds.

Cat. No. 199-06 6 oz.	**Net $1.03**
Cat. No. 199-12 16 oz.	**Net 1.95**



WALSCO HAM-R-TONE

A top-quality enamel finish in a handy economical spray can is a combination that guarantees the user satisfaction. This famous Walsco Ham-R-Tone Enamel is now more popular than ever. Gives a professional finish to panels, racks, instruments, chassis and other metal parts in just a few minutes. Air-drying.

Cat. No. 148-06 6 oz., Grey	**Net $ .99**
Cat. No. 149-06 6 oz., Blue	**Net .99**

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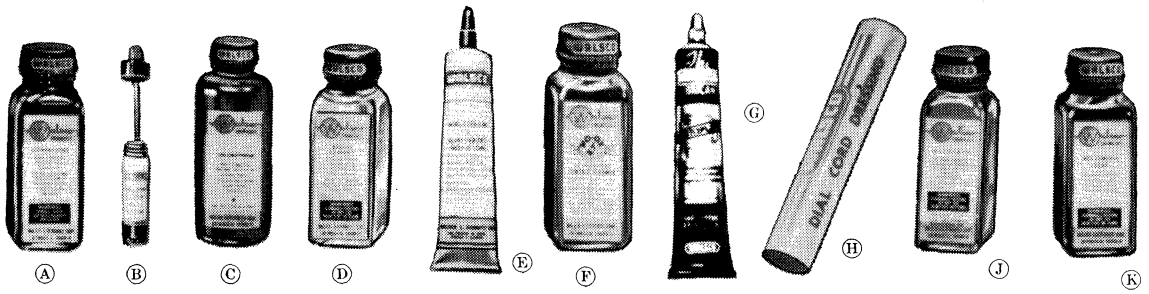
Walsco ELECTRONICS CHEMICALS



(A) WALSCO CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminate volume control noise with this specially compounded electronic contact cleaner. Absolutely anti-oxidant.

Cat. No. 80-02	2-oz. bottle	Net $	.53
80-04	4-oz. bottle		.67
80-08	8-oz. bottle		1.13
80-16	16-oz. can		1.50
80-06	6-oz. spray can		.98
80-12	16-oz. spray can		1.95

(B) CONTACTENE INJECTOR

A fine surgical-grade steel needle. Designed to be inserted into places where ordinary applicators cannot reach. Makes lubrication of most volume controls and other parts possible without unsoldering or dismantling.

Cat. No. 989 Net $ .45

(C) CHLOROTHENE (NON-TOXIC)

An amazing, new powerful solvent for all-purpose cleaning of any electronic component, switch, chassis, etc. Quickly dissolves grease, dirt, oils, tar, and waxes. Safe even indoors, under normal conditions.

Cat. No. 113-04	4-oz. bottle	Net $	.57
113-16	16-oz. bottle	Net	1.32

(D) WALSCO RADIO CEMENT

A fast drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Not affected by cold or high temperature, moisture or oil.

Cat. No. 50-01	1¾ oz. tube	Net $	.48
50-02	2 oz. bottle		.48
50-04	4 oz. bottle		.72
50-08	8 oz. bottle		1.27
50-16	1 pt. bottle		2.18

(E) WALSCOLUB-B

Electrically neutral lubricant that prevents corrosion. Walscolub-B makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

Cat. No. 22-01 1¾ oz. tube Net $ .48

(F) WALSCO "NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

Cat. No. 100-01	1 oz. bottle	Net $	.67
100-02	2 oz. bottle		.97
100-16	1 pt. bottle		7.50
100-33	1 gal. can		38.17
100-34	5 gal. can		177.99
100-06	6 oz. spray can		2.33

(G) WALSCO "LUBRIPLATE"

Super lubricant, grease type, protective. Lubriplate reduces friction loss, prevents rust and corrosion. Extends bearing life 50% . . . increases mechanical efficiency 20% over ordinary lubricant.

Cat. No. 23-02 2 oz. tube Net $ .67

(H) DIAL CORD FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increase grip, lengthens life of cord.

Cat. No. 259-01 Net $ .25

(J) WALSCO GLYPTAL

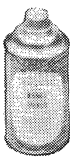
An outstanding insulating varnish. Resists heat, oils and acid. High arc resistance makes it essential in electrical and electronic application.

Cat. No. 134-02	2 oz. bottle	Net $	.57
134-08	8 oz. bottle		1.65

(K) WALSCO RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

Cat. No. 198-02 2 oz. bottle Net $ .72



AIR-DRY WRINKLE VARNISH

Factory-like wrinkle finish without baking. Can be used on wood or metal. Gives a hard, tough, durable finish. Just one easy-to-apply coat does the job.

Cat. No. 146-02	2 oz. jar - Gray	Net $	.67
145-02	2 oz. jar - Black		.67
145-33	1 gal. can - Black		15.17
146-33	1 gal. can - Gray		15.92

WALSCO SOLVENT AND THINNERS

TYPE CEMENT	USE SOLVENT	CAT. NO.	QTY.	NET
Plastic Cement	*Cement	201-02	2 oz.	$ .48
Radio Cement	Solvent	201-04	4 oz.	.72
		201-08	8 oz.	.82
		201-16	16 oz.	1.32
		201-33	1 gal.	4.80
Polystyrene Cement	Polystyrene Solvent	202-02	2 oz.	.45
		202-04	4 oz.	.67
		202-33	1 gal.	3.68
Vinylite Cement	Lacquer	203-02	2 oz.	.48
Radio Cement		203-33	1 gal.	4.95
Crystallizing Lacquer		203-34	5 gal.	21.30
Fungus Lacquer				
Telephone Black & Grey				
Light Bulb Coloring				
Anti-Corona Lacquer				
CR-Tubecoat				
Rubber Cement		204-04	4 oz.	.67
Wrinkle Varnish	Thinner	204-33	1 gal.	3.68
Flock Undercoat				
Elec. & Resistor Cement				
Wood Glue	Water			
Aluma-Flux				

* Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc., Solvent will discolor Plastic and Radio Cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

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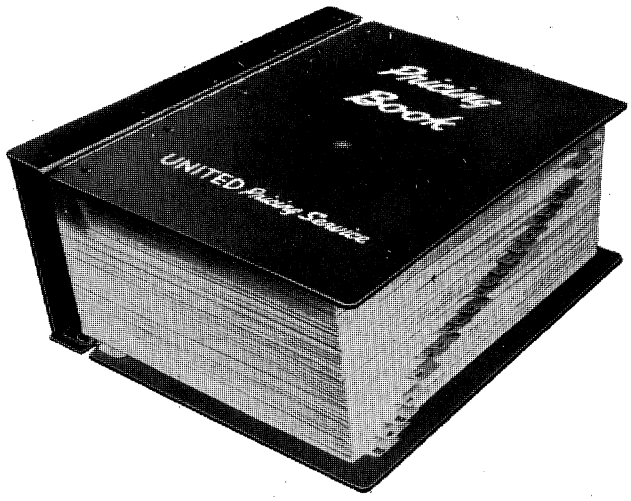
UNITED PRICING SERVICE

The Perpetual Pricing System for Radio-Television-Electronic Parts and Equipment



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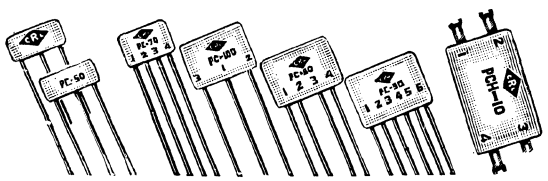
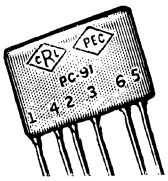
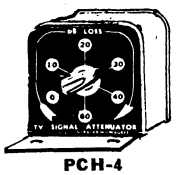
Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

Centralab. Packaged Circuits







PCH-4

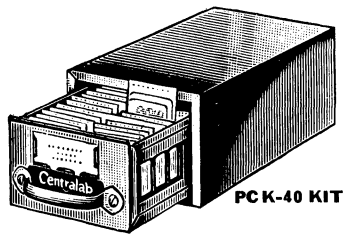
TA-12-B

PACKAGED ELECTRONIC CIRCUITS

These compact units contain resistors, capacitors, conductors and in some instances, inductance integrally bound to a ceramic base plate. Completely sealed against moisture, temperature change and shock. **Write for your Free copy of the current Packaged Electronic Circuit Guide.**

CRL No.	Description	Net Each
PC-2	Single Resistor	$0.60
PC-21	Series Resistor	.60
PC-30	Series R-C Network	.60
PC-33	Series R-C Network	.60
PC-36	Parallel R-C Network	.60
PC-37	Parallel R-C Network	.60
PC-50	Diode Filter	.60
PC-51	Diode Filter	.60
PC-52	Diode Filter	.60
PC-60	Parallel R-C Network	.60
PC-61	Parallel R-C Network	.60
PC-70	Triode Couplate*	.60
PC-71	Triode Couplate*	.60
PC-80	Triode Couplate*	.60
PC-81	Triode Couplate*	.60
PC-82	Triode Couplate*	.60
PC-84	Triode Couplate*	.60
PC-90	Pentode Couplate*	.90
PC-91	Pentode Couplate*	.90
PC-92	Pentode Couplate*	.90
PC-100	Vertical Integrator	.75
PC-101	Vertical Integrator	1.05
PC-104	Vertical Integrator	.75
PC-105	Vertical Integrator	.75
PC-106	Vertical Integrator	.75
PC-110	R-C Filter Bypass	.60
PC-111	R-C Filter Bypass	.60
PC-150	Audio Detector Couplate*	.90
PC-151	Audio Detector Couplate*	.90
PC-154	Audio Detector Couplate*	.90
PC-157	Audio Detector Couplate*	.90
PC-158	Audio Detector Couplate*	.90
PC-159	Audio Detector Couplate*	.90
PC-160	Pentode Diode Couplate*	1.20
PC-165	Pentode Diode Couplate*	1.20
PC-166	Pentode Diode Couplate*	1.20
PC-175	R-C Network	.60
PC-176	Integrator	.90
PC-177	R-C Network	.90
PC-178	R-C Network	.60
PC-179	Sound IF Network	.90
PC-184	R-C Network	.75
PC-185	R-C Network	.75
PC-186	Integrator	.75
PC-190	Baxandall Tone Control	1.05
PC-260	Sync. Take-off	.90
PC-262	Sync. Take-off	.90
PC-263	Sync. Take-off	.90
PC-264	Sync. Take-off	.90
PC-304	R-C Network	.75
PC-305	Elect. Organ Network	1.20
PC-306	R-C Network	.75
PC-307	R-C Network	.60
PC-308	Horizontal Oscillator	1.05
PC-309	Retrace Suppression Network	.75
PC-310	First Audio Couplate*	.90
PC-311	Vertical Feed-Back	.75
PC-312	Vertical Integrator	.75
PC-313	Audio Detector Couplate*	.90
PC-314	Retrace Suppression Network	.75
PC-315	Audio Detector Couplate*	.90
PC-316	Sync. Take-off	1.20
PC-317	Audio Couplate*	.60
PC-318	Audio Det. Pentode Couplate*	1.20
PC-319	Phase Comparator	.75
PC-320	Discriminator Network	.75
PC-321	Sync. Sep. Grid Network	.60
PC-322	Electronic Organ Network	.75
PC-323	Electronic Organ Network	.75
PC-324	Compentrol Network	.75
PC-325	Compentrol Network	.75
PC-326	Diode Filter	.60
PC-327	Pentode Diode Couplate*	1.05
PC-328	Pentode Diode Couplate*	.90
PC-329	Sound IF Network	.75
PC-330	Sync. Take-off	.90
PC-331	Diode-Triode Couplate*	.75
PC-332	R-C Network	.75
PC-333	Vertical Integrator	.90
PC-334	Audio Network	.60
PC-336	Retrace Suppression	.75
PC-337	Phase Comparator	.90
PC-338	Sync. Time K Network	$0.90
PC-339	Sync. Time K Network	.90
PC-340	AGC Voltage Divider	.75
PC-341	Series R-C Network	.60
PC-342	FM Balanced Ratio Detector	1.20
PC-343	Diode-Pentode Couplate*	1.20
PC-344	Loudness Contour Network	.90
PC-345	Loudness Contour Network	.90
PC-346	Loudness Contour Network	.75
PC-347	Phono Input Network	.75
PC-348	Diode-Triode Couplate*	.75
PC-349	R-C Network	.60
PC-350	Integrator Network	.90
PC-351	De-Emphasis Network	.60
PC-352	Sync. Circuit Resistor Bank	.75
PC-353	Horizontal AFC Network	.75
PC-354	Ratio Detector Network	1.05
PC-355	Sync. Coupling Network	1.05
PC-356	Tone Control Network	.75
PC-357	Phase Detector Network	.90
PC-358	Sync. Coupling Network	1.05
PC-359	Balanced Dual Capacitor	.60
PC-360	Antenna Isolation Network	.60
PC-361	Ant. Filter Output Coupling Network	.60
PC-362	Sync. Take-off Network	.75
PC-363	Tone Control Network	.60
PC-364	Horizontal AFC Network	.90
PC-365	Ant. Filter Output Coupling Network	.60
PC-366	Ground Chassis Circuit	.75
PC-367	Horiz. Oscillator and Phase Detector	1.20
PC-368	Vertical Integrator	.75
PC-369	Phase Comparator Network	.75
PC-370	Horizontal Oscillator Network	.90
PC-371	Audio Couplate*	.75
PC-372	Audio Couplate*	.60
PC-373	Audio Coupling Network	.90
PC-374	Vertical Integrator	.90
PC-375	Phase Comparator Network	.90
PC-376	Retrace Suppression Network	.75
PC-377	Antenna Isolation Network	.60
PC-378	Tone Control Network	.90
PC-379	Audio Coupling Network	.90
PC-380	De-Coupling Network	.90
PC-381	Sync. Coupling Network	.75
PC-382	Parallel R-C Network	.60
PC-383	Parallel R-C Network	.60
PC-384	Series R-C Network	.60
PC-385	Vertical Integrator	.90
PC-386	Vertical Feedback Network	.90
PC-387	IF De-Coupling Network	1.05
PC-388	Yoke Balancing Network	.90
PC-389	Yoke Balancing Network	1.05
PC-390	Audio Detector Couplate*	.90
PC-391	Sync. Take-off Network	.75
PC-392	Integrator Network	.75
PC-393	Tone Control Network	.75
PC-394	Horizontal Oscillator Network	1.20
PC-395	Vertical Integrator	1.20
PC-396	Video Coupling Network	1.05
PC-397	Sound Detector Couplate*	.90
PC-400	Audio Coupling Network	1.05
PC-402	Twin T Rumble Filter Network	1.20
PC-403	Flip Flop Network	.75
PC-404	Compentrol Network	.75
PC-405	Compentrol Network	.60
PC-406	Audio Network	.60
PC-407	Integrator Network	.60
PC-408	Integrator Network	1.20
PC-409	Phase Detector Network	1.20

*Registered Trade Mark.



PCK-40 KIT

PCK-40 PACKAGED ELECTRONIC CIRCUIT KIT

Contains 40 PEC units in 13 of the most frequently used types. All units packaged in transparent plastic with identification clearly visible. Supplied in one-drawer, sturdy steel cabinet with attractive blue baked enamel finish. **Size:** 11⅛" x 6⅜" x 4¼". **$35.45**

CRL No. PCK-40—Net Each...

KIT CONTAINS

Quan.	Part No.	Quan.	Part No.
2	PC-81	5	PC-150
2	PC-91	2	PC-151
10	PC-100	2	PC-158
5	PC-101	2	PC-159
2	PC-104	2	PC-160
2	PC-105	2	PC-165
2	PC-106		

PCH-4 TV ATTENUATOR SWITCH

Permits proper attenuation required for best TV reception through use of "H" pads. Eliminates tearing of image due to high powered nearby stations. Six switching positions from regular antenna to 60 db loss. Comes complete with knob, leads, dial plate and container. **$6.00**

CRL No. PCH-4—Net Each.....

CRL No. PCH-10 (10 db), **PCH-20** (20 db), **PCH-30** (30 db) **or PCH-40** (40 db) **"H" Pads**—Net Each..... **90c**

CRL No. PCH-100—Set of 4 "H" pads; one each of above in plastic box. Net Per Set..... **$3.60**

TA-12-B FOUR-STAGE PACKAGED TRANSISTOR AMPLIFIER

Complete, ultra-miniature audio amplifier has 4 stages, yet only 0.531" dia. x .228" thick. Patented layerized construction assembles resistors, capacitors and transistors in extremely compact and efficient amplifier. Ideal for pocket radios, recorders, mike amplifiers, hearing aids, etc. **Gain:** 73 db min. at 1 kc. **Power Output:** Up to 0.5 mw. **Frequency Characteristic:** ±5 db, 300-20,000 cps. **Input Imped.:** 2,500 ohms, nom. **Signal-to-Noise:** 30 db below signal for signal input of 25 μv at 1 kc, max. Input shorted to ground for no signal noise. **Supply Voltage:** 1.34 v. mercury cell. **Current Drain:** 1.6 to 2.2 ma, nom. **Design Load:** 1,000 ohms imped. at 1 kc; 450 ohms max. DC resistance.

CRL No. TA-12-B—Complete with instructions. Net Each.... **$45.00**

TYPE RC TUBE-R-CAPS®

Radial lead ceramic tubular capacitor and resistor in parallel in the same space as a tubular capacitor alone.

CRL No.	Capacitor		Resistor			Size, In. Dia. x L.	Net Each
	μμf	Tolerance	Ohms	Tolerance	Rating		
RC-421	56	±10%	47K	±20%	¼ watt	.260 x .503	18c
RC-428	150	GMV	3.3 meg.	±30%	½ watt	.260 x .790	18c
RC-431	330	±20%	220K	±20%	½ watt	.260 x .790	18c
RC-465	470	±20%	470K	±20%	¼ watt	.260 x .503	18c
RC-471	470	GMV	.3-1 meg.	.....	½ watt	.280 x .910	18c
RC-476	800	GMV	22K	±20%	¼ watt	.260 x .503	18c
RC-485	4700	+80, −20%	180	±20%	¼ watt	.260 x .790	18c
RC-490	4700	+80, −20%	.75-1.5 meg.	.....	½ watt	.330 x .910	18c

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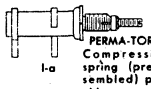
CAMBRIDGE THERMIONIC CORPORATION

CAMBION®

The guaranteed electronic components

COIL FORMS

CERAMIC AND PHENOLIC COIL FORMS



I-a PERMA-TORQ Compression spring (preassembled) provides permanent locking action.

I-b SPRING LOCK Locking spring (unassembled) maintains tension against slug screw.

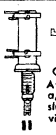
I-c COMPRESSION LOCK Locknut (unassembled) securely clamps split mounting stud.

LOCKNUT I-d Conventional locknut (jam nut)(unassembled) tightens against mounting stud.

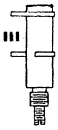
Tuning slugs supplied assembled; mounting hardware unassembled. Available wound to specifications in any quantity. Order the following items from CHARTS I and II.

Cambion No.	Fig.	Mounting Stud L. x Thread x Base Dia.	Ht. Above Panel	Body O. D.	‡	Collar O. D.	Net 1-49*
LS3*	III	1/4" x 1/4-28 x none	1 1/8"	3/8"	#	.....	43c
LS4*	V	3/8" x 1/4-28 x 3/16"	2.0"	1/2"	#	.....	65c
LS5†	I-b, II-b	5/32" x 1/4-28 x 1/2"	1 1/16"	.375"	5/8"	.545"	61c
PLS5†	I-a, II-a	5/16" x 1/4-28 x 1/2" hex	1 1/16"	.375"	5/8"	.545"	61c
SLS5†	I-c, II-c	27/64" x 1/4-28 x 1/2" hex	1 1/16"	.375"	5/8"	.545"	63c
LS6†	I-b, II-b	9/32" x 10-32 x 3/8" hex	55/64"	.260"	15/32"	.430"	56c
PLS6†	I-a, II-a	5/16" x 10-32 x 3/8" hex	55/64"	.260"	15/32"	.430"	56c
SLS6†	I-c, II-c	13/32" x 10-32 x 3/8" hex	55/64"	.260"	13/32"	.430"	58c
LS7†	I-b, II-b	5/16" x 1/4-28 x 5/8" hex	1 45/64"	.500"	1 1/32"	.670"	66c
PLS7†	I-a, II-a	5/16" x 1/4-28 x 5/8" hex	1 45/64"	.500"	1 1/32"	.670"	66c
SLS7†	I-c, II-c	29/64" x 1/4-28 x 5/8" hex	1 45/64"	.500"	1 1/32"	.670"	68c
LS8†	VI-b	9/32" x 1/4-28 x 1/2"	23/32"	.290"	§	.....	83c
PLS8†	VI-a	5/16" x 1/4-28 x 1/2"	23/32"	.290"	§	.....	83c
LSM*	IV-d	1/4" x 8-32 x 5/16"	27/32"	1/4"	13/32"	.365"	43c
LSML*	IV-b	1/4" x 10-32 x 5/16"	27/32"	1/4"	15/32"	.365"	43c
LST†	I-d, II-d	1/4" x 8-32 x 1/4" hex	19/32	.205"	9/32"	.326"	51c
LSTL†	I-b, II-b	1/4" x 8-32 x 1/4" hex	19/32	.205"	9/32"	.326"	51c
PLST†	I-a, II-a	1/4" x 8-32 x 1/4" hex	19/32	.205"	9/32"	.326"	51c
SLST†	I-c, II-c	21/64" x 8-32 x 1/4" hex	19/32	.205"	9/32"	.326"	53c
Order the following from Chart III.							
2770†	I-a, II-a	13/32" x 10-32 x 1/4" hex	25/32"	.205"	9/32"	21/64"	**
2771†	I-a, II-a	35/64" x 12-28 x 3/8" hex	1 3/32"	.260"	15/32"	7/16"	**

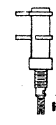
*Body material, phenolic. †Body material, ceramic. ‡Space between collars (-2C4L, -2C2L). #Ring terminals only. §Clip terminals only. **See Chart III for prices.



II COLLAR TYPE Available with a, b, c or d slug-locking devices. (see Fig. I)



III



IV Available with b or d slug-locking devices (See Fig. I) and with collars (see Fig. II)

V

VI CLIP-TERMINAL TYPE Available with a or b slug-locking devices (see Fig. I)

CHART I	CHART II			
Part No. Suffix	*Collars/ Terminals	LSM Types LS6 Types LS8 Types	LS3† LS5 Types	LST Types	Frequency Range MC
-2C4L	2/2 ea.	-F	-C	-I	0.2-1.5‡
-2C2L	2/1 ea.	-E	-B	-H	1-20‡
-CT2L	1 top/2	-O	-N	-P	20-50‡
-CB2L	1 bot./2	-D	-A	-G	30 and up‡
		-2018B	-2018C	-2018A	100 and up
		-NS	-NS	-NS	No slug

*Silicone fiberglas collars, solder terminals. † For brass load, add L to part no. suffix, as LS3-CL. ‡Powdered iron slug.

Specify slug-locking device, collar and frequency when ordering. For examples: PLS6-2C4L/E—PermaTorq® locking device, 2 collars with 2 terminals each, 1-20 frequency. LST-CB2L/2018A—Locknut type, 1 collar at bottom with 2 terminals, 100 and up frequency. SLS7—Compression lock, ring terminals (no collar), no slug.

LS3, LS4, and **LS8** are not available with collars.

CHART III

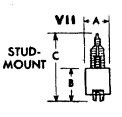
Ordering involves the use of the basic number and two suffixes. Suffix One determines the frequency range; Suffix Two determines the collar, ring and terminal combinations and the price. (i.e., 2770-1-2). **Suffix One:** -1) 0.2-1.5 mc; -2) 1-20 mc; -3) 20-50 mc; -4) 30 mc or more; -5) 100 mc or more; -6) 2-40 mc; -7) 40-300 mc.

2nd Suffix	Description	Net Each, 1-49* Cambion No. 2770-*	2771-*
-1	2 ring terminals	$0.76	$1.18
-2	2 collars, 4 terminals	.90	1.34
-3	2 collars, 2 terminals	.90	1.34
-4	1 top collar, 2 terminals	.83	1.26
-5	1 bottom collar, 2 terminals	.83	1.26

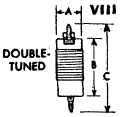
*Be sure to include both first and second suffixes when ordering.

SHIELDED COIL FORMS

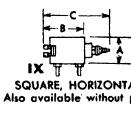
Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware included. **Material:** Housing LS9, LS10, LS14, brass with nickel plate; LS11 brass with cadmium plate; all others aluminum with alodine finish. Board, Silicone-fiberglas.



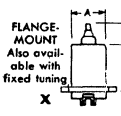
VII STUD-MOUNT



VIII DOUBLE-TUNED



IX SQUARE, HORIZONTAL Also available without pins.



X FLANGE-MOUNT Also available with fixed tuning

Part No. and Body Material: Paper-Phenolic	Net 1-49*	Poly-penco	Net 1-49*	Kel-F	Net 1-49*	Pwd. Iron	Net 1-49*	Fig.	Size, Inches A x B x C	Flange Dia., In. Max. x Min.	Ter-minals	Winding Area, Max. L. x O.D. (Inches)	Freq.	Tuning Tool	Notes
LS9	$0.82	LS9-1	$0.87	LS9-2	$0.92	*	*	VII	1/16 x 39/64 x 1 31/64	.....	2—6	1 1/64 x 1 7/64	Chart I	2033	Mtg. stud 1/4-28
LS10	.94	LS10-1	1.06	LS10-2	1.11	*	*	VII	5/8 x 57/64 x 2 7/64	.....	2—6	1 3/32 x 2 9/64	Chart I	1971	Mtg. stud 3/8-32
LS11	.78	LS11-1	.89	LS11-2	.94	*	*	VII	1 1/32 x 1 7/32 x 1 1/8	.....	2—4	1 3/64 x 7/32	Chart I	2375	Mtg. stud 12-28
*	*	LS14	2.23	*	*	*	*	VIII	29/64 x 1 1/64 x 1 25/32	.....	4—6	23/32 x 5/8	Chart I	2375	12-32 thread
2560	1.28	2561	1.34	2562	1.39	*	*	IX	1/2 sq. x 3/4 x 1 27/64	.....	2—6	1 1/64 x 1 7/64	Chart II	2033	Without pins
2565	1.54	2566	1.59	2567	1.65	*	*	IX	1/2 sq. x 3/4 x 1 27/64	.....	2—6	1 1/64 x 1 7/64	Chart II	2033	With pins
2585	1.93	2586	1.98	2587	2.03	*	*	X	7/16 x 35/64 x 1 3/64	27/32 x 33/64	2—6	1 1/64 x 1 7/64	Chart II	2516	Traverse tuning
2590	2.20	2591	2.26	2592	2.31	*	*	X	5/8 x 57/64 x 1 43/64	1.0 x 45/64	2—6	1 3/32 x 2 9/64	Chart II	2516	Traverse tuning
2665	1.28	2666	1.39	2667	1.44	*	*	IX	3/8 sq. x 41/64 x 1 1/8	.....	2—4	1 3/64 x 7/32	Chart II	2375	Without pins
2670	1.54	2671	1.65	2672	1.70	*	*	IX	3/4 sq. x 41/64 x 1 1/8	.....	2—4	1 3/64 x 7/32	Chart II	2375	With pins
2685	.78	2686	.83	2687	.89	2688	$0.83	X	7/16 x 3/8 x —	27/32 x 33/64	2—6	1 1/64 x 1 7/64	Chart II	.....	Fixed
2690	.90	2691	1.01	2692	1.06	2693	.95	X	5/8 x 49/64 x —	1.0 x 45/64	2—6	1 3/32 x 2 9/64	Chart II	.....	Fixed
2695	.78	2696	.89	2697	.94	2698	.83	X	1 1/32 x 3/8 x —	3/4 x 27/64	2—4	1 3/64 x 7/32	Chart II	.....	Fixed

*Not Available. See Printed Circuit Coil Form Section for No. LS12.

CHART I				
LS9	LS10	LS11	LS14	Freq. MC
-T	-F	-X	-X	0.2-1.5*
-S	-E	-W	-W	1-20*
-U	-O	-Y	-Y	20-50*
-R	-D	-V	Not avail.	30 & up*

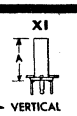
*Powdered iron slug. Specify frequency in combination with number of terminals. For example: LS9-4T—4 terminals. 0.2-1.5 frequency.

CHART II					
Number of Terminals 2	3	4	5	6	Freq. MC
-1	-5	-9	-13	-17	0.2-1.5*
-2	-6	-10	-14	-18	1-20*
-3	-7	-11	-15	-19	20-50*
-4	-8	-12	-16	-20	30 & up

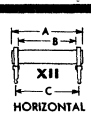
*Powdered iron slug. Specify frequency in combination with number of terminals. For example: 2562-15—4 terminals, 20-50 frequency.

Note: From descriptive charts that not all shielded coil forms are available with all terminal quantities.

PRINTED CIRCUIT COIL FORMS

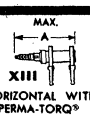


XI VERTICAL

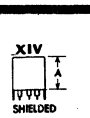


XII HORIZONTAL

RIGHT-END VIEW FIGS. XII, XIII



XIII HORIZONTAL WITH PERMA-TORQ®



XIV SHIELDED

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES

No.	Fig.	A‡ In.	Body O.D.	B# In.	Terms./ Collar	C• In.	D▲ In.	Freq. Chart	Net 1-49*
2270†	XII	5/8	.260"	1/16	2	.500	.200	I	$0.71
2271†	XII	5/8	.260"	5/16	2	.700	.200	I	.71
2500†	XII§	1 21/64	.260"	1 1/8	2	1.200	.200	I	.95
2501†	XI	5/8	.260"	★	5	.404■	72°	I	.27
2525†	XIII	1 21/64	.205"	21/64	2	.400	.300	II	.93
2530†	XIII	1 47/64	.260"	17/32	2	.600	.300	II	1.06
2540†	XIII	2 11/64	.375"	5/8	2	.700	.400	II	1.13
2550†	XIII	3 11/64	.500"	1 1/32	2	1.300	.400	II	1.32
SPC-11†	XI	5/8	.260"	★	2/6	.404■	Ch. IV	III	.27
SPC-12†	XI	13/16	.260"	★	2/6	.404■	Ch. IV	III	.27
LS12*	XIV	5/16	1/2" sq.	**	2/6	.136♦	♦	III	.69

*Body material: Phenolic. †Body material: Ceramic. §2 tuning cores. ‡Overall length, less terminals. #Distance between collars. •Length between mtg. terminal centers. ▲Width between mtg. terminal centers. ■Mtg. dia. ♦Basic circle rad. ★1 collar. **No collar. **Note:** Figs. XI and XII: Kel-F Locking insert available (supplied unassembled). Specify by adding suffix L to part number, e.g., 2500L-1, SPCL-11-A-2L. Fig. IV: Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware is included.

CHART I		CHART II	
Dash No.	Frequency Range MC	Dash No.	Frequency Range MC
-1	0.2-1.5 pwd. iron core	-1	0.2-1.5 pwd. iron slug
-2	1-20 pwd. iron core	-2	1-20 pwd. iron slug
-3	20-50 pwd. iron core	-3	20-50 pwd. iron slug
-4	30-150 pwd. iron core	-4	30 and up, pwd. iron slug
-5	100 and up, brass core	-5	100 and up, brass slug
-NS	No core	-NS	No slug

CHART III*			CHART IV	
SPC-11, SPC-12	LS12	Frequency Range MC	No. of Terms.	Spacing
-F	-C	0.2-1.5 pwd. iron core	2	180°
-A	-B	1-20 pwd. iron core	3	90°
-C	-D	20-50 pwd. iron core	4	90°
-I	Not avail.	30-150 pwd. iron core	5	60°
-NS	Not avail.	No core	6	60°

*Specify frequency in combination with number of terminals when ordering. For example: LS12-4B—4 terminals, 1-20 frequency.

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CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

COMPONENTS

SERIES 2082 CHOKES (FIG. A)

Wound on phenolic coil forms; varnish finish. Body ½" long. Leads 1½" long.

Cambion Number	Ind., μh	Q	Max. O.D.	Net Each 1-9*
2082-1	6.8	25	5/16"	43c
2082-2	10	20	5/16"	43c
2082-3	15	15	5/16"	43c
2082-4	22	15	5/16"	43c
2082-5	33	15	3/8"	43c
2082-6	47	15	3/8"	43c
2082-7	68	12	3/8"	45c
2082-8	100	12	7/16"	45c
2082-9	150	20	7/16"	45c
2082-10	220	20	7/16"	46c
2082-11	330	20	9/16"	46c
2082-12	470	20	9/16"	46c
2082-13	680	30	9/16"	49c
2082-14	1000	35	19/32"	52c

SERIES 2950 CHOKES (FIG. B)

Equivalent to MS91189-1 thru -13 respectively. Epoxy encapsulated. Body 15/16" l. x 9/32" O.D.; leads 1½" long. Color coded. Inductance, ±10% unless otherwise noted.

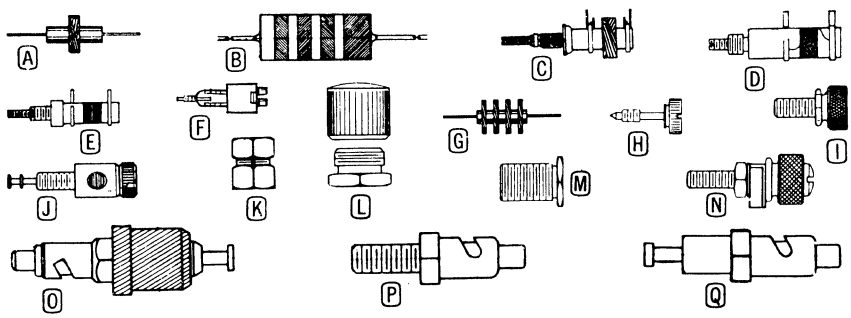
Cambion Number	Ind., μh	Min. Q	DC Ma	Net Each 1-9*
2950-1	1.1*	60	2800	99c
2950-2	2.2*	65	1800	91c
2950-3	3.3	50	1500	91c
2950-4	4.7	45	1100	99c
2950-5	6.8	40	800	99c
2950-6	10	40	600	99c
2950-7	15	40	500	99c
2950-8	22	30	1500	91c
2950-9	33	45	1100	91c
2950-10	47	70	700	91c
2950-11	82	85	600	91c
2950-12	100	85	500	91c
2950-13	120	85	400	91c

*Inductance, ±20%.

SERIES 2350 CHOKES (FIG. B)

Wound on powdered iron coil forms; varnish finish. Body ¾" long; leads 1⅜" long.

Cambion Number	Ind., μh	Min. Q	Max. O.D.	Net Each 1-9*
2350-1	1.1	80	5/16"	61c
2350-2	2.2	70	5/16"	61c
2350-3	3.3	70	5/16"	61c
2350-4	4.7	70	5/16"	61c
2350-5	6.8	70	5/16"	61c
2350-6	10	55	5/16"	61c
2350-7	15	55	5/16"	61c
2350-8	22	55	5/16"	61c
2350-9	33	80	5/16"	80c
2350-10	47	80	5/16"	80c
2350-11	82	74	5/16"	80c
2350-12	100	75	5/16"	80c
2350-13	120	75	5/16"	80c



PANEL HARDWARE

Nickel plate finish (unless otherwise noted) on brass. Dial lock and binding post supplied with mounting hardware. Binding post finished in bright alloy plate.

Cambion Number	Fig.	Description	Stud Size Suffix* -A	-B	-C	Thread	Stud Lgth.	Cap Size Dia. x H.	Body Ht.	Net 1-9*
1786•	H	Capt. screw	1/8"†	3/16"†	1/4"†	1/4-20	1 1/8"	3/4" x 3/8"	5/16"	71c
1120•	I	Thumb screw	6-32	8-32	10-32	*	13/32"	7/16" x 3/8"	.....	24c
1775	J	Bindg. post	7/16"	9/16"	11/16"	10-32	*	3/8" x 3/16"	1/2"	42c
1774•	K	Shaft lock	.....	.....	.....	3/8-32	.....	7/16"§ x 1/4"	9/16"	24c
2038•	K	Shaft lock	.....	.....	.....	1/4-32	.....	5/16"§ x 5/32"	3/8"	19c
2142•	L	Bush. & cvr.	.....	.....	.....	1/2-32	.....	5/8" x 1/2"	3/8"	38c
1818▲	M	Panel bush.	5/16"#	7/16"#	9/16"#	1/4-28	#	3/8"§ x 1/16"	.....	15c
2117■	M	Panel bush.	5/16"	7/16"	9/16"	3/8-32	*	1/2"§ x 1/16"	.....	18c
1552♦	N	Dial lock	.....	.....	.....	8-32	23/32"	1/2" x 3/8"	15/32"	38c

*Add appropriate suffix to number (example: 1786-A) to indicate stud size desired. †Add appropriate suffix to indicate panel thickness desired. #Add suffix **-1**, **-2** or **-3** (instead of -A, -B, or -C respectively), to indicate stud size desired. §Hex. size. •Also available with black oxide finish; specify by adding suffix **-BO** to number (example: 1786-A-**BO**). ▲⅛" shaft. ■¼" shaft. ♦For dials ⅛" from panel.

SPRING-LOADED DIODE CLIPS

Brass construction; stud base type has nickel plated finish; feed thru and press-mount types have bright alloy finish. Press-mount type (Fig. O) has teflon insulator; mounts in .205" dia. hole in panels 1/16" to ⅛" thick.

Cambion Number	Fig.	Size, In. H. x Base Dia.	Slot Width	Wire Gauge Min.	Wire Gauge Max.	Shank Dia. or Thread	Panel Thck.	Tooling PSP-45/	Net 1-9*
2146	P	11/32 x 5/32*	.040"	36	20	2-56	1/32"	.....	22c
2247	Q	11/32 x 5/32*	.040"	36	20	.116"	†	PSA-40	22c
2329	P	15/32 x 5/32*	.055"	22	17	2-56	1/32"	.....	32c
2330	Q	15/32 x 3/16*	.055"	22	17	.116"	†	PSA-44	32c
2339	P	23/32 x 3/16*	.085"	19	13	3-48	5/16"	.....	39c
2340	Q	23/32 x 1/32*	.085"	19	13	.116"	†	PSA-41	39c
2405	O	51/64 x 1/4	.085"	19	13	7/32"	1/16"	.....	61c
2422	O	35/64 x 1/4	.055"	22	17	7/32"	1/8"	.....	48c
2424	O	27/64 x 1/4	.040"	36	20	7/32"	1/8"	.....	44c

*Hex size. †Specify by adding suffix (example: 2247-1): -1, 1/32". -2, 1/16". -3, 3/32", -4, ⅛". -5, 5/16".

SERIES 2952 AND 2953 CHOKES

Wound on phenolic choke form. Inductance tolerance, ±15%. Leads 1½" long. Body ½" l., 2952 series; 1" l., 2953 series.

Cambion Number	Fig.	Inductance	Q	Max. Dia.	Net Ea., 1-9*
2952-1	A	1.0 μh at 7.9 mc	55 ± 10	.180"	48c
2952-2	A	10 μh at 7.9 mc	28 ± 5	.300"	53c
2952-3	A	50 μh at 2.5 mc	18 ± 4	.320"	58c
2952-4	A	100 μh at 2.5 mc	16 ± 4	.345"	64c
2952-5	A	500 μh at 790 kc	27 ± 6	.400"	69c
2952-6	A	1000 μh at 790 kc	40 ± 8	.415"	74c
2953-1	G	0.5 mh at 790 kc	17 ± 3	.535"	76c
2953-2	G	1.0 mh at 250 kc	45 ± 8	.535"	81c
2953-3	G	2.5 mh at 250 kc	55 ± 10	.550"	90c
2953-4	G	5 mh at 250 kc	60 ± 12	.515"	99c

CAMBION COILS

Varnish finish. Wound on ceramic and phenolic coil forms.

Cambion Number	Fig.	Ind. Range μh	Q Mean	Coil Form	Net Ea. 1-9*
2060-1	C	2.0-3.7	60	PLS6-2C2L/O	$1.01
2060-2	C	3.5-7.0	65	PLS6-2C2L/O	1.01
2060-3	C	6.5-10.6	70	PLS6-CB2L/E	1.10
2060-4	C	10-18	79	PLS6-CB2L/E	1.10
2060-5	C	16-28	83	PLS6-CB2L/F	1.17
2060-6	C	28-63	85	PLS6-CB2L/F	1.26
2060-7	C	61-122	80	PLS6-CB2L/F	1.35
2060-8	C	120-243	85	PLS6-CB2L/F	1.44
2060-9	C	238-450	85	PLS6-CB2L/F	1.51
2060-10	C	440-800	85	PLS6-CB2L/F	1.56
LS3-1mc	D	250-650	15	LS3/CL	1.07
LS3-3mc	D	45-95	20	LS3/BL	1.05
LS3-5mc	D	30-70	20	LS3/BL	1.02
LS3-10mc	D	5-10	20	LS3/BL	.98
LS3-30mc	D	0.45-0.7	40	LS3/AL	.95
LS3-60mc	D	0.098-0.1	35	LS3/AL	.89
LSM-1mc	E	725-1250	30	LSM/F	1.07
LSM-3mc	E	70-110	30	LSM/E	1.05
LSM-5mc	E	45-75	30	LSM/E	1.02
LSM-10mc	E	2-4	40	LSM/E	.98
LSM-30mc	E	0.28-0.35	55	LSM/D	.95
LSM-60mc	E	0.09-0.1	30	LSM/D	.89

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SERIES 1500 COILS (FIG. F)

Varnish impregnated coils. Windings and powdered iron components are complete moisture-proofed. Standard LS9, 10 and 11 mounting hardware supplied unassembled. Rated 500 v. rms dielectric strength. **Type 1505:** 1.498" h. x 0.438" O.D. Slug threaded 2-56; second section, ¼-28. **Type 1506:** 2.146" h. x .625" O.D. Slug threaded 3-48; section, 3/8-32 threaded. **Type 1507:** 1.146" h. x .344" O.D. Slug threaded 0-80; section 12-28 threaded.

Cambion Number	Inductance Minimum μh	Inductance Minimum Freq.	Inductance Maximum μh	Inductance Maximum Freq.	Min. Q at Induct. of Min.	Min. Q at Induct. of Max.	DC Ma	Net Each 1-9*
1505-1	.55	25mc	1.0	25mc	80	70	500	$2.24
1505-2	.9	25mc	1.75	7.9mc	75	70	250	2.24
1505-3	1.7	7.9mc	3.5	7.9mc	45	60	125	2.24
1505-4	3.2	7.9mc	8.3	7.9mc	50	75	50	2.24
1505-5	7.8	7.9mc	16	2.5mc	50	90	50	2.42
1505-6	14.5	2.5mc	33	2.5mc	55	90	50	2.42
1505-7	30	2.5mc	73	2.5mc	25	50	50	2.14
1505-8	66	2.5mc	160	790kc	20	60	50	2.14
1505-9	144	790kc	430	790kc	30	50	50	2.14
1505-10	400	790kc	1.0*	250kc	30	40	50	2.14
1506-1	1.0*	250kc	2.2*	250kc	40	50	100	2.64
1506-2	2.0*	250kc	4.7*	250kc	40	45	80	2.64
1506-3	4.5*	250kc	11*	250kc	35	35	60	3.06
1506-4	9.0*	79kc	22*	79kc	30	35	50	3.06
1506-5	20*	79kc	40*	79kc	30	35	40	3.06
1507-1	.11	25mc	.165	25mc	55	70	640	2.14
1507-2	.16	25mc	.28	25mc	60	70	640	2.14
1507-3	.27	25mc	.55	25mc	60	60	640	2.14
1507-4	.5	25mc	1.1	25mc	70	50	500	2.14
1507-5	.9	7.9mc	2.0	7.9mc	35	40	250	2.14
1507-6	1.6	7.9mc	3.6	7.9mc	45	40	150	2.14
1507-7	3.5	7.9mc	8.0	7.9mc	45	45	100	2.14

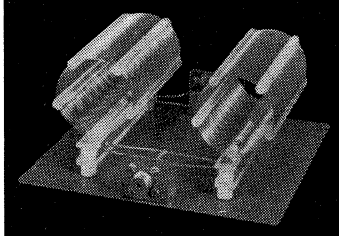
*Millihenries

★WRITE FOR DISCOUNTS ON LARGER QUANTITY ORDERS.

air dux

AIR WOUND COILS

Illumitronic Engineering has developed a complete, versatile series of air core inductors designed especially for the amateur rig, or for prototypes of RF transmission equipment. These coils may be used for pi output circuits, conventional LC output circuits, interstage and oscillator circuits. The series consists of a standard coil type, a variable pitch type, and an indented type, in a range of diameters from ½ inch to 3 inches. All Air Dux® coils are constructed of tinned (silver or formvar) copper wire wound on large low loss polystyrene rods for the highest mechanical strength and lowest electrical losses.

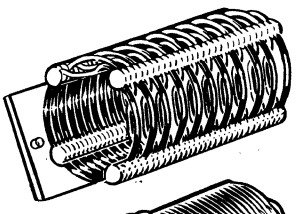


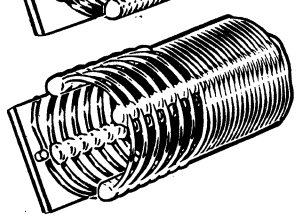
air dux® BALUN

Unbalanced coax lines used on most transmitters can be matched to balanced lines of either 75 or 300 ohms impedance by using the B2009 air dux coils. May be used with transmitters and receivers without adjustment over the frequency range of 80 through 10 meters, and will handle power inputs up to 200 watts.

NO.	DESCRIPTION	NET EA.
B2009	Coil with hardware	3.36
MB2009	Mounting plate	1.95

Two coils required.
Coax connector not included.



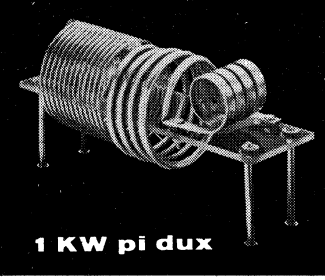


indented pi dux®

Cat.No.	Dia	TPI	Wire Size	Length of Coil	L uh.	Net
816A	1	16	18	3 3/16	18.0	1.25
1014A	1¼	14	18	2 25/32	18.3	1.50
1212A	1½	12	16	2¾	18.3	1.70
1411A	1¾	11	14	2⅝	18.0	1.90
1609A	2	9	14	3	18.1	2.10
2007A	2½	7	12	3¼	18.6	2.60
2406A	3	6	10	3 5/16	18.7	3.25

vari-pitch pi dux®

820D10	1	20 & 10	18	3¼	18.0	1.25
1212D6	1½	12 & 6	14	3 13/16	18.6	2.00
1608D6	2	8 & 6	12	4⅛	18.1	2.70
2008D5	2½	8 & 5	12	3¾	18.2	3.25
2408D4	3	8 & 4	10	3¾	18.6	3.95

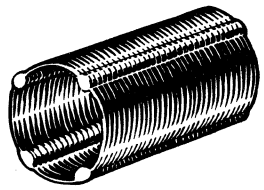


1 KW pi dux

2 new pi dux assemblies

The 500 and 1000 watt pi dux assemblies are compact yet conservatively rated. The high frequency coil sections are silver plated for high tank circuit efficiency. A complete technical sheet is included with each assembly.

#195-1 500 watt pi dux Assembly net 5.95
#195-2 1 KW pi dux Assembly net 14.50



air dux®

Cat.No. T or S	Dia.	TPI	Wire Size	Length of Coil	Net Price
404	½	4	18	2	.40
406		6	18		
408		8	18		
410		10	18		
416		16	20	(Silver .80)	
432		32	24		
504	⅝	4	16	2	.45
506		6	18		
508		8	18		
510		10	18		
516		16	20	(Silver .85)	
532		32	24		
604	¾	4	16	2	.50
606		6	18		
608		8	18		
610		10	18		
616		16	20	(Silver .90)	
632		32	24		
804	1	4	16	3	.65
806		6	18		
808		8	18		
810		10	18		
816		16	20	(Silver 1.10)	
832		32	24		
1004	1¼	4	14	10	1.65
1006		6	14		
1008		8	16		
1010		10	18		
1016		16	20		
*1032		32	24		
1204	1½	4	14	10	1.80
1206		6	14		
1208		8	16		
1210		10	18		
1216		16	20		
*1232		32	24		
1404	1¾	4	14	10	1.90
1406		6	14		
1408		8	14		
1410		10	16		
1416		16	18		
*1432		32	24		
1604	2	4	12	10	1.95
1606		6	14		
1608		8	14		
1610		10	16		
1616		16	18		
2004	2½	4	12	10	2.25
2006		6	12		
2008		8	14		
2010		10	16		
2404	3	4	10	10	3.40
2406		6	12		
2408		8	14		
2410		10	14		

*New

"T" series air dux are Tinned copper wire. (Add "T" after Cat. No.)

"S" series are SILVER PLATED copper wire. (Add "S" after Cat. No.)

1000 thru 2400 series silver coils are available at double the costs shown.

Complete technical charts and graphs on air dux and pi dux are available on sheets T.H. 6 and 7.
Formvar coils available at higher costs.

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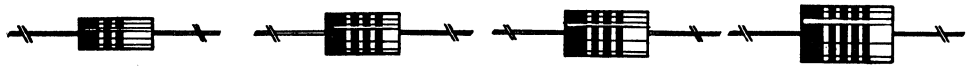
Miller

MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305A



"MICRO MITE" SERIES 9210

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG ± 22 TCW; 1.44 ± .125 length.
Power Rating: ½ Watt Max. at 90° C.

PART NO.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX.	CORE MTL.	LIST PRICE
9210-54	36 ± 5%	50	2.5	10.5	2.50	320	IRON	$1.50
9210-56	39 ± 5%	50	2.5	10.3	2.60	315	IRON	1.50
9210-58	43 ± 5%	50	2.5	10.3	2.65	310	IRON	1.50
9210-60	47 ± 5%	50	2.5	10.0	2.70	305	IRON	1.50
9210-62	51 ± 5%	50	2.5	9.7	2.75	300	IRON	1.50
9210-64	56 ± 5%	50	2.5	9.5	2.80	295	IRON	1.50
9210-66	62 ± 5%	45	2.5	9.0	2.95	290	IRON	1.50
9210-68	68 ± 5%	45	2.5	8.7	3.25	285	IRON	1.50
9210-70	75 ± 5%	45	2.5	8.5	3.40	275	IRON	1.50
9210-72	82 ± 5%	45	2.5	8.0	3.55	270	IRON	1.50
9210-74	91 ± 5%	45	2.5	7.7	3.70	265	IRON	1.50
9210-76	100 ± 5%	45	2.5	7.7	4.00	260	IRON	1.60
9210-78	110 ± 5%	60	.790	7.3	4.45	255	IRON	1.60
9210-80	120 ± 5%	65	.790	6.7	4.65	250	IRON	1.60
9210-82	130 ± 5%	65	.790	6.7	4.95	240	IRON	1.60
9210-84	150 ± 5%	65	.790	6.5	5.30	235	IRON	1.60
9210-86	160 ± 5%	65	.790	6.5	5.90	230	IRON	1.65
9210-88	180 ± 5%	65	.790	6.3	6.20	225	IRON	1.65
9210-90	200 ± 5%	65	.790	6.0	6.60	215	IRON	1.65
9210-92	220 ± 5%	65	.790	5.5	7.20	210	IRON	1.65
9210-94	240 ± 5%	65	.790	5.3	7.60	205	IRON	1.65

"MICRO MITE" SERIES 9220

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG 22	1.44 ± .125	½
B	.215 ± .010	.560 ± .010	AWG 21	1.44 ± .125	½
C	.240 ± .010	.740 ± .010	AWG 20	1.44 ± .125	½

PART No.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX.	MOLD SIZE	CORE MTL.	LIST PRICE
9220-00	270 ± 5%	65	.790	4.7	7.8	205	A	IRON	$1.75
9220-02	300 ± 5%	65	.790	4.5	8.3	200	A	IRON	1.75
9220-04	330 ± 5%	65	.790	4.5	8.7	195	A	IRON	1.75
9220-06	360 ± 5%	65	.790	4.0	9.0	190	A	IRON	1.90
9220-08	390 ± 5%	65	.790	4.0	9.5	185	A	IRON	1.90
9220-10	430 ± 5%	65	.790	4.0	10.0	180	A	IRON	1.90
9220-12	470 ± 5%	65	.790	3.7	10.5	175	A	IRON	1.90
9220-14	500 ± 5%	65	.790	3.7	11.0	170	A	IRON	1.90
9220-16	560 ± 5%	65	.790	3.3	11.5	165	A	IRON	2.00
9220-18	620 ± 5%	60	.790	3.0	12.5	160	A	IRON	2.00
9220-20	680 ± 5%	60	.790	3.0	13.0	155	A	IRON	2.00
9220-22	750 ± 5%	55	.790	3.0	14.0	150	A	IRON	2.00
9220-24	820 ± 5%	55	.790	2.8	14.5	145	A	IRON	2.10
9220-26	910 ± 5%	55	.790	2.7	15.0	140	A	IRON	2.10
9220-28	1000 ± 5%	55	.790	2.6	16.0	135	A	IRON	2.10
9220-30	1100 ± 5%	60	.250	2.7	20.0	135	B	IRON	2.25
9220-32	1200 ± 5%	60	.250	2.7	21.0	130	B	IRON	2.25
9220-34	1300 ± 5%	60	.250	2.6	21.5	130	B	IRON	2.25
9220-36	1500 ± 5%	65	.250	2.3	22.5	125	B	IRON	2.25
9220-38	1600 ± 5%	65	.250	2.2	24.5	120	B	IRON	2.25
9220-40	1800 ± 5%	65	.250	2.2	26.0	120	B	IRON	2.25
9220-42	2000 ± 5%	65	.250	2.0	27.5	115	B	IRON	2.25
9220-44	2200 ± 5%	70	.250	2.0	28.5	110	B	IRON	2.25
9220-46	2400 ± 5%	70	.250	1.9	30.0	110	B	IRON	2.25
9220-48	2700 ± 5%	70	.250	1.9	31.5	105	B	IRON	2.25
9220-50	3000 ± 5%	70	.250	1.8	33.5	100	B	IRON	2.25
9220-52	3300 ± 5%	70	.250	1.6	36.0	100	B	IRON	2.25
9220-54	3600 ± 5%	70	.250	1.5	37.5	95	B	IRON	2.25
9220-56	3900 ± 5%	80	.250	1.5	41.0	93	C	IRON	2.35
9220-58	4300 ± 5%	80	.250	1.5	43.0	90	C	IRON	2.35
9220-60	4700 ± 5%	80	.250	1.4	45.0	90	C	IRON	2.35
9220-62	5000 ± 5%	80	.250	1.3	46.0	85	C	IRON	2.35
9220-64	5600 ± 5%	80	.250	1.3	49.5	85	C	IRON	2.50
9220-66	6200 ± 5%	80	.250	1.2	51.5	80	C	IRON	2.50
9220-68	6800 ± 5%	80	.250	1.2	54.0	80	C	IRON	2.50
9220-70	7500 ± 5%	80	.250	1.2	57.0	80	C	IRON	2.50
9220-72	8200 ± 5%	80	.250	1.1	59.5	75	C	IRON	2.65
9220-74	9100 ± 5%	80	.250	1.0	64.0	75	C	IRON	2.65
9220-76	10000 ± 5%	80	.250	1.0	66.5	75	C	IRON	2.65

MILLER SERIES 9310

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG ±22 TCW; 1.437 ± .125 length.
Power Rating: ¼ Watt Max. at 90° C.

PART NO.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN (Mc)	Rdc. MAX.	MA. MAX.	CORE MTL.	LIST PRICE
9310-00	.15 ± 20%	50	25	525	.03	2630	PHENOLIC	$1.00
9310-02	.22 ± 20%	45	25	450	.05	2235	PHENOLIC	1.00
9310-04	.33 ± 20%	45	25	390	.09	1490	PHENOLIC	1.00
9310-06	.47 ± 20%	45	25	310	.12	1340	PHENOLIC	1.00
9310-08	.68 ± 20%	55	25	250	.14	1165	PHENOLIC	1.00
9310-10	.82 ± 20%	55	25	220	.22	930	PHENOLIC	1.00
9310-12	1.00 ± 10%	50	25	200	.25	875	PHENOLIC	1.00
9310-14	1.20 ± 10%	35	7.9	180	.42	675	PHENOLIC	1.00
9310-16	1.50 ± 10%	35	7.9	160	.50	600	PHENOLIC	1.00
9310-18	1.80 ± 10%	35	7.9	150	.65	500	PHENOLIC	1.00
9310-20	2.20 ± 10%	35	7.9	135	.95	400	PHENOLIC	1.00
9310-22	2.70 ± 10%	35	7.9	120	1.20	370	PHENOLIC	1.00
9310-24	3.30 ± 10%	35	7.9	110	2.00	325	PHENOLIC	1.10
9310-26	3.90 ± 10%	35	7.9	100	2.30	300	PHENOLIC	1.10
9310-28	4.70 ± 10%	35	7.9	90	2.60	270	PHENOLIC	1.10
9310-30	5.60 ± 10%	45	7.9	60	.32	780	IRON	1.10
9310-32	6.80 ± 10%	50	7.9	55	.50	600	IRON	1.10
9310-34	8.20 ± 10%	50	7.9	50	.60	540	IRON	1.10
9310-36	10.0 ± 10%	55	7.9	45	.90	460	IRON	1.10
9310-38	12.0 ± 10%	65	2.5	42	1.10	375	IRON	1.10
9310-40	15.0 ± 10%	65	2.5	40	1.30	350	IRON	1.10
9310-42	18.0 ± 10%	75	2.5	34	2.25	300	IRON	1.10
9310-44	22.0 ± 10%	75	2.5	30	2.50	275	IRON	1.10
9310-46	24.0 ± 5%	60	2.5	26	2.50	275	IRON	1.25
9310-48	27.0 ± 5%	60	2.5	25	2.60	260	IRON	1.25
9310-50	30.0 ± 5%	65	2.5	19	2.80	245	IRON	1.25
9310-52	33.0 ± 5%	65	2.5	19	2.90	230	IRON	1.25

MILLER SERIES 9320

Mold Size: 0.185 ± .010 diameter; 0.437 ± .010 length.
Leads: AWG ±22 TCW; 1.437 ± .125 length. Power Rating: ½ Watt Max. at 90° C.

PART NO.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX.	CORE MTL.	LIST PRICE
9320-00	.15 ± 20%	65	25	600	.03	3400	PHENOLIC	$1.00
9320-02	.22 ± 20%	60	25	470	.04	2950	PHENOLIC	1.00
9320-04	.33 ± 20%	60	25	390	.05	2500	PHENOLIC	1.00
9320-06	.47 ± 20%	60	25	320	.08	1875	PHENOLIC	1.00
9320-08	.68 ± 20%	65	25	240	.12	1400	PHENOLIC	1.00
9320-10	1.00 ± 10%	60	25	190	.25	900	PHENOLIC	1.00
9320-12	1.50 ± 10%	40	7.9	150	.50	720	PHENOLIC	1.00
9320-14	2.20 ± 10%	40	7.9	130	.90	460	PHENOLIC	1.00
9320-16	2.70 ± 10%	40	7.9	120	1.10	450	PHENOLIC	1.00
9320-18	3.30 ± 10%	35	7.9	68	.12	1300	IRON	1.10
9320-20	3.90 ± 10%	35	7.9	62	.16	1130	IRON	1.10
9320-22	4.70 ± 10%	40	7.9	58	.22	915	IRON	1.10
9320-24	5.60 ± 10%	40	7.9	50	.30	900	IRON	1.10
9320-26	6.80 ± 10%	40	7.9	45	.40	800	IRON	1.10
9320-28	8.20 ± 10%	40	7.9	43	.45	770	IRON	1.10
9320-30	10.0 ± 10%	40	7.9	40	.60	690	IRON	1.10
9320-32	12.0 ± 10%	55	2.5	35	.85	480	IRON	1.10
9320-34	15.0 ± 10%	60	2.5	30	1.20	480	IRON	1.10
9320-36	22.0 ± 10%	65	2.5	24	2.00	375	IRON	1.10
9320-38	27.0 ± 10%	70	2.5	22	2.80	300	IRON	1.10

MILLER SERIES 9330

Mold Size: 0.215 ± .010 diameter; 0.560 ± .010 length.
Leads: AWG ±22 TCW; 1.437 ± .125 length. Power Rating: ½ Watt Max. at 90° C.

PART NO.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX.	CORE MTL.	LIST PRICE
9330-00	.47 ± 20%	70	25	280	.06	2000	PHENOLIC	$1.10
9330-02	.68 ± 20%	70	25	240	.07	1275	PHENOLIC	1.10
9330-04	1.00 ± 10%	70	25	200	.13	1180	PHENOLIC	1.10
9330-06	1.50 ± 10%	45	7.9	160	.28	1080	PHENOLIC	1.10
9330-08	2.20 ± 10%	45	7.9	135	.50	700	PHENOLIC	1.10
9330-10	2.70 ± 10%	45	7.9	120	.65	660	PHENOLIC	1.10
9330-12	3.30 ± 10%	45	7.9	105	1.00	600	PHENOLIC	1.10
9330-14	3.90 ± 10%	45	7.9	100	1.20	460	PHENOLIC	1.10
9330-16	4.70 ± 10%	45	7.9	90	1.80	350	PHENOLIC	1.10
9330-18	5.60 ± 10%	35	7.9	55	.13	1500	IRON	1.25
9330-20	6.80 ± 10%	35	7.9	50	.20	1250	IRON	1.25
9330-22	8.20 ± 10%	35	7.9	44	.22	1190	IRON	1.25
9330-24	10.0 ± 10%	35	7.9	42	.26	990	IRON	1.25
9330-26	12.0 ± 10%	45	2.5	34	.45	800	IRON	1.25
9330-28	15.0 ± 10%	45	2.5	32	.52	730	IRON	1.25
9330-30	18.0 ± 10%	50	2.5	28	.70	680	IRON	1.25
9330-32	22.0 ± 10%	60	2.5	24	1.00	640	IRON	1.25
9330-34	27.0 ± 10%	65	2.5	22	1.30	550	IRON	1.25
9330-36	33.0 ± 10%	65	2.5	20	1.50	510	IRON	1.25
9330-38	39.0 ± 10%	70	2.5	18	2.00	440	IRON	1.25

MILLER SERIES 9340

Mold Size: 0.280 ± .010 diameter; 0.900 ± .010 length.
Leads: AWG ±21 TCW; 1.437 ± .125 length. Power Rating: 1 Watt Max. at 90° C.

PART NO.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX.	CORE MTL.	LIST PRICE
9340-00	1.2 ± 10%	60	7.9	170	.08	2800	PHENOLIC	$1.30
9340-02	1.5 ± 10%	65	7.9	160	.10	2600	PHENOLIC	1.30
9340-04	2.2 ± 10%	65	7.9	125	.17	1980	PHENOLIC	1.30
9340-06	2.7 ± 10%	65	7.9	115	.23	1600	PHENOLIC	1.30
9340-08	3.3 ± 10%	65	7.9	100	.32	1275	PHENOLIC	1.25
9340-10	3.9 ± 10%	65	7.9	95	.45	1145	PHENOLIC	1.25
9340-12	4.7 ± 10%	65	7.9	90	.60	950	PHENOLIC	1.25
9340-14	5.6 ± 10%	65	7.9	80	.80	860	PHENOLIC	1.25
9340-16	6.8 ± 10%	65	7.9	75	1.10	775	PHENOLIC	1.25
9340-18	8.2 ± 10%	65	7.9	68	1.50	590	PHENOLIC	1.25
9340-20	10.0 ± 10%	65	7.9	60	2.00	510	PHENOLIC	1.25
9340-22	12.0 ± 10%	40	2.5	53	2.70	425	PHENOLIC	1.25
9340-24	15.0 ± 10%	40	2.5	50	3.30	410	PHENOLIC	1.25
9340-26	18.0 ± 10%	40	2.5	45	4.20	350	PHENOLIC	1.25
9340-28	22.0 ± 10%	50	2.5	25	.30	1330	IRON	1.40
9340-30	27.0 ± 10%	50	2.5	22	.36	1240	IRON	1.40
9340-32	33.0 ± 10%	60	2.5	20	.56	1060	IRON	1.40
9340-34	39.0 ± 10%	60	2.5	18	.65	760	IRON	1.40
9340-36	47.0 ± 10%	65	2.5	16	1.10	750	IRON	1.40
9340-38	56.0 ± 10%	60	2.5	14	1.20	700	IRON	1.40
9340-39	68.0 ± 10%	75	2.5	13	1.85	600	IRON	1.40
9340-40	82.0 ± 10%	80	2.5	13	2.20	550	IRON	1.40
9340-42	100.0 ± 10%	80	2.5	12	2.60	530	IRON	1.40
9340-44	120.0 ± 10%	100	.790	10	4.00	425	IRON	1.40

MILLER SERIES 9350

COIL DIMENSIONS	A	B	C	D	LEAD DIMENSIONS
DIAMETER ± .010	.250	.310	.375	.468	AWG 20 .21 .22 TCW
LENGTH ± .010	.560	.560	.625	.687	1.437 ± .125
MAX. WATT. AT 90° C.	¾	¾	1	1⅓	

PART No.	L @ UH	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	MA. MAX	MOLD SIZE	CORE MTL.	LIST PRICE
9350-00	47 ± 10%	18	2.5	9.5	5.9	275	A	PHENOLIC	$1.70
9350-02	56 ± 10%	18	2.5	9.0	6.4	225	A	PHENOLIC	1.70
9350-04	68 ± 10%	45	2.5	6.8	3.3	330	A	IRON	1.80
9350-06	82 ± 10%	40	2.5	6.3	3.5	310	A	IRON	1.80
9350-08	100 ± 10%	35	2.5	5.8	3.8	300	A	IRON	1.80
9350-10	120 ± 10%	60	.790	5.0	4.7	290	A	IRON	1.80
9350-12	150 ± 10%	60	.790	4.6	5.3	280	A	IRON	1.80
9350-14	180 ± 10%	60	.790	3.4	5.5	275	B	IRON	1.85
9350-16	220 ± 10%	60	.790	3.2	5.9	265	B	IRON	1.85
9350-18	270 ± 10%	60	.790	3.0	6.6	255	B	IRON	1.85
9350-20	330 ± 10%	55	.790	2.7	7.8	245	B	IRON	1.85
9350-22	390 ± 10%	55	.790	2.5	8.7	235	B	IRON	1.85
9350-24	470 ± 10%	50	.790	2.3	9.0	230	C	IRON	1.85
9350-26	560 ± 10%	45	.790	2.1	10.0	215	C	IRON	1.85
9350-28	680 ± 10%	45	.790	2.0	11.2	205	C	IRON	1.85
9350-30	820 ± 10%	40	.790	1.8	13.0	195	C	IRON	1.85
9350-32	1000 ± 10%	35	.790	1.7	14.5	185	C	IRON	1.85
9350-34	1500 ± 10%	55	.250	2.0	22.0	180	D	IRON	1.90
9350-36	2000 ± 10%	55	.250	1.7	26.0	165	D	IRON	1.90
9350-38	2500 ± 10%	55	.250	1.5	30.0	150	D	IRON	1.90
9350-40	5000 ± 10%	50	.250	1.0	65.0	105	D	IRON	2.00
9350-42	10000 ± 10%	40	.250	0.8	70.0	105	D	FERRITE	2.50

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles, Calif.

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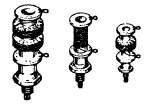
Miller

Industrial Adjustable R.F. Coils

Ceramic Adjustable R.F. Coils



The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly at any setting through the use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32" dia. x 19/32" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
40A000CBI	Coil Form w/hdw. and Core		$1.75
40A107CBI	.125 uh	.091 uh	2.55
40A157CBI	.188 uh	.124 uh	2.55
40A227CBI	.220 uh	.184 uh	2.55
40A337CBI	.413 uh	.265 uh	2.55
40A477CBI	.587 uh	.327 uh	2.60
40A687CBI	.850 uh	.482 uh	2.60
40A827CBI	1.02 uh	.630 uh	2.75
40A106CBI	1.25 uh	.730 uh	2.75
40A156CBI	1.88 uh	1.06 uh	2.75
40A226CBI	2.75 uh	1.50 uh	2.80
40A336CBI	4.13 uh	2.15 uh	2.80
40A476CBI	5.87 uh	3.00 uh	2.90
40A686CBI	8.50 uh	4.40 uh	2.90
40A826CBI	10.2 uh	5.25 uh	2.90
40A105CBI	12.5 uh	8.06 uh	3.00
40A155CBI	18.8 uh	11.9 uh	3.00
40A225CBI	27.5 uh	17.1 uh	3.10
40A335CBI	41.3 uh	26.6 uh	3.10
40A475CBI	58.7 uh	39.0 uh	3.25
40A685CBI	85.0 uh	58.0 uh	3.25
40A825CBI	102 uh	69.0 uh	3.50
40A104CBI	125 uh	84.0 uh	3.50
40A000CBI	Bulk pack per 100		150.00

Miniature Adjustable R.F. Coils

Dimensions (form) 1/4" dia. x 13/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
41A000CBI	Coil Form w/hdw. and Core		$1.85
41A106CBI	1.25 uh	.69 uh	2.75
41A156CBI	1.87 uh	1.20 uh	2.75
41A226CBI	2.75 uh	1.42 uh	2.75
41A336CBI	4.10 uh	2.00 uh	2.80
41A476CBI	5.80 uh	2.80 uh	2.80
41A686CBI	8.50 uh	4.00 uh	2.80
41A826CBI	10.0 uh	4.50 uh	2.85
41A105CBI	12.5 uh	6.50 uh	2.85
41A155CBI	18.7 uh	10.8 uh	2.85
41A225CBI	27.5 uh	15.2 uh	2.85
41A335CBI	41.0 uh	26.0 uh	2.90
41A475CBI	58.0 uh	32.5 uh	2.90
41A685CBI	85.0 uh	48.5 uh	3.00
41A825CBI	100 uh	61.0 uh	3.00
41A104CBI	125 uh	65.0 uh	3.10
41A154CBI	187 uh	110 uh	3.10
41A224CBI	275 uh	160 uh	3.25
41A334CBI	410 uh	253 uh	3.25
41A474CBI	580 uh	390 uh	3.40
41A684CBI	850 uh	560 uh	3.50
41A824CBI	1.00 mh	670 uh	3.60
41A103CBI	1.25 mh	700 uh	3.75
41A000CBI	Bulk pack per 100		165.00

Standard Adjustable R.F. Coils

Dimensions (form) 3/8" dia. x 1" long

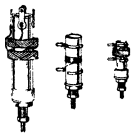
Part No.	L Max. ± 5%	L Min. ± 10%	List Price
42A000CBI	Coil Form w/hdw. and Core		$1.90
42A106CBI	1.25 uh	.68 uh	2.75
42A156CBI	1.87 uh	1.00 uh	2.75
42A226CBI	2.75 uh	1.35 uh	2.75
42A336CBI	4.10 uh	2.12 uh	2.80
42A476CBI	5.80 uh	2.40 uh	2.80
42A686CBI	8.50 uh	3.60 uh	2.85
42A826CBI	10.0 uh	4.45 uh	2.85
42A105CBI	12.5 uh	6.05 uh	3.00
42A155CBI	18.7 uh	9.40 uh	3.00
42A225CBI	27.5 uh	12.9 uh	3.05
42A335CBI	41.0 uh	18.8 uh	3.05
42A475CBI	58.0 uh	27.5 uh	3.30
42A685CBI	85.0 uh	37.5 uh	3.30
42A825CBI	100 uh	45.0 uh	3.40
42A104CBI	125 uh	54.0 uh	3.55
42A154CBI	187 uh	92.0 uh	3.55
42A224CBI	275 uh	123 uh	3.55
42A334CBI	410 uh	200 uh	3.60
42A474CBI	580 uh	300 uh	3.60
42A684CBI	850 uh	430 uh	3.60
42A824CBI	1.00 mh	510 uh	3.70
42A103CBI	1.25 mh	780 uh	3.70
42A153CBI	1.87 mh	1.10 mh	3.75
42A223CBI	2.20 mh	1.66 mh	3.75
42A333CBI	4.10 mh	2.40 mh	3.75
42A473CBI	5.80 mh	3.46 mh	3.80
42A683CBI	8.50 mh	5.25 mh	3.80
42A823CBI	10.0 mh	6.00 mh	3.95
42A102CBI	12.5 mh	9.20 mh	3.95
42A000CBI	Bulk pack per 100		170.00

Jumbo Adjustable R.F. Coils

Dimensions (form) 1/2" dia. x 1-7/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
43A000CBI	Coil Form w/hdw. and Core		$2.00
43A105CBI	12.5 uh	5.70 uh	2.95
43A155CBI	18.7 uh	9.00 uh	2.95
43A225CBI	27.5 uh	12.0 uh	2.95
43A335CBI	41.0 uh	17.0 uh	3.00
43A475CBI	58.0 uh	25.0 uh	3.00
43A685CBI	85.0 uh	38.0 uh	3.40
43A825CBI	100 uh	42.0 uh	3.40
43A104CBI	125 uh	65.0 uh	3.40
43A154CBI	187 uh	95.0 uh	3.60
43A224CBI	275 uh	138 uh	3.60
43A334CBI	410 uh	205 uh	3.60
43A474CBI	580 uh	240 uh	3.65
43A684CBI	850 uh	370 uh	3.65
43A824CBI	1.00 mh	450 uh	3.65
43A103CBI	1.25 mh	600 uh	3.65
43A153CBI	1.87 mh	900 uh	3.75
43A223CBI	2.75 mh	1.30 mh	3.75
43A333CBI	4.10 mh	1.95 mh	3.80
43A473CBI	5.80 mh	2.90 mh	3.80
43A683CBI	8.50 mh	4.30 mh	3.85
43A823CBI	10.0 mh	5.10 mh	3.85
43A102CBI	12.5 mh	6.50 mh	3.90
43A152CBI	18.7 mh	9.80 mh	3.90
43A222CBI	27.5 mh	13.0 mh	3.95
43A332CBI	41.0 mh	20.0 mh	3.95
43A472CBI	58.0 mh	29.0 mh	4.00
43A682CBI	85.0 mh	42.0 mh	4.10
43A822CBI	100 mh	50.0 mh	4.20
43A101CBI	125 mh	66.0 mh	4.50
43A000CBI	Bulk pack per 100		180.00

Resinite Adjustable R.F. Coils



Resinite is a phenolic impregnated tubing which can be certified to MIL-P-79B type PBG. This material combines good mechanical and electrical characteristics along with the noncorrosive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) 1/4" dia. x 13/16" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
20A000RBI	Coil Form w/hdw. and Core		$ .95
20A107RBI	.125 uh	.079 uh	1.30
20A157RBI	.187 uh	.119 uh	1.30
20A227RBI	.275 uh	.170 uh	1.30
20A337RBI	.410 uh	.240 uh	1.35
20A477RBI	.580 uh	.310 uh	1.35
20A687RBI	.850 uh	.430 uh	1.35
20A827RBI	1.00 uh	.580 uh	1.35
20A106RBI	1.25 uh	.679 uh	1.35
20A156RBI	1.87 uh	.900 uh	1.35
20A226RBI	2.75 uh	1.60 uh	1.35
20A336RBI	4.10 uh	2.00 uh	1.35
20A476RBI	5.80 uh	2.80 uh	1.40
20A686RBI	8.50 uh	3.80 uh	1.40
20A826RBI	10.0 uh	4.70 uh	1.40
20A105RBI	12.5 uh	6.40 uh	1.40
20A155RBI	18.7 uh	9.20 uh	1.40
20A225RBI	27.5 uh	12.0 uh	1.40
20A335RBI	41.0 uh	19.0 uh	1.40
20A475RBI	58.0 uh	27.0 uh	1.40
20A685RBI	85.0 uh	37.0 uh	1.40
20A825RBI	100 uh	53.0 uh	1.40
20A104RBI	125 uh	65.0 uh	1.40
20A154RBI	187 uh	92.0 uh	1.40
20A224RBI	275 uh	140 uh	1.45
20A334RBI	410 uh	215 uh	1.45
20A474RBI	580 uh	310 uh	1.45
20A684RBI	850 uh	450 uh	1.45
20A824RBI	1.00 mh	620 uh	1.45
20A103RBI	1.25 mh	830 uh	1.45

Standard Adjustable R.F. Coils

Dimensions (form) 3/8" dia. x 1 1/8" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
21A000RBI	Coil Form w/hdw. and Core		$1.00
21A106RBI	1.25 uh	0.68 uh	1.35
21A156RBI	1.87 uh	1.00 uh	1.35
21A226RBI	2.75 uh	1.35 uh	1.35
21A336RBI	4.10 uh	2.12 uh	1.35
21A476RBI	5.80 uh	2.40 uh	1.35
21A686RBI	8.50 uh	3.60 uh	1.40
21A826RBI	10.0 uh	4.45 uh	1.40
21A105RBI	12.5 uh	6.05 uh	1.40
21A155RBI	18.7 uh	9.40 uh	1.40
21A225RBI	27.5 uh	12.9 uh	1.40
21A335RBI	41.0 uh	18.8 uh	1.40
21A475RBI	58.0 uh	27.5 uh	1.45
21A685RBI	85.0 uh	37.5 uh	1.45
21A825RBI	100 uh	45.0 uh	1.45
21A104RBI	125 uh	54.0 uh	1.45
21A154RBI	187 uh	92.0 uh	1.50
21A224RBI	275 uh	123 uh	1.50
21A334RBI	410 uh	200 uh	1.55
21A474RBI	580 uh	300 uh	1.55
21A684RBI	850 uh	430 uh	1.60
21A824RBI	1.00 mh	510 uh	1.60
21A103RBI	1.25 mh	780 uh	1.65
21A153RBI	1.87 mh	1.10 mh	1.65
21A223RBI	2.75 mh	1.66 mh	1.70
21A333RBI	4.10 mh	2.40 mh	1.70
21A473RBI	5.80 mh	3.46 mh	1.85
21A683RBI	8.50 mh	5.25 mh	2.00
21A823RBI	10.0 mh	6.00 mh	2.15
21A102RBI	12.5 mh	9.20 mh	2.25

Jumbo Adjustable R.F. Coils

Dimensions (form) 1/2" dia. x 1 7/8" long

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
22A000RBI	Coil Form w/hdw. and Core		$1.25
22A105RBI	12.5 uh	5.70 uh	1.85
22A155RBI	18.7 uh	9.0 uh	1.85
22A225RBI	27.5 uh	12.0 uh	1.90
22A335RBI	41.0 uh	17.0 uh	1.90
22A475RBI	58.0 uh	24.5 uh	1.95
22A685RBI	85.0 uh	38.0 uh	1.95
22A825RBI	100 uh	41.0 uh	2.00
22A104RBI	125 uh	65.0 uh	2.00
22A154RBI	187 uh	94.0 uh	2.05
22A224RBI	275 uh	138 uh	2.05
22A334RBI	410 uh	205 uh	2.10
22A474RBI	580 uh	290 uh	2.10
22A684RBI	850 uh	430 uh	2.15
22A824RBI	1.00 mh	595 uh	2.15
22A103RBI	1.25 mh	760 uh	2.20
22A153RBI	1.87 mh	1.04 mh	2.20
22A223RBI	2.75 mh	1.56 mh	2.20
22A333RBI	4.10 mh	2.30 mh	2.25
22A473RBI	5.80 mh	3.40 mh	2.25
22A683RBI	8.50 mh	5.00 mh	2.25
22A823RBI	10.0 mh	4.20 mh	2.30
22A102RBI	12.5 mh	5.30 mh	2.30
22A152RBI	18.7 mh	8.20 mh	2.45
22A222RBI	27.5 mh	12.7 mh	2.45
22A332RBI	41.0 mh	17.8 mh	2.50
22A472RBI	58.0 mh	27.5 mh	2.55
22A682RBI	85.0 mh	42.0 mh	2.60
22A822RBI	100.0 mh	51.0 mh	2.75

Economy Adjustable R.F. Chokes

Through the use of a recently developed Nylon molding process we are able to offer an inexpensive line of adjustable chokes. They can be adjusted from either the top or bottom. This lends a degree of flexibility to your design. Mounting is achieved by means of a metal clip in a $\frac{5}{16}$" hole.

Dimensions: 3/8" x 1 3/8" long.

Cat. No.	Microhenries	List Price
4200	Form only	$ .90
4202	1- 2.5	1.45
4203	2- 5.5	1.50
4204	5- 12	1.55
4205	10- 25	1.60
4206	20- 55	1.75
4207	50-140	1.80
4208	120-330	1.85
4209	310-860	1.90

±4200 complete with hardware and core

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J. W. MILLER COMPANY Los Angeles, Calif.

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Miller

Industrial R.F. Chokes and Filters

Encapsulated R.F. Chokes

The following series of R.F. chokes range in value from 0.1 uh to 50 mh. Basically identical to our standard series of axial lead R.F. chokes bearing the equivalent number, these coils are encapsulated in epoxy resin and conform to MIL-C-15305A.

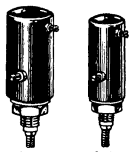
Part No.	Inductance ±5%	Resistance ±10%	Current MA	List Price
4580-E	0.1 uh.	.01	300	$1.90
4582-E	0.15 uh.	.012	300	1.90
4584-E	0.22 uh.	.017	300	1.90
4586-E	0.33 uh.	.019	300	1.90
4588-E	0.47 uh.	.022	300	1.90
4590-E	0.68 uh.	.03	300	1.90
4592-E	0.75 uh.	.033	300	1.90
4594-E	0.82 uh.	.035	300	1.90
4602-E	1.0 uh.	.05	300	1.90
4604-E	1.5 uh.	.08	300	1.90
4606-E	2.4 uh.	.16	300	1.90
4608-E	3.9 uh.	.5	300	1.90
4609-E	5.5 uh.	.69	300	1.95
4610-E	6.2 uh.	.75	300	1.95
4611-E	8.2 uh.	1.12	300	1.95
4612-E	10.0 uh.	1.5	200	1.95
4622-E	10.0 uh.	.06	300	2.00
4624-E	15.0 uh.	.12	300	2.00
4626-E	24.0 uh.	.28	300	2.05
4628-E	39.0 uh.	.65	300	2.05
4629-E	55.0 uh.	.92	300	2.05
4630-E	62.0 uh.	1.0	300	2.05
4631-E	82.0 uh.	1.6	300	2.05
4632-E	100.0 uh.	2.0	200	2.05
4642-E	0.10 mh.	4.1	125	2.25
4644-E	0.15 mh.	5.0	125	2.25
4646-E	0.24 mh.	6.6	125	2.25
4648-E	0.39 mh.	8.7	125	2.35
4649-E	0.55 mh.	10.0	125	2.35
4650-E	0.62 mh.	11.0	125	2.35
4651-E	0.75 mh.	13.0	125	2.35
4652-E	1.0 mh.	15.0	125	2.35
4662-E	1.0 mh.	7.0	125	2.40
4664-E	1.5 mh.	9.0	125	2.45
4666-E	2.4 mh.	12.0	125	2.60
4668-E	3.9 mh.	17.0	125	2.70
4669-E	5.5 mh.	22.0	125	2.85
4670-E	6.2 mh.	33.0	100	2.85
4671-E	8.2 mh.	45.0	100	2.95
4672-E	10.0 mh.	47.0	50	3.45
6302-E	2.5 mh.	8.3	200	2.75
6304-E	5.0 mh.	13.5	200	2.90
6306-E	10.0 mh.	28.0	125	3.10
6308-E	25.0 mh.	70.0	75	3.40
6310-E	50.0 mh.	110.0	75	3.75

Single Pi R.F. Coils

These fixed inductors are wound on a mineral filled phenolic form which has axial leads. The coils are impregnated with an R.F. varnish to assure against moisture absorption.

Part No.	L±5%	Q @ F	Fo. Mc	List Price
72F105AP	10 uh	29	16.3	$1.00
72F125AP	12 uh	27	14.85	1.00
72F155AP	15 uh	26	14.2	1.00
72F185AP	18 uh	25	12.3	1.00
72F225AP	22 uh	23	12	1.00
72F275AP	27 uh	22	11.2	1.00
72F335AP	33 uh	21	10.1	1.00
72F395AP	39 uh	19	9.35	1.00
72F475AP	47 uh	18	9.0	1.00
72F565AP	56 uh	16.5	8.1	1.00
72F685AP	68 uh	15.5	7.6	1.00
72F825AP	82 uh	15	7.26	1.00
72F104AP	100 uh	25	6.65	1.15
72F124AP	120 uh	24	6.3	1.15
72F154AP	150 uh	23	5.75	1.15
72F184AP	180 uh	22	5.45	1.15
72F224AP	220 uh	22	5.04	1.25
72F274AP	270 uh	21	4.47	1.25
72F334AP	330 uh	20.5	7.2	1.35
72F394AP	390 uh	20	3.9	1.35
72F474AP	470 uh	19	3.6	1.40
72F564AP	560 uh	18.4	3.35	1.40
72F684AP	680 uh	18	3.03	1.40
72F824AP	820 uh	17	2.85	1.40
72F103AP	1000 uh	35	2.45	1.40

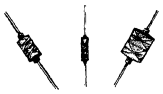
Encapsulated Adjustable R.F. Coils



This series of encapsulated coils offer the maximum possible performance from an adjustable type of inductor. The coil is wound on an epoxy form which is placed inside an epoxy cup and this area filled with epoxy resin. In this manner a complete seal against moisture is achieved and good mechanical stability is assured.

Part No.	L Max. ± 5%	L Min. ± 10%	List Price
50A106EBI	1.25 uh	0.62 uh	$5.25
50A156EBI	1.87 uh	0.98 uh	5.25
50A226EBI	2.75 uh	1.26 uh	5.25
50A336EBI	4.10 uh	1.82 uh	5.30
50A476EBI	5.87 uh	2.56 uh	5.30
50A686EBI	8.50 uh	3.80 uh	5.30
50A826EBI	10.2 uh	4.40 uh	5.30
50A105EBI	12.5 uh	5.40 uh	5.40
50A155EBI	18.8 uh	7.80 uh	5.40
50A225EBI	27.5 uh	11.7 uh	5.50
50A335EBI	41.3 uh	18.8 uh	5.50
50A475EBI	58.7 uh	26.5 uh	5.55
50A685EBI	85.0 uh	36.0 uh	5.55
50A825EBI	102 uh	44.0 uh	5.60
50A104EBI	125 uh	63.0 uh	5.60
50A154EBI	187 uh	92.0 uh	5.65
50A224EBI	275 uh	130 uh	5.65
50A334EBI	410 uh	200 uh	5.70
50A474EBI	580 uh	280 uh	5.70
50A684EBI	850 uh	400 uh	5.75
50A824EBI	1.00 mh	540 uh	5.75
50A103EBI	1.25 mh	770 uh	5.80
50A153EBI	1.87 mh	950 uh	5.80
50A223EBI	2.75 mh	1.58 uh	5.85
50A333EBI	4.13 mh	2.40 mh	5.85
50A473EBI	5.80 mh	3.35 mh	5.95
50A683EBI	8.50 mh	5.20 mh	5.95
50A823EBI	10.00 mh	6.20 mh	5.95

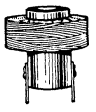
Sub-Miniature R.F. Chokes



An extremely versatile series of iron core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components. The coils are ideally suited to network and filter design, delay lines, and computer applications. Rated at 50 milliamperes.

Part No	L ± 5%	Q @ F	List Price
70F106AI	1 uh	52 @ 7.9 Mc.	$ .85
70F126AI	1.2 uh	55 @ 7.9 Mc.	.85
70F156AI	1.5 uh	61 @ 7.9 Mc.	.85
70F186AI	1.8 uh	49 @ 7.9 Mc.	.85
70F226AI	2.2 uh	60 @ 7.9 Mc.	.85
70F276AI	2.7 uh	49 @ 7.9 Mc.	.85
70F336AI	3.3 uh	60 @ 7.9 Mc.	.85
70F396AI	3.9 uh	56 @ 7.9 Mc.	.85
70F476AI	4.7 uh	58 @ 7.9 Mc.	.85
70F566AI	5.6 uh	56 @ 7.9 Mc.	.85
70F686AI	6.8 uh	51 @ 7.9 Mc.	.85
70F826AI	8.2 uh	51 @ 7.9 Mc.	.85
70F105AI	10 uh	61 @ 2.5 Mc.	1.00
70F125AI	12 uh	65 @ 2.5 Mc.	1.00
70F155AI	15 uh	65 @ 2.5 Mc.	1.00
70F185AI	18 uh	66 @ 2.5 Mc.	1.00
70F225AI	22 uh	64 @ 2.5 Mc.	1.00
70F275AI	27 uh	62 @ 2.5 Mc.	1.00
70F335AI	33 uh	63 @ 2.5 Mc.	1.00
70F395AI	39 uh	61 @ 2.5 Mc.	1.00
70F475AI	47 uh	60 @ 2.5 Mc.	1.00
70F565AI	56 uh	57 @ 2.5 Mc.	1.00
70F685AI	68 uh	55 @ 2.5 Mc.	1.00
70F825AI	82 uh	55 @ 2.5 Mc.	1.00
70F104AI	100 uh	50 @ 790 kc.	1.00
70F154AI	150 uh	55 @ 790 kc.	1.00
70F224AI	220 uh	57 @ 790 kc.	1.00
70F334AI	330 uh	59 @ 790 kc.	1.00
70F474AI	470 uh	59 @ 790 kc.	1.15
70F684AI	680 uh	55 @ 790 kc.	1.15
70F824AI	820 uh	53 @ 790 kc.	1.15
70F103AI	1.00 mh	50 @ 790 kc.	1.15
70F153AI	1.50 mh	50 @ 250 kc.	1.15
70F223AI	2.20 mh	50 @ 250 kc.	1.25
70F333AI	3.30 mh	70 @ 250 kc.	1.25
70F473AI	4.70 mh	68 @ 250 kc.	1.25
70F603AI	6.80 mh	64 @ 250 kc.	1.25
70F823AI	8.20 mh	60 @ 250 kc.	1.50
70F102AI	10.0 mh	60 @ 250 kc.	1.50

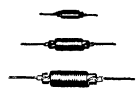
Printed Circuit Air Core R.F. Chokes



The following R.F. Chokes have been designed to offer a wide range of inductance values for use in printed circuit applications. Our standard stock of these coils is impregnated with a high grade coil varnish to prevent moisture absorption. On special orders we can supply these items treated with fungus resistant material, or encapsulated in epoxy resin to meet MIL-C-15305-A.

Part No.	Inductance ±5% @ 1000 CPS	DC Resistance ±10%	Current	List Price
970	1.0 mh.	17.2 ohms	125 ma.	$ .85
971	1.2 mh.	19.8 ohms	125 ma.	.85
972	1.5 mh.	21.8 ohms	125 ma.	.85
973	1.8 mh.	24.7 ohms	125 ma.	.90
974	2.2 mh.	27.4 ohms	125 ma.	.90
975	2.7 mh.	31.2 ohms	125 ma.	.90
976	3.3 mh.	34.8 ohms	125 ma.	.95
977	3.9 mh.	38.9 ohms	125 ma.	.95
978	4.7 mh.	43.2 ohms	125 ma.	.95
979	5.6 mh.	48.0 ohms	125 ma.	.95
980	6.8 mh.	53.6 ohms	125 ma.	1.00
981	8.2 mh.	60.8 ohms	100 ma.	1.00
982	10.0 mh.	68.0 ohms	100 ma.	1.10
983	12.0 mh.	77.0 ohms	100 ma.	1.15
984	15.0 mh.	87.7 ohms	100 ma.	1.20
985	18.0 mh.	97.9 ohms	100 ma.	1.25
986	22.0 mh.	108.0 ohms	75 ma.	1.40
987	27.0 mh.	121.0 ohms	75 ma.	1.45
988	33.0 mh.	209 ohms	75 ma.	1.55
989	39.0 mh.	231 ohms	75 ma.	1.60
990	47.0 mh.	263 ohms	50 ma.	1.65
991	56.0 mh.	292 ohms	50 ma.	1.70
992	68.0 mh.	326 ohms	50 ma.	1.80
993	82.0 mh.	368 ohms	50 ma.	1.90
994	100.0 mh.	394 ohms	50 ma.	2.00

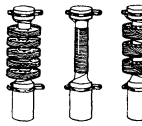
Frequency Selective R.F. Chokes



Designed for maximum efficiency and highest impedance at specific operating frequencies this group of R.F. chokes eliminates the designers task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major Amateur, Industrial, and Citizens bands the coils will also operate efficiently at frequencies approximating the recommended frequencies.

Part No.	L	Freq. Mc.	List Price
RFC-3.5	266 uh	1.8-5	$1.50
RFC-7	208 uh	3-13	1.25
RFC-14	84 uh	7-20	1.15
RFC-21	38.5 uh	15-30	1.00
RFC-28	24 uh	25-40	1.00
RFC-50	8.2 uh	30-90	1.00
RFC-144	1.72 uh	75-180	.85
RFC-220	.82 uh	160-340	.85
RFC-420	.22 uh	325-500	.85

Ceramic Form R.F. Chokes



A series of high quality fixed coils wound on a silicone impregnated steatite form. The coils are the standoff type and are mounted by a single 6-32 screw. They find primary application in low power transmitters and associated equipment where relatively high current capacity and low distributed capacitance are important.

Part Number	L	Rated Current	List Price
4552	0.25 mh.	150 ma.	$1.15
4553	0.50 mh.	150 ma.	1.15
4554	1.0 mh.	150 ma.	1.25
4555	2.5 mh.	150 ma.	1.40
4556	5.0 mh.	150 ma.	1.45
4557	0.25 mh.	300 ma.	1.25
4558	0.50 mh.	300 ma.	1.25
4559	1.0 mh.	300 ma.	1.50
4560	2.5 mh.	300 ma.	1.65
4561	5.0 mh.	300 ma.	1.75

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Miller

Radio Frequency Chokes

R.F. Chokes with Axial Leads

These chokes cover an inductance range from .1 microhenry to 10 millihenries in 5 decades with 8 coils per decade. Inductance values increase in steps of approximately 50%. Either single layer or 3-pi universal windings are used to insure low distributed capacity. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form 3/16" diameter x 3/4" long. Iron core form 3/32" diameter x 7/8" long. Leads are 1½" long. Inductance tolerance: plus or minus 5%.

Phenolic Form
Single Layer Windings

Cat. No.	uh.	Ohms	ma	List Price
4580	0.1	.01	300	$ .65
4582	0.15	.012	300	.65
4584	0.22	.017	300	.65
4586	0.33	.019	300	.65
4588	0.47	.022	300	.65
4590	0.68	.03	300	.65
4592	0.75	.033	300	.65
4594	0.82	.035	300	.65
4602	1.	.05	300	.65
4604	1.5	.08	300	.65
4606	2.4	.16	300	.65
4608	3.9	.5	300	.65
4609	5.5	.69	300	.70
4610	6.2	.75	300	.70
4611	8.2	1.12	300	.70
4612	10	1.5	200	.70

Iron Core Form
Single Layer Windings

Cat. No.	uh.	Ohms	ma	List Price
4622	10	.06	300	$ .75
4624	15	.12	300	.75
4626	24	.28	300	.80
4628	39	.65	300	.80
4629	55	.92	300	.85
4630	62	1.0	300	.85
4631	82	1.6	300	.85
4632	100	2.0	200	.85

Phenolic Form
3-Section Windings

Cat. No.	mh.	Ohms	ma	List Price
4642	0.1	4.1	125	$ .85
4644	0.15	5	125	.85
4646	0.24	6.6	125	.85
4648	0.39	8.7	125	.95
4649	0.55	10	125	.95
4650	0.62	11	125	.95
4651	0.75	13	125	.95
4652	1.0	15	125	.95

Iron Core Form
3-Section Windings

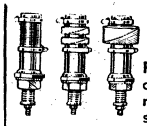
Cat. No.	mh.	Ohms	ma	List Price
4662	1	7	125	$ 1.00
4664	1.5	9	125	1.05
4666	2.4	12	125	1.15
4668	3.9	17	125	1.25
4669	5.5	22	125	1.40
4670	6.2	33	100	1.40
4671	8.2	45	100	1.70
4672	10	47	50	1.95

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: ¼" diameter x 7/8" long. 1½" long axial leads.

Cat. No.	mh.	Ohms	ma	List Price
6302	2.5	8.3	200	$1.25
6304	5	13.5	200	1.40
6306	10	28	125	1.65
6308	25	70	75	1.90
6310	50	110	75	2.20



Adjustable Ceramic Forms and R.F. Coils

Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): 3/8" diameter x 1 1/16" long.

Cat. No.	Microhenries	List Price
4400	Form only	$1.80
4403	0.9- 1.6	2.45
4404	1.5- 3.2	2.50
4405	3.1- 6.8	2.55
4406	6.7- 15	2.65
4407	14.8- 31	2.75
4408	30 - 69	2.80
4409	68 - 130	2.90
4410	126 - 250	2.95
4411	245 - 475	3.00
4412	450 - 800	3.05
4413	750 -1400	3.10
4414	1300 -2100	3.10

#4400 comes complete with hardware and core*

#4400 Bulk packed per 100 List Price $155.00

Miniature Adjustable R.F. Coils

Dimensions (form): ¼" diameter x 7/8" long.

Cat No.	Microhenries	List Price
4500	Form only	$1.65
4501	.4- .8	2.25
4502	1.0- 1.6	2.25
4503	1.6- 2.8	2.35
4504	2.8- 5	2.40
4505	5 - 9	2.50
4506	9 - 16	2.60
4507	16 - 24	2.70
4508	24 - 35	2.75
4509	35 - 60	2.80
4511	60 -120	2.85
4512	110 -200	2.90
4513	190 -330	2.95
4514	320 -500	3.00
4514-1	480 -800	3.10

#4500 comes complete with hardware and core*

#4500 Bulk packed per 100 List Price $125.00

Sub-Miniature Adjustable R.F. Coils

Dimensions (form): 3/16" diameter x 5/8" long.

Cat No.	Microhenries	List Price
4300	Form only	$1.65
4301	0.17- 0.27	2.25
4302	0.27- 0.41	2.25
4303	0.40- 0.65	2.35
4304	0.64- 0.95	2.40
4305	0.94- 1.55	2.50
4306	1.5 - 2.57	2.60
4307	2.5 - 4.40	2.70
4308	4.3 - 7.15	2.75
4309	7.1 - 12.5	2.80
4310	12.4 - 20.3	2.85
4311	20.1 - 32.8	2.90
4312	32.5 - 51.5	2.95
4313	51. -102.	3.00
4314	101. -180.	3.00
4315	178. -300.	3.00

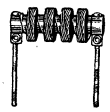
#4300 comes complete with hardware and core*

#4300 Bulk packed per 100 List price $125.00

Quantity orders can be wound to your specific requirements with extended inductances and Q values other than those shown. Your inquiries invited.

*When ordering forms alone, the type of core should be specified by the addition of a suffix taken from the following.

Suffix	Frequency Range of Core Material
Y	50-1000 kc.
R	1- 30 Mc.
W	30- 300 Mc.



Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke.

Inductance tol. ±5%.

Cat. No.	Mh.	Ohms	MA	List Price
4531-0	.25	8	200	$1.15
4531	.5	12	200	1.15
4531-1	1	17	200	1.15
4532	1.5	21	200	1.20
4537	2.5	28	200	1.25
4538	5	42	125	1.45
4539	7.5	82	125	1.65
4540	10	95	125	1.80
4541	25	160	125	2.15

#4537 Bulk packed per 100 — List Price $95.00

R.F. Chokes wound to closer tolerances if required in lots of 100 pieces or more at slightly higher prices.

Unshielded Chokes

These single section R.F. Chokes are ideally suited for general purpose applications in receiver and filter circuit. Solder lug terminals and single hole mounting. Inductance tol. ±5%.

Air Core Type

Dimensions: 1⅛" diameter x 5/8"

Cat. No.	MH	Ohms	MA	List Price
510	.25	8	125	$ .90
620	.75	17	125	.90
630	1.50	21	125	1.00
640	2.50	28	125	1.15
650	5.0	41	125	1.15
660	7.5	53	125	1.20
670	10	67	125	1.25
670-T	10	67	125	1.35
680	12.5	74	125	1.30
690	15.0	83	125	1.35
691	20	100	125	1.45
691-T	20	100	125	1.50
592	30.0	120	100	1.50
693	60	200	100	1.70
693-T	60	200	100	2.00
694	80.0	230	100	1.85

Iron Core Type

These chokes are similar in construction to the No. 600 series except that they are wound on powdered iron cores. Inductance tol. ±5%.

Cat. No.	MH	Ohms	MA	List Price
951	.5	6.8	125	$1.20
952	1.0	10.9	125	1.30
953	2.5	19.5	125	1.40
954	5.0	23.0	125	1.60
955	7.5	37.0	125	1.70
956	10.0	45.0	125	1.80
957	25.0	78.0	100	2.00
958	50.0	130.0	100	2.25
959	75.0	200.0	100	2.50
960	100.0	210.0	100	2.80
961	150.0	268.0	100	3.00

Shielded Chokes

Single section wound R.F. Chokes assembled in round aluminum shield with two spade bolts for mounting. Solder lug terminals.

Iron Core Type

Dimensions: 1¼" dia. x 1" high.

Cat. No.	MH	Ohms	MA	List Price
851	.5	8.6	125	$1.75
852	1.0	11.5	125	1.85
853	2.5	22.0	125	1.90
854	5.0	31.0	125	2.00
855	7.5	42.0	125	2.10
856	10.0	47.0	125	2.25
857	25.0	100.0	125	2.50
Dimensions: 1⅝" dia. x 1" high.				
858	50.0	160.0	100	2.60
859	75.0	222.0	100	2.85
860	100.0	348.0	100	3.10
861	150.0	520.0	100	3.50

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Miller

Television Components

24 MC Unshielded Picture I.F. Transformers

For use as replacement units in television receivers where unshielded coils are called for and standard circuitry is employed. Mounting clip to fit 7/16" hole in chassis.
Shielded I.F. trans. are 3/4" sq. x 2" high.
Maximum Dimensions: 2 1/2" long.

Cat. No.	Description	Trap	List Price
6245	25.5 MC First I.F.	27.25 MC	$2.85
6246	22 MC Second I.F.	21.2 MC	2.85
6247	21.25 MC Cathode Trap		2.85
6248	24.5 MC Video Det. I.F.		1.75
6249	21-25 MC Bifilar Wound I.F.		1.75
6250	25-29 MC Bifilar Wound I.F.		1.75
6251	21-25 MC Bifilar I.F. Shielded		2.50
6252	25-29 MC Bifilar I.F. Shielded		2.50
6253	21-25 MC Bifilar I.F.	20-23 MC	3.25
6254	25-29 MC Bifilar I.F.	24-29 MC	3.25

Picture I.F. Inductors Unshielded

Dimensions: 1/2" max. o.d. x 1 1/2" long.

Cat. No.	Description	Freq.	List Pr.
6188	3rd Pix I.F. Trans.	25.2 MC	$1.50
6189	Video Detector I.F. Trans.	23.4 MC	1.50
6193	Cathode Sound Trap	21.25 MC	2.25
6171	Tunable Choke	21-25 MC	1.45
6171A	Tunable Choke	25-29 MC	1.45

21.25 MC Television I.F. Transformers

Dimensions:
6185-6186-6187 7/8" Sq. x 2 1/4" high
6170, 6190 and 6191 7/8" sq. x 2 1/4" hi
6184 and 6192 1 1/8"x1 1/8"x2 1/2" high.
6261 and 6262 3/4" sq. x 2" high clip mtg.

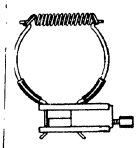
	Item	Freq.	List Pr.
6185	21.8 MC Conv. I.F. Trans.	21.25 MC	$3.10
6186	25.3 MC 1st Pix I.F. Trans.	27.25 MC	3.10
6187	22.3 MC 2nd Pix I.F. Trans.	19.75 MC	2.50
6190	1st Sound I.F. Trans.	21.25 MC	$2.75
6191	2nd Sound I.F. Trans.	21.25 MC	2.75
6192	Sound Disc. Trans.	21.25 MC	3.30
6184	Sound Ratio Det. Trans.	21.25 MC	3.85
6170	Sound Disc. Trans.	21.25 MC	3.80
6261	Sound Disc. Trans.	21.25 MC	3.75
6262	Sound Ratio Det. Trans.	21.25 MC	3.75

4.5 MC Intercarrier Sound Components

Dimensions 1466-67-68: 1 1/8"x1 1/8" x2 1/8" high.
#1469, 1470 and 1480 Unshielded, Mounting hole 3/8"
1470-A and 1481 3/4" x 3/4" x 2" hi
#1498 1 3/8" x 1 3/8" x 2 1/2"high
1483-84-95-86-87 7/8" Sq. x 2 1/4" high

Cat. No.	Item	Freq.	List Pr.
1466	Input or Inter. I.F. Trans.	4.5 MC	$3.00
1467	Sound Discrim. Trans.	4.5 MC	3.50
1468	Sound Ratio Det. Trans.	4.5 MC	3.75
1469	Sound Pick Off Coil	4.5 MC	1.50
1470	Sound Trap Unshielded	4.5 MC	1.50
1470-A	Sound Trap Shielded	4.5 MC	1.90
1480	Quadrature Coil	4.5 MC	1.50
1481	Quadrature Coil Sh'l'd.	4.5 MC	1.95
1482IFT	Sound I.F. Trap	4.5 MC	2.25
1483IF	Sound I.F.	4.5 MC	3.00
1484RD	Sound Ratio Det	4.5 MC	3.50
1485RD	Sound Ratio Det	4.5 MC	3.50
1486RD	Sound Ratio Det	3.5 MC	3.50
1487RD	Sound Ratio Det	4.5 MC	3.50
1498	Sound Ratio Det. Trans.	4.5 MC	3.75

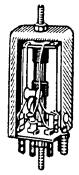
Adjustable Ion Trap



Due to its adjustable feature, which allows the magnetic field to be varied between 32-55 gausses, this trap will, in most instances, replace the older style ion traps having a specific magnetic field.

Cat. No.	Description	List Price
6295	Adjustable Ion Trap	$1.50

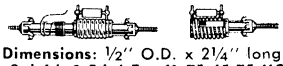
"40 MC" TV Picture I.F. Transformers



Converter transformer and 1st pix I.F. grid transformer have 75 ohm link winding.
Dimensions
6215-16-17-18 7/8" Sq. x 2 1/4" high
6240 1 1/8" Sq. x 2 3/8" high

	Description	Trap	List Pr.
6215	Converter I.F. Trans.		$2.75
6216	1st Pix I.F. Grid Trans.	39.25 MC	3.30
6217	1st Pix I.F. Plate Trans.	41.25 MC	3.30
6218	2nd Pix I.F. Grid Trans.	47.25 MC	3.10
6240	Video Detector with Diode	43.7 MC	7.50

Unshielded



Dimensions: 1/2" O.D. x 2 1/4" long.

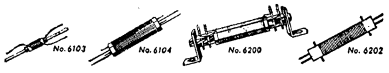
6219	3rd-4th & 5th I.F.	41.75-45.75 MC	$1.50
6220	41-45 MC Converter I.F.		1.50
6221	43.5 MC First I.F.	41.25 MC	2.95
6222	45.5 MC Second I.F.	47.25 MC	2.95
6223	40.0 MC Third I.F.	39.25 MC	2.95
6224	44 MC Fourth I.F.		1.55
6225	41-45 MC I.F., Single Winding		1.70
6226	Hi Q Trap	40-46 MC	1.55

Video Peaking Coils, Filament Choke

No. 6175 Filament Choke—3/32" dia. x 7/8" long;
Video Peaking Coils—3/16" dia. x 1/2" long.

Cat. No.	Use	—uhy	Resistor	List Price
6175	Filament	0.8	None	$.85
6152	Peaking	20	None	.85
6176	Peaking	36	None	.85
6110	Peaking	60	None	.85
6172	Peaking	73	None	.85
6177	Peaking	93	None	.85
6112	Peaking	100	None	.85
6178	Peaking	120	22K	.85
6153	Peaking	120	None	.85
6120	Peaking	155	None	.85
6179	Peaking	180	39K	.85
6180	Peaking	180	None	.85
6154	Peaking	200	None	.85
6173	Peaking	250	22K	.85
6181	Peaking	250	None	.85
6130	Peaking	275	None	.85
6155	Peaking	300	None	.85
6132	Peaking	330	None	.85
6134	Peaking	375	None	.85
6136	Peaking	420	None	.85
6138	Peaking	470	None	.85
6174	Peaking	500	None	.85
6144	Peaking	550	None	.85
6146	Peaking	600	None	.85
6148	Peaking	700	None	.85
6156	Peaking	800	None	.85
6157	Peaking	950	None	.85

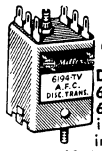
Antenna Matching Coils (Balun)



When two of these coils are connected in parallel at one end and in series at the other end, a 75 ohm to 300 ohm impedance matching transformer is obtained. This impedance match holds over the entire television range from channel 2 to 13 thus including the F.M. channels.

Cat. No.	Description	Size	List Price
6103	Ant. Matching Coil	1/4"x1 1/2"	$1.55
6104	Ant. Matching Coil	5/16"x1 3/4"	1.15
6200	Ant. Matching Coil	3/8"x2 1/2"	2.25
6202	Ant. Matching Coil	5/16"x1 3/4"	2.25

Horizontal Oscillator & Sync. Control Coils



Dimensions: 1 7/16"x1 7/16"x2 1/2" high.
6212 Unshielded, Mounting hole 7/16"
6211 and 6324 Unshielded, Mountinghole 7/16"—6183 may be reversed in shield for top or bottom mounting. 6183-A coils reversed on form to tune Horiz. Osc. through chassis.

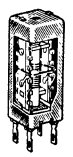
Cat. No.	Item	List Price
6194	Osc. & A.F.C. Discrim. Trans.	$3.10
6182	Osc. and Sync. Control Coil	2.50
6183	Osc. and Sync. Stabilizer Coil	3.25
6210	Sync. Stabilizer Coil 16-42 mh	2.50
6211	Sync. Stabilizer tapped 16-42 mh	2.50
6212	Horiz. Osc. tapped 12-35 mh	2.50
6324	Horiz. Osc. tapped 60-130 mh	2.50
6183-A	Horiz. Osc. coil position reversed	3.25

Linearity & Width Controls

Dimensions: 3/4" x 2 1/2" Max.
The coils will mount in either a 5/16" or 7/16" hole with adapter supplied.

Cat. No.	Inductance Range Millihenries	List Price
6313	.5-5	$2.00
6314	2.5-17	1.90
6315	4-30	2.00
6316	4-30 (2.8-6.5 AGC)	2.75
6317	3.2-9 (.17-1.31 AGC)	2.50
6318	.3-3	1.70
6319	15-60	2.50
6320	.3-3 Tapped	1.75
6321	1-5 Tapped	2.00
6322	1.5-10	1.90
6323	.5-5 Tapped	1.75
6324	60-130 Tapped	2.50
6325	4.2-30 (.78-1.37 AGC)	2.50
6326	2.5-19 Parallel (.18-1.7 Series)	3.50
6327	4-30 Parallel (.225-2.4 Series)	3.50
6328	9-24 (.19-1.1 AGC)	2.50
6329	2.2-10 Tapped	2.25
6330	45-215	2.75
6331	4-30 Parallel (.080-.7 Series)	3.25
6195	.185-1	1.50
6196	.054-.245	1.25
6196-A	.054-.5 Tapped	1.45
6197	.55-2.3 Tapped	1.45
6198	.17-.61	1.25
6199-A	1.3-4.1 Tapped	1.55
6199-B	.5-1.7	1.50

Miniature 44 MC Picture Trans.



Converter and 1st pix I.F. Grid transformer have 75 ohm link winding.
Dimensions: 3/4" Square x 2" high.

	Description	Trap	List Pr.
6230	Converter I.F.		$2.75
6231	44 MC First I.F.		2.75
6232	42.5 MC Second I.F.	41.25 MC	2.40
6233	45.5 MC Third I.F.	47.25 MC	2.90
6234	44 MC Fourth I.F.		2.25

Color T.V. Components

Dimensions
6022-6027-6028 Unshielded
6024 7/8" Sq. x 1 7/8" high
6021-6023-6026 7/8" Sq. x 2 3/8" high
6025 1 1/8" Sq. x 2 1/4" high

	Description	Frequency	Price
6021	Chrome Bandpass Transformer	3.58 Mc	$3.25
6022	Chroma Bandpass Coil	3.58 Mc	2.35
6023	Burst Transformer	3.58 Mc	5.00
6024	Output Transformer	3.58 Mc	4.00
6025	Sync and Phase Det	3.58 Mc	7.00
6026	Chroma Reference Osc	3.58 Mc	5.00
6027	Trap	3.58 Mc	2.50
6028	Chroma Sync Take Off	3.58 MC	2.50

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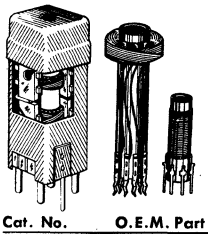
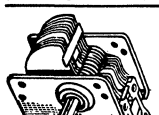
Intermediate Frequency Transformers



O. E. M.

The following special parts have been manufactured as exact replacements for the set manufacturers shown, so as to assure top performance.

Cat. No.	O.E.M. Part No.	List Price
	Admiral	
1471-A	72B185-2	$2.75
1472-A	72C132-19	1.95
6332	94C17-4	3.35
	Bendix	
6501	2090237-1	3.75
6502	2090237-2	3.75
6503	2090237-3	3.75
6504	2090237-4	3.75
6505	2090237-5	3.75
6506	2090239-1	3.50
6507	2090239-2	3.50
6508	2090239-3	3.50
	Crosley	
7101	157856-1	3.00
	General Electric and Hotpoint	
12-C11	RTL-143 and 163	2.70
12-C13	RTL-172	2.90
6206-PC	RTD-026 (WT56X38)	4.95
6207-PC	RTD-025 (WT56X37)	4.15
6208-PC	RTD-020	4.25
6209-G1	RTD-024 (WT56X36)	4.75
	Hallicrafter	
1482 IFT	51B1996	2.25
	Philco	
6209-P1	32-4721	9.50
6209-P2	32-4689-1, 2	4.75
6209-P3	32-4735-1, 2	4.75
	R. C. A.	
1483 IF	76437	3.00
1484 RD	102692	3.50
1485 RD	102644	3.50
1486 RD	102253	3.50
1487 RD	100364	3.50
1488 RD	79141	3.75
1489 RD	101219	3.75
6333	103103	2.94
	Westinghouse	
12-C14	235V025H-11, 2 (V157661)	3.50
68 Osc	230V039H-01 (V15764-1)	2.75
6204-W3	V12128-1, 2, 3	6.75



Midget Variable Condensers

Shaft dia. ¼" x 1" long. The #2110, 2-gang variable condenser antenna section has a range of 10-130 mmf. The oscillator section has a range of 10-78 mmf. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mmf. Mounting is provided by tapped holes in the frame of the condensers. Counter-clock rotation for capacity increase.

Cat. No.	Sections	Dimensions	List Price
2110	2	15/16"x1 3/8"x1 15/16"	$3.30
2111	1	1 1/8"x1 3/16"x1 5/8"	$3.25
2112	2	2 3/16"x1 13/16"x1 5/8"	$4.00
2113	3	3 3/16"x1 13/16"x1 5/8"	$5.50

Adjustable Padder Condensers

Used as adjustable oscillator padding condenser in super-het receivers to insure proper three-point tracking. They also find application as the horizontal drive control in television receivers. ¼" single hole mounting.
Dimensions: ⅞" x 1" x ⅜" thick.

Cat. No.	Capacity Range	List Price
160-A	360-1000 mmfd.	$1.40
160-B	50-400 mmfd.	1.25
160-C	200-600 mmfd.	1.40
160-D	10-160 mmfd.	1.10
160-E	25-280 mmfd.	1.20

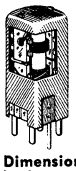
Miniature J-Tran Top Tuned I.F. Transformers

The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.

Dimensions: ¾" by ¾" by 2" high. *(With diode filter capacitors)

Cat. No.	Item	List Price
14-H1	262 kc Input I.F.	$2.90
14-H2	262 kc Output I.F.	2.90
14-H6	262 kc Output I.F.*	3.00
14-C1	455 kc Input I.F.	2.70
14-C2	455 kc Output I.F.	2.70
14-C6	455 kc Output I.F.*	2.85
14-C7	455 kc Input I.F. Battery Radios	2.70
14-C8	455 kc Output I.F. Battery Radios	2.70
14-C9	455 kc Input I.F. AC-DC Radios	2.70
14-C10	455 kc Output I.F. AC-DC Radios	2.70
6270	4.5 Mc Input or Interstage	2.90
6271	4.5 Mc Ratio Detector	4.95

Miniature Printed Circuit Top Tuned I.F. Transformers



The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.

Dimensions: ¾" by ¾" by 2" high. *(With diode filter capacitors)

Cat. No.	Item	List Price
16-PH1	262 kc Input I.F.	$2.85
16-PH2	262 kc Output I.F.	2.85
16-PH6	262 kc Output I.F.*	3.00
16-PC1	455 kc Input I.F.	2.75
16-PC2	455 kc Output I.F.	2.75
16-PC6	455 kc Output I.F.*	2.90
16-PC7	455 kc Input I.F. Battery Radios	2.75
16-PC8	455 kc Output I.F. Battery Radios	2.75
16-PC9	455 kc Input I.F. AC-DC Radios	2.75
16-PC10	455 kc Output I.F. AC-DC Radios	2.75
6270-PC	4.5 Mc Input or Interstage	2.90
6271-PC	4.5 Mc Ratio Detector	4.95

Universal I.F. Transformers

For general replacement purposes in auto receivers and many types of household and portable receivers.
Dimensions: 1¼" square x 2½" high.

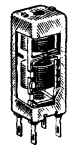
Cat. No.	Freq.	KC Range	Use	List Price
312-H1	262	250-275	Input	$2.85
312-H2	262	250-275	Interstage	2.85
312-H4	262	250-275	Output	2.85
312-H6	262	250-275	Output & Filter	3.25
312-C1	455	440-470	Input	2.85
312-C2	455	440-470	Interstage	2.85
312-C4	455	440-475	Output	2.85
312-C6	455	440-470	Output & Filter	3.25

Type No. 412 Iron Core Transformers

Dimensions: 1¼" square x 2½" high.

Cat. No.	Freq.	KC Range	Use	List Price
412-H1	262	250-275	Input	$2.85
412-H2	262	250-275	Interstage	2.85
412-H4	262	250-275	Output	2.85
412-C1	455	440-470	Input	2.85
412-C2	455	440-470	Interstage	2.85
412-C4	455	440-470	Output	2.85

Miniature I.F. Transformers



Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F. frequencies.
*(With diode filter capacitors)
Dimensions: ¾" by ¾" by 2" high.

Cat. No.	Item	List Price
12-H1	262 KC Input I.F. Trans	$2.90
12-H2	262 KC Output I.F. Trans.	2.90
12-H6	262 KC Output I.F. Trans.*	3.00
12-C1	455 KC Input I.F. Trans.	2.70
12-C2	455 KC Output I.F. Trans.	2.70
12-C6	455 KC Output I.F. Trans.	2.85
12-C7	455 KC Input I.F. Battery	2.70
12-C8	455 KC Output I.F., Battery	2.70
12-C9	455 KC Input I.F. AC-DC	2.70
12-C10	455 KC Output I.F. AC-DC	2.70
12-C12	455 KC Tapped Pri. I.F. Trans.	3.25
12-C45	455 KC Discriminator	3.95
13-W1	1500 KC Input or Interstage	2.75
13-W2	1500 KC Output I.F. Trans.	2.75
1463	10.7 MC Input or Interstage	3.25
1464	10.7 MC Discriminator	3.75
1465	10.7 MC Ratio Detector	3.90
1464-WB	10.7 MC Disc. 900 KC. P/P	3.75
1465-WB	10.7 MC Ratio Det. 800 KC. P/P	3.90
6203	4.5 MC Input or Interstage	3.30
6204	4.5 MC Discriminator	3.75
6205	4.5 MC Ratio Detector	3.75
6260	21.25 MC I.F. Trans.	4.25
6261	21.25 MC Discriminator	3.75
6262	21.25 MC Radio Detector	3.75
6230	TV Converter I.F.	2.75
6231	TV 44 MC First I.F. Trap	2.75
6232	TV 42.5 MC Second I.F. 41.25 MC	2.40
6233	TV 45.5 MC Third I.F. 47.25 MC	2.90
6234	TV 44 MC Fourth I.F.	2.25

Miniature Printed Circuit I.F. Trans.

Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.
*(With diode filter capacitors)
Dimensions: ¾" sq. x 2" high.

Cat. No.	Item	List Price
13-PH1	262 KC Input I.F. Trans.	$2.85
13-PH2	262 KC Output I.F. Trans.	2.85
13-PH6	262 KC Output I.F. Trans. *	3.00
13-PC1	455 KC Input I.F. Trans.	2.75
13-PC2	455 KC Output I.F. Trans.	2.75
13-PC6	455 KC Output I.F. Trans. *	2.90
13-PC7	455 KC Input I.F. Trans. Battery	2.75
13-PC8	455 KC Output I.F. Trans.Battery	2.75
13-PC9	455 KC Input I.F. Trans. AC-DC	2.75
13-PC10	455 KC Output I.F. Trans.AC-DC	2.75
6203-PC	4.5 MC Input or Interstage	3.30
6204-PC	4.5 MC Discriminator Trans.	3.75
6205-PC	4.5 MC Ratio Detector Trans.	3.75
1463-PC	10.7 MC Input or Interstage	3.25
1464-PC	10.7 MC Discriminator Trans.	3.75
1465-PC	10.7 MC Ratio Detector Trans.	3.90
6230-PC	TV 44 MC Converter I.F. Trans.	3.10
6231-PC	TV 44 MC First I.F. Trans. Trap	3.10
6232-PC	TV 42.5 MC Second I.F. 41.25 MC	2.80
6233-PC	TV 45.5 MC Third I.F. 47.25 MC	3.10
6234-PC	TV 44 MC Fourth I.F. Trans.	2.75

Sub-Miniature I.F. Trans.

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)
Dimensions: ½" sq. x 1½" high.

Item	List Price
10-C1 455 KC Input I.F. Trans.	$2.80
10-C2 455 KC Output I.F. Trans.	2.80

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J. W. MILLER COMPANY Los Angeles, Calif.

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Transistor Components and R.F. Coils

Miniature Adjustable R.F. Coils

These high Q adjustable iron core coils are for general replacement use.

Dimensions:

70-A and 70-RF ½" dia x 1½" long
69-Osc and 70-Osc ½" dia x 1⅛" long
67-Osc ⅜" dia x 1⅝" long
71-RF ¾" dia x 1¾" long

Cat. No.	Use	Freq. Range	List Price
67-OSC	Oscillator Stage Autodyne type Oscillator	540-1600 kc	$1.95
69-OSC	Oscillator Stage Capacity coupled type	540-1600 kc	1.75
70-A	Antenna Stage	540-1600 kc	1.75
70-RF	R.F. Stage	540-1600 kc	1.75
70-OSC	Oscillator Stage	540-1600 kc	1.75
71-RF	R.F. Coil	540-1600 kc	2.75

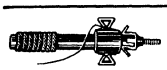
Universal Adjustable Oscillator Coil

These adjustable iron core oscillator coils are for general replacement use.

Dimensions: ⅝" x 1½" high.

Cat. No.	Use	Freq. Range	List Pr.
71-OSC	Oscillator Stage (I.F. 100-550 KC)	R.F. 500-1800 KC	$2.50

High-Q Ferrite Antenna Coil



Supplied with mounting bracket

Dimensions: ⅜" diameter x 2¼" long.

Cat. No.	Use	Freq. Range	List Pr.
6300	Antenna Stage	540-1700 KC	$1.40

Adjustable FM R.F. Coils

Dimensions: ½" O.D. x 1⅝" long.

Cat No.	Item	List Price
1447	88-108 MC Antenna Coil	$1.85
1448	88-108 MC R.F. Coil	1.85
1449	88-108 MC Osc. Coil (10.7 MC I.F.)	1.85

Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design. These #5495 series coils can be shielded in our #S-32 shields (1⅛" sq.) with very little loss in Q. Mounting is by means of a single ¼" hole. **Dimensions (form):** ⅜" x 2". **Ranges shown are for use with a 365 mmfd. variable tuning condenser.**

Long Wave Coils (140-420 KC)

Cat. No.	Use	List Price
X-5495-A	Antenna Stage	$2.50
X-5495-RF	RF Stage	2.50
X-5495-C	Standard Osc. 455 KC	2.50
X-5496-C	Tapped Osc. 455 KC	2.50

Broadcast Band Coils (540-1700 KC)

A-5495-A	Antenna Stage	$2.50
A-5495-RF	RF Stage	2.50
A-5495-C	Standard Osc. 455 KC	2.50
A-5496-C	Tapped Osc. 455 KC	2.50

Medium Wave Coils (1.7-5.5 MC)

B-5495-A	Antenna Stage	$2.50
B-5495-RF	RF Stage	2.50
B-5495-C	Standard Osc. 455 KC	2.50
B-5496-C	Tapped Osc. 455 KC	2.50

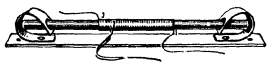
Short Wave Broadcast Coils (5-18 MC)

C-5495-A	Antenna Stage	$2.50
C-5495-RF	RF Stage	2.50
C-5495-C	Standard Osc. 455 KC	2.50
C-5496-C	Tapped Osc. 455 KC	2.50

High Frequency Coils (12-36 MC)

D-5495-A	Antenna Stage	$2.50
D-5495-RF	RF Stage	2.50
D-5495-C	Standard Osc. 455 KC	2.50
D-5496-C	Tapped Osc. 455 KC	2.50

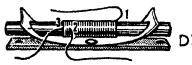
Standard Transistor Antenna Rod



Dimensions: ¾" x 9".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	List Price
2000	450	540-1650 KC	365 mmf.	$3.00

Miniature Transistor Antenna Rods



Dimensions: ¾" x 3¾".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	List Price
2001	550	540-1650 KC	365 mmf.	$2.75
2003	500	540-1650 KC	130 mmf.	2.75

Ferrite-Strip Transistor Antenna Rods

Dimensions: ¼" x ¾" x 3¾" **Tuning**

Cat. No.	Q @ 790 KC	Freq. Range	Cond. Max. Capacity	List Price
2004	500	540-1650 KC	365 mmf.	$2.75
2005	450	540-1650 KC	130 mmf.	2.75

Sub-Miniature Transistor Antenna Rods

Adjustable antenna coils with high Q ferrite cores.

Dimensions: ½"x2½". **Tuning**

Cat. No.	Q @ 790 KC	Freq. Range	Cond. Max. Capacity	List Price
2002	250	540-1650 KC	250-450 mmf.	$1.70
2007	220	540-1650 KC	100-250 mmf.	2.20

Sub-Miniature Transistor I.F. Transformers

To our knowledge the smallest I.F. transformers in existence. A high impedance, tapped primary winding coupled to a low impedance secondary provides optimum energy transfer between stages.

Dimensions: ⅜" sq. x ⅝" high.

Cat. No.	Freq.	Impedance	Use	List Price
9-C1	455 KC	25K— 600 Ohms	Input	$4.00
9-C2	455 KC	25K—1000 Ohms	Output	4.00

Miniature Transistor I.F. Transformers

Designed to have the proper impedance match when used with the transistors specified on our data sheets.
455 Kc type shown.

Dimensions: ½" sq. x ¾" high.

Cat. No.	Freq.	Impedance	Use	List Price
2031	455 KC	10K— 600 Ohms	Input	$3.50
2032	455 KC	10K—1000 Ohms	Output	3.50
2041	455 KC	25K— 600 Ohms	Input	3.50
2042	455 KC	25K—1000 Ohms	Output	3.50
2051	455 KC	100K—1000 Ohms	Input	3.50

Shielded Sub-Miniature Transistor Oscillator

A shielded oscillator coil designed for use in a converter circuit employing only one transistor for both the oscillator and mixer.

Dimensions: ⅜" sq. x ⅝" high.

Cat. No.	Tuning Cond. Max. Capacity	I.F. Freq.	Use	List Price
2021	78	455 KC	Osc.	$3.50

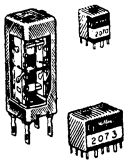
Unshielded Miniature Transistor Oscillators

The 2020 oscillator coil (Revised 5-lug) is designed for use in a converter oscillator circuit. The 2023 oscillator coil (6-lug) is for use where a separate transistor is used for the oscillator and another transistor for the mixer.

Dimensions: ⅜" x 1" high.

Cat. No.	Cond. Max. Capacity	I.F. Freq.	List Price
2020	365 mmf.	455 KC	$2.50
2022	78 mmf.	455 KC	2.50
2023	365 mmf.	455 KC	2.50

F.M. Transistor I.F. Transformers



This series of high quality I.F., Discriminator, and Ratio Detector transformers makes it possible for the first time to construct a completely self-contained battery operated F.M. receiver which compares favorably with its vacuum tube counterpart.

Dimensions: ¾" sq. x 2" high.

Cat.	Freq.	Use	Price
1463-T1	10.7 Mc First I.F.	Input	$3.80
1463-T2	10.7 Mc Second I.F.	Instage	3.95
1463-T3	10.7 Mc Third I.F.	Output	3.95
1464-TD	10.7 Mc Discriminator		4.25
1465-TRD	10.7 Mc Ratio Detector		8.00

Printed Circuit Style

1463-T1-PC	10.7 Mc First I.F.	Input	3.80
1463-T2-PC	10.7 Mc Second I.F.	Instage	3.95
1463-T3-PC	10.7 Mc Third I.F.	Output	3.95
1465-TRDPC	10.7 Mc Ratio Detector		8.00

Sub-Miniature Style

I.F. Trans. Dimensions: 13/32" sq. x ½" high
Ratio Det. Dimensions: 13/32" x ¾" x ½" high

2070	10.7 Mc	First I.F.	Input	$3.75
2071	10.7 Mc	Second I.F.	Instage	3.75
2072	10.7 Mc	Third I.F.	Output	3.75
2073	10.7 Mc	Ratio Detector		4.50

Micro Miniature Transistor I.F. Trans. & Matching Oscillator

Construction is ultra small, rugged and mechanically stable. Tuning being effected by means of a sturdy threaded cup core which engages a threaded coil support. Dimensions: 9/32" sq. x 15/32" high

Cat. No.	Freq.	Impedance	Use	List Price
2061	455 kc	50k - 800 ohms	Input	$3.50
2062	455 kc	30k - 500 ohms	Instage	3.50
2063	455 kc	20k - 5k ohms	Output	3.50
2060	Oscillator (Tuning cap. 78 to 100 mmfd, max.)			3.50

Mini Miniature Transistor I.F. Trans. & Matching Oscillator

Similar in style to the Micro Miniature, these transformers are a little larger in size, with built-in capacitors for higher available Q.

Dimensions 13/32" sq. x ½" high

Cat. No.	Freq.	Impedance	Use	List Price
2066	455 kc	50k - 800 ohms	Input	$3.50
2067	455 kc	30k - 500 ohms	Instage	3.50
2068	455 kc	20k - 5k ohms	Output	3.50
2065	Oscillator (Tuning cap. 78 to 110 mmfd, max.)			3.50

Sub-Miniature Variable Condenser

Shaft Dia. ¼" x ½" Long

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mmf—117.1 mmf
Osc. Cap. (9 Plates) 4.2 mmf—74.4 mmf
Effective trimmer range: 1.8—8 mmf

Cat.	Sections	Dimensions	Price
2109	2	1⅛"x1⅛"x¾"	$3.50

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles, Calif.

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Trade Discount Applies To List Prices Only

CHOKES AND ELASTICABLE

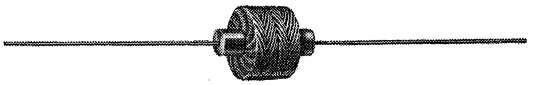
NATIONAL RADIO COMPANY, INC.
MELROSE 76, MASS.
A WHOLLY OWNED SUBSIDIARY OF NATIONAL COMPANY, INC.

CHOKES, COILS AND FILTERS

R-45 SERIES

The R-45 series is a new family of ferrite bead chokes designed for use as filament chokes, parasitic suppressors, and series elements of low-pass filters for frequencies from 5 to 200 mc. They are insulated with an impregnated fiberglass sleeving. The chokes will handle 2 amperes of filament current with a voltage drop of less than 0.02 volts. Performance will be unaffected by extremes of humidity and temperatures up to the Curie point of 125°C.

R-40 SERIES



These ferrite-core chokes have extremely high Q for small size. They are primarily intended for use in networks and filters at frequencies from 50 kc to 1500 kc. Additional uses include application as resonant elements in IF or RF circuits. Fungus-proof varnish impregnation per MIL-V-173A specification provides maximum protection against tropical conditions. Temperature coefficient is less than 550 ppm per degree C for coils with inductance value of less than 1 mh, and less than 250 ppm per degree C for coils with an inductance value of 1 mh or larger.

R-25 SERIES

These MIL-inductance chokes can be used in high frequency circuits, and as filament chokes and peaking coils. Inductance values are in accordance with MIL-C15305A. Chokes from 1.1 uh to 15.0 uh have phenolic forms per MIL-P-14; chokes from 20.0 uh to 120.0 uh have powdered-iron forms. Windings are impregnated with fungus-resistant varnish per MIL-V-173A. Inductance values are stamped in blue on white vinyl sleeve.

R-33, R-50, AND R-60 SERIES

These RF coils are wound on molded phenolic forms per MIL-P-14 and coated with a tough, fungus-resistant varnish. The R50-10 choke is wound on a powdered-iron coil form instead of phenolic.

R-33 (medium current capacity, pie wound)
R-50 (low current capacity, pie wound)
R-60 (high current capacity, lateral layer wound)

R-45 EPOXY ENCAPSULATED

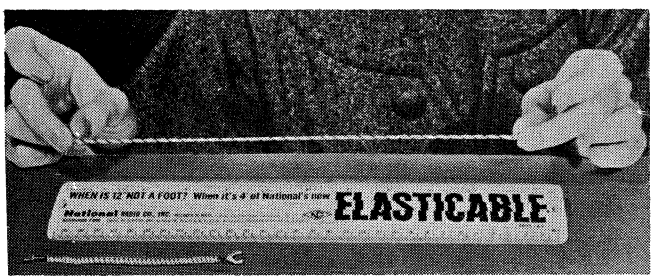
R-45 Epoxy Encapsulated choke series . . . completely waterproof, will meet many MIL type requirements. At 5 megacycles will cover values of .32 uh, .65 uh, 1.0 uh and 1.3 uh. Different values depend on frequencies used. Request specific specification sheet.

Note: Very shortly all chokes in the National family of chokes will be available in encapsulated form.

National features a full line of stock choke items and will wind chokes to your specifications on any standard form. The National Radio Co. engineering department is prepared to quote on your custom filter requirements.

ELASTICABLE STRETCHES UP TO 3 TIMES ITS RELAXED LENGTH

An elastic type wire, made in single and multiple conductors. It will stretch up to three times its relaxed length with stable electrical properties. This unique elastic characteristic in a straight (not coiled or spring loaded) extra flexible wire gives the designer a new material to further design concepts and assist him in solving previously impossible design problems. Three commercial and two military types are available as stock items. These types can be varied to meet a variety of custom requirements.



WRITE FOR SPECIFICATION SHEETS

SAMPLE SPECIFICATIONS OF TWO TYPES ARE AS FOLLOWS:

TYPE 1.

Core	natural rubber
Insulation	Nylon (braided)
Conductor	copper magnet wire
Diameter	1/8 in approx.
Resistance	0.2 ohm per ft. approx.
Operating temperature range	—25C to +85C
Elongation single conductor	300%
Elongation multiple conductor	275%

TYPE 3.

Core	natural rubber
Insulation	Nylon (braided)
Conductor	copper tinsel
Diameter	1/16 in. approx.
Resistance	4.0 ohms per ft. approx.
Operating temperature range	—25C to +85C
Elongation single conductor	325%
Elongation multiple conductor	300%

National Radio Company is providing many companies with complete assemblies incorporating special terminations, molded parts and custom mechanical configurations. The ELASTICABLE Application Engineering group is available to discuss electric and mechanical characteristics, applications and terminations.

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NORTH HILLS ELECTRONICS, INC.

GLEN COVE, LONG ISLAND, NEW YORK

ADJUSTABLE COILS and COIL FORMS

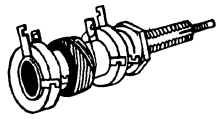
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- *All metal parts plated to MIL specifications.*
- *Built-in "perma-tune" tension for smooth "stay-put" tuning.*
- *Litz wound higher inductance ranges.*
- *Two extra terminals for tie points or additional winding.*
- *Moisture and fungus resistant impregnant per MIL-V-173-A.*
- *Color coded ranges.*

COILS ON CERAMIC FORM PER JAN-I-10

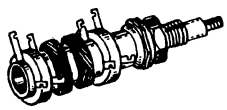
Subminiature 1100 Series



- 5/8" above mounting surface
- Mounting — 11/64" hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9- 1.4	45 @ 7.9 mc
1100-B	1.4- 1.9	50 @ 7.9 mc
1100-C	1.9- 2.6	55 @ 7.9 mc
1100-D	2.6- 3.7	65 @ 7.9 mc
1100-E	3.7- 5.5	65 @ 7.9 mc
1100-F	5.5- 7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

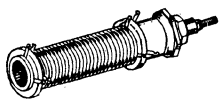
Miniature 1000 Series



- 7/8" above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0- 1.6	70 @ 7.9 mc
1000-B	1.6- 2.7	80 @ 7.9 mc
1000-C	2.7- 4.5	85 @ 7.9 mc
1000-D	4.5- 8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series

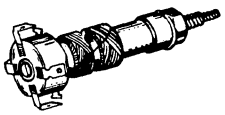


- 1 3/4" above mounting surface
- Mounting — 1/4" hole
- For low power tansmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7- 1.1	130 @ 20 mc
1300-E	1.1- 1.7	150 @ 18 mc
1300-F	1.7- 2.7	150 @ 16 mc
1300-G	2.7- 4.5	150 @ 14 mc
1300-H	4.5- 6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

COILS ON MICA FILLED FORMS PER MIL-P-14-D

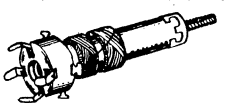
Standard 120 Series



- 1 1/4" above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

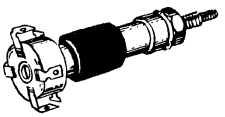
Printed Circuit P-120 Series



- Snaps into single 0.4" hole fo dip soldering
- 1 1/4" long

Part No.	Nominal Microhenries	Average Q
P-120-A	2-3	75 @ 7.9 mc
P-120-B	3-5	85 @ 7.9 mc
P-120-C	5-9	90 @ 7.9 mc
P-120-D	9-18	75 @ 7.9 mc
P-120-E	18-36	75 @ 2.5 mc
P-120-F	36-64	75 @ 2.5 mc
P-120-G	64-105	90 @ 2.5 mc
P-120-H	105-200	90 @ 2.5 mc
P-120-I	200-500	90 @ .79 mc
P-120-J	500-1000	90 @ .79 mc
P-120-K	1000-2000	70 @ .79 mc

Shielded, Encapsulated SE-120

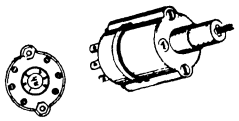


- Magnetic shielding cup
- Ruggedized construction
- 1 1/4" long

Part No.	Nominal Microhenries	Average Q
SE-120-A	2-3	75 @ 7.9 mc
SE-120-B	3-5	85 @ 7.9 mc
SE-120-C	5-9	90 @ 7.9 mc
SE-120-D	9-18	75 @ 7.9 mc
SE-120-E	18-36	75 @ 2.5 mc
SE-120-F	36-64	75 @ 2.5 mc
SE-120-G	64-105	90 @ 2.5 mc
SE-120-H	105-200	90 @ 2.5 mc
SE-120-I	200-500	90 @ .79 mc
SE-120-J	500-1000	90 @ .79 mc

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series

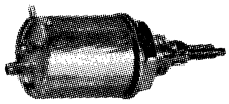


- 1 1/2" above mounting surface
- Mounting Centers — Two #6 holes spaced 1 1/4"
- Magnetically shielded—High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	120 @ 200 kc
700-B	3-7	120 @ 150 kc
700-C	7-13	110 @ 100 kc
700-D	13-25	110 @ 60 kc
700-E	25-50	110 @ 40 kc
700-F	50-100	125 @ 20 kc
700-G	100-250	125 @ 20 kc
700-H	250-500	125 @ 5 kc
700-I	500-1000	125 @ 5 kc

SHIELDED COILS

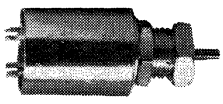
900 Series



- 7/16" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5- 0.8	80 @ 25 mc
900-B	0.8- 1.3	70 @ 18 mc
900-C	1.3- 2.0	60 @ 15 mc
900-D	2.0- 4.0	70 @ 8 mc
900-E	4.0- 7.0	70 @ 5 mc
900-F	7.0- 12.0	70 @ 4 mc
900-G	12.0- 20.0	70 @ 3 mc
900-H	20.0- 35.0	70 @ 2.5 mc
900-I	35.0- 60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series



- 5/8" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
1500-A	.100- .175	80 @ 790 kc
1500-B	.175- .300	80 @ 790 kc
1500-C	.300- .500	80 @ 790 kc
1500-D	.500- .800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	50 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See SECTION 5600 for Wideband RF Transformers.

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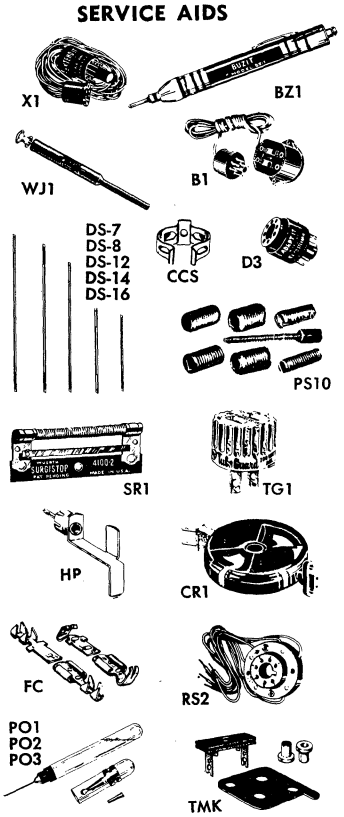
WORKMAN TV Products, Inc. REPLACEMENT COMPONENTS

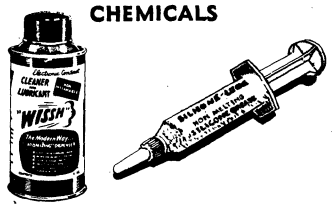
• SARASOTA FLORIDA •

SERVICE AIDS



CAT. NO.	DESCRIPTION	LIST
X1	Extends Button Base	2.15
X2	Extends Shell Base	2.15
X9	Xtend-Shaft	.30
D1	Conv. Stand. to Button	2.63
D2	Conv. Stand to Shell	2.63
D3	Conv. Shell to Button	2.63
D4	Conv. Button to Shell	2.63
DS-7	Align. Tool 7" x 1/8"	1.25
DS-8	Align. Tool 8" x 3/16"	1.25
DS-12	Align. Tool 12" x 1/8"	1.40
DS-14	Align. Tool 14' x 3/16"	1.65
DS-16	Align. Tool 16" x 1/8"	1.65
TG1	Tube Guard	2.00
SR1	Surgistor, 300 Watt	1.95
10V	Boost-A-Volt	9.00
WJ1	Wissh Jet	6.25
NT	Hypodermic Needle	.70
B1	Bosipt	4.90
FC	Faston Connectors	.65
TMK	Power Trans. Mtg. Kit	.95
TMS	Dia. Base Trans. Socket	.48
GE12	GE No. 12 Lamp	.15
PS10	Iron Cores	.95
RS1	110° Button Socket	1.00
RS2	110° Shell Socket	1.00
RS3	Standard Socket	1.00
BZ1	Buzit	13.50
HP	Handi Plug	.25
CCS	Mounting Clips	.45
CCL	Mounting Clips	.45
FA	C Type Fuse Adaptor	1.00
SMA	Speed-Mo Applicator	4.25
PO1	Precision Oiler	1.10
PO2	Precision Graphiter	1.10
PO3	Precision Greaser	1.10
PF	Perma Flo Filter	1.60
TH4	Touch 'n' Hold	3.25
484	Tuner Shaft	1.00
CR1	Reel-It Cheater Cord	1.95
CR2	Reel-It Cheater Ext.	1.95
CR3	Reel-It A.C. Extension	1.95
SO1	P't'd Circuit Solder	.56
SO2	Silver Solder	.56
SO3	Ribbon Solder	.42

CHEMICALS

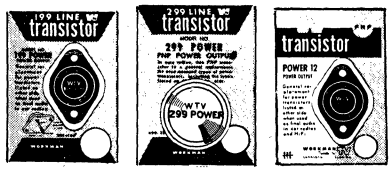


CAT. NO.	DESCRIPTION	LIST
H6	"Wissh" 6 oz. Cleaner	1.65
H6A	"Wissh" Aerosol	2.05
H14	"Wissh" 16 oz. Cleaner	3.25
H32	"Wissh" Cleaner Kit	5.42
S6	Super "Wissh"	3.50
ET1	Ease-It	1.65
SG6	Silicone-Lube	1.25
HC	Speaker Conditioner	.95

SUPER BRIGHTENERS

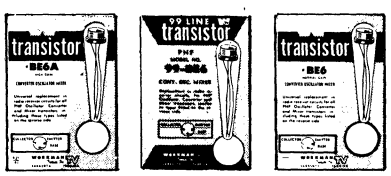
CAT. NO.	DESCRIPTION	LIST
W2	Standard Parallel	2.65
W3	Standard Series	2.90
W4	Standard Isolation	3.70
W5	110° Button Parallel	3.90
W6	110° Button Series	3.90
W7	110° Shell Parallel	3.90
W8	110° Shell Series	3.90
W9	Universal Standard	4.15
W10	110° Button Series 3½v.	3.50
W11	110° Shell Series 3½v.	3.50
W12	110° Button Universal	4.50
P5	Standard Parallel	1.25
P7	Standard Universal	2.40

POWER TRANSISTORS



CAT. NO.	DESCRIPTION	LIST
P-99	P N P Output	1.65
P-199	P N P Output	2.32
P-299	P N P Output	4.98
P-12	P N P Output	5.30
P-25	P N P Output	6.40
P-40	P N P Output	8.75
P-60	P N P Output	7.50
P-80	P N P Output	10.00

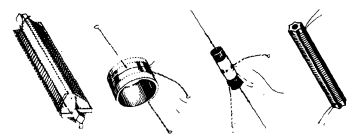
TRANSISTORS



CAT. NO.	DESCRIPTION	LIST
99BE6	P N P Conv. Osc.	1.65
99BA6	P N P I.F. Amplifier	1.65
99AT6	P N P Audio Driver	1.65
99B5	P N P Audio Output	1.65
99RK6	P N P 6 Pack	7.10

CAT. NO.	DESCRIPTION	LIST
BE6	P N P Conv. Osc.	3.75
BA6	P N P I.F. Amplifier	3.40
AT6	P N P Audio Driver	3.25
B5	P N P Audio Output	3.25
BE6A	P N P Conv. Osc.	4.35
BA6A	P N P I.F. Amplifier	3.75
AT6A	P N P Audio Driver	3.60
B5A	P N P Audio Output	3.75
15V-MG	P N P 15 v. - medium gain	1.75
20V-LG	P N P 20 v. - low gain	2.10
20V-MG	P N P 20 v. - medium gain	2.60
20V-HG	P N P 20 v. - high gain	3.25
30V-LG	P N P 30 v. - low gain	3.50
30V-MG	P N P 30 v. - medium gain	4.70
30V-HG	P N P 30 v. - high gain	5.35
3MC	P N P Max. Freq. 3MC	5.00
6MC	P N P Max. Freq. 6MC	7.95
12MC	P N P Max. Freq. 12 MC	12.00
20MC	P N P Max. Freq. 20 MC	15.80
SA7	N P N Conv. Osc.	5.20
SK7	N P N I.F. Amplifier	4.70
SQ7	N P N Gn'l P. - Audio Freq.	4.50
S500B	500 Ma. Silicon Rect.	1.85
S700	750 Ma. Silicon Rect.	2.75

ANTENNA COILS



Model No.	Description	List Price
T 400-2	Pair Ant. Coils RCA, Admiral	$2.00
T 401-2	Pair Ant. Coils Philco	2.40
T 402-2	Pair Ant. Coils Motorola	1.50
T 403-2	Pair Ant. Coils Philco	2.00
T 404-2	Pair Ant. Coils RCA	2.00
T 405-2	Pair Ant. Coils RCA	2.00
T 406-2	Pair Ant. Coils RCA	2.00
T-407-1	Antenna Coil GE, Magnavox	1.25
T 408-1	Antenna Coil GE	1.60
T 409-1	Antenna Coil GE	1.45
T 410-1	Antenna Coil GE	2.35
T 411-1	Antenna Coil GE	2.00
T 412-1	Antenna Coil GE	1.90
T 413-1	Antenna Coil GE	1.90
T 414-1	Antenna Coil GE, Westinghouse	2.15
T 415-2	Pair Ant. Coils Philco	3.60
T 418-1	Antenna Coil Philco, GE	2.95
T 419-2	Pair Ant. Coils Philco	3.40
T 420-2	Pair Ant. Coils Philco	3.70
T 421-2	Pair Ant. Coils Philco	3.70
T 422-2	Pair Ant. Coils Philco	3.70
T 423-2	Pair Ant. Coils Philco	3.40
T 424-1	Antenna Coil Admiral	2.55
T 426-1	Antenna Coil Westinghouse	2.15
T 428-1	Antenna Coil GE	2.15
T 431-1	Antenna Coil GE, Philco	2.95
T 438-1	Antenna Coil Admiral	1.45
T 441-1	Antenna Coil Admiral	2.95
T 443-1	Antenna Coil Philco, GE	2.95
T 445-1	Antenna Coil Philco	1.80
T 446-1	Antenna Coil Admiral	2.95
T 455-1	Antenna Coil GE	4.20

I.F. TRANSFORMERS

Model No.	Description	List Price
T 604-2	262 KC Input I.F. Trans.	$3.70
T 606-2	262 KC Output I.F. Trans.	3.70
T 607-2	455 KC Input I.F. Trans.	3.70
T 609-2	455 KC Output I.F. Trans.	3.70
T 611-2	455 KC Output I.F. Battery	3.70
T 646-2	455 KC Input I.F. Trans. AC-DC	3.70
T 655-2	262 KC Input I.F. Trans.	3.70
T 656-2	262 KC Output I.F. Trans.	3.70
T 657-2	455 KC Output I.F. Trans.	3.70
T 664-2	455 KC Input I.F. Trans. Batt.	3.70

Trade Discount Applies to List Prices Only
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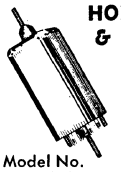
WORKMAN TV Products, Inc. — REPLACEMENT COMPONENTS

• SARASOTA, FLORIDA •

HORIZONTAL OSCILLATOR & SYNC. CONTROL COILS

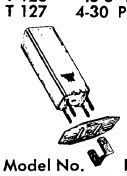


Model No.	Item	List Price
T 100	Osc. & A.F.C. Discrim. Trans.	$3.10
T 101	Osc. and Sync. Control Coil	2.50
T 102	Osc. and Sync. Stabilizer Coil	3.25
T 103	Sync. Stabilizer Coil 16-42 mh	2.50
T 104	Sync. Stabilizer 16-42 mh	2.50
T 105	Horiz. Osc. 12-35 mh	2.50
T 106	Horiz. Osc. 60-130 mh	2.50

LINEARITY & WIDTH CONTROLS

Model No.	Inductance Range Millihenries	List Price
T 107	1.5-10	1.90
T 108	2.0-18	1.90
T 109	3.2-9 (.17-1.31 AGC)	2.50
T 110	4-30	2.00
T 111	15-60	2.50
T 112	4.0-30 with AGC	2.75
T 113	.054-.5 Tapped	1.45
T 114	0.2-2 Tapped	1.75
T 115	0.5-.5 Tapped	1.75
T 116	.185-1	1.50
T 117	2.5-19 Parallel (.18-1.7 Series)	3.50
T 118	4-30 Parallel (.225-2.4 Series)	3.50
T 119	2.2-10 Tapped	2.25
T 120	45-215	2.75
T 121	9-24 (.19-1.1 AGC)	2.50
T 122	3.58 MC	5.00
T 123	4-30 (2.8-6.5 AGC)	2.75
T 124	.3-3	1.70
T 125	4.2-30 (.78-1.37 AGC)	2.50
T 126	.3-3 Tapped	1.75
T 127	4-30 Parallel (.080-.7 Series)	3.25

MINIATURE 44 MC PICTURE TRANS.



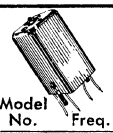
Model No.	Description	Trap	List Price
T 207	Converter I.F.		$2.75
T 208	44 MC First I.F.		2.75
T 209	42.5 MC Second I.F.	41.25 MC	2.40
T 210	45.5 MC Third I.F.	47.25 MC	2.90
T 211	44 MC Fourth I.F.		2.25

Exact Replacement for Original Equipment

Model No.	O.E.M. Part No.	List Price
T 277	72B 185-2 — ADMIRAL	$2.75
TB 233	72C 132-19 — ADMIRAL	1.95
	BENDIX	
TB 698	2090237-1	3.75
TB 699	2090237-2	3.75
TC 600	2090237-3	3.75
TB 681	2090237-4	3.75
TC 602	2090237-5	3.75
TC 603	2090239-1	3.50
TC 604	2090239-2	3.50
TB 680	2090239-3	3.50
	GENERAL ELECTRIC and HOTPOINT	
T 607A	RTL-143 and 163	2.70
T 608A	RTL-143 and 163	2.70
TB 684	RTL-172	2.90
T 258	RTD-026 (WT56x38)	4.95
T 259	RTD-025 (WT56x37)	4.15
T 260	RTD-020	4.95
T 237	RTD-024 (WT56x36)	4.75
	PHILCO	
TG 244	32-4735-1, 2	4.75
	WESTINGHOUSE	
TB 685	235V025 H-11. 2 (V 157661)	3.50

MIDGET I.F. TRANSFORMERS

Air Core Transformers

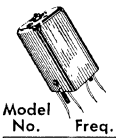


Model No.	Freq.	KC Range	Use	List Price
T 618	262	250-275	Input	$3.00
T 619	262	250-275	Half-Wave	3.00
T 620	455	450-475	Input	3.00
T 621	455	450-475	Interstage	3.00

Iron Core Transformers

Model No.	Freq.	KC Range	Use	List Price
T 616	455	450-475	Interstage	3.10
T 617	455	450-475	Half-Wave	3.10

UNIVERSAL I.F. TRANSFORMERS



Model No.	Freq.	KC Range	Use	List Price
T 622	262	250-275	Input	$2.85
T 623	262	250-275	Interstage	2.85
T 624	262	250-275	Output	2.85
T 625	455	450-475	Input	2.85
T 626	455	450-475	Interstage	2.85
T 627	455	450-475	Output	2.85

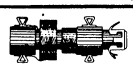
MINIATURE I.F. TRANSFORMERS

Model No.	Item		List Price
T 600	1500 KC	Input or Interstage	2.75
T 601	1500 KC	Output I.F. Trans.	2.75
T 602	1500 KC	Input or Interstage	2.75
T 603	1500 KC	Output I.F. Trans.	2.75
T 604	262 KC	Input I.F. Trans.	2.90
T 605	262 KC	Output I.F. Trans.	2.90
T 606	262 KC	Output I.F. Trans.	3.25
T 607	455 KC	Input I.F. Trans.	2.70
T 608	455 KC	Output I.F. Trans.	2.70
T 609	455 KC	Output I.F. Trans.	2.85
T 610	455 KC	Input I.F. Battery	2.70
T 611	455 KC	Output I.F. Battery	2.70
T 612	455 KC	Input I.F. AC-DC	2.70
T 613	455 KC	Output I.F. AC-DC	2.70
T 633	10.7 MC	Input or Interstage	3.25
T 634	10.7 MC	Discriminator	3.75
T 635	10.7 MC	Ratio Detector	3.90
TB 683	455 KC	Tapped Pri. I.F. Trans.	3.25
TB 692	10.7 MC	Disc. 900 KC P/P	3.75
TB 693	10.7 MC	Ratio Det. 800 KC P/P	3.90
T 233	21-25 MC	Bifilar I.F. Shielded	2.50
T 234	25-29 MC	Bifilar I.F. Shielded	2.50
T 235	4.5 MC	Input or Interstage	3.75
T 236	4.5 MC	Discriminator	3.75
T 237	4.5 MC	Ratio Detector	4.75
T 247	Sound Trap Shielded	4.5 MC	1.90
T 248	Quadrature Coil Sh'ld.	4.5 MC	1.95

MINIATURE PRINTED CIRCUIT I.F. TRANS.

Model No.	Item		List Price
T 255	4.5 MC	Input or Interstage	3.30
T 256	4.5 MC	Discriminator Trans.	3.75
T 257	4.5 MC	Ratio Detector Trans.	3.75
T 258	4.5 MC	Ratio Detector Trans.	4.95
T 259	4.5 MC	Ratio Detector Trans.	4.15
T 260	4.5 MC	Ratio Detector Trans.	4.95
T 261	TV 44 MC	First I.F. Trans. Trap	3.10
T 262	TV 42.5 MC	Second I.F. 41.25 MC	2.80
T 263	TV 45.5 MC	Third I.F. 47.25 MC	3.10
T 264	TV 44 MC	Fourth I.F Trans.	2.75
T 265	TV 44 MC	Converter I. F. Trans.	3.10
T 614	455 KC	Input I.F. Trans.	2.75
T 615	455 KC	Output I.F. Trans.	2.75
T 646	455 KC	Input I.F. Trans. AC-DC	2.75
T 647	455 KC	Output I.F. Trans. AC-DC	2.75
T 654	10.7 MC	Input or Interstage	3.25
T 655	262 KC	Input I.F. Trans.	2.85
T 656	262 KC	Output I.F. Trans.	3.00
T 657	455 KC	Output I.F. Trans.	2.90
T 658	10.7 MC	Discriminator Trans.	3.75
T 659	10.7 MC	Ratio Detector Trans.	3.90
T 661	262 KC	Output I.F. Trans.	2.85
T 664	455 KC	Input I.F. Trans. Battery	2.75
T 665	455 KC	Output I.F. Trans. Battery	2.75

MINIATURE ADJUST R.F. COILS



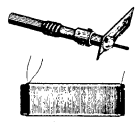
Model No.	Use	Freq. Range	List Price
T 500	Antenna Stage	540-1600 KC	1.75
T 501	R.F. Stage	540-1600 KC	1.75
T 502	Oscillator Stage	540-1600 KC	1.75
T 503	Oscillator Stage capacity coupled type	540-1600 KC	1.75

UNIVERSAL ADJUST OSCILLATOR COIL

Model No.	Use	Freq. Range	List Price
T 504	Oscillator Stage	R.F. 540-1700 KC	2.40
T 505	Oscillator Stage	R.F. 540-1600 KC	2.40
T 509	Oscillator Stage	I.F. 262 KC	1.30
T 510	Oscillator Stage	I.F. 455 KC	1.30
T 511	Oscillator Stage	I.F. 262 KC	1.30
T 512	Oscillator Stage	I.F. 455 KC	1.30
T 514	Oscillator Stage	I.F. 455 KC	2.50

HIGH-Q-FERRITE ANTENNA COIL

BROADCAST BAND

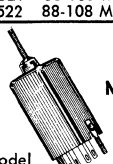


Model No.	Inductance uh	Max. Cap. uuf	List Price
T523	240	365	2.75
T524	700	125	2.75
T525	667	123	2.75
T526	35-300	300-500	1.70
T527	200-900	100-365	2.20
T528	240	365	2.75
T529	700	125	2.75
T530	667	123	3.00
T531	880	98	3.00
T532	240	365	3.00
T533		340-460	1.40

ADJUSTABLE FM R.F. COILS

Model No.	Item	List Price
T 520	88-108 MC Antenna Coil	$1.85
T 521	88-108 MC R.F. Coil	1.85
T 522	88-108 MC Osc. Coil (10.7 MC I.F.)	1.85

MINIATURE HI-Q COILS



Model No.	Use	Freq. Range	List Price
T 506	Antenna Stage	535-1700 kc	$2.50
T 507	R.F. Stage	535-1700 kc	2.50
T 508	Osc. Stage	455KC-.0004 Pad	2.40
T518	Antenna Stage	455KC IF	3.50

ISSUE 4-61

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WORKMAN TV Products, Inc. REPLACEMENT COMPONENTS

• SARASOTA, FLORIDA •

R.F. CHOKES WITH AXIAL LEADS

Phenolic Form Single Layer Windings

Model No.	uh	Ohms	Ma	List Price
T 956	0.1	.01	300	$ .65
T 976	0.15	.012	300	.65
T 957	0.22	.017	300	.65
TA 811	0.33	.019	300	.65
T 958	0.47	.022	300	.65
T 803	0.68	.03	300	2.10
TA 812	0.82	.035	300	.65
T 855	1.	.05	300	.65
T 856	1.5	.08	300	.65
T 857	2.4	.16	300	.65
T 858	3.9	.5	300	.65
T 959	5.5	.69	300	.70
T 859	6.2	.75	300	.70
T 960	8.2	1.12	300	.70
T 860	10	1.5	200	.70

Iron Core Form Single Layer Windings

Model No.	uh	Ohms	Ma	List Price
T 861	10	.06	300	$ .75
T 862	15	.12	300	.75
T 863	24	.28	300	.80
T 864	39	.65	300	.80
T 962	55	.92	300	.85
T 865	62	1.0	300	.85
TA 813	82	1.6	300	.85
T 866	100	2.0	200	.85

Phenolic Form 3 Section Windings

Model No.	mh	Ohms	Ma	List Price
T 867	0.1	4.1	125	$ .85
T 868	0.15	5	125	.85
T 869	0.24	6.6	125	.85
T 870	0.39	8.7	125	.95
T 871	0.62	11	125	.95
T 872	0.75	13	125	.95
T 873	1.0	15	125	.95

Iron Core Form 3-Section Windings

Model No.	mh	Ohms	Ma	List Price
T 874	1	7	125	$1.00
T 875	1.5	9	125	1.05
T 876	2.4	12	125	1.15
T 877	3.9	17	125	1.25
T 802	5.5	22	125	2.10
T 878	6.2	33	100	1.40
TA 814	8.2	45	100	1.70
T 879	10	47	50	1.95

Ferrite Core R.F. Chokes

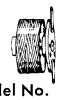
Model No.	mh	Ohms	Ma	List Price
T 880	2.5	8.3	200	$1.25
T 881	5	13.5	200	1.40
T 882	10	28	125	1.65
T 883	25	70	75	1.90
T 884	50	110	75	2.20

Adjustable Ceramic Forms and R.F. Coils

Model No.	Microhenries	List Price
T 978	245-475	$3.00

Multiple Pi Chokes

Model No.	Mh	Ohms	MA	List Price
T 839	.25	8	200	$ .95
T 840	.5	12	200	.95
T 841	1	17	200	.95
T 842	1.5	21	200	.95
T 843	2.5	28	200	.95
T 844	5	42	125	1.20
T 845	7.5	82	125	1.50
T 846	10	95	125	1.75
T 848	25	160	125	2.10



Unshielded Chokes Air Core Type

Model No.	MH	Ohms	MA	List Price
T 934	.25	8	125	$ .90
T 936	.75	17	125	.90
T 938	1.50	21	125	1.00
T 939	2.50	28	125	1.15
T 940	5.0	41	125	1.15
T 941	7.5	53	125	1.20
T 942	10.	67	125	1.25
T 943	12.5	74	125	1.30
T 944	15.0	83	125	1.35
T 945	20	100	125	1.45
T 946	30.0	120	100	1.50
T 948	60.	200	100	1.70
T 950	80.0	230	100	1.85

Iron Core Type

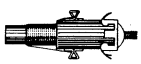
Model No.	MH	Ohms	MA	List Price
T 902	.5	6.8	125	$1.20
T 904	1.0	10.9	125	1.30
T 906	2.5	19.5	125	1.40
T 907	5.0	23.0	125	1.60
T 908	7.5	37.0	125	1.70
T 909	10.00	45.0	125	1.80
T 911	25.0	78.0	100	2.00
T 912	50.0	130.0	100	2.25
T 913	75.0	200.0	100	2.50
T 914	100.0	210.0	100	2.80
T 916	150.0	268.0	100	3.00

Shielded Chokes

Model No.	MH	Ohms	MA	List Price
T 887	.5	8.6	125	$1.75
T 889	1.0	11.5	125	1.85
T 891	2.5	22.0	125	1.90
T 892	5.0	31.0	125	2.00
T 893	7.5	42.0	125	2.10
T 894	10.0	47.0	125	2.25
T 896	25.0	100.0	125	2.50
T 897	50.0	160.0	100	2.60
T 898	75.0	222.0	100	2.85

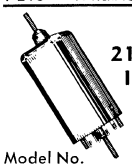
24 MC UNSHIELDED PICTURE I.F. TRANS

Model No.	Description	Trap	List Price
T 221	25.5 MC First I.F.	27.25 MC	$2.85
T 222	22 MC Second I.F.	21.2 MC	2.85
T 223	21-25 MC Cathode Trap		2.85
T 229	24.5 MC Video Det. I.F.		1.75
T 232	21-25 MC Bifilar Wound I.F.		1.75
T 232A	25-29 MC Bifilar Wound I.F.		1.75
T 233	21-25 MC Bifilar I.F. Shielded		2.50
T 234	25-29 MC Bifilar I.F. Shielded		2.50
T 227	21-25 MC Bifilar I.F.	20-23 MC	3.25
T 228	25-29 MC Bifilar I.F.	24-29 MC	3.25



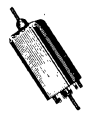
PICTURE I.F. INDUCTORS Unshielded

Model No.	Description	Freq.	List Price
T 212	3rd Pix I.F. Trans.	25.2 MC	$1.50
T 213	Video Det. I.F. Trans.	23.4 MC	1.50
T 214	Cathode Sound Trap	21.25 MC	2.25
T 215	Tunable Choke	21-25 MC	1.50
T 216	Tunable Choke	25-29 MC	1.45



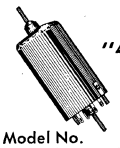
21.25 MC TELEVISION I.F. TRANSFORMERS

Model No.	Item	Freq.	List Price
T 200	21.8 MC Conv. I.F. Trans.	21.25MC	$3.10
T 201	25.3 MC 1st Pix I.F. Tr.	27.25MC	3.10
T 202	22.3 MC 2nd Pix I.F. Tr.	19.75MC	2.50
T 239	1st Sound I.F. Trans.	21.25MC	2.75
T 240	2nd Sound I.F. Trans.	21.25MC	2.75
T 241	Sound Disc. Trans.	21.25MC	3.30
T 243	Sound Ratio Det. Trans.	21.25MC	3.85
T 242	Sound Disc. Trans.	21.25MC	3.80
T 268	Sound Disc. Trans.	21.25MC	3.75



4.5 MC INTERCARRIER Sound Components

Model No.	Item	Freq.	List Price
T 244	Input or Inter. I.F. Trans.	4.5 MC	$3.00
T 245	Sound Disc. Trans.	4.5 MC	3.50
T 246	Sound Ratio Det. Trans.	4.5 MC	3.75
T 249	Sound Pick Off Coil	4.5 MC	1.50
T 250	Sound Trap Unshielded	4.5 MC	1.50
T 247	Sound Trap Shielded	4.5 MC	1.90
T 251	Quadrature Coil	4.5 MC	1.50
T 248	Quadrature Coil Sh'ld.	4.5 MC	1.95
T 253	Sound I.F. Trap	4.5 MC	2.25
T 254	Sound I.F.	4.5 MC	3.00
T 267	Sound Ratio Det.	4.5 MC	3.50
T 238	Sound Ratio Det. Trans.	4.5 MC	3.75

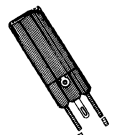


"40 MC" TV PICTURE I.F. TRANSFORMERS

Model No.	Description	Trap	List Price
T 203	Converter I.F. Trans.		$2.75
T 204	1st Pix I.F. Grid Trans.	39.25 MC	3.30
T 205	1st Pix I.F. Plate Trans.	41.25 MC	3.30
T 266	Video Det. with Diode	43.7 MC	7.50
	Unshielded		
T 217	3rd-4th & 5th I.F.	41.75-45.75 MC	$1.50
T 230	41-45 MC Converter I.F.		1.50
T 224	43.5 MC First I.F.	41.25 MC	2.95
T 225	45.5 MC Second I.F.	47.25 MC	2.95
T 226	40.0 MC Third I.F.	39.25 MC	2.95
T 231	44 MC Fourth I.F.		1.55
T 218	41-45 MC I.F. Single Winding		1.70
T 219	Hi-Q Trap	40-46 MC	1.55

VIDEO PEAKING COILS Filament Choke

Model No.	Use	—uhy	Resistor	List Price
T 855	Filament	0.8	None	$ .85
T 300	Peaking	20	None	.85
T 301	Peaking	36	None	.85
T 302	Peaking	60	None	.85
T 303	Peaking	73	None	.85
T 304	Peaking	93	None	.85
T 305	Peaking	100	None	.85
T 306	Peaking	120	22 K	.85
T 307	Peaking	120	None	.85
T 308	Peaking	155	None	.85
T 309	Peaking	180	39 K	.85
T 310	Peaking	180	None	.85
T 312	Peaking	200	None	.85
T 313	Peaking	250	22 K	.85
T 315	Peaking	250	None	.85
T 316	Peaking	275	None	.85
T 318	Peaking	300	None	.85
T 319	Peaking	330	None	.85
T 321	Peaking	375	None	.85
T 322	Peaking	420	None	.85
T 323	Peaking	470	None	.85
T 324	Peaking	500	None	.85
T 325	Peaking	550	None	.85
T 326	Peaking	600	None	.85
T 327	Peaking	700	None	.85
T 328	Peaking	800	None	.85
T 329	Peaking	950	None	.85



SUB-MINIATURE I.F. TRANS.

Model No.	Item		List Price
T 650	455 KC	Input I.F. Trans.	$2.80
T 651	455 KC	Output I.F. Trans.	2.80

Trade Discount Applies to List Prices Only

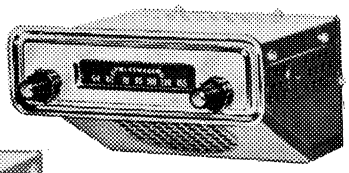
© U.C.P., Inc.

Excellent Tone, Volume, and Sensitivity!!

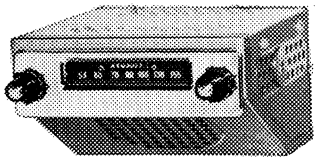
ALL-NEW ATR CUSTOMIZED Karadio

for... small import cars and compact U.S. cars

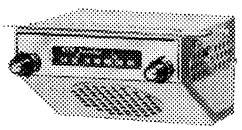
To fit in.....



• VOLKSWAGEN

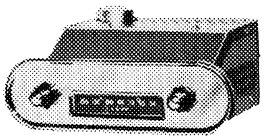


• RENAULT

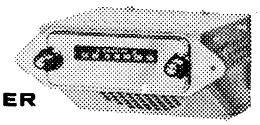


• ATR Karadio
(Illustrates Under-dash Mounting)

OTHER MODELS AVAILABLE



• LARK



• RAMBLER

The ATR Customized Karadio is a compact, new, self-contained airplane-styled radio for small import and compact American cars. This economical unit is perfect for all small cars because it can be easily and inexpensively installed in-dash or under-dash on most any make or model automobile—and its powerful 8-tube performance provides remarkable freedom from engine, static, and road noises. ATR Karadios are built to look and fit like original equipment with sleek, modern styling and solid, single-unit construction. They offer many customized features and provide highest quality fidelity—yet cost far less than comparably designed units. The ATR Customized Karadio comes complete with speaker and ready to install . . . and is the ideal way to add fun and value to your small import or American automobile!

FEATURES

• HAND WIRED — NO PRINTED CIRCUITRY

- Finger-tip control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Its powerful 6-tube circuit (actual 8-tube performance) outperforms most larger and bulkier sets!
- Is ATR Vibrator-operated!

For performance, dependability, and economy—the ATR Karadio is the finest, most versatile auto radio ever designed!

SPECIFICATIONS

- Large, easy-to-read illuminated dial.
- Extra large Alnico 5 Magnet PM Speaker.
- 6-Tube Superheterodyne Circuit (utilizes 2 dual purpose tubes) with 8-Tube Performance . . . pulls in those distant stations, with good tone and volume.
- Uses tube-type rectifier for longer uninterrupted service
- No battery polarity input problem.
- 3-Section Super "Magne-Wave" Tuner.
- Increased sensitivity assures more powerful reception at greater distances.
- 6 or 12 volt storage battery operation, low battery drain.

Neutral Gray-Tan, baked enamel finish. Overall size, 7" deep, 4" high, and 6½" wide. Net weight, radio set, 6 lbs.

For Your Convenience . . IN ONE COMPLETE PACKAGE.

ATR CUSTOMIZED Karadio SETS
COMPLETE WITH TRIM PLATE KITS AND SPEAKERS

KARADIO MODEL	Battery Voltage	Code No.	Shipping Weight	DEALER PRICE
BORGWARD	6-volt	BDAZR	8 lbs.	$35.67
BUICK				
1958-'54	12-volt	BKBYR	8 lbs.	35.67
† CHEVROLET				
1958	12-volt	CTCXR	8 lbs.	35.67
1956-'55	12-volt	CTDWR	8 lbs.	37.21
1954-'53	6-volt	CTEVR	8 lbs.	35.67
CORVAIR	12-volt	CRFUR	10 lbs.	40.39
DKW	6-volt	DWGTR	8 lbs.	35.67
ENGLISH FORD				
1957-'59 Consul, Zephyr, Zodiac	12-volt	EFHSR	9 lbs.	36.72
1960 Consul, Zephyr, Zodiac, Mark III	12-volt	EFIRR	9 lbs.	36.02
† FALCON	12-volt	FNJQR	8 lbs.	37.49
† FORD				
1960	12-volt	FDKPR	8 lbs.	37.49
1959-'57	12-volt	FDLOR	8 lbs.	35.67
1954	6-volt	FDMNR	8 lbs.	35.67
GOLIATH				
1959	6-volt	GHNMR	8 lbs.	35.67
1960	6-volt	GHOLR	8 lbs.	35.67
KARMEN-GHIA	6-volt	KGPKR	8 lbs.	36.23
LARK				
1959-'60	12-volt	LKQJR	8 lbs.	37.21
MERCURY				
1958-'57	12-volt	MYRIR	8 lbs.	35.67
MG-MGA	12-volt	MGSHR	8 lbs.	35.67
MORRIS-MINOR	12-volt	MMHSR	7 lbs.	33.57
OPEL	6-volt	OLTGR	8 lbs.	35.67
PEUGEOT	12-volt	PTUFR	8 lbs.	35.67
† PLYMOUTH				
1959	12-volt	PHVER	9 lbs.	37.63
1956	12-volt	PHWDR	8 lbs.	37.49
1955	6-volt	PHXCR	8 lbs.	37.49
RAMBLER				
1958-'59	12-volt	RRYBR	8 lbs.	36.02
RENAULT				
1955-'59	6-volt	RTAZR	8 lbs.	35.67
1955-'59	12-volt	RTBYR	8 lbs.	35.67
1959-'60				
SIMCA				
Aronde 1957-'59	12-volt	SACXR	8 lbs.	36.02
Elysec 1959-'60	12-volt	EEDWR	8 lbs.	36.02
VOLKSWAGEN				
1939-'57	6-volt	VNEVR	8 lbs.	37.21
1958-'60	6-volt	VNFUR	8 lbs.	36.23
VOLVO				
1957-'60	6-volt	VOGTR	8 lbs.	35.67
UNIVERSAL MODEL				
K-1279-12	12-volt	KOUBR	7 lbs.	$33.57
K-1279-6	6-volt	KOVCR	7 lbs.	33.57

1. All KARADIO Models above equipped with tone control, trim plate kit, and speaker. If antenna is desired, additional pricing would be as follows: List Price, $2.95; dealer price, $2.07. Antenna shipping weight—1 lb.
2. *When ordering radio sets, please be sure to specify make of car, as above, together with battery voltage and code number to avoid any possible mistakes. Auto radio sets when so ordered will automatically be supplied with the Model K-1279 or K-1280 KARADIO for the battery voltage system required depending on whether built-in speaker or external speaker is needed. Each radio will be packaged in one (1) carton complete wherever practical to facilitate handling.
3. †Requires filing or drilling mounting holes for tuning or volume control shafts necessary to mount radio in dash.
4. Net weight each radio above—6½ lbs. shipping weight as indicated above.

JOBBERS ATTENTION: See Page 630 in this ATR Section and Page 990 in Section 4000 for your Catalog Needs!

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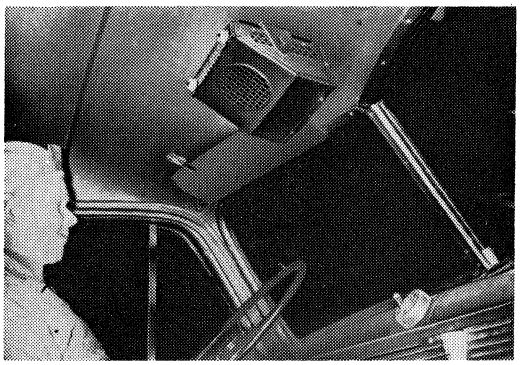
ATR TRUCK Karadio

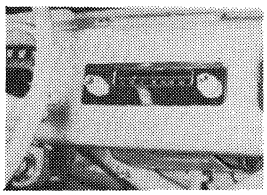
most versatile truck-auto-boat radio ever designed!



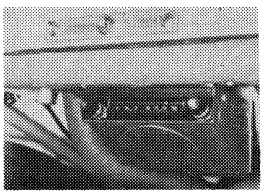
ATR TRUCK KARADIO is perfect for your truck! New self-contained, single-unit overhead airplane-style radio can be easily installed in the cab roof of *any* make or model truck, or if you prefer, in-dash or under-dash.

EASY TO INSTALL

1. Drill one 5/8" hole in ceiling.



2. Tighten antenna with lock-nut assembly and connect one wire.



The ATR KARADIO is ideal for small import cars or compact American cars! Unit is completely self-contained—extremely compact! Can be mounted in-dash or under-dash—wherever space permits!

FEATURES

- The in-line position of the speaker in this compact 6-pound radio permits more sound to reach the listener, so that the volume need not be turned up to the point of distortion even when driving fast.
- A fixed-length antenna (optional equipment) connected to the receiver by a 12-inch lead permits proper matching of the antenna to the receiver under all conditions, thus increasing the set's sensitivity.
- Finger-tip tone control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Its powerful 6-tube circuit (actual 8-tube performance) outperforms most larger and bulkier sets!
- The life of the radio has been increased considerably due to specially designed yoke-type flat-spring-mounting and excellent ventilation.
- The ATR Karadio is simple to service—merely take off two easily accessible thumb nuts and remove the entire set.
- The unit can be installed quickly and easily—drill ONE hole . . . connect ONE wire, and the set is ready for use.
- Overhead mounting adds extra safety to driving, because the driver never has to take his eyes off the road to tune or adjust the set.
- Yoke-type tilt bracket mount permits radio to be adjusted to curvature of any cab or as desired by driver.
- Sturdy lock-nut and washers hold radio set mount securely to cab top through 5/8" hole drilled in ceiling.
- 33" stainless steel antenna bends in any direction.
- Set is peaked to maximum efficiency with given length of aerial.
- Antenna lead only 12" in length.

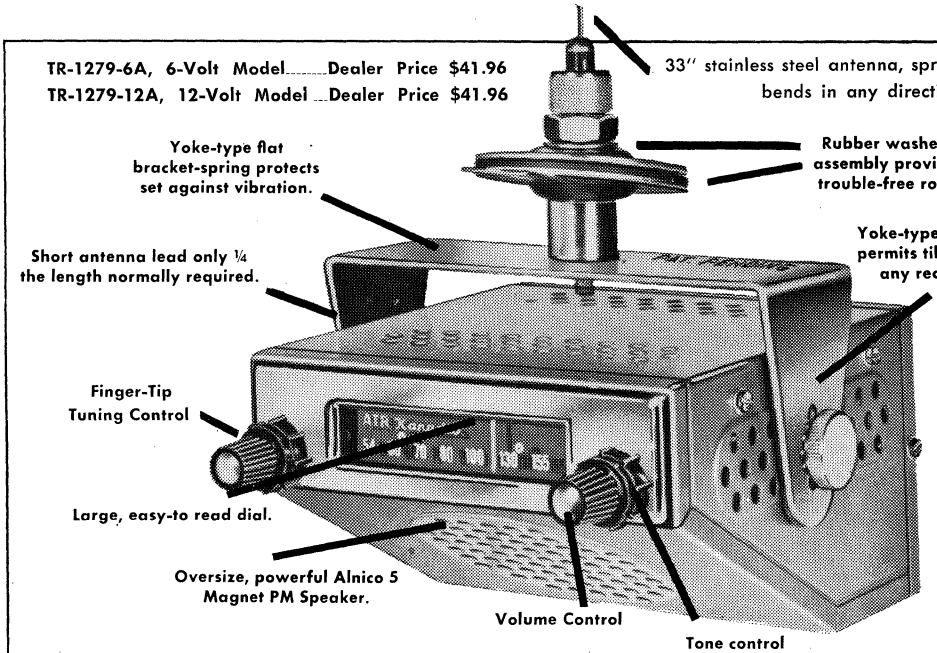
For performance, dependability, and economy—the ATR Karadio is the finest, most versatile truck-auto-boat radio ever designed!

SPECIFICATIONS

- Large, easy-to-read dial.
- Extra large Alnico 5 Magnet PM Speaker.
- 6-Tube Superheterodyne Circuit (utilizes 2 dual purpose tubes) with 8-Tube Performance . . . pulls in those distant stations.
- Uses tube-type rectifier for longer uninterrupted service.
- No battery polarity input problem.
- 3-Section Super "Magne-Wave" Tuner.
- Increased sensitivity assures more powerful reception at greater distances.
- 6 or 12 volt storage battery operation, low battery drain.

Neutral Gray-Tan, baked enamel finish. Overall size, 7" deep, 4" high, and 6½" wide. Net weight, radio set, 6 lbs., shipping weight, complete with antenna, 10½ pounds.

TR-1279-6A, 6-Volt Model.....Dealer Price $41.96
TR-1279-12A, 12-Volt Model ...Dealer Price $41.96



Hand Wired No Printed Circuitry

AVAILABLE WITH OR WITHOUT ANTENNA, AS DESIRED.

FOR 6-VOLT OR 12-VOLT BATTERY SYSTEM.

JOBBERS ATTENTION: See Page 630 in this ATR Section and Page 990 in Section 4000 for your Catalog Needs!

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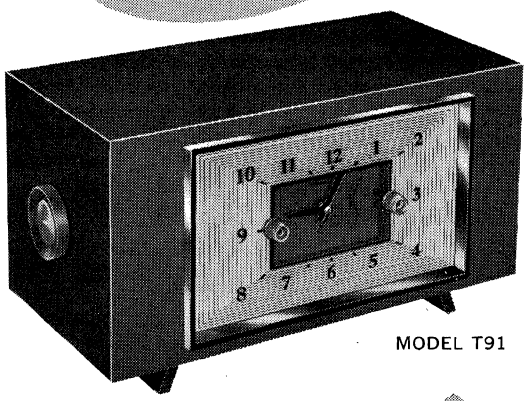
ATR Ultra Modern TABLE RADIOS



MODEL T91

CLOCK RADIO WITH BUILT-IN SALES APPEAL

Excitingly styled clock radio—trim, modern cabinet in ebony or ivory plastic . . . rich gold-color trim and clock numerals. Powerful 5-tubes AM radio chassis with built-in "Magna-Plate" antenna. Full-toned 4" PM speaker. Popular features include: *Musical Alarm*—radio turns on automatically at any pre-set time; *Sleep Selector*—lulls user to sleep, turns radio off automatically during 60 minute period after retiring; *Automatic Appliance Timer*—outlet on back of radio times any electric appliance automatically (up to 1100 watts). Cabinet 10½ in. wide, 5 in. high, 5⅛ in. deep. Wt. approx. 8 lbs. A WONDERFUL TONIC FOR NEW SALES . . . BIGGER PROFITS!

Model T-91 Clock Radio, Black ..... **Dealer Price $22.45**
Model T-91 Clock Radio, Ivory ..... **Dealer Price $23.15**

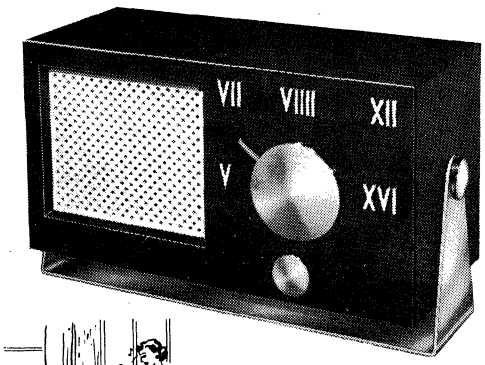
CLOCK SPECIFICATIONS ON MODEL T91 ONLY

- Genuine Telechron Movement . . . Accurate, Quiet, and Long-Lived.
- Self-Starting . . . Never Needs Winding, Oiling, or Regulating.
- Simplified Clock Controls for Radio and Sleep Switch.
- 1100 Watt Controlled Appliance Outlet.
- Automatic Buzzer Alarm Sounds Approximately 10 Minutes After Sleep-Switch Turns On Radio.
- Gold-Plated Bezel and Numerals on Large Bone-White Dial. Dial Size 4¼" x 7¼"
- UL Approved

GENERAL SPECIFICATIONS PERTAINING TO ALL ATR TABLE RADIOS

- **Advanced Super-heterodyne Circuit**—Increased selectivity and sensitivity with improved tube types . . . High audio output . . . Automatic volume control . . . two gang variable condenser.
- **Sealed Alnico 5 PM Dynamic Speaker**—Full range frequency . . . Power without distortion . . . Balanced tone quality.
- **Automatic Volume Control**—Maintains uniform volume on local and long distance reception.
- **Genuine Magna-Wand Ferrite Antenna**—Magna-Wand used in conjunction with Hi-Q Iron Core IF Coils for extreme sensitivity and selectivity . . . High signal-to-noise ratio.
- **Power Line Noise Filter**—Minimum interference from household appliances, motors, etc.
- **Wave Band:** 540 to 1600 KC
- **Tubes—**
  12BA6—456 KC IF Amplifier — 12BE6—Mixer
  12AV6—2nd detector-1st Audio — 35W4—Rectifier
  50C5—Audio Power Output
- **Power Supply:** 115 Volts, 60 Cycles AC
- **Cabinet**—Beautiful compression molded bakelite with shadow box effect dial and complementing golden knobs and trim. Resistant to heat.

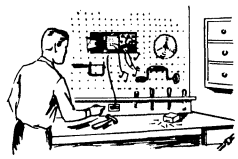
HAND WIRED — NO PRINTED CIRCUITRY ATR



MODEL T87

for Kitchen

for Den



for Workshop

ATR "TILT-A-STAND" RADIO MOUNT ON THE WALL—UNDER A SHELF—OR SET ON A TABLE PERFECT for every room in YOUR home

A NEW HIGH IN RADIO USEFULNESS . . . It rotates a full 360° on a beautiful golden pedestal. Pedestal is notched for screws, giving unlimited mounting possibilities. THE HANDIEST RADIO EVER! The gleaming molded bakelite cabinet is enhanced by a contrasting recessed grill and rich golden dial pointer and controls. Distinctive dial with large Roman numerals.

Excitingly new and different . . . radio is mounted on sturdy, gleaming brass-finished stand. Radio tilts up or down easily to any desired angle. Keyhole slot in stand makes this versatile performer easy to mount on wall out of way of small hands. Perfect for den, kitchen, or bedroom. Power-packed 5-tubes chassis. Built-in loop antenna. Automatic volume control. Full 4" Alnico 5 speaker Distinctive Roman numerals on dial. Size: 9½" W x 4" D x 5¾" H. AC/DC. U.L. approved. Weight 5½ lbs.

Model T-87 (Tilt-A-Stand), Black ..... **Dealer Price $17.47**
Model T-87 (Tilt-A-Stand), Red ..... **Dealer Price $18.10**

JOBBERS ATTENTION: See Page 630 in this ATR Section and Page 990 in Section 4000 for your Catalog Needs!

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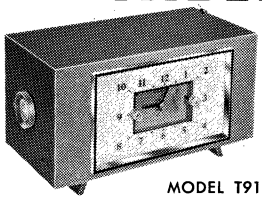
ATR ULTRA MODERN TABLE RADIOS



MODEL T91

- Genuine Telechron Movement . . . Accurate, Quiet, and Long-Lived.
- Self-Starting . . . Never Needs Winding, Oiling, or Regulating.

CLOCK SPECIFICATIONS ON MODEL T91 ONLY

- Simplified Clock Controls for Radio and Sleep Switch.
- 1100 Watt Controlled Appliance Outlet.
- Automatic Buzzer Alarm Sounds Approximately 10 Minutes After Sleep-Switch Turns On Radio.
- Gold-Plated Bezel and Numerals on Large Bone-White Dial. Dial Size 4¼"x 7¼".
- UL Approved.

CLOCK RADIO WITH BUILT-IN SALES APPEAL

Excitingly styled clock radio—trim, modern cabinet in ebony or ivory plastic . . . rich gold-color trim and clock numerals. Powerful 5 tubes including rectifier AM radio chassis with built-in "Magna-Plate" antenna. Full-toned 4" PM speaker. Popular features include: **Musical Alarm**—radio turns on automatically at any pre-set time; **Sleep Selector**—lulls user to sleep, turns radio off automatically during 60 minute period after retiring; **Automatic Appliance Timer**—outlet on back of radio times any electric appliance automatically (up to 1100 watts). Cabinet 10½ in. wide, 5 in. high, 5⅛ in. deep. Wt. approx. 8 lbs.

• HAND WIRED - - - NO PRINTED CIRCUITRY
ATR "TILT-A-STAND" RADIO. MOUNT ON THE WALL—UNDER A SHELF—OR SET ON A TABLE.
PERFECT for every room in YOUR home.

for Kitchen for Den for Workshop

MODEL T87

A NEW HIGH IN RADIO USEFULNESS . . . It rotates a full 360° on a beautiful golden pedestal. Pedestal is notched for screws, giving unlimited mounting possibilities. THE HANDIEST RADIO EVER! The gleaming molded bakelite cabinet is enhanced by a contrasting recessed grill and rich golden dial pointer and controls. Distinctive dial with large Roman numerals.

Excitingly new and different . . . radio is mounted on sturdy, gleaming brass-finish stand. Radio tilts up or down easily to any desired angle. Keyhole slot in stand makes this versatile performer easy to mount on wall out of way of small hands. Perfect for den, kitchen, or bedroom. Power-packed 5 tubes including rectifier chassis. Built-in loop antenna. Automatic volume control. Full 4" Alnico 5 speaker. Distinctive Roman numerals on dial. Size: 9½" W x 4" D x 5¾" H. AC/DC. UL. approved. Beautiful bakelite cabinet—Resists heat. Weight 5½ lbs.

GENERAL SPECIFICATIONS PERTAINING TO ALL ATR TABLE RADIOS

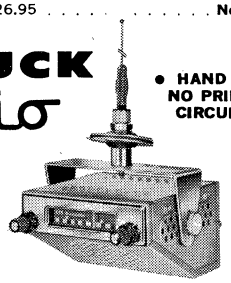
- **Advanced Super-heterodyne Circuit**
- **Sealed Alnico 5 PM Dynamic Speaker**
- **Automatic Volume Control**
- **Genuine Magna-Wand Ferrite Antenna**
- **Power Line Noise Filter**
- **Wave Band:** 540 to 1600 KC
- **Tubes:** 5 tubes including rectifier
- **Power Supply:** 115 volts, 60 cycles A.C.

Model T-91 Clock Radio, Black—List 29.95 . . . . . **Net 22.45**
Model T-91 Clock Radio, Ivory—List 31.95 . . . . . **Net 23.15**
Model T-87 (Tilt-A-Stand), Black—List 24.95 . . . . . **Net 17.47**
Model T-87 (Tilt-A-Stand), Red—List 26.95 . . . . . **Net 18.10**

ATR TRUCK Karadio

Excellent Tone, Volume and Sensitivity!!

- **EASY TO INSTALL**
- **POWERFUL 8-TUBE PERFORMANCE**
- **INCLUDES ANTENNA**
- **IDEAL FOR SMALL AND FOREIGN CARS**



• HAND WIRED NO PRINTED CIRCUITRY

IDEAL FOR SMALL CARS — PERFECT FOR TRUCKS — JUST THE THING FOR BOATS

Airplane Style Overhead Mounting under Cab Roof

Compact, yet powerful. Fits all trucks, station wagons, most cars and boats. Needs no expensive under-dash mounting . . . no cables or brackets . . . no ground wires. Just drill a ⅝-inch hole in roof and suspend the one-piece unit (aerial, chassis and speaker) in minutes. Watertight mounting assembly holds antenna upright. Yoke-type bracket lets you tilt radio to any angle. **Extra-sensitive radio has 6 tubes** (2 double-purpose), over-size Alnico 5 PM speaker for full, rich tone. Big, easy-to-read illuminated dial. Fingertip tuning control. Volume and tone controls. 33-in. stainless steel antenna. Neutral gray-tan enameled metal cabinet, 7x6½x4 in. high over-all. Shipping weight 10½ lbs. Complete, ready to install.

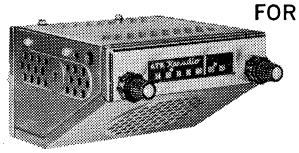
TR-1279-6A—6-Volt—List 59.95 . . . . . **Net 41.96**
TR-1279-12A—12-Volt—List 59.95 . . . . . **Net 41.96**

Similar to above, less Tone Control, as follows:

TR-1277-6A—6-Volt—List 49.95 . . . . . **Net 35.96**
TR-1277-12A—12-Volt—List 49.95 . . . . . **Net 35.96**

ATR CUSTOMIZED Karadio

FOR . . . SMALL IMPORT CARS AND COMPACT U. S. CARS



For Your Convenience . .* IN ONE COMPLETE PACKAGE . .
ATR CUSTOMIZED Karadio SETS
Complete with Trim Plate Kits and Speakers

The ATR Customized Karadio is a compact, new, self-contained airplane-styled radio for small import and compact American cars. This economical unit is perfect for all small cars because it can be easily and inexpensively installed in-dash or under-dash on most any make or model automobile—and its powerful 8-tube performance provides remarkable freedom from engine, static, and road noises. ATR Karadios are built to look and fit like original equipment with sleek, modern styling and solid, single-unit construction. They offer many customized features and provide highest quality fidelity—yet cost far less than comparably designed units. The ATR Customized Karadio comes complete with speaker ready to install . . . and is the ideal way to add fun and value to your small import or American automobile!

KARADIO MODEL	Battery Voltage	Code No.	Shipping Weight	LIST PRICE	NET PRICE
BORGWARD	6-volt	BDAZR	8 lbs.	$50.95	$35.67
BUICK					
1958-'54	12-volt	BKBYR	8 lbs.	50.95	35.67
†CHEVROLET					
1958	12-volt	CTCXR	8 lbs.	50.95	35.67
1956-'55	12-volt	CTDWR	8 lbs.	53.15	37.21
1954-'53	6-volt	CTEVR	8 lbs.	50.95	35.67
CORVAIR	12-volt	CRFUR	10 lbs.	57.70	40.39
DKW	6-volt	DWGTR	8 lbs.	50.95	35.67
ENGLISH FORD					
1957-59' Consul, Zephyr, Zodiac	12-volt	EFHSR	9 lbs.	52.45	36.72
1960 Consul, Zephyr, Zodiac, Mark III	12-volt	EFIRR	9 lbs.	51.45	36.02
†FALCON	12-volt	FNJQR	8 lbs.	53.55	37.49
†FORD					
1960	12-volt	FDKPR	8 lbs.	53.55	37.49
1959-'57	12-volt	FDLOR	8 lbs.	50.95	35.67
1954	6-volt	FDMNR	8 lbs.	50.95	35.67
GOLIATH					
1959	6-volt	GHNMR	8 lbs.	50.95	35.67
1960	6-volt	GHOLR	8 lbs.	50.95	35.67
KARMEN-GHIA	6-volt	KGPKR	8 lbs.	51.75	36.23
LARK					
1959-'60	12-volt	LKQJR	8 lbs.	53.15	37.21
MERCURY					
1958-'57	12-volt	MYRIR	8 lbs.	50.95	35.67
MG-MGA	12-volt	MGSHR	8 lbs.	50.95	35.67
MORRIS-MINOR	12-volt	MMHSR	7 lbs.	47.95	33.57
OPEL	6-volt	OLTGR	8 lbs.	50.95	35.67
PEUGEOT	12-volt	PTUFR	8 lbs.	50.95	35.67
†PLYMOUTH					
1959	12-volt	PHVER	9 lbs.	53.75	37.63
1956	12-volt	PHWDR	8 lbs.	53.55	37.49
1955	6-volt	PHXCR	8 lbs.	53.55	37.49
RAMBLER					
1958-'59	12-volt	RRYBR	8 lbs.	51.45	36.02
RENAULT					
1955-'59	6-volt	RTAZR	8 lbs.	50.95	35.67
1959-'61	12-volt	RTBYR	8 lbs.	50.95	35.67
SIMCA					
Aronde 1957-'59	12-volt	SACXR	8 lbs.	51.45	36.02
Elysee 1959'60	12-volt	EEDWR	8 lbs.	51.45	36.02
VOLKSWAGEN					
1939-'57	6-volt	VNEVR	8 lbs.	53.15	37.21
1958-'61	6-volt	VNFUR	8 lbs.	51.75	36.23
VOLVO					
1957-'60	6-volt	VOGTR	8 lbs.	50.95	35.67
UNIVERSAL MODEL					
K-1279-12	12-volt	KOUBR	7 lbs.	47.95	33.57
K-1279-6	6-volt	KOVCR	7 lbs.	47.95	33.57

FEATURES • HAND WIRED - - - NO PRINTED CIRCUITRY

- Finger-tip tone control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Its powerful 6-tube circuit (actual 8-tube performance) outperforms most larger and bulkier sets!
- Is ATR Vibrator-operated!

For performance, dependability, and economy—the ATR Karadio is the finest, most versatile auto radio ever designed!

SPECIFICATIONS

- Large, easy-to-read illuminated dial.
- Extra large Alnico 5 Magnet PM Speaker.
- 6-Tube Superheterodyne Circuit (utilizes 2 dual purpose tubes) with 8-Tube Performance . . . pulls in those distant stations, with good tone and volume.
- Uses tube-type rectifier for longer uninterrupted service.
- No battery polarity input problem.
- 3-Section Super "Magne-Wave" Tuner.
- Increased sensitivity assures more powerful reception at greater distances.
- 6 or 12 volt storage battery operation, low battery drain.

Neutral Gray-Tan, baked enamel finish. Overall size, 7" deep, 4" high, and 6½" wide.

1. All KARADIO Models above equipped with tone control, trim plate kit, and speaker. If antenna is desired, additional pricing would be as follows: List Price, $2.95; dealer price, $2.07. Antenna shipping weight—1 lb.
2. *When ordering radio sets, please be sure to specify make of car, as above, together with battery voltage and code number to avoid any possible mistakes. Auto radio sets when so ordered will automatically be supplied with the Model K-1279 or K-1280 KARADIO for the battery voltage system required depending on whether built-in speaker or external speaker is needed. Each radio will be packaged in one (1) carton complete wherever practical to facilitate handling.
3. †**Requires filing or drilling mounting holes for tuning or volume control shafts necessary to mount radio in dash.**
4. Net weight each radio above—6½ lbs. shipping weight as indicated above.

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FOR THOSE WHO WANT THE FINEST!

ATR TV

15 FULL-DOOR and 12 OPEN FACE DE LUXE CONSOLE TELEVISION SETS . . . to choose from!

FEATURING THE ULTIMATE IN HIGH-QUALITY, AUTHENTICALLY-STYLED, FINE-FURNITURE CABINETS AND THE FULL-TRANSFORMER SUPER-POWERED ATR No. 2600 CHASSIS.

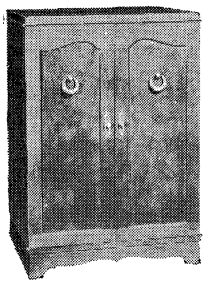
Includes push-pull high-fidelity audio system; dual extended-range, large permanent magnet speakers; spot-light tuning; giant 265 square inches 90° aluminized 21″ picture tube; and super VHF tuner for high sensitivity fringe area reception.

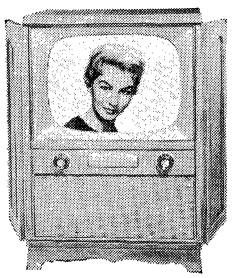
The Biltmore by ATR

Pictured:
Model
26007 LD-4
in mahogany

Distinctively styled in genuine walnut, mahogany or blonde Korina. Hand rubbed to a gleaming, hard finish of lasting beauty. Features the superb No. 2600 ATR chassis. Dimensions: 24½″ wide, 36½″ high and 20″ deep. Concealed casters for mobility.

- **UNSURPASSED IN BEAUTY**
- **UNEQUALLED IN PERFORMANCE**
- **UNMATCHED IN QUALITY CONSTRUCTION**





Provincial by ATR

Model No. 26002
(Illustrated)

Cabinet has concealed casters for easy mobility. Available in 18th Century Mahogany, Early American Antique Maple and French Provincial in Cherrywood with Fruitwood finish. Dimensions: 24½″ wide, 36½″ high, and 20″ deep. Rich finishes are applied and hand rubbed to smooth lustrous beauty.

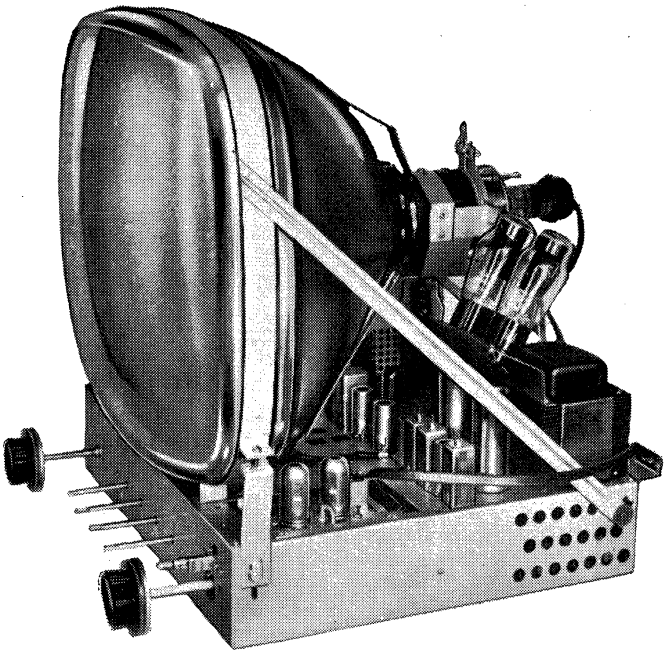
ATR TV

SUPER-POWERED ATR No. 2600 FULL-TRANSFORMER CHASSIS

For Maximum Dependability and Performance

SPECIALLY DESIGNED BY ATR FOR MOVIE-CLEAR, SHARPEST PICTURES WITH MAXIMUM PICTURE STABILITY . . . DESIGN AND CONSTRUCTION INCLUDE EXTRA VALUE FEATURES THAT MAKE FOR QUALITY PLUS . . .

- 18,000 volts of quality picture power
- Super-powered full-transformer 26 tube chassis
- Extended-range speakers of heavy duty construction
- Automatic gain control
- 4-Stage 41 MC IF amplifier
- Interference rejector
- Push-pull audio system
- Permanent-magnet focus
- Higher gain video amplifier



- Wider band width
- Precision interlace
- Highest quality components including molded capacitors
- Improved dependable long life ATR circuitry
- Front tuning of all important control functions

JOBBERS ATTENTION: See Page 630 in this ATR Section and Page 990 in Section 4000 for your Catalog Needs!

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BLONDER-TONGUE

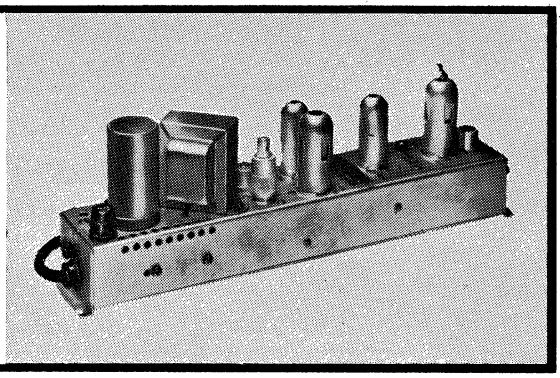
Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

MASTER ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartment houses, schools, etc.

VHF SINGLE-CHANNEL AMPLIFIER WITH AGC

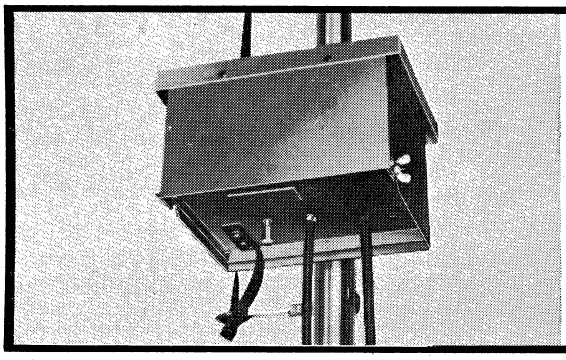


MODEL MCSc—An MCSc is available for each VHF channel and the MCSc-FM covers the entire FM band. Each MCSc has a built-in, fuse-protected power supply. MCSc units also have built-in mixing networks so that the output of each MCSc in a system may be plugged into the next MCSc; at the final output all of the channels are being fed into one coaxial cable.

AGC action enables MCSc units to provide uniform outputs even though the strengths of the inputs vary. Two operating controls (Gain & AGC) increase the versatility of these amplifiers.

Gain: at least 46 db, ch. 2-6; 38 db, ch. 7-10; 35 db; 11-13. Max. output; 1.4 volts (for less than 1% cross-modulation); 2 volts (for less than 3% cross-modulation).

Net MCSc—**$84.00**; MCSc-FM—**$180.00**



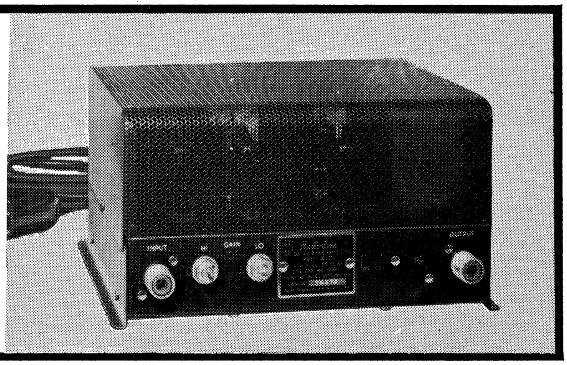
MAST MOUNTED SINGLE CHANNEL AMPLIFIER

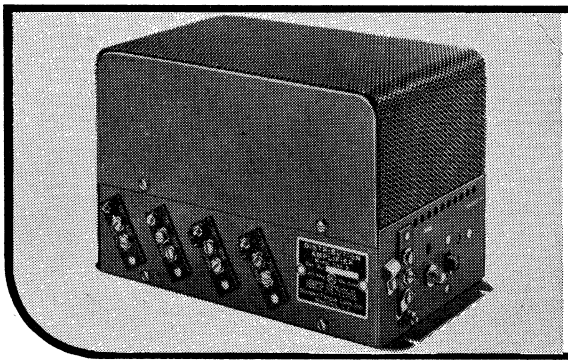
MODEL CB—Completely weatherproof. Amplifies any specified VHF channel. Low noise. 21 db minimum gain on lo band; 18 db minimum on high band (when 1 output is used). Max. output 0.5 volts for less than 1% cross-modulation. 300 ohm input; two 75 ohm mixing outputs. Net **$31.50**

BROADBAND AMPLIFIER

MODEL MLA-B—Broadband VHF amplifier with all the features essential for easy installation and superior reception in large or small TV systems. More than 40 db amplification on all VHF channels. Separate high and low band tilt and gain controls.

MAX. OUTPUT (across 75 ohms) 2.5 volts per band for less than 1% cross modulation. 3.5 volts per band for less than 3% cross modulation. Net **$89.95**





ALL-CHANNEL VHF AMPLIFIER (8 Outlets)

MODEL DA8-B—Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain. Gain control.

Net **$58.50**

Net

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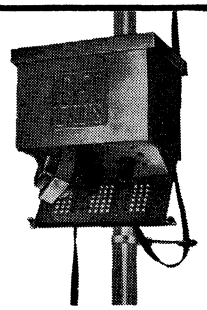
MASTER ANTENNA SYSTEM COMPONENTS

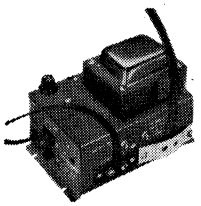
for motels, hotels, apartment houses, schools, etc.

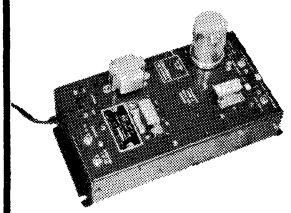


MAST-MOUNTED TV/FM AMPLIFIER (with remote power supply)

MODEL AB-3—Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system.

The remote power supply sends AC power up to the mast mounted amplifier on the same down-lead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net **$64.50**



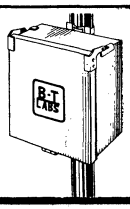


TRANSISTOR TV/FM AMPLIFIER

MODEL BT-3 — For fringe areas, home or Master TV installations. Low noise figure: 5 to 7 db. At least 18 db gain on channel 2; 15 db, channel 6; 19 db channels 7-13; and 9 to 15 db on FM. It can be powered by AC or battery. Provision for split or combined hi-band and low-band input. Solderless 75-ohm coaxial fittings at input and output.
Net **$49.95**

TV/FM AMPLIFIER

MODEL HAB — For use in master, community and home TV systems. 25 db min. gain. Both 300 ohms inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes.
Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band); 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). Net **$43.20**



RADIATION-PROOF HOUSING

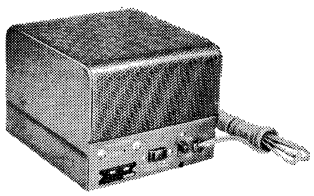
MODEL MRH-A—Weatherproof and radiation-proof enclosure for Master TV equipment. Has perforated mounting surface and adjustable support brackets. Front-opening sealed door and sturdy hasp. Irridite-finish, cadmium-plated steel. 18¼" x 14" x 6". Net **$39.00**

AC LINE FILTER

MODEL MLF—60 db RF isolation between amplifier and power line. Two AC receptacles, one power cable input connector. Mounts in MRH-A, or BH-1.
Net **$12.50**

INDOOR BREEZEWAY HOUSING

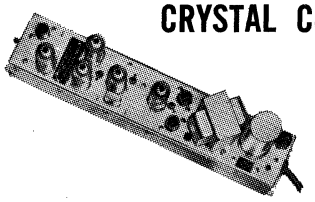
MODEL BH-1—Fully ventilated. Perforated mounting surface. Keyed slots for vertical or horizontal mounting. Provision for locking. 20" x 27" x 10½".
Net **$29.95**



CONVERTERS

UHF-to-VHF CONVERTER-AMPLIFIER MODEL UC-2 — Ideal for small systems. While it is not crystal controlled, it is quite stable when installed indoors. The UC-2 has a built-in power supply and two 75 ohm mixing outputs for maximum flexibility. When one output is used, it provides a minimum of 6 to 10 db gain, depending on conversion (3 db less when both outputs are used or terminated). The input is matched to 300 ohms. Net **$90.**

CRYSTAL CONTROLLED VHF AND UHF CONVERTER-AMPLIFIERS



— Featuring built-in power supplies and mixing circuits for compact, inexpensive head end systems. These units provide amplification as well as conversion.

UHF-to-VHF CONVERTER-AMPLIFIER. Model MUC — Converts specified UHF channel to specified VHF channel. Gain: 15 to 30 db (depending on conversion). Oscillator Stability: total change less than 0.01% over ambient temperature range 0°F to 110°F. Connections: 300 ohm input and two 75 ohm mixing outputs. Net **$240.**

HI-to-LO CHANNEL VHF CONVERTER AMPLIFIER. Model MVC — converts a specified VHF high channel (7-13) to a specified VHF low channel (2-6). Oscillator stability: Total change less than 0.01% over temperature range of 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net **$240.**

LO-to-LO CHANNEL VHF CONVERTER-AMPLIFIER. Model MLC — converts a specified VHF low channel (2-6) to another specified VHF low channel (2-6). Gain: 20 to 40 db depending on conversion. Oscillator stability: Total change less than .01% over temperature range 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net **$240.**

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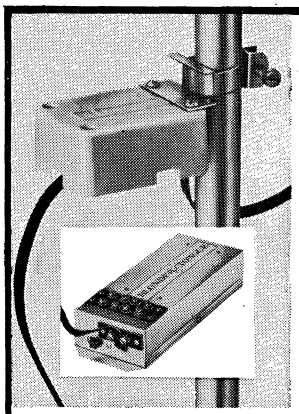
PRODUCTS TO IMPROVE HOME TV RECEPTION



TRANSISTOR MAST-MOUNTED 4-SET TV/FM BOOSTER, Model AB-4

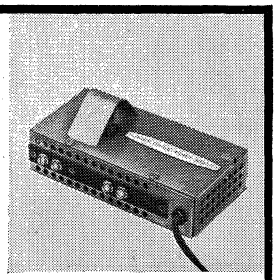
The world's most compact, powerful booster . . . a complete amplifier/distribution system that will improve TV reception on up to 4 TV or FM sets. It consists of a transistor booster which is designed for mast mounting or anywhere along the lead-in and a separate battery power supply which can be installed in the house.

The Transistor circuit provides lowest noise, maintenance free operation —no tubes to burn out or replace—no heat dissipation problems. 17 db average gain on channel 2; 15 db on channel 6; 8.5 db average gain on high band (7-13) when used for one set. 4 set coupler incorporated in remote power supply distributes fully isolated amplified signals on up to 4 TV or FM sets. Uses 4-low-cost flashlight batteries. Net **$19.**

TV/FM POWER BOOSTER, MODEL BTA

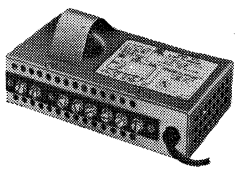
Low cost amplifier improves TV (black & white or color) and FM reception. Increases signal strength (7 to 9 db, channels 2-13; 4-8 db FM). 6 db average noise figure.

Features: stripless 300 ohm terminals for easy installation; low-noise, frame grid tube. Net **$12.95**



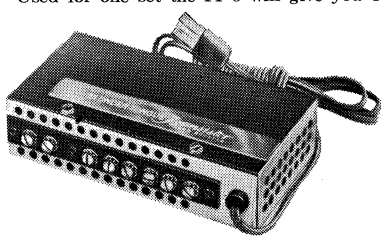
4-SET TV/FM BOOSTER, MODEL B-24c

Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net **$15.95**



TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-3

Because it is designed around a rugged, long life transistor, the IT-3 is very inexpensive to operate and requires almost no maintenance. The transistor takes so little power that the IT-3 need never be turned off, and there are no tubes to replace. Weak, snowy pictures mean that your antenna cannot pick up a strong enough signal. Used for one set the IT-3 will give you 4 to 8 times (voltage) as strong a signal on channels 2 to 6 and over 3 times as strong a signal on channels 7 to 13.

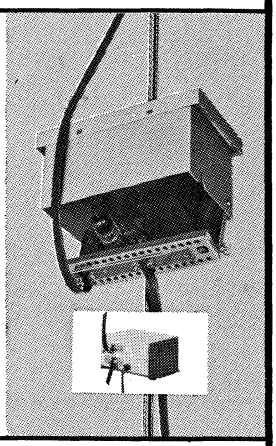


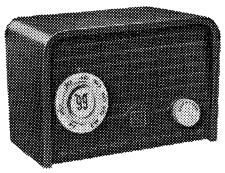
Used for two, three or four TV and/or FM sets, this unit will provide: (1) an excellent impedance match; (2) the necessary isolation between sets; (3) an increase in antenna signal power. Net **$20.**

VHF TV ANTENNA BOOSTER,

Model AB-2 (with RP-2 remote power supply)

All-channel VHF booster mounted at the antenna, is housed in weatherproof housing, and can be located 500 ft. from remote on-off control at TV set. Provides more than 9 db gain on all VHF channels. Single down lead carries AC power up to the amplifier and also conducts the amplified signal to the set. Uses frame-grid 6JD8 tube for highest signal-to-noise ratio. Convenient swing down case simplifies maintenance. Employs 300 ohm, stripless terminals. Net **$32.40**



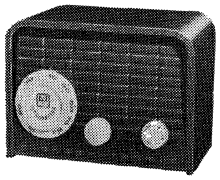


UHF CONVERTER Model 99R

Supplies UHF reception for VHF receivers in primary signal areas. Tunes complete UHF range from 470 to 890 mc. Converts to VHF channel 5 or 6. Features three section tuners; 300 ohm stripless VHF and UHF TERMINALS, and drift-compensated circuitry. Net **$16.75**

ULTRAVERTER UHF CONVERTER Model BTU-2S

Deluxe two-tube converter with low-noise frame-grid IF amplifier. For all UHF receiving areas, especially fringe and translator applications. Output on channel 5 or 6. Features stripless 300 ohm terminals, speed and fine tuning knobs, shielded three sections "ultra tuner." Net **$28.00**



AMPLIVERTER UHF CONVERTER, Model BT-70

Similar to BTU-2S but designed especially for translator and MPATI area conversions. Low noise. Vernier tuning. Net **$29.00**

'EXACT-MATCH' COUPLERS

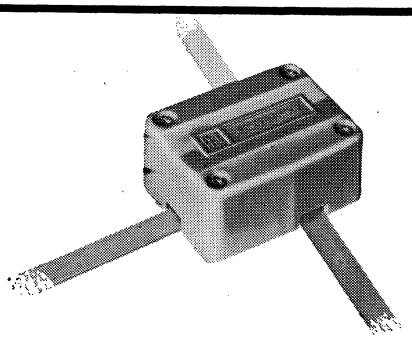
2-SET COUPLER MODEL A-102. Delivers more signal to each TV or FM set, with greater inter-set isolation than other couplers. Isolation: 10-20 db. Net **$1.80**

HI-LO ANTENNA COUPLER MODEL A-105. Combines high and low band VHF antennas, or provides separate high and low output from a single antenna. Isolation: 21 db. Net **$2.95**

4-SET COUPLER MODEL A-104. Directional coupler with flat response from 50-220 mc. Feeds 4 VHF receivers from one antenna, or mixes 4 antennas into one line. Isolation: 12-20 db. Net **$2.50**

UHF-VHF ANTENNA COUPLER MODEL A-107. Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antenna. Isolation: 15 db. Net **$2.95**

OUTDOOR MOUNTING KIT MODEL A-100. Provides hardware, bracket and strap assembly for mast mounting of A-102, A-104, A-105, A-107. Net **$.66**



Net

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engineered and manufactured by

BLONDER TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

SPLITTERS, TAPOFFS, FEED-THRUS, MATCHING TRANSFORMERS, CONNECTORS, TERMINATING UNITS AND TOOLS

INDOOR TAPOFFS (12 db and 17 db isolation)

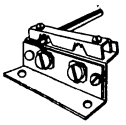
MODEL	TYPE OF MOUNTING	* TYPE OF INPUT CONNECTORS	NO. OF OUTPUTS	* TYPE OF OUTPUT CONNECTORS	ISOLATION	THRU LINE LOSS PER OUTPUT	NET PRICE
TS-771B	Surface	QD	(1)	QD	17 db	0.7 db	$2.60
TS-771A	Surface	QD	(1)	QD	12 db	0.7 db	3.05
TF-771B	Flush	Stripless bridge	(1)	QD	17 db	0.7 db	2.35
TF-771BS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	2.50
TO1-75	Flush	Bridge	(1)	Auto Type	17 db	0.7 db	2.35
ISO1-S	Flush, stainless steel	Bridge	(1)	Auto Type	17 db	0.7 db	2.70
TF-771AS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	3.60
TF-772B	Flush	Stripless bridge	(2)	QD	17 db	0.35 db	3.50
TF-772A	Flush	Stripless bridge	(2)	QD	12 db	0.7 db	4.40
TO2-75	Surface	QD	(2)	Auto Type	17 db	0.35 db	4.50
TS-731B	Surface	QD	(1)	Stripless Screws	17 db	0.7 db	2.60
TF-731B	Flush	Bridge	(1)	Stripless Screws	17 db	0.7 db	1.80
TSP-731A	Surface	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.60
TFP-731A	Flush	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.10
TO2-300	Surface	Bridge	(2)	Stripless Screws	17 db	0.35 db	4.50
TO-774A	Surface	QD	(4)	QD	17 db	0.6 db	8.60

*TERMINAL CONNECTORS

75 OHM QD (SOLDERLESS)

300 OHM STRIPLESS PLUG

300 OHM STRIPLESS SCREWS

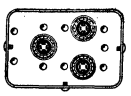


75 OHM STRIPLESS BRIDGE

CABLE CONNECTORS

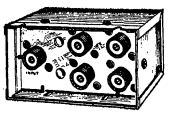
P-11S	"UHF" type solderless male plug for RG-11/U cable.	Net $1.00
P-59S	"UHF" type solderless male plug for RG-59/U cable.	Net $1.00
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net $1.60
CL-1111	Couples two RG-11/U cables together.	Net $1.50
CL-1159	Couples RG-11/U cable to RG-59/U Cable.	Net $1.35
CL-5959	Couples two RG-59/U cables together.	Net $1.20
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1111, CL-1159.	Net $2.30

SPLITTERS



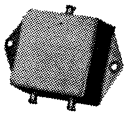
MDC-2

Outdoor 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. Weather protected. SO-239 connectors. Net **$8.60**



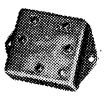
MDC-4

Outdoor 4-way Hybrid Splitter. Splits or combines four 75 ohm cables. Weather protected. SO-239 connectors. Net **$17.50**



TS-772

Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net **$3.10**



TS-774

Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net **$4.50**

ATTENUATORS

VARIABLE ATTENUATOR, Model SA-3
0 to 38 db. Laboratory accuracy. Steps of 6 db, 12 db, and 20 db. 75 ohm input and output. QD connectors. Net **$9.00**

VARIABLE ATTENUATOR, Model SA-7
0 to 62 db in steps of 1 db. Laboratory accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. Net **$21.00**

TERMINATING PLUGS

MTP-75 – Plug-in 75 ohm Termination for SO-239. Net **$1.60**

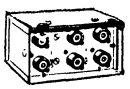
TC-5975 – Plug-in 75 ohm Termination for QD connectors. Net **$.90**

TOOLS

S-1 – Rotary cutter and stripper for coaxial cable up to ½". Net **$1.10**

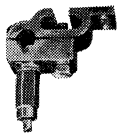
CR-1 – Cutting and crimping pliers. Designed for QD connectors. Net **$6.75**

OUTDOOR TAPOFFS



MIT-4

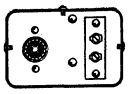
Four 75 ohm outputs from 75 ohm thru line. SO-239 connectors. 17 db isolation. 0.35 db thru loss, per output. Net **$17.50**



MT-11

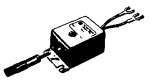
Spliceless. One tapoff from RG-11/U cable. Available with 12 db, 17 db, or 23 db isolation loss. Net **$2.95**

MATCHING TRANSFORMERS



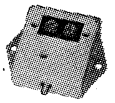
MB

Outdoor balun, matches 75 ohms to 300 ohms or vice versa. Net **$6.00**



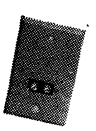
TM

Indoor, set mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.20**



TS-731

Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.05**



TF-731

Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.00**

engineered and manufactured by

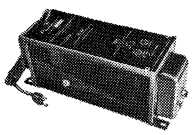
BLONDER-TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

BENCO MASTER & COMMUNITY TV EQUIPMENT—TRANSLATORS

BENCO PACEMAKER VHF AMPLIFIER

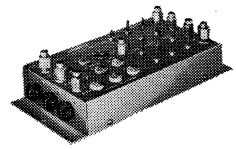


Broadband amplifier for master TV systems offers gain of up to 35 db. A well ventilated amplifier for indoor use, it has a power drain of less than 50 watts. It may be used outdoors if a weatherproof container is provided. It will operate at peak efficiency even when being used for as many as 100 TV and/or FM sets at a time. Gain: 35 db, channels 2-6; 30 db, 7-13; Noise figure: 6 db average; Max. output 2 volts per band.
Net **$59.95**

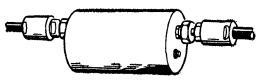
BENCO UNIMIX FILTER NETWORK

Can combine or separate 7 VHF TV channel signals without appreciable loss or interaction. The UNIMIX will accommodate 3 low band channels and four high band channels. Factory aligned to channels 2, 4, 6*, 7, 9, 11 and 13. It can be aligned in the field to handle any VHF channel.

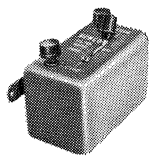
Also serves to equalize the seven antenna inputs by the use of plug-in attenuators. *(FM may be substituted for channel 6 — order UNIMIX-FM which will pass all FM stations).
Net **$52.00**



BENCO "T-AMP" TRANSISTOR LINE AMPLIFIER SYSTEM

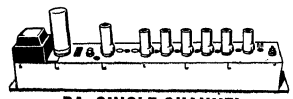


A complete community system. Consists of transistor amplifiers, power supplies, oscillators, tap-offs, blocking connectors and terminators. Several miles of cable can be run without expensive metal boxes and power connections. FEATURES: Negligible maintenance. Extended frequency range: 8-88 Mc/s. Unique automatic gain control. Custom designed to your applications. (Price dependent on needs of system.)



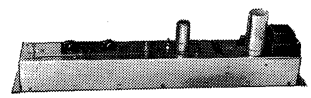
BENCO FILTERMATIC ADJACENT CHANNEL TRAP

Eliminates adjacent channel interference. Ideal for areas where there is strong station next to a weak station. Cleans up herring-bones and beats. Factory pre-tuned. Specified channels involved.
Net Type A **$10.35** (lo band)
Net Type B **$13.50** (hi band)



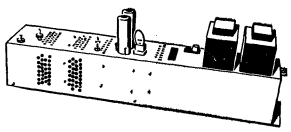
PA SINGLE-CHANNEL PREAMPLIFIER

Designed for the head-end of community, and apartment systems where the signal received is very low. Incorporates a low noise cascode input, together with a high gain AGC circut. Can be used with inputs as low as 50 microvolts. Provides an output of 50,000 microvolts for input signals of 50 microvolts and over. When the PA Amplifier is used alone to feed an apartment system, the output may be turned up to give as high as 1.0 volt output.
Net **$165.00**



CRYSTAL-CONTROLLED VHF CONVERTER Model CO-2

Lo to hi, hi to lo, lo to lo, or hi to hi channel conversions with few exceptions. Conversion chart available. Provides off-channel conversions such as: lowering Channel 2 by 1 megacycle to provide an extra guard between Channels 2 and 3. Model CO-2 FM, converts FM station to VHF.
Model CO-2 .....Net **$241.80**
Model CO-2 FM, Net **$369.00**



BENCO SINGLE-CHANNEL, HIGH OUTPUT AMPLIFIER, Model HTA

Designed for use as the final amplifier in a VHF-TV repeater, it is capable of delivering an output voltage of up to 25 volts peak across its 75 ohm output terminal. Net **$400.00**

SINGLE CHANNEL, HIGH OUTPUT AMPLIFIER, Model HCA

Designed for use as a final amplifier in large hotel or apartment distribution systems where it is necessary to locate all the amplifying equipment in one room or floor. The HCA is capable of taking the full output of the Benco type CA amplifier at its input and delivering an output voltage of up to 5.0 volts if required. Net **$235.00**

BENCO BAND PASS FILTER

75 ohm band pass filter. Includes 2 traps. Traps alternate undesired frequencies by 80 db. Trap frequencies should be specified when ordering.
Net **$112.50**

BENCO 75 OHM TRAP, Model Hi-Q-75

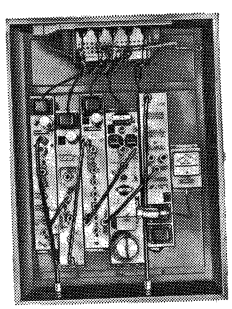
60 db attenuation of undesired frequency. Available for each sound and picture carrier.
Net **$27.80**

BENCO ATTENUATOR, Model LAT

Fixed. Specify 3 db, 6 db, 10 db, 14 db or 20 db. 75 ohm input and output. Benconnectors.
Net **$4.95**

Model LAT/B—Fixed. Attenuates AM radio 40 db. No TV attenuation. Benconnectors.
Net **$4.95**

BENCO TRANSLATORS



MODEL T-1 VHF TRANSLATOR

FCC type accepted. 1 watt output. For United States use. Features: FOOL-PROOF AUTOMATIC SHUT-OFF — When the master station goes off the air, this device turns the translator transmitter 'on' and 'off' as the master station is turned 'on' and 'off'. Automatic Shut-Off can differentiate between noise and signal.

Other features: regulated power supply, full size underrated output tube. Easy performance checks. Quick easy coding of identification unit.

MODEL T-6 VHF TRANSLATOR

FCC type accepted. 1 watt output. For U.S. use. Identification unit and automatic shut-off.

MODEL T-5 VHF TRANSLATOR

8.9 Watts output. For use in Canada. Regulated power supply. Full size underrated output tube. Weatherproof housing. Type approval from Canadian Dept. of Transport.

MODEL T-13 AND MODEL T-14 VHF TO UHF TRANSLATORS

3.5 Watts output. For United States use. Includes identification unit and automatic 'on/off'. Model T-13, VHF input, channels 2-6. Model T-14, VHF input, channels 7-13.

MODEL T-11 AND MODEL T-12 VHF TO UHF TRANSLATORS

3.5 Watts output. For Canadian use. Model T-11, VHF input, channels 7-13; Model T-12—VHF input, channels 2-6. Features: Automatic shut-off • remote 'on' and 'off' control facilities • weatherproof housing • type approval from Canadian Dept. of Transport.

Net

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Clegg LABORATORIES

DIVISION OF CLEGG, INC.

MT. TABOR, N. J.

SPECIALIZING IN VHF COMMUNICATIONS EQUIPMENT

Long-experienced in the design and manufacture of complex VHF and microwave equipments and regulated power supplies, Clegg Laboratories, in addition, is now a leading producer of precision VHF amateur transmitters and receivers.

Write for Complete Information

CLEGG ZEUS VHF TRANSMITTER FOR 6 AND 2 METERS

A highly efficient, AM, high power VHF transmitter for full coverage of the amateur 6 and 2 meter bands and associated Mars frequencies. Maximum TVI suppression.

Automatic modulation control with up to 18 db of speech clipping provides magnificent audio with "talk power" greater than many kilowatt rigs.

This beautiful unit with its ultra-stable VFO is the ultimate in VHF equipment for amateur and Mars operation.

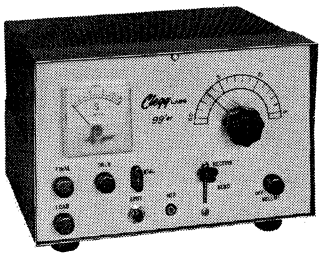
Amateur Net Price: $595.00

INTERCEPTOR VHF RECEIVER FOR 6 AND 2 METERS

Designed for the serious operator on these bands, the INTERCEPTOR, with cabinet and panel exactly matching the famous ZEUS transmitter, offers performance features unmatched by presently available equipment for these frequencies.

For example, here is a receiver with virtually no cross modulation. Nuvistor RF stages give an extremely low noise figure and sensitivity better than .25 microvolts. Stability is ideal for exacting requirements of SSB and CW.

Amateur Net Price: $395.00

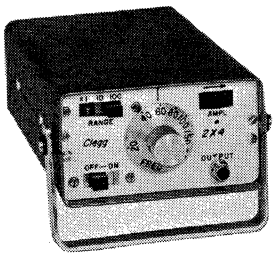


99'er TRANSCEIVER FOR 6 METERS

This completely new transmitter-receiver is ideal for both fixed station and mobile operation. Small in size, low in cost, and tops in performance, the 99'er offers operating features unequalled in far more costly equipments. The double conversion superhet receiver provides extreme selectivity, sensitivity and freedom from images and cross modulation. The transmitter section employs an ultra-stable crystal oscillator which may also be controlled by external VFO. An efficient, fully modulated 8 watt final works into a flexible Pi network tank circuit. A large S meter also serves for transmitter tune-up procedure.

Amateur Net Price: $119.99

NEW "2 x 4" TRANSISTORIZED AUDIO OSCILLATOR



A new low cost transistorized audio so small that it is hard to envision its capabilities.

The "2 x 4" generates pure sine waves from 20 cycles to 20 KC with output voltages from 0 to 2.5 RMS. Despite its small size, laboratory tests of this battery-powered instrument show many characteristics that are superior to larger, more costly laboratory generators.

Amateur Net Price: $49.95

WWV'er TRANSISTORIZED RECEIVER

A fixed crystal-controlled transistorized receiver of matchless performance. Receives WWV signals on all frequencies from 2.5 to 25 MC or any interim frequency through this range with the use of suitable crystals. Equipped for portable use or rack mounting. Has hi and low Z inputs, S meter, enclosed speaker and coax output jack for oscilloscope connection.

Amateur Net Price: $395.00

MODEL 209 CRYSTIPLEXER

The most revolutionary development in transmitter design since the MOPA furnishes all the features of a VFO combined with the desirable characteristics of crystal control. Frequency control is by digital methods; accuracy and resettability of better than .5 KC is readily attainable. Stability is better than most crystal-controlled VHF transmitters. In addition, the CRYSTIPLEXER includes all control circuitry for perfect AM and break-in CW operations, including automatic antenna changeover provisions.

Amateur Net Price: $329.50

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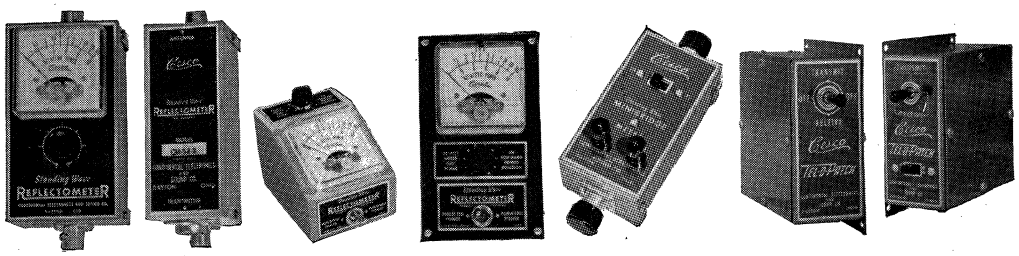
Net

Cesco Amateur–Citizens' Band–

REFLECTOMETERS, MINIBRIDGE, PHONE PATCHES



CM-52, CM-75 | Phase Unit CM-52-2 and | Control CM-75-2 | CM-52-2 and CM-75-2 Special | CL-52-72 | "Original" | "Supreme" "Regency"

STANDING WAVE REFLECTOMETERS

MODELS CM-52 AND CM-75

Mutual inductance and capacity coupling are employed between linear conductors for continuous measurement of standing waves on transmission lines. For continuous line insertion 25 to 1,000 watts, at frequencies from 3 to 200 mc. Operates on power input of 10 watts, 7 mc and up. Requires only five watts input, 25 mc and up. Line insertion loss, less than 1 db at 30 mc. Ideal for inserting in to coax feed lines at antenna for visual reading in SWR while making antenna adjustments: SWR observed immediately, at all times, without adjustment of Reflectometer. No balancing adjustments, no reversing. Prevents false loading from antenna tuner, match box, pi network, etc. Reduces line reflection, making possible increased radiated power. Uses 0-100 ua meter calibrated directly in standing wave ratio and relative power. Each unit hand calibrated and perfectly balanced. Includes loading control and forward to reflected power reversing toggle switch. With 83-1R (SO-239) connectors at each end. Gray hammertone aluminum case, 3" w. x 2⅛" d. x 5¼" h. Shipped with key-type mounting on back and full instructions.

Cesco Model CM-52 (52-ohm coax line) or CM-75 (75-ohm coax line)—Net Each **$29.95**

Cesco Model CM-75 Equipped with UG-58U Connector—Net Each.. **$34.95**

MODELS CM-52-2 AND CM-75-2

Dual units electrically identical to CM-52 and CM-75 but built in two units for remote control. With 10 ft. cable and plug wired to control and indicator unit. Either 52-ohm or 75-ohm phase unit may be used with control and indicator unit; permits purchasing second phase unit separately, when required. Size, Control unit, 3⅞" w. x 2⅞" x 2¾" with sloping panel; Phase Unit, 2¼" w. x 2¼" d. x 5¼" h.

Cesco Model CM-52-2 (52-ohm coax line) or CM-75-2 (75-ohm coax line)—Net Each **$34.95**

Cesco Model CM-75-2 Equipped with UG-58U Connector—Net Ea. **$39.95**

Cesco Model CM-52-2 or CM-75-2 Phase Unit — Less Control unit. Net Each **$12.95**

Cesco Model CM-52-2 or CM-75-2 Special—Same as standard dual unit but with control panel for Collins grille or built-in installation. Net Each **$34.95**

MODEL CL-52-72 MINIBRIDGE

Resistive type device for observing standing waves when adjusting antenna matching networks. For 52, 72 or 75 ohm coax lines and small amounts of RF excitation or grid dip oscillator. Requires external indicator, such as 0-100 ua meter (as in Simpson multi-meter). Hammertone gray aluminum case, 2⅛" w. x 1½" d. x 4⅛" h. Complete with instructions. SWR graph and antenna tuning procedures.

Cesco Model CL-52-72—Net Each..... **$12.95**

TELEPHONE PATCHES

All Cesco Tel-O-Patch Models are useable with SSB equipment in manual or MOX control position.

"ORIGINAL" TEL-O-PATCH

High quality sound receiving and transmitting unit for low-Z lines in amateur and experimental use. Provides undistorted voice reproduction, perfect intelligibility at 100% modulation. Eliminates feedback, hum, noise, etc. Designed for high gain input, can be adapted to low gain input. Works on any receiver having output impedance of 500-5,000 ohms. Mounts on receiver or operating desk by means of reversible mounting plate. Provides standard phone jack output; Amphenol 75-PC1M connector for input. Size, 2" w. x 4" d. x 4" h. Complete with instructions, diagrams, mounting screws.

Cesco "Original" Tel-O-Patch—Net Each..... **$14.95**

"SUPREME" TEL-O-PATCH

Combination transmit-receive control and phone patch. For custom and commercial equipment. Undistorted voice reproduction at 100% modulation. For any receiver with output impedance of 500-5,000 ohms; and for high gain transmitter inputs (can be adapted to low gain). Separate On-Off control; standard phone jack output; Amphenol 75-PC1M mike connector input; Amphenol 4-contact plug and socket for transmit-receive control; reversible mounting plate. Size, 2" w. x 4" d. x 4" h. Complete with instructions, diagram, mounting screws.

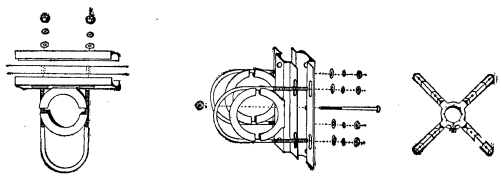
Cesco "Supreme" Tel-O-Patch—Net Each..... **$24.95**

"REGENCY" TEL-O-PATCH

To be used with units such as 32V-KW1-75A, Globe King, B & W, Ranger, Valient 500, or similar high quality equipment with push-to-talk operation. No modifying, ready for use. Eliminates feedback, hum, noise; voice reproduction undistorted at 100% modulation. For any receiver with 500-5,000 ohms output impedance and for high gain input; can be converted to low gain. Leveraction telephone type switch controls both transmitter and modulation; separate On-Off switch. Size, 2" w. x 4" d. x 4" h. Complete with 3' cord and 80MC2M plug, installation instructions, diagram, and mounting screws (mounting plate is reversible).

Cesco "Regency" Tel-O-Patch—Net Each..... **$24.95**

ANTENNA MOUNTING AND MATCHING ACCESSORIES, NOISE FILTERS



"Oxen Yoke" | Boom Mounting | Quad Mount

"OXEN YOKE" BEAM ANTENNA CLAMP

For element sizes ¾" to 1½" in diameter and booms 1½" to 3" in diameter. All components completely interchangeable, permitting element and boom selection to your requirements. For continuous or cut elements at center; all channel lock assembly. Specify element size and boom size when ordering.

Net Each..... **$2.29**

UNIVERSAL BOOM MOUNTING

For 1½" to 3" diameter boom sizes and 1¼" or 1½" masts. Complete mounting consists of two mast plates (1¼" or 1½"), two boom yokes, two "U" bolts. Specify mast and boom sizes when ordering.

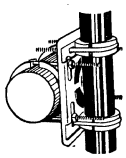
Net Each..... **$5.95**

QUAD MOUNT

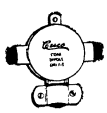
One-piece, durable, aluminum alloy cast spider to mount quad arms to boom. Angle shaped spiders permit use of bamboo or aluminum tubing of 1" to 1½" diameter. Clamp-type, 2" diameter hub can be adjusted after assembly. Boom drilling not required. Net Each..... **$6.95**

HEAVY DUTY UNIVERSAL BOOM MOUNTING

For 2" to 3" O.D. water pipe or tubing mast. All channel lock assembly. For single or stacked arrays. Has one mounting plate, four yokes and four "U" bolts. (Specify mast or pipe size when ordering.) Net..... **$8.95**

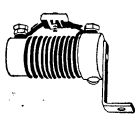


COAX DIPOLE DRI-FIT CONNECTOR



Ideal dipole antenna connector. Completely moisture-proof, one-piece aluminum alloy construction. Handles power to maximum legal limits. Can be installed easily in a few minutes. For use with coaxial cables RG-8, RG-58, RG-11 or RG-59, or with 300-ohm twin lead. Has eye pull up for inverted V's. Weight, 2 oz. Net Each..... **$2.95**

GENERATOR NOISE FILTERS



Tunable filter for 6, 12 or 24 volt generators; halts noise in mobile gear caused by generator brushes. For aircraft, amateur, C-B and industrial mobile uses. Conservatively rated at 30 amps. Phenolic coil form, brass hardware and die cast mtg. bracket. Easily installed.

Cesco Model 3-30 (Standard, 3-30 mc) or **30-60** (High Frequency, 30-60 mc)—Net Each..... **$2.95**

Cesco Model 2-3 (Marine, 2-3 mc)—Net Each..... **$5.95**

Net

© U.C.P., Inc.

Industrial—Communication Products

TRANSICHECK, TEL-O-RECORD, FIELDOMETERS

CB-52-C

CB-52-S

ET-1, ET-2

ST-1

Mobile Model MC

Hand Unit Model HCE

Lab LCE

Multitester Adapter MCP

CITIZENS' BAND TRANSICHECK

Designed for use with Citizens' Band transmitters, this test instrument checks transmitter power output and antenna efficiency. Can be used for resonating or tuning power output plate circuit and adjusting antenna loading capacitor to assure maximum output. Ideal for determining accuracy of 50-ohm coaxial transmission line match to the antenna. Under scale on meter indicates SWR, match or mismatch of transmission line to antenna; lower scale, graduated 1-5, indicates power output and permits observing out-put when adjusting antenna plate circuit and loading capacitor. Complete with drawings and information on applications and use. Hammertone finish, aluminum case 4 ¼" h. x 2 ¼" w. x 1 ½" d. **Cesco Model CB-52-C**—With coax connector. Net Each.... **$19.95**

Cesco Model CB-52-S—Auto spade connector. Net Each..... **$18.95**

ELECTROMATIC TEL-O-RECORD TELEPHONE PICK-UP AND CONTROL

Automatic, transistorized control has circuitry and control relays to start and stop motor, make or break B+ circuit of any recording device. Recorder must have sufficient starting torque to run with switches in record position. When off, recorder automatically returns to manual operation. May be used on remote phones up to five miles away from the parent phone. Permits the recorder to operate unattended. Built-in power supply is well filtered; operates from 115 v. AC, 60 cps. Size 5" h. x 4" w. x 3" d. **Cesco Model ET-1**—For intermittent recording. Net Ea. **$79.95**

Cesco Model ET-2—Special model for applications where recorder is used exclusively for phone recording. Net Each..... **$79.95**

TEL-O-RECORD PICK-UP AND TRANSFER

Records phone messages on tape, wire or disc recorders. Also used for paging systems. Records both sides of a conversation. By secondary lines, parallel terminated, many sources may feed the mike input on a paging amplifier; when used this way, phone must be partly dialed to remove dial tone before speaking. High quality transformer will not load phone line; free of distortion and hum. Aluminum, gray hammertone box has slip-on mounting bracket. Complete with cords, plugs and installation instructions.

Cesco Model ST-1—Net Each..... **$14.95**

CESCO FIELDOMETERS

Wide spectrum, sensitive field strength analyzer and field measuring device works satisfactorily at 1 kc to 1000 mc radiated frequencies, without using plug-in coils. Sensitive 0—100 ua meter withstands heavy shock without damage. Ultra-sensitive models also available. Shunt-type sensitivity control prevents off-scale readings or overload in strong fields.

MODEL MC FIELDOMETER

Ideal for tune-up of mobile, amateur, police, aircraft and industrial uses. Indicates transmitted signal at all times. Has capacity wand, sensitivity control and ua meter. U-shaped mounting bracket fits dash at windshield rim or rear-view mrriror. Pivoted case 3 ½" h. x 2 ¾" w. x 1 ½"d. **Cesco Model MC**—Net Each..... **$24.95**

MODELS HCE AND HCE-20 FIELDOMETERS

Fixed-capacity type portable hand unit with 0-100 ua meter and sensitivity control on handle end. Capacity wand and components covered by screw-on 4 ¼ l g. plastic cover. Handle 4 ¼" long. Provision made for plug-in interchange for capacity wand to electrostatic, peak resonant broad-skirted wands (available on special order for any specified frequency). Case size same as Model MC.

Cesco Model HCE—Net Each..... **$29.95**

Cesco Model HCE-20—Same as above, but with ultrasensitive 0-20 ua meter. Net Each..... **$44.95**

MODELS LCE AND LCE-20 FIELDOMETERS

Same as Model HCE, but designed for laboratory use. Indicator and sensitivity controls mount in portable, slanted meter case 3 ⅞" h. x 2 ¾" w. x 2 ¾" d. Comes with corded probe four ft. long and capacity wand (convertable to electrostatic type with plug-in resonant wand available).

Cesco Model LCE— Net Each..... **$29.95**

Cesco Model LCE-20—Same as above, but with ultrasensitive 0-20 ua meter. Net Each..... **$44.95**

MODEL MCP PROBE ADAPTER

Corded probe, capacitive-type adapter for use with any multi-tester having basic movement of 0-50 or 0-100 ua. Meter must be brought to separate terminals (as found on Simpson Model 260 and similar types). **Cesco Model MCP**—Net Each..... **$12.95**

PLUG-IN RESONANT WANDS

Available for any special, requested frequency. Broad skirted, peak resonant plug-in design.

Cesco Resonant Wand—Specify frequency. Net Each..... **$4.95**

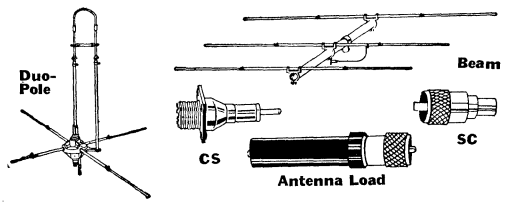
CITIZENS' BAND ANTENNAS AND ACCESSORIES

DUO-POLE GROUND PLANE ANTENNA

Provides broad, equal, groundwave circular coverage for good communications even with low power output. Aircraft aluminum construction. Grounded quarter-wave foldback lightning safety factor. Adjustable element ring locks. Factory resonated at 27.085 or channel 11; works well over all channels with low VSWR, 1.2:1 or less. Special feedline terminals incloses in masting. Nominal base impedance 52 ohms. Shipping carton only 68" long. Shipping Weight, 7 ½ lbs. **$29.97**

Cesco Duo-Pole Antenna—Net Each.....

Industrial Version, 25-175 mc, Also Available at Same Price.



C-B BEAM ANTENNAS

Factory pre-tuned beam antenna with exclusive Acromatch for increased power output. Extruded aluminum tubing with 1 ¼" boom; elements have ½" dia. center sections, ⅜" dia. inserts. Elements mount either horizontally or vertically. Resonated at 27.085 mc; low SWR. Assemblies in minutes with permanently secured locking rings. Lightweight; will rotate with any TV rotator. Shipping carton only 86" long.

Cesco 3-Element Beam—Gain 7 db; boom 10' long. Shipping Weight, 8 lbs. Net Each..... **$29.95**

Cesco 4-Element Beam—Gain, 8 db; boom 15' long. Shipping Weight, 11 lbs. Net Each..... **$39.95**

Cesco 5-Element Beam—Gain, 9 db; boom 20' long. Shipping Weight, 13 ¼ lbs. Net Each..... **$49.95**

QUAD ARM KITS

Allows easy fabrication of durable, cubical quad antenna. Each arm has one 1 ¼" aluminum section with end swaged to 1" dia., plus one or two fiberglas telescoping sections. Stainless steel clamp holds fiberglas section to aluminum tube. Detailed instruction book supplied.

Cesco Model QB-2 Quad Arm Kit—With eight arms of one section aluminum tubing and one section fiberglas, each. Makes 10- and 15-meter quad antenna. Net Each..... **$59.95**

Cesco Model QB-3 Quad Arm Kit—Same, but with two sections of fiberglas per arm, and an epoxy resin for joining the fiberglas tubes. Makes 10-, 15-, and 20-meter quad or single 20-meter antenna. Net Each..... **$89.95**

CABLE ADAPTERS

Cesco Model CS—Permanent connector comprises 83-IR, SO-239 coaxial socket and auto radio type spade lug. One-piece construction. Net Each..... **$1.29**

Cesco Model SC—Rugged, permanent adapter connects auto radio spade plug to coaxial socket 83-IR or SO-239. No floating pins.

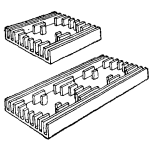
Net Each..... **$1.29**

PHANTOM ANTENNA LOAD

Non-inductive 52-ohm substitute antenna load has adequate power rating for any C-B transceiver in the 26-27 mc. range. Suited for testing and repairing citizens band units. Also useable as a coaxial line terminator. **$1.49**

Cesco Phantom Antenna Load—Net Each.....

NEW TRANSISTOR HEAT SINKS



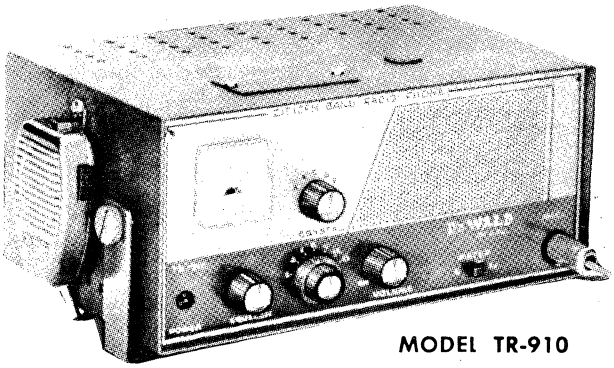
Novel method of production makes heat sinks from match plate, green sand aluminum castings which increase heat radiating efficiency with less heat sink area. Available in any size and shape by industrial specification. Circular types available for Motorola round transistors. **$1.25**

Cesco Std. 2-Cell Heat Sink—Net Each.....

Cesco Std. 4-Cell Heat Sink—Net Each..... **$1.95**

DeWALD CITIZEN BAND RADIO-PHONES

UNITED SCIEN. LAB INC.



MODEL TR-910

A transceiver offering outstanding features found only in the most expensive models. "Push-to-talk" microphone, full squelch control and combination "S" and plate current meter are included in this unit.

- Full super-het receiver
- Built-In "S" and plate current meter
- Selector switch for five channel transmitting
- Push to talk microphone with fool-proof relay
- Full squelch control
- Vernier tuning for 23 channel reception
- Full A.V.C.
- Three watts A.F. output
- R.F. stage for receiving
- Crystals readily accessible
- Input power to transmitter 5 watts fully plate modulated
- All coils ferrite tuned
- Noise limiter
- Furnished with power plug for 117V
- Adjustment of coils provided by opening in cabinet
- On-off and R.F. indicators
- Stable nondrift performance
- Super sensitive circuit
- Highly selective tuning
- R.F. Amplifier in transmitting
- Six and twelve volt power supply available for mobile use
- Output impedance: will match 30 to 100 ohm load with dipole, ground plane, rod or whip antenna
- Furnished with microphone and one crystal
- Cabinet: Grey and aluminum
- All units are provided with universal type mobile mounting brackets

Dimensions: 10¼"w x 6⅜"d x 4¾"h
Weight: 9 pounds

LIST **$99.95**

Furnished with Ceramic Microphone and one Transmitting Crystal

FOR

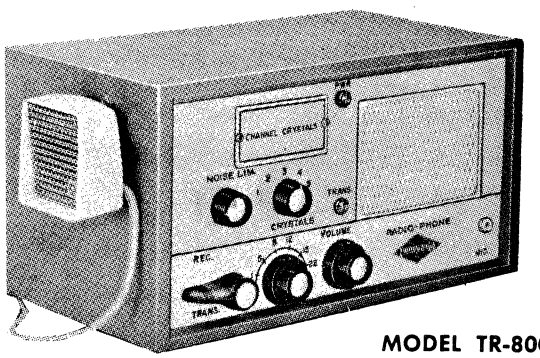
AUTOMOBILES - HOME - BUSINESS - FARM - BOATS - CAMPING CONSTRUCTION - TRUCK DISPATCHING - INDUSTRIAL PLANTS - EMERGENCY COMMUNICATION - WAREHOUSING

- **Anyone can operate. No technical knowledge or special training required**
- **Maximum Legal Power**
- **Meets all FCC requirements**
- **Complete 23 channel receiving**
- **Transmit on any 5 channels**
- **Excellent sensitivity and selectivity**
- **Engineered for reliable service**
- **Consistent dependability under difficult conditions**

OPERATING RANGE: Antenna system and the location of the equipment determine the range. In mobile operation the "Radio Phones" should have an effective range of 6-15 miles. With a properly installed base station antenna reliable communications may be established from 8-20 miles. Over water, the effective range may be from 10-30 miles.

POWER SUPPLY FOR MOBILE USE: For mobile or battery operation six or twelve volt power supplies are available. These may either be permanently mounted or may be mounted up to three feet from the transceiver. A cigarette lighter plug is furnished for electrical connection.

LIST TR-6 TR-12 **$19.95**



MODEL TR-800

Designed for those desiring the finest in CB equipment at the lowest possible cost. A feature-packed transceiver of unbeatable performance.

- Full super-het receiver
- Selector switch for five channel transmitting
- Vernier tuning for 23 channel reception
- Noise limiter control. Full A.V.C.
- Three watts A.F. output
- R.F. stage for receiving
- Input power to transmitter 5 watts fully plated modulated
- All coils ferrite tuned
- Furnished with power plug for 117V
- On-off and R.F. indicators
- Stable non-drift performance
- Super sensitive circuit
- R.F. Amplifier in transmitting
- Six and twelve volt power supply available for mobile use
- Output impedance: will match 30 to 100 ohm load with dipole, ground plane, rod or whip antenna
- Furnished with microphone and one crystal
- Cabinet: Chip proof beige
- All units are provided with universal type mobile mounting brackets

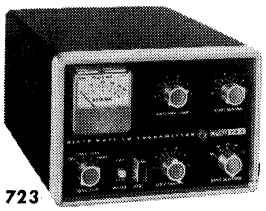
Dimensions: 10¼"w x 6⅜"d x 5½"h
Weight: 9 pounds

LIST **$79.95**

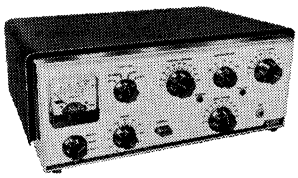
Furnished with Ceramic Microphone and one Transmitting Crystal

© U.C.P., Inc.

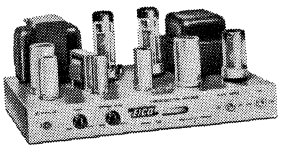
Now your best buy in Ham Gear & Citizens Radio is EICO®



723



720



730

NEW 60-WATT CW TRANSMITTER #723

Kit $49.95 **Wired $79.95**

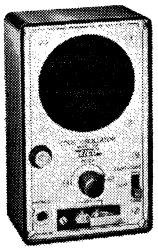
Time-proven circuitry — up-to-the-minute conception and design. 60 watts input to rugged 6DQ6-B neutralized final on CW; external plate modulation permits use as AM phone transmitter of up to 60 watts input. Features: 1-knob bandswitch covers 80, 40, 20, 15, 10 meters; 1-knob Off-Standby-Tune-Transmit switch; oscillator keying for break-in operation; effective TVI suppression through filtering and bypassing. The 6CL6 oscillator is an electron-coupled Colpitts type noted for low crystal heating & minimized effect of plate loading on frequency; the full-wave, choke input, 500-volt power supply employs a high-efficiency GZ34 rectifier. The output pi network consists of a tapped coil & plate tuning and antenna-loading air variables. Modulator/accessory socket for modulator input, antenna relay, VFO power take-off and emergency power input.

90-WATT CW TRANSMITTER #720*

Kit $79.95 **Wired $119.95**

Conservative, highly efficient design plus stability, safety, and excellent parts quality. Covers 80, 40, 20, 15, 11, 10 meters (popular operating bands) with one knob band-switching. 6146 final amplifier for full "clean" 90 W input, protected by clamper tube circuit. 6CL6 Colpitts oscillator, 6AQ5 buffer-multiplier, GZ34 rectifier. "Novice limit" calibration on meter keeps novice inside the FCC-required 75W limit. No shock hazard at key. Wide range, hi-efficiency pi-network matches antennas 50 to 1000 ohms, minimizes harmonics. EXT plate modulation terminals for AM phone modulation with 65W input. Excellent as basic exciter to drive a power amplifier stage to maximum allowable input of 1KW. Very effective TVI suppression. Ingenious new "low silhouette" design for complete shielding and "living room" attractiveness. Finest quality, conservatively rated parts, copper-plated chassis, ceramic switch insulation. 5" H, 15" W, 9½" D.

*U.S. Pat. No. D-184776.



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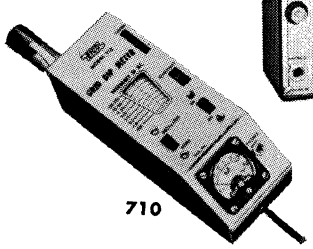


710

UNIVERSAL MODULATOR-DRIVER #730

Kit $49.95 **Wired $79.95** **Cover E-5 $4.50**

Superb, truly versatile modulator at low cost. Can deliver 50 watts of undistorted audio signal for phone operation, more than sufficient to modulate **100%** the EICO #720 CW Transmitter or any xmitter whose RF amplifier has a plate input power of up to 100W. Multimatch output xfmr matches most loads between 500-10,000 ohms. Unique over-modulation indicator permits easy monitoring, precludes need for plate meter. Low level speech clipping and filtering with peak speech frequency range circuitry. Low distortion feedback circuit, premium quality audio power pentodes, indirectly heated cathode rectifier. Balance & bias adjust controls. Inputs for crystal or dynamic mikes, phone patch, etc. Excellent deluxe driver for high-power class B modulation. ECC83/12AX7 speech amplifier, 6AL5 speech clipper, 6AN8 amplifier driver, 2-EL34/6CA7 power output, EM84 over-modulation indicator, GZ34 rectifier. Finest quality, conservatively rated parts, copper-plated chassis. 6" H, 14" W, 8" D.

GRID DIP METER #710

Kit $29.95 Wired $49.95 including complete set of coils for full band coverage.

Determines frequency of oscillators or tuned circuits; sensitivity control and phone jack facilitate "zero beat" listening. Ham uses: pre-tuning and neutralizing xmitters, power indication, locating parasitic oscillations, antenna adj., correcting TVI, general de-bugging with xmitter power off, determining C,L,Q. Electronic servicing uses: alignment of traps, filters, IF's, peaking compensation networks; as signal or marker generator. Easy to hold & thumb-tune with one hand. Continuous coverage of 400 kc-250 mc (broadcast, FM, ham, TV bands) in 7 ranges with pre-wound coils of ±0.5% accuracy. 500 ua meter movement. 6AF4(A) or 6T4 Colpitts oscillator. 2¼" H, 2-9/16" W, 6⅞" L.

CODE PRACTICE OSCILLATOR #706

Kit $8.95 **Wired $12.95**

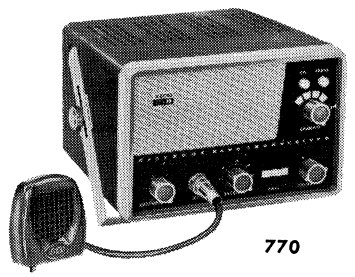
Including Battery

Provides loud, clean signal. Includes tone control, phone jack for private use, choice of tone, flashing light, or both together. Transistor oscillator provides years of trouble-free service.

NEW SELF-POWERED VARIABLE FREQUENCY OSCILLATOR #722

Kit $44.95 **Wired $59.95**

Excels in every requirement for truly satisfactory VFO; provides full coverage of the 5 Ham bands, 80-10 meters, in 6 ranges, the 10-meter band being covered in 2 ranges. Output is high enough to drive any modern transmitter on any of the bands. Near crystal stability is achieved by carefully coordinated electrical, mechanical and thermal design.



770

CITIZENS BAND TRANSCEIVERS DELUXE 770 SERIES

	Kit	Wired
Model 770: 117 VAC only	$ 69.95	$ 99.95
Model 771: 117 VAC, 6 VDC*	79.95	109.95
Model 772: 117 VAC, 12 VAC*	79.95	109.95

*Includes mounting bracket.

4-channel crystal-controlled transmitting chosen by channel-selector knob on front panel - Crystal-controlled receiving available on one transmit channel, continuous tuning over all 23 CB channels on the three other transmit channels - Press-to-talk button microphone: transmit-receive switching accomplished by high-quality relay with minimum capacity between contacts to prevent current leakages at RF frequencies. Superhet receiver with RF stage for high sensitivity and low s/n ratio; 1750 kc prealigned IF strip for unequalled image rejection and freedom from oscillator "pulling" on strong signals - Current metering jack in series in cathode circuit permits checking of input power to transmitter final, adjusting to FCC limit. 13-tube performance (4 dual function, 4 single function tubes, 1 germ. diode) - Adjustable squelch control, automatic noise limiter - Built-in AVC - Built-in 3" x 5" oval PM speaker and detachable ceramic-element cartridge - Posi-Lock mounting bracket permits 360° rotation, positive lock every 30° - 1 transmit xtal supplied; others available, with matched receiving xtals if desired.

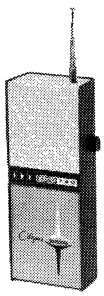
STANDARD 760 SERIES

from Kit $59.95, Wired $89.95

	Kit	Wired
Model 760: 117 VAC only	$59.95	$79.95
Model 761: 117 VAC and 6 VDC*	$69.95	$99.95
Model 762: 117 VAC and 12 VDC*	$69.95	$99.95

*Includes mounting bracket.

Same uncompromising engineering, same care and precision, and largely the same circuitry as in 770 series (above), lacking only multiple channel transmitting, crystal receiving, and push-to-talk microphone.



New Citizens Band Walkie-Talkie #740

Kit $54.95 **Wired $79.95**

Including nickel-cadmium battery and charger, plus transmit **and** receive crystals for 1 channel. US-made . . . an original product of EICO research. A lightweight (19 oz), pocket-size Citizens Band 2-way radio requiring no license to operate. Crystal controlled transmit and receive. Full superheterodyne receiver with crystal-controlled local oscillator; and high-level AM type transmitter incorporating advanced circuits, highest quality circuit boards, and 9 transistors. Rechargeable nickel-cadmium battery operates 10 hours on one charge, rechargeable 500 times. Range is 10 miles over water, up to 1½ miles over good terrain; better if used with conventional 5-watt CB transceiver. Ideal for hunting, fishing, boating, construction, warehouses, drive-in theaters and restaurants, etc.

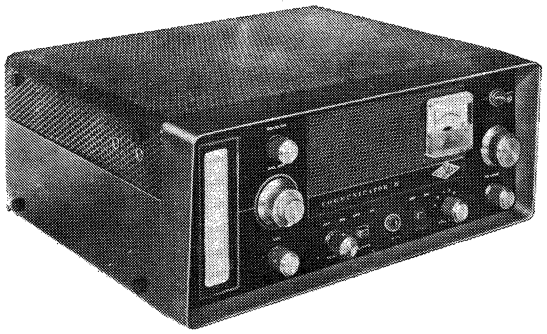
EICO ELECTRONIC INSTRUMENT CO., Inc. • Long Island City, N. Y.

ALL PRICES 5% HIGHER IN THE WEST

GONSET COMMUNICATIONS EQUIPMENT | CONDENSED CATALOG

Model numbers, description and prices, together with identifying photos of units are given for Gonset product line. All prices shown are f.o.b. factory. Prices and specifications of equipment are subject to change without prior notice.

COMMUNICATOR IV—2 METER TRANSCEIVER



Completely new—inside and out! Transmitter power greater than ever at 20 watts input. High level speech clipping and 10 watts of audio insure full talk power! Transmitter is crystal controlled, offers choice of six frequencies. Broadband circuitry in driver eliminates panel controls.

Receiver uses latest frame grid VHF tubes in RF and mixer for low noise figure of 4-6 . . . triple conversion with crystal controlled first conversion . . . excellent sensitivity, selectivity. Also automatic noise limiter, adjustable squelch, "S" meter, slide rule-type dial, panel speaker. Built-in power supply operates on both 117V AC and 12V DC. DC supply is transistorized, eliminates vibrator. Power cables are supplied for shift from AC to DC. Size: 5"H, 12½"W, 11"D. Weight, 21.8 pounds.

DC operation is with **negative ground only.**

(Less Microphone) Model #3341

COMMUNICATOR IV—6 METER TRANSCEIVER

Communicator IV for 6 meters is the same size and general appearance as the 2 meter model. Tunable receiver covers 49.9 to 54.1 with the 50-51 mc range spread over one third of the dial range. Receiver is triple conversion type, has sensitivity of 1.0 uv (for 10 db S+N/N) or better. Noise figure is 6-8 db.

Transmitter operates at power input of 24 watts, has six crystal control positions with socket for external VFO. Crystals are in the 8.333 to 9 mc range. Equipment has push-to-talk provisions.

2-way power supply, 12V DC and 117V AC is built in. DC supply is transistorized, operates **negative ground only.**

(Less Microphone) Model #3342

COMMUNICATOR IV—1¼ METER TRANSCEIVER

The first commercially-produced "package" operating on the amateur 220 megacycle band! Operates at an input power of 20 watts—substantial for VHF—incorporates an excellent superheterodyne receiver.

Triple conversion receiver is continuously tunable over the frequency range of 219.7 to 225.3 mcs. To comply with OCDM requirements, additional provision is made for spot frequency reception on one crystal controlled frequency. Receiver sensitivity is 1.0 uv for 10 db S+N/N ratio. Noise figure is 6-8 db, exceptional for equipment of this general type. Adjustable squelch and ANL are included.

Transmitter is crystal controlled, offers choice of 6 frequencies. (Required crystals are within the range of 8.143 to 8.333 mcs.) Provision is made for external VFO. Power input to PA is 20 watts, amplitude modulated by P-P 6BQ5's operating in Class AB1. High level speech clipping and audio shaping are incorporated.

Unit is identical in size and general appearance to the Communicator IV 2 meter model. 2-way power supply for 117V AC and 12V DC (**negative ground**) is built in.

(Less Microphone) Model #3351

COMMUNICATOR IV—CD MODEL, KITS

CD COMMUNICATOR IV-OCDM

2 meter Communicator IV for Civil Defense. (OCDM Type U-70). Consists of Model #3341 with Model #3409 kit and crystal certificate.

Model #3341-CD

CD KIT FOR 2 METERS

Kit converts standard Communicator IV models to meet OCDM requirements. Includes Type 350 ceramic microphone, yellow-color canvas bag, 23" telescoping antenna for 2 and 1¼ meters, CD decals and crystal certificate.

Model #3409

VFO FOR 6, 2 AND 1¼ METER COMMUNICATORS

New VFO is designed for use with all Gonset Comunicators including Models I, II, III and IV. Dial scale is calibrated for 50, 144 and 220 megacycle bands.

Built in Vari-Cap FM Modulator is provided to allow VFO to be used for Narrow Band FM. Excellent stability.

Model #3357

COMMUNICATOR IV ACCESSORIES

UNIVERSAL MOUNTING BRACKET

Kit provides universal bracket for mounting any model Communicator IV in a car. All Communicators have threaded inserts in side of cabinet to fit this bracket.

Model #3365

CANVAS CARRYING BAG

Carrying bag for all Communicator IV models. Bag has pocket for antenna, microphone and cables. Material is blue color canvas and is without insignia.

Model #3363

GSB-201 SSB RF LINEAR AMPLIFIER

This entirely new linear amplifier is exceptionally compact—is only 8½" high, 12⅝" wide and 17" deep—lends itself readily to table-top mounting. It is finished in blending light colors, presents a handsome clean-cut appearance.

The linear amplifier covers 80, 40, 20, 15 and 10 meter amateur bands, incorporates full bandswitching, has pi network output. Power input rating is 1500 watts PEP SSB, 1000 watts CW, 400 watts AM. This amplifier can be driven by exciters in the 65-150 watt category, GSB-100 and similar units. Stable, grounded-grid circuitry is used.

GSB-201 incorporates a number of desirable operating features which include the use of low cost Type 811A tubes. Older type vacuum tube rectifiers are replaced by modern, long-life silicon types in the high voltage supply. Antenna changeover relay is built-in. A panel switch permits preliminary tuning to be done at low power. A full vision panel instrument is switchable to indicate plate current or relative power output.

Model #3340

GONSET *Division of Young Spring & Wire Corporation*

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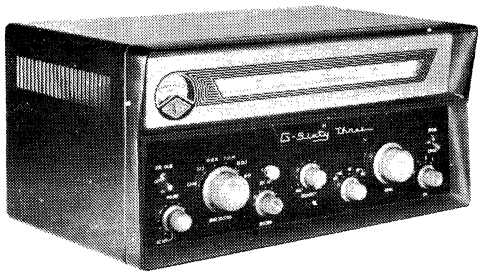
GONSET COMMUNICATIONS EQUIPMENT

G-63 ALL-BAND RECEIVER



An excellent amateur communications receiver with coverage of 6 bands: 80, 40, 20, 15, 10 and 6 meters. Exceptional sensitivity and signal-to-noise ratio on all bands—a really "live" receiver on 6 meters! Unit is highly stable, has low frequency drift. Each amateur band is spread fully across the full vision drum dial. G-63 has **two** second detectors—a **Product type** for SSB CW and a **Diode type** for AM reception.

G-63 uses double conversion with 1st I-F at 2065 kc for low image, the 2nd I-F at 263 kcs for selectivity with multiple tuned band-pass circuits for steep-shoulder response. Peaking-type "Q" multiplier permits I-F response for CW to be varied down to 100 cps. Operating features include AVC, ANL, "S" meter, provisions for crystal calibrator. Cabinet is finished attractively in gunmetal gray with panel in black with satin aluminum trim.

Frequency range: 3.5-4 mcs, 7-7.3 mcs, 14-14.35, 21-21.45 mcs, 28-29.7 mcs, 50-54 mcs. Tubes: 6BZ6 (RF), ½—6U8A (1st conv.), ½—6U8A (HF osc), 6BE6 (2nd conv.), 6BA6 (1st I-F amp), 6BA6 (2nd I-F amp), 6AL5 (2nd det. AVC-ANL), 6BE6 (product det. BFO), ½—12AX7 (1st I-F), 6AQ5 (output aud.), 5Y3GT (rect.), OB2 (volt reg.)

Model #3260

G-63 RECEIVER ACCESSORIES

CABINET ENCLOSED SPEAKER

Handsome, modern speaker unit for use with G-63 and G-43 receivers.

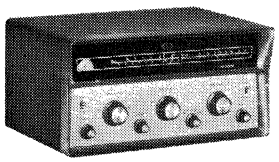
Model #3285

PLUG-IN CRYSTAL CALIBRATOR

Designed for use in G-63 and G-43 receivers or G-76 transceiver

Model #3269

G-43 ALL-BAND RECEIVER



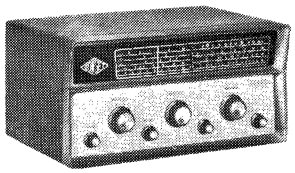
G-43 all-band receiver features modern, attractive styling, excellent performance, 6-band coverage: .54-1.6 mcs; 1.8-5.7 mcs; 5.7-13 mcs; 13-20 mcs; 20-25 mcs; and 25-30 mcs. 6 band coverage gives better stability, easier tuning. Drum dial shows only band in use, logging scale. Calibration on band 6 provides for use of VHF converters. IF has 6 double-tuned Hi-Q transformers at 1650 kcs. for desirable selectivity. Panel controls include main tuning, band-spread tuning, bandswitch, audio volume, sensitivity, antenna trimmer, ANL on-off, phone-CW, standby-receive, "S" meter, provision for crystal calibrator. Tubes: 6BE6 (conv); 6BA6 (1st IF); 6BA6 (2nd IF); 6AU6 (3rd IF); 6AL5 (det, AVC, ANL); 12AX7 (1st Audio, BFO); 6CM6 (2nd Audio); 6X4 (rect.)

Model #3241

Plug-in Crystal Calibrator for G-63 and G-43 receivers

Model #3269

G-33 ALL-BAND RECEIVER

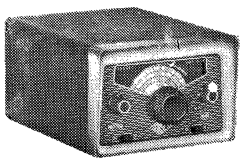


G-33 is similar in construction and general appearance to G-43, has simplifications to provide greater economies. Tunes .54-1.6 mcs; 1.8-6 mcs; 6-13 mcs; and 13-34 mcs. Bandspread dial has calibrated scales for amateur bands. 1650 kc I-F results in greatly-improved image rejection. 3 double tuned Hi-Q transformers provide excellent I-F selectivity.

Panel controls include: Main tuning, band-spread tuning, band-switch, audio volume, antenna trimmer, sensitivity, function selector. Tubes: 6BE6 (conv), 6BA6 (1st I-F), 6BA6 (2nd I-F, BFO), 6AV6 (det, AVC, 1st audio), 6CM6 (2nd audio), 6X4 (rectifier).

Model #3222

SUPER 12, SIX-BAND CONVERTER



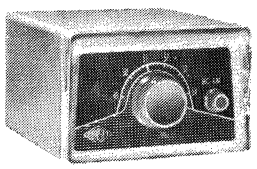
Super 12 provides coverage of 6 amateur bands: 10, 15-20, 40 and 75 meters plus 19 and 49 meters for coverage of international shortwave broadcasts. Calibrated dial scale uses various colors to aid in identification of bands. Planetary drive provides vernier tuning.

Sensivity and stability are excellent. Antenna trimmer on panel maximizes antenna in use. BC-HF switch permits instant return to standard BC. Super-12 is attractive . . . blends well with instrument panel of modern cars. Compact size facilitates mounting. Highest quality components and precision workmanship ensure long, trouble-free operation. Installation is simple, non-technical—no alteration or internal connections to existing broadcast receiver. Converter simply patches into antenna input connector of car radio . . . attaches to 12 volt accessory post under dash. Install in minutes with ease.

12 volts DC neg. ground only.

Model #3261

6 METER CONVERTER

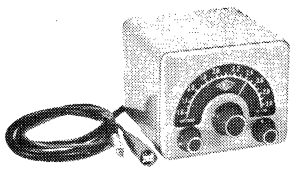


Provides excellent 6 meter reception when operated with conventional automobile broadcast receivers or with communications or broadcast-type home receivers. Has full-vision calibrated dial. Is compact, simple to install. Built-in Gonset noise clipper can be connected to receivers not having such provisions.

12 volts DC neg. ground only

Model #3275

12 VOLT, POLICE-MARINE CONVERTER



For mobile reception of maritime and police bands, 1600 to 3000 kcs. Operates in conjunction with existing auto set on any car having 12 volt battery system.

Installation is simple, rapid. No alteration of auto set. Cable and plug supplied fits antenna receptacle of auto set. Attaches to 12 VDC accessory post behind dash for operating voltage. Size: 3½" H. 4"W, 4"D.

12 volts DC neg. ground only.

Model #3163

GONSET *Division of Young Spring & Wire Corporation*

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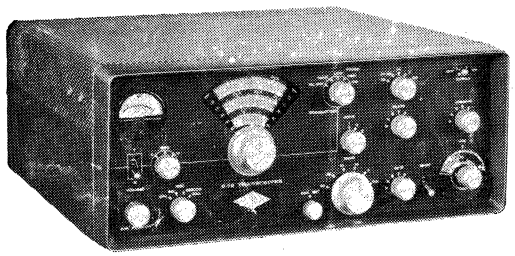
GONSET COMMUNICATIONS EQUIPMENT

G-76 ALL-BAND TRANSCEIVER FOR FIXED OR MOBILE SERVICE



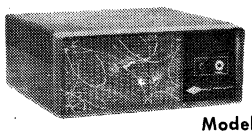
G-76, an entirely new unit consisting of transmittter and receiver in a single compact housing. Provides AM or CW operation on 80, 40, 20, 15, 10 and 6 meter amateur bands. The G-76 incorporates proved design features of the famed Gonset G-66/G-77 "Twin sparklers," adds many new advances for top fixed station and mobile operation

Receiver is dual-conversion with 1st I-F at 2065 kcs, 2nd I-F at 262 kcs. Features include BFO for SSB and CW reception—automatic noise limiter. Unit has excellent selectivity and sensitivity. Transmitter and receiver oscillators are temperature compensated. Transmitter has stable VFO for all bands except 50 mcs which is crystal control only. Crystal control of other bands is optional. Power input to transmitter is 100 watts AM, phone, 120 watts, CW. Final tube is 6DQ5 operating into pi network output. Control is push-to-talk or by T-R switch on panel. Meter facilitates tuning, acts as "S" meter on receive. Dimensions: 12½"W, 5"H and 10½" deep. Unit has internal socket for crystal calibrator (optional) also panel switch for calibrator operation.

Model #3338

G-76 SPEAKER/POWER SUPPLIES

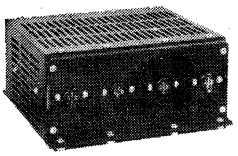
G-76 AC SUPPLY/SPEAKER



115V AC power supply and loudspeaker unit for G-76 in single cabinet to match unit.

Model #3349

G-76 DC POWER SUPPLY



12V DC transistorized power supply for G-76, W/cable less speaker. Negative ground only.

Model #3350

G-76 TRANSCEIVER ACCESSORIES

UNIVERSAL MOUNTING BRACKET

Kit provides universal bracket for mounting G-76 in a car.

Model #3365

PLUG-IN CRYSTAL CALIBRATOR

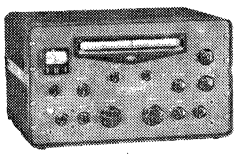
Designed for use in G-76 transceiver or G-63 and G-43 receivers.

Model #3269

CERAMIC MICROPHONE

Model #3340

GSB-100 SSB TRANSMITTER



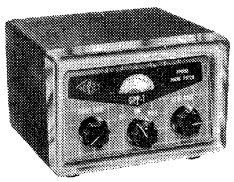
GSB-100 is a complete, self-contained SSB transmitter for operation on 80-40-20-15-10 meter bands. This transmitter is rated at 100 watts PEP input, operates on SSB with selectable sidebands, phase modulation, AM and CW.

Output circuit utilizes pi-network. The new GONSET FILTER-PHASING network gives high sideband rejection, uses a quartz crystal band-elimination filter for carrier suppression of more than 60 db. This filter avoids critical carrier balancing.

Frequency control is by fixed quartz crystal and built-in VFO. Latter features exceptional stability. Unit gives full 600 kcs within all amateur bands, 80 through 10. Highly effective voice-operated control system, (VOX) is provided. Heavy duty 115 VAC power supply is built-in.

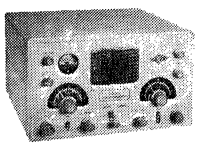
Model #3233

GPP-1 HYBRID BALANCED PHONE PATCH



GPP-1 provides the ideal "patch" between amateur station transmitting/receiving equipment and land line telephone circuits. Adjustable hybrid balancing permits optimum balance for any particular set of conditions. Panel meter indicates correct balance, also switches to show line level under patch conditions, thereby avoiding line overload and crosstalk. No power required . . . simple to install, operate. Only 4½"H, 6"W, 6¼"D.

Model #3273



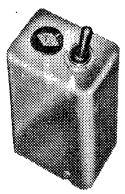
6 METER FIXED STATION COMMUNICATOR

G-50 is a complete station "package" for 6 meter operation. Receiver is highly sensitive, selective superhet with "S" meter, ANL, adjustable squelch, panel mounted speaker. Transmitter uses 6146 in pi network final at 40-50 watts input. Frequency control is by crystal or built-in highly stable VFO. Latter gangs with multiplying stages, eliminates excitation controls. Dial is calibrated 50-54 mcs. Modulator uses two 6L6GB's. Compact housing, 7½"H, 13"W, 12½"D contains receiver, transmitter, power supply. For 117V AC operation only.

Model #3221

CD MODEL. Similar in general appearance to standard amateur model but is certified as meeting applicable specifications under OCDM U-68. Cabinet is same size as amateur model, has appropriate CD markings. Mic. and crystal certificate included.

Model #3300-CD

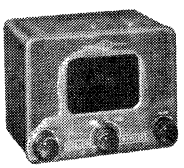


NOISE CLIPPER

A "must" for every mobile installation operating above 2 or 3 mc to reduce ignition interference. Works with all AM receivers using conventional diode detectors, easy to install. Complete instructions furnished.

Model #3001

MONITONE



For use as a code practice oscillator and as an effective monitor for phone and CW xmtrs. Has audio oscillator controlled by external circuit, provides audible tone on panel speaker or earphones. Separate pitch and volume controls. Uses RF pickup from xmtr. for operation as effective CW or phone monitor. Operates from 115 VAC with isolating circuitry so that neither keying nor earphone leads are "hot" to ground.

Model #3022

GONSET *Division of Young Spring & Wire Corporation*

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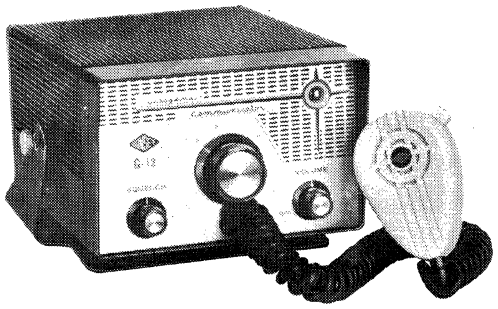
GONSET COMMUNICATIONS EQUIPMENT

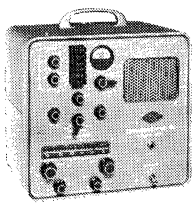
G-12 CITIZENS COMMUNICATOR FOR 11-METER CITIZENS BAND



A complete 4-channel station for virtually unlimited business or private use in car . . . truck . . . tractor . . . boat . . . plane. Operates within 26.965 to 27.235 mc. Easy to obtain station license—only simple FCC form to fill out . . . no exam or special skills required. No tuning . . . four crystal-controlled channels (transmitter/receiver) selectable by front panel switch for highest stability, reliability. G-12 features 5-watts input power . . . easy press-to-talk operation, ANL, superhet receiver with RF stage, adjustable squelch, built-in speaker, transmitter tune indicator. Fully FCC type accepted. Employs latest electronic design techniques. Is rugged, compact . . . only 4½"H, 7"W, by 10"D., weighs 11 lbs. Has gimball mount, built-in 12VDC/117VAC (or 6VDC/117VAC optional) power supply for fixed or mobile service. **per unit 149.95**

G-12 Citizens Communicator, 12VDC/117VAC. Includes mike and trans/rec. crystals for one channel..... **Model #3316**

G-12 Citizens Communicator, 6 VDC/117 VAC. Includes mike and trans/rec crystals for one channel ..... **Model #3329**



GROUND-TO-AIR COMMUNICATOR

Effective, 2-way VHF station in convenient, portable package. "Three way" power supply permits operation from 115 VAC mains or from 6 or 12 VDC vehicular battery. Xtal-controlled transmitter supplies full 6-7 watts output power with AC or DC power sources.

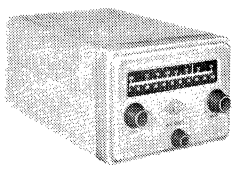
Superhet receiver has 6BZ8 low-noise RF in "cascode" circuit, selective IF, noise clipper, adjustable squelch. Receiver is tunable, 112 to 132 mcs. Simple, non-technical operation. Same size and weight as comparable Communicator III models. Can be used with integral whip or remote antenna with 52 ohm coaxial line.

Ground-to-Air Communicator, with mic, canvas carrying case and crystal certificate (6-12 VDC, 115 VAC).

Model #3139-GA

Telescoping Antenna, Communicator III series

Model #3152

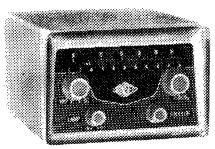


AIRCRAFT MONITOR RECEIVER

Economically priced AM receiver for communications monitoring and emergency applications in the VHF region. Complete with AC power supply, built in loudspeaker.

Full-vision, slide rule type dial is calibrated over the frequency range of 108-135 megacycles. Oscillator is temperature compensated for high stability. **This receiver meets FCC requirements for low oscillator radiation.** Operating features include excellent automatic volume control and adjustable squelch for muted standby.

Model #3156-B



12 VOLT 30-50 MC FM CONVERTERS

Operates with existing 12 volt auto radio to provide excellent mobile FM reception. **Exclusive Gonset design** permits simple, non-technical installation in minutes.

No adjustments or alterations to auto set. Just plug converter into car radio and clip power lead to 12 volt "accessory" post under dash. Converter has adjustable squelch and dial lamp ON-OFF switch. General appearance similar to Model #3311. Operates **only on cars having negative grounds** on battery.

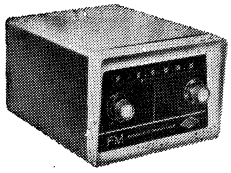
FM, 30-40 mc.....Model #3247
FM, 40-50 mc.....Model #3251

Gonset Division of Young Spring and Wire Corporation is a pioneer in electronic communications equipment manufacture. Located in Burbank, California, the Company was founded in 1942 by Faust Gonsett (from whom it took its name). The original Company was acquired by Young Spring and Wire Corporation in 1956. The Gonset label has been continuously associated with highest quality amateur radio equipment since the date of founding.

Today the division occupies a 65,000 square foot plant, employs 500, and is operated by a management team of 10 veteran electronics executives. The division now manufactures and markets a complete line of radio communications products—for amateur use, for mobile use by industry and private citizens. Special Gonset equipment may be found in vehicles of civil protective agencies and in use at airports and on Civil Defense networks.

Gonset products are distributed internationally by a network of franchised electronics wholesalers and retailers. The name Gonset is synonymous with Reliability in Radio products.

12 VOLT 88-108 MC FM TUNER



Now . . . full fidelity FM reception in your car. New converter operates with existing auto set and antenna, brings all the well known advantages of FM.

Tuner is easy to operate—only two controls, no fussy tuning. Just locate signal on dial near 800 KC. Unique "locking" circuit then positively and correctly tunes FM station to full fidelity. Installation is simple, non-technical. No alterations or adjustments to auto set. Tuner connects to 12 volt battery source, plugs into antenna connections of auto radio. For cars with **12 volt negative grounds only.**

88-108 mc FM.....Model #3311

GONSET *Division of Young Spring & Wire Corporation*
BURBANK, CALIF.

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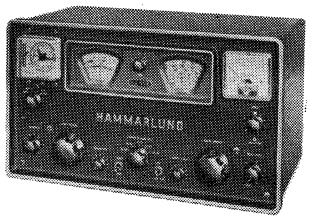
HAMMARLUND

COMMUNICATIONS EQUIPMENT

NEW HQ-100 A

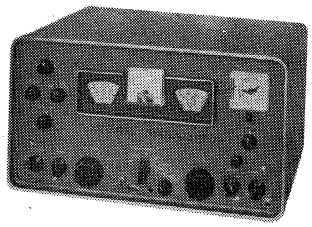


A modestly priced general coverage receiver with excellent CW and SSB reception due to independently controlled continuously variable BFO and Q-multiplier. Continuous tuning from 540 KKCS to 30 MCS. Outstanding sensitivity and selectivity — electrical bandspread directly calibrated. Voltage and temperature regulated. S meter. Exclusive Auto-Response. Automatic noise limiter. Ten tube superheterodyne circuit.

$189.00
Amateur Net

24-hour clock timer optional .....**$10.00** Extra

NEW HQ-145 X

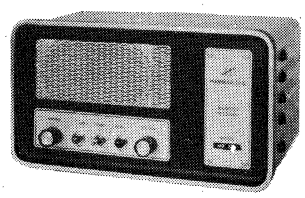


General coverage receiver for SWL and hams with built-in provision for single crystal controlled channel. Tunes from 540 KCS to 30 MCS. Electrical bandspread in all ham bands in frequency range. Dual conversion from 10.0 MCS to 30.0 MCS. 60 db slot filter and six position crystal filter. Eleven tube superheterodyne with automatic noise limiter. High sensitivity. Optional 100 KC plug-in calibrator.

$269.00
Amateur Net

24-hour clock timer optional .....**$10.00** Extra

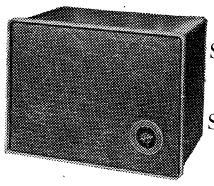
NEW MR-50 X
NEW MR-30 X



Identical units except for frequency ranges covered. MR-50 X has range of 147-174 MC. MR-30 X — 25-54 MCS. Offers true split channel performance with optional multi-channel operation. Entirely self contained with whip antenna — provision for external antenna. Selective call option. High sensitivity. Crystal controlled to fixed, pre-determined channels for optimum reception. Ideal for civil, industrial, or commercial use.

$199.00
Net

SPEAKERS



S-100 speaker for use with HQ-100, HQ-110, and HQ-105-TR.....**$14.95** Amateur Net

S-200 Speaker for use with HQ-145-X, HQ-170, HQ-180...**$19.95** Amateur Net

NEW HQ-105 TR

CITIZEN-HAM BAND TRANSCEIVER WITH GENERAL COVERAGE RECEIVER

Citizens band transceiver with built-in provision for ham band operation. Five watt input transmitter, 100% modulation — for CB or 10 Meter operation. Receiver continuously tunable from 540 KCS to 30 MCS. Direct dial calibrated electrical bandspread. Dial markings every 10 KCS on 80, 40, and 20 meter bands; every 20 KCS on 15 meter band; and every 50 KCS on 10 meter band. Q-multiplier. BFO. Auto-Response. Automatic noise limiter. Eleven tube transceiver design.

$219.50
Amateur Net

24-hour clock timer optional .....**$10.00** Extra

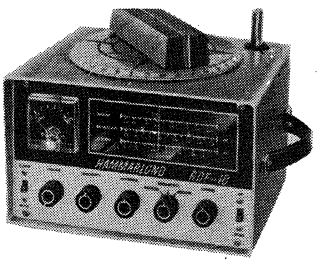
NEW HX-50

FILTER-TYPE TRANSMITTER

New, compact, 50 watt output filter-type transmitter-exciter offering superior performance in SSB, AM, or CW. Covers all amateur bands 80 to 10 meters, plus MARS, in the frequency ranges of 3.25 to 4.25, 6.75 to 7.75, 13.75 to 14.75, 20.75 to 21.75, 27.75 to 29.75 MCS. Modern design includes use of latest compactrons and Nuvistor. Built-in antenna changeover, VOX, and keying relay. All crystals included. Separate dial scale employed for each band with readout better than 500 cps. New, compact, beautifully designed receiver—inside and out. (Available Sept.—1961)

$399.50
Amateur Net

RDF-10



Three band radio directional finder, marine, broadcast, and beacon. Ten transistors, modern circuitry, for extra sensitivity. Self-contained standard flashlight size battery supply. Low-drain — long battery life. Calibrated directional antenna for pin-point "fix". Simple, sure, accurate, and always dependable.

$179.00
Complete
(less batteries)

Net

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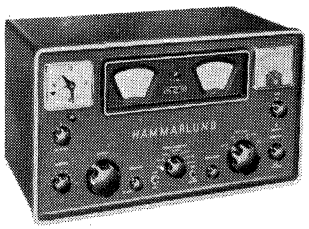
HAMMARLUND

COMMUNICATIONS EQUIPMENT

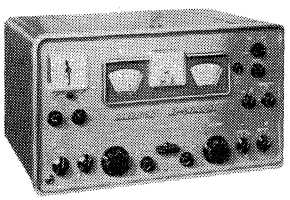


HQ-110

Dual conversion, 12 tube superheterodyne receiver. Tunes, 6, 10, 15, 20, 40, 80, and 160 meter bands. Electrical bandspread tuning. S meter. Q-multiplier. Separate AM, SSB, and CW detectors. Separate BFO for stability. Crystal-controlled second conversion. Built-in 100 KC crystal calibrator. Adjustable dial calibration. Automatic noise limiter.

$249.00
Amateur Net

24-hour clock timer optional ..... **$10.00** Extra

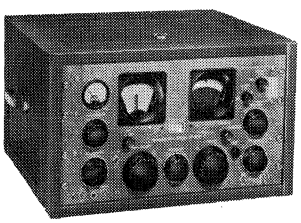


HQ-180

A general coverage SSB receiver that provides professional performance at an amateur price. 18 tube superheterodyne, 540 KCS to 30 MCS coverage. Bandspread. H.F. crystal filter—slot filter. Separate product detector. Tuned IF amplifier. Selectable sideband. BFO control. Selectable fast attach AVC. Crystal calibrator. Automatic noise limiter. In fact, everything and more that you would expect to find in the very best general coverage SSB receiver.

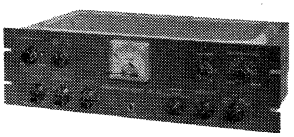
$429.00
Amateur Net

24-hour clock timer optional ..... **$10.00** Extra



SP-600
COMMUNICATIONS RECEIVER

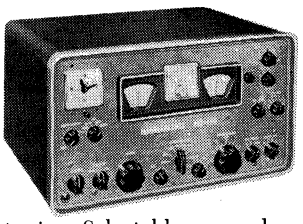
A commercial/military quality receiver tuning from 540 KCS to 54 MCS in six bands. Operation on any one of 6 crystal controlled fixed frequencies. Stability .001% at 54 MCS. Extremely high image rejection. Ideal for diversity or point-to-point reception. Also available in other frequency ranges for laboratory, military, or communications reception. Price range from $1140.00 up—dependent on frequency ranges and features desired.



SPC-10
SSB CONVERTER

Self contained unit for conversion of any standard communications receiver having an IF frequency of 450 to 500 KCS—but especially adapted for use with the Hammarlund SP-600. A professional quality SSB and new selectivity performance on AM-MCW.

$375.00
Amateur Net



HQ-170

The very best ham receiver. Exceptional SSB performance with 17 tube superheterodyne design — dual and triple conversion. Tunes 6, 10, 15, 20, 40, 80, and 160 meter amateur bands. Separate plus or minus 3 KC vernier tuning. Selectable upper, lower, or both sidebands. 100 KCS calibrator. Selectable AVC.

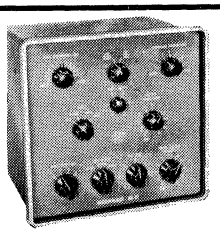
$359.00
Amateur Net

24-hour clock timer optional ..... **$10.00** Extra

HX-500 SSB TRANSMITTER

Advanced design 100 watt transmitter for amateur use. Covers 3, 5, 7, 14, 21, 28, 29, and 30 MCS bands. Separate dial scale for each band. All crystals included. Read-out to 200 cps or better. Stability after warmup better than 100 cps. Choice of upper, lower, or both sidebands, CW, FM, FSK, for RTTY, plus 40 cps identification keyed shift. 50 db or better carrier and sideband suppression. Automatic VOX/ anti VOX system. Dollar for dollar, the finest amateur transmitter ever offered.

$695.00
Amateur Net

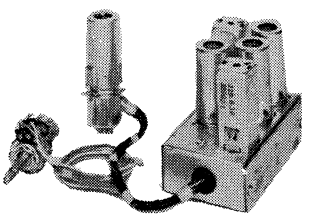


HC-10
SSB CONVERTER

Provides the finest SSB performance with any standard, stable receiver with an IF of 400 to 500 KCS. Connects in seconds. Built-in audio output. does not affect normal operation of receiver. Provides choice of upper, lower, or both sidebands. Adjustable notch filter up to 60 db. Selectable passband width. Vernier tuning. Automatic noise limiter.

$149.00
Amateur Net

IF—NOISE SILENCER



Essentially plug-in 3 tube circuit designed primarily for use with the Hammarlund HQ-170 and HQ-180 communication receivers. Renders receivers inoperative during short duration of any individual noise pulse. Lapse or "hole" not noticeable because of extremely short duration. Excellent where severe ignition or other pulse-type noises must be contended with.

$33.50
Amateur Net

CRYSTAL CALIBRATORS

Crystal calibrators providing markers for dial calibration every 100 KCS.

XC-100 for general usage ..... **$15.95** Amateur Net

XC-100 for HQ-140-X, HQ-140-XA, HQ-120 and HQ-129 ..... **$17.95** Amateur Net

HX-100 plug-in calibrator for HQ-145 and HQ-145-X ..... **$15.95** Amateur Net

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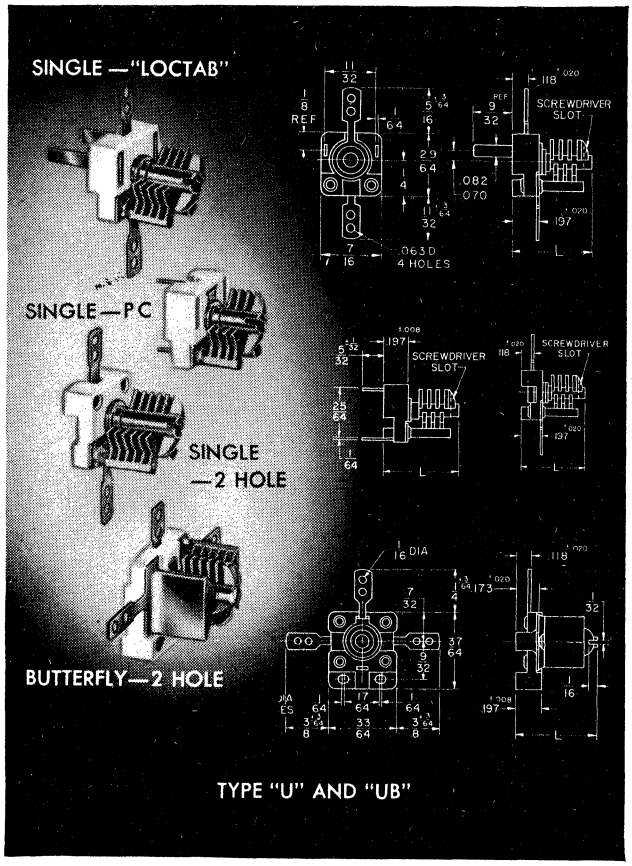
E. F. Johnson Company

WASECA, MINNESOTA



TYPE "U" AND "UB" CAPACITORS

These tiny Type "U" and "UB" sub-miniature air variable capacitors require less than 0.2 and 0.3 square inch area respectively for chassis or panel mounting. Rotors and stators are precision machined from one piece of solid brass for outstanding mechanical stability and uniformity. Unit offers high "Q" (greater than 1500 at 1 mc), high torque-to-mass ratio, and low temperature coefficient – provides absolute freedom from moisture entrapment found in trimmer capacitors of enclosed or solid dielectric type. All metal parts silver plated – ceramic steatite Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics. Extra heavy end rotor plate protects against accidental damage during handling. No special tools required for installation – slotted end accommodates large screwdriver for quick adjustment. Choice of wide, double pierced or printed circuit style terminals; and "LocTab," printed circuit, or two-hole mounting styles. Specials and Two hole mounting are available only in production quantities.

Note: When ordering "LocTab" add-1 to Cat. No.; Printed Circuit add-5 and 2-hole mounting add-7*

SINGLE SECTION—Air Gap .010"—850 Volt Peak Breakdown

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	"LocTab"	Net Price Ptd. Circuit	Hole Mnt.
189-1	3.5	1.2	4	29/64"	$0.50	$0.50	$0.85*
189-2	5.4	1.3	6	1/2"	.52	.52	.87*
189-3	7.3	1.4	8	35/64"	.54	.54	.90*
189-4	9.1	1.5	10	19/32"	.56	.56	.93*
189-5	11.0	1.7	12	5/8"	.58	.58	.97*
189-6	13.0	1.8	14	43/64"	.60	.60	1.00*

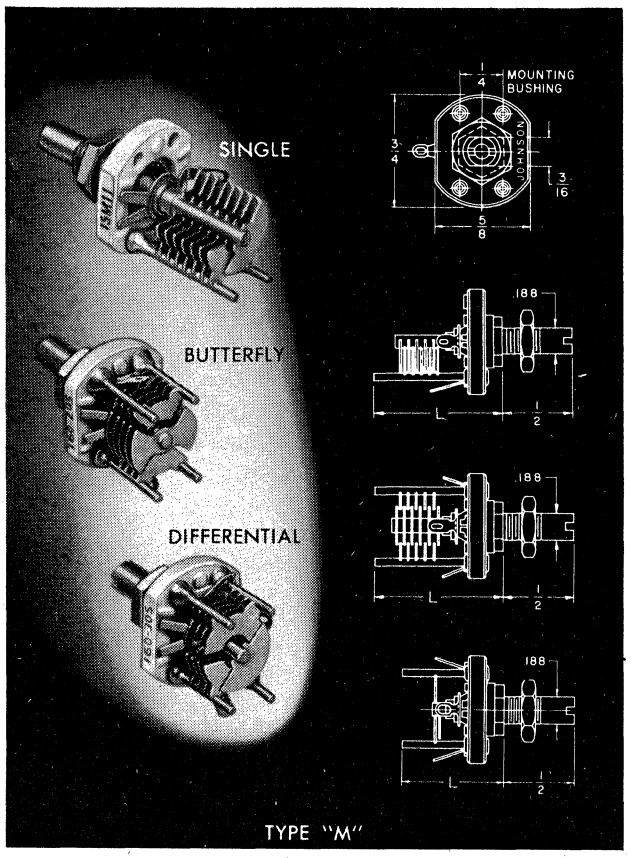
SINGLE SECTION—Air Gap .016"—1300 Volt Peak Breakdown

189-26	4.1	1.3	6	1/2"	$0.75	$0.75	$1.09*
189-27	6.7	1.6	10	5/8"	.85	.85	1.17*
189-28	8.9	1.8	14	3/4"	.95	.95	1.24*

BUTTERFLY—Air Gap .010"—850 Volt Peak Breakdown

189-201	4.5	2.4	9	15/32"	Not Av.	$1.75	$1.75*
189-202	5.5	2.5	15	5/8"	Not Av.	1.85	1.85*
189-203	8.5	3.0	21	11/16"	Not Av.	2.00	2.00*

*Available only in Production Quantities.



TYPE "M" CAPACITORS

These small Type "M" miniature air variable capacitors are excellent for use in compact equipment. Bridge type stator terminal provides an extremely low inductance path to both stator supports. Soldered plate construction, oversize bearing, and heavily anchored stator supports insure extreme rigidity. Large beryllium copper compression rotor contact provides steady torque – and rotor stays "put" where set. Rotor contact and all other metal parts are nickel plated – steatite insulator is DC-200 treated. Mounting bushing threaded with 1/4-32 flats to prevent turning – mounting nut furnished. Peak voltage 1250 volts on .017" spaced units; 850 volts on 160-130 which is spaced .013". 3/16" diameter shaft* slotted for screwdriver adjustment. Available in production quantities with the following features: locking bearings; 180° stop; various shaft extensions; high torque; silver or other platings.
*Instrument type tuning knob to fit 3/16" shaft available. (See page on knobs and dials.)

SINGLE SECTION

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
160-102	5	1.5	5	45/64"	$1.00
160-104	8.7	1.8	9	13/16"	1.05
160-107	14.2	2.3	15	1"	1.20
160-110	19.6	2.7	21	1 11/64"	1.35
160-130	32	3	28	1 17/64"	1.40

BUTTERFLY

160-203	3.1	1.5	5	45/64"	$1.40
160-205	5.1	1.8	9	13/16"	1.60
160-208	8	2.2	16	1"	1.80
160-211	10.8	2.7	22	1 11/64"	2.00

DIFFERENTIAL

160-303	5.0	1.5	5	45/64"	$1.45
160-305	8.7	1.8	9	13/16"	1.65
160-308	14.2	2.3	15	1"	1.85
160-311	19.6	2.7	21	1 11/64"	2.10

Net

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E. F. Johnson Company

WASECA, MINNESOTA

TYPE "S" CAPACITORS

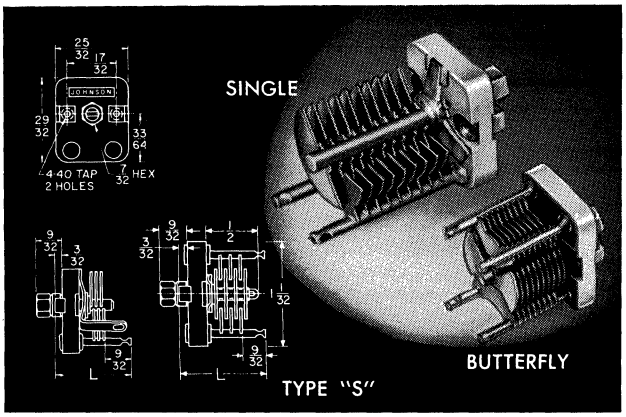
Midway in physical size between the Type "M" and "K" capacitors, the Type "S" is compact in design—rugged in construction. Unit is equipped with DC-200 treated steatite insulator, and nickel-plated brass plates. The "S" capacitor has a plate spacing of .013" with a peak voltage rating of 850 volts. Other spacings; single hole mounting types; straight shaft; screwdriver shaft; or locking-type screwdriver shaft available on special order in production quantities. Available in Single Section and Butterfly Types.

SINGLE SECTION

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
148-1	15	2.3	6	53/64"	$1.10
148-2	25	2.6	10	15/16"	1.15
148-3	35	2.9	14	1 1/32"	1.20
148-4	50	3.2	19	1 9/64"	1.30
148-5	75	3.9	29	1 13/32"	1.45
148-6	100	4.5	38	1 43/64"	1.65

BUTTERFLY

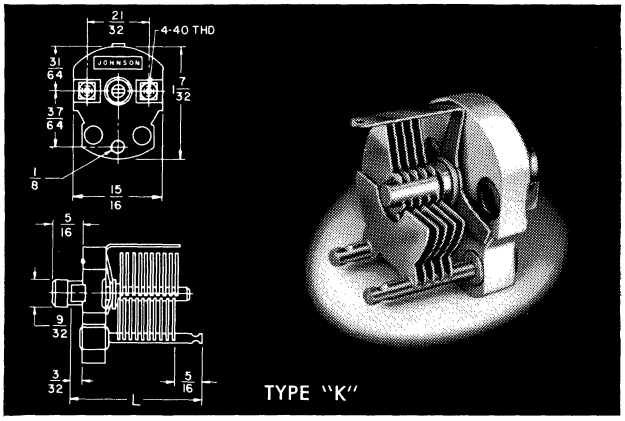
148-201	9	1.8	6	53/64"	$1.45
148-202	14	2.1	10	15/16"	1.55
148-203	20	2.4	14	1 1/32"	1.70
148-204	27	2.8	19	1 9/64"	1.90
148-205	42	3.6	29	1 13/32"	2.20
148-206	54	4.4	38	1 43/64"	2.50



TYPE "K" CAPACITORS

Widely used for military and many commercial applications, the Type "K" capacitor has a DC-200 impregnated steatite insulator, slotted stator contacts, and extra-rigid soldered plate construction. Peak voltage rating is 1000 volts with a plate spacing of .015" — plates are nickel-plated brass. The Type "K" capacitor is available in production quantities to meet MIL-C-92A specifications — other capacities and variations for specialized military and commercial applications are also available in production quantities. Butterfly and Differential Types will soon be available.

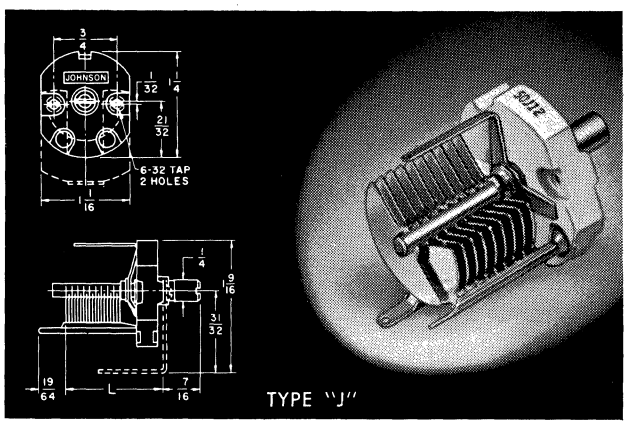
Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
158-1	10	2.9	3	7/8"	$1.25
158-2	25	3.7	7	1"	1.35
158-3	50	4.6	14	1 3/16"	1.55
158-4	75	5.5	20	1 3/8"	1.70
158-5	100	6.4	27	1 5/8"	1.85



TYPE "J" CAPACITORS

A heavy duty miniature type, the Type "J" capacitor has wider spacing (.025") than most small air variables, yet it occupies little more space. The Type "J" is especially useful for small space plate tank circuits in low power stages where standard miniatures have insufficient plate spacing. Unit is equipped with a DC-200 treated steatite insulator and has soldered plate construction. Peak voltage rating is 1200 volts. Mounting brackets and 6-32 screws provided.

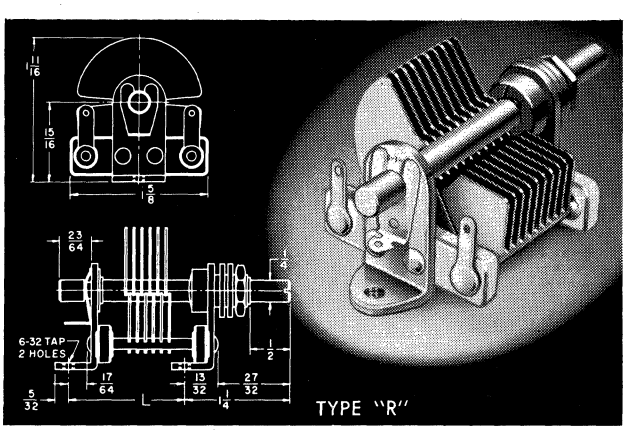
Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
157-1	8	2.6	3	19/32"	$1.85
157-2	17	3.3	6	23/32"	1.95
157-3	29	3.6	10	7/8"	2.10
157-4	52	4.9	19	1 1/4"	2.35
157-5	73	6	26	1 17/32"	2.65
157-6	102	7	36	1 31/32"	3.00



TYPE "R" CAPACITORS

This rugged Johnson version of a popular standardized capacitor, has extra-heavy steatite stator support insulators and soldered .023" thick brass plates. All metal parts are heavily nickel-plated for resistance to corrosion. Sturdy brass end frames offer excellent rigidity. Double bearing construction and silver-plated beryllium copper wiping contacts provide smooth, reliable performance. Peak voltage rating is 1200 volts — available with .024", .036", .050", .071", or .095" plate spacings, as well as special platings and shaft lengths in production quantities. Bearing threaded 3/8"-32. Also available without mounting feet for panel mounting applications.

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
149-1	20	5	3	17/32"	$2.25
149-2	35	6	5	17/32"	2.35
149-3	50	6.5	7	17/32"	2.45
149-4	80	8	11	17/32"	2.60
149-5	102	8.5	14	1 13/32"	2.75
149-6	140	13.5	19	1 19/32"	2.95



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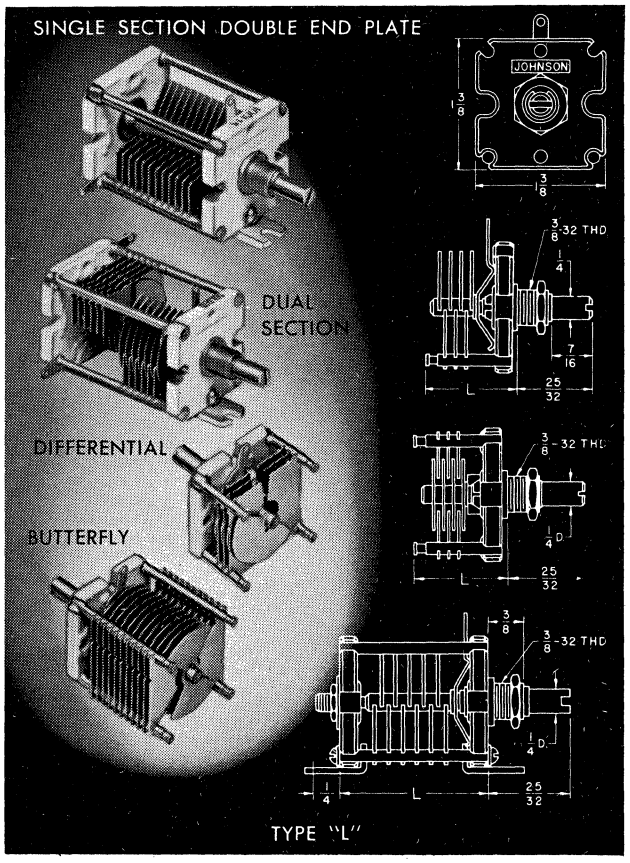
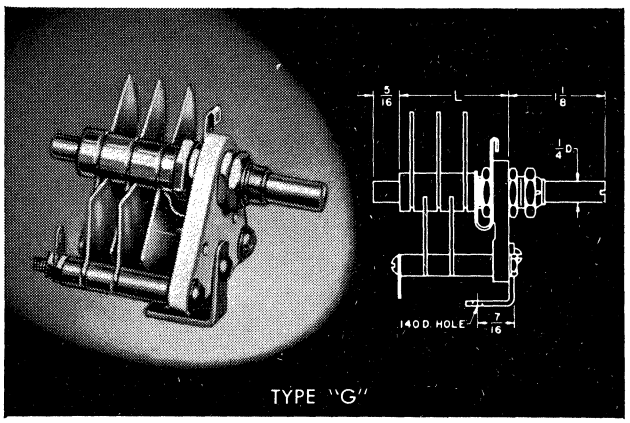
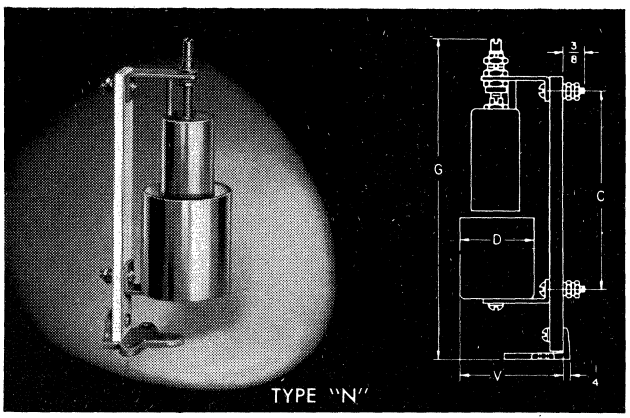
Net

E. F. Johnson Company

WASECA, MINNESOTA







TYPE "L" CAPACITORS

These high quality, ceramic soldered Type "L" capacitors are an ideal choice for applications requiring extreme stability and strength. Rotor bearings and stator support rods are actually soldered directly to the heavy 3/16" thick steatite insulator, making these capacitors practically impervious to shock and vibration. Special split-sleeve tension bearing and silver-plated beryllium copper contact provide constant torque and smooth capacity variation. Heavy brass soldered plates and large diameter tie rods provide excellent rigidity. Removable chassis mounting brackets can be used to mount auxiliary equipment. Plating is heavy nickel – plate spacing .030". Peak voltage rating is 1500 volts. Also available with .020", .060", and .080" spacing as well as special platings, shaft lengths and stator terminal locations in production quantities. Bearings threaded 3/8-32", mounting nut provided. Models with 6-32 tapped mounting posts soldered to end frame also available on special order.

SINGLE SECTION

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Plates per Sec.	L	Net Price
Single End Plate					
167-1	11	2.8	3	3/4"	**$1.60**
167-2	27	3.5	7	61/64"	**1.70**
167-3	51	4.6	13	1 1/4"	**1.90**
167-4	75	5.7	19	1 9/16"	**2.10**
Double End Plate					
167-11	99	6.8	25	2 1/32"	**3.30**
167-12	202	11.6	51	3 21/64"	**4.20**
BUTTERFLY					
167-21	10.5	2.8	5	55/64"	**1.95**
167-22	26	4.3	12	1 1/4"	**2.25**
167-23	51	6.8	23	1 3/4"	**2.75**
DIFFERENTIAL					
167-31	11	2.8	3	3/4"	**2.00**
167-32	27	3.5	7	61/64"	**2.20**
167-33	51	4.6	13	1 1/4"	**2.50**
DUAL SECTION					
167-51	27	5.0	7	1 5/8"	**3.60**
167-52	51	6.5	13	2 15/64"	**4.05**
167-53	99	9.8	25	3 7/16"	**4.95**

TYPE "G" CAPACITORS

A wide range of capacities and spacings make this popular capacitor adaptable to many applications. The Type "G" is especially useful as a neutralizing capacitor for medium and low power stages, and is also widely used for grid and plate tuning at high and ultra-high frequencies. The Type "G" capacitor is constructed with a single steatite insulator, .032" rounded aluminum plates, universal mounting bracket, locking nut, and front and rear shaft extensions. Peak voltage ratings are: 2000 volts with .045" spacing; 4500 volts with .125" spacing; and 7000 volts with .225" spacing.

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	Spacing	Plates per Sec.	L	Net Price
165-2	52	5	.045"	9	1 5/16"	**$3.50**
165-4	13	4.7	.125"	5	1 21/64"	**3.15**
165-5	23	6.4	.125"	9	1 61/64"	**3.50**
165-6	5.7	3.5	.225"	3	1 7/32"	**3.30**
165-7	12	6	.225"	7	2 15/64"	**4.15**

TYPE "N" CAPACITORS

The Type "N" capacitor requires very little mounting area, and offers extremely high voltage rating in proportion to its size. Fine adjustment with uniform voltage rating throughout the full capacity range. Plates are aluminum cups supported by a steatite frame with a cast aluminum mounting bracket. Peak RF breakdown ratings at 2 mc.: .125" spacing, 8500 volts; .250" spacing, 11,500 volts; .375" spacing, 14,500 volts.

Cat. No.	Cap. per Sec. Max.	Cap. per Sec. Min.	D	C	G	V	Spacing	Net Price
159-125	11.0	1.1	1 3/8	3 1/8	6 13/32	1 15/16	.125"	**$7.30**
159-250	10.6	1.4	1 47/64"	3 3/4	7 17/32	2 9/32	.250"	**8.45**
159-375	10.7	1.7	2 3/8	5 19/32	8 23/32	2 15/16	.375"	**10.50**

Net

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TYPE "C" AND "D" CAPACITORS

Heavy .051" aluminum plates and 5/16" diameter aluminum tie rods; large, laminated rotor brushes; ¼" cadmium-plated steel shafts; laminated phosphor bronze contact springs; and steatite insulation. Type "C" – overall width: 5½" – height: 5 13/32" – height bottom to shaft center: 3 3/32". Type "D" – overall width: 4¼" – height: 4" – height bottom to shaft center: 2 5/32". Dual types have center rotor connection for better balance. End frames tapped 8-32, 3 holes, for panel mounting – brackets furnished for chassis mounting.

TYPE C SINGLE SECTION

Cat. No.	Pk. Voltage	Cap./Sec. Max.	Cap./Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
152-1	7000	252	34	.175"	24	7 11/16"	$17.95
152-2	7000	496	56	.175"	47	13 1/16"	21.80
152-6	11000	103	30	.350"	17	9 15/32"	13.65
152-8	13000	51	24	.500"	10	8 9/16"	11.90
152-9	13000	102	42	.500"	21	14 7/32"	15.95

TYPE C DUAL SECTION

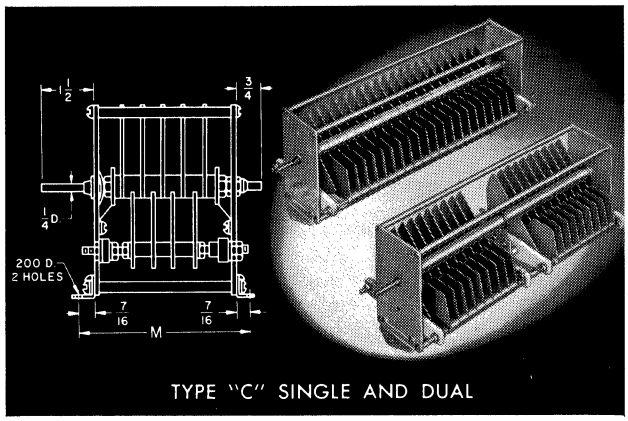
152-501	4500	204	21	.125"	15	9 15/32"	18.75
152-502	4500	290	26	.125"	21	11 3/16"	21.95
152-503	7000	198	27	.175"	19	13 1/16"	21.80
152-504	7000	305	37	.175"	29	17 21/32"	27.20
152-505	9000	147	30	.250"	19	15 23/32"	23.65
152-507	11000	50	18	.350"	8	11 3/16"	15.95
152-509	11000	103	32	.350"	17	17 21/32"	23.20

TYPE D SINGLE SECTION

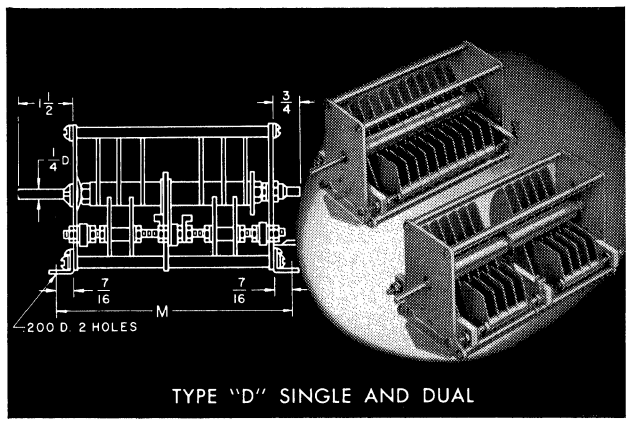
153-6	3500	496	36	.080"	39	7 11/16"	16.50
153-8	4500	146	23	.125"	17	5 21/32"	10.40
153-11	7000	98	23	.175"	15	5 21/32"	10.15
153-12	7000	151	31	.175"	23	7 11/16"	11.95
153-13	7000	244	45	.175"	37	11 3/16"	15.20
153-15	9000	53	20	.250"	10	5 21/32"	9.35
153-16	9000	73	25	.250"	14	6 11/16"	10.35
153-17	9000	99	30	.250"	19	8 9/16"	11.55
153-18	9000	149	43	.250"	29	11 3/16"	13.90

TYPE D DUAL SECTION

153-501	3500	95	13	.080"	8	5 21/32"	11.60
153-502	3500	147	15	.080"	12	6 11/16"	13.35
153-503	3500	202	19	.080"	16	8 9/16"	15.95
153-504	3500	291	24	.080"	23	10 11/32"	18.35
153-505	3500	496	38	.080"	39	14 7/32"	25.40
153-506	4500	155	24	.125"	17	10 11/32"	16.60
153-507	4500	198	27	.125"	23	13 1/16"	18.60
153-508	7000	52	15	.175"	8	6 11/16"	11.95
153-509	7000	72	17	.175"	11	8 9/16"	13.70
153-510	7000	97	22	.175"	15	10 11/32"	15.55
153-511	7000	151	31	.175"	23	14 7/32"	19.95
153-513	9000	52	19	.250"	10	10 11/32"	14.25
153-514	9000	97	30	.250"	19	15 23/32"	19.10



TYPE "C" SINGLE AND DUAL



TYPE "D" SINGLE AND DUAL

TYPE "E" AND "F" CAPACITORS

Large amount of capacity per cubic inch and extremely low capacity to chassis. Heavy aluminum plates .032" thick with rounded edges and large ¼" tie rods; stainless steel shafts; sturdy phosphor bronze contact springs; and center rotor contact on dual types. End frames tapped 8-32, 3 holes for panel mounting – brackets furnished for chassis mounting.

TYPE E SINGLE SECTION

Cat. No.	Pk. Voltage	Cap./Sec. Max.	Cap./Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
154-1	2000	244	12	.045"	23	3 7/32"	$ 6.65
154-2	2000	353	15	.045"	33	3 31/32"	7.60
154-3	2000	488	19	.045"	45	4 29/32"	8.75
154-7	3000	100	11	.075"	15	3"	5.95
154-8	3000	154	14	.075"	23	3 1/8"	6.75
154-9	3000	251	20	.075"	37	5 3/8"	8.25
154-10	3000	347	25	.075"	51	6 7/8"	9.70
154-11	4500	38	9	.125"	9	2 3/4"	5.40
154-12	4500	53	11	.125"	12	3 13/32"	5.80
154-13	4500	74	13	.125"	17	4 1/32"	6.30
154-14	4500	101	16	.125"	23	4 31/32"	6.90
154-15	4500	145	20	.125"	33	6 17/32"	7.85
154-16	4500	241	32	.125"	55	10"	10.50

TYPE E DUAL SECTION

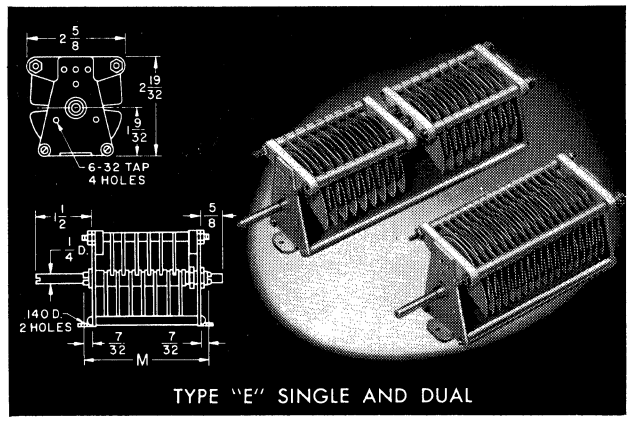
154-502	2000	312	13	.045"	29	7 3/32"	12.30
154-503	3000	52	8	.075"	8	4 17/32"	8.35
154-504	3000	72	8	.075"	11	4 31/32"	8.85
154-505	3000	99	10	.075"	15	5 13/16"	9.70
154-506	3000	153	13	.075"	23	7 1/2"	11.35
154-507	3000	196	15	.075"	29	8 13/16"	13.25
154-508	4500	52	10	.125"	12	6 19/32"	8.95
154-509	4500	74	12	.125"	17	7 7/8"	10.20
154-510	4500	100	15	.125"	23	9 23/32"	11.60

TYPE F SINGLE SECTION

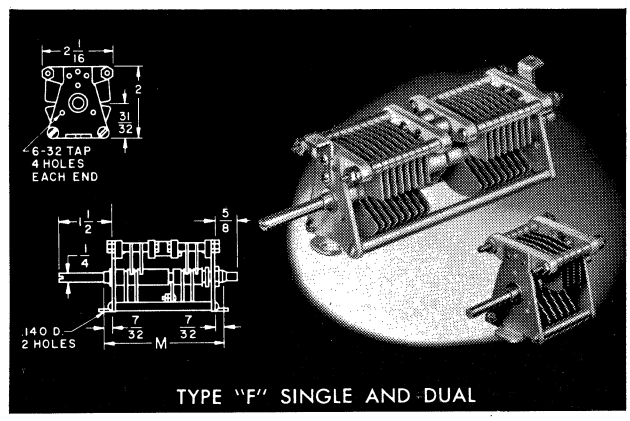
155-1	2000	35	7	.045"	6	1 29/32"	4.95
155-2	2000	54	8	.045"	9	2 1/16"	5.20
155-3	2000	66	8	.045"	11	2 7/32"	5.35
155-4	2000	106	10	.045"	17	2 11/16"	5.85
155-5	2000	154	12	.045"	25	3 5/16"	6.50
155-6	2000	252	17	.045"	41	4 17/32"	7.75
155-8	3000	52	9	.075"	13	2 3/4"	5.50
155-9	3000	67	11	.075	17	3 5/32"	5.90
155-10	3000	99	14	.075"	25	4 1/32"	6.50
155-11	3000	148	18	.075"	37	5 5/16"	7.65

TYPE F DUAL SECTION

155-501	2000	53	7	.045"	9	3 15/16"	7.95
155-502	2000	66	7	.045"	11	4 1/4"	8.45
155-503	2000	104	9	.045"	17	5 5/32"	9.45
155-504	2000	153	11	.045"	25	6 13/32"	10.95
155-505	2000	202	14	.045"	33	7 5/8"	12.20
155-506	3000	51	8	.075"	13	5 1/4"	8.80
155-507	3000	66	10	.075"	17	6 1/8"	9.80
155-508	3000	99	13	.075"	25	7 7/8"	11.10



TYPE "E" SINGLE AND DUAL



TYPE "F" SINGLE AND DUAL

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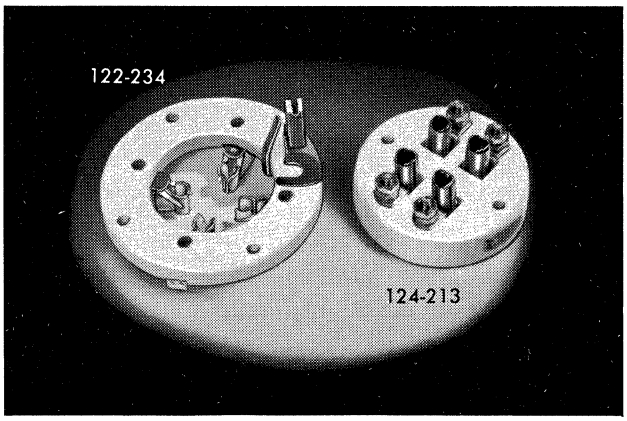
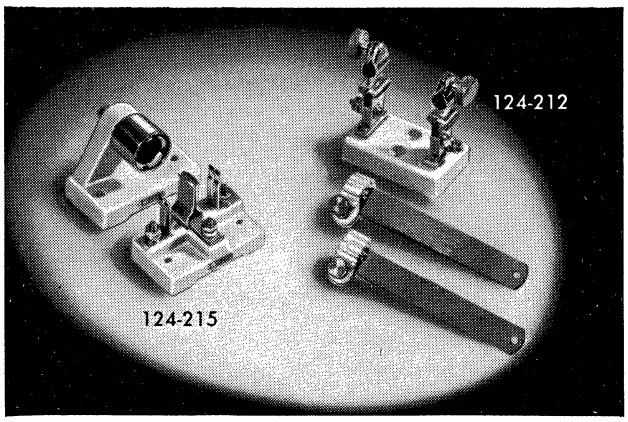
TUBE SOCKETS — GENERAL INFORMATION

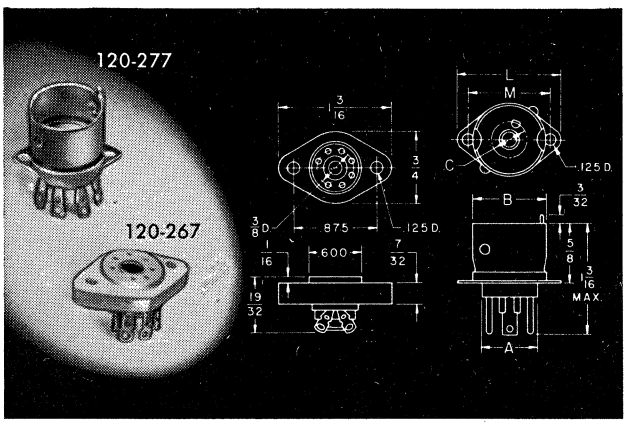
In order to simplify the selection of sockets and to provide complete specifications for standard, industrial and military requirements, wherever applicable, all Johnson tube sockets have been categorized under a socket standardization program.

By reducing the number of variations in special socket types, it is possible to maintain stocks of military and industrial type sockets as well as standard sockets, permitting shorter delivery cycles on quantity orders. Specifications for the three variations of each socket type are listed within each section of descriptive matter.

Detailed specifications covering the complete Johnson tube socket line have been prepared for Engineering Department use — should you desire a copy of Socket Standardization Booklet 536, please make your request on company letterhead.







SOCKET FOR EIMAC 152TL AND 304TL

Glazed porcelain base with contacts for either series or parallel filaments. Standard and Industrial type socket has .0001 nickel-plating. Military type socket has .0005 silver-plating.

Cat. No.	Type	Net Price
124-213-1	Standard	$1.85
124-213-200	Military	2.30

SOCKET FOR EIMAC 750TL, 1500T, 2000T, 2-2000A AND 2-450A

This socket is designed for use with tubes such as the 750TL, 1500T, 2000T, 2-2000A and Eimac's High Vacuum Rectifier 2-450A. For detailed specifications, write for further information.

Cat. No.	Type	Net Price
124-214-1	Standard	Prices on request
124-214-200	Military	

SOCKET FOR 5D21, 705A, 715A AND 715B

Designed for Western Electric tubes 5D21, 705A, 715A and 715B. Heavy steatite base, glazed top and sides, grade L4. Special locking device retains tube in socket. Contacts are .0003 silver-plated on Standard type; .001 silver-plated on Military types. Post and single lock is .0003 nickel-plated on all three types.

Cat. No.	Type	Net Price
122-234-1	Standard	$2.20
122-234-200	Military	2.75

250 WATT SOCKET

This two unit socket is designed for use with "250 watt" tubes such as the 204A and 849. Anode cap E.I.A. numbers C1-8, C1-9, and C1-10; cathode mounting E.I.A. base numbers A3-20, A3-21, A3-23. Bases are glazed porcelain and contacts are phosphor bronze, nickel-plated.

Cat. No.	Net Price
124-215	$5.95

SOCKET FOR 833 AND 833A

A special socket assembly for the 833 and 833A consisting of a steatite base which supports the tube and a pair of heat radiating tube cap connectors. Knurled thumb nuts on the socket base makes tube installation fast and easy. Base is designed to minimize strain on the tube envelope and prevent breakage. Heat radiating plate connectors have 4⅜" flexible laminated leads. One pair included with each socket.

Cat. No.	Net Price
124-212	$8.10

Heat radiating plate connectors, aluminum, 4⅜" flexible laminated leads. Available separately.

Cat. No.	Net Price
119-843	$1.35

MINIATURE SOCKETS

Wafer type, all steatite socket for miniature 7 pin tubes such as the 1RS, 1S5, 6CB6, etc. E.I.A. base number E7-1. Contacts are silver-plated phosphor bronze.

Cat. No.	Net Price
120-267	$0.41

Standard shield base type 7 pin miniature socket. E.I.A. base number E7-1. Two piece steatite construction with silver-plated phosphor bronze contacts, hot tin-dipped terminal ends. Shield base is nickel-plated brass.

Cat. No.	Pins	L	M	C	A	B	Net Price
120-277	7	1 7/64"	⅞"	.375"	.625"	.770"	$0.59

Net

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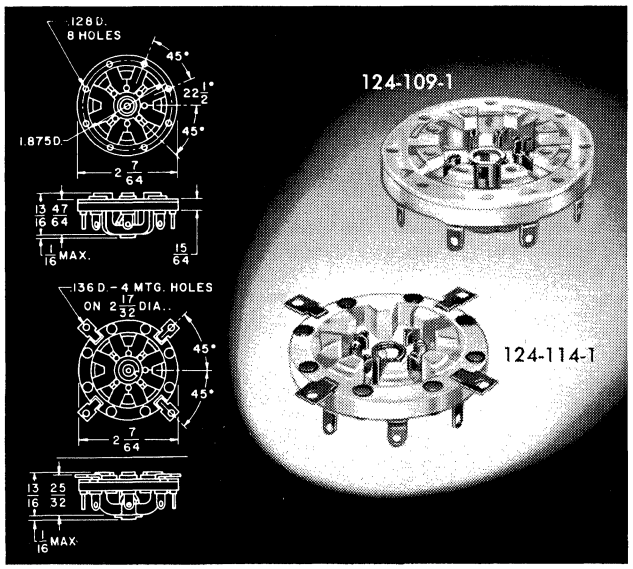
SOCKETS FOR 4X150A, 4X150D, 4X250B, 4CX250B, 4X250F, 7034, 7035

Designed for use with high power transmitting tubes, these sockets are available in many designs – with or without, low inductance screen grid by-pass capacitors. Basic socket is molded of low dielectric loss-factor Kel-F plastic. Control grid contact "guide" is machined for greater alignment accuracy, and tapped for 6-32 machine screw. All contacts are low-resistance silver-plated beryllium copper. Tube pin contacts are heat treated to provide positive contact pressure as well as extended life. Annealed soldering tabs may be easily bent or formed. **Additional specifications and information on this group of sockets are available on Data Sheet 755.**



Rugged light weight basic socket with silver-plated brass mounting saddle. Cathode terminals insulated. Four elongated .140" x .234" mounting holes to accommodate mounting circle diameters from $2^{27}/_{64}$" to $2^{39}/_{64}$". Mounts below chassis through $1^{21}/_{32}$" diameter hole.

Cat. No.	Net Price
124-107-1	**$5.50**

Same as 124-107-1 except cathode terminals grounded. Four mounting holes .136" diameter on circle of $2^{17}/_{32}$" diameter.

Cat. No.	Net Price
124-108-1	**$5.85**

Low cost, light weight basic socket without metal mounting ring. Cathode terminals insulated. Mounts under chassis $1^{21}/_{32}$" diameter hole.

Cat. No.	Net Price
124-109-1	**$5.00**

Basic socket with mounting ring and low-inductance 2700 mmf. screen grid by-pass capacitor; cathode terminals insulated. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No.	Net Price
124-110-1	**$11.50**

High quality heat resistant steatite chimney for use with 124-107-1, 124-108-1, 124-109-1, 124-110-1, 124-112-1, and 124-114-1 sockets. Tapered construction directs air flow through tube cooling fins. Maximum base diameter $2^{9}/_{32}$".

Cat. No.	Net Price
124-111-1	**$0.40**

Same as 124-110-1 except cathode terminals grounded.

Cat. No.	Net Price
124-112-1	**$12.00**

1450 mmf. circular silvered-mica screen grid by-pass capacitor mounted within a low-loss silicone resin sealed silver-plated drawn brass housing. Low inductance silver-plated beryllium copper screen grid contact fingers are heat treated to provide positive contact pressure as well as extended life. Capacitor dielectric strength tested at 1000 volts DC. Unique design permits replacement of screen grid by-pass capacitor by merely removing 4 mounting screws; socket rewiring unnecessary. Fully complies with MIL-C-10950A. For use with 124-107-1, 124-108-1, 124-109-1, 124-114-1, and similar sockets.

Cat. No.	Net Price
124-113-1	**$5.00**

Same as 124-108-1, less metal mounting saddle. Very low inductance grounding of cathode terminals No. 2, 4, 6, and 8 by means of heavy, integral combination grounding and mounting lugs. Mounts below chassis in $1^{21}/_{32}$" diameter hole.

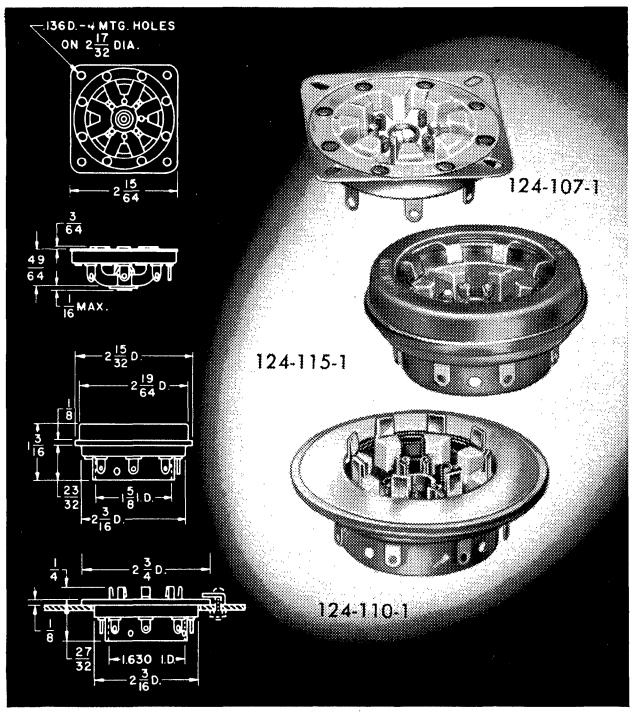
Cat. No.	Net Price
124-114-1	**$5.65**

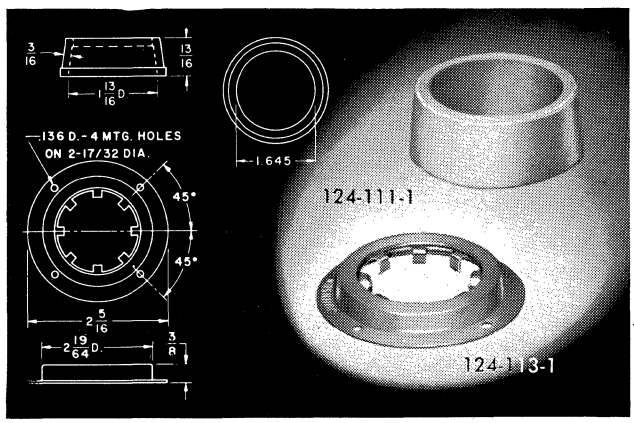
Brand new – the 124-115-1 is a basic socket with mounting ring and smaller low-inductance 1100 mmf. screen grid by-pass capacitor. Requires less mounting space than other screen grid by-pass type sockets. Withstands 1500 volts DC under applicable test specifications. Cathode terminals insulated. Recessed silver-plated beryllium copper screen grid contacts provide positive electrical contact and low inductance. Mounts above chassis through 2½" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No.	Net Price
124-115-1	**$13.00**

Same as 124-115-1, except cathode terminals grounded.

Cat. No.	Net Price
124-116-1	**$13.50**





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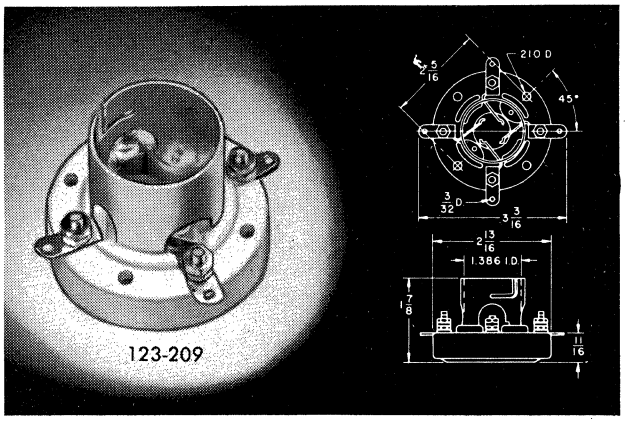

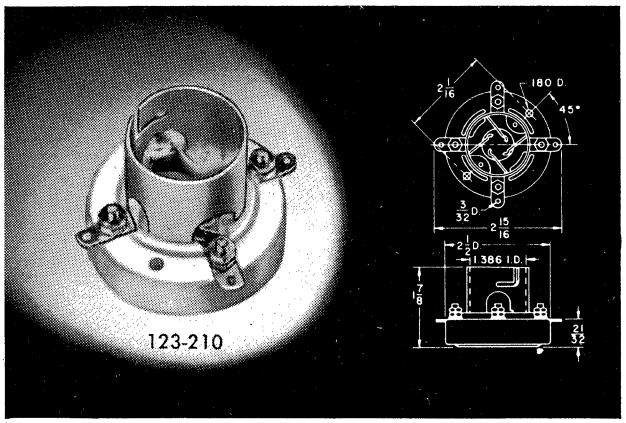

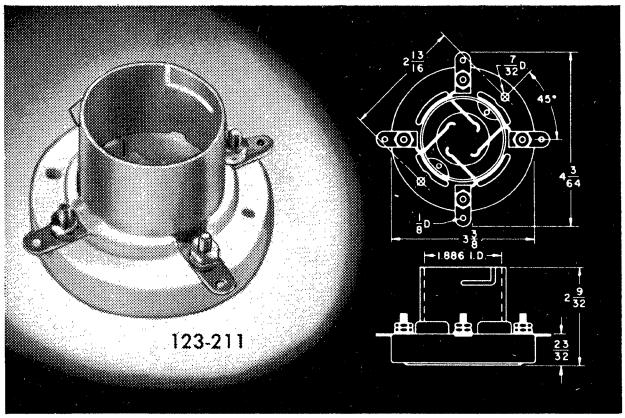

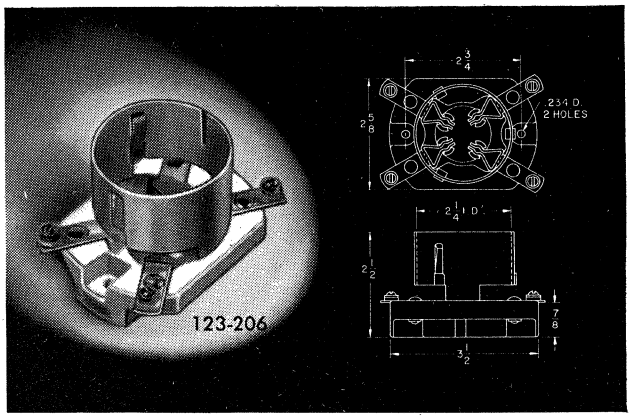

BAYONET SOCKETS— GENERAL SPECIFICATIONS
(Shown Below)

Standard (Designated -1) A commercial grade socket for general requirements. Porcelain bases, glazed top and sides—phosphor bronze contacts, cadmium-plated .0002. Nickel-plated hardware. Etched aluminum bayonet shells.

Industrial (Designated -100) Superior in quality to the Standard types, Industrial types have glazed steatite bases, DC-200 treated. Phosphor bronze or beryllium copper contacts, .0005 silver-plated. Aluminum bayonet shells, iridite No. 14 treated, except 123-206-100 brass, nickel-plated. Fungus resistant cushion washers under contacts.

Military (Designated -200) Top quality for military requirements. Glazed L-4 steatite bases, DC-200 treated. Beryllium copper contacts .0005 silver-plated. Hot tin-dipped terminals, brass bayonet shells, .0003 nickel-plated. Threaded hardware .0002 nickel-plated, unthreaded hardware .0003. Fungus resistant cushion washers under contacts.

WAFER SOCKETS—GENERAL SPECIFICATIONS
(Shown on Facing Page)

Standard (Designated -1) A commercial grade socket for general requirements. Glazed steatite base is DC-200 treated—contacts are plated brass with steel springs. Shielded types have etched aluminum shields.

Industrial (Designated -100) Superior in quality to the standard types, Industrial types have glazed steatite bases, DC-200 treated. Contacts are phosphor bronze with beryllium copper springs, .0005 silver-plated. Shields on shielded types are iridite No. 14 treated aluminum. Fungus resistant cushion washers under contacts.

Military (Designated -200) Top quality for military requirements. Glazed steatite bases, DC-200 impregnated. Phosphor bronze contacts and beryllium copper springs, silver-plated .001—hot tin-dipped solder terminals. Fungus resistant glass base melamine cushion washers—iridite No. 14 treated aluminum shields on shielded types. Entire socket protected for 200 hour salt spray test.

HEAVY DUTY MEDIUM 4 PIN BAYONET

This rugged bayonet socket has been designed for use with medium 4-pin bayonet base tubes, such as the 866A or 811A, E.I.A. Base No. A4-10. Designed with extra heavy side wiping contacts and extended creepage paths to resist high voltage breakdown. Dual purpose terminals are designed for solder or threaded stud connection—nuts furnished. Four mounting holes in base.

Cat. No.	Type	Net Price
123-209-1	Standard	$1.50
123-209-100	Industrial	3.30
123-209-200	Military	3.95

MEDIUM 4 PIN BAYONET

A compact, economical socket for medium 4 pin bayonet based tubes, E.I.A. Base No. A4-10. Phosphor bronze side wiping contacts and extended creepage paths. Dual purpose terminals are designed for solder or threaded stud connection—nuts furnished. Two mounting holes in base.

Cat. No.	Type	Net Price
123-210-1	Standard	$1.45
123-210-100	Industrial	3.25
123-210-200	Military	3.90

JUMBO 4 PIN BAYONET

A popular "50 watt" socket for medium power bayonet based tubes such as the 872A, 211, and others with E.I.A. Base No. A4-29. Double wiping filament contacts will handle heavy current. Dual purpose terminals are designed for solder or threaded stud connection—nuts furnished. Two mounting holes in base.

Cat. No.	Type	Net Price
123-211-1	Standard	$1.95
123-211-100	Industrial	3.90
123-211-200	Military	4.80

SUPER JUMBO 4 PIN SOCKET

A heavy duty industrial type socket designed for high voltages and/or heavy current. Will accommodate tubes such as the 8008, 5C22, FG104, GL146, and others with E.I.A. Base No. A4-18. Special high current insertion type spring contacts—three heavy retaining springs in nickel-plated brass shell hold tube securely. Steatite base with two mounting holes recessed to prevent flashover. Designed with screw terminals—screws furnished.

Cat. No.	Type	Net Price
123-206-100	Industrial	$4.30
123-206-200	Military	4.85

Net

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STANDARD WAFER SOCKETS

Insulated with Grade L-4 steatite, or better. Countersunk rivets and bossed mounting holes to permit sub-panel mounting. Brass contacts with cadmium-plated steel springs. Locating grooves facilitate tube insertion.

Cat. No.	Type	A	B	C	E	For Tube	Net Price
122-224-1	Standard	9/16"	1/4"	1 11/16"	7/8"	4 Pin	$0.69
122-224-100	Industrial	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.79
122-224-200	Military	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.93
122-225-1	Standard	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.76
122-225-200	Military	9/16"	1/4"	1 11/16"	59/64"	5 Pin	1.05
122-226-1	Standard	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.94
122-226-200	Military	9/16"	1/4"	1 11/16"	59/64"	6 Pin	1.30
122-227-1	Standard	9/16"	1/4"	1 13/16"	31/32"	7 Pin	.90
122-227-200	Military	9/16"	1/4"	1 13/16"	31/32"	7 Pin	1.35
122-228-1	Standard	15/32"	3/16"	1 11/16"	57/64"	Octal	.97
122-228-200	Military	15/32"	3/16"	1 11/16"	57/64"	Octal	1.45

SUPER JUMBO 4 PIN SOCKET

Heavy duty steatite insulated 4 pin wafer—for super jumbo base tubes such as the 8008, and many rectifier and thyratron types with E.I.A. Base Nos. A4-15, A4-16, and A4-18. Long, parallel contacts are designed to withstand high currents.

Cat. No.	Type	A	B	L	Net Price
122-244-1	Standard	1 1/16"	9/32"	2 5/8"	$1.60
122-244-100	Industrial	1 1/16"	9/32"	2 5/8"	1.80
122-244-200	Military	1 1/16"	9/32"	2 5/8"	2.15

GIANT 5 PIN SOCKET

Large steatite wafer socket designed for tubes such as the 4-125A, 4-250A, 4D21, 5D22, PL-4D21A, 4-400A, PL-175A, PL-6569, PL-6580, and RK-48 with E.I.A. Base No. A5-19. Tube seal ventilation is provided by one central and five ventilating holes located between contacts. Contacts designed to withstand heavy current.

Cat. No.	Type	Net Price
122-275-1	Standard	$1.90
122-275-100	Industrial	2.20
122-275-200	Military	2.60

GIANT 7 PIN SOCKET

A rugged wafer socket for tubes such as the 4E27, HK257, and 813 with E.I.A. Base No. A7-17. Contacts are designed with maximum surface area against tube prongs. 3/4" ventilating hole in base provides tube seal cooling.

Cat. No.	Type	A	B	L	Net Price
122-237-1	Standard	9/16"	1/4"	2 5/8"	$1.20
122-237-100	Industrial	9/16"	1/4"	2 5/8"	1.40
122-237-200	Military	9/16"	1/4"	2 5/8"	1.60

SEPTAR SOCKETS

Designed for 7 pin tubes such as the 7094, with E.I.A. Base No. E7-2. Each socket is furnished with a separate aluminum shield ring.

Cat. No.	Type	A	B	L	Net Price
122-247-1	Standard	17/32"	1/4"	2 5/8"	$1.45
122-247-100	Industrial	17/32"	1/4"	2 5/8"	1.65
122-247-200	Military	17/32"	1/4"	2 5/8"	1.90
122-248-1	Standard	17/32"	1/4"	2 3/8"	1.30
122-248-100	Industrial	17/32"	1/4"	2 3/8"	1.50
122-248-200	Military	17/32"	1/4"	2 3/8"	1.75

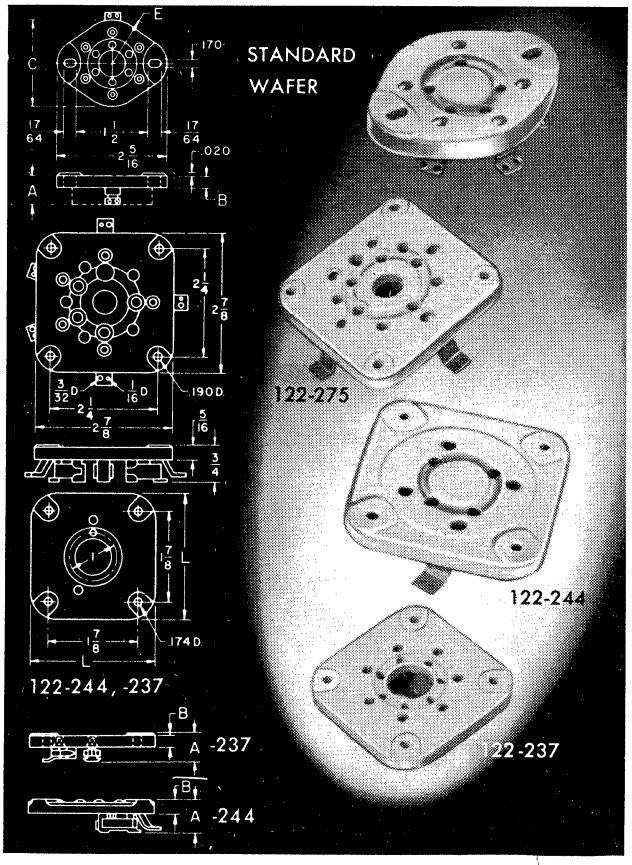
VHF SEPTAR SOCKETS

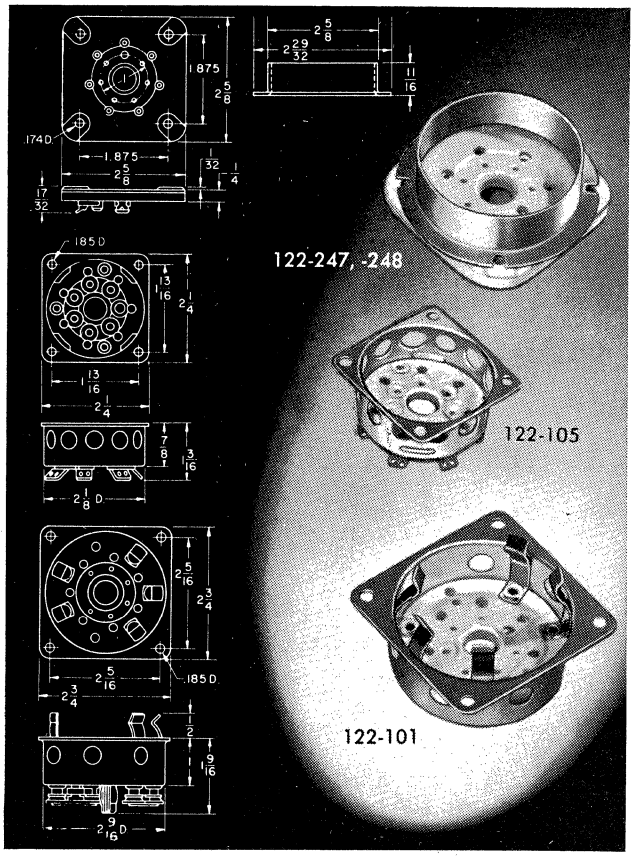
The 122-105 VHF septar socket takes 1/3 less space than previously available types—permits compact design when using tubes with medium button septar bases such as the 5894, 6524, and 6252 with E.I.A. Base No. E7-20. Base is Grade L-4 steatite, glazed top and sides—underside DC-200 impregnated. Molded recesses in base for each contact prevents turning. Contact cushion washers of fungus resistant glass base melamine. Aluminum shell submounts tube for maximum input and output shielding. 3/8" holes provide adequate ventilation.

Cat. No.	Type	Net Price
122-105-100	Industrial	$1.45
122-105-200	Military	1.70

The 122-101 VHF septar socket is a 7 pin socket designed for tubes with medium molded flare septar base such as the 826, 832, 4D32, PL6549, PL-177A, Y-65A with E.I.A. Base No. E7-2. Industrial type has 5 tube retainer springs—military type has 7 retainer springs. Equipped with ventilated shield. Provision for mounting button mica capacitors directly to the socket—special terminals permit direct mounting of grid coils—two holes provided for mounting of bus bar neutralizing leads.

Cat. No.	Type	Net Price
122-101-100	Industrial	$2.35
122-101-200	Military	2.65





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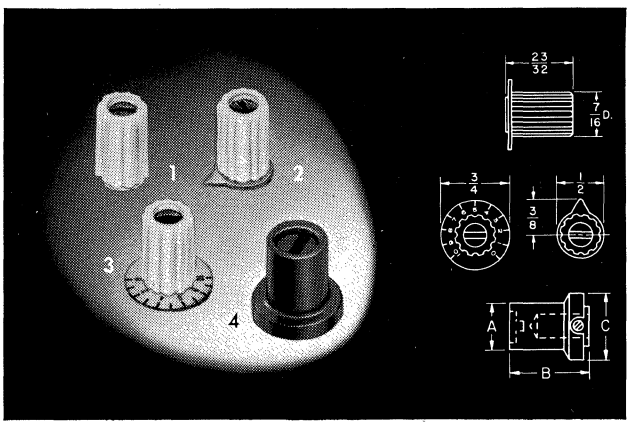

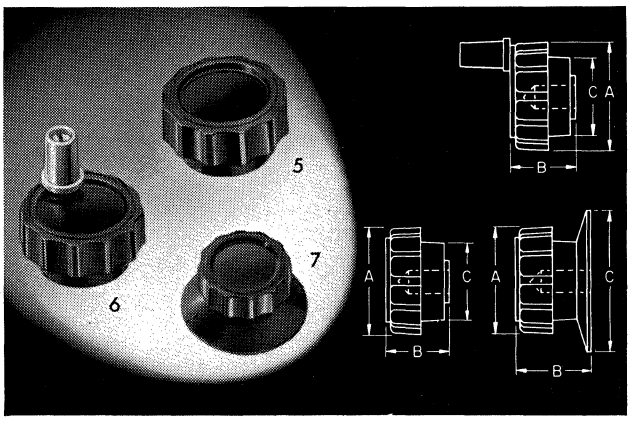

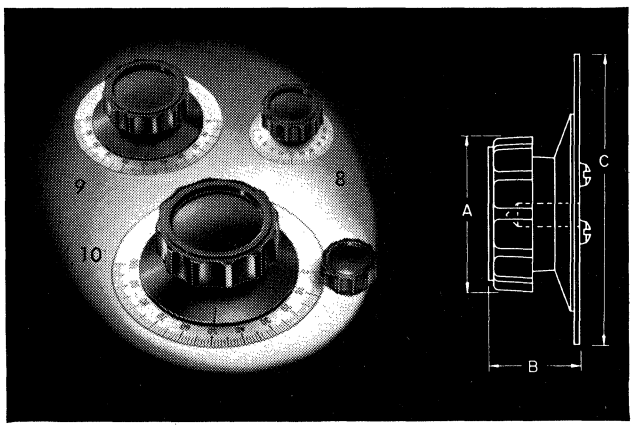

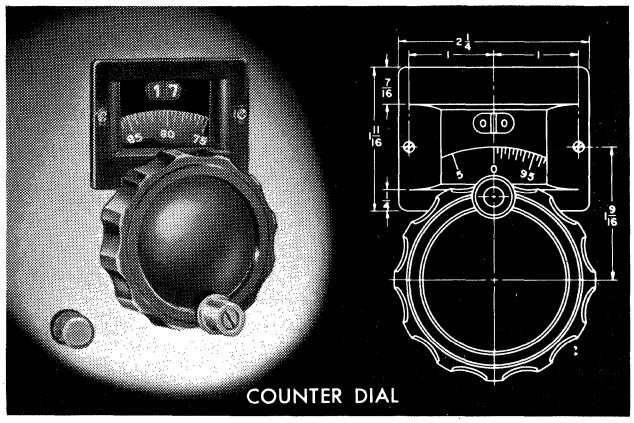

This distinctive line of matching knobs and dials offers excellent gripping surface and attractive, functional styling. Black phenolic molded parts (meet MIL-P-14) used on all knobs except collet group. Metal dials and pointers are etched satin aluminum, anodized finish – nomenclature deeply etched and filled for maximum legibility. All types have accurately centered brass inserts for ¼" shafts, except instrument and collet knobs. Variations such as special shaft sizes, scales, or indicators are available in production quantities.

COLLET KNOBS

Available in 13 bright colors, these new molded knobs and dials for ⅛" shafts offer fresh, modern styling and tough, shock-proof, high quality nylon body. Ideal for laboratory and test instruments, radio transmitters, etc. Ridged gripping surface – positive, comfortable "feel." Collet and nickel-plated locking screw provide firm internal attachment.

COLLET KNOB COLOR CODING
Available in 13 colors. The fifth and sixth digits in the catalog number (i.e. 01, 02, 03, etc.) indicate color as shown below. Use these numbers when ordering.

BASIC KNOB

Cat. No.	Color	Illustration	Net Price
116-401	White (13 colors available—see below)	1	$0.18

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
116-402	Red	116-406	Orange	116-410	Dk. Blue
116-403	Black	116-407	Yellow	116-411	Ivory
116-404	Dk. Green	116-408	Brown	116-412	Violet
116-405	Lt. Blue	116-409	Lt. Green	116-413	Grey

POINTER KNOB

116-501	White (13 colors available—see above)	2	$0.27

DIAL KNOB 10-0/180°

116-551	White (13 colors available—see above)	3	$0.38

DIAL KNOB 10-0/270°

116-601	White (13 colors available—see above)	3	$0.38

INSTRUMENT KNOB

Popular black phenolic knob for ¼" shafts (116-214-1) or for 3/16" shafts (116-214-2). May be finger-operated or mounted to project thru panel for screwdriver adjustment.

Cat. No.	Illus.	A	B	C	Net Price
116-214-1	4	½"	⅞"	¾"	$0.33
116-214-2	4	½"	⅞"	¾"	.33

KNOBS

116-220	5	1⅛"	⅝"	13/16"	$0.32
116-260	5	1⅝"	¾"	1⅛"	.45
116-280	5	2⅜"	15/16"	1¾"	.59

SPINNER KNOBS

For multi-turn devices such as variable inductors, potentiometers, etc. Spinner handle is machined aluminum and projects 9/16" from knob.

116-226	6	1⅛"	⅝"	13/16"	$0.64
116-266	6	1⅝"	¾"	1⅛"	.73
116-286	6	2⅜"	15/16"	1¾"	.89

SKIRTED KNOBS

Phenolic skirts with indicator mark. (May be white filled).

116-221	7	1⅛"	49/64"	1½"	$0.69
116-261	7	1⅝"	57/64"	2 1/16"	.85
116-281	7	2⅜"	1 5/64"	3"	.98

DIALS

Etched, beveled satin aluminum skirts with anodized finish and deeply etched and filled contrasting markings.

Cat. No.	Illus.	Calibration	A	B	C	Net Price
116-222-1	8	100-0 over 180°	1⅛"	¾"	1½"	$0.69
116-222-2	8	10-0 over 300°	1⅛"	¾"	1½"	.69
116-222-3	8	7-1 over 180°	1⅛"	¾"	1½"	.69
116-222-4	8	ON-OFF over 60°	1⅛"	¾"	1½"	.69
116-222-5	8	Line indicator	1⅛"	¾"	1½"	.69
116-222-6	8	0-100 over 180°	1⅛"	¾"	1½"	.69

The following knobs have phenolic skirts and etched satin aluminum calibrated dial scales. Indicator button furnished.

116-262	9	0-100 over 180°	1⅝"	59/64"	2¾"	$1.95
116-282	9	0-100 over 180°	2⅜"	1 7/64"	4"	2.95

VERNIER DIALS

Friction vernier etched satin aluminum dials with calibrated dial scales. Vernier knobs are the same as 116-220 above but have a friction driving wheel and bearing for mounting on panels to ¼" thick. 116-265 has 3 to 1 vernier; 116-285 has 5 to 1.

Cat. No.	Illus.	Calibration	A	B	C	Net Price
116-265	10	0-100 over 180°	1⅝"	1 5/64"	2¾"	$3.50
116-285	10	0-100 over 180°	2⅜"	1 15/64"	4"	4.60

COUNTER DIAL

Positively calibrated drive for rotary variable inductors and other multi-turn devices. Records up to 99 turns. Vernier dial calibrated 0-100 over 360° for accurate return to any setting. Built-in dial lock, "spinner knob," and attractive black phenolic escutcheon. Furnished with mounting template.

116-208-1 With dial lock, escutcheon and 2⅜" spinner knob.....$11.10
116-208-4 Same as above without dial lock..... 9.80

ESCUTCHEON PLATE

Black phenolic escutcheon shown on counter dial. Provides neat "window" for back-of-panel dial mounting. One edge of escutcheon suitable for attaching standard etched name plate. Opening 1¼" wide x ⅞" high. Furnished with No. 2 screws.
116-201.....$0.65

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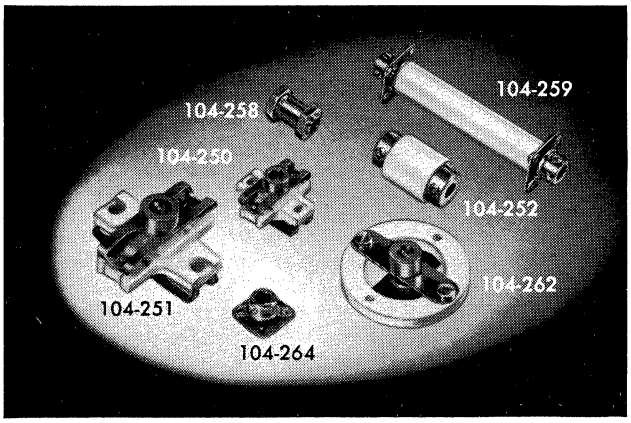
SHAFT COUPLINGS

This group of flexible and rigid couplings is designed for coupling shafts 1/4" to 1/4"; 1/4" to 3/8"; and 3/8" to 3/8".
The 104-250 and 104-251 series couplings are steatite insulated and will adjust to both axial and angular shaft mis-alignment. Spring material is plated phosphor bronze.

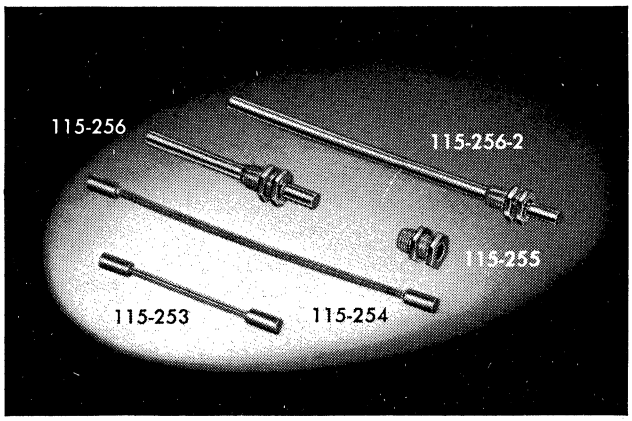
Cat. No.	DC Breakdown	Type	Overall Length	Max. Diameter	Couples Shafts	Net Price
104-250	4000	Flexible	1 1/8"	1 11/32"	1/4" to 1/4"	**$0.88**
104-250-3	4000	Flexible	1 3/16"	1 11/32"	1/4" to 3/8"	**1.00**
104-251	8000	Flexible	1 15/32"	2 7/32"	3/8" to 3/8"	**1.40**
104-251-2	8000	Flexible	1 15/32"	2 7/32"	1/4" to 1/4"	**1.40**
104-251-3	8000	Flexible	1 15/32"	2 7/32"	1/4" to 3/8"	**1.40**
The 104-252 is a rigid coupling with steatite insulation.						
104-252	7000	Rigid	1 1/4"	1 1/16"	1/4" to 1/4"	**.80**
The 104-258 is an all-metal, rigid coupling with locking nuts for friction fits to shafts.						
104-258	.....	Rigid	3/4"	9/16"	1/4" to 1/4"	**.33**
The 104-259, 104-262, and 104-264 will adjust to minor angular shaft misalignment. The 104-259 and the 104-252 have steatite insulation, and the 104-264 has bakelite insulation.						
104-259	8000	Semi-Flex.	3 3/8"	1 1/32"	1/4" to 1/4"	**1.60**
104-262	5000	Semi-Flex.	7/8"	2"	1/4" to 1/4"	**1.20**
104-264	750	Semi-Flex.	3/4"	1 1/32"	1/4" to 1/4"	**.65**



FLEXIBLE SHAFTS

These phosphor bronze, non-rusting flexible shafts have 1/4" brass hubs and are available in two lengths. Permit out of line or up to 90° angular control — capable of withstanding torque in either direction with minimum backlash.

Cat. No.		Net Price
115-253	3" Flexible Shaft	**$0.50**
115-254	6" Flexible Shaft	**$0.75**



PANEL BEARINGS

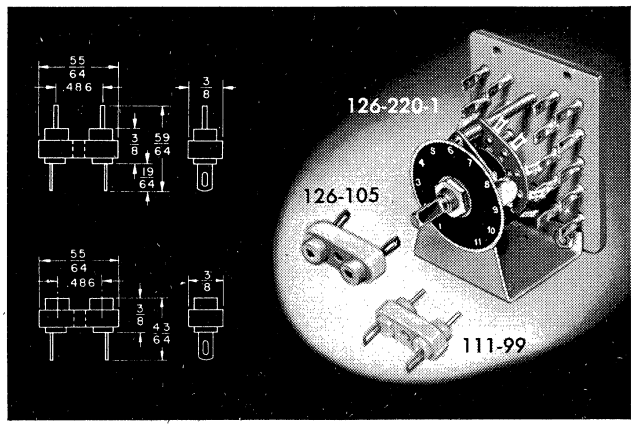
Bearing 115-255 is nickel-plated brass, 21/32" overall, designed for use on 1/4" shafts and panels up to 3/8" thick. The 115-256 and 115-256-2 consist of the bearing plus either 3" or 6" nickel-plated brass shafts and standard 3/8"-32 nut. Shafts extend 1/2" from the face of the panel bearing. Models with locking nut and special shaft lengths are available on production quantity orders.

Cat. No.		Net Price
115-255	Panel Bearing Only	**$0.19**
115-256	Bearing and Shaft	**.37**
115-256-2	Bearing and Shaft	**.50**

MULTIPLE CRYSTAL SELECTOR

This popular multiple crystal selector will accommodate up to ten type FT-243 crystals (.093" diameter pins spaced .486"). Sturdy base is mica-filled phenolic, 2 5/8" x 3 1/8"; the switch has 11 positions and includes index plate and universal bracket.

Cat No.		Net Price
126-220-1	Crystal Selector Assembly	**$5.80**
126-120-1	Crystal Board Only (no switch or bracket)	**2.60**



CRYSTAL SOCKETS AND CERAMIC PLUG

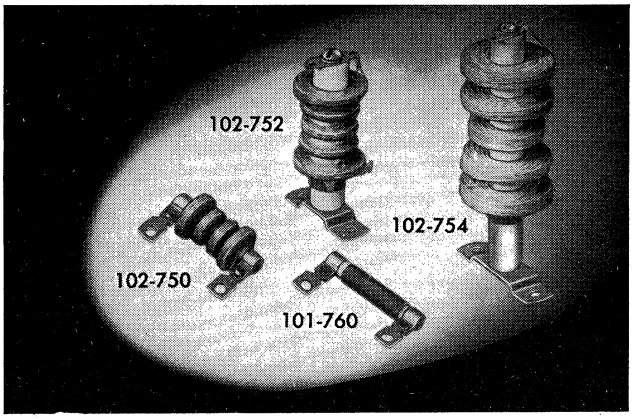
These steatite sockets and plugs are excellent for low capacity, high voltage, and high temperature operation. Units may be used as crystal sockets, antenna relay connectors, VFO input connectors or antenna plugs. Glazed steatite, Grade L-4 or better, DC-200 impregnated. For pins .051" diameter, 1/4" long. Capacity between terminals with socket engaged is less than 1/5 mmf. Mounting hole also provides for attachment of strain relief cord. Rated at 5000 volts breakdown, 10 ampere current carrying capacity. Socket will accept a type HC-6/U crystal holder.

Cat. No.		Net Price
126-105	Crystal socket, silver-plated phosphor bronze contacts	**$0.16**
126-105-2	Crystal socket, silver-plated beryllium copper contacts	**.19**
111-99	Ceramic plug, silver-plated brass pins	**.21**

RADIO FREQUENCY CHOKES

This group of RF chokes has high reactance over the entire range for which it is designed. Coils are wound with enamelled silk-covered wire, impregnated with high grade RF lacquer and wound on steatite cores. For intermittent use, the current ratings listed below may be increased.

Cat. No.	Frequency	Current	Induct. (1 mc.)	Ohms DC	Length	Net Price
102-750	1.7 to 30 mc	150 ma	.83 mh	15	1 1/2"	**$1.25**
102-752	1.7 to 30 mc	500 ma	1.0 mh	5.2	2 7/8"	**1.95**
102-754	1.7 to 30 mc	750 ma	1.9 mh	4	4 5/16"	**2.90**
101-760	VHF	250 ma	6.8 uh	.33	1 1/2"	**.62**



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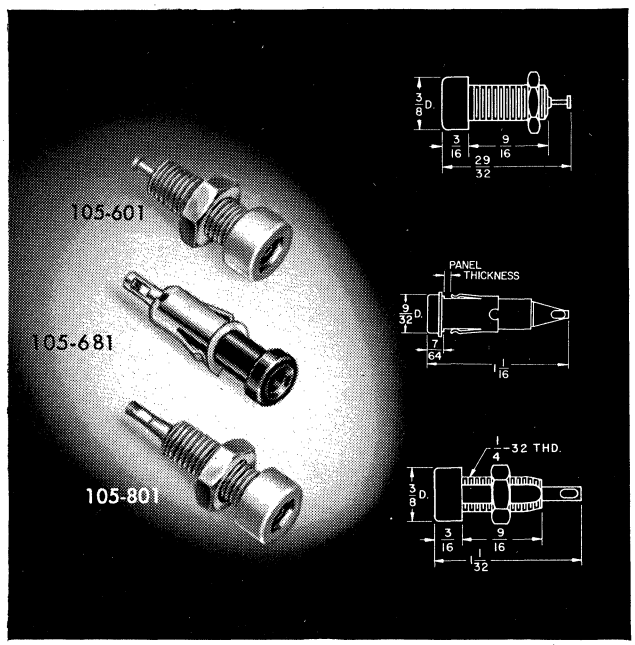


DELUXE NYLON TIP JACK

(U.S. Pat. No. 2,704,357)

Molded nylon body with recessed silver-plated machined beryllium copper contact. Hot tin dipped solder terminal. Current rating: 10 amps. Voltage breakdown: 11,000 volts DC. Capacity to 1/8" panel: 2.0 mmf. 1/4"-32 nut furnished.

Cat. No.	Color				Net Price
105-601	White (13 colors available—see below)				$0.20
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-602	Red	105-606	Orange	105-610	Dk. Blue
105-603	Black	105-607	Yellow	105-611	Ivory
105-604	Dk. Green	105-608	Brown	105-612	Violet
105-605	Lt. Blue	105-609	Lt. Green	105-613	Grey

STANDARD TIP JACK

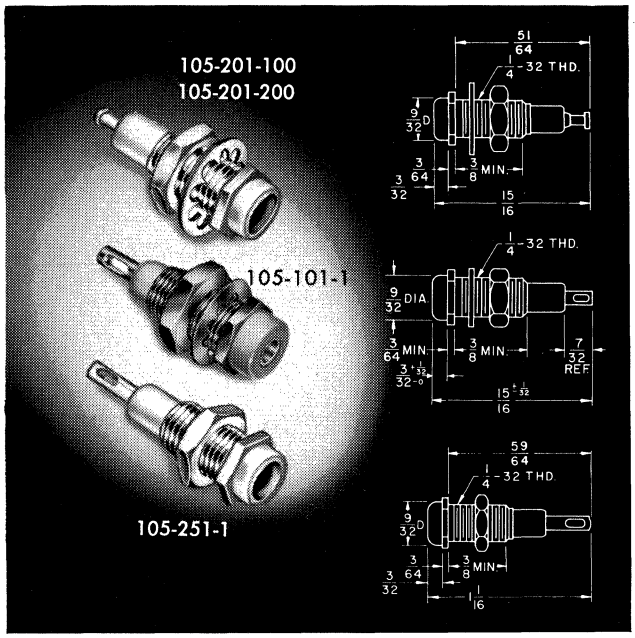
Molded nylon body with recessed, cadmium-plated formed phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9,000 volts DC. Capacity to 1/8" panel: 2.0 mmf. 1/4"-32 nut furnished.

Cat. No.	Color				Net Price
105-801	White (13 colors available—see below)				$0.13
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-802	Red	105-806	Orange	105-810	Dk. Blue
105-803	Black	105-807	Yellow	105-811	Ivory
105-804	Dk. Green	105-808	Brown	105-812	Violet
105-805	Lt. Blue	105-809	Lt. Green	105-813	Grey

RAPID-MOUNT NYLON TIP JACK

Low cost – fast mounting! Snap "speed clip" into hole in .016" to .069" thick panels and insert jack. Silver-plated phosphor bronze contact. Voltage breakdown: 7,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. Current rating: 10 amps.

Cat. No.	Color				Net Price
105-681-16	White (13 colors available—see below)				$0.10
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-682-16	Red	105-686-16	Orange	105-690-16	Dk. Blue
105-683-16	Black	105-687-16	Yellow	105-691-16	Ivory
105-684-16	Dk. Green	105-688-16	Brown	105-692-16	Violet
105-685-16	Lt. Blue	105-689-16	Lt. Green	105-693-16	Grey



METAL-CLAD NYLON TIP JACKS

STANDARD

Nylon body, nickel-plated machined brass jacket. Formed, silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 7,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. 1/4"-32 nut and lock washer furnished.

Cat. No.	Color				Net Price
105-251-1	White (13 colors available—see below)				$0.17
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-252-1	Red	105-256-1	Orange	105-260-1	Dk. Blue
105-253-1	Black	105-257-1	Yellow	105-261-1	Ivory
105-254-1	Dk. Green	105-258-1	Brown	105-262-1	Violet
105-255-1	Lt. Blue	105-259-1	Lt. Green	105-263-1	Grey

Economy grade, 105-101-1, as above except lower price, shorter over-all length and voltage breakdown: 5,000 volts DC. Lock washer not included.

Cat. No.	Color				Net Price
105-101-1	White (13 Colors available—see below)				$0.15
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-102-1	Red	105-106-1	Orange	105-110-1	Dk. Blue
105-103-1	Black	105-107-1	Yellow	105-111-1	Ivory
105-104-1	Dk. Green	105-108-1	Brown	105-112-1	Violet
105-105-1	Lt. Blue	105-109-1	Lt. Green	105-113-1	Grey

INDUSTRIAL

Machined beryllium copper contact, silver-plated. Hot tin dipped terminal end. Voltage breakdown: 8,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. Lock washer furnished.

Cat. No.	Color				Net Price
105-201-100	White (13 colors available—see below)				$0.24
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-202-100	Red	105-206-100	Orange	105-210-100	Dk. Blue
105-203-100	Black	105-207-100	Yellow	105-211-100	Ivory
105-204-100	Dk. Green	105-208-100	Brown	105-212-100	Violet
105-205-100	Lt. Blue	105-209-100	Lt. Green	105-213-100	Grey

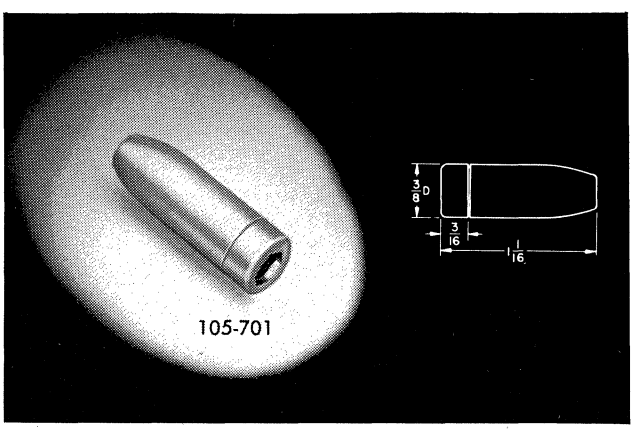
MILITARY

Complies with MS-16108 of MIL STD-242A. Heavy nickel-plated brass jacket. Silver-plated, machined beryllium copper contact. Current rating: 10 amps. Voltage breakdown: 8,000 volts DC. Capacity to 1/8" panel: 3.8 mmf. 1/4"-32 nut and lock washer furnished.

Cat. No.	Color				Net Price
105-201-200	White (13 colors available—see below)				$0.26
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-202-200	Red	105-206-200	Orange	105-210-200	Dk. Blue
105-203-200	Black	105-207-200	Yellow	105-211-200	Ivory
105-204-200	Dk. Green	105-208-200	Brown	105-212-200	Violet
105-205-200	Lt. Blue	105-209-200	Lt. Green	105-213-200	Grey

Economy grade, 105-101-200, same as above but lower price. Formed contact. Voltage breakdown: 5,000 volts DC.

Cat. No.	Color				Net Price
105-101-200	White (13 colors available—see below)				$0.20
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-102-200	Red	105-106-200	Orange	105-110 200	Dk. Blue
105-103-200	Black	105-107-200	Yellow	105-111-200	Ivory
105-104-200	Dk. Green	105-108-200	Brown	105-112-200	Violet
105-105-200	Lt. Blue	105-109-200	Lt. Green	105-113-200	Grey



NYLON JACK AND SLEEVE ASSEMBLY

Includes Deluxe Tip Jack (105-601 to 105-613), less mounting nut, with inside threaded molded nylon sleeve. Ideal for patch cords, or insulated rear connection of panel mounted tip jack.

Cat. No.	Color				Net Price
105-701	White (13 colors available—see below)				$0.20
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-702	Red	105-706	Orange	105-710	Dk. Blue
105-703	Black	105-707	Yellow	105-711	Ivory
105-704	Dk. Green	105-708	Brown	105-712	Violet
105-705	Lt. Blue	105-709	Lt. Green	105-713	Grey

Net

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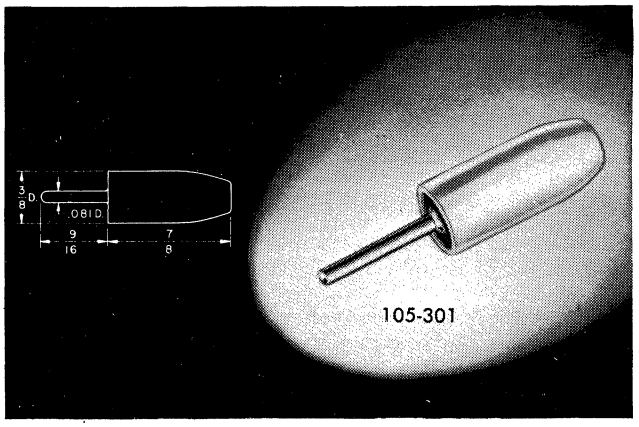
NYLON SOLDERLESS TIP PLUG

(Patent Pending)

Completely insulated, molded nylon sleeve. Recessed metal head prevents exposure of metal surfaces when engaged in any standard tip jack. All metal parts are nickel-plated brass. Designed for solderless connection of up to 16 gauge stranded wire. Fits all standard tip jacks. Current rating: 10 amps.

Cat. No.	Color	Net Price
105-301	White (13 colors available—see below)	$0.15

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-302	Red	105-306	Orange	105-310	Dk. Blue
105-303	Black	105-307	Yellow	105-311	Ivory
105-304	Dk. Green	105-308	Brown	105-312	Violet
105-305	Lt. Blue	105-309	Lt. Green	105-313	Grey



NYLON BANANA PLUGS

(Patent Pending)

Compact, high voltage insulated plug for a wide variety of applications. Designed for fast, solderless connection of up to 16 gauge stranded wire. Body and pin are constructed of one-piece, nickel-plated brass with high grade nickel silver springs. Sleeve is molded nylon. Current rating: 10 amps.

Cat. No.	Color	Net Price
108-301	White (13 colors available—see below)	$0.19

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
108-302	Red	108-306	Orange	108-310	Dk. Blue
108-303	Black	108-307	Yellow	108-311	Ivory
108-304	Dk. Green	108-308	Brown	108-312	Violet
108-305	Lt. Blue	108-309	Lt. Green	108-313	Grey

DUAL BANANA PLUG

(Patent Pending)

Extremely versatile with excellent electrical properties, this new solderless dual banana plug provides the perfect answer to a wide range of connector problems. Molded nylon body incorporates polarity indication and strain relief hole for wire leads. Springs are high quality nickel silver – bodies are nickel-plated. Accurately machined brass studs extend the full length of pins for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 mmf. Current carrying capacity: 15 amps.

Cat. No.	Color	Net Price
108-201	White (13 colors available—see below)	$0.60

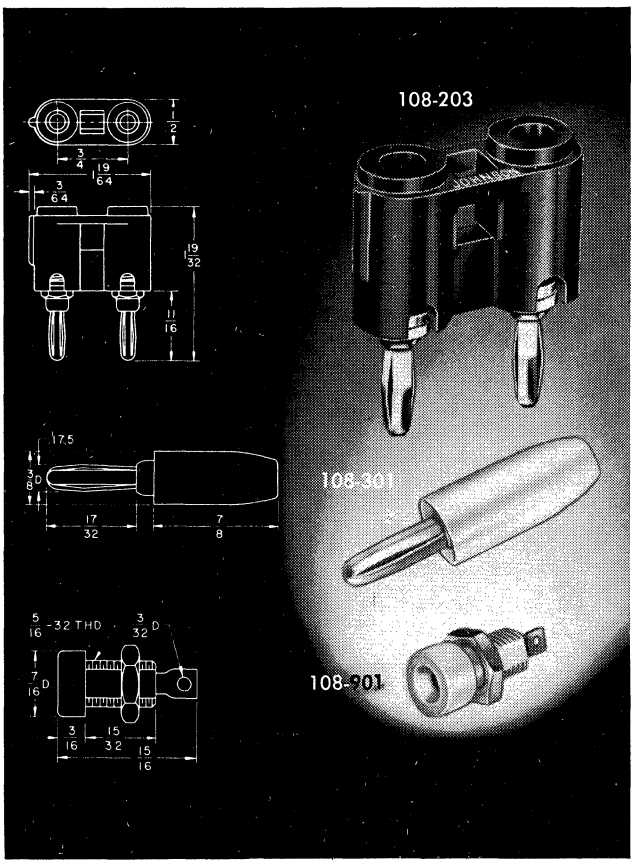
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
108-202	Red	108-206	Orange	108-210	Dk. Blue
108-203	Black	108-207	Yellow	108-211	Ivory
108-204	Dk. Green	108-208	Brown	108-212	Violet
108-205	Lt. Blue	108-209	Lt. Green	108-213	Grey

NYLON BANANA JACK

Completely insulated, molded nylon body with cadmium-plated insert. Accommodates banana plugs of nominal .175" diameter. Voltage breakdown: 12,500 volts DC. Capacity to 1/16" panel: 2.4 mmf. nominal. Mounts in 21/64" diameter circular, "D", or double flat hole (1/4" across flats). Single nut furnished for mounting – no other mounting hardware needed.

Cat. No.	Color	Net Price
108-901	White (13 colors available—see below)	$0.12

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
108-902	Red	108-906	Orange	108-910	Dk. Blue
108-903	Black	108-907	Yellow	108-911	Ivory
108-904	Dk. Green	108-908	Brown	108-912	Violet
108-905	Lt. Blue	108-909	Lt. Green	108-913	Grey



NYLON "SIX-WAY" BINDING POST

(U.S. Pat. No. 2,806,999)

Compact, completely insulated, pre-assembled 6-way binding post. Molded nylon body with silver-plated shank. Thumb nut is self-captivated and cannot be removed. Connection is made at the solder stud, or a lug may be slipped over threaded portion and secured with a nut. Single nut furnished for mounting – no other mounting hardware needed. Single banana plug will fit in hole in top of binding post. Insulation resistance greater than 200 meg. after MIL-T-5422B humidity test. Voltage breakdown: 8000 volts DC. Capacity to 1/8" panel: 3.3 mmf. Current carrying capacity: 15 amps. Mounts in 21/64" diameter circular hole, "D", or double flat hole (1/4" across flats).

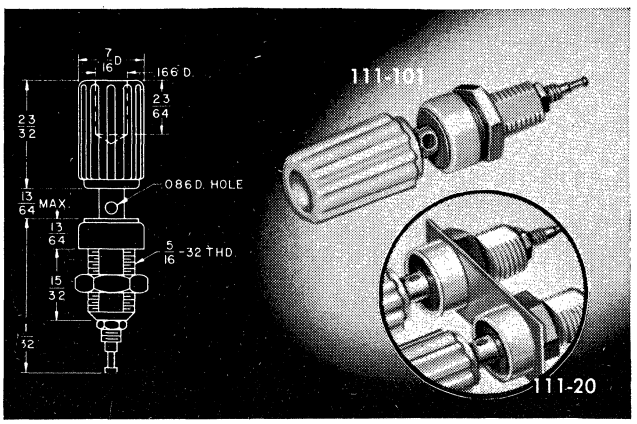
Cat. No.	Color	Net Price
111-101	White (13 colors available—see below)	$0.30

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
111-102	Red	111-106	Orange	111-110	Dk. Blue
111-103	Black	111-107	Yellow	111-111	Ivory
111-104	Dk. Green	111-108	Brown	111-112	Violet
111-105	Lt. Blue	111-109	Lt. Green	111-113	Grey

MOUNTING PLATE

Pre-punched, this etched aluminum mounting plate permits simple, accurate mounting of either two nylon binding posts, or two nylon banana jacks in 21/64" diameter holes on exact 3/4" centers.

Cat. No.	Net Price
111-20	$0.02



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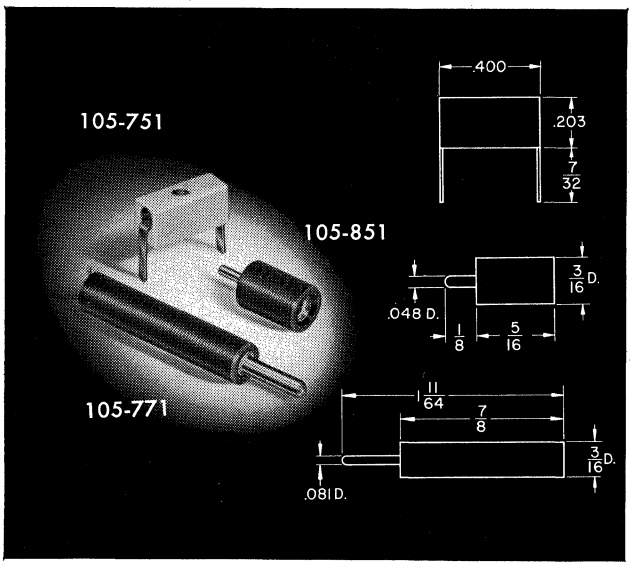


NYLON PRINTED CIRCUIT PLUG AND JACKS

Designed for use in printed circuits. Tough, low-loss nylon construction. Horizontal and vertical tip jacks designed to accommodate .081" tip plug. Choice of 13 colors for coded applications.

HORIZONTAL JACK

Unique design accepts .081" dia. tip plug in either end, or from top or bottom! Silver-plated phosphor bronze formed contact. Two terminals.

Cat. No.	Color	Net Price
105-751	White (13 colors available see below)	$0.07

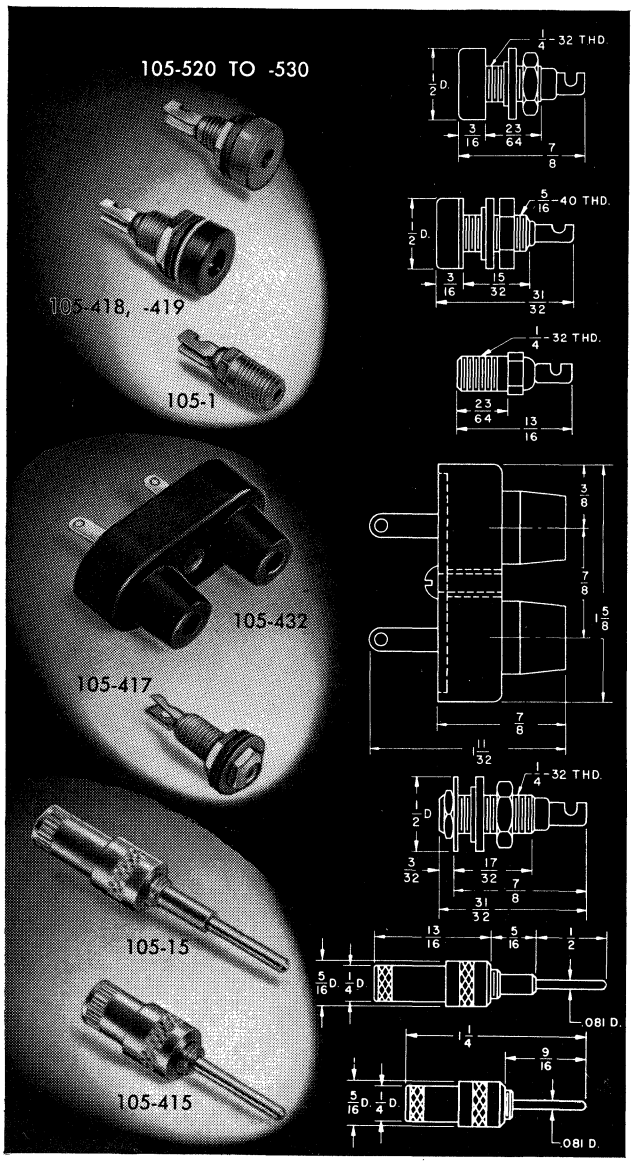
Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-752	Red	105-756	Orange	105-760	Dk. Blue
105-753	Black	105-757	Yellow	105-761	Ivory
105-754	Dk. Green	105-758	Brown	105-762	Violet
105-755	Lt. Blue	105-759	Lt. Green	105-763	Gray

VERTICAL JACK

Mounts through single .052" hole, requires minimum mounting area. Silver-plated, machined beryllium copper-contact.

Cat. No.	Color	Net Price
105-851	White (13 colors available, see below)	$0.11

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-852	Red	105-856	Orange	105-860	Dk. Blue
105-853	Black	105-857	Yellow	105-861	Ivory
105-854	Dk. Green	105-858	Brown	105-862	Violet
105-855	Lt. Blue	105-859	Lt. Green	105-863	Gray



SUB-MINIATURE TIP PLUG

For use with miniature jack, .081" dia. tip. Nickel-plated machined brass body, solder type lead connection.

Cat No.	Color	Net Price
105-771	White (13 colors available, see below)	$0.14

Cat. No.	Color	Cat. No.	Color	Cat. No.	Color
105-772	Red	105-776	Orange	105-780	Dk. Blue
105-773	Black	105-777	Yellow	105-781	Ivory
105-774	Dk. Green	105-778	Brown	105-782	Violet
105-775	Lt. Blue	105-779	Lt. Green	105-783	Gray

PLASTIC HEAD TIP JACKS

This group of general purpose tip jacks is available in ten different colors. Large wiring terminal with solder barrier — nickel-plated body. With extruded shoulder bushing and nickel-plated hex nut. Mounts in 3/8" dia. circular hole. Maximum panel thickness, 5/32" with insulating washers, 1/4" without.

Cat. No.	Color	Net Price
105-520	Red	$0.18
105-521	Black	.18
105-522	Dark Green	.18
105-524	Brown	.18
105-525	Light Blue	.18
105-526	Orange	.18
105-527	Yellow	.18
105-528	Light Green	.18
105-529	Dark Blue	.18
105-530	Ivory	.18

HEAVY DUTY TIP JACKS

These two jacks are similar to the types described above, except that the plastic head is molded around the nickel-plated brass body. Contacts are beryllium copper, cadmium-plated.

Cat. No.	Color	Net Price
105-418	Red	$0.25
105-419	Black	.25

HEADLESS TIP JACK

Headless tip jack for insulated mounting surfaces. Hex shoulder for tightening. Beryllium copper, cadmium-plated contact.

Cat. No. 105-1 ..... **Net Price $0.11**

SHORTING TYPE TWIN TIP JACK

Circuit closes automatically when tips are removed. Jacks are spaced 7/8". Molded black plastic body.

Cat. No. 105-432 ..... **Net Price $0.53**

HEX HEAD TIP JACK

Brass nickel-plated body with cadmium-plated, beryllium copper contact. Threaded 1/4"-32. With extruded washer, flat washer, and nickel-plated nut. Mounts in 3/8" diameter hole.

Cat. No. 105-417 ..... **Net Price $0.18**

SOLDERLESS PHONE TIP PLUGS

These solderless phone tip plugs have knurled nickel-plated brass body and sleeve — construction permits leads to be firmly secured without soldering. The 105-15 has a 3/16" pin with the last 1/2" of tip .081" diameter. The 105-415 is generally the same as the 105-15, except tip is 9/16" long and .081" diameter throughout its entire length. For use with all standard tip jacks.

Cat. No. 105-15 ..... **Net Price $0.18**
Cat. No. 105-415 ..... **Net Price .17**

Net

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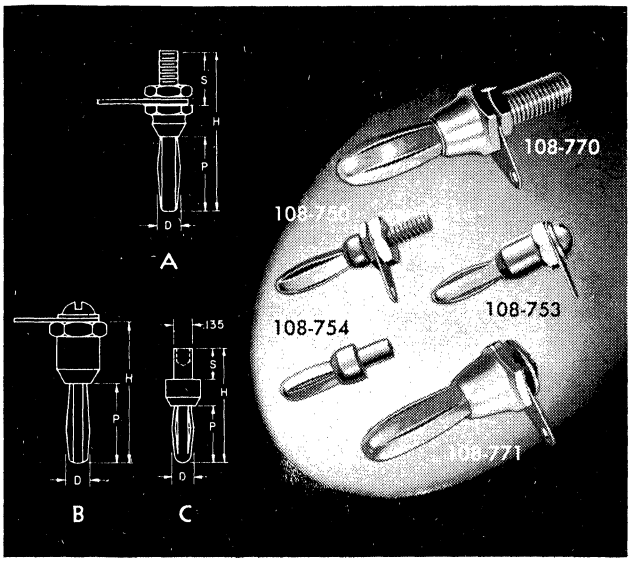


STANDARD BANANA PLUGS

This group of standard banana plugs has accurately machined brass studs which extend the full length of the plugs, providing extra strength. Springs are nickel-silver – highly resistant to corrosion. Bodies and hardware .0001 nickel-plated. All banana plugs listed below, are available with beryllium copper springs and nickel, cadmium, or silver plating, when desired. A wide selection of miniature solder-type plugs is also available on special order – however quantities in special platings or plugs should be sufficiently large for economical production runs. Solder terminal and nut or screw furnished.

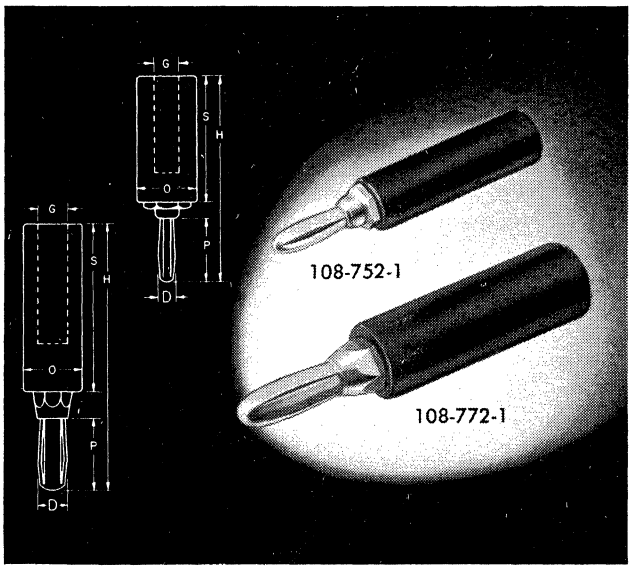
Cat. No.	Dwg.	S	P	D	H	Thread	Net Price
108-750	A	3/8"	17/32"	.175"	1 1/8"	6-32	**$0.13**
108-750-2	A	3/4"	17/32"	.175"	1 1/2"	6-32	**.14**
108-753	B	...	17/32"	.175"	15/16"	6-32	**.14**

This banana plug is similar to the standard types listed above, except that it is designed for riveting. Springs are beryllium copper, cadmium-plated.

108-754	C	7/32"	13/32"	.155"	13/16"	....	**.09**

Jumbo type banana plugs with accurately machined brass studs extending full length of the pins. Nickel-silver springs. Bodies and hardware .0001 nickel-plated. With solder lug and nut or screw.

108-770	A	5/8"	3/4"	.300"	1 25/32"	1/4"-28	**.30**
108-771	B	...	3/4"	.300"	1 1/8"	10-32	**.34**



STANDARD INSULATED BANANA PLUGS

These standard size insulated banana plugs are equipped with plastic handles, brass nickel-plated bodies, and nickel-silver springs. The 108-752-1 has a black plastic handle – the 108-752-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-752-1	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	**$0.36**
108-752-2	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	**.36**

JUMBO INSULATED BANANA PLUGS

These jumbo size insulated banana plugs are similar in design to the standard types listed above, but are somewhat larger in size. With brass nickel-plated bodies, and nickel-silver springs. The 108-772-1 has a black plastic handle – the 108-772-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-772-1	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	**$0.48**
108-772-2	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	**.48**

STANDARD BANANA JACKS

High quality machined brass banana jack. Nickel-plated. Furnished complete with solder terminal and nut.

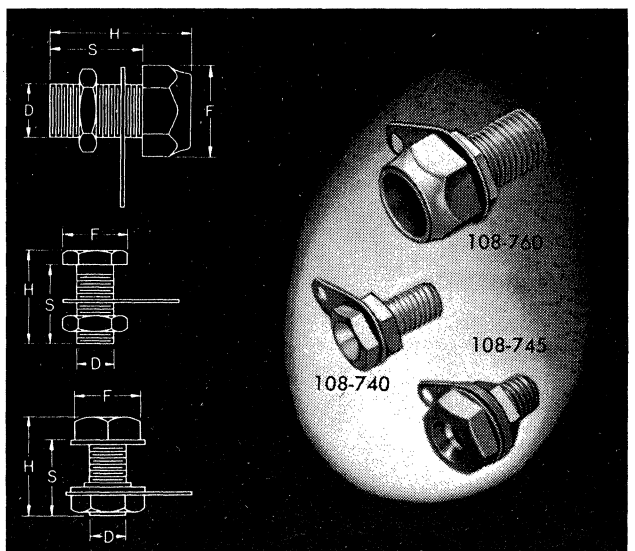
Cat. No.	F	D	S	H	Hole Dia.	Thread	Net Price
108-740	3/8"	1/4"	17/32"	5/8"	.166"	1/4"-28	**$0.12**

High quality machined brass banana jacks with plastic head molded to body. Nickel-plated. Furnished complete with solder terminal and nut. The 108-745-1 is equipped with red plastic head – the 108-745-2 is equipped with black plastic head.

108-745-1	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	**.22**
108-745-2	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	**.22**

This jumbo banana jack will accommodate plugs such as the 108-770 and the 108-771 listed above. Machined brass, nickel-plated. Furnished complete with solder terminal and nut.

108-760	9/16"	3/8"	21/32"	1"	.277"	3/8"-32	**.31**



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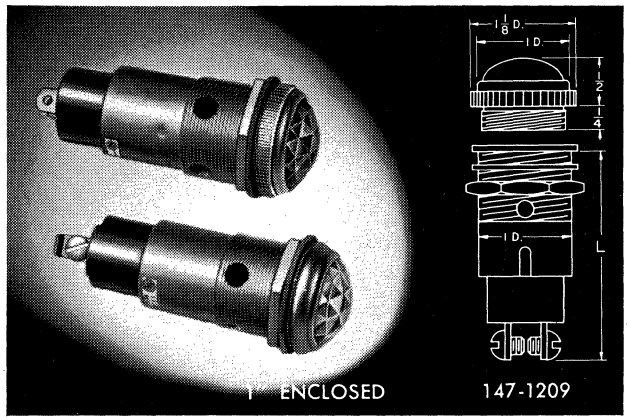

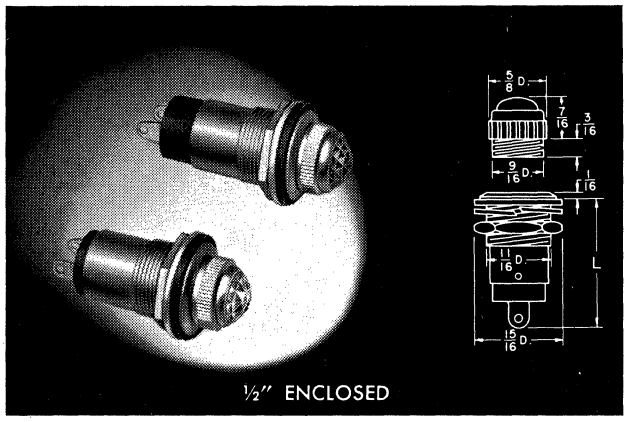

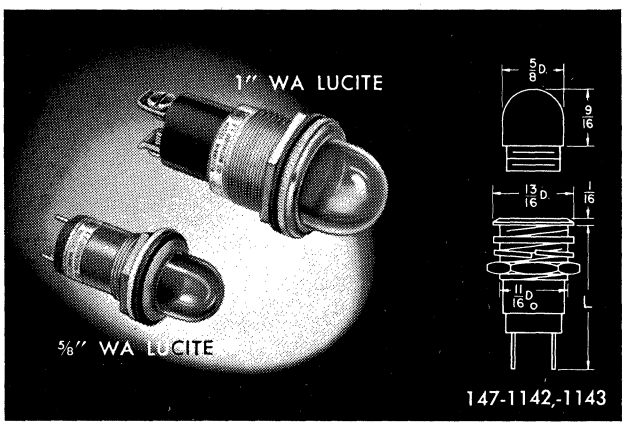

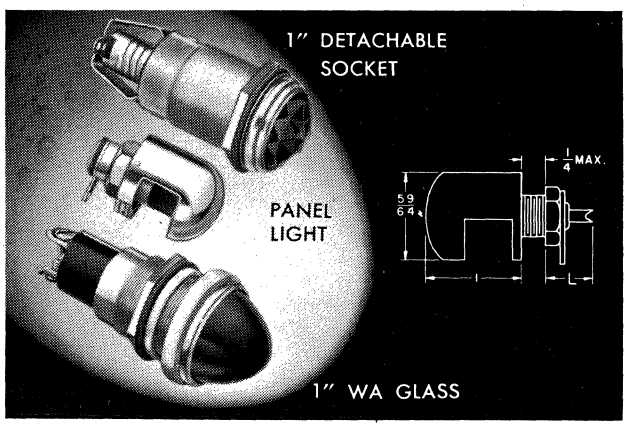

PILOT LIGHTS — GENERAL INFORMATION

The pilot lights listed on these pages have been classified by the E. F. Johnson Company as "PREFERRED TYPES", and are immediately available at parts distributors throughout the country. Specials, including types meeting military specifications are available in production quantities.

When ordering: -1 indicates clear jewel (ie. 147-1000-1); -2, red; -3, green; -4, amber; -5, blue; and -6, opal. Green and blue not recommended for use with neon lamps. In pilot light sockets with built-in resistors for neon bulbs — higher resistance values give longer life, lower resistance values give greater brilliance.

For detailed specifications covering the complete Johnson pilot light line, request Catalog 751 using your company letterhead.

1" ENCLOSED — FACETED AND SMOOTH GLASS JEWELS

U.L. approved. Friction type jewel holder, chrome plated brass. Aluminum body — porcelain insulation. Bulb replaceable from front panel. Solder terminals. Two lengths available, for 110 volt S6 lamp or shorter T4½ lamps such as the NE-45. Mounting nut and fibre washer furnished. 147-1032 has phenolic housing to MIL-P14-CFG, and screw terminals. 147-1000 and 147-1032 have faceted jewel; 147-1004 has smooth jewel for maximum visibility with neon bulb.

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-1000	2½"	S6	Candelabra Screw	$1.12
147-1004	2 3/16"	T4½	Candelabra Screw	1.10
147-1032	2¾"	S6	Candelabra Screw	1.38

U.L. approved. Threaded jewel holder, knurled brass, chrome-plated. Aluminum body. 147-1200 has porcelain insulation and solder terminals. 147-1209 has phenolic insulation and screw terminals. Mounting nut and fibre washer furnished. Faceted jewel.

147-1200	2½"	S6	Candelabra Screw	1.39
147-1209	2¾"	S6	Candelabra Screw	1.49

½" ENCLOSED — FACETED GLASS JEWEL

U.L. approved. Threaded jewel holder, knurled brass, nickel-plated. Two lengths available, for T3¼ or G3½ bulbs. Threaded jewel holder removable — bulb replaceable from front panel. Solder terminals. Mounting nut, fibre washer, and lock washer furnished.

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-1110	1 9/16"	T3¼	Miniature Bayonet	$0.84
147-1112	1⅜"	G3½	Miniature Bayonet	.84

ENCLOSED TYPES — WIDE ANGLE LUCITE LENS

U.L. approved. For standard and new high intensity neon, or low power incandescent bulbs. Wide angle visibility. 1" types have chrome-plated threaded lens holders — ⅝" types have threaded lucite lens cap, which may be removed from bezel on housing for bulb replacement. 147-1217 has screw terminals — all others have solder terminals. Mounting nut and fibre washer furnished.

1" ENCLOSED

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-1217	1⅞"	T4½	Candelabra Screw	$1.57
147-1218	1 7/16"	T3¼	Miniature Bayonet	1.21

⅝" ENCLOSED

147-1142	1⅜"	T3¼	Miniature Bayonet	.75
147-1143*	1⅜"	T3¼	Miniature Bayonet	.98
147-1144**	1⅜"	T3¼	Miniature Bayonet	.98
147-1153†	1⅜"	T3¼	Miniature Bayonet	.98
147-1154‡	1⅜"	T3¼	Miniature Bayonet	.98

*Built with 180,000 ohm resistor for NE51
**Built with 100,000 ohm resistor for NE51
†Built with 33,000 ohm resistor for NE51H
‡Built with 18,000 ohm resistor for NE51H

1" ENCLOSED — WIDE ANGLE "BULLSEYE" GLASS LENS

U.L. approved. Threaded jewel holder, knurled brass, chrome-plated. Excellent visibility from any angle. Bulb replaceable from front panel. Phenolic insulation — screw terminals. Mounting nut and fibre washer furnished.

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-1600	2 1/16"	S6	Candelabra Screw	$1.69

1" DETACHABLE SOCKET

Economical semi-enclosed assembly with chrome-plated jewel bezel. Friction fit jewel holder easily removable from front panel. Socket portion detaches from panel bushing, without disconnecting wiring. Body and jacket nickel-plated. Fibre washer and nut furnished. Faceted jewels.

Cat No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-800	1 11/16"	G3½, T3¼	Miniature Screw	$0.79
147-802	2 3/16"	T4½	Candelabra Screw	.78
147-804	1 11/16"	G3½, T3¼	Miniature Bayonet	.79

PANEL LIGHT

For front panel illumination. Polished nickel-plated hood, easily removable for lamp replacement — rotates to any position.

Cat. No.	Bulb Shape	Lamp Base	Net Price
147-330	T3¼, G3½	Miniature Screw	$0.82
147-329	T3¼, G3½	Miniature Bayonet	.91

Net

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OPEN PILOT LIGHTS — HORIZONTAL MOUNTING

Designed to permit bulb replacement from front panel. Heavy gauge nickel-plated brackets – special bushing and mounting nut serve as jewel receptacle and mounting for bracket.

1" HORIZONTAL OPEN — FACETED GLASS JEWEL

Friction fit chrome-plated jewel holder. For panels to 3/8" thick. 1" mounting hole required.

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-100	1 1/2"	G3 1/2, T3 1/4	Miniature Screw	$0.66
147-103	2 1/8"	S6	Candelabra Screw	.67
147-106	1 9/16"	G3 1/2, T3 1/4	Miniature Bayonet	.69

1/2" HORIZONTAL OPEN — FACETED GLASS JEWEL

Threaded, nickel-plated jewel holder. For panels to 7/32" thick. 11/16" mounting hole required.

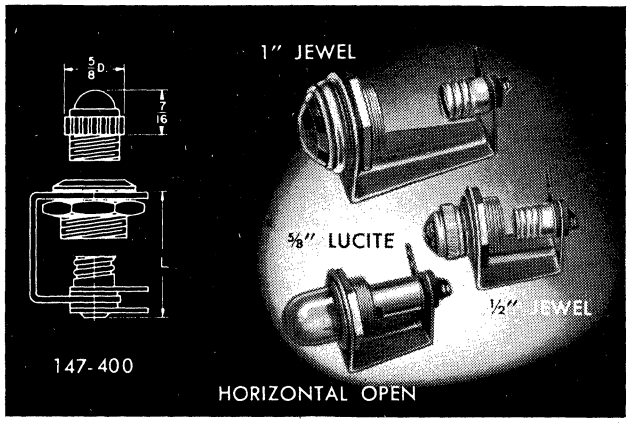
147-400	1 3/16"	G3 1/2, T3 1/4	Miniature Screw	$0.52
147-403	1 1/2"	G3 1/2, T3 1/4	Miniature Bayonet	.55

5/8" HORIZONTAL OPEN — LUCITE LENS

Wide angle visibility – low cost. Use with standard or new high intensity neon, or incandescent lamps with 3 watts or less dissipation. 11/16" mounting hole required.

147-406	1 1/4"	G3 1/2, T3 1/4	Miniature Bayonet	$0.46
147-407*	1 3/8"	NE51	Miniature Bayonet	.73
147-437†	1 3/8"	NE51H	Miniature Bayonet	.73
147-438‡	1 3/8"	NE51H	Miniature Bayonet	.73

*Built with 180,000 ohm resistor for NE51
†Built with 33,000 ohm resistor for NE51H
‡Built with 18,000 ohm resistor for NE51H



OPEN PILOT LIGHTS — VERTICAL MOUNTING

For use where bulb is accessible from behind panel. Solder terminals. Fastens with nut on rear of panel.

5/8" VERTICAL OPEN — FACETED GLASS JEWEL

Chrome-plated. 11/16" mounting hole required.

Cat. No.	Length Behind Panel	Bulb Shape	Lamp Base	Net Price
147-200	1 1/8"	G3 1/2	Miniature Screw	$0.54
147-203	1 3/16"	S6	Candelabra Screw	.55
147-206	1"	G3 1/2	Miniature Bayonet	.58

1/2" VERTICAL OPEN — FACETED GLASS JEWEL

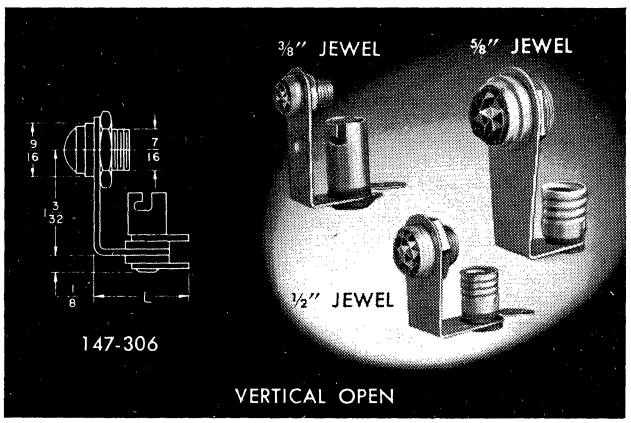
Polished nickel-plated. 7/16" mounting hole required.

147-300	1 3/16"	G3 1/2	Miniature Screw	$0.33
147-303	1 1/4"	S6	Candelabra Screw	.34
147-306	1"	G3 1/2	Miniature Bayonet	.36

3/8" VERTICAL OPEN — FACETED GLASS JEWEL

Polished nickel-plated. 9/32" mounting hole required.

147-500	1 1/8"	G3 1/2	Miniature Screw	$0.28
147-503	1"	G3 1/2	Miniature Bayonet	.31



JEWEL—BUSHING AND JEWEL ASSEMBLIES

1" FACETED JEWEL AND BUSHING ASSEMBLY

Friction fit jewel holder. Chrome-plated bezel fits into threaded brass nickel-plated bushing. Furnished with fibre compression washer and nut. 1" mounting hole required.

Cat. No.	Net Price
147-110	$0.49

1/2" FACETED JEWEL AND BUSHING ASSEMBLY

Threaded knurled brass jewel holder, nickel-plated. Includes jewel assembly and threaded bushing with mounting nut. 11/16" mounting hole required.

147-410 ..... $0.38

1/2" FACETED JEWEL

Threaded jewel assembly. Nickel-plated bezel. Mounting nut furnished. 7/16" mounting hole required.

147-310 ..... $0.20

3/8" MINIATURE FACETED GLASS JEWEL

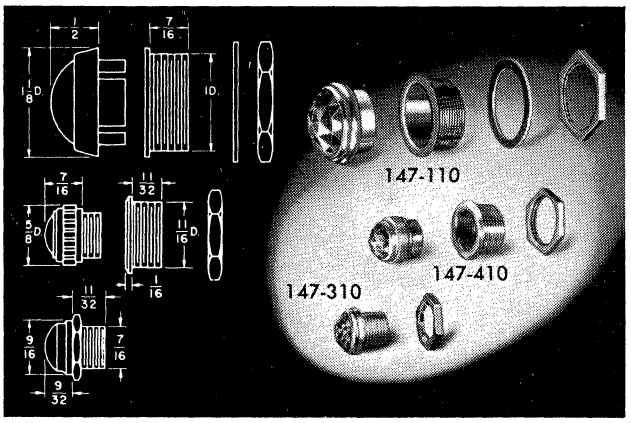
Miniature threaded jewel assembly with nut. Nickel-plated bezel. 9/32" mounting hole required.

147-510 ..... $0.14

5/8" LUCITE LENS

Lucite lens threaded 9/16"-27 as shown on 147-406 and 407.

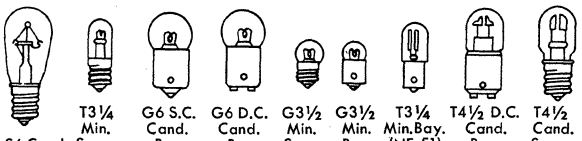
147-10 ..... $0.10



DIAL LIGHT BRACKETS

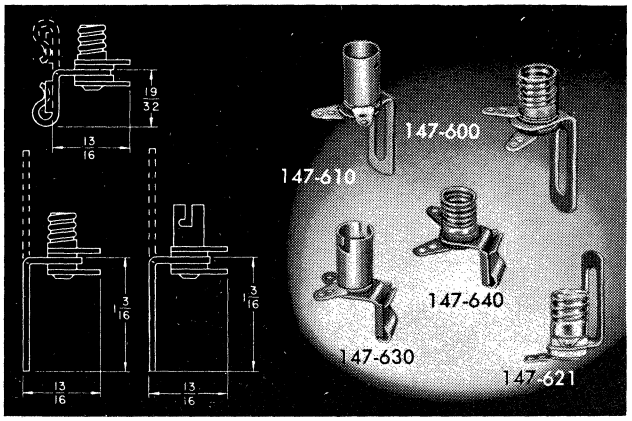
Socket shells are of extra heavy, drawn seamless construction. Tin-plated terminals—all other parts heavily nickel-plated. Heavy gauge contact springs on bayonet types.

Cat. No.	Socket	Net Price	Cat. No.	Socket	Net Price
147-600	Min. Screw (Bkt. down)	$0.12	147-621	Cand.Screw (Bkt.up)	$0.13
147-601	Min. Screw (Bkt. up)	.12	147-630	Min. Bay. (Clip down)	.16
147-610	Min. Bay. (Bkt. down)	.14	147-631	Min. Bay. (Clip up)	.16
147-611	Min. Bay. (Bkt. up)	.14	147-640	Min.Screw(Clip down)	.14
147-620	Cand. Screw (Bkt. down)	.13	147-641	Min. Screw (Clip up)	.14



S6 Cand. Screw | T3 1/4 Min. Screw | G6 S.C. Cand. Bay. | G6 D.C. Cand. Bay. | G3 1/2 Min. Screw | G3 1/2 Min. Bay. | T3 1/4 Min.Bay. (NE-51) (NE-51H) | T4 1/2 D.C. Cand. Bay. (NE-48) | T4 1/2 Cand. Screw (NE-45)

Bulbs not available from E. F. Johnson Co.



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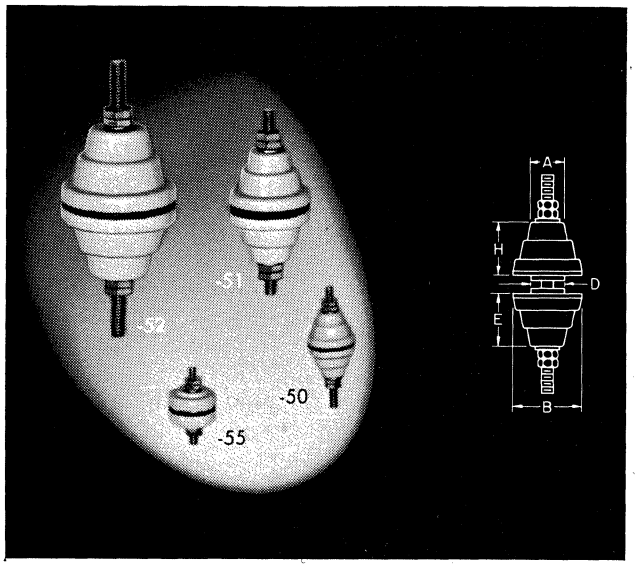

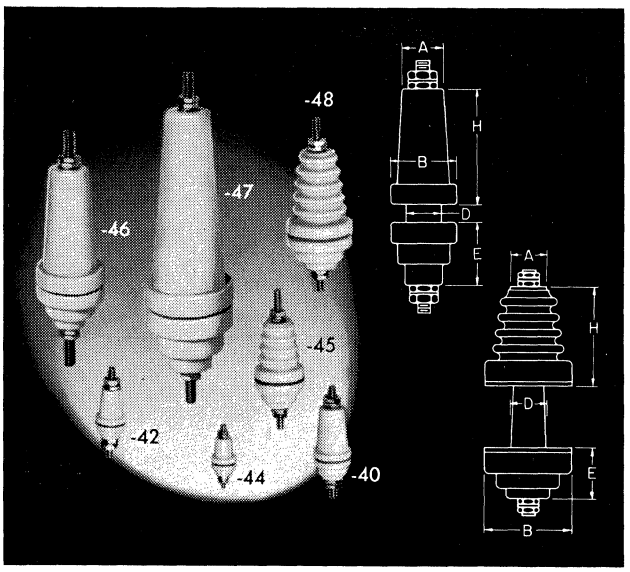

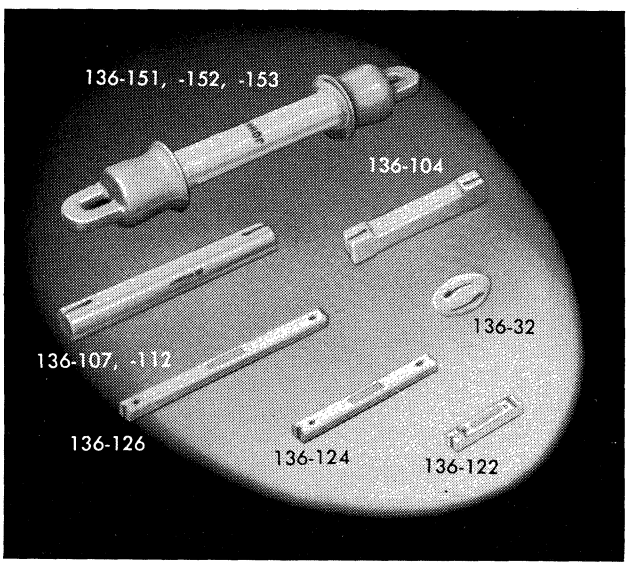

INSULATORS – GENERAL INFORMATION

These high quality steatite and porcelain insulators have heavily glazed surfaces and are furnished with heavy nickel-plated brass hardware suitable for exposed applications. Types designated -2 have jack to accommodate Johnson or other standard banana plugs.

INSULATED THRU-PANEL BUSHINGS

This group of thru-panel bushing assemblies consists of a pair of identical steatite insulators along with cushion washers and hardware. The 135-55 assembly has interlocking insulators which are self-centering in mounting hole and may be used on very thin panels.

Cat. No.	H	B	D	A	Hardware	Net Price
1 5-50	1/2"	3/4"	15/32"	3/8"	6-32	$0.33
135-51	13/16"	1 1/4"	27/32"	5/8"	10-32	.54
135-52	1 1/8"	1 3/4"	1 7/32"	7/8"	1/4"-20	.78
135-55	1/4"	3/4"	15/32"	1/2"	6-32	.31

THRU-PANEL INSULATORS

Available in steatite or porcelain types, these high voltage insulators are compression mounted by means of a stud throughout the entire length of the unit. Extrusion of insulator base extends thru mounting hole, increasing the breakdown rating. Units have flat mounting surfaces and are furnished with cushion washer. Types with jacks have terminal permitting connection above, as well as below panel.

STEATITE

Cat. No.	H	B	D	E	A	Hardware	Net Price
135-40	1 1/4"	15/16"	7/16"	1/2"	19/32"	10-32	$0.35
135-40-2	1 1/4"	15/16"	7/16"	1/2"	19/32"	108-740 Jack	.45
135-42	7/8"	3/4"	13/32"	3/8"	1/2"	10-32	.35
135-42-2	7/8"	3/4"	13/32"	3/8"	1/2"	108-740 Jack	.45
135-44	5/8"	5/8"	5/16"	5/16"	3/8"	6-32	.27

PORCELAIN

Cat. No.	H	B	D	E	A	Hardware	Net Price
135-45	1 3/8"	1 1/4"	1/2"	11/16"	5/8"	10-32	$0.47
135-45-2	1 3/8"	1 1/4"	1/2"	11/16"	5/8"	108-740 Jack	.57
135-46	2 3/4"	1 5/8"	11/16"	1"	15/16"	1/4"-20	1.30
135-46-2	2 3/4"	1 5/8"	11/16"	1"	15/16"	108-740 Jack	1.50
135-47	4 1/2"	2 1/8"	31/32"	1 1/2"	1 1/16"	1/4"-20	1.85
135-47-2	4 1/2"	2 1/8"	31/32"	1 1/2"	1 1/16"	108-760 Jack	2.15
135-48	2"	1 5/8"	11/16"	7/8"	3/4"	10-32	.70
135-48-2	2"	1 5/8"	11/16"	7/8"	3/4"	108-740 Jack	.83

ANTENNA STRAIN INSULATORS

The 136-151, 136-152, and 136-153 have heavy 1 1/2" diameter wet process porcelain insulator with specially sealed end bells of non-corrosive aluminum alloy. Porcelain is glazed to prevent moisture absorption. Numbers 136-107 and 136-112 are wet process, 1" diameter glazed porcelain. Number 136-104 is dry process, glazed 5/8" square. The 136-32 is a compression type strain insulator for aircraft or guy wire applications – made of dry process glazed porcelain.

Cat. No.	Breaking Strength	Length Net	Length Overall	Net Price
136-151	5000 lbs.	8"	15 1/2"	$ 9.50
136-152	5000 lbs.	12"	19 1/2"	10.50
136-153	5000 lbs.	20"	25 1/2"	14.70
136-104	400 lbs.	..	4"	.26
136-107	800 lbs.	..	7"	1.18
136-112	800 lbs.	..	12"	1.70
136-32	.....	..	1 1/2"	.12

FEEDER INSULATORS

The 136-122, 136-124, and 136-126 are conventional feeder spreaders for constructing high efficiency open-wire antenna feeders and transmission lines. Insulators are made of high grade, low absorption porcelain, silicone impregnated for moisture resistance. Insulators have 3/8" x 1/2" cross section. The 136-122 has extra notches for 1 1/2" line spacing.

Cat. No.	Length	Net Price
136-122	2"	$0.17
136-124	4"	.24
136-126	6"	.32

Net

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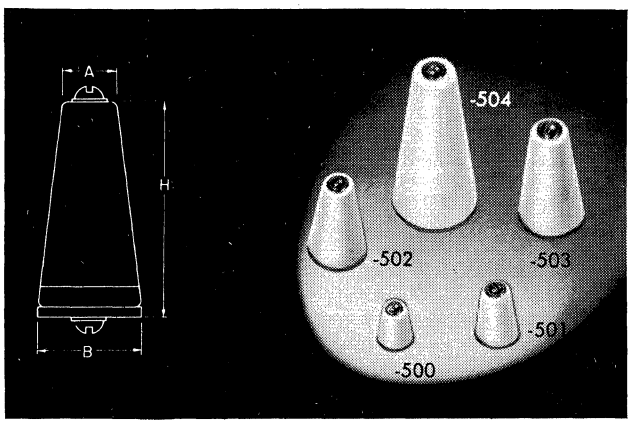
STEATITE CONE INSULATORS

Constructed of grade L-4 or better steatite. Deep, clean threads are tapped directly into the ceramic. Insulators are furnished complete with two nickel-plated machine screws, nickel-plated brass washers, and a cork cushion washer.

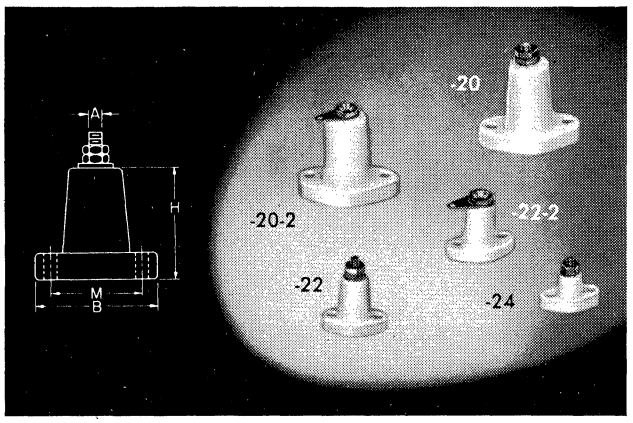
Cat. No.	H	B	A	Hardware	Net Price
135-500	5/8"	5/8"	7/16"	6-32	$0.23
135-501	1"	3/4"	1/2"	8-32	.31
135-502	1 1/2"	1"	1/2"	8-32	.51
135-503	2"	1 1/8"	5/8"	10-32	.71
135-504	3"	1 1/2"	3/4"	10-32	1.20



STEATITE STAND-OFF INSULATORS

Sturdy and economical, these glazed steatite insulators have relatively large mounting surfaces. Two hole mounting permits substantial lateral loads. Hardware includes screw, flat washer, and two nuts. Parts designated -2 have a standard banana jack and a solder lug mounted on the top of the insulator. Jacks have .166" inside diameter to fit standard banana plugs.

Cat. No.	H	B	M	A	Hardware	Net Price
135-20	1 9/16"	1 3/4"	1 5/16"	3/4"	10-32	$0.25
135-20-2	1 9/16"	1 3/4"	1 5/16"	3/4"	108-740 Jack	.30
135-22	1"	1 5/32"	13/16"	15/32"	8-32	.19
135-22-2	1"	1 5/32"	13/16"	15/32"	108-740 Jack	.23
135-24	5/8"	1"	11/16"	3/8"	6-32	.15



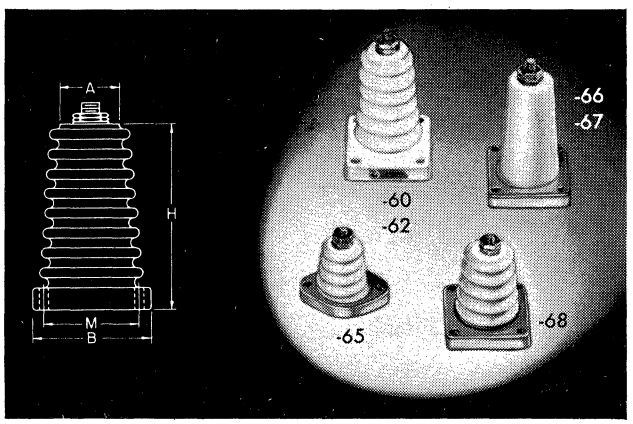
PORCELAIN STAND-OFF INSULATORS

These ribbed porcelain insulators feature square mounting bases with four mounting holes. Porcelain is dense molded and glazed, except on mounting surfaces.

Cat. No.	H	B	M	A	Hardware	Net Price
135-60	4 1/2"	2 1/2"	1 7/8"	1 3/16"	1/4"-20	$0.98
135-62	2 3/4"	1 7/8"	1 3/8"	7/8"	1/4"-20	.60

This group of surface mounting porcelain insulators have drawn and etched aluminum bases. The 135-65, 135-65-2, 135-68 and 135-68-2 are ribbed – the 135-66, 135-66-2, 135-67, and 135-67-2 have smooth surfaces. Types 135-65-2 and 135-68-2 have standard .166" inside diameter banana jacks; types 135-66-2 and 135-67-2 have .277" inside diameter jacks to fit jumbo banana plugs.

Cat. No.	H	B	M	A	Hardware	Net Price
135-65	1 3/8"	1 7/8"	1 1/2"	5/8"	10-32	$0.30
135-65-2	1 3/4"	1 7/8"	1 1/2"	5/8"	108-740 Jack	.39
135-66	2 3/4"	1 3/4"	1 3/8"	15/16"	1/4"-20	.87
135-66-2	2 3/4"	1 3/4"	1 3/8"	15/16"	108-760 Jack	.98
135-67	4 1/2"	2 1/4"	1 3/4"	1 1/16"	1/4"-20	.98
135-67-2	4 1/2"	2 1/4"	1 3/4"	1 1/16"	108-760 Jack	1.25
135-68	2"	1 3/4"	1 3/8"	23/32"	10-32	.46
135-68-2	2"	1 3/4"	1 3/8"	23/32"	108-740 Jack	.54



LEAD-IN BUSHINGS

These versatile bushings consist of single porcelain insulators less all hardware except cushion washer. Mounting flanges and threaded lead-in rods are listed below.

Cat. No.	H	B	A	Net Price
135-53	1 3/4"	2 1/2"	1 1/16"	$0.29
135-54	4"	3 1/2"	1"	.79

Threaded rod for use with lead-in bushings 135-53 and 135-54. Rod threaded overall 1/4"-20. Complete assembly includes rod, 4 brass washers, and 4 nuts. All parts are heavily nickel-plated.

Cat. No.	Length	Net Price
115-240	8"	$0.57
115-241	10"	.71
115-242	15"	.88

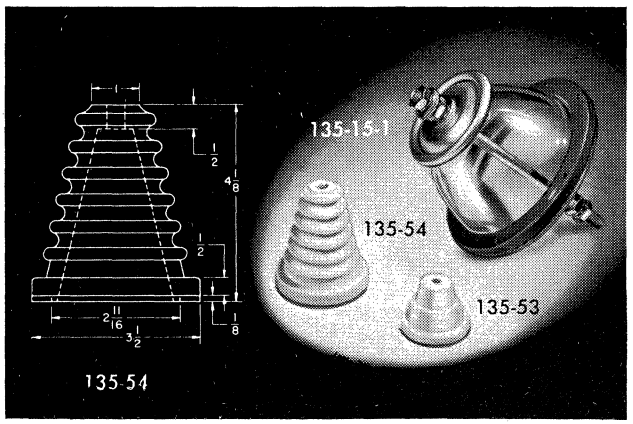
Stamped aluminum mounting flanges for lead-in bushings 135-53 and 135-54. Flanges have three mounting holes spaced 120 degrees apart.

Cat. No.	For Bushing No.	Net Price
135-90	135-53	$0.34
135-91	135-54	.84

FEED-THRU BOWL ASSEMBLIES

Bowls are constructed of electrical glass, 6 15/16" maximum diameter, 4 3/8" high. Steel mounting flange is 7 3/4" diameter. Stud is threaded 1/2"-13. Cork gaskets and spun aluminum corona shields are included in fittings. Feed-thru bowl assemblies can also be furnished with special hollow studs.

Cat. No.		Stud	Max. Wall Thickness	Net Price
135-15-1	One bowl and fittings	10 1/4"	...	$15.40
135-15-3	Two bowls and fittings	16"	4"	27.10
135-15-7	Two bowls and fittings	24"	12"	27.60
135-15-11	Glass bowl only, less fittings	.....	...	8.65



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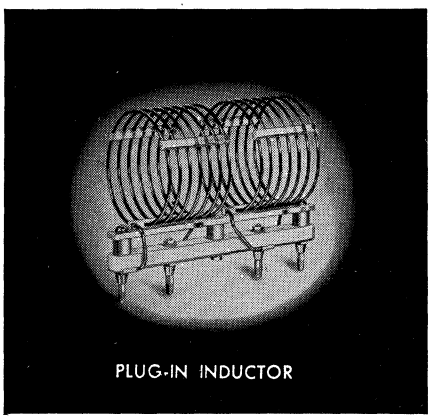

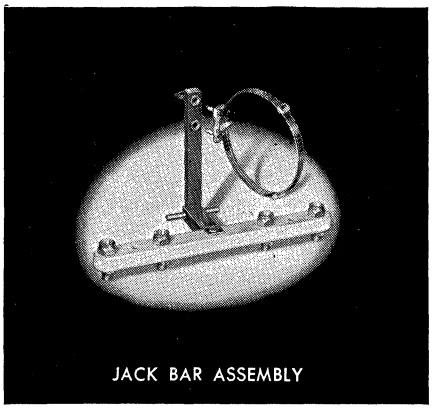

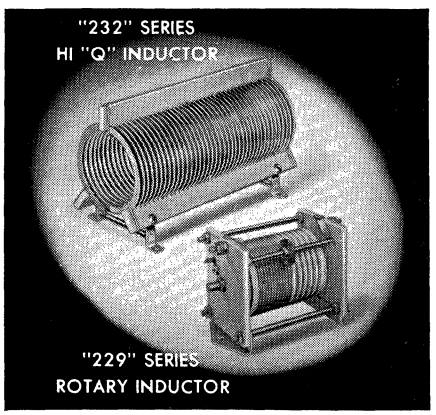

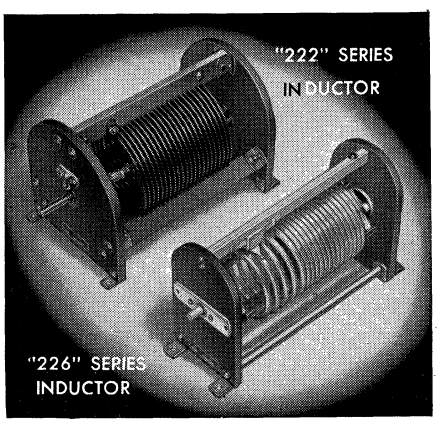

SWINGING LINK INDUCTORS

Swinging link inductors for amateur bands 160 thru 6 meters; 150, 500 and 1000 watt sizes. Polystyrene insulation, steatite bases and heavy wire sizes. HCS-Inductors match high voltage, low current tubes. LCS-Inductors match low voltage, high current tubes. Assembly includes inductors for bands desired, Jack Bar, Link Arm Assembly and Plug-in Links to match to line or antenna coupler.

Cat. No.	Type No.	Wire Size	Cap. *mmf.	Height	Width	Net Price
			1,000 watts			
238-107	1000LCS160	10	140	5 11/16"	4 13/32"	$9.80
238-101	1000HCS80	10	46	5"	3 23/32"	8.90
238-102	1000LCS80	10	73	5"	3 23/32"	8.90
238-103	1000HCS40	10	24	5"	3 23/32"	7.80
238-104	1000LCS40	8	55	5"	3¾"	7.80
238-105	1000HCS20	8	19	4⅞"	3¾"	7.50
238-111	1000LCS20	.250"	26	5⅛"	4"	7.50
238-112	1000H/LCS14	.250"	19	4⅞"	3½"	6.60
238-113	1000H/LCS10	.250"	18	4⅞"	3½"	6.00
			500 watts			
238-125	500HCS160	14	100	4 7/32"	3⅛"	6.95
238-126	500LCS160	14	148	4 7/32"	3⅛"	6.95
238-122	500LCS80	12	76	3¾"	2 21/32"	6.75
238-123	500HCS40	12	27	3¾"	2 21/32"	6.50
238-132	500LCS20	6	37	3 13/16"	2 13/16"	5.25
238-133	500H/LCS14	6	19	3 11/16"	2 9/16"	4.95
238-134	500H/LCS10	6	19	3 9/16"	2 5/16"	4.50
238-135	500H/LCS6	6	18	3 9/16"	2 5/16"	4.50
			150 watts			
238-147	150HCS160	18	102	4 3/16"	3 1/16"	4.65
238-148	150LCS160	16	151	4 7/32"	3 3/32"	4.65
238-142	150LCS80	16	68	4 7/32"	2 19/32"	4.40
238-144	150LCS40	12	57	3¾"	2 21/32"	4.15
238-145	150HCS20	12	21	3½"	2 13/32"	3.95
238-146	150LCS20	12	32	3½"	2 13/32"	3.95
238-153	150H/LCS6	8	16	3 13/32"	2"	2.95

*Total circuit capacity to effect resonance at low frequency end of band. To determine split-stator capacitor, subtract tube output and wiring capacity (usually 5 to 20 mmf.) from total capacity in chart; then double result for capacity per section needed.

PLUG-IN SWINGING LINKS

Select the link to match your line, coupler or output filter for optimum power transfer.

Cat. No.	Type No.	No. Turns	Net Price	Cat. No.	Type No.	No. Turns	Net Price
238-181	150/500SL12	12	$1.80	238-191	1000SL10	10	$2.50
238-182	150/500SL5	5	1.15	238-192	1000SL5	5	1.35
238-183	150/500SL2	2	1.00	238-193	1000SL2	2	1.20

SWINGING LINK ARM ASSEMBLIES

238-179 **150/500SLA**—for 150/500 watt inductors $1.60
238-180 **1000SLA**—for 1000 watt inductors 1.80

JACK BAR ASSEMBLIES

238-171 **150JBS**—150 watt, 3¾" x 9/16" x ⅜" $1.15
238-172 **500JBS**—500 watt, 5¾" x ⅝" x ⅜" 1.40
238-173 **1000JBS**—1000 watt, 7½" x ⅞" x ½" 2.50

INDUCTORS

"232" SERIES "HI-Q" COILS—¼" x .054" RIBBON—7 AMPS.

Copper strip, cadmium plated. Glass bonded mica support bars. Uses clip 235-804.

Cat. No.	Inductance	Mounting Dimensions	Overall Dimensions L	W	H	Net Price
232-610	31 uh	3¼" x 6"	7 31/32"	3⅝"	4⅝"	$11.50
232-620	84 uh	3¾" x 7⅛"	9 3/32"	4½"	6"	14.80
232-622	41 uh	3¼" x 4⅝"	6 19/32"	3¾"	5⅜"	11.35
232-624	20 uh	3¼" x 4¼"	6 7/32"	3¾"	5⅜"	8.85
232-626	10 uh	3¼" x 3"	4 31/32"	3⅝"	4⅝"	7.35

"229" SERIES WIRE WOUND VARIABLE INDUCTORS

Efficient, all steatite insulated variable inductors for amateur transmitters or low power commercial equipment. Variable pitch, tinned copper wire windings on grooved steatite forms. ¼" shafts extend ½" on both ends. Length dimension is over mounting feet.

Cat. No.	Inductance	Current In Amps	Mounting Dimensions	Overall Dimensions L	W	H	Wire Size	Net Price
229-201	10 uh	3	3 15/16"	4⅜"	2½"	2 31/32"	No. 14	$ 9.50
229-202	18 uh	5	5 15/32"	5 29/32"	2½"	2 31/32"	No. 12	10.50
229-203	28 uh	5	6 23/32"	7 5/32"	2½"	2 31/32"	No. 12	11.50

"222" SERIES VARIABLE INDUCTORS—½" x .090" RIBBON—15 AMPS.

Excellent for medium power RF equipment where high current operation is required in minimum space. Heavy nickel plated copper ribbon windings and silver plated roller contact for smooth, positive low resistance operation over complete inductance range. Glass bonded mica end frames and support bars. ⅜" shafts extend 1¾" front and rear. L-dimension, over mounting feet – excludes shaft extensions.

Cat. No.	Type No.	Inductance	Mounting Dimensions	Overall Dimensions L	W	H	Net Price
222-101	4224MS4	27 uh	5¾" x 10⅜"	13⅛"	6½"	6⅝"	$67.50
222-102	4275MS4	50 uh	6¾" x 11⅝"	14⅜"	7½"	7⅝"	79.75
222-103	4084MS6	5 uh	5¾" x 7⅞"	10⅝"	6½"	6⅝"	56.50
222-105	4134MS6	10 uh	5¾" x 9¾"	12½"	6½"	6⅝"	65.00
222-107	4325MS4	60 uh	6¾" x 12⅞"	15⅝"	7½"	7⅝"	87.00

"226" SERIES VARIABLE INDUCTORS—¼" x ⅛" RIBBON—10 AMPS.

Popular for commercial and amateur use, these moving coil type inductors easily handle well over a kilowatt of plate modulated RF energy to 30 mc. Heavy silver plated conductors and silver plated contact bars and contacts. Glass bonded mica end frames and support bars. ⅜" shafts extend ¾" front and rear. Length dimension is over mounting feet, does not include shaft extensions.

226-1	22.5 uh	3" x 12¾"	13½"	4"	6½"	$63.85
226-3	13.5 uh	3" x 10¾"	11½"	4"	6½"	58.30
226-5	8 uh	3" x 9¼"	10"	4"	6½"	51.20

Net

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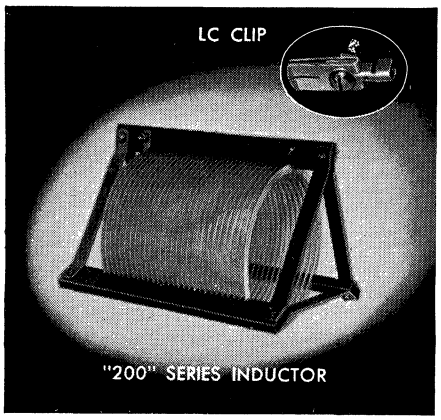
E. F. Johnson Company

WASECA, MINNESOTA

"200" SERIES FIXED COILS

Economical – compact – edgewise copper windings silver plated. Airwound with slotted, glass bonded mica supports. Construction provides exceptional current carrying capacity for size.



"200" FIXED COILS–¼" x .054" RIBBON–10 AMPERES

Cat. No.	Type No.	Inductance	Mounting Dimensions	Overall Dimensions L	W	H	Net Price
200-101	2224N4	26 uh	2" x 8⅛"	8¾"	5⁹⁄₁₆"	5⅜"	$15.00
200-107	2105N4	13 uh	2" x 5⅛"	5¾"	6⅝"	6½"	11.50
200-114	2284N3	45 uh	2" x 7⅞"	8½"	5⁹⁄₁₆"	5⅜"	18.25
200-105	2455N3	120 uh	2" x 11¹⁄₆₄"	11⁴¹⁄₆₄"	5⁹⁄₁₆"	5⁹⁄₁₆"	27.20
200-407	2497N4	200 uh	3" x 14¹³⁄₁₆"	15⁷⁄₁₆"	7½"	7½"	40.95

"200" FIXED COILS–⅜" x .072" RIBBON–15 AMPERES

200-205	3164N5	15 uh	2" x 7⅜"	8¼"	5¹¹⁄₁₆"	5⁹⁄₁₆"	$15.50
200-206	3275N4	50 uh	2" x 9⅜"	10"	6⅞"	6¹¹⁄₁₆"	25.00
200-211	3336N5	73 uh	2½" x 12¹⁵⁄₁₆"	13⁹⁄₁₆"	7¹¹⁄₁₆"	7¹¹⁄₁₆"	32.50
200-213	3376N4	102 uh	2½" x 11⅞"	12½"	7¹¹⁄₁₆"	7¹¹⁄₁₆"	35.00

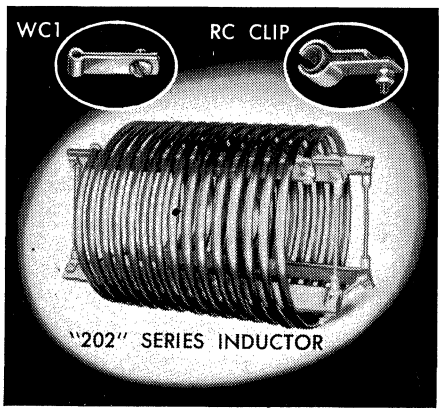
"200" FIXED COILS–½" x .090" RIBBON–20 AMPERES

200-301	4205N6	25 uh	2" x 10⅝"	11⅜"	7⅛"	7"	$31.00
200-302	4346N5	78 uh	2½" x 13¾"	14½"	8"	8"	45.40
200-303	4275N4	50 uh	2" x 9⅞"	10⅝"	7⅛"	7"	34.50
200-306	4164N5	15 uh	2" x 8⅛"	8⅞"	6⅝"	6"	22.75
200-308	4366N4	100 uh	2½" x 12⅛"	12⅞"	8"	8"	43.60

Other standard inductance values available on special order.

"202" SERIES FIXED COILS

Large surface area ¼", ⅜" and ½" copper tubing wound coils, silver plated, provide low resistance and working temperatures for continuous high current applications. Simple, rugged "airwound" design with glass bonded mica support bars.



"202" FIXED COILS–¼" TUBING–20 AMPERES

Cat. No.	Type No.	Inductance	Mounting Dimensions	Overall Dimensions L	W	H	Net Price
202-101	2166NT8	21 uh	2½" x 14⅜"	15⅛"	6½"	6¾"	$32.10
202-401	2308NT8	76 uh	2¼" x 21⅛"	21⅞"	8½"	8½"	65.75
202-402	2328NT6	102 uh	2¼" x 18³⁄₃₂"	18²⁹⁄₃₂"	8½"	8½"	61.80

"202" FIXED COILS–⅜" TUBING–30 AMPERES

202-201	3106NT12	10 uh	2½" x 13⅞"	14⅝"	6¾"	7½"	$35.80
202-502	32410NT12	64 uh	2½" x 24¹⁄₁₆"	24¹³⁄₁₆"	10¾"	10¾"	87.15
202 507	3148NT12	24 uh	2¼" x 16⁹⁄₁₆"	17⁵⁄₁₆"	8¾"	8¾"	48.60

"202" FIXED COILS–½" TUBING–40 AMPERES

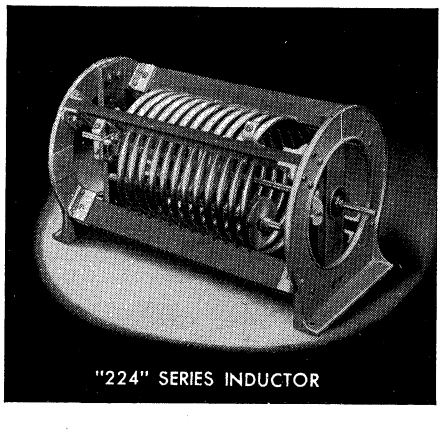
202-601	4127NT14	12 uh	1½" x 16¹⁷⁄₃₂"	17⁹⁄₃₂"	8"	8"	$53.25
202-602	41410NT14	30 uh	2½" x 18³⁄₃₂"	19¹⁄₃₂"	11"	11"	68.25
202-604	4147NT14	16 uh	1½" x 18³⁄₃₂"	19¹⁄₃₂"	8"	8"	59.45

CLIPS FOR TAPPING "200", "202", AND "232" SERIES INDUCTORS

Cat. No.	Type No.	Fits Winding	Net Price
235-804	LC4	¼" x .054"	$0.27
235-807	LC7	⅜" x .072"	.45
235-808	LC8	½" x .090"	.65
235-824	RC4	¼" tubing	1.70
235-826	RC6	⅜" tubing	1.75
235-828	RC8	½" tubing	2.10
235-860	WC1	No. 20 to No. 12 Wire	.12

"224" SERIES VARIABLE INDUCTORS

For high power RF applications – silver plated copper tubing – especially designed to handle heavy current in continuous duty. Contact wheel is heavily silver plated for optimum electrical efficiency. Inductors have cast aluminum end frames and glass bonded mica support bars. ⅜" shafts extended 2¼" from end frames at each end. Overall length dimension includes mounting feet.



"224" VARIABLE INDUCTORS–⅜" TUBING–30 AMPERES

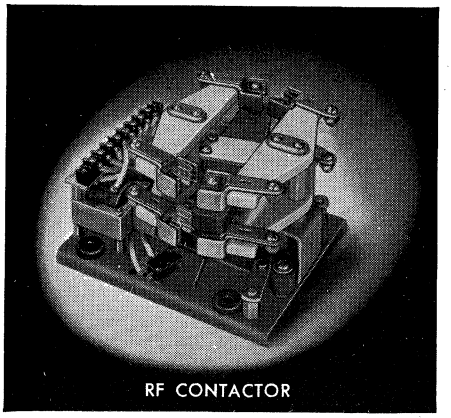
Cat. No.	Type No.	Inductance	Mounting Dimensions	Overall Dimensions L	W	H	Net Price
224-3	3168MST10	30 uh	8½" x 19⅛"	20⅝"	12"	12⅛"	$163.80
224-4	3108MST12	14.5 uh	8½" x 16⅝"	18⅛"	12"	12⅛"	154.00
224-6	32111MST12	75 uh	8½" x 24⅛"	26⅜"	12"	12⅛"	199.75

"224" VARIABLE INDUCTORS–½" TUBING–40 AMPERES

224-1	41410MST14	30 uh	8½" x 21⅜	22⅞"	12"	12⅛"	$199.75
224-2	4128MST14	16.5 uh	8½" x 19⅝	21⅛"	12"	12⅛"	167.80
224-5	41711MST14	50 uh	8½" x 24"	25½"	12"	12⅛"	201.60

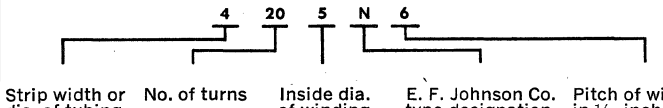
R. F. CONTACTORS

Contactors for switching high voltage, high current RF or DC. Operated by momentarily energized 220 VAC solenoids (may also be connected for 110 VAC), toggle action contacts snap into position; no holding current is required. Extremely compact for voltage ratings; overall dimensions of 145-100 series 7⅞" long, 6½" wide, 5½" high; of 145-200 series, 10½" long, 8¼" wide, 6³⁄₁₆" high. Four auxiliary micro snap switches (10 amp. at 220 VAC), actuated by contact armature. Two control solenoid voltage, two may be used to operate signaling devices or for other related functions.



Cat. No.	Type	Peak Voltage	Current	Net Price
145-101-13	SPDT	17000	25 amp.	$106.00
145-102-13	DPDT	17000	25 amp.	116.00
145-201-13	SPDT	22000	25 amp.	125.00
145-202-13	DPDT	22000	25 amp.	134.00

EXPLANATION OF TYPE NUMBERS



4	20	5	N	6
Strip width or dia. of tubing in ⅛ inches	No. of turns	Inside dia. of winding in inches	E. F. Johnson Co. type designation	Pitch of winding in ¹⁄₁₆ inches

NOTE: Except on amateur inductors, current ratings shown are nominal for broadcast frequencies; will increase at lower frequency–decrease at higher frequencies.

For complete information and specifications on Johnson Industrial and Broadcast RF Components – write for your copy of Catalog 560.

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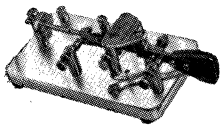
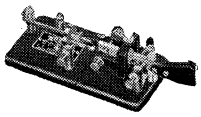
E. F. Johnson
Keys and Practice Sets



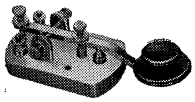
DELUXE SEMI-AUTOMATIC KEYS — Adjustable from lowest to highest speeds, this handsomely finished semi-automatic key has a smooth, easy action. Vibrator, posts, circuit closing switch, and all machine parts heavily chrome plated. Five adjustments with lock nuts—molded plastic paddles adjust separately to best height. Steel base 6¼"x3½"x½"—complete with adjustable weight and rubber feet.

Cat. No.		Amateur Net
114-500	⅛" contacts, black wrinkle base	$17.95
114-501	¼" contacts, polished chrome base	20.65



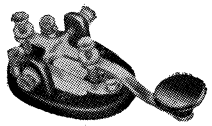
SPECIAL SEMI-AUTOMATIC KEY — Many operating features—attractively finished, black wrinkle enamel base. All hardware and vibrator heavily chrome plated. Same vibrator as on deluxe key. Easy action, adjustable from lowest to highest speeds. ⅛" coin silver contacts—circuit closing switch—rubber mounting feet.

Cat. No.		Amateur Net
114-520	Special Model, Semi-Automatic	$13.95



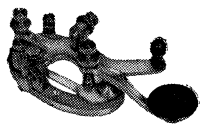
HEAVY DUTY KEYS—Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Improved Navy-type knob. Adjustable steel bearings and spring design give light keying touch.

Cat. No.		Amateur Net
114-320	Black wrinkle enamel base	$4.70
114-321	Polished chrome plated base	5.85



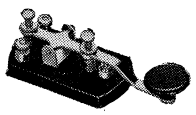
STANDARD KEYS — Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. ⅛" coin silver contacts. A high quality key at a low cost.

Cat. No.		Amateur Net
114-310	Black wrinkle, no switch	$3.10
114-310-3	Black wrinkle with switch	3.90
114-311	Chrome plated, no switch	5.20
114-311-3	Chrome plated with switch	6.10



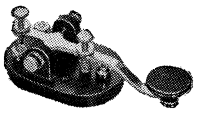
HIGH SPEED STANDARD KEYS—Fully adjustable spring tension, contact spacing and bearings. Brass base and binding posts—instrument lacquer finish. .072" platinor contacts.

Cat. No.		Amateur Net
114-100	R48 Key, satin brass, no switch	$5.95
114-100-3	M100 Key, satin brass with switch	6.85



PRACTICE KEY—An inexpensive practice key—perfect in design for the average beginner. All the metal parts are nickel plated. Furnished with an adjustable key arm, spring and smooth action bearings. Contacts are of ⅛" coin silver.

Cat. No.		Amateur Net
114-300	Molded phenolic base	$2.25

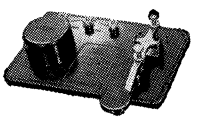


PHENOLIC BASE KEYS—High quality key with adjustable bearings. Improved spring-pigtail connection. ⅛" coin silver contacts—nickel plated metal parts.

Cat. No.		Amateur Net
114-301	Molded phenolic base, no switch	$2.50

CORD AND WEDGE—Cord and wedge for easy attachment of semi-automatic key across circuit-closing switch of a standard hand key. Used almost universally by railroad telegraphers—ideal for amateur service where both hand key and semi-automatic are used.

Cat. No.		Amateur Net
114-380	Cord and wedge	$1.15

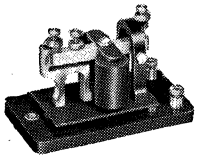


PRACTICE SET — Constant frequency buzzer and key on a 4" x 6" molded bakelite base. Buzzer tone is fully adjustable. Coin silver contacts. Uses two dry cells or "C" battery. Connect singly or in pairs for code practice.

Cat. No.		Amateur Net
114-450	Practice Set	$4.90

Buzzer only as used on set above.

114-400	Buzzer	$1.85



TELEGRAPH SOUNDER — Designed for instant response, brass sounder provides clear, resonant tone. Steel bar frame, black enamel finish. Brass bridge and adjustment screws, instrument lacquer finish. Sounder plate is black lacquered steel. Mahogany finished wood base, brass binding posts and rubber mounting feet.

Cat. No.		Amateur Net
114-112	Sounder (4 ohms)	$9.95
114-113	Sounder (20 ohms)	10.45

LEARNER SET — Telegraph practice set. Bar frame steel, brass bridge and adjustment screws. Brass lacquer finish. Brass sounding bar—black lacquered steel sounder plate. Adjustable black nickel-plateu key arm. High impact polystyrene base, black matte finish, brass binding posts, rubber feet.

Cat. No.		Amateur Net
114-110	(4 ohms)	$14.95
114-111	(20 ohms)	15.45

PONY RELAY—Polished, plated steel armature—all other metal parts brass with lacquer finish. Heavy duty magnets. Mahogany finish wood sub-base—cast iron black enamel base.

Cat. No.		Amateur Net
114-105	(20 ohms)	$13.80

AMATEUR EQUIPMENT CATALOG 959 — Complete information on all of the world famous Johnson Transmitting Products for amateur and commercial use.

E. F. Johnson Company

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Net

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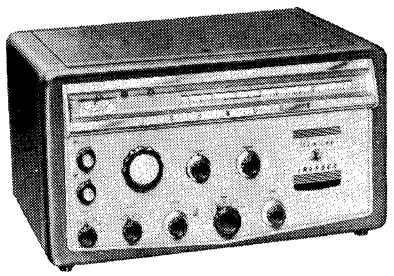
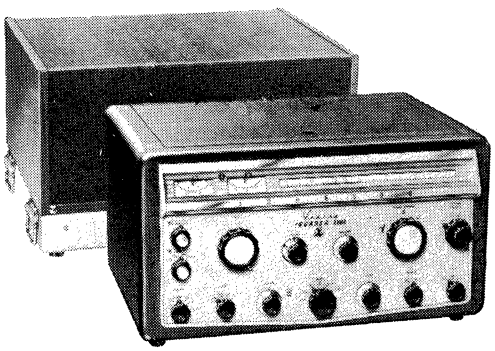
E. F. JOHNSON AMATEUR EQUIPMENT





1st Choice of Amateurs the world over!

Since the first Viking transmitter was built, amateurs everywhere have looked to the E. F. Johnson Company for leadership in transmitter design. Illustrated at the left, the new Viking "Invader" and the "Invader-2000" transmitters, are two concrete examples of the newest and finest Johnson equipment designed for the amateur service.

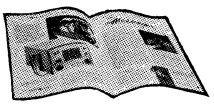
For effective, practical design and honest dollar value, the Viking line of Amateur Transmitters and Station Accessories is hard to beat! That's why whether you choose the "Adventurer" as your first transmitter, or the new "Invader-2000" as the "last word", you know beyond a doubt that your transmitter dollar is soundly invested!

New Catalog

Write today for our newest Amateur Equipment Catalog—contains photos, schematics, and detailed specifications.

E. F. JOHNSON CITIZENS' BAND EQUIPMENT

Shown at the right—the popular Viking "Messenger" and the new "Personal Messenger". In the field or on the job . . . for personal or business use, Viking "Messengers" are delivering outstanding performance day in and day out! Available in compact, hand-held units for use under Part 15 or Part 19 FCC Regulations; or the maximum legal power, 5-channel Citizens' Band transceiver for use under Part 19, F.C.C. Regulations.



Color Brochure

WRITE TODAY for your free copy of our newest descriptive brochure. Contains illustrations and descriptive specifications on the "Messenger" "Personal Messenger", antennas, and station accessories.

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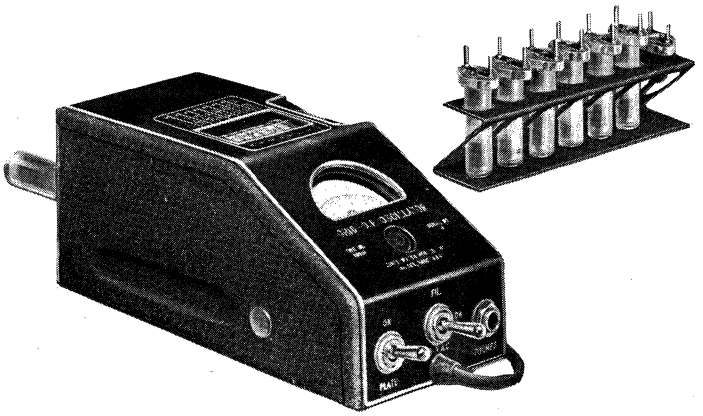


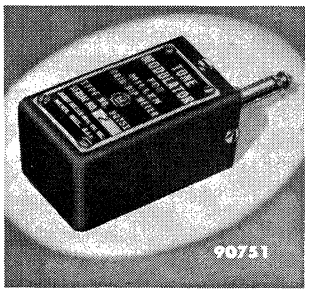
MILLEN NO. 90651 GRID DIP METER

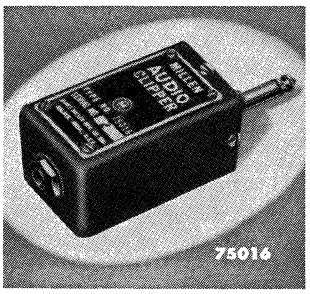
The No. 90651 MILLEN GRID DIP METER is compact and completely self contained. The AC power supply is of the "transformer" type. The drum dial has seven calibrated uniform length scales from 1.7 MC to 300 MC with generous over laps plus an arbitrary scale for use with special application inductors. Internal terminal strip permits battery operation for antenna measurement.

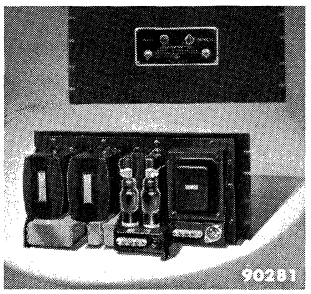
No. 90651, with tube.....

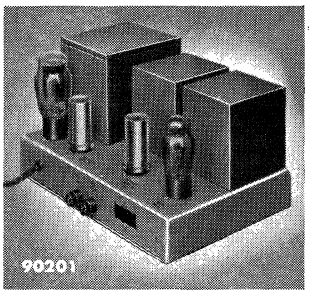
Additional Inductors for Lower Frequencies

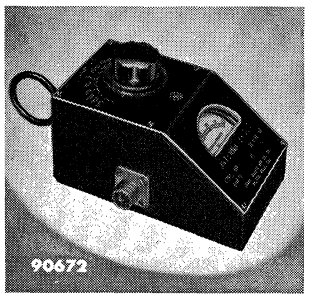
No. 46702 — 925 to 2000 KC .....
No. 46703 — 500 to 1050 KC .....
No. 46704 — 325 to 600 KC .....
No. 46705 — 220 to 350 KC .....

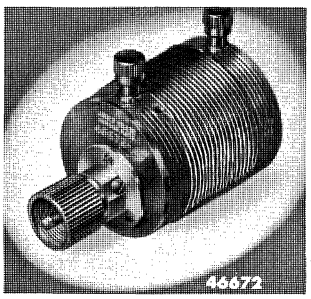


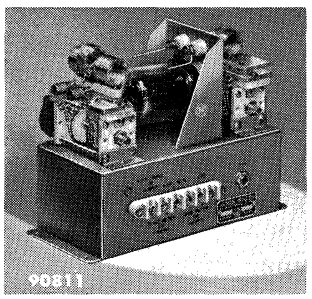


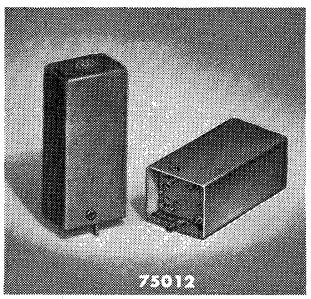












TONE MODULATOR — The No. 90751 Tone Modulator is a small package containing a transistor audio oscillator and its mercury battery, which plugs into the phone jack of a Grid Dip Meter to modulate the signal at approximately 800 cycles for applications requiring a modulated signal. Dimensions: only 2¾ x 1 5/16 x 1 5/16 in.

No. 90751, less battery .....

AUDIO CLIPPER — The No. 75016 Audio Clipper is a small plug-in symmetrical type clipper with self-contained mercury batteries. It may be used to clip noise for C-W reception as well as for A-M or SSB, or it may be used to clip a sine wave input to form a square wave output. Dimensions: only 2¾ x 1 5/16 x 1 5/16 in.

No. 75016, less batteries .....

ANTENNA BRIDGE — The Millen 90672 Antenna Bridge is an accurate and sensitive bridge for measuring impedances in the range of 5 to 500 ohms (or 20 to 2000 ohms with balun) at radio frequencies up to 140 mc. The variable element is an especially designed differential variable capacitor capable of high accuracy and permanency of calibration. Readily driven by No. 90651 Grid Dipper.

No. 90672 .....

BALUNS — The No. 46672 (1 for each amateur band) wound Balun is an accurate 2 to 1 turns ratio, high Q auto transformer with the residual reactances tuned out and with very tight coupling between the two halves of the total winding. The points of series and parallel resonance are selected so that each Balun provides an accurate 4 to 1 impedance ratio over the entire band of frequencies for which it was designed. Suitable for use with the No. 90672 Antenna Bridge or medium power transmitters.

No. 46672-80/40/20/15/10 .....

HIGH VOLTAGE POWER SUPPLY — The No. 90281 high voltage power supply has a d.c. output of 700 volts, with maximum current of 235 ma. In addition, a.c. filament power of 6.3 volts at 4 amperes is also available so that this power supply is an ideal unit for use with transmitters, such as the Millen No. 90801, as well as general laboratory purposes. The power supply uses two No. 816 rectifiers. The panel is standard 8¾" x 19" rack mounting.

No. 90281, less tubes .....

REGULATED POWER SUPPLY — A compact, uncased, regulated power supply, either for table use in the laboratory or for incorporation as an integral part of larger equipment. 250 v.d.c. unregulated at 115 ma. 105 v.d.c. regulated at 35 ma. Minus 105 v.d.c. regulated bias at 4 ma. 6.3 v. a.c. at 4.2 amps.

No. 90201, with tubes .....

HIGH FREQUENCY RF AMPLIFIER — A physically small unit capable of a power output of 70 to 85 watts on Phone or 87 to 110 watts on C-W on 20, 15, 10, 6 or 2 meter amateur bands. Provision is made for quick band shift by means of the No. 48000 series VHF plug-in coils. The No. 90811 unit uses either an 829-B or 3E29.

No. 90811 with 10 meter band coils, less tube .....

PHASE-SHIFT NETWORK — A complete and laboratory aligned pair of phase-shift networks in a single compact 2" x 1 1/16" x 4" case with characteristics so as to provide a phase shift between the two networks of 90° ±1.3° over a frequency range of 225 cycles to 2750 cycles. Well adapted for use in either single sideband transmitter or receiver. Possible to obtain a 40 db suppression of the unwanted sideband. The No. 75012 precision adjusted phase-shift network eliminates necessity of complicated lab equipment for network adjustment.

No. 75012 .....

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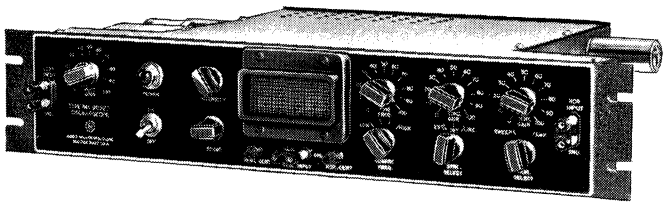
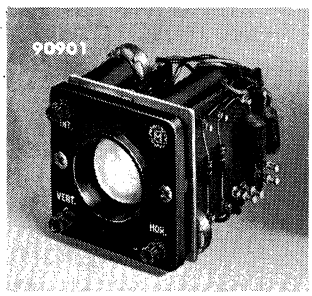
The No. 90923 oscilloscope is an extremely compact (3½ inches high) rack panel general purpose oscilloscope utilizing the type 3XP — 3 x 1½ inch rectangular face tube. The No. 90923 is complete with vertical and horizontal amplifiers for balanced deflection and a very linear sweep generator.

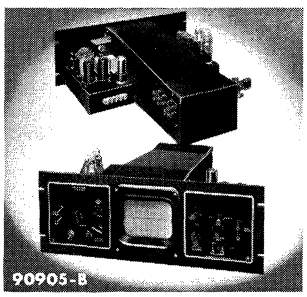
Miniature input terminals are on both the front panel and the rear for vertical amplifier input, horizontal amplifier input and synchronizing input. The linear sweep generator covers two cycles per second to 30 kcs. per second in seven overlapping ranges. The trace is unusually sharp and bright due to 2040 volts accelerating potential.

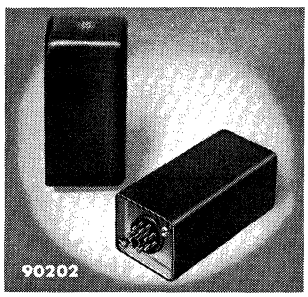
The No. 90923 is ideally suited for many applications, and in particular, for production test. Its small panel uses up very little space in a test rack and the mu-metal shield around the cathode ray tube shields it against magnetic fields so that the oscilloscope may be used accurately in locations with strong stray magnetic fields. The cathode ray tube is of the mono-accelerator type in which the electron beam is accelerated at the electron gun so that field distortions are minimized and excellent deflection linearity is achieved as well as a very uniform spot size over the entire area which the beam scans.

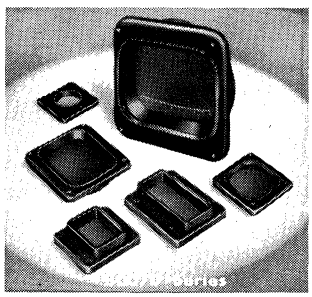
MILLEN NO. 90923 RACK MOUNTED OSCILLOSCOPE

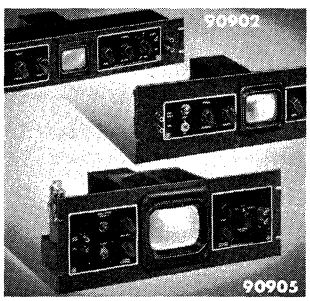


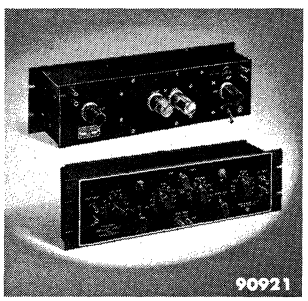


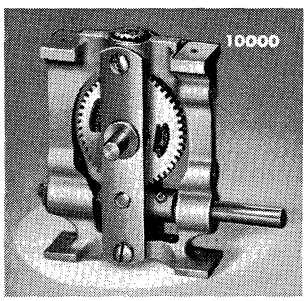


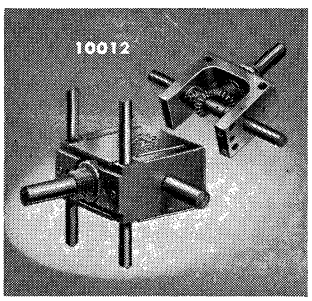












MILLEN ONE INCH MODULE OSCILLOSCOPES — Miniaturized, packaged panel mounting cathode ray oscilloscope designed for use in instrumentation in place of the conventional "pointer type" moving coil meters uses the 1" tube. Panel bezel matches in size and type the standard 2" square meters. Magnitude, phase displacement, wave shape, etc. are constantly visible on scope.

No. 90901, 1CP1, less tube ..... No. 90911, 1EP1, less tube .....

FLAT FACE OSCILLOSCOPE — 90905-B 5-inch Rack Mounting Basic Oscilloscope features include: balanced deflection, front panel input terminals, rear panel input terminals, astigmatism control, blanking input terminals, flat face precision tolerance Dumont 5ADP1 tube.

BASIC OSCILLOSCOPES — The No. 90902, No. 90903 and No. 90905 Rack Panel Oscilloscopes, for two, three and five inch tubes, respectively, are inexpensive *basic units* comprising power supply, brilliancy and centering controls, safety features, magnetic shielding, switches, etc. As a transmitter monitor, no additional equipment or accessories are required. By the addition of such units as sweeps, pulse generators, amplifiers, servo sweeps, etc., all of which can be constructed on companion rack panels, the 'scope unit may be expanded to serve any conceivable industrial or laboratory application.

'SCOPE AMPLIFIER — SWEEP UNIT — Vertical and horizontal amplifiers along with hardtube, saw tooth sweep generator. Complete with power supply mounted on a standard 5¼" rack panel.
No. 90921, with tubes .....

POWER SUPPLY FOR OSCILLOSCOPE — 750 volts d.c. at 3 ma. and 6.3 volts a.c. at 600 ma. 117 volts 50-60 cycle input. Designed especially for use with No. 90901 and No. 90911 one inch instrumentation oscilloscopes. 4⅝ in. high x 1⅞ x 2⅛. Octal plug for input and output. Entire assembly including rectifier is encapsulated.
No. 90202, Power Supply (complete) .....

BEZELS FOR CATHODE RAY TUBES — Standard types are of satin finish black plastic. 5" size has neoprene support cushion and green lucite filter. 3" and 2" sizes have integral cushioning.
No. 80075 (5") ..... 80073 (3") ..... 80072 (2") ..... 80071 (1") .....

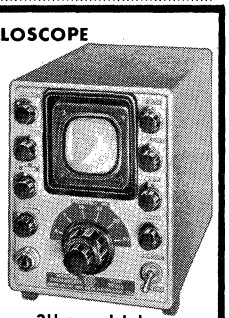
WORM DRIVE UNIT — Cast aluminum frame may be panel or base mounted. Spring loaded split gears to minimize back lash. Standard ratio 16/1. Also in 48/1 on request.
No. 10000 — (state ratio) .....

RIGHT ANGLE DRIVE — Extremely compact, with provisions for many methods of mounting. Ideal for operating potentiometers, switches, etc., that must be located, for short leads, in remote parts of chassis. No. 10012 .....

AMATEUR BAND MONITOR OSCILLOSCOPE

- **A-M or SSB ● 3.5 to 54 Mc.**
- **Blanks out on Standby**
- **Individual coil for each band**

SCOPE — No. 90932 is a complete oscilloscope for monitoring the modulated r-f output of a transmitter. Built-in link-coupled tuned circuits cover all amateur bands 3.5 to 54 mc. All circuits and accessories are built-in. The monitor will display the r-f envelope and/or the trapezoidal monitoring pattern of single side band transmitters or amplitude modulated transmitters. It shows the linearity or non-linearity of Class-B r-f amplifiers, the parasitic oscillation, neutralization, and r-f output.



2" round tube

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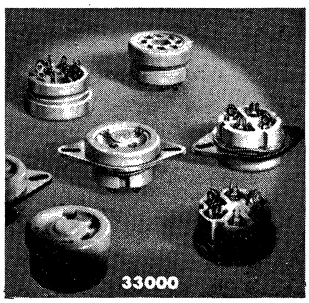
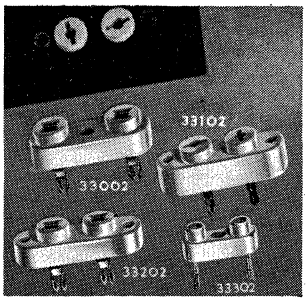
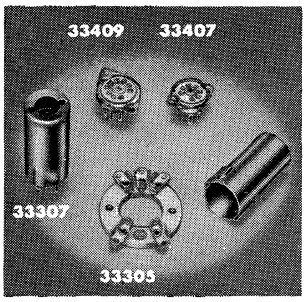
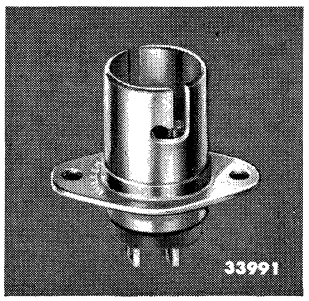
JAMES MILLEN

MALDEN · MASSACHUSETTS







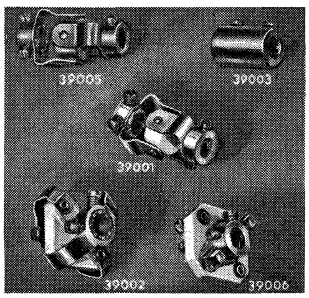


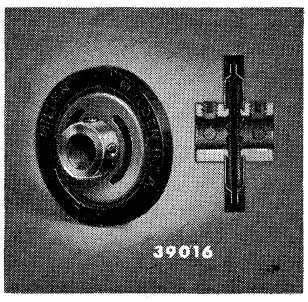
TUBE SOCKETS DESIGNED FOR APPLICATION — MODERN SOCKETS for MODERN TUBES! Long Flashover path to chassis permits use with transmitting tubes, 866 rectifiers, etc. Long leakage path between contacts. Contacts are type proven by hundreds of millions already in government, commercial and broadcast service, to be extremely dependable. Sockets may be mounted either with or without metal flange. Mounts in standard size chassis hole. All types have barrier between contacts and chassis. All but octal and crystal sockets also have barriers between individual contacts in addition.

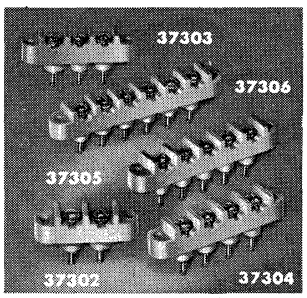
Voltage regulator dual contact bayonet socket, 33991 black phenolic insulation and 33992 with low loss mica filled phenolic insulation.

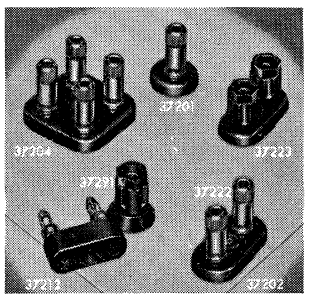
MILLEN TUBE SOCKETS

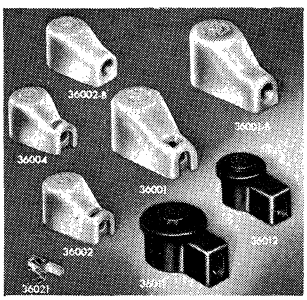
No.	Description	No.	Description
33002—	Crystal Socket ¾" x .125"	33004—	4 Pin Tube Socket
33102—	Crystal Socket .487" x .095"	33005—	5 Pin Tube Socket
33202—	Crystal Socket ½" x .125"	33006—	6 Pin Tube Socket
33302—	Crystal Socket .487" x .050"	33008—	8 Pin Tube Socket
33407—	Miniature Socket only, ceramic	33991—	Socket for 991
33409—	Noval Socket only, ceramic	33992—	Socket for 991
33307—	Miniature Socket, Shield, ceramic	33207—	829 Socket
33309—	Noval Socket, Shield, ceramic	33305—	Acorn Socket
33405—	5 Pin Socket Eimac		

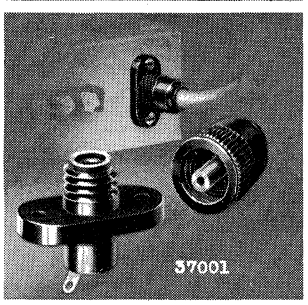


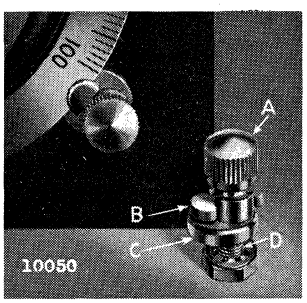


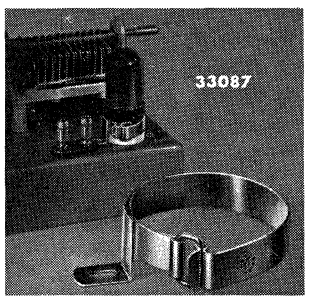












FLEXIBLE COUPLINGS — The No. 39000 series of Millen "Designed for Application" flexible coupling units include, in addition to improved versions of the conventional types, also such exclusive original designs as the No. 39001 insulated universal joint and the No. 39006 "slide-action" coupling (in both steatite and bakelite insulation). The No. 39006 "slide-action" coupling permits longitudinal shaft motion, eccentric shaft motion and out-of-line operation, as well as angular drive without backlash.

The No. 39005 and 39005-B (high torque) are similar to the No. 39001, but are not insulated. The steatite insulated No. 39001 has a special anti-backlash pivot and socket grip feature. All of the above illustrated units are for ¼" shaft and are standard production type units. The No. 39016 incorporates features which have long been desired in a flexible coupling. No Backlash — Higher Flexibility — Higher Breakdown Voltage — Smaller Diameter — Shorter Length — Higher Alignment Accuracy — Higher Resistance to Mechanical Shock — Solid Insulating Barrier Diaphragm — Molded as a Single Unit.

CERAMIC PLATE OR GRID CAPS — Soldering lug and contact one-piece. Lug ears annealed and solder dipped to facilitate each combination "mechanical plus soldered" connection of cable.

No. 36001—5/16" ..... No. 36002—3/8" ..... No. 36004—¼" .....

SAFETY TERMINAL — Combination high voltage terminal and thru-bushing Tapered contact pin fits firmly into conical socket providing large area, low resistance connection. Pin is swivel mounted in cap to prevent twisting of lead wire.

No. 37001, Black or Red ..... No. 37501, Low loss .....

STEATITE TERMINAL STRIPS — Terminal and lug are one piece. Lugs are turret type and are free floating so as not to strain L4 ceramic on wide temperature variations. Easy to mount with series of round holes. 1400 volt and 3500 volt series.

POSTS, PLATES, AND PLUGS — The No. 37200 series, including both insulated and non-insulated binding posts with associated plates and plugs, provide various combinations to meet most requirements. The posts have captive heads and keyed mounting.

The No. 37291 and No. 37223 are standard in black or red with other colors on special order. No. 37201, No. 37202, and No. 37204 and No. 37222 are available in black, red, or low loss. The No. 37202 is also available in steatite.

No.	Description	No.	Description
37201—	Single plates, pr.	37212—	Dual plug
37291—	Single plates (tapered), pr.	37222—	Non-insulated binding post
37202—	Dual plates, pr.	37223—	Insulated binding posts
37204—	Double dual plates, pr.		

DIAL LOCK — Compact, easy to mount, positive in action, does not alter dial setting in operation! Rotation of knob "A" depresses finger "B" and "C" without imparting any rotary motion to Dial. Single hole mounted.

No. 10050.....

TUBE CLAMP — No. 33087 is easy to use, easy to install, effective in function. Available in special sizes for all types of tubes. Single hole mounting. Spring steel, cadmium plated.

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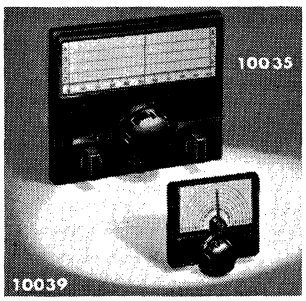
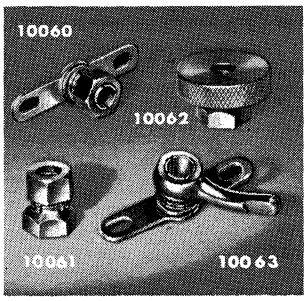
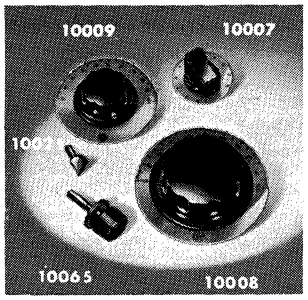
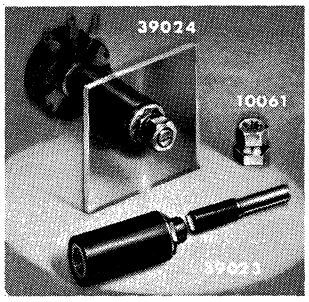
"Designed for Application"®









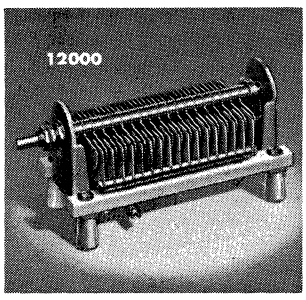
PANEL DIALS — The No. 10035 illuminated panel dial has 12 to 1 ratio; size, 8½" x 6½". Small No. 10039 has 8 to 1 ratio; size, 4" x 3¼". Both are of compact mechanical design, easy to mount and have totally self-contained mechanism, thus eliminating back of panel interference. Provision for mounting and marking auxiliary controls, such as switches, potentiometers, etc., provided on the No. 10035. Standard finish, either size, flat black art metal.

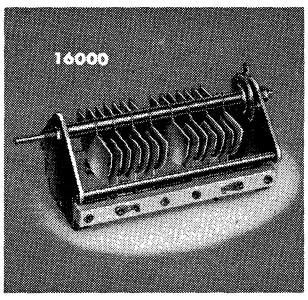
SHAFT LOCKS — In addition to the original No. 10060 and No. 10061 "DESIGNED FOR APPLICATION" shaft locks, we can also furnish such variations as the No. 10062 and No. 10063 for easy thumb operation as illustrated above. The No. 10061 instantly converts any plain "¼ shaft" volume control, condenser, etc. from "plain" to "shaft locked" type. Easy to mount.

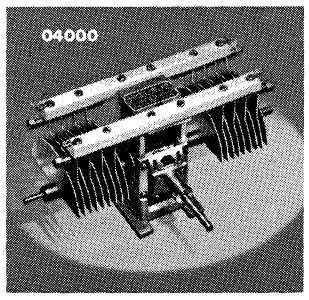
DIALS AND KNOBS — Just a few of the many stock types of small dials and knobs are illustrated herewith. 10007 is 1⅝" diameter, 10009 is 2¾" and 10008 is 3½".

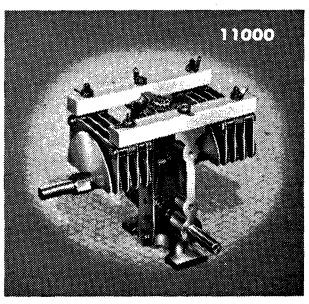
HIGH VOLTAGE INSULATED SHAFT EXTENSION — No. 10061 shaft locks and the No. 39023 insulated high voltage potentiometer extension mountings are available as a single integrated unit — the No. 39024. The proper shaft length is independent of the panel thickness. The standard shaft has provision for screw driver adjustment. Special shaft arrangements are available for industrial applications. Extension shaft and insulated coupling are molded as a single unit to provide accuracy of alignment and ease of installation.

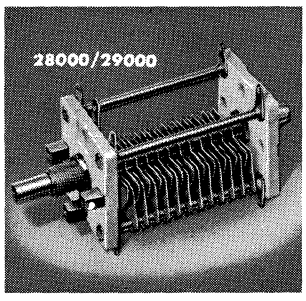
No. 39023, non locking type ..... No. 39024, locking type .....

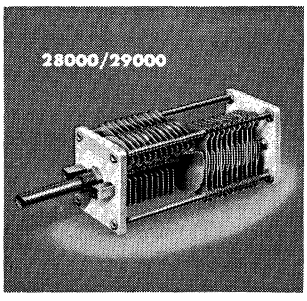


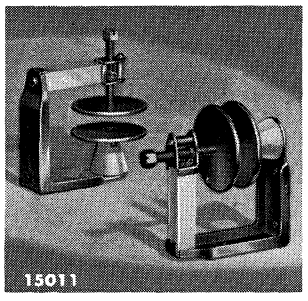


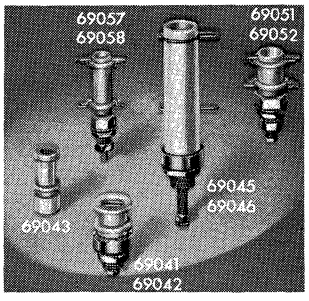












12000 and 16000 SERIES TRANSMITTING CONDENSERS — Rigid heavy channeled aluminum end plates. Isolantite insulation, polished or plain edges. One piece rotor contact spring and connection lug. Compact, easy to mount with connector lugs in convenient locations. Same plate sizes as 11000 series above.

The 16000 series has same plate sizes as 04000 series. Also has constant impedance, heavy current, multiple finger rotor contactor of new design. Both 12000 and 16000 series available in single and double sections and many capacities and plate spacing.

28000-29000 SERIES VARIABLE AIR CAPACITORS — "Designed for Application," double bearings, steatite end plates, cadmium or silver plated brass plates. Single or double section .022" or .066" air gap. End plate size: 1⁹⁄₁₆" x 1¹⁄₁₆". Rotor plate radius: ¾". Shaft lock, rear shaft extension, special mounting brackets, etc., to meet your requirements. The 28000 series has semi-circular rotor plate shape. The 29000 series has approximately straight frequency line rotor plate shape. Prices quoted on request. Many stock sizes.

NEUTRALIZING CAPACITOR — Designed originally for use in our own No. 90881 Power Amplifier, the No. 15011 disc neutralizing capacitor has such unique features as rigid channel frame, horizontal or vertical mounting, fine thread over-size lead screw with stop to prevent shorting and rotor lock. Heavy rounded-edged polished aluminum plates are 2" diameter. Glazed steatite insulation.

No. 15011.....

04000 and 11000 SERIES TRANSMITTING CONDENSERS — Another member of the "Designed for Application" series of transmitting variable air capacitors is the 04000 series with peak voltage ratings of 3000, 6000, and 9000 volts. Right angle drive, 1-1 ratio. Adjustable drive shaft angle for either vertical or sloping panels. Sturdy construction, thick, round-edged, polished aluminum plates with 1¾" radius. Constant impedance, heavy current, multiple finger rotor contactor of new design. Available in all normal capacities.

The 11000 series has 16/1 ratio center drive and fixed angle drive shaft.

PERMEABILITY TUNED CERAMIC FORMS — In addition to the popular shielded plug-in permeability tuned forms, 74000 series, the 69040 series of ceramic permeability tuned unshielded forms are available as standard stock items. Winding diameters available from 3⁄16" to ½" and winding space from 1⁄32" to 1½".

No. 69041—(Copper Slug)..... No. 69052—(Iron Core).....
No. 69042—(Iron Core)..... No. 69054—(Iron Core).....
No. 69043—(Copper Slug)..... No. 69055—(Copper Slug).....
No. 69044—(Iron Core)..... No. 69056—(Iron Core).....
No. 69045—(Copper Slug)..... No. 69057—(Copper Slug).....
No. 69046—(Iron Core)..... No. 69058—(Iron Core).....
No. 69047—(Copper Slug)..... No. 69061—(Copper Slug).....
No. 69048—(Iron Core)..... No. 69062—(Iron Core).....
No. 69051—(Copper Slug).....

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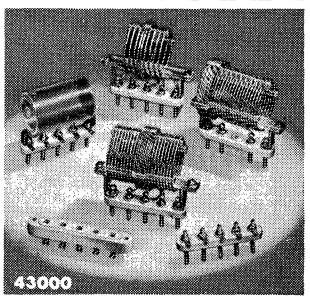
"Designed for Application"®

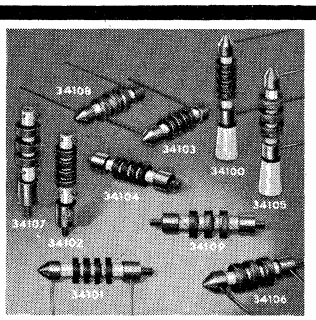
MINIATURIZED HIGH RELIABILITY VARIABLE CAPACITORS

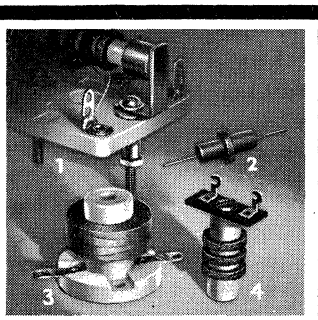
NO. 25000 SERIES — **MACHINED FROM SOLID BARS OF EXTRUDED BRASS**

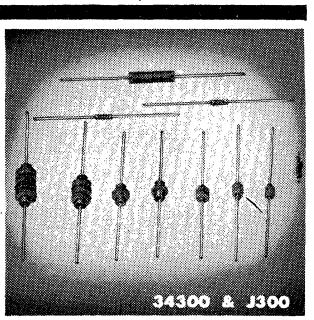
Modern demands for miniature precision, high Q variable air dielectric capacitors with high reliability require that all of the stator plates be machined from a solid block of brass and that all of the rotor plates be machined from a solid block of brass. Staked, soldered, or washer-spaced types of construction are adequate for larger capacitors with wider air gaps but are entirely inadequate for miniature high reliability capacitors for use at high frequencies. The stator terminal is an integral part of the stator. This results from extruding the exact shape required. The rotor shaft is an integral part of the rotor, thus alignment of shaft with rotor is perfect and there are no pins or press fits.

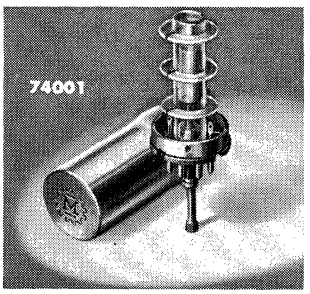
Special capacitors which can be manufactured using all or part of the tooling for standard capacitors are designed and manufactured to order.

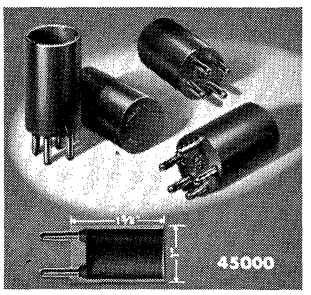


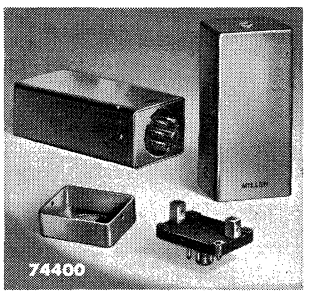


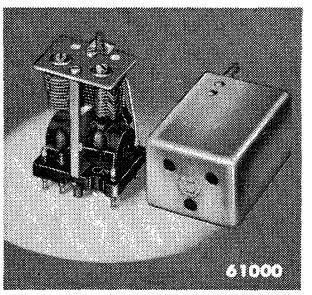












TRANSMITTING TANK COILS — A full line — all popular wattages for all bands. Send for special catalog sheet.

Nos. 42000, 43000, 44000, 48000.....

TUNABLE COIL FORM — Standard octal base of low loss mica-filled bakelite, polystyrene ½" diameter coil form, heavy aluminum shield, iron tuning slug of high frequency type, suitable for use up to 35 mc. Adjusting screw protrudes through center hole of standard octal socket.

No. 74001, with iron core.....
No. 74002, less iron core.....

RF CHOKES — Many have copied, few have equalled, and none have surpassed the genuine original design Millen Designed for Application series of midget RF Chokes. The more popular styles now in constant production are illustrated herewith. Special styles and variations to meet unusual requirements quickly furnished.

No. 34100 — 2.5 mh., 250 ma..... No. 34105 — 1.0 mh., 300 ma.....
No. 34101 — 2.5 mh., 250 ma..... No. 34106 — 1.0 mh., 300 ma.....
No. 34102 — 2.5 mh., 250 ma..... No. 34107 — 1.0 mh., 300 ma.....
No. 34103 — 2.5 mh., 250 ma..... No. 34108 — 1.0 mh., 300 ma.....
No. 34104 — 2.5 mh., 250 ma..... No. 34109 — 1.0 mh., 300 ma.....

MILLEN COIL FORMS — Made of low loss mica filled brown bakelite. Guide funnel makes for easy threading of leads through pins.

No. 45000.....
No. 45004.....
No. 45005.....

SPECIAL RF CHOKES — Figures 1 and 4 illustrate special types of RF chokes available on order. The popular 34300 and 34200 series are shown in figures 2 and 3 respectively.

OCTAL BASE AND SHIELD — Low loss phenolic base with octal socket plug and aluminum shield can 1 7/16 x 1 7/8 x 3 15/16.

No. 74400.....

MINIATURE POWDERED IRON CORE RF INDUCTANCES — The No. J300 — Miniature powdered iron core inductances. 0.107 in dia. x 3/8 in. long. Inductances from 3.3 microhenries to 2.5 millihenries ±5%. EIA standard values plus 25, 50, 150, 250, 350, 500, and 2500 microhenries. Three layer solenoids from 39 to 350 microhenries. ¼ in. wide single pi from 360 to 2500 microhenries. Special coils on order.

PHENOLIC FORM RF INDUCTANCES — The No. 34300 Inductances — Phenolic coil form with axial leads. Inductances from 0.15 microhenry to 2.5 millihenries ±5%. EIA standard values plus 25, 50, 150, 250, 350, 500, and 2500 microhenries. Solenoids from 0.15 to 16 microhenries. Single pi from 18 to 300 microhenries. Multiple pi for higher inductances. Forms 7/32" dia. x 7/16 in. long, 3/16" x 5/8", ¼" x ¾", and ¼" x 1". Special coils on order.

MINIATURE IF TRANSFORMERS — Extremely high Q — approximately 200 — Variable Coupling — (under, critical, and over) with all adjustments on top. Small size 1 1/16" x 1 5/16" x 1 7/8" Molded terminal base. Air capacitor tuned. Coils completely enclosed in cup cores. Tapped primary and secondary. Rugged construction. High electrical stability.

No. 61455, 455 kc. Universal Trans.....
No. 61453, 455 kc. BFO.....
No. 61160, 1600 kc. Universal Trans.....
No. 61163, 1600 kc. BFO.....

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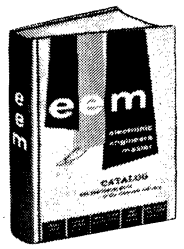
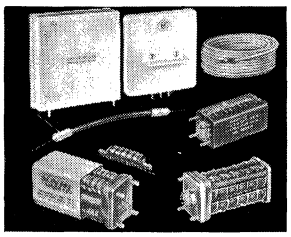
JAMES MILLEN
MALDEN • MASSACHUSETTS

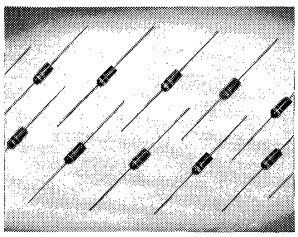
1961-1962 ELECTRONIC ENGINEERS' MASTER

In this new edition is a listing of James Millen Manufacturing Co., Inc. products available to purchasing agents and engineers. The listing includes: OSCILLOSCOPES: Module, Basic, Industrial, Miniature Synchroscope, Compact Rack-Mounted, Modulation Monitor Scopes, and Accessories. MAGNETIC SHIELDS: Mu-Metal and Nicoloi in stock sizes or custom-made. GRID DIP METERS: Industrial and Standard, and Tone Modulator. MINIATURIZED COMPONENTS: Knobs, Drives, Dials, Shaft Locks, Shaft Bearings, Shaft Extensions, Couplings, Binding Posts and Plugs, Terminal Strips, and Inductors. DELAY LINES. The descriptions of each of these product groups show a partial listing of the components and equipment available from stock or custom-designed and manufactured according to specifications submitted to our Custom Design Engineers. The ELECTRONIC ENGINEERS' MASTER illustrates the Millen products for the industrial purchasing agent and engineer to consider when completing their requirements.





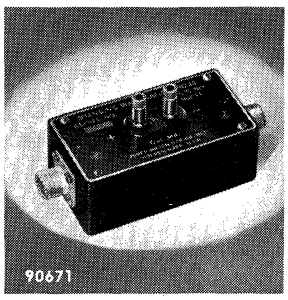
DELAY LINES AND NETWORKS — Flexible Distributed Parameter and Lumped Parameter Assemblies. Flexible cable may be supplied with molded ends. Hermetically-sealed lines in metal cases. Also available as encapsulated cast epoxy assembly. Assemblies designed to your specs.



MINIATURE INDUCTANCES — J301 encapsulated and non-encapsulated series are: extremely small — hermetically sealed — wound on axial lead Carbonyl cores — color coded. Also available are 34301 Standard Encapsulated inductances; and J302 encapsulated series for printed wiring.

90711

90801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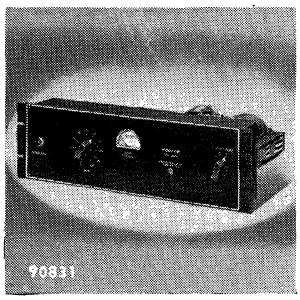
31000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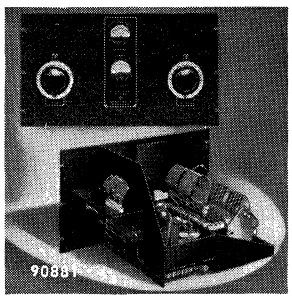
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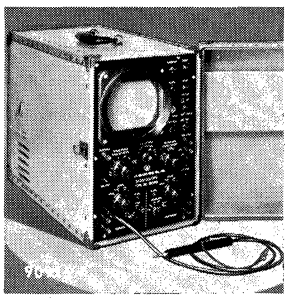
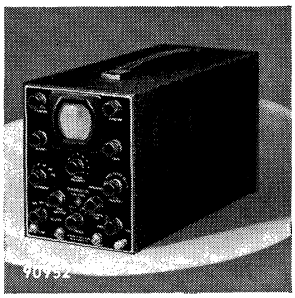




VARIABLE FREQUENCY OSCILLATOR — With 6SK7 temperature-compensated, electron coupled oscillator of exceptional stability and low drift, a 6SK7 broad-band buffer or frequency doubler, a 6AG7 tuned amplifier which tracks with the oscillator tuning, and a regulated power supply. Output sufficient to drive a 6146 is available on 160, 80 and 40 meters and reduced output is available on 20 meters.
No. 90711, less tubes .....

90-WATT EXCITER-TRANSMITTER — Includes features and shielding for TVI reduction, bandswitching for 4-7-14-21-28 mc. bands, circuit metering. Conservatively rated for use as transmitter or exciter for high power PA stages. 5763 oscillator-buffer-multiplier and 6146 power amplifier.
No. 90801, less tubes .....Rack Mounted

40-WATT MODULATOR — Designed for use with 90801 transmitter. 12AX7 speech amplifier-6C4 voltage amplifier-class AB1 6146s. Suitable for modulating transmitters with power input up to 80 watts. Gain is ample for the use of low level, high impedance crystal or dynamic microphones. Frequency response is adjusted for good communication intelligibility with limited side bands. 3½" panel height.
No. 90831, less tubes .....Rack Mounted

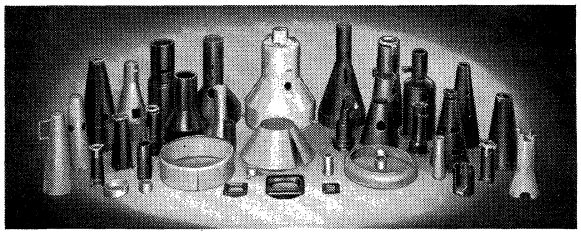
RF POWER AMPLIFIER — 500 watt amplifier may be used as the basis of a high power amateur transmitter. Amplifier is wired for use with the popular "812A" type tubes (others may be used.) Sturdy mechanical construction on 10½" relay rack panel. Plug-in inductors furnished for operation on 10-15-20-40-80 meter bands. The standard Millen 90801 exciter unit is an ideal driver for the No. 90881.
No. 90881, with one set of coils, but less tubes.....

STANDING WAVE RATIO BRIDGE — Provides easy and inexpensive measurement of S.W.R. on coaxial cable. As assembled the bridge is set up for 52 ohm line. An accurate 75 ohm resistor is mounted inside the case for substitution in the circuit when 75 ohm line is used.
No. 90671 .....

INDUSTRIAL OSCILLOSCOPE — Completely insulated front panel and case. Double shielded against magnetic fields. Excellent linearity. Sharp focus over entire 4"x4" useful scan. The vertical and horizontal amplifiers are stable d.c. amplifiers and are identical, thus permitting accurate phase measurements.
No. 90915 uses 5AQP — 1, 2, 7 or 11 flat face, precision tolerance C.R. tube. Response of either amplifier D.C. to 100 kc. +0-10%.....

MINIATURE SYNCHROSCOPE-OSCILLOSCOPE — 7½ x 5⅝ x 13", 17 pounds. Band width 10 cy. to 1000 Kc. Sweep 6 to 300 microseconds per inch.
No. 90952 .....

STAND-OFF INSULATORS — available in a variety of sizes.



MU-METAL and/or NICOLOI SHIELDS — For cathode ray and multiplier photo tubes. Standard shields and bezels for the more popular tubes are available from stock. Our Custom Shield design and fabrication department is at the service of our customers for the development of shields for specialized application.

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JAMES MILLEN
MALDEN · MASSACHUSETTS

MINIATURIZED COMPONENTS

DESIGNED for APPLICATION miniaturized components developed for use in our own equipment such as the 90901 Oscilloscope, are now available for separate sale. Many of these parts are similar, in most details except size, to their equivalents in our standard component parts group. In certain devices where complete miniaturization is not paramount, a combination of standard and miniature components may possibly be used to advantage. For convenience, we have also listed on this page the extremely small sized coil forms from our standard catalog.

CODE	DESCRIPTION
A001	Bar knob for 1/8" shaft. 1/2" high by 3/4" long.
A006	Fluted black plastic knob with brass insert for 1/8" shaft. 1/2" high by 3/4" diameter.
A007	1/4" black plastic dial knob with brass insert for 1/8" shaft. 5/8" diameter dial. 5/16" high.
A008	1/4" black plastic knob. Same as no. A007 except for style.
A012	Right angle drive for 1/8" shafts. Single hole mounting.
A014	1" bar dial for 1/8" shaft. 1/2" high. 180° or 280° dials for clockwise or counter-clockwise rotation.
A015	1" fluted knob dial for 1/8" shaft. 1/2" high. Same dial plates as no. A014.
A017	1 1/8" diameter fluted black plastic knob for 1/8" shaft.
A018	Knob, same as no. A007 except with 3/8" diameter skirt.
A019	Knob, same as no. A007, but without dial.
A021	Miniature metal index for miniature dials.
A050	Miniature dial lock.
A061	Shaft lock for 1/8" diameter shaft. 1/4"-32 bushing. Nickel plated brass.
A062	Shaft lock with knurled locking nut.
A066	Shaft bearing for 1/8" diameter shafts. Nickel plated brass. Fits 17/64" diameter hole.

CODE	DESCRIPTION
E001	Steatite ceramic standoff or tie-point. Integral mounting eyelet. 0.205" overall diameter.
E201	Black or red plastic binding post plates for No. E222.
E202	Black or red plastic plates for two binding posts spaced 1/2".
E212	Black or red plastic plug for two binding posts spaced 1/2".
E222	Metal binding post with jack top.
E302A	to E306A Steatite ceramic terminal strips. 5/16" wide. Terminals spaced 3/8" on centers. Screw type or solder type thru-terminals.
J300–3.3	to J300–2500 Complete line of miniature inductances 3.3 to 2500 microhenries. 3/8" long. Diameter 0.115" to 0.297".
M001	Insulated universal joint style flexible coupling for 1/8" dia. shafts.
M003	Solid coupling for 1/8" dia. shafts. Nickel plated brass.
M004	Universal joint style flexible coupling for 1/8" diameter shafts. Inverted hubs for short length. Not insulated.
M005	Universal joint style flexible coupling for 1/8" diameter shafts. External hub for maximum flexibility. Not insulated.
M006	Universal joint style flexible coupling for 1/8" diameter shafts. Spring finger. Steatite ceramic insulation.
M008	Plastic insulated coupling with nickel plated brass inserts for 1/8" diameter shafts.
M017	Plastic insulated flexible coupling for 1/8" diameter shafts. 17/32" long by 15/16" diameter. Bronze yoke.
M023	Insulated shaft extension for 1/4"-32 bushing and 1/8" shaft. For mounting sub-miniature potentiometer.
M024	Locking insulated shaft extension similar to no. M023.
69043	Steatite ceramic coil form. Adjustable core. Winding space 1/4" diameter by 13/32" long. Mounting 4-40 hole.
69044	Steatite ceramic coil form. Adjustable core. Winding space 0.187" diameter by 3/16" long. No. 10-32 mounting.

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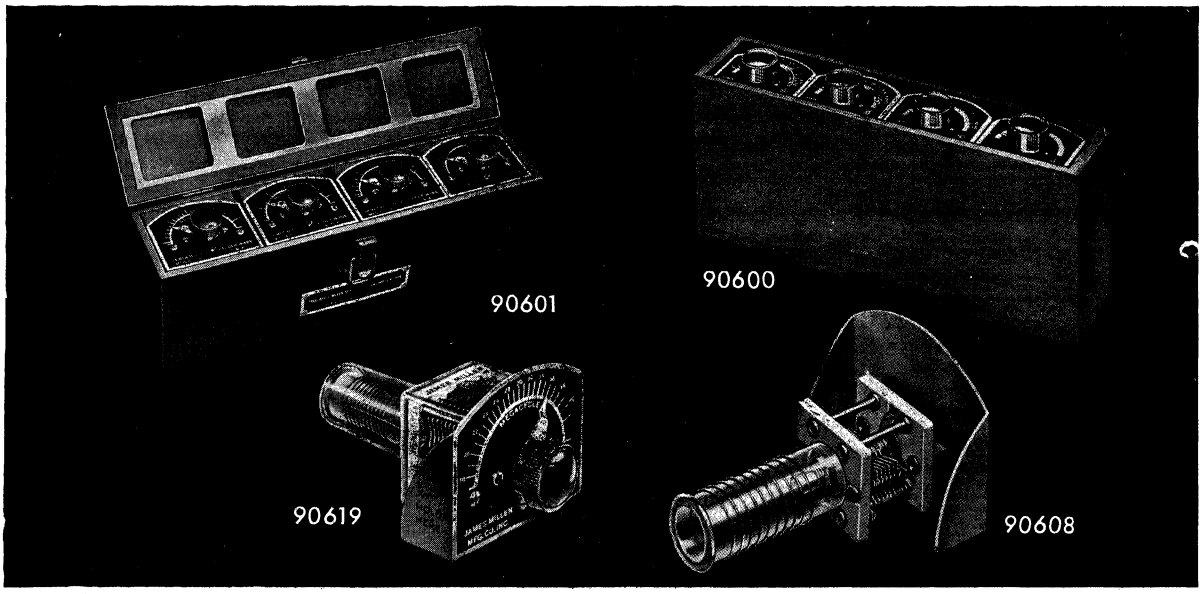

Midget Absorption Frequency Meters

Many amateurs and experimenters do not realize that one of the most useful "tools" of the commercial transmitter designer is a series of very small absorption type frequency meters. These handy instruments can be poked into small shield compartments, coil cans, corners of chassis, etc., to check harmonics; parasitics; oscillator-doubler, etc., tank tuning; and a host of other such applications. Quickly enables the design engineer to find out what is really "going on" in a circuit.

Types 90604 thru 90610 are extremely small and designed primarily for engineering laboratory use where they will be handled with reasonable care. The most useful combination being the group of four under code No. 90600 and covering the total range of from 3.0 to 140 megacycles. When purchased in sets of four under code No. 90600 a convenient carrying and storage case is included. Series 90601 are slightly larger and very much more rugged. They are further protected by a contour fitting transparent polystyrene case to protect against damage and dirt. This latter series is designed primarily for field use and are not quite as convenient for laboratory use as the 90605 thru 90608 types. All types have dials directly calibrated in frequency.

Code	Description	Net Price
90604	Range 160 to 210 mc.	
90605	Range 3.0 to 10 mc.	
90606	Range 9.0 to 23 mc.	
90607	Range 23 to 60 mc.	
90608	Range 50 to 140 mc.	
90609	Range 130 to 170 mc.	
90610	Range 105 to 150 mc.	
90611	Range 1.5 to 3.5 mc.	
90612	Range 3.5 to 8 mc.	
90613	Range 8 to 18.5 mc.	
90614	Range 18 to 41 mc.	
90619	Range 0.35 to 1.0 mc.—Neon Indicator	
90620	Range 0.15 to 0.35 mc.—Neon Indicator	
90625	Range 2 to 6 mc.—Neon Indicator	
90626	Range 5.5 to 15 mc.—Neon Indicator	
90600	Complete set of 90605 thru 90608, in case	
90601	Complete set Field type Frequency Meters in metal carrying case 1.5 to 40 mc.	

DISTRICT SALES OFFICES

METROPOLITAN NEW YORK
John DiBlasi Associates, Inc.
90 Main St.
Port Washington
Long Island, N. Y.

PHILADELPHIA
L. D. Lowery, Inc.
50 E. Wynnewood Rd.
Wynnewood, Pa.

BALTIMORE-WASHINGTON
L. D. Lowery, Inc.
4508 Annapolis Rd.
Peace Cross
Bladensburg, Md.

INDIANAPOLIS
MacNabb, Schroeder & Loomis
820 E. 64th St.

SAN FRANCISCO
Moulthrop and Hunter
165-11th St.

CHICAGO
G. G. Ryan
8336 S. Maryland Ave.
E. C. Carlson
6677 N. Northwest Highway

BOSTON
Gerber Sales Co., Inc.
48 Pearl St.
Brookline, Mass.

KANSAS CITY
Kelly-Schmitz-Winkeler Associates
P. O. Box 8456

LOS ANGELES
W. Bert Knight Co.
10377 W. Pico Blvd.

TEXAS
Jack Yount Co.
1431 Pleasant Drive
Dallas

EASTERN CANADA
H. Roy Gray, Ltd.
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EXPORT
Technical Equipment Co.
155 E. Milton Ave.
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JAMES MILLEN MFG. CO., INC.

MAIN OFFICE AND FACTORY

150 EXCHANGE ST., MALDEN, MASSACHUSETTS, U.S.A.

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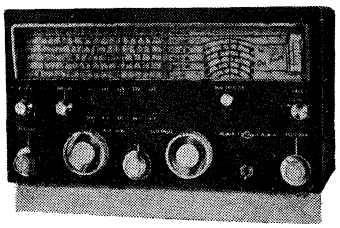
RECEIVERS AND ACCESSORIES

NATIONAL RADIO COMPANY, INC.

MELROSE 76, MASS.

A WHOLLY OWNED SUBSIDIARY OF NATIONAL COMPANY, INC.

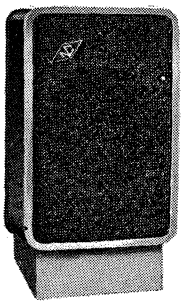


XCU—109 Crystal Calibrator

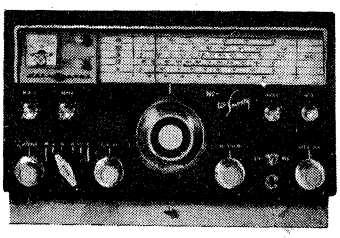
NC-190 . . . 2 BANDSPREADS

Calibrated foreign broadcast bands, calibrated amateur bands, either at the flick of National's exclusive Dial Selector. Double-conversion in a general coverage receiver at only $219.95. True variable IF selectivity with National's patented "Ferrite Filter" to provide clear, readable AM, CW, and SSB reception. Sensitivity—better than 1 microvolt. Five bands—540 kc to 30 mc.

Latest addition to the National "Blue" series. "Flip Foot" equipped for effortless operation.

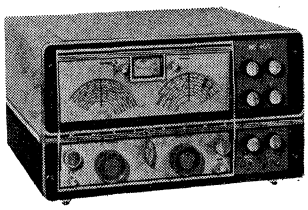


NTS-3 . . . Matching Speaker for NC-190 and NC-270.



NC-270 . . .

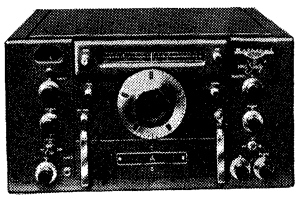
All hamband receiver with remarkable 6 meter performance, double conversion with instant side band selection and another "Velvet Dial" for ease of sideband tuning. This styleblazer has the exclusive "Ferrite Filter" which combined with the Bi-Filar T-Notch provides the selectivity required for CW, SSB and tough AM signal conditions. Dollar for dollar this is the best ham receiver value on the market . . . in "National Blue".



NC-400 . . .

Highly versatile, multiple purpose general coverage receiver. With SSB and a tuning range of 540 kc to 31 mc in 7 bands. Meets all requirements in commercial, industrial and government services communications, such as electronic and industrial laboratories, aircraft base stations, shipping and transportation, press and wire services, civil defense, site to site communications, and many others.

NTS—2	Speaker
XCU—400	Crystal Calibrator
DMK—400	Diversity Modification Kit
MFH—400	Mechanical Filter Housing

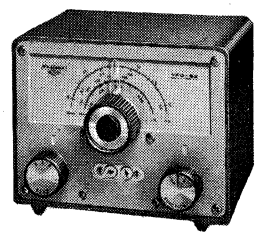


*Standard equipment with the RCUR.

HRO-60 . . .

The "Rolls Royce" of communications receivers. It's unique for its extreme frequency coverage range from 50 kc to 54 mc. For diversified applications, has wide versatility and resetability.

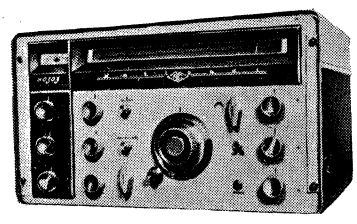
HRO—60RS	Rack Speaker	HRO—60E	Coil
HRO—60TS	Table "	HRO—60F	"
HRO—60AA	Coil	HRO—60G	"
HRO—60AB	"	HRO—60H	"
HRO—60AC	"	HRO—60J	"
HRO—60AD	"	HRO—60—XCU—2	(100/1000 kc. crystal calibrator)
HRO—60A*	"		
HRO—60B*	"		
HRO—60C*	"	HRO—650S	(6v. vibrator type supply)
HRO—60D*	"		



VFO-62

VARIABLE FREQUENCY OSCILLATOR FOR 6 AND 2 METER OPERATION

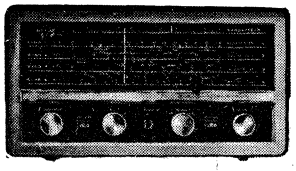
- Can be used with transmitters usnig 8 mc. oscillator circuits.
- Full coverage of both 6 and 2 meter Amateur bands.
- Completely self-powered, self-contained. Plugs into 117 V AC outlet and transmitter crystal socket.
- Has front panel controlled internal crystal socket for use with 1 mc. calibrating crystal. Provides for crystal calibration without accessory equipment or without changing connections.
- Front panel crystal socket allows instant selection of your favorite crystal without changing transmitter connections.
- Built-in phone jack allows direct detection of calibrating markers.
- Precision vernier drive provides precise tuning control.
- Front panel mode switch provides off-calibrate-standby-operate functions.
- Front panel band switch for choice of 6 meter-2 meter-crystal operation.
- Has provision for remote standby-operate control.
- Frequency stability better than 0.1% from cold start . . . better than .005% after 30 minutes. Separate tuned circuits on each band provide maximum stability.



NC-303 . . .

National's finest all-hamband receiver. Has highest mechanical stability, lowest thermal drift and maximum SSB, AM and CW versatility. This is the best receiver available in its price range.

NTS—2	Speaker
XCU—300	Crystal Calibrator
XCU—303	wwv Crystal Calibrator
NC—300C6A	6 meter Converter
NC—300C2	2 meter Converter
NC—300C1	1¼ meter Converter



NC-60 . . .

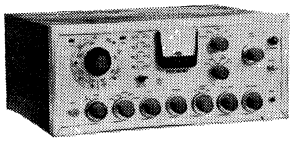
For the at-home adventurer. Low-priced, excellent shortwave and broadcast receiver. An attractive set, it's ideal for consumer trade . . . great gift item. In "National Blue".

WRITE FOR SPECIFICATION SHEETS

© U.C.P., Inc.

QUALITY Philmore PRODUCTS

NEW! PHILMORE *"Vanguard"* 6 and 2 Meter Amateur TRANSMITTER KIT



Precision Engineered • Ultrastable
Highest Quality Parts

Model CT62—Philmore's new "Vanguard" 6 and 2 Meter Transmitter is as modern as its Space Program namesake! Provides ALL the built-in features needed by the General and Technician Class Hams operating on the challenging VHF bands. Power-packed with up to 60 Watts PIP, a specially developed "dual-link" output network insures maximum loading efficiency on both bands.

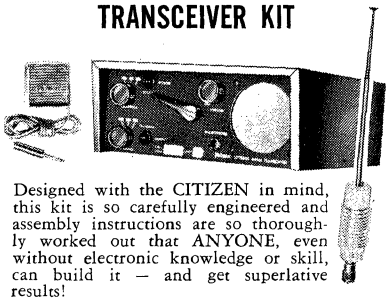
- Power input—60 watts PIP on both 6 and 2 meters, CW. 55 Watts .6 meter phone, 50 watts 2 meter phone.
- Power Requirement — Operates with BUILT-IN supply on 105-120 V.A.C. for fixed station use. External power input socket. Accessory power output socket.
- Operating Frequency Control — BUILT-IN VFO or crystal control of all bands (three discrete segments of the 6 meter band, and 1 of the 2 meter band). Band selector switch automatically selects any one of 4 front-panel mounted crystals, or the proper band segment of the vernier drive VFO. Ultra-stable VFO. "Lock-in" push-button switch and indicating lights select crystal or VFO operation.
- Metering — High-accuracy D'Arsonval front panel meter reads each of the important operating drive levels independently. Drive and output level adjustments available on front panel for ALL RF stages.

  Circuit — Straight-thru operation of the final on both bands eliminates parasitics and tricky neutralization problems. Cathode-keying on CW of all RF stages (including the VFO).
- Modulation — Full 30 watt, BUILT-IN push-pull plate modulator gives full 100% modulation. Front panel gain control. BUILT-IN speech clipper circuit, with rear apron range adjustment.
- Construction — Entire chassis and shields are COPPER PLATED. Fully shielded cabinet and chassis, and "L-section" line filters. Double fuses. Brushed aluminum panel, heavy lucite VFO dial, and many other modern features.
- Tube Complement—6146 Straight-thru final amplifier; 5763 Buffer-multiplier; 5763 Buffer-doubler; 5763 Tripler-oscillator; 6BH6 VFO oscillator; OA2 VFO voltage regulator; 12AX7A Audio amplifier and mike pre-amplifier; 6AL5 speech clipper diodes; 12AU7A driver; 2—6L6GBA push-pull modulators; 5U4GB high-voltage rectifier.
- Power Supply — rugged full-wave rectifier circuit provides 550 volts at 300 mils Choke-input filter and oversize filter capacitors.
- Dimensions — 17" wide; 6½" high; 12" deep.
- Relay controlled for push-to-talk.

MODEL CT62
Vanguard Transmitter KIT, complete with Tubes and Cabinet

$179.95
Amateur Net

PHILMORE 11-METER CITIZENS' BAND TRANSCEIVER KIT



Designed with the CITIZEN in mind, this kit is so carefully engineered and assembly instructions are so thoroughly worked out that ANYONE, even without electronic knowledge or skill, can build it — and get superlative results!

Newly Engineered To Conform With Latest F.C.C. Regulations

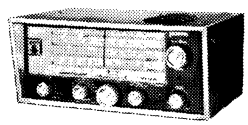
Advanced features include:

- Any three channels individually switch-selected, with receiver and transmitter frequencies different, if desired, to meet local conditions.
- Interchangeable power supplies for 115V AC or 6/12V DC operation.
- Low flat modern, sleek cabinet perfect for desktop, or on or under dash.
- Crystal controlled transmitter.

COMPLETE KIT **$39.95**
for 115V AC
INCLUDES MIKE, CRYSTAL, CABINET

TC11	Transceiver for 115VAC, less ant.	**$39.95**
TC612	Transceiver for interchangeable 6 and 12 V DC, less antenna	**$44.49**
TC15	7-section antenna short range	**$ 4.50**
Model PS11	AC Power Supply for both Model TC11 and TC612	**$12.85**
Model PS612	Mobile Power Supply for both Model TC11 and TC612	**$17.50**

PHILMORE COMMUNICATIONS RECEIVER KIT



Precision engineered, budget priced! All-wave receiver designed to meet the demands and budgets of the amateur, novice ham, and short-wave listener. Designed for use either on the bench or in a rack-panel installation. Some advanced features:

1. **Sensitive super-het circuit with adjustable coils for each band.**
2. **Full-wave transformer—isolated design for safe, shock-proof operation.**
3. **Four band operation covering frequencies to 30 mc, and amateur bands from 10 to 160 meters.**
4. **Full electrical bandspread on each band.**
5. **Includes RF Gain Control, AVC Defeat, and Standby-CW Switching.**
6. **Built-in S-meter.**
7. **Built-in B.F.O., fully adjustable tone control for optimum CW reception.**
8. **Built in noise limiter for removing annoying squeals, howls, and static.**
9. **Provisions for either singlet or doublet antenna.**
10. **Input jack for external Q multiplier.**
11. **Accessory power socket for operation Q multiplier or other auxiliary equipment.**
12. **Built in speaker with heavy magnet, fully protected and top-mounted so that receiver can be placed between additional gear.**

TUBE COMPLEMENT—(1 each) 6 x 4 Rectifier; 6BE6 Converter and Oscillator; 6AZ8 IF Amplifier and "S" Meter Drive; 6AV6 Detector and Audio Amplifier; 6AQ5 Audio Power Amplifier. Supplied complete with tubes and "S" meter.
MODEL CR-5AC KIT Complete, less cabinet **$49.95 (tax incl.)**

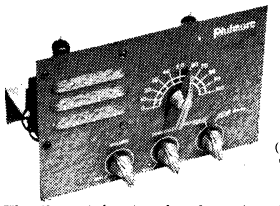
OPTIONAL CABINET

A handsome accessory cabinet, made of heavy gauge steel, is available separately. Functional modern design features a glare shielding hood and generous, easy to read control markings: Size: 15-3/16" wide, 6-9/16" high, 10" deep.
MODEL CR CABINET ---------**Amateur Net $9.45**

FIELD STRENGTH METER AND LOAD BOX KIT

Now you can peak your Citizens' Band Transmitter or Transceiver for maximum efficiency, directly into your antenna! The PHILMORE Model FS-1 Field Strength Meter and Load Box combines an exceptionally sensitive Field Strength indicator, with calibrated 52 or 75 ohm load. Completely self-contained, needs no power connections. **As a Field Strength Meter:** Meter reads relative field strength from 1 foot to over 100 feet from the antenna by use of continuously variable sensitivity control. Telescopic whip antenna, included with unit, is internally base loaded for maximum sensitivity on the Citizens' Band Tuning range of antenna is adjustable for best performance. **As a Calibrated Load Box:** Meter reads directly in Watts Output, on either 52 or 75 ohm loads. Load resistors capable of dissipating up to 8 watts on 52 ohms, 6 watts on 75 ohms.

Model FS-1 Kit, complete with cabinet antenna and cable ----------**$19.50**
FS-1 Factory Wired ----------**$26.25**

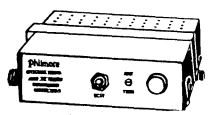


THREE TUBE KIT

NEW IMPROVED THREE TUBE (Including Rectifier), TWO BAND AC-DC Radio Kit

The three tube, two band receiver kit provides sufficient signal strength, to drive a 3½" PM speaker. Simplified instructions, fully illustrated with pictorial and schematic diagrams speed assembly. Chassis is completely punched and plated. Panel is attractive gray hammertone, with white silk-screened lettering and dial. Here is a professional radio kit that is perfect for the beginner in radio. It provides an excellent opportunity to learn radio fundamentals and at the same time build high-quality radio which will receive both the broadcast and short wave bands. Modern circuitry and the use of new miniature tubes bring this unit completely up-to-date. When assembled, you have a TWO BAND set, covering the standard broadcast band (550-1650 KC) and SHORT-WAVE BAND (3-13 MC) which includes amateur and Marine radio-telephone frequencies:
No. 7001-CR—Complete with PM speaker, less tubes List Price ----------**$22.00**
Plus Federal Excise Tax
Uses 1 each 35W4, 50C5, and 12AU6 tubes.

MODEL CC-1 CONVERTER KIT

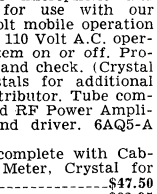


This kit allows the advantages of double-conversion, superhet reception without expensive duplication of circuitry. Simple cable connections between auto mounted 11 meter whip antenna, and automobile broadcast receiver allows tuning the Citizens Band and 10 Meter Band on car radio. Features: • Three simple connections put Converter in full operation. • Interchangeable, plug-in crystal allows use as 10 meter Amateur Converter, covering 28.5 to 29.5 megacycles over full broadcast tuning range of 550 to 1600 kilocycles. • Instructions for powering from broadcast receiver, where practical, when used without transmitter. Used in autos with 12 volt systems. Instructions given for 6-volt systems, powered from receiver.
Philmore Model CC-1 Converter, complete with Cabinet, Crystal for Citizens' Band reception, Handle Bracket, all cables and plugs ----------**$17.95**
CC-1W Factory Wired ----------**$24.95**
Philmore Part CC-1000, 9316 Kc Crystal for 10-meter Amateur Band ----------**$2.95**

MODEL CT-1 TRANSMITTER KIT

Value-packed, professional transmitter loaded with features not found in any Citizens Band unit 5 times the price! Full 5 watt plate input power at maximum FCC legal limit. Six switch-selected, crystal controlled channels for maximum flexibility of communications. Provided with high quality, push-to-talk ceramic microphone and panel hang-up bracket. Designed for use with our Model CPM-1 Power supply for 12 volt mobile operation or our Model CPA-1 Power supply for 110 Volt A.C. operation. Panel switch turns entire system on or off. Provided with one crystal for alignment and check. (Crystal is for Channel 12 operation). Crystals for additional channels can be obtained at local distributor. Tube complement includes: 6CX8 Oscillator and RF Power Amplifier. 12AX7 Microphone pre-amp and driver. 6AQ5-A Modulator tube.
Philmore Model CT-1 Transmitter, complete with Cabinet, Handle Bracket, Microphone, Meter, Crystal for Channel 12 ----------**$47.50**
CT-1W Factory Wired ----------**$62.95**

MOBILE AND AC POWER SUPPLY KITS



General Purpose Transistor Powered Mobile Power Supply. Companion unit to our CT-1 Transmitter and CC-1 Converter, can be used in any mobile application up to 30-watts output. Includes cable, lighter plug, relay, transistors, and silicon diodes. Provides centralized power source for Citizens' Band and Amateur equipment, and also acts as antenna-change-over box. Delivers 300 Volts DC @ 100 Ma, choke-filtered. Semi-Conductor Complement: 2-2N234A Power Transistors or Equivalent; 4-2E4 Silicon Power Diodes or equivalent. Size only 4" wide, 5" high, 5" deep. Shipping Weight 7 lbs.
Philmore Model CPM-1, Complete Kit Resale Price **$26.75**
CPM-1W Factory Wired ----------**$40.95**
General Purpose A.C. Power Supply. Companion unit to CT-1 Transmitter and CC-1 Converter, can also power many types of Amateur and Experimenter equipment, using up to 30 watts plate power. Provides centralized power source for Citizens' Band and Amateur Gear, also acts as antenna changeover box. Semi-conductor complement: 5-2E4 Silicon Power Diodes or equivalent. Size only 4" wide, 5" high, 5" deep. Shipping Weight 7 lbs.
Philmore Model CPA-1 Complete kit including cable, line cord, relay, and silicon diodes ----------**$21.75**
CPA-1W Factory Wired ----------**$30.45**

ABOVE EQUIPMENT MADE IN U.S.A.

PHILMORE MFG. CO. INC. . . . . Richmond Hill, N. Y.

Our 40 Page Catalog Available on Request.

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ELECTRONIC COMMUNICATIONS FOR HOME INDUSTRY AND SPORT!

WORLD'S FIRST LONG-RANGE PORTABLE SELF-POWERED, 2-WAY CB RADIO WITH AM RECEIVER

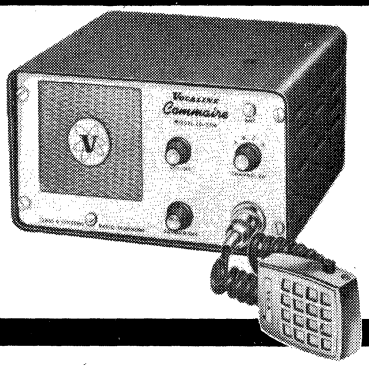
VOCALINE COMMAIRE PT-27

AM broadcast band . . . 4 fixed channels and tunable receiver . . . self-powered . . . portable

WEATHER! NEWS! COMMUNICATIONS! IDEAL FOR ALL SPORTSMEN!

- 100% modulation
- 18 transistors (and 5 diodes) for matchless performance
- double conversion, super heterodyne receiver
- temperature-compensated circuits
- exceptional sensitivity—0.1 microvolt (variable)
- outstanding selectivity—40 db down at ± 10KC
- equal range of 5-watt high quality CB units
- lightweight—only 11½ lbs. with batteries
- compact—9″ x 4″ x 11″
- superior Silent-Aire Squelch
- Built-in charger
- 10 controls for maximum flexibility
- no installation required
- leather carrying strap

Perfect for hunting, fishing, camping . . . can be used for business, industry, farming . . . a variety of applications.
$250.00 each, list



NEW MULTI-CHANNEL CONVENIENCE IN CITIZENS BAND RADIO COMMUNICATION

VOCALINE COMMAIRE

4-CHANNEL model ED-27M (27 MC.)
$189.50 each, list

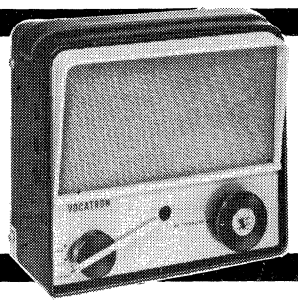
- Selective & Sensitive Receiver
- Patented Silent-Aire Squelch
- Single Crystal Receiver
- Transistorized Power Supply and Unmatched Audio Circuitry
- Convenience of conference-phone flexibility plus uniform performance throughout the entire 22-channel citizens band
- Ideal for business, industry, boating and sports

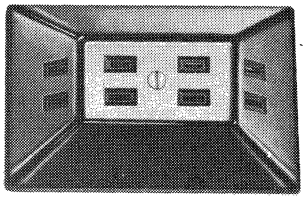
IDEAL FOR HOME, OFFICE, PLANT

VOCATRON CC-60 WIRELESS INTERCOM

$109.00 pair
$54.50 each

- No wires needed—just plug in and talk
- Patented new squelch circuit—eliminates squawk
- Compact—3″ x 8″ x 6″
- Draws less current than a light bulb
- Distinctive and functional appearance





4 SAFE OUTLETS IN ONE!

PERMA-PLUG

69c Brown
79c Ivory

- Ends messy wiring
- Won't pull out when you pull out plugs
- U.L. Approved
- Proven seller—attractive display units provided

VOCALINE COMPANY OF AMERICA, INC.

Old Saybrook, Conn.

COMPLETE LINE OF ACCESSORIES, ANTENNAS AVAILABLE.

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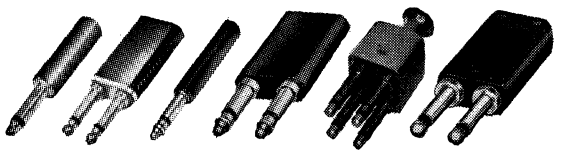
A Division of Magnetic Controls Company

PLUGS



PJ-5 PJ-1 PJ-3 PJ-6 D7200 PJ-327

PJ-5 **Equivalent, PJ-055, WE-47,** fits ¼" phone jacks. Black plastic shell. Screw terminals. Two conductor.
Net $.78

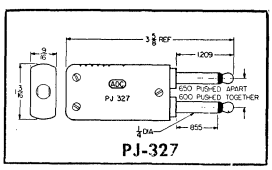
PJ-1 **Equivalent WE-241,** heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝" center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves.
Net $2.55

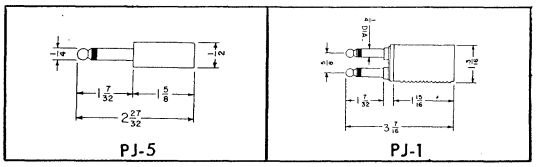
PJ-3 **Equivalent PJ-051, WE-310.** Designed for use with ¼" tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor.
Net $2.40

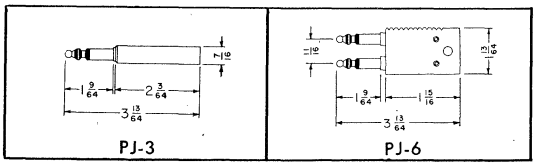
PJ-6 **Equivalent WE-213.** Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on 11/16" centers.
Net $9.78

D7200 **Equivalent WE-315B.** Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on ⅝" centers. Five conductors.
Net $14.70

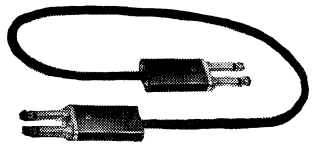
PJ-327 The PJ-327 Twin Plug provides two electrically independent, 2 conductor plugs in a black phenolic shell which is notched to indicate polarity. Self aligning plug sleeves are on 5/8" centers. Designed and constructed in accordance with National Military Establishment Specification MIL-P-642A and interchangeable with WE-327.
Net $2.55







PATCH CORDS

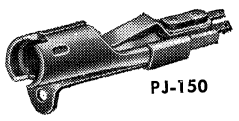


Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10½	$6.38	PJ-50½	$3.48	PJ-20½	$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

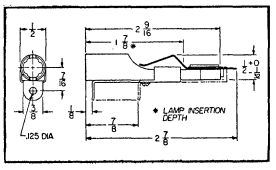
Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Price
2-feet	PJ-82	$8.70	PJ-62	$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

LAMP SOCKETS

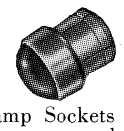

PJ-150

This new type lamp socket has the unique feature of an adjustable mounting tab which allows it to be used as a replacement for any standard lamp socket with a ½" diameter sleeve on panels from ⅛" to 7/8" thick. Designed to accommodate standard switchboard lamps such as WE #2 or equivalents supplied by General Electric or Sylvania. The PJ-150 lamp socket is interchangeable with WE Nos. 49 and 50.



Net $1.05

LAMP CAPS



This series of 13/32" diameter lamp caps are made for use with ADC PJ-150 Lamp Sockets and are interchangeable with standard lamp caps such as Stromberg-Carlson #31 and WE #2.

	Color	*Glass Surface*
PJ-151	White	Glossy
PJ-152	Red	Frosted
PJ-153	Green	Frosted

Net $.21

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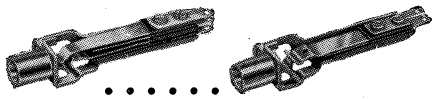
A Division of Magnetic Controls Company

JACKS....



TELEPHONE TYPE

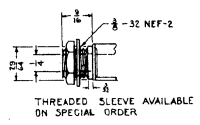
ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	$ .90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

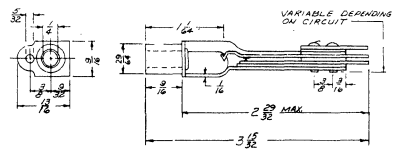
MILITARY JACKS

Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

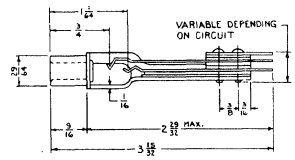
Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17



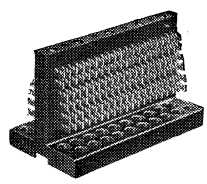
2 Conductor Jack



3 Conductor Jack



TERMINAL BLOCKS



Type	No. Rows	No. Terminals	Net Price
PJ-101	1	20	$3.45
PJ-102	2	40	4.65
PJ-103	3	60	5.85
PJ-104	4	80	7.05
PJ-105	5	100	8.25
PJ-106	6	120	9.45

Molded of durable black phenolic plastic material. Terminals are .040" plated brass. Rows of terminals are graduated in length for ease of wiring, and are identified by numbering along the top row. Base 3" x 6-1/16".

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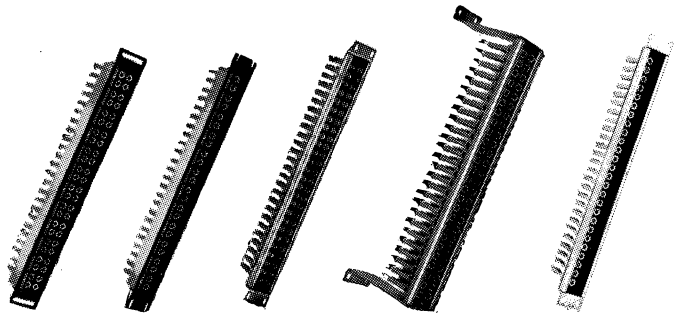
JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. Consult ADC for your standard and special jack panel requirements.

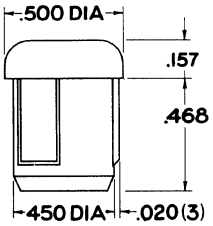


PJ-31 **PJ-341** **PJ-391** | **PJ-33** **PJ-343** **PJ-393** | **PJ-30** **PJ-340** **PJ-390** | **PJ-35** **PJ-350** **PJ-395** | **PJ-36** **PJ-360** **PJ-396**

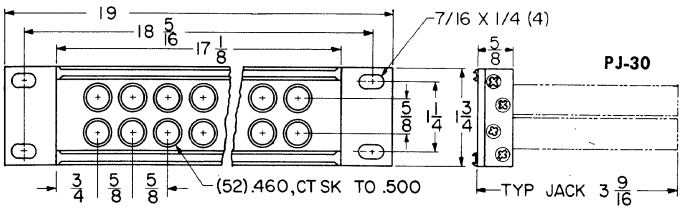
HOLE PLUG

Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29 **Net $.15**

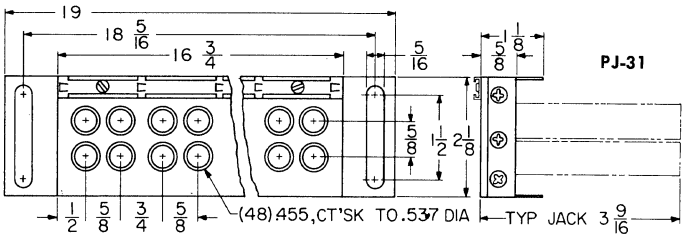


Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Net Price
PJ-30	$12.90	PJ-340	$49.50	PJ-390	$64.80
PJ-31	9.45	PJ-341	42.75	PJ-391	57.30
PJ-33	8.52	PJ-343	25.14	PJ-393	32.40
PJ-35	15.60	PJ-350	52.50	PJ-395	67.50
PJ-36	8.70	PJ-360	27.90	PJ-396	35.10



PJ-30

Double panel. Holds 52 jacks—requires 1¾" panel space. Double designation strip. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

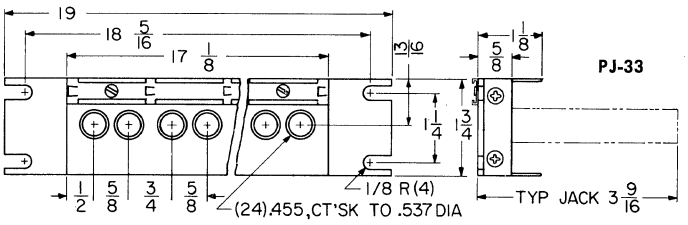


PJ-35

Double panel. Same as PJ-30 except with stand off brackets to hold panel 7" in front of mounting rack.

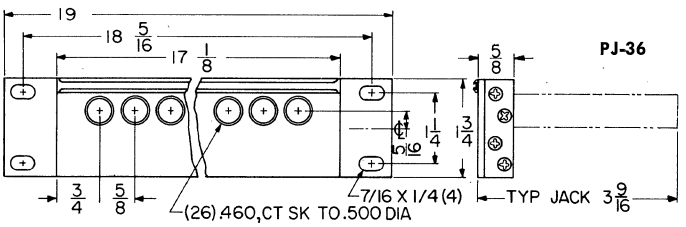
PJ-31

Double panel. Holds 48 jacks. Holes spaced to prevent patching adjacent circuits. Requires 2⅛" panel space.



PJ-33

Single panel. Holds 24 jacks. Holes spaced to prevent patching adjacent circuits. Requires 1¾" panel space.



PJ-36

Single panel. Holds 26 jacks—requires 1¾" panel space. Brackets for flush rack mounting. All jack mounting holes on ⅝" centers.

Panels with mil jacks and other telephone type jacks also available.

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CANNON PLUGS

CANNON ELECTRIC COMPANY

MS PLUG SERIES

MS ACCESSORIES

DUST CAPS*
MS25043-8
MS25043-10
MS25043-12
MS25043-14
MS25043-16
MS25043-18
MS25043-20
MS25043-22
MS25043-24
MS25043-28
MS25043-32
MS25043-36

AN JUNCTION SHELL—STRAIGHT

Description	Size
CA2120-1	8S
CA2120-2	10S
CA2120-21	10SL
CA2120-3	12-12S
CA2120-4	14-14S
CA2120-5	16-16S
CA2120-9	18
CA2120-10	20
CA2120-11	22
CA2120-12	24
CA2120-13	28
CA2120-14	32
CA2120-15	36

AN3057A CABLE CLAMPS WITH BUSHING

Description	Size	Description	Size
AN3057-3A	8S-10S	AN3057-12A	20-22
AN3057-4A	10SL, 12, 12S	AN3057-16A	24-28
AN3057-6A	14-14S	AN3057-20A	32
AN3057-8A	16-16S	AN3057-24A	36
AN3057-10A	18		

*NOTE: For dust caps with chain, add letter C immediately following last number. MS25043-20 would then be MS25043-20C.

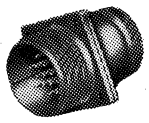
The MS line of Cannon Plugs is designed to meet Military Specification MIL-C-5015...the military specification covering electrical connectors. Until recently this line was designated as the "AN" line. The complete MS plug consists of two mating units...a plug assembly and receptacle assembly.

MS plugs were designed originally for aircraft but are now used widely in other fields. These plugs, although designed and approved under military specification for use by the armed forces, are ideal for commercial and industrial applications where the same quality and dependability are desired. Industry in general has appreciated the relatively low costs, uniform quality and interchangeability as prescribed in the MIL Spec.

MS plugs are available with from 1 to 100 contacts in 15 different shell diameters ranging from .250 to 2.550 inches. Each plug meets or surpasses the latest Specification MIL-C-5015. Each insert arrangement is available with pin or socket contacts, and will mate with the MS type having the same size and layout.

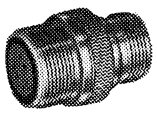
Shells are high grade aluminum alloy, lightweight and non-magnetic. All metal parts other than contacts are cadmium plated with a chromate conversion finish in dull olive drab.

Contacts are made of the best conductive material commensurate with strength. Socket contacts are full-floating, have a closed entry construction to avoid distortion, and have beryllium copper springs with excellent fatigue properties.



MS3100A

WALL RECEPTACLE

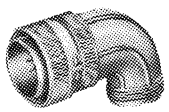


CA3101B

CABLE PLUG

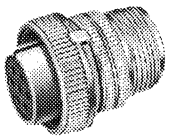
MS3102A

BOX RECEPTACLE

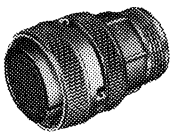


MS3108B

ANGLE 90° PLUG

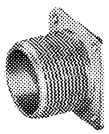


MS3106A

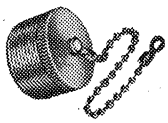


MS3106B

STRAIGHT PLUGS

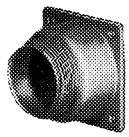


DUMMY RECEPTACLE



DUST CAP

DUST CAP



JUNCTION SHELL

ACCESSORIES

NOMENCLATURE EXPLANATION

To permit easy, accurate ordering of the thousands of combinations of MS Cannon Plugs, the Military Specification spells out a functional numbering system. To illustrate this system, a typical plug MS3106A16-10P is explained:

MS 3106 A 16-10 P

- **P** — INSERT STYLE: P for Pin Contacts and S for Socket Contacts
- **10** — INSERT ARRANGEMENTS: 1, 2, 3, 4 and up. These code numbers refer to a specific contact arrangement. (Refer to pages 4 and 5 for insert arrangements.)
- **16** — SHELL SIZE BASED ON COUPLING THREAD DIAMETER: 8S, 10SL, 12S, 12, 14S, 14, 16S, 16, 18, 20, 22, 24, 28, 32, and 36
- **A** — CLASSES: A-solid, B-split
- **3106** — SHELL TYPE: 3100 Wall Receptacle; 3101 Cable Plug; 3102 Box Receptacle; 3106 Straight Plug; 3108 Angle Plug
- **MS** — MS indicates that the Military Specification number has been assigned.

SEE YOUR AUTHORIZED CANNON PLUG DISTRIBUTOR FOR COMPLETE INFORMATION

© U.C.P., Inc.

CANNON ELECTRIC COMPANY

CANNON PLUGS

MS-E AND MS-R PLUG SERIES

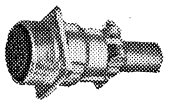
MS-E (formerly called AN-E) and the new MS-R plugs are designed to operate in extreme environmental conditions...such as moisture condensation, corona formations, flashover, and vibration. This environmental sealing is accomplished with a resilient grommet at the rear of the insulator which has internal restrictions in a wire cavity acting like "O" rings around the wire. Insulators are made of resilient material to prevent damage from vibration. Resilient insulators and grommets provide a plug completely sealed from cable to cable, through the mated plugs.

MS-E Cannon Plugs are available in two types: Series ME with external cable clamp, and Series CT with shortened endbells and internal clamping action.

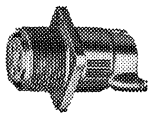
The MS-R Cannon Plugs are identical to the MS-E Series CT. The only difference is the addition of an "O" ring seal about the 3106 and 3108 plug barrels which supplements the interfacial seal.

The shells, endbells, and coupling nuts are of aluminum alloy. They are cadmium plated and converted by chromate treatment to an olive drab finish as required by MIL-C-5015. Insulators and grommets are of a lightweight resilient polychloroprene.

The pin and closed entry socket contacts are machined from copper alloys of high conductivity, and are silver plated.



MS3100E (Series ME)

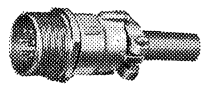


MS3100R and MS3100E (Series CT)

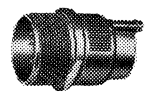
WALL RECEPTACLES

MS3102R and MS3102E (Series CT)

BOX RECEPTACLE

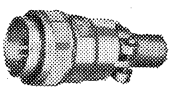


MS3101E (Series ME)

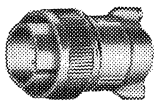


MS3101R and MS3101E (Series CT)

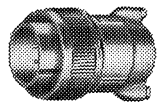
CABLE PLUGS



MS3106E (Series ME)



MS3106E (Series CT) without "O" ring



MS3106R with "O" ring

STRAIGHT PLUGS

MS3108E (Series CT) without "O" ring

MS3108R with "O" ring

ANGLE 90° RECEPTACLES

Insert Number	Total Contacts	Mech'l. Spacing	Service Rating	Contact Size #0	#4	#8	#12	#16	#20
8S-1	1	1/16	A						1
10SL-3	3	1/16	A						3
*10SL-4	2	1/16	A						2
12S-3	2	1/16	A						2
*14S-2	4		INST.						4
14S-5	5		INST.						5
14S-6	6		INST.						6
14S-7	3	1/16	A						3
*14S-9	2	1/16	A						2
16S-1	7	1/16	A						7
16S-4	2	1/8	D						2
16S-8	5	1/16	A						5
16-9	4	1/16	A					2	2
16-10	3	1/16	A					3	
18-1	10	1/16	A						4
			INST.						6
18-4	4	1/8	D						4
18-8	8	1/16	A				1		7
18-9	7		INST.				2		5
18-11	5	1/16	A				5		
*18-12	6	1/16	A					6	
*18-19	10	1/16	A					8	2
20-4	4	1/8	D				4		
20-7	8	1/8	D					4	
		1/16	A					4	
20-15	7	1/16	A				7		
20-16	9	1/16	A				2	7	
*20-19	3	1/16	A			3			
20-27	14	1/16	A					6	
			INST.					8	
20-29	17	1/16	A					17	
22-14	19	1/16	A					19	
22-23	8	1/8	D				1		
		1/16	A				7		
*24-5	16	1/16	A						16
24-20	11	1/8	D					2	9
24-28	24	1/16	INST.						24
28-11	22	1/16	A					4	18
28-12	26	1/16	A						26
*28-15	35	1/16	A				35		
28-17	15	1/4	B						1
		1/8	D						3
		1/16	A						11
28-21	37	1/16	A						37
32-7	35	1/16	A					7	24
			INST.						4
*32-8	30	1/16	A					6	24
32-13	23	1/8	D					5	18
32-17	4	1/8	D		4				
36-10	48	1/16	A						48

*Inactive for new military design but available for replacement or non-military purposes.

NOMENCLATURE EXPLANATION

MS 3106 E 20-27 S (Series ME)
MS 3106 E 20-27 S (Series CT)
MS 3106 R 20-27 S

- **S** — MS-E Type
- **S** — INSERT STYLE: P for Pin Contacts and S for Socket Contacts
- **20-27** — INSERT ARRANGEMENTS: 1, 2, 3, 4 and up. These code numbers refer to a specific contact arrangement.
- **20** — SHELL SIZE BASED ON COUPLING THREAD DIAMETER: 8S, 10SL, 12S, 12, 14S, 14, 16S, 16, 18, 20, 22, 24, 28, 32, and 36
- **E** — CLASSES: E—Environmental Resisting R—Environmental Resisting (lightweight)
- **3106** — SHELL TYPE: 3100—Wall Receptacle 3102—Box Receptacle 3106—Straight Plug 3101—Cable Plug 3103—Potting Receptacle (AER) 3108—Angle Plug
- **MS** — MS indicates that the Military Specification number has been assigned.

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CANNON PLUGS

CANNON ELECTRIC COMPANY

MORPHO* PLUG SERIES MH

MORPHO is the trade name of the new Cannon Plug Series MH. MORPHO represents a new concept in the art of plug design and application. A single style hermaphrodite contact is used for both plug and receptacle. The contacts are crimp-type to eliminate soldering. After crimping, the contacts are snapped into the insulator.

Hermaphrodite features are also embodied in the insulators. A single insulator is used for either the plug or the receptacle. Each insulator will accommodate up to 12 contacts. Insulators are designed in modular form so that they may be arranged to provide numerous alternate positions.

Low engagement and disengagement forces of MORPHO will be of special interest to users requiring high density layouts.

Here are some major features of the MORPHO plug:

CONTACTS

MORPHO plugs use a single style of snap-in removable crimp contact. There is no pin and socket contact of the conventional type. Instead, one contact is used for both the plug and receptacle. Contacts are designed for crimping wire sizes #20 through #27.

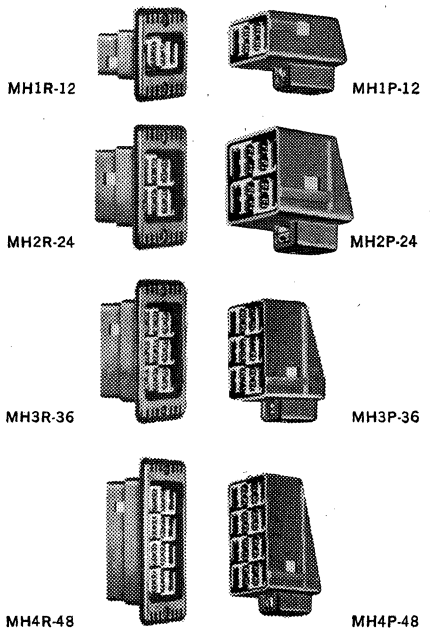
Contact material is a fine grain alloy of phosphor bronze. Standard contact plating is Speculum.

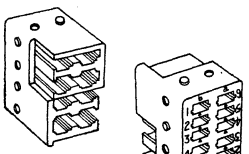
INSULATORS

Only one insulator is required for either the plug or receptacle. By reversing one or two identical insulators, they will mate. This is because of the hermaphrodite design of the insulator.

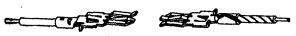
Each insulator module will accommodate up to 12 contacts. Contacts are completely protected within the insulator when installed.

Insulator and shell material is cellulose acetate, series XFB. Cellulose acetate has excellent characteristics in the areas of impact strength, tensile strength, and deformation under load. In addition, it is classed as self-extinguishing by Underwriters' Laboratories.





Insulator modules showing contact arrangement



MORPHO multiple-leaf contact

NOMENCLATURE EXPLANATION

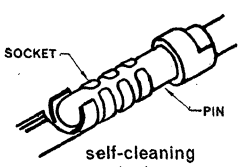
MH4P-48

- Number of contacts
- Shell type: P for plug, R for receptacle
- Number of insulator modules
- MH "MORPHO" Series

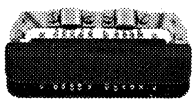
*TRADE NAME OF CANNON ELECTRIC COMPANY PATENTS PENDING

CANNON/TUCHEL PLUGS

The "CAT" series of Cannon Plugs introduces a radical departure from traditional contact design. Self-cleaning miniature contacts provide reliable contact action in even the smallest spaces. Extensively used in aircraft, portable instrumentation and other miniature electronic equipment, they offer the smallest construction design consistent with highest electrical performance.



self-cleaning contacts



PLUG

RECEPTACLE

KQ/KR PLUG SERIES

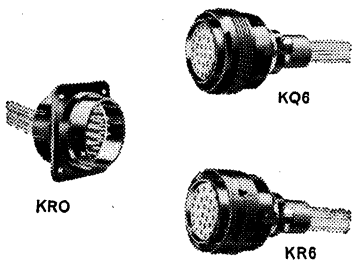
Cannon Plug KQ/KR is a new miniature designed to the more severe requirements of today's—and tomorrow's—missile and aircraft. Also adaptable to general-duty applications, these new Cannon Plugs fill industry's need for an all-purpose miniature plug.

Special features of the KQ/KR series are: a single receptacle which will accept either of two quick coupling devices—a push-pull or a bayonet-lock mating plug.

High Altitude Performance

Crimp Type Ring-Loc Contacts

Monobloc Insert-Grommet Assembly



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CANNON ELECTRIC COMPANY

CANNON PLUGS

STANDARD K AND RK PLUG SERIES

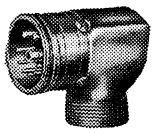
The Standard K Series of Cannon Plugs was the first complete plug series designed (in the late 30's) as airborne equipment. They are lightweight, rugged and durable, and are used extensively in many fields outside of the aviation industry.

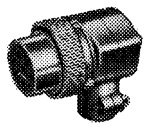
The principal difference between MS and K types is found in the coupling thread...the K line uses acme thread and the MS line uses unified screw threads.

While K and RK are related fittings, their differences prevent mating of a K type with the RK type. Essentially the RK is a reverse coupling version of a standard K. Because of this, different insert housings and coupling means are employed, prohibiting interconnection of the two types.

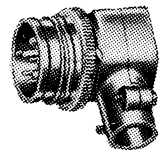
Shell parts are aluminum alloy with standard cadmium finish. Contacts are brass, silver-plated, and are machined from brass rod, with tinned solder pots.

K and RK plugs are available in 7 basic shell types having 8 insert sizes, totalling more than 220 arrangements with a variety of amperage and voltage capacities. They are available with from 1 to 110 contacts in eight size diameters ranging in size from 5/8 to 2-1/4 inches.

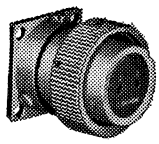

K-23


K-23C

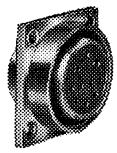
RK-24


RK-24C

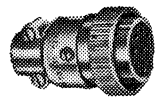
ANGLE 90° PLUGS

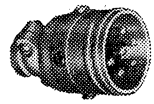

K-31S

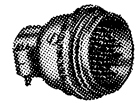
K-32SL


RK-31SL

WALL RECEPTACLES


K-21C


K-22C


RK-22C

STRAIGHT PLUGS

NOMENCLATURE EXPLANATION

With literally thousands of different combinations available in the Standard K Series, a functional nomenclature system was designed to allow fast, accurate identification and ordering ease. To illustrate this system, some typical plugs are explained.

S K-M2-21 -5/8 B&AN
S K-C7-24 C -5/8
R S K-G5-31 SL

- THREAD SIZE STANDARD: AN for Army-Navy, AC for Air Corps, B for Navy
- CONDUIT ENTRY SIZE: 1/8", 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2", 1-3/4", 2", 2-1/2"
- NO LETTER INDICATES THREADED CONDUIT ENTRY. C for Integral Cable Clamp, S for Wall Mounting-Small Flange, SL for Wall Mounting-Large Flange
- SHELL STYLE: Plugs 21, 22, 23; Receptacles 31, 32; Reverse Coupling RK plugs 22, 24
  Note: Odd numbers indicate socket contacts and even numbers indicate pin contacts.
- INSERT ARRANGEMENTS: See pages 10 and 11.
- K SERIES
- SHELL SIZE BASED ON INSERT DIAMETER: W-5/8", G-7/8", S-1", N-1-1/4", F-1-1/2", I-1-3/4", L-2", A-2-1/4"
- REVERSE COUPLING

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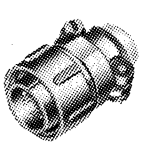
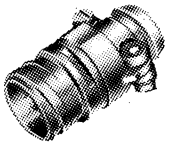
CANNON PLUGS

CANNON ELECTRIC COMPANY

MC SUBMINIATURE PLUG SERIES

MC Subminiature Cannon Plugs are small, cylindrical, sealed plugs of exceptional sturdy construction. These plugs have been designed to withstand moderately severe handling and environmental conditions, and incorporate a shell which has maximum strength within its volume limits. Sealing is accomplished by interfacial compression of the resilient insert, the latter affording a high degree of vibration resistance at the same time. The strong coupling nuts utilize a rugged special Acme thread to permit fast, simple engagement and disengagement.


MC-11E

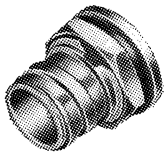

MC-12E

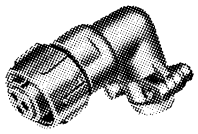
STRAIGHT PLUGS

NOMENCLATURE EXPLANATION

MC-13E-10-6P N

- N — BARREL POSITION
- P — TYPE OF CONTACTS: P for Pin Contacts and S for Socket Contacts
- 6 — NUMBER OF CONTACTS
- 10 — INSERT SIZE
- E for Resilient Insert
- 13 — SHELL TYPE
- MC — PLUG SERIES


MC-14E
STRAIGHT RECEPTACLE


MC-23E
ANGLE 90° PLUG

8-3
3 CONTACTS

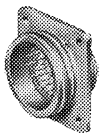
10-6
6 CONTACTS

FOR AVAILABILITY OF ANY MC ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR

K MINIATURE PLUG SERIES

The K Miniature Series of Cannon Plugs was designed for applications requiring smaller plug types in cylindrical designs with metal shells. They incorporate design features to provide high performance and maximum flexibility. Rigid standardization has been incorporated in this series, allowing interchangeability from the standpoint of usage.

Shells for plugs, receptacles, and endbells are high tensile aluminum alloy, cadmium plate finish with chromate conversion. Insert material is Zytel, except high current types which are melamine. K08 (90°) and K45 (45°) endbells have removable caps for inspection and potting.


K00
BOX RECEPTACLES

K02
BOX RECEPTACLES

K01
FLANGELESS RECEPTACLE

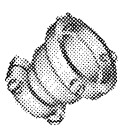
K03
BARREL ASSEMBLY AND COUPLING NUT

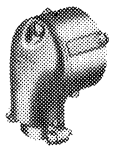
NOMENCLATURE EXPLANATION

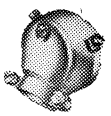
K 00 19L 20 P N

K 10-19-20 S N

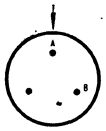
- N — INSERT POSITION
- S — TYPE OF CONTACTS: P for Pin Contacts and S for Socket Contacts
- 20 — NUMBER OF CONTACTS
- 19 — SHELL SIZE
- L — SHELL STYLE
- 00 — PLUG SERIES

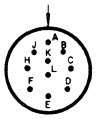

K06
JUNCTION SHELL

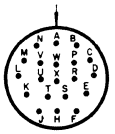

K08
90° JUNCTION SHELL

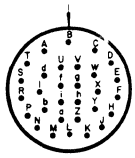

K45
45° JUNCTION SHELL

FOR AVAILABILITY OF ANY K MINIATURE ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR


SIZE 16
3 High Volt. Contacts


SIZE 16
10 Contacts


SIZE 19
20 Contacts


SIZE 21
30 Contacts

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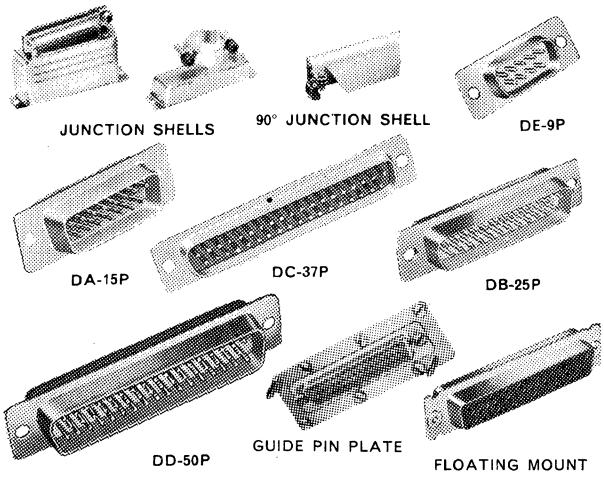
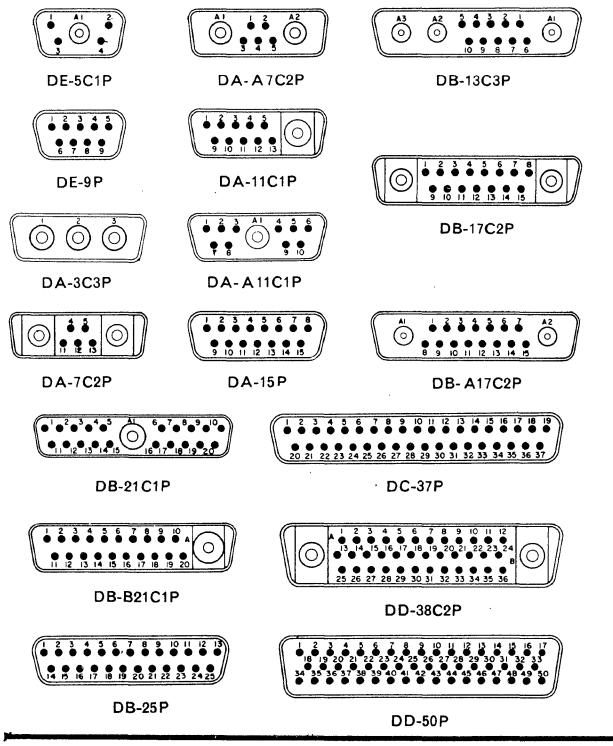
CANNON ELECTRIC COMPANY

CANNON PLUGS





GOLDEN-D/D SUBMINIATURE

D Subminiature plugs are small, lightweight, rectangular plugs in 5 sizes, with 9, 15, 25, 37, or 50 gold-plated contacts. These compact plugs feature steel or brass shells with gold chromate over cadmium finish, and Zytel or Diall insulators. They will withstand a test voltage (60 cps ac rms) of 1300 volts for one minute with no evidence of breakdown. D Subminiatures are available with contact terminations for coaxial cables and taper pins. Solderless, crimp-type, snap-in contacts are supplied in addition to standard solder cup styles.

The GOLDEN-D is an addition to the D Subminiature line. It supplements the standard "D" and is designed for more critical applications. The GOLDEN-D is dimensionally and physically interchangeable with the standard D with the exception of the solder pot and rear insulator extensions, which are slightly longer. The added length provides better contact stability and increased insulator strength. All-new monobloc insulators are incorporated in the GOLDEN-D for increased strength in miniature size. Insert material is forest green glass-filled Diall. Miniature socket contacts are closed-entry, providing protection against damage by oversized test probes. Pins and sockets are gold plated for high reliability. Coaxial contacts, except grounded coax, are designed to permit them to be snapped-in to the insulator after they have been secured to the cables. Contacts are also removable. Shell finish on the new GOLDEN-D is golden iridite over cadmium plate. Four GOLDEN-D types are available:

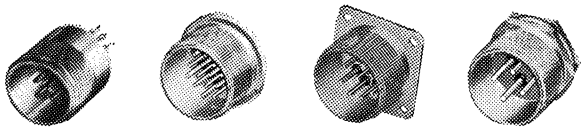
- GOLDEN-D with closed-entry contacts
- GOLDEN-D with snap-in ungrounded coaxial contacts
- GOLDEN-D with grounded coaxial contacts
- GOLDEN-D with high voltage contacts

Coaxial contacts are available for both the Standard D Subminiature and GOLDEN-D Series. Accessories for D Subminiature plugs include: Straight Junction Shells, Straight Clamp Type Junction Shells, 90° Junction Shells, Guide Pin Plates, and Floating Mounts.

NOMENCLATURE EXPLANATION

DA – 15S
DAH – 15P – 001
DAM – 15P

- CONTACT TERMINAL DESIGN (-**1—Eyelet Type; -**2—Solder Pot Type)
- MOUNTING FLANGE DESIGN
- TYPE OF CONTACTS: P for Pin Contacts and S for Socket Contacts
- INSERT ARRANGEMENT
- H—HERMETICALLY SEALED VERSION / M—GOLDEN-D SERIES
- SHELL SIZE
- PLUG SERIES



GSO2 HERMETICALLY SEALED PLUGS

GSO2 Hermetically Sealed Plugs are used wherever instruments are required to be hermetically sealed within a partial vacuum, inert gas, or a constant or controlled pressure.

GSO2 plugs are made with standard MS insert layouts, and with a variety of mounting flanges. These plugs are also available with high-voltage, high-current, and coaxial contacts.

Shells and pin contacts are of steel. Vitreous insulation is used in a manner which creates an hermetic seal and prevents a leakage rate in excess of one micron cubic foot per hour at a pressure differential of 1 atmosphere as tested on a mass spectrometer.

NOMENCLATURE EXPLANATION

GSO2 – 10SL – 3P – 001

- CONTACT TERMINAL DESIGN (-**1—Eyelet Type; -**2—Solder Pot Type)
- MOUNTING FLANGE DESIGN
- CONTACT LAYOUT
- SHELL SIZE
- PLUG SERIES

FOR AVAILABILITY OF ANY GSO2 ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR

SEE YOUR AUTHORIZED CANNON PLUG DISTRIBUTOR FOR COMPLETE INFORMATION

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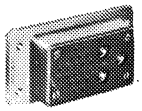
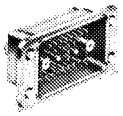
CANNON PLUGS

CANNON ELECTRIC COMPANY

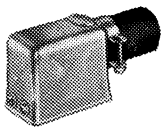
RACK/PANEL **DPD** PLUG SERIES



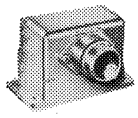
DPD-33S



DPD-34P



DPD-CG-1 1/16 x 1 1/4
JUNCTION SHELL



DPD-34CL-5/8 AN
JUNCTION SHELL

DPD plugs are designed for unit plug-in applications. They are distinguished from other Cannon lines by their rectangular shape and they provide maximum space utilization on rack/panel chassis equipment. One half of the plug is mounted to a radio rack or panel, for instance, and the other half is mounted to the instrument. By this means instruments can be easily removed for inspection and repair.

The DPD is the standard of the DP (Dual Panel) line and accommodates the widest range of contacts in both style and number. They are available with from 2 to 78 contacts in 22 basic insert arrangements, plus variations. A variety of endbells for junction shells are available. The shell is chamfered to facilitate engagement.

Shell material is die-cast aluminum alloy with cadmium plate finish. Insulation is molded melamine or fabricated phenolic. Inserts are retained by insert retaining clips. Retaining clip is metallic and will ground coaxial contacts unless insulation is specified.

DPD LAYOUT NUMBER	Basic Layout	Number of Contacts (Amperes) 10	15	30	40	60	80	C*	T**
-C6	C6							6	
-N10	N10	6					4		
-12C3	12C3	7	2					3	
-M12	M12		12						
-A14	A14	6	4					4	
-G14	A14	6	4					4	
-15C2	15C2		10	3				2	
-A15	15C2		10	3	2				
-B15	15C2		10	3	1			1	
-B18	B18	13	3			2			
-G20	G20		10	2	8				
-B20C2	B20C2	12	6					o 2	
-23C3	23C3	20						3	
-F23C3	23C3	20						3	
-B28	C28	28							
-C28	C28	22							6
-30	32C2	28			2				
-32	32C2	28			4				
-A32	32C2	30			2				
-32C2	32C2	28			2			2	
-D32C2	32C2	28			2			2	
-E32C2	32C2	28			2			2	
-40	40	40							
-45	45	43		2					
-66	65C1	66							
-78	78	78							

*Coaxial Contacts
**Thermocouple Contacts

NOMENCLATURE EXPLANATION

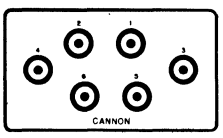
DPD – 32C2 – 34P – 1G

- **1G** — MOUNTING VARIATION:
  - 1A—4 holes 0.144 diameter, for No. 6 screw
  - 1B—4 holes 0.144 diameter, 100° countersink for No. 6 flat head screw
  - 1G—4 holes 0.152 diameter, 82° countersink for No. 6 flat head screw
  - 1L—4 holes 0.144 diameter, 82° countersink for No. 6 flat head screw
  - 1A SUPPLIED UNLESS OTHERWISE SPECIFIED
- **34P** — CONTACT TYPE: P for Pin Contacts and S for Socket Contacts
- **32C2** — SHELL DESIGN: Even numbers generally indicate Pin Insert Assemblies and odd numbers generally indicate Socket Insert Assemblies
- **DPD** — INSERT ARRANGEMENT
- PLUG SERIES

DPD ACCESSORIES

DPD-33	Junction Shell
DPD-34-7/8	Junction Shell
DPD-34CL-5/8 AN	Junction Shell
DPD-CG-1 1/16 x 1 1/4	Junction Shell
DPD-33 and -34	Dust Cap

DPD INSERT ARRANGEMENTS



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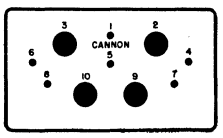

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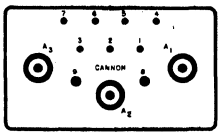
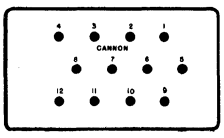


12C3



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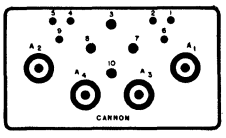

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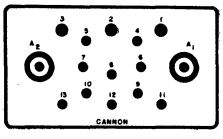
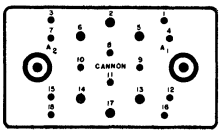
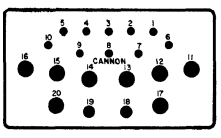


15C2



B20C2



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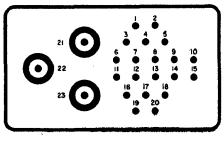

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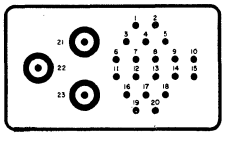

F23C3

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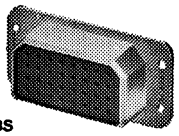
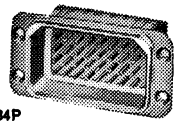
CANNON PLUGS



DPA-33S



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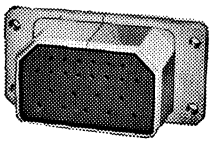
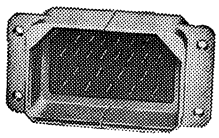


DPX-33S



DPX-34P

DPA AND DPX MINIATURE PLUGS

In response to a need for a small rectangular rack/panel plug of great strength, Cannon Electric has designed two rugged miniatures, the DPA and DPX. They are similar to the DPD plugs but occupy approximately 35% (for the DPA) and 46% (for the DPX) less area for rack/panel chassis mounting.

The DPA utilizes a one-piece shell construction. The elimination of conventional insert-retaining screws provides a maximum utilization of insert area and results in a new ease of assembly. The insert is held in place by a retaining clip at the rear of the shell.

The DPX has a two-piece split shell construction. Inserts are held in place by means of internal grooves molded into the shell. These grooves accommodate raised shoulders on the insulator, completely embracing and locking the insert assembly. An external assembly ring slips over the shell halves to hold them together. The DPX can be completely assembled without tools.

The standard insert material for the DPA and DPX is melamine. DPA insert layouts accommodate 5 amp and small coaxial contacts. DPX insert layouts accommodate 5 amp, 10 amp, and small coaxial contacts.

DPA LAYOUT

Layout Number	Basic Layout	Number of Contacts (Amperage) 5	10	Coax.	HV
24C2	24	22		2	
32	32	32			

DPX LAYOUT

Layout Number	Basic Layout	Number of Contacts (Amperage) 5	10	41	Coax.	HV
C7	C7					7
C7E	C7				7	
13	13		13			
13C1	13HV1	12			1	
13HV1	32C2	12				1
J16C3	B16C3		13		3	
Q16C3	1316C3		13		3	
17	17	17				
23	23	23				
25C3	25C3	22			3	
E25C3	25C3	22			3	
26	26		26			
32	32	29	3			
40	40	40				
40C1	40C1	39			1	

ACCESSORIES

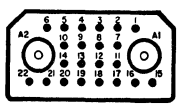
DPA-CG-21/32	Junction Shell	DPX-CG-25/32	Junction Shell
DPA-CG-21/32	90° Junction Shell	DPX-CG-25/32	90° Junction Shell
DPA-59	Dust Cap		
DPA-60	Dust Cap		

NOMENCLATURE EXPLANATION

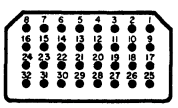
DPA – 32 – 34 P

- **P** — CONTACT TYPE: P for Pin Contacts and S for Socket Contacts
- **34** — SHELL DESIGN: Even numbers generally indicate Pin Insert Assemblies and odd numbers generally indicate Socket Insert Assemblies
- **32** — INSERT ARRANGEMENT
- **DPA** — PLUG SERIES

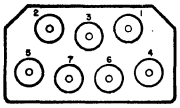
FOR AVAILABILITY OF ANY DPA OR DPX ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR



DPA-24C2



DPA-32



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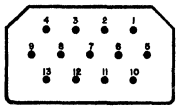

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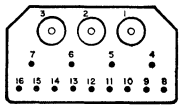
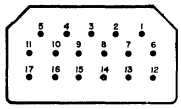


DPX-16C3



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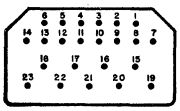

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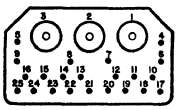

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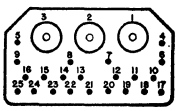

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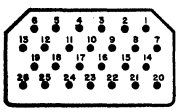
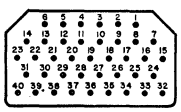


DPX-26



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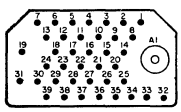
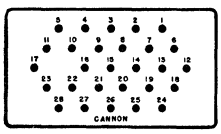


DPX-40C1

DPD INSERT ARRANGEMENTS (cont.)



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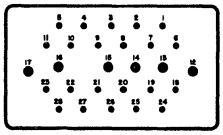

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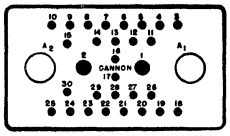

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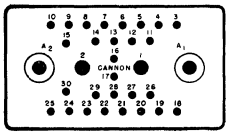

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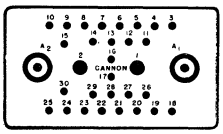

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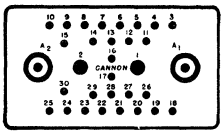
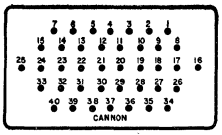


D32C2



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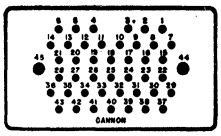

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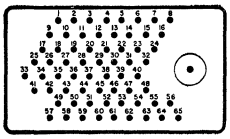

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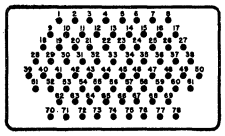

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CANNON PLUGS

CANNON ELECTRIC COMPANY

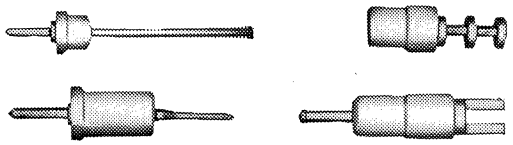
SUBMINIATURE **KWIK-TERM** TERMINALS

Cannon Kwik-Term subminiature terminals are now available for use in conjunction with Radar, TV, HF, UHF, VHF, Microwave, and other "sophisticated" circuits.

Kwik-Terms are easily installed into an electronic chassis by simply pressing them into a pre-punched or pre-drilled hole. The TEFLON material of the insulator when pressed into a slightly smaller mounting hole tends to relieve its own stress. This causes a rivet-type action in the TEFLON which anchors and seals the terminal securely and permanently to the chassis. No nuts, washers, staking or soldering is required.

The following features illustrate the advantages of Cannon Kwik-Terms:

- Ease of assembly even in crowded installations
- Installation in seconds
- Saves weight and space—eliminates terminal boards
- Rugged—Kwik-Terms resist vibration and shock
- Wide variety of terminal configurations and pin lengths
- Kwik-Terms are heat resistant for soldering
- Wide variety of finishes, colors, and soldering lugs can be supplied to order



NOMENCLATURE EXPLANATION

KT – SR – 148 – 1 – *

- KT — LINE PREFIX (Kwik-Term)
- SR — TERMINAL STYLE
- 148 — REVERSE TYPE
- 1 — INSULATOR DIAMETER in $\frac{\text{in.}}{1000}$
- * — MODIFICATION NUMBER
- COLOR CODE: No dash number for Natural Teflon, 2-Red, 3-Black, 4-Brown, 5-Green, 6-Orange, 7-Blue, 8-Yellow, 9-Violet, 10-Grey

FEED-THRU TERMINALS
KT-F-148-1
KT-F-148-2
KT-F-148-8
KT-F-148-10
KT-F-148-11
KT-F-148-13
KT-F-148-15
KT-F-148-16
KT-F-171-2
KT-F-171-3
KT-F-171-5
KT-F-171-21
KT-F-185-1
STAND-OFF TERMINALS
KT-S-148-1
KT-S-148-2
KT-S-148-3
KT-S-148-8
KT-S-148-9
KT-S-148-10
KT-S-165-1
KT-S-165-2
KT-S-165-6
KT-S-165-8
KT-S-171-1
KT-S-171-5
KT-S-171-6
KT-S-171-7
KT-S-171-8
KT-S-215-1
KT-SR-148-8
PROBES AND PLUGS
KT-P-185-1
KT-P-185-2
KT-P-185-3
TEST JACKS
KT-J-185-1
KT-J-185-2
KT-J-185-3
KT-J-185-4

ALRF PLUG SERIES

This new Cannon Plug Series of Aluminum RF Coaxial Plugs and Adapters utilize aluminum as the major portion of material in order to reduce weight. Included in this new series are aluminum variations of the standard N plugs and adapters for Foamflex and Raytherm rigid cables.

The new ALN line is 35% lighter than standard N types. Their electrical performance equals or betters that of the standard N. They have a black anodic finish for maximum corrosion resistance.

ALA-3495-0 Deburring Tool
ALA-3495-1 Flaring Tool
ALN-PR-M-60
ALN-PR-M-8
ALN-PL-M-8
ALN-PL-M-55
ALN-JB-F-8
ALN-JC-F60
ALN-JC-F-8
ALN-RB-F-0
ALN-PP-F-0
ALN-ALN-ASB-FF
ALN-ALN-AS-FF
3ALN-AT-2FM

ALN

NOMENCLATURE EXPLANATION

ALN – PL * – M – 55

- ALN — ALUMINUM LINE
- PL — COAXIAL SERIES
- * — PLUG STYLE: OR ADAPTER STYLE:
  - PL—Plug, Standard Nut
  - PR—Plug, Retractable Nut
  - JB—Jack, Bulkhead
  - JC—Jack, Cable
  - JP—Jack, Panel
  - RB—Receptacle, Bulkhead
  - RP—Receptacle, Panel
  - ASB—Adapter, Straight Bulkhead
  - AR—Adapter, Right Angle
  - AS—Adapter, Straight
  - AT—Adapter, Tee
  - CC—Dust Cap with Chain
  - DC—Dust Cap without Chain
- M — MODIFICATION NUMBER
- F — MALE (M) OR FEMALE (F) CONTACT
- 55 — CABLE CODE

0 No callout
8 RG-8/U or 9/U
11 RG-11/U
55 RG-58A/U
59 RG-59, 62, 71/U
60 Foamflex R-2401

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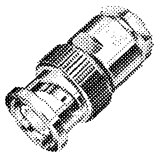
CANNON ELECTRIC COMPANY

CANNON PLUGS

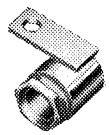
STANDARD **RF** COAXIAL PLUG SERIES

Cannon Electric carries the most complete line of RF plugs in the industry for thousands of military, industrial and commercial applications. These Standard RF Coaxial Plugs have an established reputation as quality RF components, having served the electronics industry for more than 17 years.

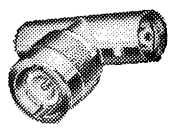
These RF plugs are designed to connect and terminate coaxial lines used in radio frequency transmission with a minimum loss of energy. They have been classified by ASESA (Armed Services Electro-Standards Agency, Fort Monmouth, New Jersey) into various series according to their function. The series—BNC, N, C, SC, LC, HN, MB, SM, etc.—also correspond roughly to the size of cables with which the plugs are used.

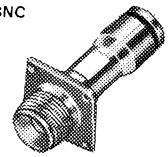

BNC

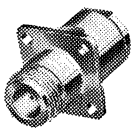
SM

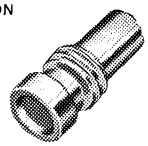

CABLE TERMINATION

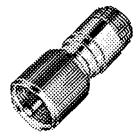
SMD


C


HN


N


REDUCING ADAPTER


ADAPTER BETWEEN SERIES

NUMBER	DESCRIPTION	RG CABLES
BNC SERIES		
UG-88/U	Plug	55, 58/U
UG-88C/U	Plug	55, 58/U
UG-89/U	Cable Jack	55, 58/U
UG-89B/U	Cable Jac:	55, 58/U
CW-123A/U	Cap & Chain	—
CW-155A/U	Cap	—
CW-159/U	Cap & Chain	—
UG-185/U	Receptacle	Small
UG-260/U	Plug	59, 62, 71/U
UG-260B/U	Plug	59, 62, 71/U
UG-261/U	Cable Jack	59, 62, 71/U
UG-261B/U	Cable Jack	59, 62, 71/U
UG-262/U	Panel Jack	59, 62, 71/U
UG-262B/U	Panel Jack	59, 62, 71/U
UG-274/U	Tee Adapter	Small
UG-274A/U	Tee Adapter	Small
UG-290/U	Receptacle	Small
UG-290A/U	Receptacle	Small
UG-291/U	Panel Jack	55, 58/U
UG-291B/U	Panel Jack	55, 58/U
UG-306/U	R. A. Adapter	Small
UG-306A/U	R. A. Adapter	Small
UG-414/U	Str. Adapter	Small
UG-447/U	Panel Recept.	Small
UG-491/U	Str. Adapter	Small
UG-492A/U	Str. Adapter	Small
UG-492B/U	Str. Adapter	Small
UG-535/U	R. A. Adapter	Small
UG-604/U	Bulk. Recept.	Small

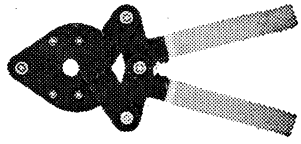
NUMBER	DESCRIPTION	RG CABLES
UG-625/U	Bulk. Recept.	Small
UG-657/U	Bulk. Recept.	Small
UG-909/U	Bulk. Jack	55, 58/U
UG-910/U	Bulk. Recept.	59, 62, 71/U
UG-911A/U	Bulk. Recept.	Small
UG-912/U	Bulk. Recept.	Small
UG-913/U	R. A. Plug	55, 58/U
UG-932/U	Hi-Volt. Plug	59, 62, 71/U
UG-1094/U	Bulk. Recept.	Small
UG-1098/U	R. A. Bulk. Recept.	Small
052150-0001	R. A. Plug	59, 62, 71/U
SM SERIES		
UG-692/U	Plug	59, 62/U
UG-697/U	Recept.	—
UG-699/U	Plug	58/U
CABLE TERMINATIONS		
MX-1530A/U	Bulkhead	59, 62, 71/U
MX-1684/U	Bulkhead	55, 58/U
SMD SERIES		
052710-0001	Plug	.174 O.D.
052844-0001	Panel Recept.	Miniature
C SERIES		
UG-568/U	Panel Recept.	Medium
HN SERIES		
UG-59A/U	Plug	8, 9, 10/U

NUMBER	DESCRIPTION	RG CABLES
N SERIES		
UG-18C/U	Plug	5, 6, 21/U
UG-21B/U	Plug	5, 6, 21/U
UG-21D/U	Plug	8, 9, 10/U
UG-22D/U	Panel Jack	8, 9, 10/U
UG-23B/U	Cable Jack	8, 9, 10/U
UG-23D/U	Cable Jack	8, 9, 10/U
UG-27A/U	R. A. Adapter	—
UG-27C/U	R. A. Adapter	—
UG-29B/U	Str. Adapter	—
UG-30D/U	Str. Adapter	—
UG-57B/U	Str. Adapter	—
UG-58A/U	Panel Recept.	Medium
UG-536/U	Plug	55, 58/U
UG-536A/U	Plug	55, 58/U
MX-913/U	Cap & Chain	—
UG-1185/U	Plug	8, 9, 10, 87A, 115, 115A/U
050962-0001	Cap & Chain	—
REDUCING ADAPTERS		
UG-175/U	For UHF Plugs	55, 58/U
UG-176/U	For UHF Plugs	59, 62, 71/U
ADAPTERS BETWEEN SERIES		
NUMBER	DESCRIPTION	ADAPTS TO
UG-201/U	Str. Adapter	BNC to N
UG-255/U	Str. Adapter	BNC to UHF
UG-273/U	Str. Adapter	BNC to UHF
UG-606/U	Str. Adapter	BNC to N
UG-970/U	R. A. Adapter	UHF to twin UHF
UG-971/U	R. A. Adapter	C to twin UHF

UHF CRIMPEE SERIES

A recent addition to the RF line is the inexpensive, completely solderless UHF "Crimpee" Plug for such applications as mobile communication equipment, ham radio sets, and television master antenna distribution systems. This plug uses a simplified crimping method for rapid assembly. It is to be used as a replacement for standard PL-259 plugs, and the pin contacts are designed to fit standard 50-239 sockets. These constant-impedance plugs mate with the standard UHF Series of RF receptacles. An inexpensive crimp tool CCTUHF-1 is available.

CRIMPEE PLUG
UHF-PR-M-8


CRIMP TOOL
CCTUHF-1

UHF CRIMPEE SERIES		
NUMBER	DESCRIPTION	RG CABLES
UHF-PR-M-8	Plug	8, 9/U
UHF-PR-M-11	Plug	11/U
UHF-PR-M-55	Plug	58C/U
UHF-PR-M-59	Plug	59A/U
CCTUHF-1	Crimp Tool	8, 9, 11, 58C, 59A/U

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CANNON PLUGS

CANNON ELECTRIC COMPANY

XLR PLUG SERIES

XLR Series of Cannon Plugs is a newly expanded audio series ...the most modern addition to the long line of Cannon Plugs featured on all top-quality microphones. It's really quiet, too!

New resilient insulator and specialized construction of socket contact assembly protects against disagreeable mechanical interference . . . noise problems encountered with plugs when their cables are moved, pulled, or subjected to shock.

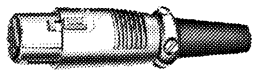
Features streamline design, satin nickel finish, integral cable clamp, neoprene cable relief, and time-tested latchlock. Available with three 15-amp or four 10-amp contacts.

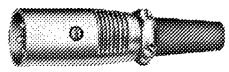
XLR-*-11C PLUG (Socket Insert)
XLR-*-12C RECEPTACLE (Pin Insert)
XLR-*-13 RECEPTACLE (Socket Insert)
XLR-*-13N RECEPTACLE (Socket Insert)
XLR-*-14 RECEPTACLE (Pin Insert)
XLR-*-14N RECEPTACLE (Pin Insert)
XLR-*-15 RECEPTACLE (Socket Insert)
XLR-*-31 RECEPTACLE (Socket Insert)
XLR-*-32 RECEPTACLE (Pin Insert)
XLR-*-35 SINGLE GANG WALL RECEPT. (Socket Insert)
XLR-*-36 SINGLE GANG WALL RECEPT. (Pin Insert)
XLR-*-42 RECEPTACLE (Pin Insert)
XLR-*-50 ADAPTER RECEPTACLES
XLR BRACKET

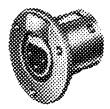
3 CONTACTS

4 CONTACTS

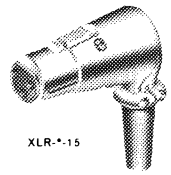
XLR-*50T


XLR-*-11C

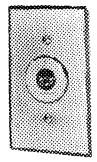

XLR-*-12C


XLR-*-13

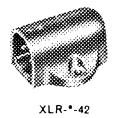
XLR-*-14


XLR-*-15

XLR-*-32


XLR-*-35

XLR BRACKET WITH XLR-13N RECEPTACLE


XLR-*-42

*Add layout number to complete description

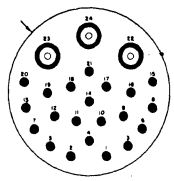
FOR AVAILABILITY OF ANY XLR ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR

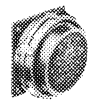
LK & LKT (TV) PLUG SERIES

The LK and LKT Series of Cannon Plugs are used on television cameras and related equipment, and are a part of the standard K Series. Assemblies with the LK prefix are standard K, those prefixes with LKT have special shells or cable entry construction.

The R24C insert designed for television equipment has the following arrangement of 24 contacts: 3 No. 16 coaxials, 21 No. 14 contacts. Shells are aluminum alloy, cadmium plated; insulators are melamine; and contacts are silver-plated brass.

LK-R24C-31S
LK-R24C-32S
LKT-R24C-21-7/8
LKT-R24C-22-7/8T


LK-R24C


LK-R24C-31S

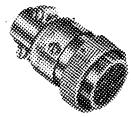
LK-R24C-32S

LKT-R24C-22 7/8

SK-M7 PLUG SERIES

SK-M7 Cannon Plugs are a part of the standard K Series and are designed for telephone recording equipment. They are available with 7 contacts: 3 10-amp contacts and 4 30-amp contacts.

SK-M7-32S


SK-M7-21C-1/2

SK-M7

BATTERY PLUG SERIES

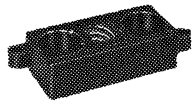
Cannon Battery Plugs are sturdy and rugged, with ample insulation and high quality to withstand the rugged field service usually associated with these plugs. They are designed to eliminate the need for separate starting batteries on individual units of power driven equipment. They facilitate removal and installation of storage batteries, and are also used to connect auxiliary power equipment to aircraft electrical systems.

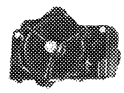
Shell material is molded rubber with spring steel clip material, with cadmium finish.

	No. Contacts	Wire Size	Current Rating Amperes
GB-3-21CF	2	310	600A
	1	#10	40A
GB-3-21CFS	2	310	600A
	1	#10	40A
GB-3-34CDS	2	310	600A
	1	#8	40A
CAO11751-0001	2	210	600A
CAO11749-0001	2	210	600A

GB-3-21CFS PLUG

GB-3-21CF PLUG


CAO11749-0001 RECEPTACLE


CAO11751-0001 PLUG

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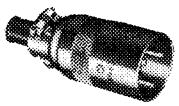
CANNON ELECTRIC COMPANY

CANNON PLUGS

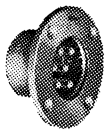
P PLUG SERIES

P*-CG-11S


P*-CG-12S

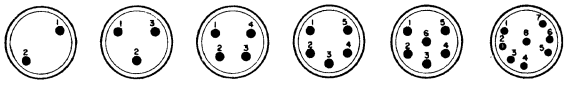
P*-13

P*-35


P*-14

P*-CG-15

P*-CG-16



Audio P Cannon Plugs are universally used in sound and related applications. They include a size and type for every requirement, with a high standard of quality. All 90° Plugs have split-shell construction for quick, easy access for wiring or inspection.

Five layouts with from two to six contacts (30 amp) accommodate No. 10 B&S stranded wire. One layout with 8 contacts (15 amp) accommodates No. 14 wire. Shell designs of the P-CG-11S and P-CG-12S cord plugs have such improvements as shorter length, new rubber bushing, improved latch and spring, integral clamp. Shell of plug material is steel, and the integral clamp is zinc. Insulating material is black phenolic.

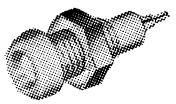
P*-CG-11S CORD PLUG ++
P*-CG-12S CORD PLUG +–
P*-CG-15 90° CORD PLUG ++
P*-CG-16 90° CORD PLUG +–
P*-13 PANEL RECEPTACLE ++
P*-14 RECEPTACLE +–
P*-35 SINGLE GANG WALL RECEPTACLE ++

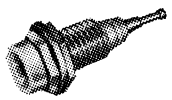
++ Socket Insert +– Pin Insert

*Add layout number to complete description

FOR AVAILABILITY OF ANY P ASSEMBLY, SEE YOUR AUTHORIZED CANNON DISTRIBUTOR

TEST JACKS


ZYTEL BODY TEST JACK


METAL BODY TEST JACK

Cannon Electric Test Jacks are compact, lightweight jacks for standard .080-inch diameter test prods. They are available with Zytel bodies and nickel-plated brass bodies.

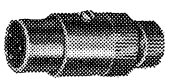
METAL BODY

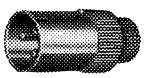
SINGLE NUT			
45E-1	White	45E-4	Brown
45E-2	Red	45E-5	Green
45E-3	Black	45E-6	Orange
		45E-7	Blue

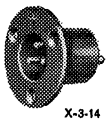
ZYTEL BODY

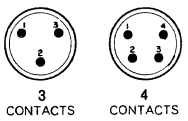
CANNON NO.	COLOR	CANNON NO.	COLOR
052780-0001	White	052784-0001	Blue
052781-0001	Red	052785-0001	Orange
052782-0001	Black	052786-0001	Yellow
052783-0001	Green	052787-0001	Brown

X PLUG SERIES


X-3-11


X-3-12


X-3-14

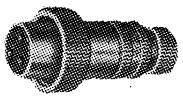


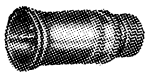
X-3-11 CORD PLUG (Socket Insert)
X-3-12 CORD PLUG (Pin Insert)
X-3-14 WALL RECEPTACLE (Pin Insert)
X-4-11 CORD PLUG (Socket Insert)
X-4-12 CORD PLUG (Pin Insert)

Audio X Cannon Plugs are small, compact plugs providing inexpensive fittings of reliable quality for sound applications, radio, public address systems, and geophysical research. Contacts are so positive that no latching device is needed for ordinary uses. X plugs are available in two insert arrangements: 3 contacts (15-amp), and 4 contacts (3 10-amp and one 15-amp).

XK PLUG SERIES

3 CONTACTS

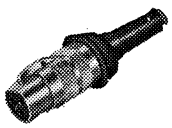

XK-3-11


XK-3-12

XK-3-11 STRAIGHT CORD PLUG (Socket Insert)
XK-3-12 STRAIGHT CORD PLUG (Pin Insert)

Audio XK Cannon Plugs have the same inserts and are similar in design to the X Series, but equipped with the fast-acting, sturdy Acme Threaded coupling ring. It is, therefore, ideal for use on equipment which is subjected to considerable vibration and tension on cables. XK plugs are available with 3 contacts (15-amp).

UA PLUG SERIES


UA-3-11

UA-3-14

UA-3-31

UA-3-11 PLUG (Socket Insert)
UA-3-12 PLUG (Pin Insert)
UA-3-13 RECEPTACLE (Socket Insert)

UA-3-14 RECEPTACLE (Pin Insert)
UA-3-31 RECEPTACLE (Socket Insert)
UA-3-32 RECEPTACLE (Pin Insert)

Audio UA Cannon Plugs, designed in cooperation with the RETMA Committee, have all the features of P Series plugs plus the following: (1) gold-plated contacts for long life, (2) double protection rubber relief collar and rubber bushings, (3) flat-top polarization for finger-touch action, (4) stronger improved latch lock, (5) steel plug shells and insert barrel.

Insulators are high dielectric phenolic. 15 amp contacts accommodate No. 14 stranded wire.

SEE YOUR AUTHORIZED CANNON PLUG DISTRIBUTOR FOR COMPLETE INFORMATION

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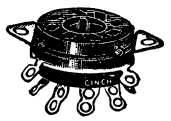
CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

CINCH SOCKETS ARE STANDARD

MOLDED OCTAL 1-5/16" MOUNTING CENTERS



Molded from high dielectric black bakelite or mica-filled low loss bakelite. Solder coated brass contacts and sturdy steel press-on type saddle with 4 ground lugs. Mounts in 1" chassis hole.

No.	Description	Net Price
8AB	**Black**	**Each $ .09**
8AM	**Mica-Filled**	**Each .12**

MOLDED OCTAL 1½" MOUNTING CENTERS

Same as 8A series molded octal above except has clinch-on type saddle with 4 ground lugs and mounts in 1⅛" chassis hole. Available in black, mica - filled bakelite, or ceramic.

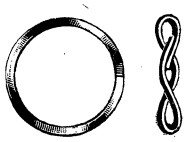
No.	Description	Net Price
8EB	**Black**	**Each $ .09**
8EM	**Mica-Filled**	**Each .12**
8EC	**Ceramic**	**Each .45**

RING MOUNT OCTAL

Molded from high dielectric black bakelite. Solder coated brass contacts. Used extensively on test equipment, public address amplifiers and on other apparatus where sockets are exposed. Molded keyway in side engages key in chassis hole, preventing socket from turning. Mounts in $1\frac{11}{64}$" chassis hole. Crimped retainer ring is furnished with these sockets.

No.	Description		Net Price Each
8R1	**For 1/16" Chassis**	**Black**	**$ .18**
8R2	**For 1/8" Chassis**	**Black**	**.18**
8R3	**For 1/16" Chassis**	**Mica-Filled**	**.21**
8R4	**For 3/32" Chassis**	**Black**	**.18**
8R5	**For 3/32" Chassis**	**Mica-Filled**	**.21**
8R6	**For 1/8" Chassis**	**Mica-Filled**	**.21**

RETAINER RING



A crimped retaining ring formed of spring steel that will securely anchor sockets designed for ring mounting, such as the one above. Standard finish is cadmium.

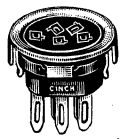
No.	Description	Net Price
8R0	**.020 Spring Steel**	**Each $ .04**

WAFER OCTAL

Laminated bakelite sockets with solder coated brass positive grip contacts. Designed to fit all standard eight prong tubes. Available with $1\frac{5}{16}$" or 1½" mounting centers. Both styles have .136 diameter mounting holes.

No.	Description	Net Price
8W1	**$1\frac{5}{16}$" Mounting Centers**	**Each $ .08**
8W2	**1½" Mounting Centers**	**Each .08**

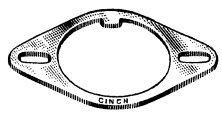
SUB-MINIATURE SOCKET FOR NUVISTOR TUBE



New Cinch socket for the Nuvistor tubes. The socket body is of low loss phenolic insulation, type MFE. The saddle is of cold rolled steel, cadmium plated. The contacts are of copper alloy with cadmium plating.

No.	Net Price
5NS	**Each $ .14**

ADAPTOR PLATE



When the hole in the chassis is too large to use the 8R0 retainer ring, then the 8AP adaptor plate is anchored to the chassis and the 8R0 retainer ring holds the ring mounted socket to the adaptor plate.

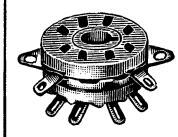
No.	Net Price
8AP	**Each $ .08**

ALL MOLDED OCTAL SOCKET

This new all molded octal socket offers a complete one piece construction, the saddle and body are a single casting. The standard socket is molded of general purpose Bakelite. Contacts are of brass, cadmium plated. The 8 XM has mica filled phenolic insulation and the contacts are of brass, cadmium plated. Mounting hole centers are $1\frac{5}{16}$".

No.	Description	Mtg. hole diam.	Net Price
8XB	**Black**	**.144**	**$ .10**
8XM	**Mica**	**.144**	**.13**

MOLDED OCTAL 1½" MOUNTING CENTERS

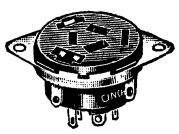


Molded from mica-filled low loss bakelite. Silver plated phosphor bronz contacts with hot tinned tails. Heavy brass saddle nickel plated with 4 ground lugs hot tinned. Conforms to MIL-12883-A Specs.

No.	Description	Mtg. Hole	Mil. Type No.	Net Price Each
8JC-2	**Ceramic**	**.156 Dia.**	**TS101C01**	**$.325**
8JCN-2	**Ceramic**	**6-32 Tap**	**TS101C02**	**.40**
8JM-2	**Mica**	**.156 Dia.**	**TS101P01**	**.16**
8JMN-2	**Mica**	**6-32 Tap**	**TS101P02**	**.235**

CINCH CAPACITOR "PLUG-IN" SOCKETS

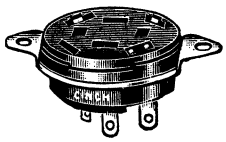
Motion picture, telephone, airborne radio, broadcasting equipment, electric organs, and other electrical equipment need instant replacement when failures in electronic circuits occur at the capacitor connections. Cinch "Know How" has solved this problem.



SMALL

Designed for use with Mallory and Magnavox 1" FP type condensers. Molded from high dielectric black bakelite. Sturdy steel mounting saddle has 4 ground lugs. 1½" mounting centers. 3 recessed center contacts for extended prongs of condenser and two outer contacts flush with surface for short prongs of condenser. All contacts are solder coated for fast, easy soldering.

No.	Net Price
2C5	**Each $ .38**



LARGE

Designed for use with Mallory and Magnavox $1\frac{3}{8}$" FP type condensers. Molded from high dielectric black bakelite. Sturdy steel saddle has $1\frac{27}{32}$" mounting centers. Four recessed center contacts for extended prongs of condenser and three outer contacts flush with surface for short prongs of condenser. All contacts are solder coated.

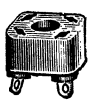
No.	Net Price
2C7	**Each $ .47**

CRYSTAL SOCKETS

2 PRONG 31/64" CENTERS

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Silver plated beryllium copper contacts on $\frac{31}{64}$" centers. .120" diameter recessed mounting hole. Socket body is $\frac{29}{32}$" long, $\frac{1}{16}$" thick, and $\frac{25}{64}$" high. For use with FT243 type crystal.

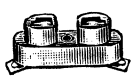
No.	Description	Net Price
2KB	**Black**	**Each $ .15**
2KM	**Mica-Filled**	**Each .17**



4 PRONG

Molded from mica-filled low loss bakelite. Silver plated beryllium copper contacts on $\frac{31}{64}$" centers. .140 diameter mounting hole recessed $\frac{9}{64}$" from surface in $\frac{1}{16}$" diameter hole. Socket body is $\frac{29}{32}$" long, $\frac{25}{64}$" wide, and ½" high. Designed for use with two No. FT243 type crystals.

No.	Net Price
2K4	**Each $ .27**



2 PRONG ½' CENTERS

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Silver plated phosphor bronze contacts on ½" centers. No. 4-40 tap mounting hole. $1\frac{1}{8}$" long, ⅜" wide and $\frac{7}{16}$" high. For No. CR-1 and CR-7 type crystals.

No.	Description	Net Price
2K1B	**Black**	**Each $ .31**

Made of ceramic material. Silver plated beryllium copper contacts with hot tinned tails, mounted on .486" centers. ⅛" mounting hole, ⅞" long, ⅜" wide and ⅝" high overall. Similar to above except the tails extend straight down. For No. CR-7 and BH-6 crystals.

2K2C	**Ceramic**	**Each**	**.19**

MINIMUM BILLING $25.00

Net

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7 PIN MINIATURE SOCKETS AND SHIELDS

MOLDED SADDLE TYPE
Top Mount

Molded from high dielectric black bakelite, mica-filled low loss bakelite, or ceramic material. Cadmium plated steel saddle with 7/8" mounting centers and .093 diameter mounting holes. Solder coated brass contacts. Designed for mounting through top of chassis in 5/8" diameter hole. Will securely hold all standard seven pin miniature tubes.

No.	Description	Net Price
7AB1	Black	Each $ .09
7AM1	Mica-Filled	Each .11

MOLDED SADDLE TYPE
Bottom Mount

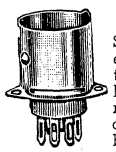
Molded from high dielectric black bakelite or mica-filled low loss bakelite. Cadmium plated steel saddle with 7/8" mounting centers. .093 diameter mounting holes. Solder coated positive grip brass contacts. Designed for mounting through bottom of chassis in 5/8" diameter hole. For use with all standard seven pin miniature tubes.

No.	Description	Net Price
7EB	Black	Each $ .09
7EM	Mica-Filled	Each .11

MOLDED SADDLE TYPE
Bottom Mount

Molded of mica filled low loss bakelite or ceramic material. Materials and finishes are those required by MIL-12883-A specifications. Saddle has 7/8" mounting centers.

No.	Description	MIL type 12883-A	Net Price
7JM-3	Mica	TS102P03	Each $ .21
7JC-3	Ceramic	TS102C03	Each .33



SHIELD BASE TYPE

Shield base is attached to socket body for mounting through top of chassis. Molded from high dielectric black bakelite, mica-filled low loss bakelite or ceramic material. Solder coated brass contacts and center shield. Cadmium plated steel shield base with 7/8" mounting centers. Use No. 7S2, 7S3, or 7S4 shields illustrated below with these sockets.

No.	Description	Net Price
7XB1	Black	Each $ .17
7XM1	Mica-Filled Bakelite	Each .19
7XC	Ceramic	Each .32

Molded from mica filled low loss bakelite or ceramic material. Shield base is attached to socket body for mounting through top of chassis. Same type as illustrated at the left. Materials and finishes are those required by JAN-S-28A Specifications. Shield base has 7/8" mounting centers.

Use No. 7SJ2, 7SJ3 or 7SJ4 shields as shown below.

No.	Description	JAN Type No.	Net Price
7JC-2	Ceramic	TS102C01	$ .32
7JM-2	Mica	TS102P01	.24
7JMN-1	Mica	TS102P02	.23
7JCN-1	Ceramic	TS102C02	.33

WAFER TYPE SOCKET

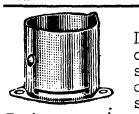
Laminations consist of 1/32" top plate and 3/64" bottom plate made from high grade chocolate XP Bakelite. Solder coated brass contacts and center shield.

No.	Mtg. Centers	Mtg. Hole	Net Price
7W2A	7/8"	.093	$ .07
7WL2	1"	.093	.07
7WL4	1-5/16"	.136	.08

SHIELD BASES — Snap-On Type

Base is made of hardened, carbon steel supplying adequate spring retentivity on shield. Base has 7/8" mounting centers with mounting holes that coincide with those for miniature 7 pin sockets as established by R. M. A. standards. For use with saddle type sockets with 7/8" mounting centers illustrated on this page.

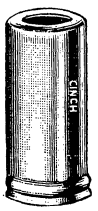
No.	Description	Net Price
7SB3	11/32" High	Each $ .04



For J Slot Type

Durable steel shield bases designed for use with "J" slot type shields illustrated at left. Available in two sizes: 7/16" high or 5/8" high. Both types have 7/8" mounting centers.

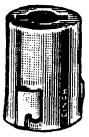
No.	Description	Material	Net Price
7SB1	5/8" High	Steel	Ea. $ .05
7SB2	5/8" High	Brass	Ea. .07



TUBE SHIELD
Snap-On Type

Shield fits over and outside of shield base. Indentation on shield locks into ridge on base of 7SB3 as shown above.

No.	Description	Net Price Each
7S1	1-53/64" High	$ .08



TUBE SHIELDS — "J" Slot Type

Durable steel shields complete with tube securing spring. "J" slot feature designed to fit securely with Cinch shield base type sockets, such as 7X series shown above. Also fit 7SB type shield bases shown in end column at right. Available in three lengths:

No.	Description	Net Price
7S2	1 3/8" Long	Each $ .11
7S3	1 3/4" Long	Each .12
7S4	2 1/4" Long	Each .18

Durable brass nickel plated shields complete with non magnetic stainless steel spring. "J" slot feature designed to fit securely with the shield base type sockets listed above. Materials and finishes are those required by JAN-S-28A Specifications. Available in the sizes listed below.

No.	Description	JAN Type No.	Net Price
7SJ2-1	1 3/8" Long	TS102U01	$ .18
7SJ3-1	1 3/4" Long	TS102U02	.18
7SJ4-1	2 1/4" Long	TS102U03	.19

9 PIN MINIATURE SOCKETS AND SHIELDS

MOLDED — SADDLE TYPE
Bottom Mount

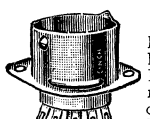
Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through bottom of chassis in 3/4" diameter hole. 1 1/8" mounting centers with .093 diameter mounting holes. Solder coated brass contacts and center shield.

No.	Description	Net Price
9EB	Black	Each $ .12
9EM	Mica-Filled Bakelite	Each .14

Bottom Mount

Molded of mica filled low loss bakelite or ceramic material. Materials and finishes are those required by MIL-12883-A specifications. Saddle has 1 1/8" mounting centers.

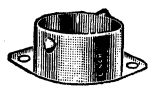
No.	Description	MIL type 12883-A	Net Price
9JM—3	Mica	TS103P03	Ea. $ .23
9JC—3	Ceramic	TS103C03	Ea. .36



SHIELD BASE TYPE

Molded from high dielectric black bakelite, mica-filled low loss bakelite, or ceramic material. One-piece cadmium plated steel shield base and saddle with .093 diameter mounting holes on 1 1/8" centers. Solder coated brass contacts and center shield. Mounts through top of chassis in 3/4" diameter hole. Use Cinch 9S type shields with these sockets.

No.	Description	Net Price
9XB	Black	Each $ .19
9XM	Mica	Each .20
9XC	Ceramic	Each .30

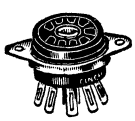


SHIELD BASE

Durable steel shield base designed for use with shields illustrated to right. 1 1/8" mounting centers. May be used with any 9 pin wafer or saddle type sockets shown.

No.	Net Price
9SB1	Each $ .07

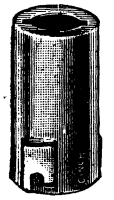
MINIMUM BILLING $25.00



MOLDED—SADDLE TYPE
Top Mount

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through top of chassis in 3/4" diameter hole. 1 1/8" mounting centers with .093 diameter mounting holes. Solder coated brass contacts and center shield.

No.	Description	Net Price
9AB	Black	Each $ .12
9AM	Mica-Filled	Each .14



TUBE SHIELDS

Made from durable steel. Complete with tube securing spring. "J" slot feature designed to fit securely with Cinch 9X series shield base type sockets illustrated to the right. Will also fit No. 9SB-1 shield base shown at left. Available in three lengths.

No.	Description	Net Price
9S1	1 1/2" Long	Each $ .14
9S2	1 13/16" Long	Each .14
9S3	2 3/8" Long	Each .28

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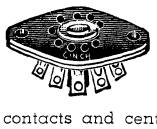
WAFER TYPE



Has two laminations consisting of 1/8" top plate and 3/64" bottom plate made from 1 1/8" mounting centers with .093 diameter holes. Solder coated brass contacts and center shield.

No.	Mtg. Centers	Net Price
9W1	1-1/8"	Each $ .08
9W2	1-5/16"	Each .09

SHIELD BASE TYPE

Molded from mica low loss bakelite or ceramic material. Shield is attached to socket body for mounting through top of chassis. Same type as 9 x Series. Materials and finishes are those required by MIL-12883-A specifications. Use No. 9SJ1, 9SJ2, or 9SJ3 shields listed at right. Phosphor bronze contacts.

No.	Description	MIL-12883-A No.	Net Price
9JM-2	Mica	TS103P01	Ea. $ .27
9JMN-1	Mica	TS103P02	Ea. .23
9JC-2	Ceramic	TS103C01	Ea. .36
9JCN-1	Ceramic	TS103C02	Ea. .36

TUBE SHIELDS

Durable brass nickel plated shields with tube securing spring. "J" slot feature designed to fit securely with the shield type sockets listed at left. Materials and finishes are those required by JAN-S-28A specifications. Available in the sizes listed below.

No.	Description	JAN Type No.	Net Price
9SJ1-1	1 1/2" Long	TS103U01	Ea. $ .19
9SJ2-1	1 15/16" Long	TS103U02	Ea. .21
9SJ3-1	2 3/8" Long	TS103U03	Ea. .23

MOLDED CONNECTOR PLUGS AND SOCKETS

8 CONTACT PLUG

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 1018 retaining ring, or can be used with No. 16F cap shown below. Will fit any standard octal socket.

No.	Net Price
8PB	Each $ .20

11 CONTACT PLUG

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on 1/16" chassis using No. 1018 retaining ring. Can be used with No. 16F cap shown below. Will fit No. 11RB socket shown at right.

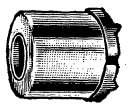
No.	Net Price
11PB	Each $ .25

11 CONTACT SOCKET

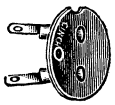
Molded from high dielectric black Bakelite. Solder coated brass contacts. Mounts on 1/16" chassis using No. 1018 retaining ring. Can be used with No. 16F Cap shown below. Used with No. 11PB plug shown at left.

No.	Net Price
11RB	Each $ .26

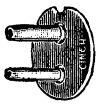
CONNECTOR PLUGS AND SOCKETS



18G

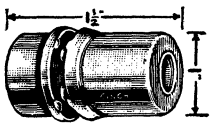


6K2



5K2

18E



Assembled

These low cost plugs and sockets are ideal for a multitude of applications. A "Cinch" where space is at a premium. Complete assembly of plug, socket, male and female shell will close to a compact unit of 1 1/2" long. Polarized—Nickel plated brass tube pins—Solder coated brass contacts. Plugs, sockets and shells have lock feature which prevents turning in shells.

PLUGS

Part No.	No. Prongs	Use Skt. No.	Use Shell No.	Net Price
5K2	2	6K2	18E	.05 ea.
5K3	3	6K3	18E	.06 ea.
5K4	4	6K4	18E	.07 ea.
5K5	5	6K5	18E	.08 ea.
5K6	6	6K6	18F	.09 ea.

SOCKETS

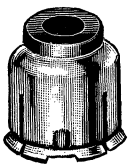
Part No.	No. Prongs	Use Skt. No.	Use Shell No.	Net Price
6K2	2	5K2	18G	.05 ea.
6K3	3	5K3	18G	.05 ea.
6K4	4	5K4	18G	.06 ea.
6K5	5	5K5	18G	.07 ea.
6K6	6	5K6	18H	.08 ea.

PLUG CAPS AND SHELLS

For above Battery Plugs and for Connector Plugs and Sockets Shown Above.

Cadmium plated brass shell with rolled edge on 5/16" diameter neck opening. Outside diameter at base .625. Four 1/8" prongs coincide with notches on plugs. Designed for use with Cinch No. 5A1, 5B1, 5AB2, and 5AB3 type battery plugs.

No.	Net Price
18A-1	Each $ .02



Made of steel, cadmium plated. Designed to snap on 8 and 11 prong sockets which are grooved for a 1/16" chassis. There is a screwdriver slot at the bottom to facilitate easy removal. Rubber grommet has a 25/64" dia. hole.

No.	Net Price
16F	Each $ .27

Cadmium plated brass shells complete with fibre insulator. Available with 3/8" or 1/2" diameter hole with rolled edge. Inside diameter 31/32". 1/2" high. For use with Cinch No. 5C1, 5C2, 5AB6, 5AB7, 5AB8, 5K2, 5K3, 5K4, 5K5, and 5K6 type plugs.

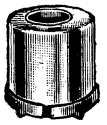
No.	Description	Net Price
18E	3/8" Diameter Hole	Each $ .05
18F	1/2" Diameter Hole	Each .05

Cadmium plated brass shell complete with fibre insulator. Same as Cinch No. 18B shell except has 1/2" neck with 3/8" hole riveted to base. For use with same plugs as No. 18B.

No.	Net Price
18J-1	Each $ .08

Cadmium plated brass shell with 23/64" diameter opening on top of shell. Outside diameter at base .625. Four 1/8" prongs coincide with notches on plugs. 1/2" high. Designed for use with Cinch No. 5A1, 5B1, 5AB2, and 5AB3 type battery plugs.

No.	Net Price
18B-1	Each $ .02



Cadmium plated steel shells complete with fibre insulator. Available with 3/8" or 1/2" diameter hole with rolled edge. Inside diameter 31/32". 29/32" high. For use with Cinch No. 6K2, 6K3, 6K4, 6K5, and 6K6 type sockets.

No.	Description	Net Price
18G	3/8" Diameter Hole	Each $ .05
18H	1/2" Diameter Hole	Each .05

STRAP NUTS

NO. 7SN

Cadmium plated brass straps nuts are designed for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers 7/8". For 7 contact sockets. **Net Ea. .09**

Same as No. No. 7SN except mounting centers are 1 1/8" and are for 9 contact sockets. **Net Ea. .09**

NO. 9SN

MINIMUM BILLING $25.00

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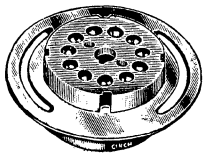
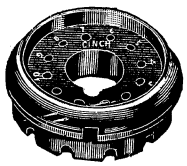
MAGNAL—11 PRONG



Molded from mica-filled low loss bakelite. Socket is $1\frac{23}{32}$" wide and $1\frac{9}{64}$" high. Full floating silver plated beryllium copper contacts designed to insure easy insertion of tubes and yet provided excellent electrical connections. For use with 5BP1 and 2AP1 type cathode ray tubes.

No.	Description	Net Price
3M11	Mica Socket	Each $3.60
3R11	Steel Mounting Ring	Each .24

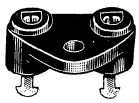
DUODECAL — 12 PRONG



Slightly larger in diameter than the tube base and only slightly longer than the tube pin. A new feature incorporates wire strain relief as an integral part of the contact. Molded from high dielectric black bakelite. For use with 10BP4, 2BP1, 5TP4, etc., type tubes. Also RCA 6199 tube.

No.		Net Price Ea.
3B12		$ .48
3M12	Mica	1.44

MOLDED POWER TRANSISTOR SOCKET



New molded power transistor socket. Casting molded of general purpose Bakelite. Contacts are of phosphor bronze, cadmium plated. This transistor socket may be used with the following RETMA base designations: E 3-14, E 3-15, E 3-25, E 3-32, E 3-38, E 3-39, E 3-42, E 3-43, E 3-44, E 3-51, E 3-53, E 4-13, E 4-24, E 4-31, E 4-43, E 4-52, ET 103-D.

No. 2TS-3 — **Net Ea. .09**

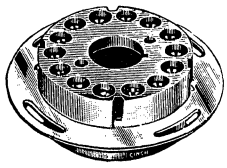
110-250 VOLT SOCKET

(Underwriters Listed)

When space is at a premium use this 110-250 volt 2 prong socket. Rated at 15 Amp., 110 V. or 10 Amp., 250 V. Molded from high dielectric black bakelite. Solder coated brass contacts on ½" centers designed to accept any 2 prong standard electric plug. Mounts in $\frac{25}{64}$" x $\frac{25}{32}$" hole. .144 diameter mounting holes on $1\frac{1}{8}$" centers. Ideal for radio chassis and many other applications.

No.	Net Price
2R2	Each $ .15

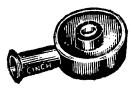
DIHEPTAL 14 PRONG



Molded from high dielectric black bakelite or mica-filled low loss bakelite. $2\frac{7}{32}$" wide and $1\frac{1}{8}$" high. Possesses same features as Cinch Magnal socket shown at left.

No.	Description	Net Price
3B14	Black Socket	Each $ .84
3M14	Mica Socket	Each 1.08
3R14	Steel Mounting Ring	Each .24

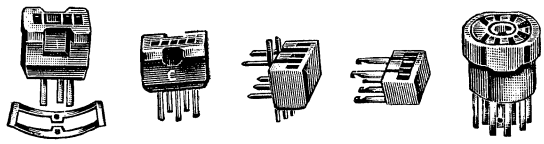
SECOND ANODE CONNECTOR



For diheptal based tubes. Cadmium plated brass contact surrounded by rubber insulator ¾" wide and $1\frac{3}{16}$" long. Snaps over .096 diameter prong on side of diheptal tubes.

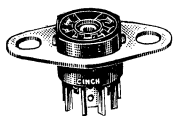
No.	Net Price
3A1	Each $ .57

SUB-MINIATURE SOCKETS



No. 2H3 **No. 2H5** **No. 5PC** **No. 5WC** **No. 8SM**

Use extensively for hearing aids, radios and other electronic apparatus which require sub-miniature tubes. Molded from mica-filled low loss bakelite with silver plated beryllium copper contacts. Available with 3, 5, 6, 7 or 8 contacts. Four prong tubes use No. 2H5 five prong socket. No. 2H5 can be used as a transistor socket. No. 5PC for printed circuits. No. 5WC for wired circuits.



No. 8SM-P
This socket is the same as No. 8SM shown above except that it is furnished with a mounting plate.

No.	Description	Net Price
*2H3	3 Prong	Each $ .18
*2H5	5 Prong	Each .204
*2H6	6 Prong	Each .29
*2H7	7 Prong	Each .31
5PC	5 Prong	Each .40
5WC	5 Prong	Each .38
*8SM	8 Prong	Each .44
8SM-P	8 Prong	Each .54

*Mtg. Ring included.

PIN PLUGS — JACKS — CONNECTORS — STRIPS — TERMINALS

PHONO PLUGS

R.C.A. type. For a multitude of applications: record players, auto radios, receivers, recording and reproducing equipment, experimental units, etc. Nickel plated ⅛" diameter tube pin. Available in two lengths: $\frac{9}{16}$" and $\frac{11}{16}$". Use No. 13A with type 81A and 81B phono jacks. Use No. 13E with type 81E extension jack.

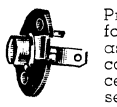
No.	Description	Net Price
13A	$\frac{9}{16}$" Pin	Each $ .04
13E	$\frac{11}{16}$" Pin	Each .04

ANTENNA PLUG

Motorola type. Nickel plated ⅛" tube pin extends $\frac{13}{32}$" from cadmium plated split brass shall whose 8 cutting edges provide positive grounded connection when inserted into a Cinch No. 81C or 81F connector.

No.	Net Price
13B	Each $ .12

SINGLE PHONO JACK



Precision engineered for many uses, such as: R.C.A. type recording units, receivers, and auto sets. Single prong positive grip phono jack mounted on $\frac{1}{16}$" chocolate bakelite disc with $1\frac{1}{16}$" mounting centers Use Cinch No. 13A phono plug with this jack.

No.	Net Price
81A	Each $ .05

ANTENNA CONNECTOR

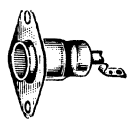
Shell Type

Same as No. 81F on right except without flange. This connector may be soldered in position. Use Cinch No. 13B antenna plug with this jack.

No.	Net Price
81C	Each $ .07

ANTENNA CONNECTOR

Flange Type



Motorola type shielded jack Sturdy steel flange with $1\frac{5}{8}$" mtg. centers with .136 dia. mtg. holes. Solder coated shell, flange and contact. Can be mounted with screws or rivets. Used extensively on auto radios. Use Cinch No. 13B antenna plug with this jack.

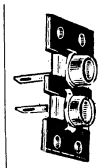
No.	Net Price
81F	Each $ .12

INSULATED PIN PLUG

Nickel plated ⅛" brass tube pin $\frac{9}{16}$" long, assembled to $\frac{3}{32}$" long fibre insulator. May be used with Cinch No. 81A and 81B type phono jacks or with No. 49 series contact strips illustrated on page F-35.

No.	Net Price
13C-1	Each $ .05

DOUBLE PHONO JACK



Two positive grip phono jacks mounted on ¼" bakelite panel with $1\frac{3}{16}$" mounting centers. Jacks are spaced on ½" centers. Panel is $1\frac{1}{2}$" x ½". Used on recording units, receivers, etc. Use Cinch No. 13A phono plug with this jack.

No.	Net Price
81B	Each $ .10

SHIELDED EXTENSION JACK

Cadmium plated brass shell $2\frac{7}{16}$" long with black bakelite insert providing insulation for solder coated brass positive grip contact. Use Cinch No. 13E Phono plug with this jack.

No.	Net Price
81E	Each $ .29

MINIMUM BILLING $25.00

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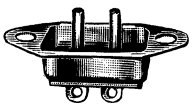
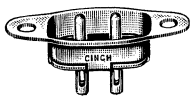


RECESSED PLUG

Recessed subpanel mounting type plug. Underwater approved for 125 Volts 7 amperes. Perfect for current supply for Television sets. 1¼" mounting centers. Overall length 1⅝". Width ⅝". Body depth ¼".

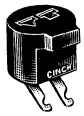
No.	Net Price Ea.
2RP	$ .15



RECESSED PLUG

Recessed sub-panel mounting type plug similar to No. 2RP except that the contact is one piece. Underwriter Approved for 125 Volts 7 amperes. Same dimensions as 2RP.

No. 2RP-1 **Net Ea. $ .07**



CETRON TUBE SOCKET

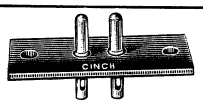
This socket is designed for use with Cetron Tubes CE701 and CE702 in such applications as electric eye doors and motion picture projectors. Contacts are of special alloy spring brass. May be mounted by press fit, gluing or by means of mounting ring 2MR.

	Casting Material	
No. 2B2	Black	Net Ea. $ .72
No. 2M2	Mica	Net Ea. 1.05

SINGLE PHONO JACK

Similar to No. 81A except that it has a ceramic bushing and three laminated bakelite insulation plates with brass mounting plate. Mounting holes are 11/64" diameter. Fits No. 13A Phono plug.

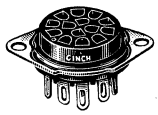
No. 81G **Net Ea. $ .20**



CONNECTOR PLUG

This plug consists of two prongs mounted on a piece of Bakelite. The prongs are the same as used in No. 2RP-1. Mounting plate is of 1/16" natural XP Bakelite 1⅝" x ¾". The .135 mounting holes are on 1¼" centers. An inexpensive current supply connector for TV sets.

No. 2FP **Net Ea. $ .06**

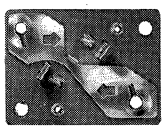


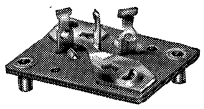
RELAY SOCKET

A 14 contact relay socket. Casting is of mica insulation. Contacts are of beryllium copper, silver plated with hot tinned tails. Overall length of top mount saddle 1-11/32". Mounting centers 1⅛".

No. 14RS **Net Ea. $ .60**

POWER TRANSISTOR SOCKETS





No. 2TS-1 is rectangular in shape. Top and bottom plates are of natural XP Bakelite, vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. .104/.110 dia. hole in C R steel plate. Provides easy attachment to a heat sink.

No. 2TS-2 is identical with 24324 except it is equipped with integral eyelets for easy assembly to chassis.

No. 2TS-1 **Net Ea. $ .09**

No. 2TS-2 **Ea. .11**

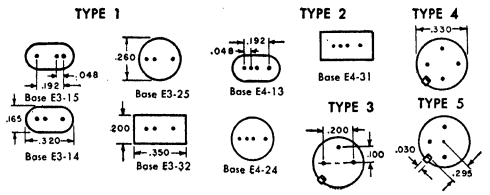
TRANSISTOR SOCKET

New transistor socket designed to the triangular base layout .2" x .1" (JETEC-30) contact centers, as well as the three contact in line (.048 x .192 contact centers.) This socket was originally designed for all transistor television set; however, its future applications are many; industrial communications, test equipment, bread board circuits, etc. Casting is molded of general purpose Bakelite, contacts are of phosphor bronze, cadmium plated.

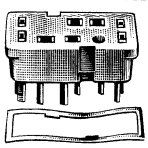
No. 2TS-4 **Net Ea. $ .17**

UNIVERSAL TRANSISTOR SOCKET

New universal transistor socket for use with all transistor bases shown below. Casting is of mica filled phenolic (MFE). Contacts ore of beryllium copper, gold plated. Contacts may be used with either one or two sided 1/16" printed circuit boards.



No. 7-UTS **Net Price Ea. $ .77**

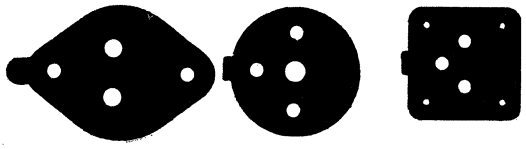


RELAY SOCKET

This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are of beryllium copper, silver plated P-31-3. The mounting clip No. 20731 is furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filtors P.26.A1.P.6A, G. E. D200A & G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact type).

No. 8RS **Net Price Ea. $ .46**

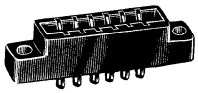
HEAT SINKS



2W—1 **2W—2** **2W—3**

These hard anodized aluminum insulator wafers are for use with Power Transistors. They have high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.

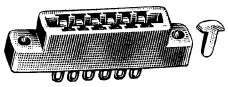
No.	Description	
2W-1	For Motorola transistor 2N-179, 2N-176 and 2N-554.	Net Ea. $ .25
2W-2	For Delco transistor 2N-174.	Ea. .25
2W-3	For Texas Instrument transistor 2N-389.	Ea. .25



No. 50-6-D

UNIVERSAL EDGE CONNECTOR

Cinch universal edge connector. Insulation material is of asbestos filled Diallyl Phthalate. Contacts are of phosphor bronze with silver finish followed with a gold flash. Made in 6 through 25 contacts. When ordering use center number to indicate the number of contacts required. See price sheet for prices of entire series.

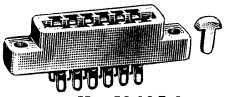


No. 50-6-A

PRINTED CIRCUIT EDGE CONNECTOR

Single contact type

Cinch universal double action contact molded printed wire edge connector. Made in 6 through 25 contacts. Designed for nominal 1/16" printed wire boards, either single or two sided copper. Insulation material is of glass filled Diallyl Phthalate (type GDI-30 per MIL. M-19833). Contacts are of phosphor bronze with Sel-Rex gold plate. A No. 20H29401-4 plastic polarizing key is furnished with each connector. When ordering, the center number indicates the number of contacts required. For instance, a 12 contact connector would be No. 50-12-A. See price sheet for prices of entire series.



No. 50-12A-1

PRINTED CIRCUIT EDGE CONNECTOR

Dual contact type

Cinch universal double action contact printed wire edge connector. Made in 12 through 50 contacts. It is the same as the No. 50-6-A except being the dual contact type. A No. 20H29401-4 plastic polarizing key is furnished with each connector. When ordering use the center number to indicate the number of contacts required. See price sheet for prices of entire series.

MINIMUM BILLING $25.00

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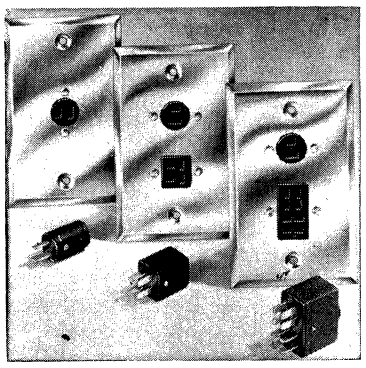
TELEVISION WALL PLATES



302 SERIES

The 302 series wall plates are made of steel with a heavy chrome plate and provide a convenient junction between antenna lead in and television set. They all fit a standard outlet box. Mounting screws furnished. S-302-WPC provides connection for antenna lead in. S-302-4WPC provides connections for antenna lead in and up to 8 contact rotor.
Jones P-302-FHT plug can be used for the antenna socket and a P-304-FHT or P-308-FHT for the rotor socket.

Net Price Each		
S-302-8WPC	S-302-WPC	S-302-4WPC
1.79	1.67	1.38

LOW LOSS POLYSTYRENE

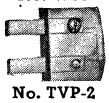
This plate covers every requirement for an up-to-date TV connector. Molded of Polystyrene, it assures perfect reception in fringe areas where low loss is of vital importance. One plate provides connections for UHF and VHF and has a knock out provision for the mounting of a standard S-308-AB socket in case a rotor is used. Fits a standard outlet box or can be attached to the wall. Mounting screws for both the plate and socket are furnished. Supplied in brown or Ivory.

Code	Color	Net Price Ea.
WPI	Ivory	$ .98
WPB	Brown	.98

No. WPB

POLYSTRENE PLUG

The plug is molded of clear polystyrene and matches the 300 Ohm transmission line assuring maximum performance.

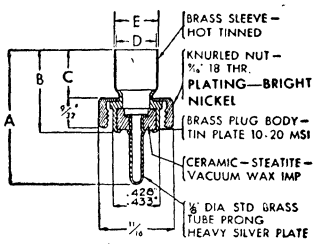


No. TVP-2

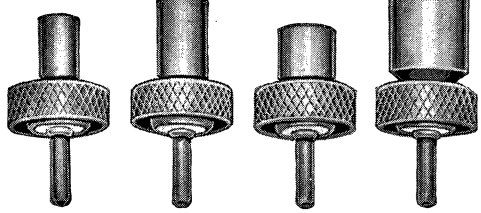
Net Price Plug $ .22

SERIES 101 PLUGS

The entire No. 101 Series of Plugs are identical with the exception of the cable ferrule which is furnished in four sizes as listed below. All metal parts are of brass. These Plugs fit all of the No. 101 Series Sockets. A low loss Plug and Socket ideal for high frequency connections.



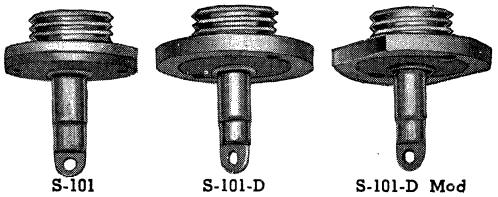
Code No.	A	B	C	D		Net Price Ea.
P-101-1/4"	1-1/4"	3/4"	15/32"	1/4"	9/32"	$ .52
P-101-.290	1-1/4"	3/4"	15/32"	.290	.319	.64
P-101-5/16"	1-11/32"	27/32"	9/16"	5/16"	11/32"	.64
P-101-3/8"	1-3/16"	11/16"	7/16"	3/8"	13/32"	.64
P-101-1/2"	1-7/8"	1-3/8"	1-1/16"	1/2"	9/16"	.71



P-101-¼" P-101-5/16" P-101-⅜" P-101-½"

SERIES 101 SOCKETS

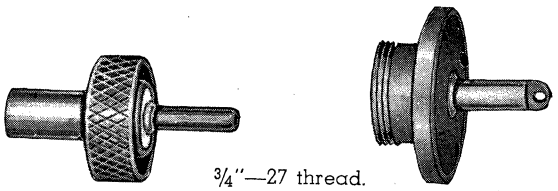
The No. 101 Series Sockets are furnished in three types as shown below. Base is of Brass with Bright Nickel Plated finish. Brass contact is Silver Plated. Insulation of low loss natural color XXX Bakelite. Meets Navy Specifications. The S-101-D is similar to the S-101 except that the Bakelite is recessed in the base. S-101-D Mod. is the same as S-101-D except that two sides of the base are milled as shown. Mounting Holes No. 101—No. 41 drill on 11/16" centers. Mounting holes No. 101-D and 101-D Mod. No. 30 drill on 13/16" centers.



S-101	S-101-D	S-101-D Mod
Net Price Each	Net Price Each	Net Price Each
$0.46	$0.71	$0.71

(Above Illustrations are Actual Size)

SERIES 201



¾"—27 thread.

PLUGS

The No. 201 Series Plugs are of the same design as the No. 101 but are of heavier stock and larger. Made in one size only with ⅜" ferrule. All metal parts are of Brass, same finish as No. 101 Series and Wax Impregnated Ceramic insulation. Overall length 1 9/16". Prong diameter 5/32". Fits only the 201 Socket.

Code	Net Price Ea.
P-201-⅜	$ .82

SOCKETS

The 201 Socket is similar to the S-101-D except larger. Brass base is Bright Nickel Plated. Brass contact is Silver Plated. Insulation is of low loss natural color XXX Bakelite.

Mounting holes — No. 30 drill on 1" centers.

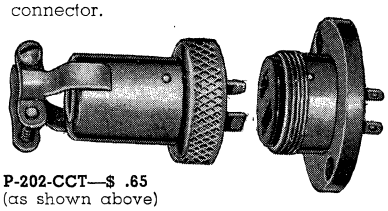
Code	Net Price Ea.
S-201	$ .88

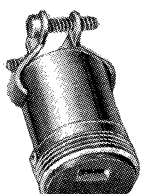
SERIES 202

PLUGS

SOCKETS

The 202 Series Plugs and Sockets are made in two contacts only. Metal parts are of Brass with Bright Nickel Plate. Insulation is of Molded Bakelite. Phosphor Bronze "Knife Switch" type Socket Contacts engage both sides of flat Plug Contacts—double contact area. Formed Fibre linings in caps. Polarized. Knurled nut has ¾"—27 thread.
Socket Mounting Holes. No. 30 drill on 1" centers.
The S-202-CCT-THR has been added to this series and when used with the P-202-CCT will make an ideal microphone connector.





P-202-CCT—$ .65
(as shown above)

S-202-CCT—$ .66
(Socket instead of Plug)

P-202-FHT—$ .52
(Same as above less Cable Clamps)

S-202-FHT—$ .53
(Same except Socket)

Net Prices

S-202-B—$ .77
(Socket for Base Mtg.)

P-202-B—$ .74
(Same as above except with Plug)

S-202-CCT-THR—$ .88
(as shown above)

Used with **P-202-CCT** as an extension connection

MINIMUM BILLING $25.00

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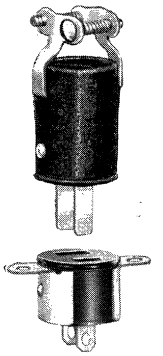
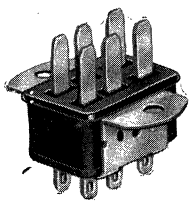
"300" SERIES PLUGS AND SOCKETS

General Specifications



Small in size with good separation between contacts. Made in sizes of 2 to 33 contacts. All Plugs and Sockets are polarized so that Plugs of one size cannot fit into Sockets of another size. Body of Molded Bakelite. Phosphor bronze "knife-switch" type Socket contacts engage both sides of flat Plug contacts—double contact area. Plug prongs are 5/32" wide by 3/64" thick. Formed metal caps are finished in Black Crystal. Fibre linings for caps are also formed. Plugs and Sockets arranged for either cap or panel mounting. Two contact Plugs and Sockets are round as shown at the right, all others are rectangular. Illustrated are the P-302-CCT and S-302-AB. Standard 24 to 33 contact Plugs have a special long polarizing pin in approximate center position to assist in correct insertion and removal.

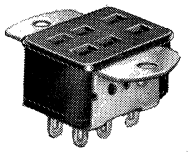
Plug with Angle Brackets



P-306-AB

No.	Contacts	Net Price Each
P-302-AB	2	$0.20
P-303-AB	3	.25
P-304-AB	4	.27
P-306-AB	6	.34
P-308-AB	8	.40
P-310-AB	10	.45
P-312-AB	12	.50

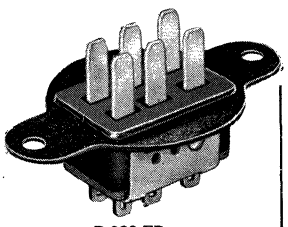
Socket with Angle Brackets



S-306-AB

No.	Contacts	Net Price Each
S-302-AB	2	$0.22
S-303-AB	3	.26
S-304-AB	4	.29
S-306-AB	6	.36
S-308-AB	8	.45
S-310-AB	10	.53
S-312-AB	12	.62

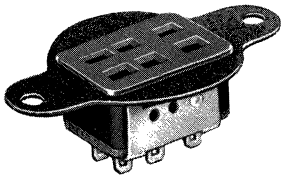
Plug with Flush Plate



P-306-FP

No.	Contacts	Net Price Each
P-302-FP	2	$0.35
P-303-FP	3	.38
P-304-FP	4	.41
P-306-FP	6	.46
P-308-FP	8	.53
P-310-FP	10	.58
P-312-FP	12	.63

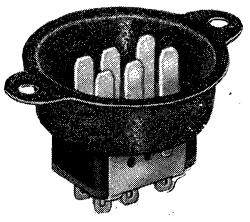
Socket with Flush Plate



S-306-FP

No.	Contacts	Net Price Each
S-302-FP	2	$0.35
S-303-FP	3	.40
S-304-FP	4	.43
S-306-FP	6	.49
S-308-FP	8	.58
S-310-FP	10	.67
S-312-FP	12	.75

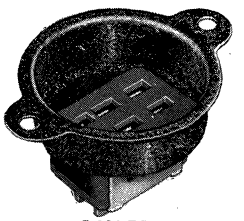
Plug with Recessed Plate



P-306-RP

No.	Contacts	Net Price Each
P-302-RP	2	$0.40
P-303-RP	3	.43
P-304-RP	4	.47
P-306-RP	6	.54
P-308-RP	8	.62
P-310-RP	10	.72
P-312-RP	12	.79

Socket with Recessed Plate



S-306-RP

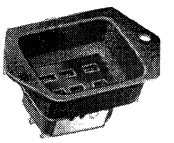
No.	Contacts	Net Price Each
S-302-RP	2	$0.41
S-303-RP	3	.46
S-304-RP	4	.49
S-306-RP	6	.59
S-308-RP	8	.68
S-310-RP	10	.79
S-312-RP	12	.90

Plug with Deep Bracket

P-306-DB

No.	Contacts	Net Price Each
P-302-DB	2	$0.50
P-303-DB	3	.54
P-304-DB	4	.58
P-306-DB	6	.63
P-308-DB	8	.68
P-312-DB	12	.80

Socket with Deep Bracket

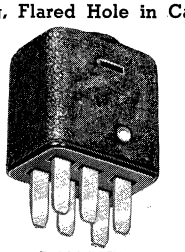


S-306-DB

No.	Contacts	Net Price Each
S-302-DB	2	$0.52
S-303-DB	2	.56
S-304-DB	4	.59
S-306-DB	6	.67
S-308-DB	8	.75
S-312-DB	12	.92

The ten contract is not available in this series

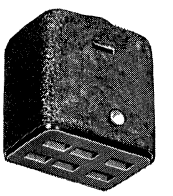
Plug, Flared Hole in Cap



P-306-FHT

No.	Contacts	Net Price Each
P-302-FHT	2	$0.34
P-303-FHT	3	.37
P-304-FHT	4	.41
P-306-FHT	6	.46
P-308-FHT	8	.53
P-310-FHT	10	.59
P-312-FHT	12	.67

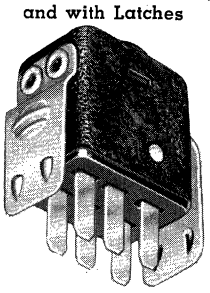
Socket, Flared Hole in Cap



S-306-FHT

No.	Contacts	Net Price Each
S-302-FHT	2	$0.35
S-303-FHT	3	.38
S-304-FHT	4	.41
S-306-FHT	6	.49
S-308-FHT	8	.59
S-310-FHT	10	.68
S-312-FHT	12	.77

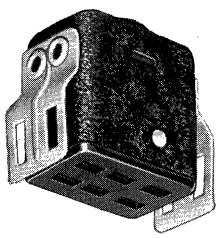
Plug, Flared Hole in Cap and with Latches



P-306-FHT-L

No.	Contacts	Net Price Each
P-302-FHT-L	2	$0.46
P-303-FHT-L	3	.49
P-304-FHT-L	4	.53
P-306-FHT-L	6	.59
P-308-FHT-L	8	.65
P-310-FHT-L	10	.73
P-312-FHT-L	12	.79

Socket, Flared Hole in Cap and with Keepers



S-306-FHT-K

No.	Contacts	Net Price Each
S-302-FHT-K	2	$0.46
S-303-FHT-K	3	.50
S-304-FHT-K	4	.54
S-306-FHT-K	6	.62
S-308-FHT-K	8	.72
S-310-FHT-K	10	.80
S-312-FHT-K	12	.90

MINIMUM BILLING $25.00

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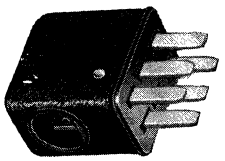
"300" SERIES PLUGS AND SOCKETS

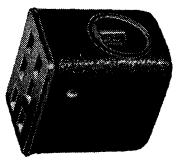
Plug, Flared Hole in End



P-306-FHE

No.	Contacts	Net Price Each
P-306-FHE	6	$0.46
P-308-FHE	8	.53
P-310-FHE	10	.59
P-312-FHE	12	.67

Socket, Flared Hole in End

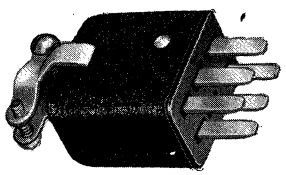


S-306-FHE

No.	Contacts	Net Price Each
S-306-FHE	6	$0.49
S-308-FHE	8	.59
S-310-FHE	10	.68
S-312-FHE	12	.77

Small size of caps of 302, 303 and 304 will not permit FHE type.

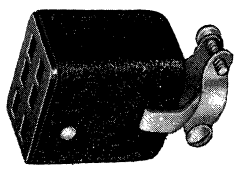
Plug, Cable Clamp in Cap



P-306-CCT

No.	Contacts	Net Price Each
P-302-CCT	2	$0.46
P-303-CCT	3	.49
P-304-CCT	4	.53
P-306-CCT	6	.59
P-308-CCT	8	.65
P-310-CCT	10	.73
P-312-CCT	12	.79

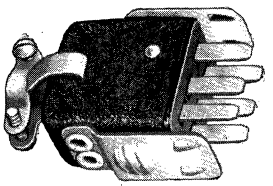
Socket, Cable Clamp in Cap



S-306-CCT

No.	Contacts	Net Price Each
S-302-CCT	2	$0.46
S-303-CCT	3	.50
S-304-CCT	4	.54
S-306-CCT	6	.62
S-308-CCT	8	.72
S-310-CCT	10	.80
S-312-CCT	12	.92

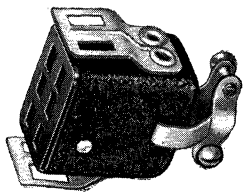
Plug, Cable Clamp in Cap and with Latches



P-306-CCT-L

No.	Contacts	Net Price Each
P-302-CCT-L	2	$0.58
P-303-CCT-L	3	.61
P-304-CCT-L	4	.66
P-306-CCT-L	6	.72
P-308-CCT-L	8	.77
P-310-CCT-L	10	.84
P-312-CCT-L	12	.93

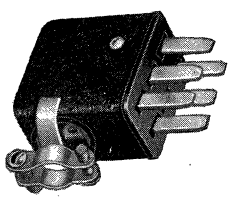
Socket, Cable Clamp in Cap and with Keepers



S-306-CCT-K

No.	Contacts	Net Price Each
S-302-CCT-K	2	$0.59
S-303-CCT-K	3	.62
S-304-CCT-K	4	.67
S-306-CCT-K	6	.74
S-308-CCT-K	8	.83
S-310-CCT-K	10	.94
S-312-CCT-K	12	1.03

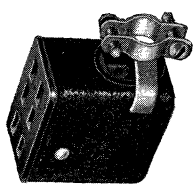
Plug, Cable Clamp in End



P-306-CCE

No.	Contacts	Net Price Each
P-306-CCE	6	$0.59
P-308-CCE	8	.65
P-310-CCE	10	.73
P-312-CCE	12	.79

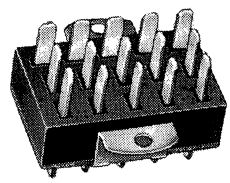
Socket, Cable Clamp in End



S-306-CCE

No.	Contacts	Net Price Each
S-306-CCE	6	$0.62
S-308-CCE	8	.72
S-310-CCE	10	.80
S-312-CCE	12	.92

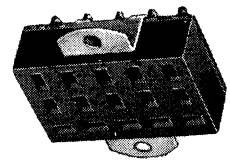
Plug with Angle Brackets



P-315-AB

No.	Contacts	Net Price Each
P-315-AB	15	$0.66
P-318-AB	18	.82
P-321-AB	21	1.03
P-324-AB	24	1.25
P-327-AB	27	1.47
P-330-AB	30	1.69
P-333-AB	33	1.90

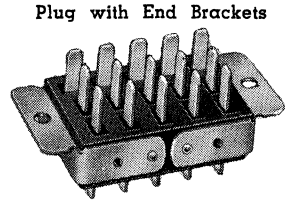
Socket with Angle Brackets



S-315-AB

No.	Contacts	Net Price Each
S-315-AB	15	$0.77
S-318-AB	18	.93
S-321-AB	21	1.15
S-324-AB	24	1.36
S-327-AB	27	1.58
S-330-AB	30	1.81
S-333-AB	33	2.02

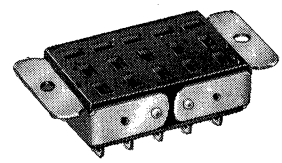
Plug with End Brackets



P-315-EB

No.	Contacts	Net Price Each
P-315-EB	15	$0.66
P-318-EB	18	.82
P-321-EB	21	1.03
P-324-EB	24	1.25
P-327-EB	27	1.47
P-330-EB	30	1.69
P-333-EB	33	1.90

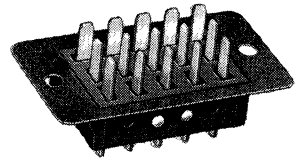
Sockets with End Brackets



S-315-EB

No.	Contacts	Net Price Each
S-315-EB	15	$0.77
S-318-EB	18	.93
S-321-EB	21	1.15
S-324-EB	24	2.27
S-327-EB	27	2.63
S-330-EB	30	3.01
S-333-EB	33	3.36

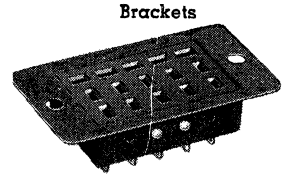
Plug with Shallow Brackets



P-315-SB

No.	Contacts	Net Price Each
P-315-SB	15	$0.98
P-318-SB	18	1.21
P-321-SB	21	1.42
P-324-SB	24	1.69
P-327-SB	27	1.90
P-330-SB	30	2.17
P-333-SB	33	2.39

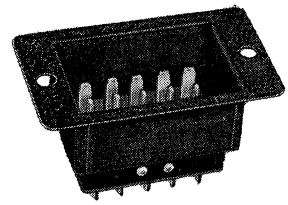
Sockets with Shallow Brackets



S-315-SB

No.	Contacts	Net Price Each
S-315-SB	15	$1.10
S-318-SB	18	1.31
S-321-SB	21	1.53
S-324-SB	24	1.81
S-327-SB	27	2.02
S-330-SB	30	2.29
S-333-SB	33	2.51

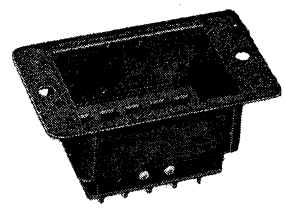
Plug with Deep Bracket



P-315-DB

No.	Contacts	Net Price Each
P-315-DB	15	$0.98
P-318-DB	18	1.21
P-321-DB	21	1.42
P-324-DB	24	1.69
P-327-DB	27	1.90
P-330-DB	30	2.18
P-333-DB	33	2.39

Socket with Deep Bracket



S-315-DB

No.	Contacts	Net Price Each
S-315-DB	15	$1.10
S-318-DB	18	1.31
S-321-DB	21	1.53
S-324-DB	24	1.81
S-327-DB	27	2.02
S-330-DB	30	2.29
S-333-DB	33	2.51

MINIMUM BILLING $25.00

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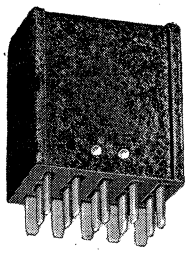
CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

"300" SERIES PLUGS AND SOCKETS

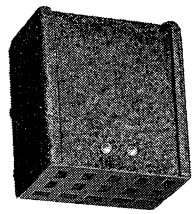
Plug with Flared Hole in Top of Cap



P-315-FHT

No.	Contacts	Net Price Each
P-315-FHT	15	$0.87
P-318-FHT	18	1.09
P-321-FHT	21	1.30
P-324-FHT	24	1.58
P-327-FHT	27	1.81
P-330-FHT	30	2.08
P-333-FHT	33	2.29

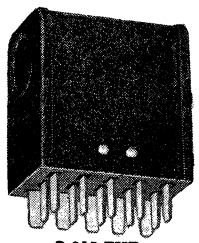
Socket, Flared Hole in Top of Cap



S-315-FHT

No.	Contacts	Net Price Each
S-315-FHT	15	$0.98
S-318-FHT	18	1.21
S-321-FHT	21	1.42
S-324-FHT	24	1.70
S-327-FHT	27	1.91
S-330-FHT	30	2.18
S-333-FHT	33	2.40

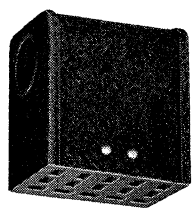
Plug with Flared Hole in End of Cap



P-315-FHE

No.	Contacts	Net Price Each
P-315-FHE	15	$0.87
P-318-FHE	18	1.09
P-321-FHE	21	1.30
P-324-FHE	24	1.58
P-327-FHE	27	1.81
P-330-FHE	30	2.08
P-333-FHE	33	2.29

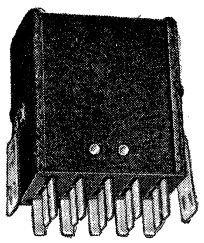
Socket, Flared Hole in End of Cap



S-315-FHE

No.	Contacts	Net Price Each
S-315-FHE	15	$0.98
S-318-FHE	18	1.21
S-321-FHE	21	1.42
S-324-FHE	24	1.70
S-327-FHE	27	1.91
S-330-FHE	30	2.18
S-333-FHE	33	2.40

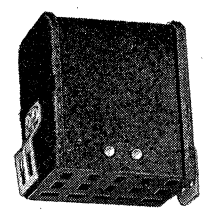
Plug, Flared Hole in Top of Cap with Latches



P-315-FHT-L

No.	Contacts	Net Price Each
P-315-FHT-L	15	$0.98
P-318-FHT-L	18	1.21
P-321-FHT-L	21	1.42
P-324-FHT-L	24	1.70
P-327-FHT-L	27	1.91
P-330-FHT-L	30	2.18
P-333-FHT-L	33	2.40

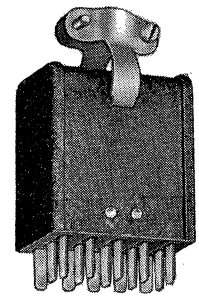
Socket, Flared Hole in Top of Cap and with Keepers



S-315-FHT-K

No.	Contacts	Net Price Each
S-315-FHT-K	15	$1.10
S-318-FHT-K	18	1.31
S-321-FHT-K	21	1.53
S-324-FHT-K	24	1.81
S-327-FHT-K	27	2.03
S-330-FHT-K	30	2.30
S-333-FHT-K	33	2.52

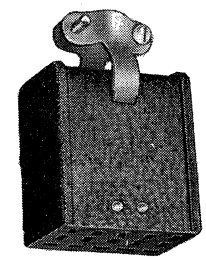
Plug, Cable Clamp in Top of Cap



P-315-CCT

No.	Contacts	Net Price Each
P-315-CCT	15	$1.03
P-318-CCT	18	1.25
P-321-CCT	21	1.47
P-324-CCT	24	1.73
P-327-CCT	27	1.97
P-330-CCT	30	2.92
P-333-CCT	33	2.45

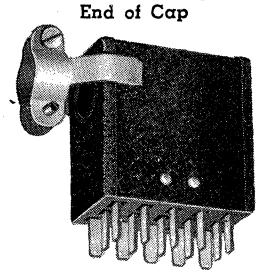
Socket, Cable Clamp in Top of Cap



S-315-CCT

No.	Contacts	Net Price Each
S-315-CCT	15	$1.15
S-318-CCT	18	1.36
S-321-CCT	21	1.58
S-324-CCT	24	1.86
S-327-CCT	27	2.08
S-330-CCT	30	2.40
S-333-CCT	33	2.57

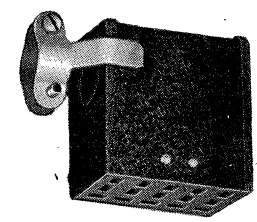
Plug, Cable Clamp in End of Cap



P-315-CCE

No.	Contacts	Net Price Each
P-315-CCE	15	$1.03
P-318-CCE	18	1.25
P-321-CCE	21	1.47
P-324-CCE	24	1.73
P-327-CCE	27	1.97
P-330-CCE	30	2.29
P-333-CCE	33	2.45

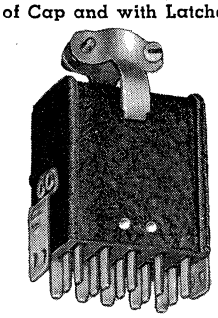
Socket, Cable Clamp in End of Cap



S-315-CCE

No.	Contacts	Net Price Each
S-315-CCE	15	$1.15
S-318-CCE	18	1.36
S-321-CCE	21	1.58
S-324-CCE	24	1.86
S-327-CCE	27	2.08
S-330-CCE	30	2.40
S-333-CCE	33	2.57

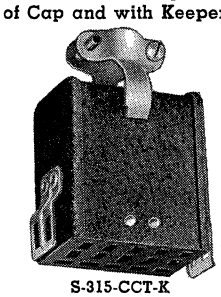
Plug, Cable Clamp in Top of Cap and with Latches



P-315-CCT-L

No.	Contacts	Net Price Each
P-315-CCT-L	15	$1.15
P-318-CCT-L	18	1.36
P-321-CCT-L	21	1.58
P-324-CCT-L	24	1.86
P-327-CCT-L	27	2.08
P-330-CCT-L	30	2.40
P-333-CCT-L	33	2.57

Socket, Cable Clamp in Top of Cap and with Keepers



S-315-CCT-K

No.	Contacts	Net Price Each
S-315-CCT-K	15	$1.26
S-318-CCT-K	18	1.48
S-321-CCT-K	21	1.70
S-324-CCT-K	24	1.97
S-327-CCT-K	27	2.18
S-330-CCT-K	30	2.51
S-333-CCT-K	33	2.67

MINIMUM BILLING $25.00

Net

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CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

"400" SERIES PLUGS AND SOCKETS

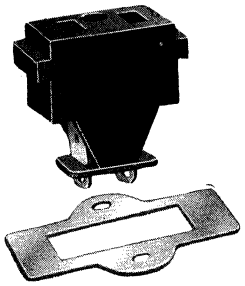
(Formerly "Heavy Duty")

General Specifications

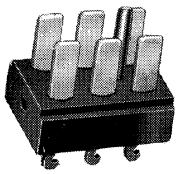
Made in 2, 4, 6, 8, 10 and 12 contacts. All Plugs and Sockets are polarized. Body of molded Bakelite. Phosphor bronze "knife-switch" type Socket contacts engage both sides of flat Plug Contacts—double contact area. Plug prongs are ¼" wide by $\frac{1}{16}$" thick. Caps are finished in Black Crystal and equipped with fibre lining. Plugs and Sockets arranged for cap or panel mounting.

Note: Standard angle brackets cannot be attached to S-402-AB due to narrow block and insufficient material for screw threads. A special bracket is supplied (Type 46) See illustration. The Socket fits into this bracket which is attached to panel.

Check the No. 2400 Series Plugs and Sockets listed on pages F-42 and F-43 which are similar to the 400 Series except their design increases the creepage distances and therefore can take higher voltages.



S-402-AB (No. 46 Bracket)

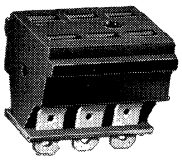


P-406-LAB

PLUG — Less Angle Brackets

Drilled and Tapped Unless Otherwise Specified

Code	Contacts	Net Price Each
P-402-LAB	2	$0.28
P-404-LAB	4	.38
P-406-LAB	6	.50
P-408-LAB	8	.61
P-410-LAB	10	.73
P-412-LAB	12	.84

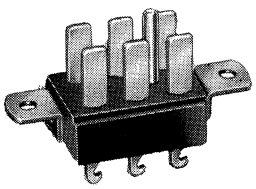


S-406-LAB

SOCKET — Less Angle Brackets

Drilled and Tapped Unless Otherwise Specified

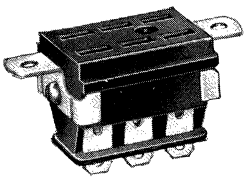
Code	Contacts	Net Price Each
S-402-LAB	2	$0.34
S-404-LAB	4	.50
S-406-LAB	6	.74
S-408-LAB	8	.84
S-410-LAB	10	1.00
S-412-LAB	12	1.16



P-406-AB

PLUG — With Angle Brackets

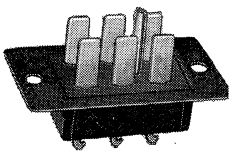
Code	Contacts	Net Price Each
P-402-AB	2	$0.50
P-404-AB	4	.61
P-406-AB	6	.73
P-408-AB	8	.84
P-410-AB	10	.95
P-412-AB	12	1.05



S-406-AB

SOCKET — With Angle Brackets

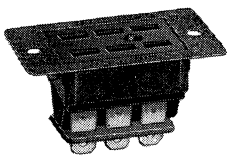
Code	Contacts	Net Price Each
S-402-AB	2	$0.56
S-404-AB	4	.73
S-406-AB	6	.89
S-408-AB	8	1.05
S-410-AB	10	1.23
S-412-AB	12	1.39



P-406-SB

PLUG — With Shallow Bracket for Flush Mounting

Code	Contacts	Net Price Each
P-402-SB	2	$0.61
P-404-SB	4	.78
P-406-SB	6	.95
P-408-SB	8	1.12
P-410-SB	10	1.28
P-412-SB	12	1.45



S-406-SB

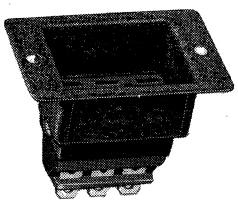
SOCKET — With Shallow Bracket for Flush Mounting

Code	Contacts	Net Price Each
S-402-SB	2	$0.67
S-404-SB	4	.89
S-406-SB	6	1.12
S-408-SB	8	1.33
S-410-SB	10	1.55
S-412-SB	12	1.77

P-406-DB

PLUG — With Deep Brackets for Recessed Mounting

Code	Contacts	Net Price Each
P-402-DB	2	$0.61
P-404-DB	4	.78
P-406-DB	6	.95
P-408-DB	8	1.12
P-410-DB	10	1.28
P-412-DB	12	1.45



S-406-DB

SOCKET — With Deep Bracket for Recessed Mounting

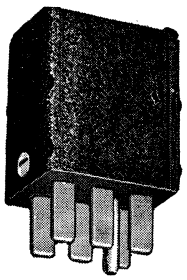
Code	Contacts	Net Price Each
S-402-DB	2	$0.67
S-404-DB	4	.89
S-406-DB	6	1.12
S-408-DB	8	1.33
S-410-DB	10	1.55
S-412-DB	12	1.77

MINIMUM BILLING $25.00

CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

"400" SERIES PLUGS AND SOCKETS

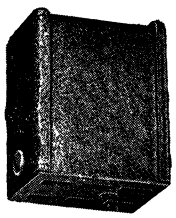
(Formerly "Heavy Duty")



P-406-FHT

PLUG — With Flared Hole in Top

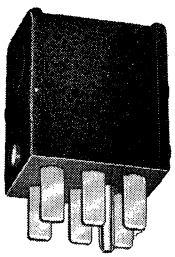
Code No.	Contacts	Net Price Each
P-402-FHT	2	$0.56
P-404-FHT	4	.73
P-406-FHT	6	.89
P-408-FHT	8	1.05
P-410-FHT	10	1.22
P-412-FHT	12	1.38



S-406-FHT

SOCKET — With Flared Hole in Top

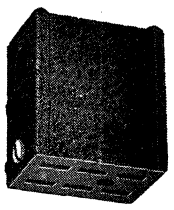
Code No.	Contacts	Net Price Each
S-402-FHT	2	$0.62
S-404-FHT	4	.85
S-406-FHT	6	1.06
S-408-FHT	8	1.28
S-410-FHT	10	1.51
S-412-FHT	12	1.73



P-406-FHE

PLUG — With Flared Hole in End

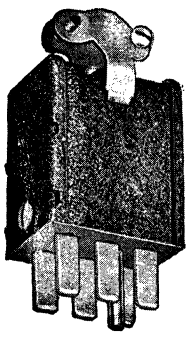
Code No.	Contacts	Net Price Each
P-402-FHE	2	$0.56
P-404-FHE	4	.73
P-406-FHE	6	.89
P-408-FHE	8	1.05
P-410-FHE	10	1.22
P-412-FHE	12	1.38



S-406-FHE

SOCKET — With Flared Hole in End

Code No.	Contacts	Net Price Each
S-402-FHE	2	$0.62
S-404-FHE	4	.85
S-406-FHE	6	1.06
S-408-FHE	8	1.28
S-410-FHE	10	1.51
S-412-FHE	12	1.73



P-406-CCT

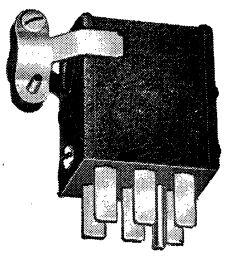
PLUG — With Cable Clamp in Top

Code No.	Contacts	Net Price Each
P-402-CCT	2	$0.78
P-404-CCT	4	.95
P-406-CCT	6	1.12
P-408-CCT	8	1.27
P-410-CCT	10	1.43
P-412-CCT	12	1.60

S-406-CCT

SOCKET — With Cable Clamp in Top

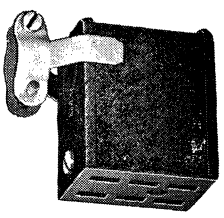
Code No.	Contacts	Net Price Each
S-402-CCT	2	$0.85
S-404-CCT	4	1.06
S-406-CCT	6	1.28
S-408-CCT	8	1.51
S-410-CCT	10	1.73
S-412-CCT	12	1.95



P-406-CCE

PLUG — With Cable Clamp in End

Code No.	Contacts	Net Price Each
P-402-CCE	2	$0.78
P-404-CCE	4	.95
P-406-CCE	6	1.12
P-408-CCE	8	1.27
P-410-CCE	10	1.43
P-412-CCE	12	1.60



S-406-CCE

SOCKET — With Cable Clamp in End

Code No.	Contacts	Net Price Each
S-402-CCE	2	$0.85
S-404-CCE	4	1.06
S-406-CCE	6	1.28
S-408-CCE	8	1.51
S-410-CCE	10	1.73
S-412-CCE	12	1.95

MINIMUM BILLING $25.00

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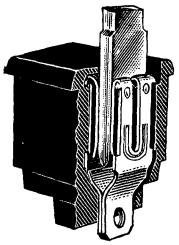
CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

"2400" SERIES PLUGS AND SOCKETS

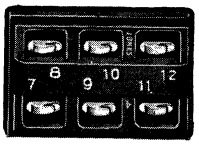
The 2400 Series Plugs and Sockets are designed for highest electrical and mechanical efficiency, and although they carry the same rating as the 400 Series, they will actually handle considerably higher currents due to their improved construction.

An entirely new type of socket contact has been designed. Four individual flexing surfaces make positive contact over practically their entire length. Note in the illustration how they exert maximum pressure at every point. Also note unique method of anchoring terminals in the block—they cannot be moved up or down.

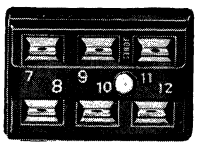


This design provides greater contact surface, increased pressure, with smoother action.

Socket contacts are of phosphor bronze, cadmium plated. Male contacts are of heavy brass ¼"x$\frac{1}{16}$", cadmium plated.



Solder connecting side of Plug Body showing Recessed Pockets with Barriers around contacts. Plug contacts are also in Recessed Pockets on opposite side.



Solder connecting side of Socket Body showing Recessed Pockets with Barriers around contacts. Socket contacts are also in Recessed Pockets on opposite side.

The contact to contact, and contact to ground distance has been considerably increased by mounting the contacts into recessed pockets with a Bakelite barrier surrounding and extending above. This method is used on both the top and bottom sides of both plugs and sockets, greatly increasing the leakage path.

The outside dimensions of corresponding plug and socket bodies are the same and can, therefore, be changed from brackets to caps, or vice versa.

Two styles of brackets are furnished "SB" (shallow bracket) for flush mounting and "DB" (deep bracket) for recessed mounting. Caps are furnished with flared hole in top or end, or with cable clamps in top or end. Unless otherwise specified the following size cable entrance holes will be supplied:

2402—⅜"	2406—$\frac{7}{16}$"	2410—$\frac{9}{16}$"
2404—$\frac{7}{16}$"	2408—$\frac{9}{16}$"	2412—⅝"

As noted above, the 2400 Series is furnished in 2, 4, 6, 8, 10, and 12 contacts. All plugs and sockets are polarized.

Plug and socket bodies are of molded Bakelite. The fibre linings in the caps are the same for both plugs and sockets.

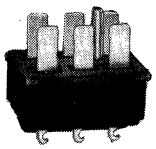
A shoulder extends around the face side of plug and socket presenting a finished appearance when mounted in bracket or cap.

On account of this shoulder extending around the entire face of the body blocks, angle brackets cannot be used with the 2400 Series Plugs or Sockets.

The entire 2400 Series is interchangeable with the 400 Series as 2400 Plugs fit corresponding 400 Sockets, and 400 Plugs fit corresponding 2400 Sockets.

PLUG—Less Mounting Bracket

Drilled and Tapped Unless Otherwise Specified

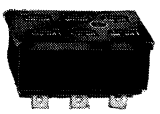


P-2406

Code	Contacts	Net Price Each
P-2402	2	$0.38
P-2404	4	.50
P-2406	6	.62
P-2408	8	.75
P-2410	10	.87
P-2412	12	1.01

SOCKET—Less Mounting Bracket

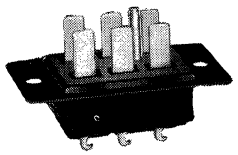
Drilled and Tapped Unless Oherwise Specified



S-2406

Code	Contacts	Net Price Each
S-2402	2	$0.43
S-2404	4	.57
S-2406	6	.69
S-2408	8	.83
S-2410	10	.96
S-2412	12	1.10

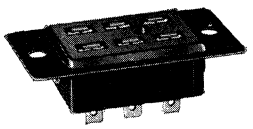
PLUG—With Shallow Bracket for Flush Mounting



P-2406-SB

Code	Contacts	Net Price Each
P-2402-SB	2	$0.67
P-2404-SB	4	.79
P-2406-SB	6	.92
P-2408-SB	8	1.04
P-2410-SB	10	1.19
P-2412-SB	12	1.31

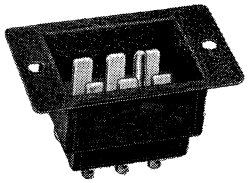
SOCKET—With Shallow Bracket for Flush Mounting



S-2406-SB

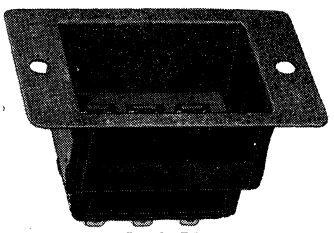
Code	Contacts	Net Price Each
S-2402-SB	2	$0.74
S-2404-SB	4	.86
S-2406-SB	6	1.00
S-2408-SB	8	1.14
S-2410-SB	10	1.28
S-2412-SB	12	1.42

PLUG—With Deep Bracket for Recessed Mounting



P-2406-DB

Code	Contacts	Net Price Each
P-2402-DB	2	$0.74
P-2404-DB	4	.85
P-2408-DB	6	.97
P-2408-DB	8	1.10
P-2410-DB	10	1.24
P-2412-DB	12	1.37



S-2406-DB

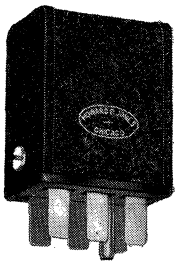
SOCKET—With Deep Bracket for Recessed Mounting

Code	Contacts	Net Price Each
S-2402-DB	2	$0.79
S-2404-DB	4	.93
S-2406-DB	6	1.04
S-2408-DB	8	1.20
S-2410-DB	10	1.34
S-2412-DB	12	1.48

MINIMUM BILLING $25.00

CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

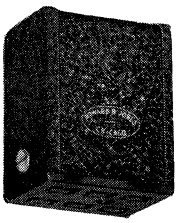
"2400" SERIES PLUGS AND SOCKETS



P-2406-FHT

PLUG—With Flared Hole in Top

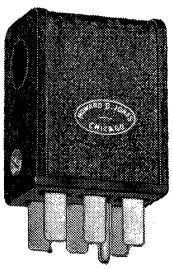
Code No.	Contacts	Net Price Each
P-2402-FHT	2	$0.74
P-2404-FHT	4	.85
P-2406-FHT	6	.97
P-2408-FHT	8	1.10
P-2410-FHT	10	1.24
P-2412-FHT	12	1.39



S-2406-FHT

SOCKET—With Flared Hole in Top

Code No.	Contacts	Net Price Each
S-2402-FHT	2	$0.79
S-2404-FHT	4	.93
S-2406-FHT	6	1.04
S-2408-FHT	8	1.20
S-2410-FHT	10	1.34
S-2412-FHT	12	1.48



P-2406-FHE

PLUG—With Flared Hole in End

Code No.	Contacts	Net Price Each
P-2402-FHE	2	$0.74
P-2404-FHE	4	.85
P-2406-FHE	6	.97
P-2408-FHE	8	1.10
P-2410-FHE	10	1.24
P-2412-FHE	12	1.39

S-2406-FHE

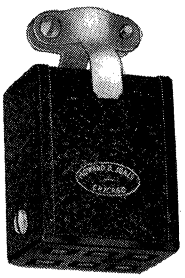
SOCKET—With Flared Hole in End

Code No.	Contacts	Net Price Each
S-2402-FHE	2	$0.79
S-2404-FHE	4	.93
S-2406-FHE	6	1.04
S-2408-FHE	8	1.20
S-2410-FHE	10	1.34
S-2412-FHE	12	1.48

P-2406-CCT

PLUG—With Cable Clamp in Top

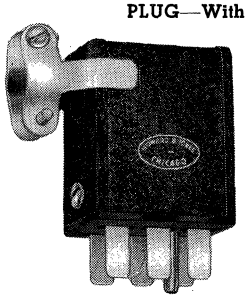
Code No.	Contacts	Net Price Each
P-2402-CCT	2	$0.95
P-2404-CCT	4	1.07
P-2406-CCT	6	1.20
P-2408-CCT	8	1.31
P-2410-CCT	10	1.45
P-2412-CCT	12	1.60



S-2406-CCT

SOCKET—With Cable Clamp in Top

Code No.	Contacts	Net Price Each
S-2402-CCT	2	$1.02
S-2404-CCT	4	1.14
S-2406-CCT	6	1.27
S-2408-CCT	8	1.41
S-2410-CCT	10	1.55
S-2412-CCT	12	1.70



P-2406-CCE

PLUG—With Cable Clamp in End

Code No.	Contacts	Net Price Each
P-2402-CCE	2	$0.95
P-2404-CCE	4	1.07
P-2406-CCE	6	1.20
P-2408-CCE	8	1.31
P-2410-CCE	10	1.45
P-2412-CCE	12	1.60

S-2406-CCE

SOCKET—With Cable Clamp in End

Code No.	Contacts	Net Price Each
S-2402-CCE	2	$1.02
S-2404-CCE	4	1.14
S-2406-CCE	6	1.27
S-2408-CCE	8	1.41
S-2410-CCE	10	1.55
S-2412-CCE	12	1.70

MINIMUM BILLING $25.00

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CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

"500" SERIES PLUGS AND SOCKETS

Designed for 3,000 volts and 25 amperes per contact. Circuit characteristics, however, may alter this rating one way or the other.

Long leakage path from terminal to terminal, and terminal to ground. Contacts are brass and phosphor bronze, silver plated. Metal parts of caps and brackets are steel, parkerized (rust-proofed). Plug and socket blocks are interchangeable in caps and brackets.

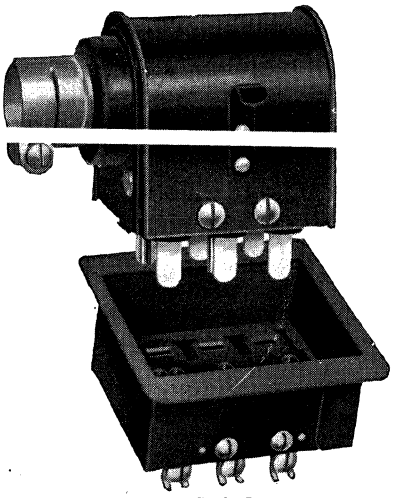
All sizes are polarized in a manner to prevent a smaller plug being inserted in a larger socket. Thus different sizes may be used on one installation without danger of making wrong connections.

Extreme care has been taken to make terminal connections under cap very accessible both for original wiring and subsequent inspection. The cap is insulated with canvas bakelite. Plug prong cross section $\frac{5}{16}$" x $\frac{3}{32}$".

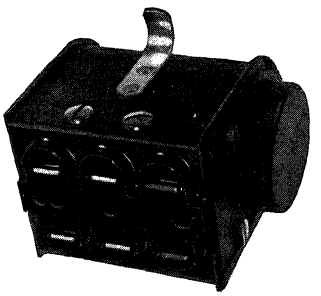
IMPORTANT: For safety with high voltages DEEP BRACKETS should always be used on one plug or socket, when the other plug or socket has a CAP. SHALLOW BRACKETS are for use only in connecting two units, each unit having plug or socket with SHALLOW BRACKET.

Cable entrance: Because of the great variation in type and size of cables, we have considered it best not to supply cable clamps of any kind. The cap end is made to accommodate standard BX clamps which may be obtained at any electrical jobbing house. The cap end will be furnished with round hole from ½" diameter and 1¼" diameter in steps of ⅛", if the size required is given on order. If no size is given, plain cap end with center punch locating center will be shipped.

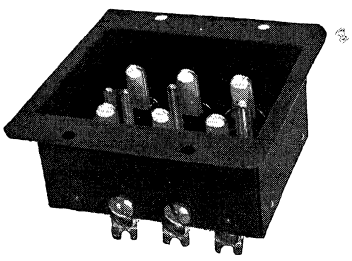
P-506-CE
(Plug with Cap)
(BX Clamp shown but not furnished)



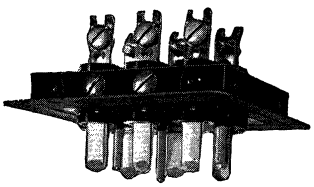
S-506-DB
(Socket with Deep Bracket)



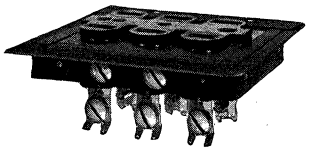
S-506-CE
(Socket with Cap)



P-506-DB
(Plug with Deep Bracket)

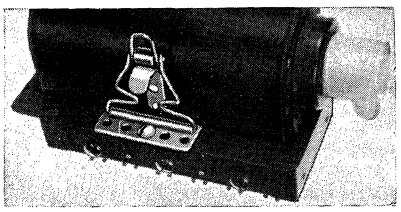


P-506-SB
(Plug with Shallow Bracket)



S-506-SB
(Socket with Shallow Bracket)

LOCKS FOR 500 SERIES PLUGS AND SOCKETS



No. 500-L Locks

Locks shown above are used in connection with any DEEP BRACKET and cap combination.

The locks securely hold the units together, but they can be released instantly.

The mounting plates are made to fit all DEEP BRACKETS, and are fastened by the same screws or rivets that hold the deep brackets to the panel. Can not be used on shallow brackets. Sold in pairs only.

PLUG
With Cap

Code	Contacts	Net Price Each
P-502-CE	2	$2.53
P-504-CE	4	3.64
P-506-CE	6	4.75
P-508-CE	8	5.86
P-510-CE	10	6.97
P-512-CE	12	8.08

PLUG
With Deep Bracket

Code	Contacts	Net Price Each
P-502-DB	2	$2.23
P-504-DB	4	3.19
P-506-DB	6	4.14
P-508-DB	8	5.11
P-510-DB	10	6.07
P-512-DB	12	7.03

PLUG
With Shallow Bracket

Code	Contacts	Net Price Each
P-502-SB	2	$2.23
P-504-SB	4	3.19
P-506-SB	6	4.14
P-508-SB	8	5.11
P-510-SB	10	6.07
P-512-SB	12	7.03

SOCKET
With Cap

Code	Contacts	Net Price Each
S-502-CE	2	$2.53
S-504-CE	4	3.64
S-506-CE	6	4.75
S-508-CE	8	5.86
S-510-CE	10	6.97
S-512-CE	12	8.08

SOCKET
With Deep Bracket

Code	Contacts	Net Price Each
S-502-DB	2	$2.23
S-504-DB	4	3.19
S-506-DB	6	4.14
S-508-DB	8	5.11
S-510-DB	10	6.07
S-512-DB	12	7.03

SOCKET
With Shallow Bracket

Code	Contacts	Net Price Each
S-502-SB	2	$2.23
S-504-SB	4	3.19
S-506-SB	6	4.14
S-508-SB	8	5.11
S-510-SB	10	6.07
S-512-SB	12	7.03

MINIMUM BILLING $25.00

© U.C.P., Inc.

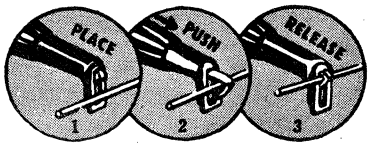
E-Z-HOOKs

A Revolutionary Concept in Test Connectors!

MODERN DESIGN ASSURES SAFER — FASTER — MORE POSITIVE CONNECTIONS

By utilizing a HOOK (the handiest connector ever devised) and an insulated FOOT (to hold it firmly in place) E-Z-HOOKs provide quick, easy connections and eliminate costly delays, shorts and intermittents. POSITIVE GRIP — NO SLIP. E-Z-HOOKs will save many hours in engineering design, bread-boarding, trouble shooting and test set-ups.

HERE'S HOW THE E-Z-HOOK WORKS:



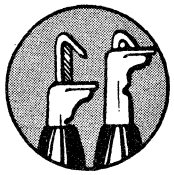
TO ATTACH:

1. Simply place the "foot" on the Test Spot.
2. Exert a slight forward pressure.
3. Release — and you have a vise-like grip that won't slip.

TO RELEASE: Just push slightly and turn.

USE THEM TIME AFTER TIME FOR POSITIVE GRIP — NO SLIP

Every E-Z-HOOK product is fully insulated. A Nylon sliding safety shield provides maximum protection against adjacent shorts and allows positive connections anywhere, even on flat, large or irregular test spots.



EASIEST OF ALL CONNECTORS TO USE: E-Z-HOOKs are self-adjusting for quick, positive connections. Their small, compact design, and sliding action, permits reaching crowded spots — even deep in a chassis. So the hands remain in the open, safe from shocks. Made of durable stainless steel and Nylon* — E-Z-HOOKs are built to last and are fully guaranteed to give satisfactory service. Always use E-Z-HOOKs when you need safe — fast — positive connections.

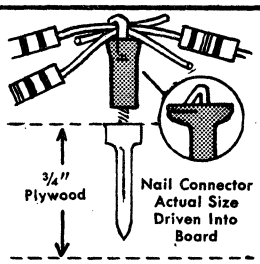
AMAZING NEW E-Z-HOOK "NAIL" CLIP

Drives into wood with a HAMMER!!

The new E-Z-HOOK Nail Clip is especially designed to provide a quick, convenient terminal for Breadboard Layouts, Demonstration Boards, and Experimental Hookups built on plywood or similar material. Ideal, too, for use on HARNESS BOARDS. The positive clamping action of the E-Z-HOOK connector and the time-saving "drive-in" design is an ideal combination for use in making all kinds of Harness Cable Assemblies.

ADVANTAGES: Quick and easy to drive into board with E-Z-HOOK Driving Tool. Can be readily pulled out and used over and over. Will not bend, nick or "balloon" the wire ends. Engineering changes in lead layout and connections easy to make. No drilling or counter-boring required, even on boards with Masonite overlays. Finger tip operation, no tools needed to operate. Nylon insulation minimizes danger from shock and shorts.

No. 81-1 E-Z-HOOK "NAIL" CLIP.....Net ea. 27c
No. T-20 E-Z-HOOK "NAIL" CLIP DRIVING TOOL.....Net ea. 35c
(tool free with order of 50 Nail Clips or more.)



E-Z-HOOK CLIP TEST CONNECTORS

Specially designed for jumper leads, ground connectors and leads on all types of equipment. Assembly is quick and easy.

Actual Size

To remove body insulator, simply squeeze at A & B (Fig. 1). Pull firmly on insulator C. This will remove cover from connector (Fig. 2).

Now a positive, trouble-free solder connection can be made to the lead — indicated in Fig. 3. The joint is wrapped as in Fig. 3 — and iron or dip soldered. This method of attaching the lead relieves strain — increasing test lead life. To reassemble, simply slide the two units together. Colors: red, black, blue, green, orange and yellow.

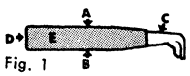


Fig. 1

Fig. 2

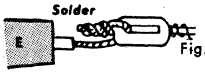


Fig. 3

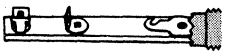
No. 61-1 E-Z-HOOK CLIP (Standard) .....Net ea. 49c
No. 61-2 E-Z-HOOK CLIP (Gold-plated for guided missile work, etc.)....Net ea. 65c

E-Z-HOOK CUSTOM TEST PROBE

Designed with a built-in terminal board for ease in making your own special test probe assemblies.

⅔ Size

The positive grip, plus the sliding safety shield make this ideal for use on Electronic Test Leads. It is fast, efficient and safe. The built-in terminal board with special mounting lugs, makes it easy to make your own special test probe assemblies in minutes. A tenite* screw-on cover protects components and gives easy access to the terminal board. It is ideal for use with scopes, volt-ohm-meters, signal tracers, signal generators, substitution boxes, etc. It saves money in experimenting and servicing because it makes testing faster, easier and safer. Comes in red, green, black, blue, silver and orange.



Built-in Terminal Board with Special Mounting Lugs

54-1 E-Z-HOOK CUSTOM PROBE .....Net ea. 1.39
54-2 E-Z-HOOK CUSTOM PROBE (Gold-plated for guided missile work and other special projects) .....Net ea. 1.55

E-Z-HOOK SUB CONNECTOR

Designed for temporary lead connections, substitute checks, experimental hookups, etc.

Actual Size

By making connections without soldering you save time, save wear and tear, eliminate solder tacking and reduce salvage. When this dual connector is utilized, burnt insulation, lead twisting and frayed wires are eliminated. Parts and circuitry stay clean and new-looking and Test setups are made easier and faster. Colors: red, black, blue, green, orange and yellow for easy lead identification.

No. 71-1 E-Z-HOOK SUB .....Net ea. 69c

E-Z-HOOK TIP ADAPTER

Designed to convert test prods to self-holding connectors.

Actual Size

Because the tip ADAPTER makes a test prod self-holding, hands are freed. Also, the sliding safety shield permits getting in close without shorting. The tip slips on or off easily, and has a special spring chuck (Fig. 5) to hold it firmly on the prod. Available in red, black, blue, green, orange and yellow.

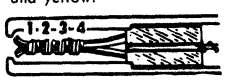


Fig. 5

No. 55-0 E-Z-HOOK TIP . . . NEEDLE POINT (.060").....Net ea. 89c
No. 56-1 E-Z-HOOK TIP . . . STANDARD (.080") .....Net ea. 89c
No. 59-4 E-Z-HOOK TIP . . . BANANA .....Net ea. 69c

E-Z-HOOKS ARE AVAILABLE AT ALL LEADING PARTS DISTRIBUTORS

E-Z-HOOK TEST PRODUCTS — **Covington, Ky.**

Canadian Representative: Len Finkler, Ltd., Toronto, Ontario

Net

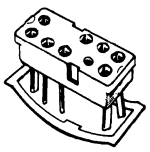
© U.C.P., Inc.

ELCO SALES COMPANY

Philadelphia, Pa.

RELAY SOCKET

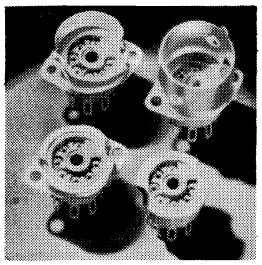
Contact Material: Beryllium Copper, Silver Plated Gold Flashed



Model	Net Ea. 1-24	25-99
887BC	.40	.34
886 Ring	.03	.02

BASE SHIELD AND SADDLE TYPE MILITARY SOCKETS PER SPECIFICATION MIL-S-12883A

Saddles and base shields are tin lead-solder plated. Contacts are phosphor bronze, silver plated, tin dipped. Beryllium copper contacts available at slight increase in cost. Octal sockets available with or without tap bushings.



Part No.	Description	Designation per MIL-S-12883A	Net Ea. 1-24	25-99
235PHSPTD	7-Pin Mica	TS102P01	.24	.20
238PHSPTD	7-Pin Ceramic	TS102C01	.32	.29
169PHSPTD	9-Pin Mica	TS103P01	.26	.22
176PHSPTD	9-Pin Ceramic	TS103C01	.42	.38
335PHSPTD	Octal Mica	TS101P01	.32	.29
336PHSPTD	Octal Mica with Bushings	TS101P02	.51	.44
338PHSPTD	Octal Ceramic	TS101C01	.55	.48
337PHSPTD	Octal Ceramic with Bushings	TS101C02	.74	.64

Part No.	Description	Designation per MIL-S-12883A	Net Ea. 1-24	25-99
*983PHSPTD	7-Pin Mica	TS102P02	.21	.18
*982PHSPTD	7-Pin Ceramic	TS102C02	.34	.29
*987PHSPTD	7-Pin Mica	TS102P03	.21	.18
*986PHSPTD	7-Pin Ceramic	TS102C03	.33	.29
*985PHSPTD	9-Pin Mica	TS103P02	.22	.19
*984PHSPTD	9-Pin Ceramic	TS103C02	.36	.31
*989PHSPTD	9-Pin Mica	TS103P03	.27	.23
*988PHSPTD	9-Pin Ceramic	TS103C03	.36	.31

*Saddle Type

TUBE SHIELDS PER JAN S28A

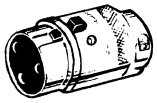
Part No.	Description	Military Designation	Net Ea. 1-24	25-99
121	7-Pin Shield 1-3/8"	TS102U01	.15	.13
120	7-Pin Shield 1-¾"	TS102U02	.16	.14
149	7-Pin Shield 2-¼"	TS102U03	.19	.16
193	9-Pin Shield 1-½"	TS103U01	.18	.16
191	9-Pin Shield 1-15/16"	TS103U02	.18	.16
195	9-Pin Shield 2-3/8"	TS103U03	.22	.19

MILITARY CRYSTAL SOCKET

MIL Crystal Socket with Phosphor Bronze Silver Plated Contacts and Ceramic Grade L5 Glazed Insulator.

Model	Military Designation	Net Ea. 1-24	25-99
430PHSPTD	TS0205C01	.14	.12

"B" SERIES AUDIO PLUGS, RECEPTACLES



B2210, Cable Connectors, Female

Model	Contacts	Net Ea. 1-9	10-24
B2210-3	3	3.78	3.40
B2210-4	4	3.99	3.59

B2211, Panel Connectors, Female

Model	Contacts	Net Ea. 1-9	10-24
B2211-3	3	3.21	2.89
B2211-4	4	3.39	3.05

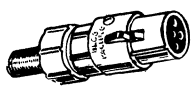
B2212, Cable Connectors, Male

Model	Contacts	Net Ea. 1-9	10-24
B2212-3	3	3.09	2.78
B2212-4	4	3.18	2.86

B2209, Panel Connectors, Male

Model	Contacts	Net Ea. 1-9	10-24
B2209-3	3	1.68	1.51
B2209-4	4	1.80	1.62

"EL" SERIES AUDIO PLUGS, RECEPTACLES



EL2213, Panel Connectors, Male

Model	Contacts	Net Ea. 1-9	10-24	25-99
EL2213-3	3	.72	.65	.60
EL2213-4	4	1.02	.92	.85

EL2214, Cable Connectors, Female

Model	Contacts	Net Ea. 1-9	10-24	25-99
EL2214-3	3	.93	.84	.78
EL2214-4	4	1.29	1.16	1.08

EL2215, Panel Connectors, Female

Model	Contacts	Net Ea. 1-9	10-24	25-99
EL2215-3	3	.93	.84	.78
EL2215-4	4	1.29	1.16	1.08

EL2216, Cable Connectors, Male

Model	Contacts	Net Ea. 1-9	10-24	25-99
EL2216-3	3	.90	.81	.75
EL2216-4	4	1.20	1.08	1.00

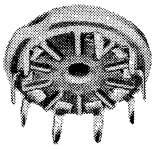
RIGHT-ANGLE PRINTED CIRCUIT SOCKETS

With Continuous Contacts

Model		Net Ea. 1-99	100-249
7-Pin Without Shield Base	4006-1-EG-1/16	.98	.48
7-Pin With Shield Base	4007-1-EG-1/16	1.16	.57
9-Pin Without Shield Base	4008-1-EG-1/16	1.04	.51
9-Pin With Shield Base	4009-1-EG-1/16	1.25	.61

EG=Glass Filled Epoxy Board
Sockets can be provided to fit 1/16, 3/32 or 1/8 thick chassis.

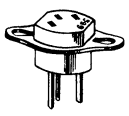
STANDOFF PRINTED CIRCUIT SOCKETS

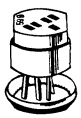


7 and 9-Pin UHF standoff for surface mounting in printed circuit applications. Insulator Material: Low-loss Mica-filled Phenolic; Contact Material: Phosphor Bronze, Silver Plated and Tin-Dipped.

Model	Description	Net Ea. 1-24	25-99
3701PHSPTD	7-Pin Mica	.14	.11
3901PHSPTD	9-Pin Mica	.15	.13

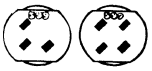
SERIES 3300 COMBINATION TRANSISTOR SOCKETS





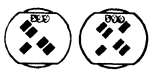
For .016" and .030" DIA. PINS

A. B.



For .030" Dia. Pins

C. D.

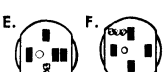


For .016" Dia. Pins

Model	Sockets	Mtg. Ring	Net Ea. 1-24	25-99
(A) 3324		757	.26	.22
(A) 3326	Flat		.35	.30
(B) 3325		757	.27	.24
(B) 3327	Flat		.36	.31
(C) 3315		757	.29	.25
(C) 3318	Flat		.39	.34
(D) 3316		757	.30	.26
(D) 3319	Flat		.40	.35
757 Mtg. Ring			.03	.02

Material: Mica
Contacts: Beryllium Copper, Silver Plated and Gold Flashed

E. F.



G. H.

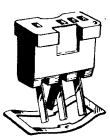
Model	Sockets	Mtg. Ring	Net Ea. 1-24	25-99
(E) 3301	Flat		.35	.30
3303 PC			.27	.24
(E) 3304		757	.26	.22
3305 PC			.30	.26
(F) 3306	Flat		.35	.30
(F) 3307		757	.26	.22
(G) 3309	Flat		.35	.30
(G) 3310		757	.26	.22
(H) 3312	Flat		.38	.33
(H) 3313		757	.29	.25
757 Mtg. Ring			.03	.02

Material: Mica
Contacts: Beryllium Copper, Silver Plated Gold Flashed.

TRANSISTOR TYPE SUBMINIATURE SOCKETS

3-Pin Point & Junction Type (Mica Filled Insulator Material)

Model	Net Ea. 1-24	25-99
799BC	.17	.15



4-pin Linotetrar Type (Mica Filled Insulator Material)

Model	Net Ea. 1-24	25-99
803BC	.17	.15

Mtg. Ring for Above

Model	Net Ea. 1-24	25-99
777	.03	.02½

Contact Material - Beryllium Copper, Silver Plated. Gold Flashed.

CORRUGATED INSERT FOR JAN SHIELDS

Cad. Plate, Beryllium Copper, Matte Black Finish.

Model No.	Use with Jan Shield	Net Ea. 1-24	25-99
929, 7-Pin	TS102U01	.18	.16
930, 7-Pin	TS102U02	.21	.18
931, 7-Pin	TS102U03	.26	.23
932, 9-Pin	TS103U01	.22	.19
933, 9-Pin	TS103U02	.27	.24
934, 9-Pin	TS103U03	.32	.28

IF IT'S NEW... IF IT'S NEWS... IT'S FROM ELCO

ELCO SALES COMPANY

Philadelphia, Pa.

Prices below are for General Purpose Phenolic. Also available in Low-Loss Mica Phenolic. Prices furnished upon request.

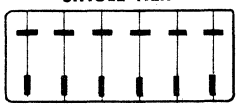
ELCO VARICONS

are the most reliable and versatile miniature connector system in principle and application. Varicons are basically designed to fill specific requirements and are not "just another" connector. They are the product of working to established requirements; and every feature is a direct result of an indicated need.

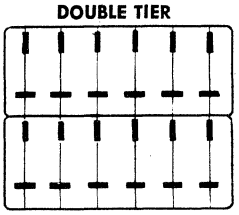
VARICONS were designed with primary consideration of mass production application; for quick and easy soldering of wire; or for solderless connections to contacts. Safe and positive cable retention and simplicity of installation is achieved by means of cable clamps.

VARICONS in any manner or in any equipment are limited only by the ingenuity of the user. Their small size, flexibility of contact arrangements and the following standard accessories make them adaptable to almost any installation or operating condition.

EXAMPLE OF SINGLE TIER



EXAMPLE OF DOUBLE TIER



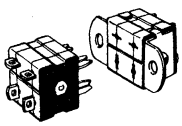
GENERAL SPECIFICATIONS

Contacts in use are always under pressure and cannot be over-stressed or over-strained. Excellent retention maintained even after several thousand insertions and withdrawals. Both male and female contacts are free floating inside their respective housings.

Contacts are silver-plated and cadmium-plated. Cadmium-plated hardware for use in marine atmospheres. Standard covers are painted blue with wrinkle finish.

Current Rating 15 Amps., 115 Volts (in cover); 30 Amps. (in free air) (withstanding voltage between closest terminals 3000 Volts); Contact Resistance .002 ohm. Low Capacitance. All Male and Female components are identical. Contacts in use are always under pressure, cannot be over-stressed or over-strained.

PLUG-IN APPLICATIONS | PANEL APPLICATIONS | CHASSIS APPLICATIONS | CABLE APPLICATIONS



VARICONS

With brackets (.125 Dia. Mounting Holes. Other Types on Request.)

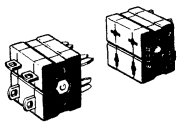
Bracket type Varicons permit installation in chassis, rack or panel, or directly into plug-in components. M=Male, F=Female, RM=Ruggedized Male and RF=Ruggedized Female.

(Single Tier Varicons-With Brackets)

Model	Net Ea. 1-49	50-99
M10220-1	.20	.17
F 10220-1	.19	.16
M10420-1	.27	.22
F 10420-1	.26	.21
M10620-1	.34	.28
F 10620-1	.32	.26
M10820-1	.41	.34
F 10820-1	.38	.32
M11020-1	.50	.42
F 11020-1	.46	.38
RM11220-1	.58	.48
RF 11220-1	.53	.44
RM11420-1	.68	.57
RF 11420-1	.63	.52
RM11620-1	.79	.65
RF 11620-1	.73	.61
RM11820-1	.90	.75
RF11820-1	.83	.69

(Double Tier Varicons-With Brackets)

Model	Net Ea. 1-49	50-99
RM22020-1	1.10	.91
RF 22020-1	1.03	.85
RM22420-1	1.38	1.15
RF 22420-1	1.30	1.08
RM22820-1	1.69	1.40
RF 22820-1	1.61	1.34
RM23220-1	2.00	1.67
RF 23220-1	1.91	1.59
RM23620-1	2.32	1.93
RF 23620-1	2.22	1.85



VARICONS

Plain with No Hardware

2nd and 3rd digit numerals in Model nos. designate number of contacts in connector. M=Male, F=Female, RM=Ruggedized Male (heavy duty), RF=Ruggedized Female.

Model	Net Ea. 1-49	50-99
M1022	.17	.14
F 1022	.16	.13
M1042	.24	.20
F 1042	.23	.19
M1062	.31	.26
F 1062	.29	.24
M1082	.38	.31
F 1082	.35	.29
M1102	.47	.39
F 1102	.43	.35
RM1122	.57	.47
RF 1122	.53	.44
RM1142	.68	.56
RF 1142	.62	.52
RM1162	.79	.65
RF 1162	.73	.60
RM1182	.89	.74
RF 1182	.83	.69

VARICONS

With handles permit safe, easy handling of Varicons, especially where frequent insertions and withdrawals are called for. M=Male, F=Female, RM=Ruggedized Male (heavy duty), RF=Ruggedized Female.

(Single Tier Varicon-with handles)

Model	Net Ea. 1-49	50-99
M10621	.44	.37
F 10621	.41	.34
M10821	.51	.42
F 10821	.48	.40
M11021	.61	.50
F 11021	.56	.47
RM11221	.74	.61
RF 11221	.70	.58
RM11421	.89	.74
RF 11421	.83	.69
RM11621	1.02	.85
RF 11621	.97	.80
RM11821	1.17	.97
RF 11821	1.10	.91

(Double Tier Varicon-with handles)

Model	Net Ea. 1-49	50-99
RM22021	1.34	1.11
RF 22021	1.27	1.05
RM22421	1.69	1.40
RF 22421	1.61	1.34
RM22821	2.03	1.69
RF 22821	1.94	1.62
RM23221	2.39	1.99
RF 23221	2.29	1.90
RM23621	2.77	2.30
RF 23621	2.66	2.22

IF IT'S NEW... IF IT'S NEWS... IT'S FROM ELCO

Net

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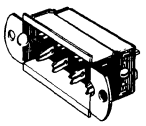
ELCO SALES COMPANY

Philadelphia, Pa.



VARICONS

With Recessed Housing

For flush chassis mounting of male connectors, or for external conservation of space, recessed housings are available in standard sizes. Male and Female recessed housing units **cannot** mate with each other. M=Male, F=Female, RM=Ruggedized Male, RF=Ruggedized Female.

(Single Tier Varicons with Recessed Housing)

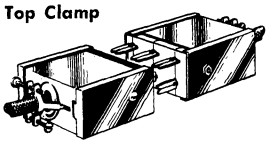
Model	Net Ea. 1-49	50-99
M10226	.42	.35
F 10226	.41	.34
M10426	.49	.40
F 10426	.47	.39
M10626	.58	.48
F 10626	.55	.45
M10826	.66	.55
F 10826	.64	.53
M11026	.78	.65
F 11026	.74	.61
RM11226	.94	.79
RF 11226	.91	.75
RM11426	1.09	.91
RF 11426	1.04	.86
RM11626	1.23	1.02
RF 11626	1.18	.98
RM11826	1.37	1.14
RF 11826	1.31	1.09

(Double Tier Varicons with Recessed Housing)

Model	Net Ea. 1-49	50-99
RM22026	1.59	1.32
RF 22026	1.52	1.27
RM22426	1.94	1.62
RF 22426	1.86	1.55
RM22826	2.29	1.90
RF 22826	2.21	1.84
RM23226	2.64	2.20
RF 23226	2.54	2.12
RM23626	3.02	2.51
RF 23626	2.92	2.43

VARICONS

With Cover Top Clamp



Covers provide a safe, convenient method of shielding exposed junctions. Top or side cable hole is available. Clamps provide an efficient means of securing cables or wires. Clamps are self-adjusting and, therefore, are always parallel to the cable regardless of its size.

Hole can be located on End instead of Top by changing final digit from 4 to 5. M=Male, F=Female, RM=Ruggedized Male, RF=Ruggedized Female.

(Single Tier Varicons with Covers & Clamps)

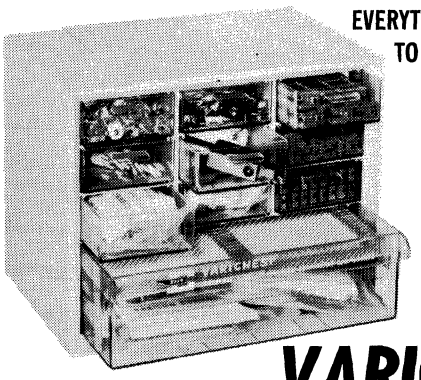
Model	Net Ea. 1-49	50-99
M10425	.52	.43
F 10425	.50	.42
M10624	.59	.49
F 10624	.56	.47
M10824	.65	.54
F 10824	.63	.52
M11024	.76	.63
F 11024	.72	.60
RM11224	.92	.77
RF 11224	.88	.73
RM11424	1.07	.89
RF 11424	1.02	.85
RM11624	1.21	1.00
RF 11624	1.15	.96
RM11824	1.35	1.12
RF 11824	1.28	1.07

(Double Tier Varicons with Cover & Clamps)

Model	Net Ea. 1-49	50-99
RM22024	1.60	1.33
RF 22024	1.52	1.27
RM22424	1.94	1.62
RF 22424	1.87	1.55
RM22824	2.29	1.91
RF 22824	2.21	1.84
RM23224	2.65	2.20
RF 23224	2.54	2.12
RM23624	3.02	2.52
RF 23624	2.93	2.44

VARICON RETAINER ASSEMBLY—Clips for positive retention of two mated connectors, retaining clips are provided which will not release under any vibration, yet may be easily disengaged by depressing, when required. Two clips are provided per set. RH=For Recessed Housing Series.

	Net Ea. 1-49	50-99
1301 or 1301 RH Single-Tier	.30 set	.25 set
1302 or 1302 RH Double-Tier	.36 set	.30 set



EVERYTHING YOU NEED TO BUILD TEST OR PERMANENT PRINTED CIRCUITRY... CONNECTORS, BOARDS, HARDWARE

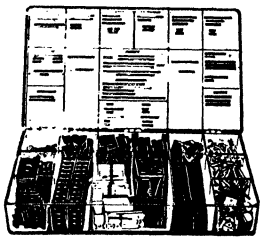
VARICHEST

- Complete 10-drawer "desk-size" cabinet which contains every component to design and build Series 5002-5004 printed circuit Varicons for test, prototype or small permanent usage.
- Contains many types of Varicon contacts, with various terminal ends, both loose and on plastic strips; Vector pre-punched "bread-boards"; connector end and center sections; brackets, guides, lab-type staking tool; and all hardware.
- Permits building connectors, staking the contacts, soldering them to the boards, and setting up reliable printed circuitry easily, efficiently and economically. Comes complete with instructions and open-stock parts list.

109.95 EA.

NEW ENLARGED VARICON KIT

Contains all parts to allow user to make "on the spot" assembly of virtually every type miniature connector in any pin configuration, from 2 contact single tier to 48 contact double tier. Includes Elco's new right-angle Varicon; regular and taper tab male and female contacts; ruggedized end sections; center sections; covers; brackets; cable clamps; screws; nuts; Assembly Instructions; reordering sheet. In handsome transparent plastic box.

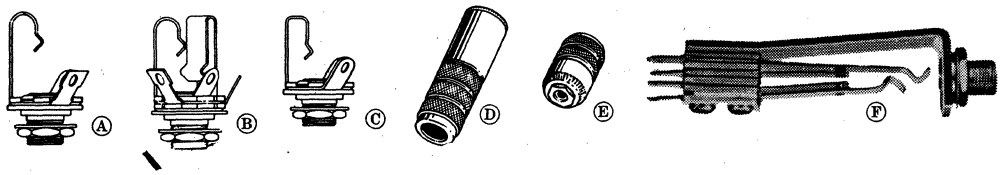


GVK-1(GP) — **A=1-11, 26.95 Ea.**
GVK-2(LL) — **B=1-11, 32.00 Ea.**
Smaller Kits Also Available — **GP-1, 6.00 Ea.** **LL-1, 7.50 Ea.**

IF IT'S NEW... IF IT'S NEWS... IT'S FROM ELCO

GC ELECTRONICS ELECTROCRAFT COMPONENTS

PHONE JACKS • PHONO PIN PLUGS AND JACKS • CONNECTORS



GC Electrocraft Jacks require a minimum panel space and depth behind panel. Parts are keyed and mechanically interlocked. Springs are made of nickel silver, with phenolic spaces and brass, nickel plated mounting bushings. Panel mounting jacks furnished with nickel plated steel washers and nickel plated brass mounting nut.

PHONE JACKS

(A) PANEL MOUNTING, TWO-CONDUCTOR PHONE JACKS—Open circuit, 2-conductor.
Cat. No. 33-690 Net $ .23
Closed circuit, 2-conductor.
Cat. No. 33-692 Net $ .27
Open circuit, 2-conductor, MIL type, JJ-034.
Cat. No. 33-694 Net $ .37
Open circuit, 2-conductor .210" ID Sleeve fits plugs 33-630/2.
Cat. No. 33-700 Net $ .27
Closed circuit, 2-conductor .210" ID Sleeve—fits plugs 33-630/2.
Cat. No. 33-702 Net $ .30

(B) PANEL MOUNTING 3-CONDUCTOR PHONE JACKS—Open circuit, 3-conductor.
Cat. No. 33-708 Net $ .33
Single closed circuit, 3-conductor.
Cat. No. 33-710 Net $ .45
Open circuit, 3-conductor, MIL type JJ-033.
Cat. No. 33-712 Net $ .42

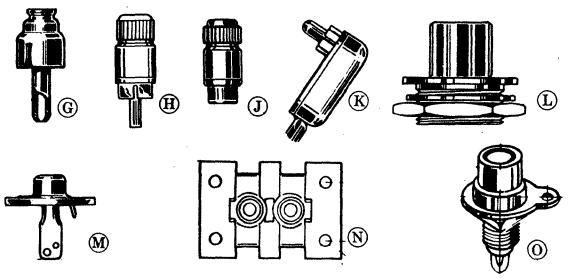
(C) MINIATURE PANEL MOUNTING JACKS—These jacks mate with plugs 33-660 through 33-670. Open circuit, 2-conductor.
Cat. No. 33-720 Net $ .23
Closed circuit, 2-conductor.
Cat. No. 33-722 Net $ .27

(D & E) CORD MOUNTED JACKS—Often referred to as "extension jacks" or "In-line jacks."

2-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-730 Net $ .83
2-conductor, open circuit style, with solder lug terminals and black plastic handle.
Cat. No. 33-732 Blk Net $ .60
2-conductor, open circuit, screw type terminal, with metal (shielded) handle.
Cat. No. 33-734 Net $ .93
2-conductor, open circuit, screw type terminals, with black plastic handle.
Cat. No. 33-736 Blk Net $ .68
3-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-740 Net $1.08
3-conductor, open circuit style, with screw type terminal and metal (shielded) handle.
Cat. No. 33-742 Net $1.17

Miniature type, mates with plugs #33-660 through #33-670, with solder lugs and metal (shielded) handle.
Cat. No. 33-746 Net $ .72

(F) LONG FRAME JACKS—2-conductor, open circuit.
Cat. No. 33-750 Net $ .45
3-conductor, single closed circuit.
Cat. No. 33-752 Net $ .63
3-conductor, single closed circuit ring grounded.
Cat. No. 33-754 Net $ .63
2-conductor, open circuit w/insulated break.
Cat. No. 33-756 Net $ .63
3-conductor, 2 closed circuit.
Cat. No. 33-758 Net $ .72
2-conductor, closed circuit w/insulated make.
Cat. No. 33-760 Net $ .72



PHONO PIN PLUGS AND JACKS

These plugs and jacks are universally used for audio connections, phonographs, pre-amplifiers and amplifiers in connection with single conductor shielded cable.

(G) PHONE PLUGS—Solder type.
Cat. No. 33-770 Net $ .07

(H) PHONO PLUGS — Combination clamp, solder type, with removable metal (shielded) handle.
Cat. No. 33-772 Net $ .30

(J) PHONO JACK, CORD MOUNTED—Combination clamp and solder, terminal; removable metal (shielded) handle.
Cat. No. 33-774 Net $ .37

(K) SOLDERLESS PHONO PLUGS—Positive, noise-free pressure connection. Right angle style, designed for regular shielded cable with approximately 3/16" OD.

Grey plastic shell.
Cat. No. 33-776 Net $ .27
Black plastic shell.
Cat. No. 33-778 Net $ .27
Red plastic shell.
Cat. No. 33-780 Net $ .27
Yellow plastic shell.
Cat. No. 33-782 Net $ .27
Blue plastic shell.
Cat. No. 33-784 Net $ .27

(L) PHONO JACK, SINGLE HOLE MOUNTING—Supplied with washer and mounting nut.
Cat. No. 33-790 Net $ .22

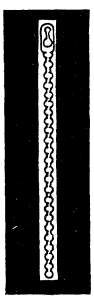
(M) PHONO JACK—Fastens to chassis with 2 rivets or 2 screws. W/oval, space saving metal mounting plate.
Cat. No. 33-792 Net $ .07
With regular round mounting plate.
Cat. No. 33-796 Net $ .08

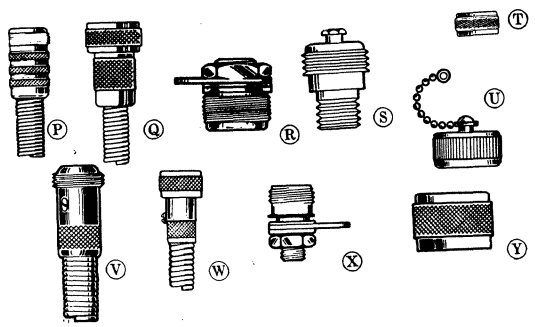
(N) DOUBLE PHONO PIN JACK
Cat. No. 33-800 Net $ .13

TRIPLE PHONO PIN JACK
Cat. No. 33-802 Net $ .15

(O) SINGLE HOLE PANEL PHONO JACK—Mounts in 3/32" hole, requires only one hole drilled. With washer, nut and solder lug for ground.
Cat. No. 33-804 Net $ .18

These ties provide an efficient, time-saving method of cabling and lacing. Made entirely of plastic. May be used in hard-to-reach places. Their use requires no experience.





STANDARD MICROPHONE CONNECTORS

Designed for use with single conductor, shielded microphone cable. Bodies, lock nuts and mounting nuts: brass, nickel plated; contact terminals, brass, hot-tinned; insulation is high-grade phenolic.

(P) CORD MOUNTED MICROPHONE CONNECTORS—Flexible spring protects cable; center conductor solders to contact; braid is clamped securely by set screw.
Male connector.
Cat. No. 33-810 Net $ .27

(Q) FEMALE CONNECTOR.
Cat. No. 33-812 Net $ .37

(R) PANEL MOUNTED MICROPHONE CONNECTORS—May be insulated with suitable fibre washers; mates with No. 33-812 connector.
Single contact connector.
Cat. No. 33-814 Net $ .22

(S) MICROPHONE AND CHASSIS CONNECTOR—Closed circuit type which grounds center contact when cable connector removed.
Cat. No. 33-816 Net $ .27

(T) COUPLING NUT—Converts #33-810 male connector to 812 female type.
Cat. No. 33-818 Net $ .08

(U) CAP FOR PANEL CONNECTORS—Protects unusued connectors from mechanical damage and dust.
Cat. No. 33-820 Net $ .45

(V) MINIATURE MICROPHONE CONNECTORS—Made to the same specifications and of same materials as standard size connectors. Cord mounted male connector.
Cat. No. 33-826 Net $ .27

(W) Cord mounted female connector.
Cat. No. 33-828 Net $ .37

(X) Panel mounted connector.
Cat. No. 33-830 Net $ .22

(Y) COUPLING NUT—Converts male connector #33-826 to female connector #33-828.
Cat. No. 33-832 Net $ .07

ELECTROCRAFT CABLE TIES

Made of Polypropylene. Tough and flexible for commercial use and where temperatures do not exceed 175°F. 4¼" long. Sold in vials of 40 ties.

Cat. No. 34-432 Red Net $ .98
Cat. No. 34-436 Yellow Net $ .98
Cat. No. 34-440 Blue Net $ .98

Also available in polypropylene and nylon in 10-inch lengths

Net
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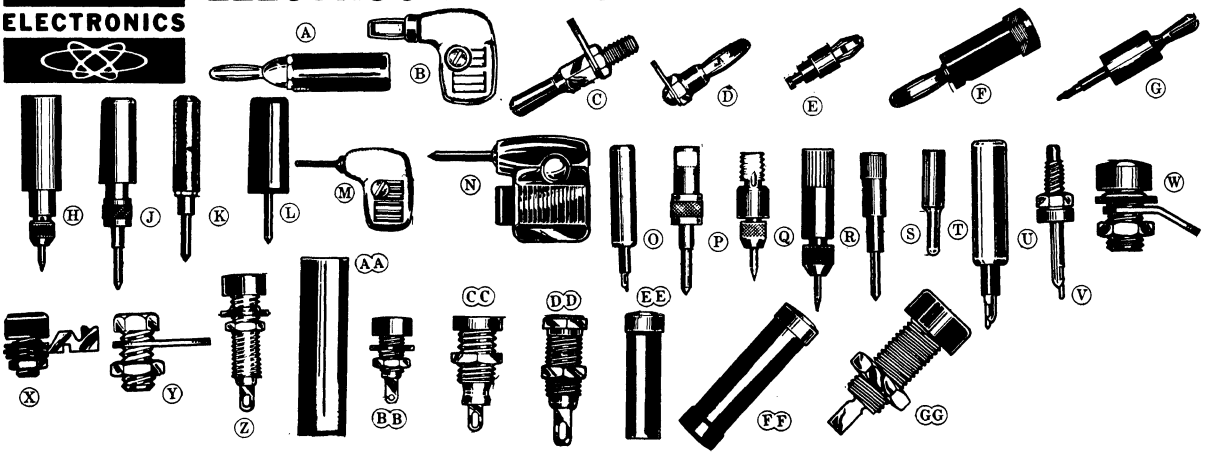
GC ELECTRONICS ELECTROCRAFT COMPONENTS

BANANA PLUGS • TIP PLUGS MATCHING JACKS



BANANA PLUGS

Electrocraft plugs are carefully designed, accurately molded and machined of best available material and rigidly inspected. Except as otherwise noted, all Banana Plugs are made to standard industry dimensions and mate with jacks with an 0.163" bore. Design provides for sufficient spring tension to assure good holding power and minimum contact reistance.

(A) BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; hex brass body, separate internal brass stud.
Cat. No. 33-000 Red Net $ .23
Cat. No. 33-002 Blk Net $ .23

BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; lead wire connection with set screw through plastic handle.
Cat. No. 33-006 Red Net $ .20
Cat. No. 33-008 Blk Net $ .20

BANANA PLUG — Unbreakable plastic handle, cross slotted, nickel plated brass body; separate internal brass stud.
Cat. No. 33-012 Red Net $ .20
Cat. No. 33-014 Blk Net $ .20

BANANA PLUG—cross slotted, nickel plated brass body; lead wire connection with set screw screw through plastic handle.
Cat. No. 33-018 Red Net $ .20
Cat. No. 33-026 Blk Net $ .20

BANANA PLUG—Miget type, unbreakable plastic handle, four leaved, nickel plated, phosphor bronze spring; lead wire connection solders to drilled body.
Cat. No. 33-024 Red Net $ .27
Cat. No. 33-020 Blk. Net $ .27

(B) BANANA PLUG — Right angle "Gun" tip (meter plug), molded plastic handle (2 half-shells), four leaved, phosphor bronze, nickel plated springs; lead wire solders to body.
Cat. No. 33-046 Red Net $ .38
Cat. No. 33-048 Blk Net $ .38

(C) BANANA PLUG—Threaded shank type; slotted nickel plated brass body; supplied with terminal lug and hex nut.
Cat. No. 33-060 Net $ .15

(D) BANANA PLUG—Panel mounting type; four leaved, phosphor bronze, nickel plated spring; #6-32 tapped body.
Cat. No. 33-062 Net $ .17

BANANA PLUG—Threaded shank type; four leaved, phosphor bronze, nickel plated spring.
Cat. No. 33-064 Net $ .17

BANANA PLUG—Panel mounting type; cross slotted, nickel plated brass body, tapped #6-32; supplied with screw and terminal lug.
Cat. No. 33-066 Net $ .17

(E) BANANA PLUG — Sub-miniature type, four leaved, beryllium copper, silver plated spring; body rivets to terminal board and wire solders to turret terminal. Fits jacks with .104" ID.
Cat. No. 33-068 Net $ .20

(F) BANANA PLUG ADAPTOR—Adapts tip plug to banana plug; insulated handle, standard tip jack one end; other end four leaved banana plug.
Cat. No. 33-072 Red Net $ .33
Cat. No. 33-074 Blk Net $ .33

(G) BANANA PLUG-KLIPZON ADAPTOR—One end cross slotted; brass, nickel plated banana plug; other end "Klipzon' self holding wire piercing tip.
Cat. No. 33-076 Red Net $ .48
Cat. No. 33-078 Blk Net $ .48

ADAPTER, KLIPZON TIP TO BANANA PLUG—For connection of test leads terminated with Klipzon prods to equipment with banana jacks.
Cat. No. 33-080 Red Net $ .38
Cat. No. 33-082 Blk Net $ .38

The following Tip Plugs are, unless otherwise noted, made to the standard industry specifications of .080" pin diameter. Careful machining, close tolerances and the use of brass alloy assures good contact and service ability.

TIP PLUGS

(H) PHONO NEEDLE TIP PLUG—Insulated handle; nickel plated brass body; chuck design to hold .058 phono-needle which is easily replaceable. Wire solders to body.
Cat. No. 33-100 Red Net $ .17
Cat. No. 33-102 Blk Net $ .17

(J) INSULATED TIP PLUG—Solderless type, wire tightens securely under knurled collar. Handle is unbreakable plastic and body is machined brass, nickel plated.
Cat. No. 33-106 Red Net $ .17
Cat. No. 33-108 Blk Net $ .17

(K) SUB-MINIATURE PHONE TIP PLUG—Standard tip, extra-small diameter, machined bone fibre insulated handle. Wire solders to nickel plated, brass body.
Cat. No. 33-112 Red Net $ .20
Cat. No. 33-114 Blk Net $ .20

(L) INSULATED SHORT TIP PLUG—Unbreakable plastic handle; wire solders to brass nickel plated body.
Cat. No. 33-118 Red Net $ .13
Cat. No. 33-120 Blk Net $ .13

(M) RIGHT ANGLE TIP PLUG—Two insulated plastic handle half shells assemble with one screw and nut. Maximum wire insulation 5/64"; wire solders to body.
Cat. No. 33-128 Red Net $ .30
Cat. No. 33-130 Blk Net $ .30

(N) "TRIGGER-QUIK" TIP PLUG — right angle plug, similar to 33-128 and 33-130. Spring loaded solderless wire connection, "trigger" design. 1 Red and 1 Black plug per pair.
Cat. No. 33-132 Red Net $ .42
Cat. No. 33-134 Blk Net $ .42
Cat. No. *33-136 Pkg. per pr. Net $ .72
*20 pair per package display.

(O) KLIPZON MINI-PROD—Insulated tip plug can be snapped securely on wires. Incorporates sharp point to pierce insulation; fits standard tip jacks; wire solders to body.
Cat. No. 33-138 Red Net $ .38
Cat. No. 33-140 Blk Net $ .38

(P) SOLDERLESS TIP PLUG — All metal. Precision machined brass, nickel plated; wire fastens under knurled collar.
Cat. No. 33-146 Net $ .12

(Q) PHONO NEEDLE TIP PLUG—Nickel plated brass body with 1/4-20 thread; chuck design to hold phono needle.
Cat. No. 33-148 Net $ .15

(R) PUSH-ON NEEDLE CHUCK—Nickel plated brass. Knurled body for press fit into Test Prod handles drilled with 1/4" hole.
Cat. No. 33-150 Net $ .15

(S) HEAVY DUTY PHONE TIP PLUG—Nickel plated brass; knurled shank for press fit into Test Prod handles, drilled with 1/4" hole.
Cat. No. 33-152 Net $ .12

(T) STANDARD HOLLOW PHONE TIP—Drawn brass, bright nickel plated.
Cat. No. 33-154 Net $ .12

STANDARD SOLID PHONE TIP—Brass, bright nickel plated.
Cat. No. 33-156 Net $ .15

(U) KLIPZON MINI-PROD ADAPTOR—Converts standard Tip Plug and Test Prod to self holding Klipzon wire piercing prod.
Cat. No. 33-160 Red Net $ .38
Cat. No. 33-162 Blk Net $ .38

(V) KLIPZON PANEL MOUNTS—Wire holding patented Klipzon Test Prod with threaded shank (6-32 x 3/8") for panel mount. Designed for test set-ups.
Cat. No. 33-164 Net $ .48

Jack are made to standard industry specifications. On Banana Jacks, the bore is .163" which fits all standard Banana Plugs. Tip Plug Jacks have built in spring contacts and are designed for all standard tip plugs with .080" diameter.

BANANA AND TIP PLUG JACKS

(W) BANANA JACK—Molded phenolic head; nickel plated brass body supplied with tinned solder lug, fibre washer and mounting nut. Mounts in 5/16" hole.
Cat. No. 33-180 Red Net $ .15
Cat. No. 33-182 Blk Net $ .15

(X) BANANA JACK, HEAVY DUTY—Molded phenolic head; nickel plated brass body; extruded fibre washer, lock washer, heavy duty solder lug and mounting nut.
Cat. No. 33-186 Red Net $ .17
Cat. No. 33-188 Blk Net $ .17

(Y) BANANA JACK—ALL METAL brass nickel plated body; supplied with solder lug and hex mounting nut. Mounts in 1/4" hole; fits panels up to 3/8" thick.
Cat. No. 33-192 Net $ .12

(Z) BANANA-TIP JACK COMBINATION—Molded phenolic head; brass nickel plated body. Phosphor bronze spring. Supplied with extruded fibre washer and mounting nut.
Cat. No. 33-194 Red Net $ .18
Cat. No. 33-196 Blk Net $ .18

(AA) BANANA PLUG SPLICE—Insulated plastic handle, brass insert for coupling 2 standard Banana Plugs.
Cat. No. 33-200 Red Net $ .27
Cat. No. 33-202 Blk Net $ .27

(BB) STANDARD TIP JACK—Molded phenolic plastic head; nickel plated brass body with phosphor bronze spring; supplied with extruded fibre washer.
Cat. No. 33-210 Red Net $ .15
Cat. No. 33-212 Blk Net $ .15

(CC) TIP JACK, ALL-INSULATED—Head and body molded of nylon, in one piece; phosphor bronze spring; supplied with mounting nut; mounts in 3/8" hole.
Cat. No. 33-216 Red Net $ .20
Cat. No. 33-218 Blk Net $ .20

(DD) TIP JACK, ALL METAL—Brass nickel plated body; phosphor bronze spring.
Cat. No. 33-226 Net $ .12

(EE) TIP JACK, IN-LINE STYLE—Insulated handle, brass nickel plated body; phosphor bronze spring.
Cat. No. 33-228 Red Net $ .23
Cat. No. 33-230 Blk Net $ .23

(FF) TIP PLUG SPLICE—Insulated; brass nickel plated body; phosphor bronze springs.
Cat. No. 33-232 Red Net $ .30
Cat. No. 33-234 Blk Net $ .30

(GG) NYLON TIP JACK—Nylon insulated body wtih machined beryllium copper contact, silver plated contact recessed in head, hot tin dipped solder terminal.
Cat. No. 33-240 Blk Net $ .30
Cat. No. 33-242 Red Net $ .30

SEND FOR

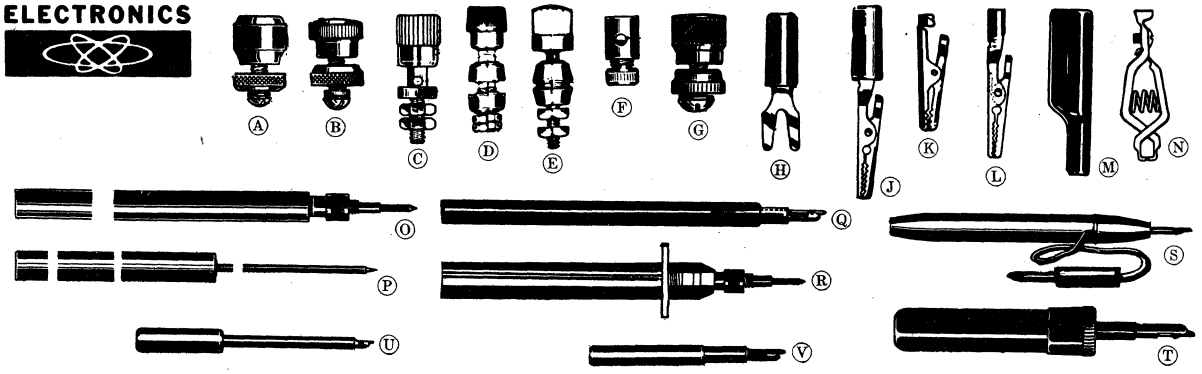
FREE 400-PAGE CATALOG

on the complete GC Electrocraft line of Plugs, Jacks, Connectors, Switches and other electronic components.

GC ELECTROCRAFT COMPONENTS

BINDING POSTS•SPADE LUGS•CLIPS
TEST PRODS, LEADS, ADAPTORS

GC ELECTRONICS



BINDING POSTS

GC-Electrocraft Binding Posts are precision molded, machined and assembled in accordance with practical designs. They provide a convenient means of attaching wire leads to test equipment, instruments, breadboards and experimental devices and are particularly useful where connections often have to be changed.

(A) BINDING POST — Brass nickel plated body; supplied with 8-32 mounting screw and lock washer.
Cat. No. 33-250 Red Net $ .17
Cat. No. 33-252 Blk Net $ .17

(B) BINDING POST — Brass nickel plated body supplied with #6-32 mounting screw and lock washer.
Cat. No. 33-254 Net $ .17

(C) BINDING POST-COMBINATION TYPE—Accepts banana plug, tip plug, bare wire or spade lug. Threaded #8-32 mounting stud ½" long; supplied with 2 hex nuts.
Cat. No. 33-256 Red Net $ .20
Cat. No. 33-258 Blk Net $ .20

BINDING POST-COMBINATION TYPE—Similar in construction to 33-256/8 except with molded shoulder-type plastic washers to insulate post from chassis.
Cat. No. 33-260 Red Net $ .27
Cat. No. 33-262 Blk Net $ .27

(D) BINDING POST-INSULATED UNIVERSAL TYPE—Non-removable, molded brass; brass nickel plated body with threaded #8-32 mounting stud.
Cat. No. 33-264 Red Net $ .28
Cat. No. 33-266 Blk Net $ .28

(E) HEAVY DUTY BINDING POST—Machined brass nickel plated body; supplied with a thick molded insulating spacer; shoulder keys into chassis mounting hole and positively prevents post from turning.
Cat. No. 33-268 Red Net $ .45
Cat. No. 33-270 Blk Net $ .45

HEAVY DUTY BINDING POST—Identical in design to binding post No. 33-268/270, except end of stud milled flat and drilled for solder connection.
Cat. No. 33-272 Red Net $ .45
Cat. No. 33-274 Blk Net $ .45

(F) BINDING POST, ALL METAL—Grass nickel plated body and knurled cap; accepts banana plug, phone tip or wire.
Cat. No. 33-282 Net $ .13

(G) BINDING POST-ALL METAL — Heavy brass nickel plated body and knurled cap; #8-32 x ½" mounting screw and lock washer supplied.
Cat. No. 33-284 Net $ .17

SPADE LUGS, ALLIGATOR AND BATTERY CLIPS

GC-Electrocraft Clips are carefully inspected and made of heavily plated steel (except copper clips). All springs used are made of selected steel or phosphor bronze. Electrocraft Clips constructed for long life.

(H) SPADE LUG PLUG, INSULATED—Molded plastic handle; tapered "fork" fits binding posts and terminal screws up to #10 size.
Cat. No. 33-300 Red Net $ .13
Cat. No. 33-302 Blk Net $ .13

(J) ALLIGATOR CLIP-INSULATED HANDLE—⅜" jaw opening; made of cadmium plated steel with unbreakable plastic handle.
Cat. No. 33-310 Red Net $ .10
Cat. No. 33-312 Blk Net $ .10

ALLIGATOR CLIP, SCREW CONNECTION—Molded plastic handle, cadmium plated steel jaws with maximum ⅜" opening.
Cat. No. 33-314 Red Net $ .12
Cat. No. 33-316 Blk Net $ .12

ALLIGATOR CLIP, SOLID COPPER—Identical to #33-314/16, except solid copper for higher current carrying capacity.
Cat. No. 33-318 Red Net $ .13
Cat. No. 33-320 Blk Net $ .13

ALLIGATOR CLIP—With extra long insulated handle; cadmium plated steel jaws which open to maximum ⅜".
Cat. No. 33-322 Red Net $ .23
Cat. No. 33-324 Blk Net $ .23

INSULATED ALLIGATOR CLIP ADAPTORS—Completely insulated with black molded plastic.
Cat. No. 33-326 Net $ .48
Cat. No. 33-328 Net $1.60

ALLIGATOR CLIP ADAPTOR—Accommodates standard tip plug or banana plug.
Cat. No. 33-330 Red Net $ .42
Cat. No. 33-332 Blk Net $ .42

ALLIGATOR CLIP ADAPTOR—Adapts standard tip plug to alligator clip.
Cat. No. 33-334 Red Net $ .33
Cat. No. 33-336 Blk Net $ .33

ALLIGATOR-KLIPZON PROD ADAPTOR—Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip.
Cat. No. 33-338 Red Net $ .38
Cat. No. 33-340 Blk Net $ .38

(K) MINI-GATOR CLIP (MUELLER)—Very small alligator clip for applications where space is a factor.
Cat. No. 33-342 Net $ .08
Cat. No. 33-344 Net $ .08

(L) ALLIGATOR CLIP-ALL METAL — Cadmium plated jaws with ⅜" opening.
Cat. No. 33-346 Net $ .07

ALLIGATOR CLIP-ALL METAL—For solderless connection of wire by means of a #6-32 binding head screw.
Cat. No. 33-348 Net $ .07
Cat. No. 33-350 Net $ .10

(M) ALLIGATOR CLIP INSULATOR—Flexible molded vinyl insulator fits over most standard alligator clips.
Cat. No. 33-360 Red Net $ .07
Cat. No. 33-362 Blk Net $ .07

(N) BATTERY CONNECTING & TESTING CLIP—5 amp rating; steel cadmium plated jaws with ½" spread.
Cat. No. 33-370 Net $ .07

BATTERY CONNECTING & TESTING CLIP—10 amp rating; steel cadmium plated jaws with 9/16" spread.
Cat. No. 33-372 Net $ .07

TEST PRODS AND ADAPTORS

GC-Electrocraft Test Leads and Prods are precision engineered and manufactured in accordance with the latest service and test requirements. Leads and prods can be furnished, with modifications, to meet customer's requirements.

(O) DELUXE TEST PROD 5¼"—Solderless design; wire fits through handle and is fastened to tip with knurled collar.
Cat. No. 33-380 Red Net $ .35
Cat. No. 33-382 Blk Net $ .35

LONG TEST PROD, NEEDLE POINT TYPE—Extra safe design due to long unbreakable plastic handle; replaceable phono needle tip.
Cat. No. 33-384 Red Net $ .33
Cat. No. 33-386 Blk Net $ .33

THIN HANDLE TEST PROD—With solderless wire connection; extruded plastic handle, press fitted on nickel plated brass test tip.
Cat. No. 33-392 Red Net $ .23
Cat. No. 33-394 Blk Net $ .23

(P) LONG REACH TEST PROD—Has 4" very thin insulated extension beyond handle. Needle point assembly; brass nickel plated.
Cat. No. 33-396 Red Net $ .27
Cat. No. 33-398 Blk Net $ .27

(Q) KLIPZON TEST PROD—Klipzon tip clips on wire or chassis; sharp point, easily penetrates insulation or corrosion; thin plastic handle.
Cat. No. 33-400 Red Net $ .67
Cat. No. 33-402 Blk Net $ .67

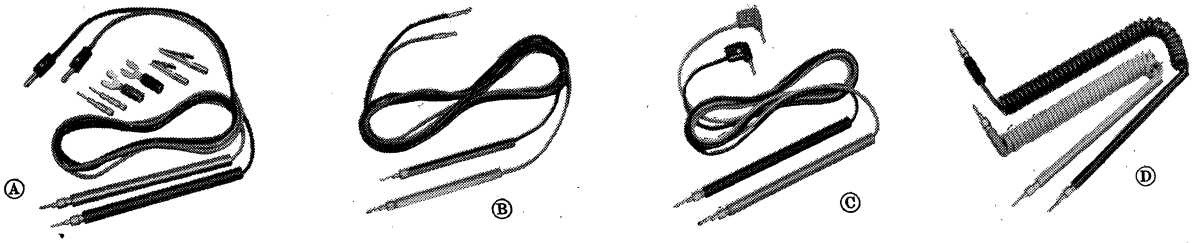
(R) HIGH VOLTAGE TEST PROD—Heavy-duty type; has guard ring to prevent accidental touching of tip; handle accepts wires up to ⅜" diameter.
Cat. No. 33-408 Red Net $ .75
Cat. No. 33-410 Blk Net $ .75

(S) KLIPZON CRYSTAL PROD KIT—Self-holding prod, complete with Germanium Diode and other parts to assemble low capacity crystal probe.
Cat. No. 33-412 Red Net $1.83
Cat. No. 33-414 Blk. Net $1.83

(T) KLIPZON JUMBO PROD HANDLE—Tip pierces insulation. Self-holding point clips on wires (up to .220" diameter); chassis, screws, terminals, etc.
Cat. No. 33-416 Red Net $ .68
Cat. No. 33-418 Blk Net $ .68

(U) KLIPZON LONGIE ADAPTOR—Long, slender self-holding point with needle to pierce insulation.
Cat. No. 33-420 Red Net $ .48
Cat. No. 33-422 Blk Net $ .48

(V) KLIPZON JUMBO ADAPTOR — Adapts regular tip plug or test prod to self holding Klipzon type.
Cat. No. 33-424 Red Net $ .67
Cat. No. 33-426 Blk Net $ .67



TEST LEADS

(A) UNIVERSAL TEST LEADS—50" flexible cable; one end 6" break-resistant plastic handle, with solderless tip plug; other end terminated in banana plug; supplied with alligator clip, spade lugs and phono tip plugs, fit the banana plug end.
Cat. No. 33-450 Net $1.80

UNIVERSAL "NEEDLEPOINT" TEST LEADS—One end 6" break-resistant Test Prod, with phono needle type test prod; other end terminated with banana plug; furnished with spade lugs, alligator clips and phono tip plug, fit on banana plug.
Cat. No. 33-452 Net $1.80

(B) "THRIFTY" TEST LEADS — 50" flexible kink-proof cable; one end 5" insulated test prods with solderless wire connections; other ends terminated in standard phone tips.
Cat. No. 33-454 Net $ .75

(C) HEAVY DUTY TEST LEADS—50" flexible kink-proof cable; 7½" long, heavy-duty unbreakable test prods, solderless wire connections.
Cat. No. 33-456 Net $1.12
Cat. No. 33-458 Net $1.27

HEAVY DUTY NEEDLE POINT TEST LEADS—50" flexible, kink-proof cable; 7" long, heavy duty needle point prods, unbreakable plastic handle.
Cat. No. 33-460 Net $1.17
Cat. No. 33-462 Net $1.35

LONG REACH TEST LEADS—50" flexible, kink-proof cable; one end "long reach" with 4" insulated test prod, very thin extension; other end terminated in right angle, meter-type insulated tip plug.
Cat. No. 33-464 Net $1.27

(D) STRETCH TYPE TEST LEADS—Kink-proof, spiral-type 9" cable; extended length 6 feet; one end 7½" heavy duty test prods with solderless wire connection; other end insulated, solderless tip plug.
Cat. No. 33-470 Net $2.97

WRITE for free GC Catalog.

Net

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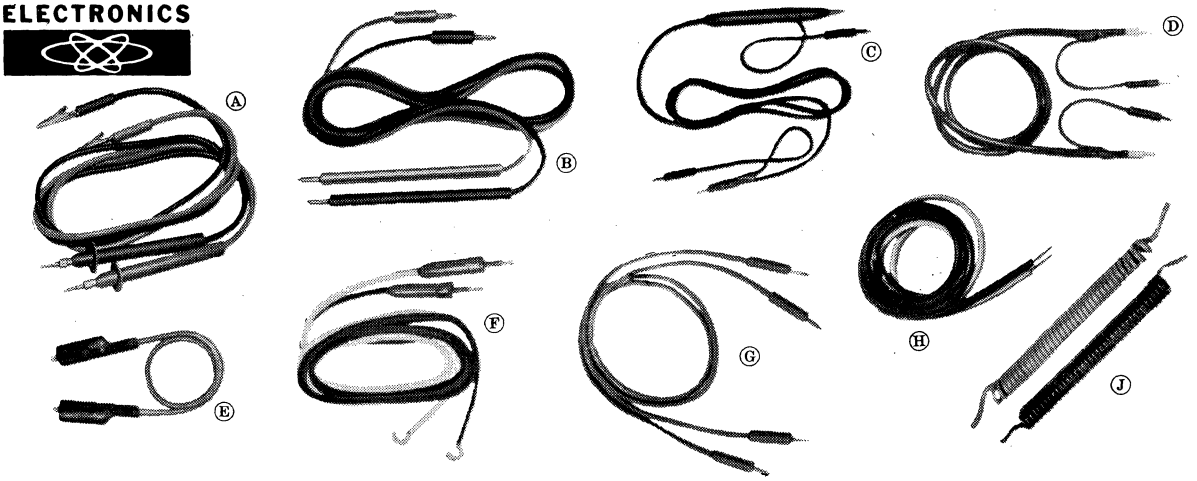
GC ELECTROCRAFT COMPONENTS TEST LEADS • PHONE PLUGS

ELECTRONICS



TEST LEADS

(A) HIGH VOLTAGE TEST LEADS—48" heavy insulated high tension wire (22,000/V).

Pair of 1 red, 1 black, with tip plugs.
Cat. No. 33-472 Net **$2.40**

Pair of 1 red, 1 black, with insulated spade lugs.
Cat. No. 33-474 Net **$2.40**

Pair of 1 red, 1 black, with alligator clips.
Cat. No. 33-476 Net **$2.40**

(B) KLIPZON TEST LEADS—48" flexible, kink-proof cable; one end slim handle, self-holding and insulation piercing, other end Klipzon Tip lugs. Klipzon prods and tips fit standard tip jacks, have sharp needle point to penetrate wire insulation, corrosion. Pair of 1 red and 1 black.
Cat. No. 33-480 Net **$1.95**

KLIPZON TEST LEADS—Same as above, but with standard Phone Tip Plugs.
Cat. No. 33-482 Net **$1.50**

KLIPZON TEST LEADS—Same as above, but other end insulated banana plug.
Cat. No. 33-484 Net **$1.95**

(C) KLIPZON CRYSTAL PROBE—Germanium diode probe with self-holding points, for measuring high frequency voltages; flexible lead wires are terminated on meter end with Klipon tip plug.
Cat. No. 33-486 Net **$4.35**

KLIPZON CRYSTAL PROBE — Crystal probe on one end, plus ground lead terminated on each end with tip plug.
Cat. No. 33-488 Net **$4.35**

(D) KLIPZON SHIELDED LOW CAPACITY—36" low capacity, coaxial type lead, with self-holding insulation piercing, tip prods.
Cat. No. 33-490 Net **$2.97**

(E) ALLIGATOR CLIP JUMPER LEADS—Flexible, kink-proof, lead wires, terminate at each end with fully insulated steel nickel plated alligator clips.
Pair of 1 red and 1 black, 12" long.
Cat. No. 33-500 Net **$ .82**
Pair of 1 red and 1 black, 24" long.
Cat. No. 33-502 Net **$1.87**
Pair of 1 red and 1 black, 36" long.
Cat. No. 33-504 Net **$ .97**
Pair of 1 red and 1 black, 48" long.
Cat. No. 33-506 Net **$1.02**

(F) HEAVY DUTY KLIPZON TEST LEADS—48" 16-gauge, heavy insulated lead wires, terminated on one end with Klipzon Jumbo prod handles.
Cat. No. 33-492 Net **$2.55**

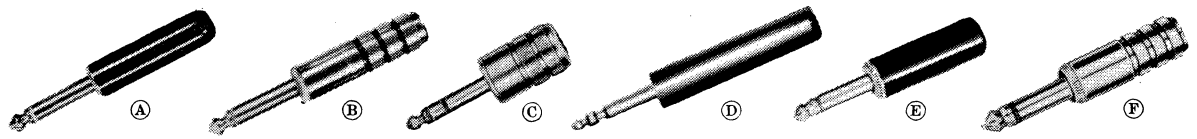
(G) KLIPZON JUMPER LEADS—Flexible, kink-proof cable, with patented tips, which clip on wires and terminals, have sharp insulation and corrosion piercing points.
Cat. No. 33-510 Red, 12" Net **$ .60**
Cat. No. 33-512 Black, 12" Net **$ .60**
Cat. No. 33-514 Red, 24" Net **$1.12**
Cat. No. 33-516 Black, 24" Net **$1.12**

(H) TEST LEAD WIRE—Flexible, rubber-coated and kink-resistant replacement wire for test leads.
Package of two, 50" length, red & black, 6000/V insulation.
Cat. No. 33-518 Net **$ .48**
Package of two, 48" length, red & black, 22,000/V test leads.
Cat. No. 33-520 Net **$ .75**

(J) STRETCH LEAD WIRE — Coiled wire, for all applications. Package contains 1 red and 1 black lead. 9" long—stretches to 6 Ft.
Cat. No. 33-522 Net **$1.95**

TEST LEAD PLUG INTERCHANGE KIT

— Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to many different types.
Cat. No. 33-530
Net **$2.25**



PHONE PLUGS

(A) TWO-CONDUCTOR PHONE PLUG, SCREW TERMINALS — Standard size plug. With black plastic handle.
Cat. No. 33-600 Blk Net **$ .45**
With red plastic handle.
Cat. No. 33-602 Red Net **$ .45**
Metal (shielded) handle.
Cat. No. 33-604 Net **$ .63**

(B) TWO-CONDUCTOR PHONE PLUG, COMB. CLAMP & SOLDER LUG TERMINALS—Large "grounding" terminal clamps around cable insulation or shield, and acts as strain relief.
With black plastic handle.
Cat. No. 33-606 Blk Net **$ .42**
With red plastic handle
Cat. No. 33-608 Red Net **$ .42**
Metal (shielded) handle.
Cat. No. 33-610 Net **$ .60**

TWO-CONDUCTOR PHONE PLUG, PLAIN SOLDER PLUGS—Standard size plug. With black plastic handle.
Cat. No. 33-612 Blk Net **$ .33**

"STUBBY" SHIELDED TWO-CONDUCTOR PHONE PLUG—Standard phone plug with special, short metal handle.
Cat. No. 33-614 Net **$ .53**

STANDARD SHIELDED TWO-CONDUCTOR PHONE PLUG—Regular plug with metal (shielded) handle.
Cat. No. 33-616 Net **$ .60**

TWO-CONDUCTOR PHONE PLUG, TYPE PJ-055B—Made in accordance with military specifications; solder terminal and screw connection.
Cat. No. 33-618 Net **$ .83**

SHORT FINGER, TWO-CONDUCTOR PHONE PLUG—Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere/Wollensack tape recorders.
Cat. No. 33-620 Net **$ .72**

LARGE HANDLE TWO-CONDUCTOR PHONE PLUG — With black plastic handle, 1½" long.
Cat. No. 33-622 Blk Net **$ .45**
With red plastic handle, 1½" long.
Cat. No. 33-624 Red Net **$ .45**
Metal (shielded) handle, 1" long.
Cat. No. 33-626 Net **$ .67**
Metal (shielded) handle, 2⅛" long.
Cat. No. 33-628 Net **$ .72**

"THIN FINGER" TWO-CONDUCTOR PHONE PLUGS—"Undersize" finger (barrel) diameter of .206" for applications where polarized input is desired to distinguish between different connections.
With black plastic handle.
Cat. No. 33-630 Blk Net **$ .45**
With metal (shielded) handle.
Cat. No. 33-632 Net **$ .60**

3-CONDUCTOR PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS:
With black plastic handle.
Cat. No. 33-640 Blk Net **$ .63**
With metal (shielded) handle.
Cat. No. 33-642 Net **$ .78**

3-CONDUCTOR PHONE PLUG, SCREW TERMINALS—
With black plastic handle.
Cat. No. 33-644 Blk Net **$ .72**
With red plastic handle.
Cat. No. 33-646 Red Net **$ .72**
With metal (shielded) handle.
Cat. No. 33-648 Net **$ .83**

(C) 3-CONDUCTOR PHONE PLUG, LARGE HANDLE—Accommodate large diameter cables, with room in handle for wired-in resistors or capacitors.
Cat. No. 33-650 Net **$ .78**

(D) 3-CONDUCTOR PHONE PLUG, TYPE PJ-068—With solder terminals and screw connection.
Cat. No. 33-654 Net **$2.17**

(E) MINIATURE PHONE PLUGS: COMB. CLAMP AND SOLDER TERMINALS—Two-conductor style, tested for 500/V breakdown.
With metal (shielded) handle.
Cat. No. 33-660 Net **$ .60**
With black plastic handle.
Cat. No. 33-662 Blk Net **$ .42**
With red plastic handle.
Cat. No. 33-664 Red Net **$ .42**

(F) MINIATURE PHONE PLUGS: COMB. CLAMP AND SCREW TERMINALS—Same plugs as listed above except for different style terminals.
With metal (shielded) handle.
Cat. No. 33-666 Net **$ .63**
With black plastic handle.
Cat. No. 33-668 Blk Net **$ .45**
With red plastic handle.
Cat. No. 33-670 Red Net **$ .45**

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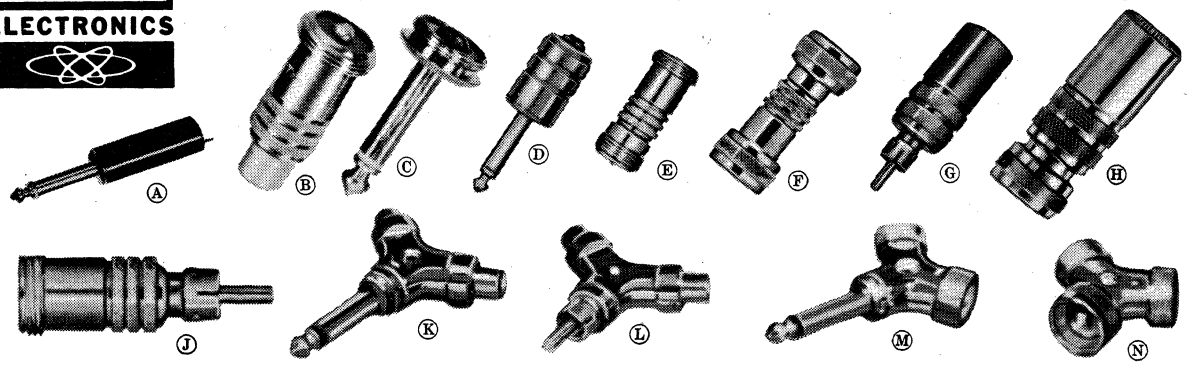
GC ELECTRONICS ELECTROCRAFT COMPONENTS — ADAPTORS · SWITCHES



GC Electronics Adaptors are designed for quickly interchanging various cable connectors; these handy devices are small, yet sturdy and of attractive modern design.

ADAPTORS

(A) PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-850 Net $ .75

PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT, HEAVY DUTY METAL SHIELDED TYPE.
Cat. No. 33-852 Net $ .87

(B) PHONO JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-854 Net $ .67

PHONO JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-856 Net $ .75

(C) FEMALE MICROPHONE CONNECTOR INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-858 Net $ .30

(D) MINIATURE PHONE JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-860 Net $ .87

(E) COUPLER, CONNECTS 2 FEMALE MICROPHONE CONNECTORS.
Cat. No. 33-862 Net $ .42

(F) COUPLER, CONNECTS 2 MALE MICROPHONE CONNECTORS.
Cat. No. 33-864 Net $ .48

(G) STANDARD PHONE JACK INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-866 Net $ .87

(H) STANDARD PHONE JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-868 Net $1.05

STANDARD PHONE JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-870 Net $ .98

(J) MALE MICROPHONE CONNECTOR INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-872 Net $ .75

(K) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: phono plug.
Cat. No. 33-880 Net $1.05

"Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: single phono jack.
Cat. No. 33-882 Net $1.05

(L) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: standard phone plug.
Cat. No. 33-884 Net $1.13

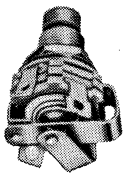
(M) "Y" ADAPTOR—Input: 2 male mike connectors (in parallel); output: standard phone plug.
Cat. No. 33-886 Net $1.13

(N) "Y" ADAPTOR—Input: 2 male microphone connectors (in parallel); output: female microphone connector.
Cat. No. 33-888 Net $ .98

PUSH-BUTTON SWITCHES

All styles are momentary (non-locking) design, and are made with long-wearing nickel silver springs, carefully adjusted. Insulation is high grade phenolic.

STANDARD SMALL PUSH BUTTON SWITCHES—Can also be supplied with silver contacts for 3 amp, 115/V. AC rating (on special orders in production quantities).

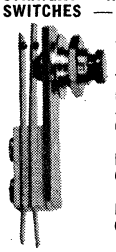


Single "make"; black button.
Cat. No. 34-000 Net $ .53
Single "make"; red button.
Cat. No. 34-002 Net $ .53
Single "break"; black button.
Cat. No. 34-004 Net $ .53
Single "break"; red button.
Cat. No. 34-006 Net $ .53
Single "break-make"; black button.
Cat. No. 34-008 Net $ .60
Single "break-make"; red button.
Cat. No. 34-010 Net $ .60

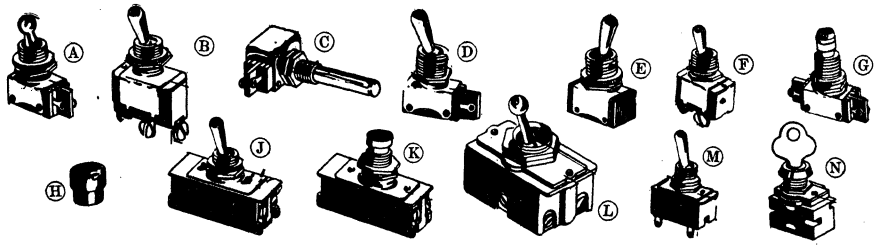
MINIATURE PUSH BUTTON SWITCHES

—Made of the same materials and to the same specifications as standard small switches listed above.
Single "make"; black button.
Cat. No. 34-020 Net $ .53
Single "make"; red button.
Cat. No. 34-022 Net $ .53
Single "break" black button.
Cat. No. 34-024 Net $ .53
Single "break-make"; black button.
Cat. No. 34-026 Net $ .60

STRAIGHT FRAME PUSH BUTTON SWITCHES — Fine silver contacts with minimum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black.



Single "make-break".
Cat. No. 34-032 Net $ .72
Double "make".
Cat. No. 34-034 Net $ .78
Double "break".
Cat. No. 34-036 Net $ .78
Double "break-make".
Cat. No. 34-038 Net $ .93



ARROW-HART SWITCHES

These switches, made by A. H. & H. for GC Electrocraft, are UL approved. The threaded sleeves are slotted to positively prevent turning of switch if used in keyed hole.

(A) BALL HANDLE TOGGLE SWITCH—Light duty; SPST types rated 3 amps, 250/V; all others 1 amp, 250/V, 3 amps, 125/V, AC-DC.
SPST — ½" Shank.
Cat. No. 34-050 Net $ .72
SPST — 1" Shank.
Cat. No. 34-052 Net $ .87
SPDT — ½" Shank.
Cat. No. 34-054 Net $ .90
SPDT — 1" Shank.
Cat. No. 34-056 Net $1.12
DPST — ½" Shank.
Cat. No. 34-058 Net $1.28
DPST — 1" Shank.
Cat. No. 34-060 Net $1.47
DPDT — ½" Shank.
Cat. No. 34-062 Net $1.47
DPDT — 1" Shank.
Cat. No. 34-064 Net $1.62

(B) MEDIUM DUTY, NEUTRAL CENTER TOGGLE SWITCH—Rating 10 amps 250/V; 15 amps 125/V; ¾ horsepower.
SPDT — 15/32" Shank.
Cat. No. 34-066 Net $ .98
DPDT — 15/32" Shank.
Cat. No. 34-068 Net $1.53

(C) ROTARY SWITCH—Laminated insulation; rating — SPST models, 3 amps, 25/V; all others 1 amp, 250/V-3 amps, 125/V, AC-DC.
SPST — ⅜" Shank.
Cat. No. 34-070 Net $ .90
SPST — 1" Shank.
Cat. No. 34-072 Net $1.12
SPDT — ⅜" Shank.
Cat. No. 34-074 Net $1.08
SPDT — 1" Shank.
Cat. No. 34-076 Net $1.17
DPST — 1" Shank.
Cat. No. 34-078 Net $1.58
DPDT — ⅜" Shank.
Cat. No. 34-080 Net $1.65
DPDT — 1" Shank.
Cat. No. 34-082 Net $1.65

ON-OFF PLATE—Fits all switches except slide and small canopy type.

(D) BAT HANDLE TOGGLE SWITCH—Light duty, laminated phenolic insulation. Rating SPST types, 3 amps, 250/V; all others 1 amp, 250/V — 3 amps, 125/V; AC-DC.
SPST — 15/32" Shank.
Cat. No. 34-086 Net $ .72
SPDT — 15/32" Shank.
Cat. No. 34-088 Net $ .90
DPST — 15/32" Shank.
Cat. No. 34-090 Net $1.28
DPDT — 15/32" Shank.
Cat. No. 34-092 Net $1.47

(E) WIRE LEAD TOGGLE SWITCH—Same switch as series listed above but with 6" wire leads.
SPST — ½" Shank.
Cat. No. 34-094 Net $ .93
SPST — ⅜" Shank.
Cat. No. 34-096 Net $ .93

(F) PUSH "ON" — PUSH "OFF" SWITCH—Laminated phenolic insulation; rating 3 amps, 250/V; 6 amps, 125/V, AC-DC. SPST.
Cat. No. 34-098 Net $1.28

(G) PUSH BUTTON, MOMENTARY SWITCH—2-circuit type; one circuit is normally "on" — the other is "off". Laminated phenolic insulation, rated at 1 amp, 125/V. Solder terminals.
Cat. No. 34-100 Net $ .98

(H) Red plastic push button for above switch.
Black plastic push button for above switch.
Cat. No. 34-102 Net $ .25
Cat. No. 34-104 Net $ .25

(J) MEDIUM DUTY TOGGLE SWITCH—Quick, make and break design, rating 6 amp, 250/V; 12 amp, 125/V; 12 amps, 125/V; 1 HP. DPST.
Cat. No. 34-106 Net $1.35

(K) HEAVY DUTY PUSH BUTTON SWITCH: MOMENTARY ACTION — Molded plastic housing; rating 6 amps, 25/V; 12 amps, 125/V; 1 HP. Push button switch.
Cat. No. 34-108 Net $2.02

(L) HEAVY DUTY TOGGLE SWITCH—240/V AC; transmitters, etc. Rating SPDT model 10 amps, 250/V; 15 amps, 125/V; other two types 5 amps, 250/V; 10 amps, 125/V.
DPDT.
Cat. No. 34-110 Net $ 4.92
3 PDT.
Cat. No. 34-112 Net $ 7.57
4 PDT.
Cat. No. 34-114 Net $10.08

(M) DELUXE TOGGLE SWITCH—1000/V rms — 60 cycle is desired. Rating SPDT model, 1 amp, 250/V; 6 amps, 125/V. All others 3 amp, 250/V; 6 amp, 125/V.
SPST — 15/32" Shank.
Cat. No. 34-120 Net $1.27
SPDT — 15/32" Shank.
Cat. No. 34-122 Net $1.43
DPST — 15/32" Shank.
Cat. No. 34-124 Net $1.80
DPDT — 15/32" Shank.
Cat. No. 34-126 Net $1.95

(N) LOCK SWITCH—Removable key; sleeve length 27/32"; rating 3 amps, 250/V; 6 amps, 125/V.
With key removable in open position only.
Cat. No. 34-150 Net $2.13
With key removable in open or closed position.
Cat. No. 34-152 Net $2.13
Key only.
Cat. No. 34-154 Net $ .20

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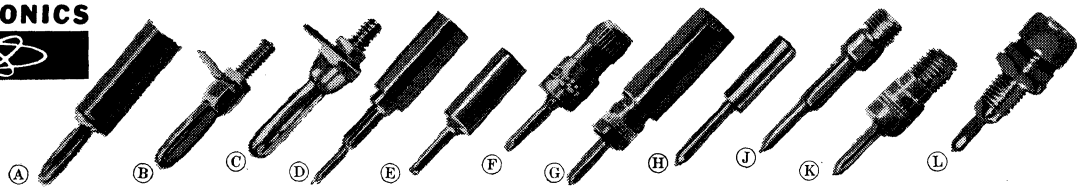
GC ELECTRONICS ELECTROCRAFT COMPONENTS — PLUGS · CABLE CLAMPS



BANANA PLUGS

These Banana Plugs meet standard industry specifications, mate with jacks with 0.163" bore.

(A) BANANA PLUG — Unbreakable plastic handle; four leaved, nickel plated phosphor bronze spring.

Cat. No.		Dlr. Net
33-032-1BU	Red	**$18.00/C**
33-032-2BU	Blk	**18.00/C**
33-032-3BU	Yel	**18.00/C**
33-032-4BU	Grn	**18.00/C**
33-032-5BU	Blu	**18.00/C**

(B) BANANA PLUG — Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. Lug & hex nut.

Cat. No. 33-034-BU Dlr. Net **$15.00/C**

(C) BANANA PLUG — Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. lug & hex nut.

Cat. No. 33-058-BU Dlr. Net **$15.00/C**

TIP PLUGS

These Tip Plugs are made to standard industry specifications of .080" diameter. Handles are unbreakable plastic.

(D)HEAVY DUTY PHONE TIP PLUG — Standard tip, large diameter for soldering heavy duty wire into nickel plated brass body.

Cat. No.		Dlr. Net
33-110-1BU	Red	**$15.00/C**
33-110-2BU	Blk	**15.00/C**
33-110-3BU	Yel	**15.00/C**
33-110-4BU	Grn	**15.00/C**
33-110-5BU	Blu	**15.00/C**

(E) INSULATED HOLLOW TIP PLUG — Drawn brass, nickel plated, solder type.

Cat. No.		Dlr. Net
33-116-1BU	Red	**$10.20/C**
33-116-2BU	Blk	**10.20/C**

(F) "JR." SOLDERLESS PHONE TIP—Press fit; nickel plated brass body; wire fastens under knurled collar.

Cat. No. 33-142-BU Dlr. Net **$ 9.60/C**

(G) "JR." SOLDERLESS PHONE TIP—Threaded nickel plated brass body; wire fastens under knurled collar.

Cat. No.		Dlr. Net
33-144-1BU	Red	**$15.00/C**
33-144-2BU	Blk	**15.00/C**
33-144-3BU	Yel	**15.00/C**
33-144-4BU	Grn	**15.00/C**
33-144-5BU	Blu	**15.00/C**

(H) HEAVY DUTY PHONE TIP PLUG — Brass; bright nickel plated, solder type.

Cat. No. 33-158-BU Dlr. Net **$26.40/C**

(J) HEAVY DUTY PHONE TIP PLUG—Soldering well in nickel plated brass body large enough for standard banana plugs; threaded to fit into plastic handle.

Cat. No. 33-170-BU Dlr. Net **$10.20/C**

(K) "JR." SOLDERLESS PHONE TIP — Nickel plated brass body; wire fastens under knurled collar; threaded to fit into plastic handle.

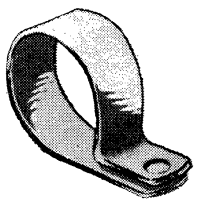
Cat. No. 33-172-BU Dlr. Net **$11.40/C**

(L) INSULATED TIP JACK—Molded Plastic head and washer; brass, nickel plated body with hex nut. Requires 5/16" hole; fits panels up to 1/4" thick.

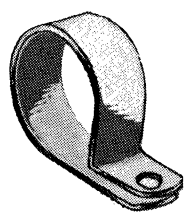
Cat. No.		Dlr. Net
33-208-1BU	Red	**$18.00/C**
33-208-2BU	Blk	**18.00/C**
33-208-3BU	Yel	**18.00/C**
33-208-4BU	Grn	**18.00/C**
33-208-5BU	Blu	**18.00/C**

SEND TODAY FOR NEW free GC Catalog . . . shows all GC quality products.

ELECTROCRAFT PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses—where temperatures range from —40° F. to 185° F. (2) Nyon (Zytel), for extreme durability and high resistance to temperature (—60° F. to 300° F.) and most chemicals.



ETHYL CELLULOSE CABLE CLAMPS
Transparent (light yellowish) plastic. Meets specifications AN742. Plastic thickness is .063".

NYLON (ZYTEL) CABLE CLAMPS
Natural color (translucent white) Nylon. Thickness is .050" on 1/2" dia. and smaller clamps, .060" on 5/16" and larger.

ETHYL CELLULOSE CLAMPS

For Cable O.D.	Cat. No.	Dlr. Net Per C	Cat. No.	Dlr. Net Per M
1/8"	34-300C	**$2.32**	34-300-M	**$19.80**
3/16"	34-304C	**2.40**	34-304-M	**19.92**
1/4"	34-308C	**2.58**	34-308-M	**21.97**
5/16"	34-312C	**2.85**	34-312-M	**24.23**
3/8"	34-316C	**3.00**	34-316-M	**25.50**
7/16"	34-320C	**3.30**	34-320-M	**27.83**
1/2"	34-324C	**3.60**	34-324-M	**29.63**
9/16"	34-328C	**4.20**	34-328-M	**34.68**
19/32"	34-332C	**4.50**	34-332-M	**36.00**
5/8"	34-336C	**4.80**	34-336-M	**39.83**
11/16"	34-340C	**5.10**	34-340-M	**42.71**
3/4"	34-344C	**5.40**	34-344-M	**44.76**
7/8"	34-348C	**5.70**	34-348-M	**48.36**
1"	34-352C	**6.00**	34-352-M	**51.60**
1 1/8"	34-356C	**6.30**	34-356-M	**55.08**
1 1/4"	34-358C	**6.60**	34-358-M	**58.20**

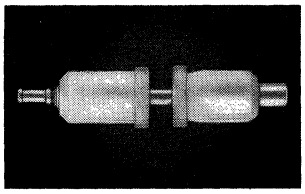
NYLON (ZYTEL) CLAMPS

For Cable O.D.	Cat. No.	Dlr. Net Per C	Cat. No.	Dlr. Net Per M
1/8"	34-370C	**$3.60**	34-370-M	**$30.00**
3/16"	34-374C	**3.93**	34-374-M	**31.77**
1/4"	34-378C	**4.17**	34-378-M	**34.73**
5/16"	34-382C	**4.68**	34-382-M	**38.37**
3/8"	34-386C	**4.83**	34-386-M	**40.32**
7/16"	34-390C	**5.13**	34-390-M	**42.63**
1/2"	34-394C	**5.47**	34-394-M	**45.38**
9/16"	34-398C	**6.72**	34-398-M	**62.26**
5/8"	34-402C	**7.50**	34-402-M	**65.63**
11/16"	34-406C	**7.80**	34-406-M	**77.33**
3/4"	34-410C	**8.40**	34-410-M	**75.00**
7/8"	34-414C	**9.00**	34-414-M	**81.00**
1"	34-418C	**10.50**	34-418-M	**96.00**

GARLOCK

CHEMELEC® SOCKETS AND CONNECTORS combine built-in reliability and simplicity of construction to form outstanding products for electrical and electronic circuits. They withstand rigid government tests for mechanical shock and vibration. Chemelec Sockets have zero water absorption, will not carbon track, exhibit low loss factor; Chemelec Connectors are available in standard R.M.A. colors; styles for compression mounting. Both will operate over various service ranges between −100°F to +500°F, will withstand extreme pressure altitudes. Garlock Catalog AD-169.

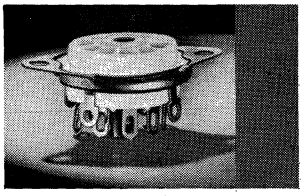
CONNECTORS



(1-Pin, Compression Mounted)

For compression-mounting directly into drilled or punched chassis holes. Used with plug-in crystal diodes, plug-in coils and forms, test probes, chassis test points and interconnecting connectors. Insulator material Teflon* TFE. Terminal material brass, silver plated and gold flashed. Flashover Point (Short time test at sea level)—4500 VRMS (male and female); Capacitance (Frequency 1000 KC)—.5 MMFD ($\frac{1}{16}$" deck), .9 MMFD ($\frac{3}{16}$" deck). Come in .040, .050, .064 pin sizes. Standard R.M.A. colors. Priced from 24¢.

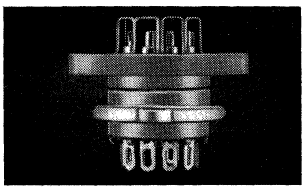
MINIATURE TUBE SOCKETS



(9-Pin, Bottom Mounting)

Insulator material either Teflon FEP or KEL-F. Base material either steel, cadmium plated or brass, nickel plated (plating meets JAN specifications). Contacts are beryllium copper and silver plated. Contacts exceed JAN specifications for tube retention, tab flexing and contact resistance. Sockets are also supplied less center shield. Priced from 60¢-70¢.

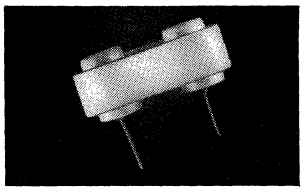
MINIATURE CONNECTORS



(9-Pin, Tube Base)

Male and female insulator material Teflon FEP or KEL-F.** Female base material either brass, nickel plated or steel, cadmium plated. Saddle (female) brass, nickel plated; contacts (female) beryllium copper; terminal pins (male) brass, silver plated and gold flashed; guide pin (male) brass, cadmium plated. Priced from 69¢.

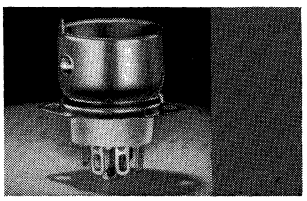
CRYSTAL SOCKETS



(Part 69007-4410)

Designed for use wherever low loss, frequency stability and mechanical shock and vibration are problems. Chemelec Crystal Sockets mount by means of a single hole, and can be either screwed or riveted. Assembly is facilitated by the elimination of breakage, a problem common with ceramics. Insulator is Teflon TFE. Contacts are beryllium copper, silver plated. Priced from 43¢.

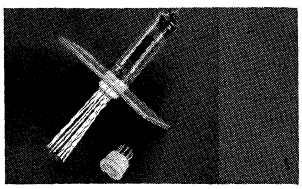
MINIATURE TUBE SOCKETS



(7 and 9-Pin, Shield Base)

Insulator material either Teflon FEP or KEL-F. Base material either steel, cadmium plated or brass, nickel plated (plating meets JAN specifications). Contacts are beryllium copper and silver plated. Contacts exceed JAN specifications for tube retention, tab flexing and contact resistance. Sockets are supplied with or without center shield. Priced from 60¢-70¢.

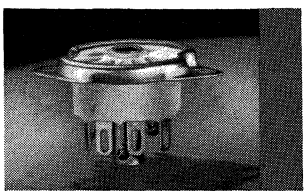
SUB-MINIATURE TUBE SOCKETS



(Compression Mounted)

Insulation material is Teflon TFE. Contact material is brass or beryllium copper. Contact finish is silver plated and gold flashed. Several types and sizes available with varying capacitance, chassis retention and contact retention characteristics, depending on size. Priced from 76¢.

MINIATURE TUBE SOCKETS



(7 and 9-Pin, Saddle Base)

Insulator material either Teflon FEP or KEL-F. Base material either steel, cadmium plated or brass, nickel plated (plating meets JAN specifications). Contacts are beryllium copper and silver plated. Contacts exceed JAN specifications for tube retention tab flexing, and contact resistance. Sockets are supplied with or without center shield. Priced from 60¢-70¢.

GARLOCK ELECTRONIC PRODUCTS

GARLOCK INC.

CAMDEN NEW JERSEY

*DuPont Trademark **M. M. & M. Trademark

Net

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Grayhill INC.

LA GRANGE, ILLINOIS

GRAYHILL BINDING POSTS

All metal parts are nickel plated brass. Insulating washers are non-turn "D" style phenolic to MIL-M-14. Integral solder stud plus two hex nuts for solder lug connections. All posts may be used on panels up to 3/16" thick and are shipped completely assembled.

29-3 SCREW TYPE

For ½" dia. mounting hole. ⅝" dia. insulating washers for use in existing equipment or where wider spacing is desirable. Available in red, black, white, yellow, blue, gray, green and brown.

29-3 (Red or Black) ..... **$.40 each**
29-3 (Choice of 6 colors) ..... **$.45 each**

29-1 SCREW TYPE

For ⅜" dia. mounting hole. ½" dia. insulating washers. Allows closer spacing of posts. Available in red and black.

29-1 (Red or Black) ..... **$.40 each**

29-33 SPRING LOADED

For ½" mounting hole. ⅝" dia. insulating washers. Spring loaded head gives 24 oz. of contact force. Designed for rapid connections. Available in red, black.

29-33 (Red or Black) ..... **$.40 each**

29B11 For use with 29-1 posts. Makes an assembled unit with two posts on ¾" centers. Molded phenolic to MIL-M-14.

29B11-1 (Black) - 29B11-2 (Red) ..... **$.10 each**

29-41

Binding Plug (screw type) conforms to same standard as the binding posts. Mounted on a standard banana plug.

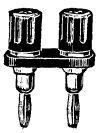
29-41R (Red) 29-41B (Black) ..... **$.50 each**

29-43

Binding Plug (spring loaded). Head gives 24 oz. contact force. Designed for rapid connections. **29-43R (Red) 29-43B (Black)**

29-43R (Red) 29-43B (Black) ..... **$.50 each**

29-42



Twin Binding Plug. Two binding plugs mounted on a molded phenolic base. Banana plugs are on standard ¾" centers. Sold as a completely assembled unit with two screw type heads.

29-42 ..... **$1.25 each**

29-44 Same as 29-42 except with spring loaded heads.

29-44 ..... **$1.25 each**

TEST CLIPS

The basic clip is available in 4 types of mounting. Designed for panel mounting on test equipment to allow rapid connections without manual opening and closing of jaws. Hex nut allows for tension adjustment of each clip. Clips are nickel plated brass. Length of test clip (excluding mounting base) is 1⅛".

2-0 Threaded stud. **$.20 each**

2-1 Banana plug. **$.35 each**

2-4 Threaded stud with insulating washers. **$.35 each**

2-6 Pin plug. **$.35 each**

MINIATURE TEST CLIPS

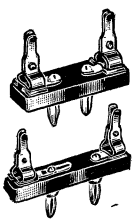
A miniature version of the standard test clip, with the same construction and design, but extends only ¾" above the mounting surface.

2-20 Threaded Stud **$.25 each**

2-21 Banana Plug **$.40 each**

2-24 Threaded Stud with Molded Phenolic Insulating Washers **$.40 each**

TEST CLIP ADAPTERS



2-2 For testing resistors, capacitors and other pigtail type components. Banana plugs are on standard ¾" centers. All metal parts are nickel plated brass. Mounting board is molded phenolic to MIL-M-14. Hex nut under clip allows for tension adjustment of individual clips. Test clip extends 1⅛" above board. **$1.40 each**

2-7 Similar to the 2-2 except that banana plugs are adjustable from ¾" to 1¼" centers. ..... **$1.50 each**

INSULATED TEST CLIPS

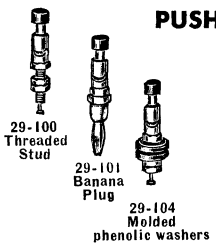
COMPLETELY INSULATED (including hinge pin) eliminating the danger of shorting. Molded parts are phenolic to MIL-M-14. .008" thick silver overlay at point of contact. Terminal is silver plated brass. Contact resistance .0015 ohms. All units tested at 500 volts to insure complete insulation.

16-B (Black) 16-R (Red) ..... **$.85 each**

TRANSISTOR SOCKET 22-11

Designed for JETEC 30 packaging. Leads fit on 100 MIL grid for printed circuit. Socket fits through ⅜" drilled or punched hole and may be fastened with rivets or #2 screws. Terminal numbers are molded into bottom of socket and top face has key rib for alignment with transistor tab. Contacts are wrap around type, silver plated beryllium copper with gold flash. Base is molded mica-filled phenolic per MIL-M-14, Type MFE ..... **$.35 each**

PUSH POST



Designed to provide fast positive connections, this post is operated by depressing the plunger, inserting lead, and releasing plunger. Spring pressure assures firm positive contact. Only ¾" overall height above mounting surface. Nickel plated brass parts. Red or black molded button cap.

29-100 (Red or Black) ..... **$.35 each**
29-101 (Red or Black) ..... **$.50 each**
29-104 (Red or Black) ..... **$.50 each**

SERIES 31 TEST JACKS

Designed for use on printed circuit boards as test points. Accommodates standard phone tip plugs from .081" to .0825" dia. Rivets to board like an eyelet. Rivet dia. is .114". Jack is silver plated brass with gold flash. Retaining ring is cadmium plated spring steel. Extends ¼" above circuit board.

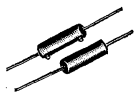
31-1 (for 1/16" board) ..... **$.25 each**
31-2 (for 3/32" board) ..... **$.25 each**
[illegible] (for 1/8" board) ..... **$.25 each**

PLASTIC SLEEVES FOR SERIES 31 TEST JACKS

Sleeves snap on and permanently lock in place over test jacks. Molded of thermo-setting plastic. Overall dimensions .24" dia. x .29" high. Available in black, red, green, gray, brown, blue, yellow and white.

31B—(Specify Color) ..... **$.05 each**

COIL FORMS

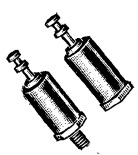


(Pat. No. 2,653,992)

MOLDED OF MICA FILLED PHENOLIC per MIL-M-14, Type MFE with leads of tinned solid copper wire. **$.20 each**

PART NO.		LENGTH	DIAMETER	LEAD WIRE DIA.
(28YY1003 (With Posts)	—1	.500"	.125"	.025"
	—2	.625"	.187"	.032"
	—3	.750"	.187"	.032"
	—4	.500"	.250"	.040"
28YY1006 (Without Posts)	—5	.750"	.250"	.040"
	—6	1.000"	.250"	.040"
	—7	.500"	.156"	.032"
	—10	.375"	.107"	.025"

STAND OFF INSULATORS



Body of insulator is molded of mica filled phenolic per MIL-M-14, Type MFE. Terminals are silver plated brass. Overall length excluding mounting stud is 15/16". Diameter is 5/16".

18-1 (Female) ..... **$.35 each**
18-2 (Male) ..... **$.40 each**

MATING INSULATING WASHERS

For jacks with a ⅜" dia. bushing. Washer for rear of panel has indexing hole that corresponds with the non-turn tab of the jack. Front washer fits under hex mounting nut. Sold in pairs.

21B78-1 (Mica filled phenolic) ..... **$.12 per set**
21B78-2 (Black elec. grade phenolic) ..... **$.12 per set**

MOLDED INSULATING WASHERS

Molded from black electrical grade or mica filled phenolics. Available in eight different sizes for #4 to ⅜" screws. Overall diameters are ⅜", ½", or ⅝".

21B1001 thru 5, 21B1021 & 22 ..... **$.05 each**
21B1006 ..... **$.06 each**

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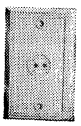
BROOKLYN, N. Y.

ALL **JAVEX** products are of highest quality and are guaranteed to SELL. Should any **JAVEX** item fail to give satisfaction in operation or quality, it may be returned for replacement, credit, or full refund.

TV, RADIO, HI-FI, STEREO, AUDIO, ELECTRICAL, ELECTRONIC COMPONENTS UL WHERE NECESSARY, **NEMA STANDARD UNILINE OR SIERRA DESIGN ON ALL WALL PLATES. IVORY OR BROWN.**

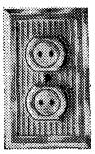


SINGLE OUTLET TV WALL PLATE

For extreme simplicity, convenience and efficiency in any TV or FM installation using 300 ohm transmission line. Uniline or Sierra design wall plates to match any existing decor. Use with XP-2 or MPX plugs.
Complete with mounting screws. Solderless.
Hi-Side for surface mounting, Regular for wall box installation.

WP-1 ..... **LIST PRICE $1.49**

ALSO FURNISHED FOR DOUBLE OUTLET—WP-2, FOR ROTATORS WITH 2 & 4 WIRE—WP-2-4, AND IN 6, 8 & 10 WIRE—WP-6, WP-8, WP-10, WITH SEPARATE PLATE & RECEPTACLE IN DOUBLE TV OUTLET AND ROTATOR COMBINATIONS AS BELOW.

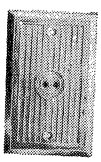


DUPLEX TV RECEPTACLE WITH WALL PLATE

For two 2-wire sockets or one 2-wire and one 4-wire socket. For 2 TV leads or for TV-FM or for TV and rotor. Use with XP-2 and XP-4 or MPX plugs. Complete with mounting screws.

DUX-2-2 ..... **LIST PRICE $1.97**
(for two 300-ohm outlets)

DUX-2-4 ..... **LIST PRICE $2.15**
(for one 300-ohm & one 4-wire outlet)

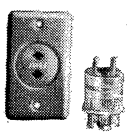


MULTI-SET TV ISOLATOR

MI-50 isolator on a wall plate acting as a single or double TV outlet.
Complete with mounting screws and MPX plugs. Solderless.

MI-TV-1 ..... **LIST PRICE $3.29**
(1 outlet)

MI-TV-2 ..... **LIST PRICE $3.95**
(2 outlets)

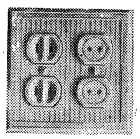


MULTI-SET TV ISOLATOR

Ideal for hotels, motels, and Multi-Set installations, 25-50 TV sets operate on one antenna. Limited only by the signal strength in your locality. One isolator required at each TV set. Complete with Magi plug and mounting screws.
Size 1¼" x 2" x 7/16" high. Solderless.

MI-50 ..... **LIST PRICE $2.95**
MPX Magi-Plug Available Separately
LIST PRICE $2.15

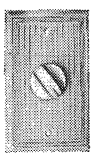
COMPLETE AC-TV WALL PLATES



One TV receptacle plus one AC receptacle of standard UL rating and a 2-gang duplex wall plate. Use with XP-2 and XP-4 or MPX plugs. Complete with mounting screws. Solderless.

AC-TV-2-2 ..... **LIST PRICE $2.37**
(two 2-wire TV outlets plus AC outlet)

AC-TV-2-4 ..... **LIST PRICE $2.69**
(one 2-wire TV outlet and one 4-wire Rotor outlet plus AC outlet).



VOLUME ('L' PAD) CONTROL

For Hi-Fi and other remote multiple installations where individual loud speaker volume control is necessary. 'L' pad type. 8 & 16 ohm.

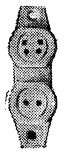
CONTROL ONLY

LC-8 ..... **LIST PRICE $2.95**
LC-18 ..... **LIST PRICE $2.95**

WITH PLATE

LCP-8 ..... **LIST PRICE $3.45**
LCP-16 ..... **LIST PRICE $3.45**
LCP-dual. 2-L pads, 8 or 16 ohms ..... **LIST PRICE $5.66**

ALSO — TENNA-SHINGLES, HIGH VOLTAGE PROBES, CRYSTAL HOLDERS, AC RECEPTACLES, BAKELITE WALL BOXES AND JAVEX MINI-PLATES AND SOCKETS. WRITE FOR CATALOG.

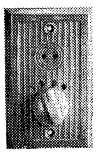


DUPLEX OUTLET RECEPTACLE

This receptacle is supplied in two styles for TV-FM, rotors, etc. Complete with mounting screws. Solderless. Use with XP-2 and XP-4 or MPX plugs.

DU-2-2 ..... **LIST PRICE $1.29**
(two 300-ohm outlets)

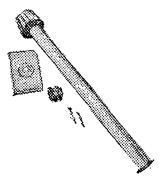
DU-2-4 ..... **LIST PRICE $1.59**
(one 300-ohm & one 4-wire outlet)



COMBINATION SWITCHING & VOLUME ('L' PAD) OUTLET PLATES

Plate with 4 pos., 2 pole switch.

WPS ..... **LIST PRICE $3.56**
4 pos., 2 pole switch and 2 wire outlet.
WPS-1 ..... **LIST PRICE $3.95**
WPS-dual. 2-4 pos. 2 pole switches **LIST PRICE $5.66**
WLS ..... **LIST PRICE $5.66**
8 & 16 ohm, 4 pos., 2 pole switch, plus L pad.
WPL-1 ..... **LIST PRICE $3.95**
8 or 16 ohm 'L' pad plus front outlet jack.



®TENNA-TUBE THRU-WALL

Featuring the new 300-ohm JAVEX Mini-Plates, MWP-2 or MWP-4. Will connect any VHF-UHF lead-in. Will accommodate regular or special twin, RG, ladder, co-axial, oval, and round leads.

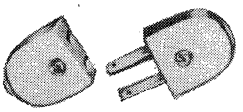
TT WITHOUT PLATE ..... **LIST PRICE $1.49**
TT-2 WITH PLATE & PLUG ..... **LIST PRICE $2.79**
TT-4 WITH PLATE & PLUG FOR 4 WIRE ..... **LIST PRICE $3.10**

PLUGS

Cannot be plugged into 110 VAC. True 300-ohm with triple plated red brass octal base pins. Sparkling molded acrylic resin of the most handsome quality. ¾" x 5/8" high, with easy grip sides. Solderless.

XP-2 2 Wire ..... **LIST PRICE $ .30**
XP-4 4 Wire ..... **LIST PRICE $ .59**
XP-9 9 Wire ..... **LIST PRICE $1.73**

2 AND 4 WIRE LINE SPLICERS
S-2 .....**LIST .19** **S-4** .....**LIST .39**



SUPER AC CONNECTOR

BAKELITE FOR 2 WIRE AC SERVICE. RATED 10 AMPS @ 250 VOLT

SMK-2 ..... **LIST PRICE $ .69**

OCTAL PLUG

Fits Octal Sockets. Screw cap. Finest Precision Bakelite Molding.

SP-8 ..... **LIST PRICE $ .93**

MINIATURE PHONE PLUG & JACK

Tiniest and finest set for open or closed circuits. Screw on caps, less than 3/8" dia., 1" long overall.

SMJ ..... **LIST PRICE $ .93**

TEST LEADS
Red & Black Vinyl in 3 Combinations

Finest quality vinyl, red and black leads in 3 combinations of pin and alligator tips.

SL-1 Pin tips and prods. ..... **LIST PRICE $1.69**
SL-3 Pin tip and alligator clips ..... **LIST PRICE $1.69**
SL-5 Alligator clips both ends ..... **LIST PRICE $1.69**

YOU CAN ALWAYS DEPEND ON A JAVEX PRODUCT

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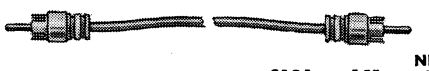
LAB-TRONICS, INC.
CHICAGO ILLINOIS U.S.A.

CONNECTING CABLES with *Lenite*
MOLDED PLUGS and JACKS

FOR HI-FI, TUNERS, AMPLIFIERS, PRE-AMPLIFIERS, RECORDERS, SPEAKERS, SPEAKER EXTENSIONS, RECORD CHANGERS, PUBLIC ADDRESS SYSTEMS, AUDIO EQUIPMENT, RADIO AND STEREOPHONIC SYSTEMS

SHIELDED

SHIELDED CONNECTING CABLES WITH MOLDED PHONO PIN PLUGS AND MOLDED PHONO PIN JACKS

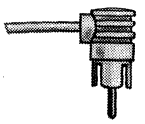


Shielded cable. Molded Phono Pin Plug each end.

		NET
C101	18"	.54
C102	36"	.63
C103	72"	.81
C104	120'	1.11

Shielded cable. Molded Phono Pin Plug; Stripped & Tinned.

		NET
C105	18"	.39
C106	36"	.48
C107	72"	.66
C108	120'	.96



(Where a 90° right angle molded phono pin plug is desired, add "R" to stock number.)

The silver-gray cable is of high-quality, low-capacitance type for minimum loss. Used for interconnecting tuners, pre-amps, amplifiers, record changers, recorders and accessories, wherever Phono Pin Jack or Plug is used.

Shielded cable. Molded Phono Pin Plug; Phono Pin Jack.

		NET
C201	18"	.63
C202	36"	.72
C203	72"	.90
C204	120'	1.20

Shielded cable. Molded Phono Pin Jack each end.

		NET
C401	18"	.84
C402	36"	.93
C403	72"	1.11
C404	120'	1.41

MOLDED DUAL PHONO PIN PLUG FOR ALL STEREO AMPLIFIERS

Plugs into standard ⅞' Centers dual phono jacks on all stereo amplifiers. Used for interconnecting stereo record changers, amplifiers and accessories.

Two conductor shielded stereo cable. Molded dual phono pin plug; stripped and tinned.

		NET
SP8003	3'	1.68
SP8006	6'	1.95
SP8010	10'	2.31

Two conductor shielded stereo cable. Molded dual phono pin plugs each end.

		NET
SP8403	3'	2.19
SP8406	6'	2.46
SP8410	10'	2.82

MOLDED PHONE PLUGS

A fully SHIELDED MOLDED standard phone plug, available either straight or right angle, with gray, low-capacitance 100% shielded cable. The newly designed gray molded handle is grooved for ease in gripping, and permits easy insertion into a recessed jack.

Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Plug.

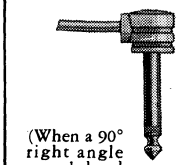
		NET
C4406	6'	1.11
C4410	10'	1.35
C4415	15'	1.65

Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Jack.

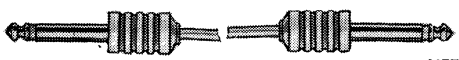
		NET
C4506	6'	1.17
C4510	10'	1.41
C4515	15'	1.71

Shielded cable. Molded SHIELDED Phone Plug; Stripped and Tinned.

		NET
C4006	6'	.96
C4010	10'	1.20
C4015	15'	1.50



(When a 90° right angle molded phone plug is desired, add "R" to stock number.)

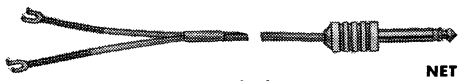


Shielded cable. Molded SHIELDED Phone Plug each end.

		NET
C4306	6'	1.32
C4310	10'	1.56
C4315	15'	1.86
C4325	25'	2.46

Shielded cable. Molded SHIELDED Phone Plug; Molded SHIELDED Phone Jack.

		NET
C4606	6'	1.71
C4610	10'	1.89
C4615	15'	2.19



Shielded cable. Molded SHIELDED Phone Plug; Lugs.

		NET
C4106	6'	1.02
C4110	10'	1.26
C4115	15'	1.56

MICROPHONE CONNECTORS

L-T has developed a new molded connector which is interchangeable with the present type now on the market. Molded grip with the cable molded directly onto the polished nickel plated brass connector. BOTH the conductor AND shield are soldered to the connector prior to molding, insuring noise-free operation. Heavy duty co-axial shielded cable, low loss, with a nominal capacitance of approximately 25 mmf/ft. For use with microphones, pre-amps, test equipment, VTVM, oscilloscopes, recorders, custom Hi-Fi installations or wherever a standard microphone connector is used. The coupling ring may be screwed back to convert connector from female to male type. Molded in gray to match the silver-gray cable.

Shielded cable. Molded Male and Female Microphone Connector.

		NET
E906	6'	1.29
E912	12'	1.71
E925	25'	2.64

Shielded cable. Molded Microphone Connector; Molded Phono Pin Plug.

		NET
E801	1'	.74
E803	3'	.90
E806	6'	1.11

Shielded cable. Molded Microphone Connector; Stripped and Tinned.

		NET
E1106	6'	.99
E1110	10'	1.29
E1125	25'	2.40

Shielded cable. Molded Microphone Connector; Molded Phone Plug.

		NET
E1306	6'	1.29
E1310	10'	1.59
E1325	25'	2.76

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LAB-TRONICS, INC.

CHICAGO ILLINOIS U.S.A.

MOLDED PLUGS and JACKS for SPEAKER EXTENSIONS with *Lenite*

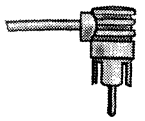
FOR SPEAKER EXTENSIONS, AUDIO RECORDING, LOW IMPEDANCE PATCHING, VOICE COIL, RECORDING, SPEAKER LINES, VOLTAGE LINES, ETC.

PARALLEL CABLE (Not Shielded)

Flexible cable (not shielded) with molded phono pin plug for voice coil recording, speaker extensions, audio output, low impedance lines, etc. When the right angle type is desired, add "R" to the stock number.

Flexible cable. Molded Phono Pin Plug each end.

		NET
P6406	6'	.66
P6410	10'	.78
P6420	20'	1.08



(Where a 90° right angle phono pin plug is desired, add "R" to the stock number.)

Flexible cable. Molded Phono Pin Plug; Stripped and Tinned.

		NET
P6006	6'	.45
P6010	10'	.57
P6020	20'	.87

Flexible cable. Molded Phono Pin Plug; Clips.

		NET
P6206	6'	.75
P6210	10'	.87
P6220	20'	1.17

Flexible cable. Molded Phono Pin Plug; Lugs.

		NET
P6106	6'	.51
P6110	10'	.63
P6120	20'	.93

Molded Phone Plug, either right angle or straight, with flexible cable (unshielded) for use with radio voice coil recording, speakers, headphones, audio output, or other low impedance circuits. Silver-gray cable and plugs.

Flexible cable. Molded Phone Plug each end.

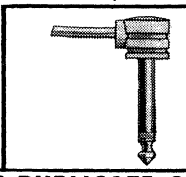
		NET
P7306	6'	1.26
P7310	10'	1.38
P7320	20'	1.68

Flexible cable. Molded Phone Plug; Stripped and Tinned.

		NET
P7006	6'	.75
P7010	10'	.87
P7020	20'	1.17

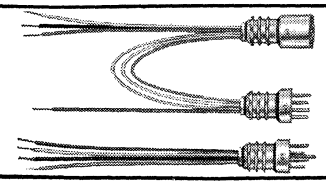
Flexible cable. Molded Phone Plug; Molded Phono Pin Plug.

		NET
P7406	6'	.96
P7410	10'	1.08
P7420	20'	1.38



Flexible cable. Molded Phone Plug; Phono Pin Jack.

		NET
P7506	6'	1.02
P7510	10'	1.14
P7820	20'	1.44

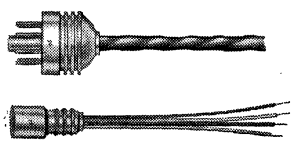


EXACT DUPLICATE CABLES for ORIGINAL EQUIPMENT REPLACEMENT

Molded Male Plugs; with Molded Female Receptacles, Molded Octal Plugs, etc. (as widely used on Record Changers and Audio and TV equipment).

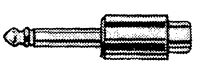
Write for Exact Duplicate Replacement Catalog.

Cable Assemblies manufactured to specifications for O. E. M.



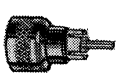
ADAPTERS & CONNECTORS

C400 Phono Pin Jack; Phono Pin Jack.
C400.....**NET .60**

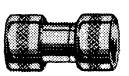


P55A Phono Pin Jack; Phone Plug.
P55A.....**NET .75**

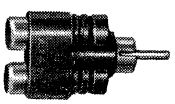
M75P Male Mic; Phone Plug.
M75P.....**NET .30**



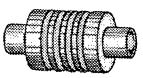
MP Mic; Phono Pin Plug.
MP.....**NET .60**



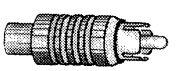
C800 Mic; Mic.
C800.....**NET .60**



A754 Two Phono Pin Jacks; Phono Pin Plug.
A754.....**NET 1.20**

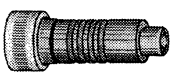


A753 PhoneJack; Phono Pin Jack.
A753.....**NET 1.05**

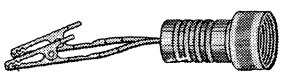


A750 PhoneJack; Phono Pin Plug.
A750.....**NET 1.05**

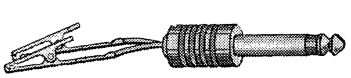
A780 Phono Pin Jack; 2 Prong Polarized Plug ¼" centers.
A780.....**NET .75**



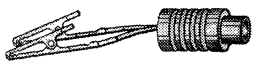
A751 Mic Connector; Phono Pin Jack.
A751.....**NET .75**



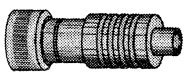
A779 Mic Connector; Clips. **NET .75**



A782 Phone Plug; Clips. **NET .75**



A778 Phono Pin Jack; Clips. **NET .75**
A781 Phone Jack; Clips. **NET 1.05**



A752 Mic Connector; Phone Jack.
A752.....**NET 1.05**

ALL PRICES QUOTED ARE U.S.A. PRICES

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

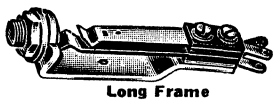
Thank you!

The *Radio-Electronic* **MASTER**

P R MALLORY & CO Inc
MALLORY

P. R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

JACKS, PLUGS, KNOBS, DIAL PLATES and HARDWARE



Long Frame

Midget

Junior

Long Fr.		Junior		Infant and Midget		
Mal. No.	Net Ea.	Mal. No.	Net Ea.	Mal. No.	Net Ea.	Schem.
1	45c	701	45c	A-1	39c	
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			
		703C	60c			
		704	69c			
		704A	69c			
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					

XP JACKS

For telephone switchboard and industrial applications requiring a compact jack for close strip panel mounting. Special frame angle provides greater support. Plain, unthreaded bushing; jack mounts by use of screw through panel mounting plate at bushing base. Bushing fits all standard two and three conductor Mallory plugs. Springs assembled horizontally to frame. Bushings and springs nickel-plated; cadmium-plated steel frame; fine silver contacts.

Mallory No. XP1—Open circuit type. Net Each..... **63c**

Mallory No. XP2B—Three circuit microphone type. Net Each..... **75c**

Mallory No. XP3B—Single circuit, make before break type. Net Each.. **90c**

SC JACKS

Mallory No. SC-1A Phone Jack—Equivalent of Military No. JJ-034. Same spring arrangement as No. 1 long frame jack. Designed to receive following plugs: Mallory No. 75: Western Electric Nos. 47A and 47B: Signal Corps Nos. PL-47, PL-48, PL-55, PL-148, PL-155, PL-125; JAN plugs PJ-055, PJ-155, PJ-634, PJ-636 and PJ-047. Net Each.... **36c**

Mallory No. JJ-034—JAN-J-641 version of SC-1A. Net Each..... **39c**

Mallory No. SCA-2B—Microphone Jack. Equivalent of Military Jack No. JJ-033. Same spring arrangements as No. 2B long frame jack. Designed to receive the following plugs: Western Electric No. 109 and Signal Corps Nos. PL-68 and PL-168. JAN Plugs PJ-068, PJ-168, and PJ-309. Net Each..... **42c**

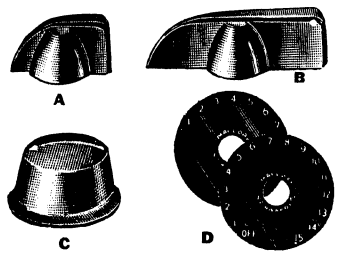
Mallory No. JJ-033—JAN-J-641 version of above. Net Each..... **48c**

EXTENSION JACKS

Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$0.84
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PHONE PLUGS

Mal. No.	Circuit	Shell	Net Each
55	.....	Adapts mike con. to stand. jack	$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece, tie-cord anchor, built-in cble. clp.	1.05
75N	2-way	Nickel; tie-cord anchor, shielded	.66
76	3-way	Phenolic	.66
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug, shielded	.36



DIAL PLATES (FIG. D)

Aluminum dial plates with figures etched on solid black background. $1^{13}/_{16}$" dia., $^{7}/_{16}$" hole, figures $^{7}/_{64}$" high, .020" thick.

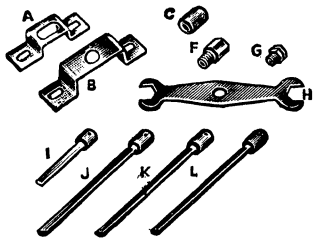
Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
.....	372	1 to 2	12c
453	373	1 to 3	12c
454	374	1 to 4	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463	.....	1 to 13	12c
464	.....	1 to 14	12c
465	.....	1 to 15	12c
466	.....	1 to 16	12c
467	.....	1 to 17	12c
468	.....	1 to 18	12c
472	.....	Off 1 to 2	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481	.....	Off 1 to 11	12c
482	.....	Off 1 to 12	12c
483	.....	Off 1 to 13	12c
484	.....	Off 1 to 14	12c
485	.....	Off 1 to 15	12c
486	.....	Off 1 to 16	12c
.....	394* Special	1 to 24	12c
.....	487† Special	1 to 5	12c
.....	488‡ Special	1 to 4	12c

Spacing between numerals: *15°,†60°,‡90°

ROUND AND BAR KNOBS

Mall. No.	Fig.	Description	Net
364	.....	$^{11}/_{16}$" dia. round, black	9c
365-1	B	2¼" bar knob, black	21c
366-1	A	1¼" bar knob, black	15c
366-R-1	A	1¼" bar knob, red	15c
367-1	C	1½" dia. round, black	21c
368-1	C	1⅛" dia. round, black	18c

CONTROL HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	H	For ½" and $^{9}/_{16}$" hex nuts	51c

COUPLERS, BUSHINGS

EC240	C	Univ. coupling and reducer	60c
EB247	F	Univ. extension bushing	42c
UB241	G	Univ. bushing and nut	9c
EB158	...	⅜" dble. flat. bushg.	51c
EB214	...	⅜" flatted bushing	54c

ADJUSTABLE MOUNTING BRACKETS

Mal. No.	Fig.	Description	Net Ea.
RB248	A	1¾" mounting centers	21c
RB249	B	2½" mounting centers	24c
RB254	...	Universal	15c

UNIVERSAL EXTENSION SHAFTS

Mal. No.	Fig.	Description	Net Ea.
RS242	J	4" long, ¼" dia., ¼" flat	57c
RS243	K	4" long, ¼" dia., ⅜" flat	57c
RS244	L	4" long, ¼" dia., ⅛" flat	57c
RS245	I	2" long, ¼" dia., ⅜" slot	81c

DIAL PLATES FOR RHEOSTATS AND POTENTIOMETERS (NOT ILLUS.)

(No. 391—1½" diameter; 370—5½" diameter—all others—2¼" diameter).

Mall. No.	Marking	Control Type For	Net Each
369	0 to 100	All rheostats and potentiometers	21c
370	0 to 100	"K" type rheostats and potentiometers	85c
391	Increase Volume	All rheostats and potentiometers	21c
393	0 to 10	"C" types	21c
395	0 to 10	"M" type; Wirewounds with plain covers	21c
396	0 to 10	Wire-wounds with switch covers	21c
397	0 to 10	Carbon with plain covers	21c
398	0 to 10	Carbon with switch covers	21c
399	0 to 10	"E" type pot's.	21c

HEX SHOULDER NUTS (NOT ILLUS.)

Mallory No.	Description	Net
255	For ¼" panels	12c
A11260-12	For ½" panels	15c
A11260-2	For ¾" panels	18c

TYPE "K" RHEOSTAT ACCESSORIES

Mal. No.	Description	Dia.	Net Ea.
365-1	Bar knob	2¼"	$0.21
366-1	Bar knob	1¼"	.18
367-1	Knurled rd. knob	1½"	.21
368-1	Knurled rd. knob	1⅛"	.15
364	368 w/pointer	$^{11}/_{16}$"	.09
363-1†	Handwheel*	3½"	2.49
363-2†	Handwheel**	3½"	1.93
362-1	Handwheel*	3½"	2.03
362-2	Handwheel**	3½"	2.03
361	Finger Grip*	1⅜"	.70
361-1	Finger Grip**	1⅜"	.55
360	Finger Grip*	1⅛"	.99
360-1	Finger Grip**	1⅛"	.89
359†	Finger Grip*	2⅜"	.64
359-1†	Finger Grip**	2⅜"	.50

*With Pointer. **Without Pointer.
†⅜" hole dia., others, ¼".

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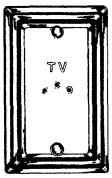
Mosley TV Installation Accessories

FLUSH MOUNTED TV SOCKETS



Easy-to-install, attractive wall plate TV sockets for every installation requirement. Ivory or brown plates are styled to harmonize with existing electrical plates. Available in types for single, dual or triple lead-in lines and for single and dual lines plus 4-wire rotor cable. Packaged with mating plug(s), F-9 mounting brackets and full instructions.

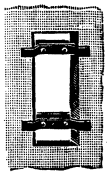
		Net
F-1PK	1 – 300 ohm lead	$1.23
F-11PK	2 – 300 ohm leads	1.69
F-111PK	3 – 300 ohm leads	1.77
F-14PK	1 – 300 ohm lead & 4-wire rotor	2.21
F-114PK	2 – 300 ohm leads & 4-wire rotor	2.21

"ANTI-STUB" TV/FM WALL PLATE OUTLETS

Similar to F-1PK, above, but with switch to disconnect system beyond outlet being used. Prevents "stub-effect". Silver plated positive action contacts. Brown or ivory polystyrene. With polarized plug and mounting hardware.

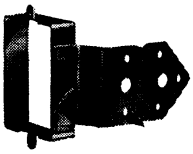
Type FD-1PK . . . . . Net, $1.32

MOUNTING HARDWARE



Type F-9, Mounting Brackets of heavy gauge steel for installing F-Series Sockets in walls of existing buildings. Requires rectangular opening 1¾" wide by 4" long.

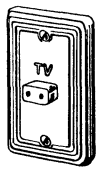
Type F-9 . . . . . Net, $ .23



Type F-8 Plaster Ring for installing F-Series Sockets in new construction. Mounts easily and quickly to wood studding. Adjustable for plaster thicknesses up to 1½". Heavy plated steel.

Type F-8 . . . . . Net, $ .26

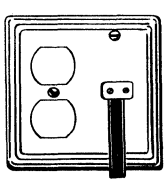
SURFACE MOUNTED SOCKETS



Surface mounted sockets resemble flush wall plate types but may be used for either concealed wiring or where TV line is brought along surface of wall. No wall opening required. In brown or ivory polystyrene. Supplied with mating plug(s) and wood screws.

		Net
SM-1PK	1 – 300 ohm lead	$1.04
SM-11PK	2 – 300 ohm leads	$1.42
SM-111PK	3 – 300 ohm leads	$1.58
SM-14PK	1 – 300 ohm lead & 4-wire rotor	$2.32
SM-114PK	2 – 300 ohm leads & 4-wire rotor	$2.32

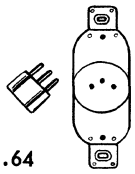
AC/TV WALL PLATE SOCKETS



Combination TV lead-in outlet and plate for double convenience outlet. Ideal for installation during new construction or remodeling. Metal barrier plate, supplied separates AC and TV services to comply with electrical codes. Install in ganged electrical boxes. Brown or ivory. With mating plug(s) and mounting screws.

		Net
AC-1PK	Single 300 ohm lead	$1.24
AC-11PK	Dual 300 ohm lead	1.65
AC-111PK	Triple 300 ohm lead	2.19
AC-14PK	One 300 ohm lead & 4-wire rotor	2.19
AC-114PK	Two 300 ohm leads & 4-wire rotor	2.63

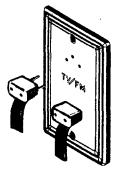
TV/FM WALL PLATE OUTLETS



Permits all electrical and TV/FM outlets to be matched. Designed to fit standard, single or double convenience outlet plates, either plastic or metal. Brown or ivory polystyrene.

FY-1	Single 300 ohm TV/FM outlet	Net, $ .64
FY-1PK	Single 300 ohm TV/FM outlet with mating plug and hardware	Net, $1.01
FY-14	Single 300 ohm TV/FM outlet and 4-wire rotor socket	Net, $ .83
FY-14PK	Single 300 ohm TV/FM outlet and 4-wire rotor socket w/mating plugs and hdwe.	Net, $1.62

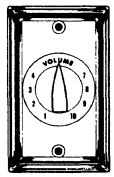
STEREO TV/FM WALL PLATE OUTLETS



For use in areas where FM can be received with TV antenna. Resistor-type 2 set coupler built-in to isolate TV from FM permitting simultaneous reception without interaction.

Type WPS-11PK . . . . . Net, $1.39

AUDIO PAD PLATE w/KNOB



Attractive brown or ivory polystyrene plate with satin finished anodized aluminum dial face and modern indicator knob. Use to assemble L-pad, T-pad, Fader, etc., for audio and Hi-Fi systems. Less control.

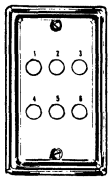
Type FAV-1 . . . . . Net, $1.04

ATTENUATOR PLATE with SPEAKER JACK

Same as Type FAV-1. Plug and jack have been supplied for additional external speaker unit. Less control.

Type FAV-2 . . . . . Net, $1.54

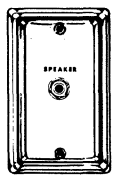
FLUSH SPEAKER SWITCH PLATE



High quality 6 position switch plate selects any speaker or combination of speakers in remote locations. Heavy duty push button switches on brown or ivory plate. Complete with plated machine screws and instructions.

Type FAS-6 . . . . . Net, $5.67

SPEAKER WALL PLATE OUTLETS

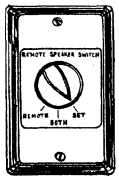


Brown or ivory polystyrene flush mounting outlets. Speaker socket and plug polarized and solderless. Ideal for custom Hi-Fi installations where remote speakers are not permanently installed. Complete with mounting brackets and instructions.

Type FAS-1PK Single . . . . . Net, $1.77

Type FAS-11PK Double . . . . . Net, $1.93

3-POSITION SPEAKER SWITCH



Three position speaker switch for Hi-Fi or Stereo Speaker Systems. Will operate single speaker system, remote system or both. Type FSS-2 is supplied with external plug and jack for additional speaker.

Type FSS-1 . . . . . Net, $2.38

Type FSS-2 . . . . . Net, $2.54

TV DISTRIBUTION OUTLETS

Attractive, easy-to-install wall plate sockets for hotels, hospitals, apartments, etc., with master antenna systems using RG-59/U or equivalent. Provides excellent electrical and mechanical plug-in connections of TV sets to coaxial cable drops. Fits standard electrical outlet boxes or may be installed with Type F-8 or F-9 accessories. In brown or ivory.

Type F-3BPK. Above with balun coil Net, $2.98

Type F-3CPK. With MC fitting for RG-59/U cable. Net, $3.17

Net

© U.C.P., Inc.

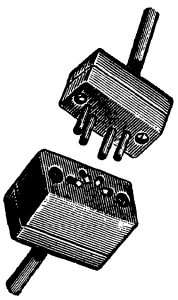
Mosley TV Installation Accessories

300 OHM CONNECTORS

Precision molded low loss 300 ohm connectors for UHF and VHF transmission lines. Constant impedance. Solderless.

Type 301. Line Plug . . . . Net, $ .20
Type 311. Line Socket . . . . . $ .20
Type 321. Polarized, pair . . . . $ .40
Type 304. Input Adapter . . . . . $ .20
Type 27-S. Flat-line Splicer . . . . $ .12
Type 29-S. Round to flat Splicer . . $ .14

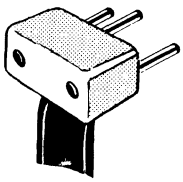
MULTI-WIRE CONNECTORS



For rotor cable connections and many other low voltage uses. No set screws in line plugs and line sockets. Brown or ivory.

Type 354. 4-wire Base Socket . . . . . Net, $ .91
Type 364. 4-wire Line Socket . . . . . Net, $ .64
Type 374. 4-wire Line Plug . . . . . Net, $ .50

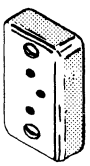
300 OHM TV PLUG



300 ohm plug, one piece construction and utilizing set screws to hold line. Supplied with 3 pins to mate with AC-TV series plates but middle pin is removable to use with Mosley 2-pin sockets. Brown or ivory.

Type 303 . . . . . Net, $ .20

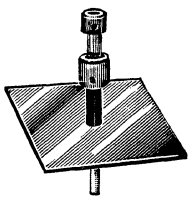
UNIVERSAL TV SOCKET



Compact, neat plug-in socket for FM or TV lead-in line. Use as line tap or terminal socket. Low loss polystyrene, constant impedance design for 300 ohm line. In brown or ivory. Complete with mating plug.

Type 343PK . . . . . Net, $ .67

ROOF-THRU



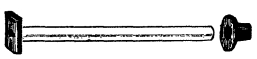
8" x 9" copper flashing with polystyrene feed through bushing permits direct weather-proof roof entrance of flat TV line and rotor cable. Easy to install.

Type 624 . . . . . Net, $3.88

Type 623. Similar to Type 624 but for round or oval 300 ohm line only.

Type 623 . . . . . Net, $3.88

WALL-THRU

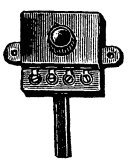


Neat, low loss wall entrance for all popular oval, round or flat transmission lines. Fits walls up to 13" thick. Type 343 TV Socket mounts on inside plate. Brown or ivory.

Type 625 . . . . . Net, $1.29

Type 625PK. Above, with TV Socket and Plug. Net, $1.99

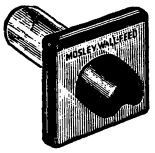
TV ANTENNA SWITCHES



Top quality rotary TV Antenna Switches for UHF and VHF. Silver-to-silver contacts and constant impedance design assures low insertion loss. Solderless. Brown or ivory.

Type F-40. 2-way Switch . . . . . Net, $1.36
Type F-20. 3-way Switch . . . . . Net, $2.48

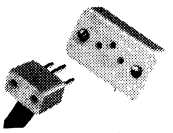
WALL FEED



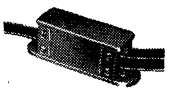
Install at gable end or under roof overhang to provide weatherproof TV lead-in entrance into attic. Ideal for house trailer installations. Ivory or brown polystyrene plate with weatherhood and 2" tube. In trailer installation cut tube flush with inside wall and install Type 343 TV Socket directly over opening. Type 626 . . . . . Net, $ .84

Type 626PK. Above with TV Socket & Plug . . Net, $1.53

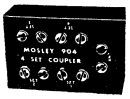
MULTI-SET COUPLERS



"Tiny-Mite" Multi-set Coupler and plug-in socket with plug. Resistor type tap-off unit will operate two TV sets from one antenna. Neat, compact. In brown or ivory. Type 912 . . . . . Net, $1.16



Dual Match 2-Set Coupler. Efficient resistor type coupler outperforms many coil type units and provides exceptionally good isolation between sets. Solderless. Brown or ivory case. Intended for primary signal areas. Type 902 . . . . . Net, $1.96

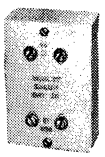


4-Set Coupler. Resistor type coupler designed for metropolitan areas, the major multi-set markets. Ideal for motels, small apartment buildings, etc. Brown or ivory polystyrene case. Type 904 . . . . . Net, $4.13

A unique, compact two set coupler, designed to minimize set interaction and radiation.

Type PC-2 . . . . . Net, $1.42

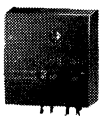
72-300 OHM TRANSFORMER



Balun type transformer matches 72 to 300 ohm or 300 to 72 ohm. Can be installed at set or directly on antenna. Solderless. Weather sealed polystyrene case.

Type 90 . . . . . Net, $2.38

TUNABLE WAVE TRAPS

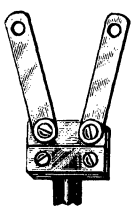


High Q series resonant wave traps for eliminating interference patterns and cross-talk on TV and FM. Use on any receiver input, 50 to 600 ohms, balanced or unbalanced. Solderless. Install on set terminal strip. Choose type with range including frequency of interfering station.

. . . . . Net, $3.04

WT-7	6.8 – 8.5 mcs.	WT-41	27 – 55 mcs.
WT-14	13.8 – 16 mcs.	WT-78	47 – 110 mcs.
WT-21	16 – 28 mcs.	WT-165	100 – 230 mcs.

MOSLEY "Y-TY"



Solderless strain relief connector prevents transmission line from breaking at the antenna. Easy to install, fits all types line. Use Type 263-L for antennas with terminals more than 4" apart.

Type 263-S. "Y-TY" . . . . . Net, $ .43
Type 263-L. "Y-TY" . . . . . Net, $ .43

POLYETHYLENE TV CONDUIT

Black polyethylene tubing makes ideal conduit for running TV and FM transmission lines within walls. Simplifies replacement of hidden wires. ¾" inside diameter. Flexible, easy to install. Many other applications such as intercom and other low voltage cables.

No. 80-25. 25 feet . . . . . Net, $5.25
No. 80-50. 50 feet . . . . . Net, $10.50
No. 80-100. 100 feet . . . . . Net, $21.00

See MOSLEY Antennas and other Amateur Components listed in another section of this book.

© U.C.P., Inc.

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND 14, OHIO

U.S. PATENTS: 2,416,113; 2,549,589; 2,593,130; 2,762,028

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A modern, streamlined version of our standard size Alligator Clips. Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost.
Mueller's traditionally snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION

Steel, cadmium plated. $1\frac{1}{16}$" long.
EACH NET.....$0.07 **LOTS OF 10**....$0.044

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.
EACH NET.....$0.08 **LOTS OF 10**.....$0.05

No. 70-CS—COPPER SCREW CONNECTION

Solid copper version of No. 70-S.
EACH NET.....$0.11 **LOTS OF 10**....$0.075

No. 72— SKIN-TIGHT INSULATOR FOR 70 SERIES ALLIGATOR CLIPS!

For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.
EACH NET.....$0.06 **LOTS OF 10**.....$0.04

"60 SERIES" ALLIGATOR CLIPS

No. 60—CONVENTIONAL TYPE

Accurately made, slim jaws, fine meshing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering lip. Strong spring with a hard bite. Cadmium plated. 2" long.
EACH NET.....$0.07 **LOTS OF 10**.....$0.05

No. 60-S—SCREW CONNECTION

Eliminates necessity for soldering. Otherwise same as No. 60.
EACH NET....$0.08 **LOTS OF 10**....$0.058

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2" long. 10 per box.
EACH NET.....$0.12 **LOTS OF 10**.....$0.084

No. 60PR-2—SPECIAL BARREL FOR TEST PROD OR PHONE TIP

Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.
EACH NET.....$0.10 **LOTS OF 10**.....$0.07

No. 62 FLEXIBLE VINYL INSULATOR

Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.
EACH NET.....$0.06 **LOTS OF 10**.....$0.04

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE

Same as No. 60-S except equipped with red and black insulating sleeves on end. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. $2\frac{11}{32}$" long. Shipped half red, half black.
EACH NET.....$0.12 **LOTS OF 10**.....$0.084

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.
EACH NET.....$0.15 **LOTS OF 10**.....$0.105

NEW! MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028 Trademark Reg.

Micro-Gator

Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do . . . on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. It offers the speed, free-handed ease and convenience associated with other Mueller alligator clips. The Micro-gator is truly small (takes 30 to weigh an ounce!) Including separate skin-tight insulator the tip is no bigger than the head of a pin! Yet the Micro-gator has ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample $\frac{7}{32}$" jaw spread. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaws stay covered whether open or closed.

No. 34 (Steel, cadmium plated)
EACH NET.....$0.07 **LOTS OF 10**.....$0.044

No. 34-C (Solid Copper)
EACH NET.....$0.08 **LOTS OF 10**.....$0.056

No. 36 (Insulator for Nos. 34 and 34-C)
EACH NET.....$0.06 **LOTS OF 10**.....$0.04

MINI-GATOR CLIP

U.S. Patent No. 2,762,028 Trademark Reg.

Mini-gator

Mini-gator with Insulator

Indispensable for testing or incorporation into miniaturized equipment. Skin-tight flexible Vinyl insulator (sold separately) covers completely — has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny $\frac{11}{64}$" O.D. nose, but ample $\frac{3}{16}$" jaw spread. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated)
EACH NET.....$0.07 **LOTS OF 10**.....$0.044

No. 30-C (Solid Copper)
EACH NET.....$0.08 **LOTS OF 10**.....$0.056

No. 32 (Insulator for Nos. 30 and 30-C)
EACH NET.....$0.06 **LOTS OF 10**.....$0.04

COMPLETELY INSULATED ALLIGATOR CLIPS

Patent Pending

No. 63 or 63-C Clip
Sold only as a unit, with factory-applied insulators.

A radically new development that doubles the usefulness of Alligator Clips! Completely insulated right down to the nose. Flexible 2-piece skin-type vinyl insulator of high dielectric strength, with "lip action" slotted nose that permits opening of clip without exposing metal. Insulator nose is only 15/64" O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. These clips could be bunched together—touching all around—without danger of shorting. Screw connection easily made by slipping insulator forward.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black. 10 per box.
EACH NET.....$0.24 **LOTS OF 10**.....$0.164

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.
EACH NET.....$0.26 **LOTS OF 10**.....$0.18

WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; spring-temper phosphor bronze. **Ideal for close-wound coils.** $1\frac{1}{16}$" long; jaw spread $\frac{5}{32}$". 10 per box.
EACH NET.....$0.22 **LOTS OF 10**.....$0.15
Use No. 93 Insulator.

© UCP., Inc.

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND 14, OHIO

TEST CLIPS

No. 45 PEE WEE

A very small test clip for radio, ignition, meter and similar work. 1½" long. Jaw spread 5/16". Steel, cadmium plated.

EACH NET.....$0.07 LOTS OF 10.....$0.05

No. 45-C Clip
No. 47 Insulator

No. 45-C
Solid Copper R.F. Test Clip

Solid copper radio frequency test clip. Phosphor bronze spring, brass screw. Will not heat up in high frequency test work, entirely non-ferrous. 1½" long. 10 per box.

EACH NET.....$0.13 LOTS OF 10.....$0.09

Use No. 47 Insulator for clips 45 and 45-C.

No. 48-B

A small test and battery clip for radio use and general testing purposes. 2" long. Jaw spread 3/8". Steel, cadmium plated. 10 per box.

EACH NET.....$0.10 LOTS OF 10.....$0.07

No. 48C—Solid Copper. Same size as 48-B.

EACH NET.....$0.14 LOTS OF 10.....$0.098

No. 50-C Needle Clip

Solid bronze. Needle pierces insulation of wire for quick test contact. 2¼" long. 10 per box.

EACH NET.$0.26 LOTS OF 10.$0.18

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET.$0.17 LOTS OF 10.$0.12

Use No. 49 insulator for Clips 48-B, 48-C, 50-C and 51-C.

No. 27

A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work 2 1/16" long. Jaw spread 5/8". Steel, cadmium plated. 10 per box.

EACH NET.....$0.13 LOTS OF 10.....$0.09

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

EACH NET.....$0.20 LOTS OF 10.....$0.14

Use No. 29 Insulator for clips 27 and 27-C.

CROCODILE CLIPS

No. 85 or 85-C Clip with No. 87 Insulator

No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. 2⅛" long.

EACH NET.....$0.09 LOTS OF 10.....$0.06

No. 85-C—Same as No. 85, except solid copper. A radio frequency, entirely non-ferrous test clip. 10 per box.

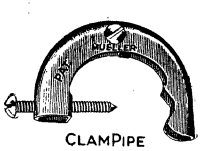
EACH NET.....$0.16 LOTS OF 10.....$0.11

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on one jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removable heads. 2⅝" long. 10 per box.

EACH NET.....$0.21 LOTS OF 10.....$0.15

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.

GROUND CLAMP

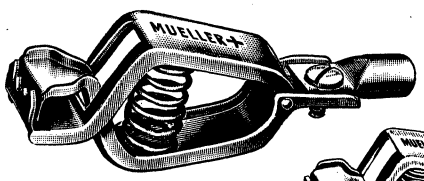


CLAMPIPE
No. 58

The ClamPipe will not spread, bend or lop over when applied. Point of large case hardened screw bites through corrosion into clean metal to insure good contact. Applicable to pipe ⅜" to 1⅜" O.D. The best ground clamp on the market!

EACH NET.....$0.20 LOTS OF 10.....$0.14

LARGER SIZES OF CLIPS



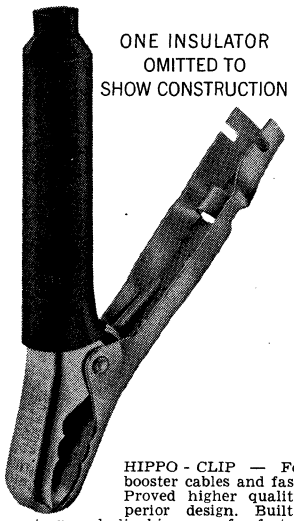
No. 21-C

No. 24-A

All packed 10 per box.

	Each Net	Lots of 10
No. 24A—25 Amp. Steel, lead plated 2⅞" long	$0.22	$0.15
No. 24C—50 Amp. Solid Copper, 2⅞" long	.34	.24
No. 21A—50 Amp. Steel, lead plated, 4" long	.40	.28
No. 21-C*—100 Amp. Solid Copper, 4½" long	.91	.64
No. 11-A*—100 Amp. Steel, lead plated, 6" long	1.00	.70
No. 11-C*—200 Amp. Solid Copper, 6" long	1.70	1.19
No. 33-C*—300 Amp. Solid Copper, 7¾" long	3.25	2.28

(*Furnished with detachable lug connection for easy securing to large cables.)



ONE INSULATOR OMITTED TO SHOW CONSTRUCTION

HIPPO-CLIP
(Left)

HIPPO - CLIP — For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16" jaw spread. 6" long.

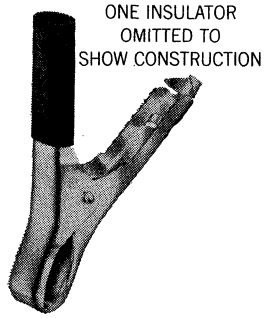
	List price ea.
No. 41-A Steel, bright copper plated, 100 amp.	$ .75
No. 41-C Solid Copper, 200 amp	1.50

NEW!

PIGMY CLIP
(Below)

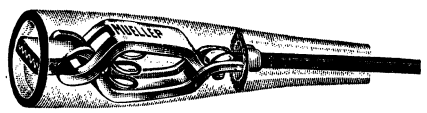
PIGMY CLIP—A new small plier clip for battery operated equipment and automotive test. Flat, wide handle allows positive grip. Won't "squirt away". Built-in solder strap and wire clinching ears. Supplied with vinyl handle insulators in red or black. Ample 1⅛" jaw spread. 3" long.

	List price ea.
No. 46-A Steel bright copper plated, 50 amp.	$ .25
No. 46-C Solid Copper, 75 amp.	.40



ONE INSULATOR OMITTED TO SHOW CONSTRUCTION

FLEXIBLE INSULATORS FOR CLIPS



regular price are insulators marked * below.

A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above

Insulator No.	For Use with Clip No.	Eeach Net	Lots of 10
13*	11-A, 11-C	$0.85	$0.59
23*	21-A, 21-C	.46	.32
26*	24-A, 24-C	.23	.16
29*	27, 27C	.15	.10
32*	30, 30-C	.06	.04
35	33-C	2.93	2.05
36*	34, 34-C	.06	.04
47*	45, 45-C	.06	.044
49*	48-B, 48-C, 50-C, 51-C	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series)	.06	.04
72*	70, 70-S, 70-CS	.06	.04
87*	85, 85-C, 85-T	.06	.044
93	88	.12	.08

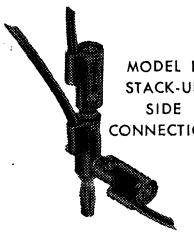
*Also available in blue, white, yellow and green.

© UCP., Inc.

POMONA Electronics CO., INC.

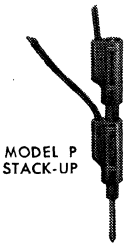
pomona, california

PECO PATCH-CORDS & STACK-UP CONNECTING LEADS



MODEL B (BANANA TYPE)

Fits all standard banana jacks .166 DIA. One piece beryllium copper spring, heat treated, contact resistance less than 0.001 ohms. Plug body and spring, nickel plated. Extra flexible polyvinyl insulated wire .140 O.D., 7.5KV (Spark Test)... 18 gauge, stranding 65 x 36 T. C. Plug body molded with durable polyethylene insulation. SPECIFY LENGTH AND COLOR * **NET 1.50**



MODEL P (.080 PHONE TOP)

Fits all standard .080 tip jacks. One piece beryllium copper heat treated spring contact and tip. Finish silver plate, gold flash. Extra flexible polyvinyl insulated wire .087 O. D. 6KV (Spark Test) 20 gauge, stranding 41 x 36 T. C. Plug body molded with polyethylene. Compact size, extended height above jack 7/8", dia. 1/4". SPECIFY LENGTH AND COLOR * **NET 1.75**

MODEL M (BANANA TYPE) Miniature

Fits all standard miniature banana jacks with .104 dia. Finish, silver plated. Polyvinyl insulated wire .087 O. D., 6KV (Spark Test). 20 gauge stranding 41 x 36 T. C. Plug body molded with durable polyethylene insulation. Compact size, extended height above jack 35/64. SPECIFY LENGTH AND COLOR * **NET 1.50**

MODEL PT063 (.063 DIA. TIP) TIP LENGTH 7/16"
MODEL PT080 (.080 PHONE TIP) TIP LENGTH 1/2"
MODEL PM080 (.080 PHONE TIP) TIP LENGTH 1/4"

Model PT063 fits AN-MS No. 16 contact. Model PT080 fit .080 tip jacks. Insulation molded to plug body and cable. Finish gold over silver plated. Polyvinyl insulated wire (Mil. W-16878D Type C), 22 gauge, Stranding 19 x 34 T. C. O. D. .064. Subminiature in size. Compact size 5/32" dia. Plug body 5/8" length above jack. SPECIFY LENGTH AND COLOR * **NET .85**

* Stack-up patch cords above, available in 4", 8", 12", 18", 24" and 36" lengths. Lengths other than those specified available upon request. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray and White.

SOCKET SAVERS

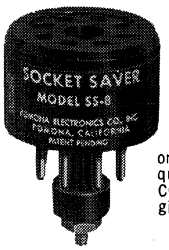
REDUCED HEIGHT FOR PORTABLE EQUIPMENT • MAXIMUM HEIGHT ABOVE EQUIPMENT 13/16 INCHES

MODEL SS-7
SEVEN PIN MINIATURE
NET 1.75

The Socket Saver is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sock-

MODEL SS-9
NINE PIN MINIATURE
NET 1.75

ets on original equipment. They are easy to install and remove. This eliminates the necessity of replacing and rewiring sockets



MODEL SS-8
8 PIN OCTAL
NET 1.75

on original equipment. Built of quality materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.

MODEL SS-789 KIT, SET OF THREE. NET 5.25

MODEL SS-11, 11 PIN OCTAL STYLE. NET 1.95

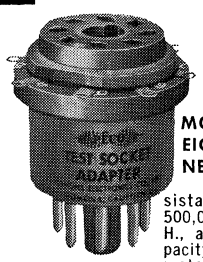
TEST SOCKET TUBE ADAPTERS

MODEL TVS-7
SEVEN PIN MINIATURE
NET 1.65 ea.

Peco Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. They Feature: Ex-

MODEL TVS-9
NINE PIN MINIATURE
NET 1.85

tended test tabs for easy use with either alligator clips or test prods; Low loss MICA-FILLED molded phenolic construction per MIL-M-14, MFE. Power factor less than 0.010 at 10 Mc; High insulation re-



MODEL TVS-8
EIGHT PIN OCTAL
NET 1.75

sistance, the I. R. exceeds 500,000 meg-ohms at 40% R. H., at 24° C; Distributed capacity, inter-element approximately 1 micro-micro farad; High voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC.

MODEL TVS—789 KIT, Set of Three. NET 5.25

SPECIAL ADAPTERS DESIGNED TO YOUR SPECIFICATIONS.

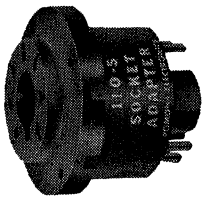
SEE COMPLETE LISTING IN EEM

 © U.C.P., Inc.

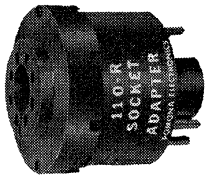
POMONA Electronics CO., INC.

pomona, california

TUBE SOCKET CONVERSION ADAPTERS



MODEL 110-S
NET 1.55 ea.



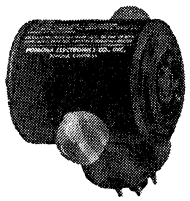
MODEL 110-P
MODEL 110-R
NET 1.55 ea.

110° CRT SOCKET ADAPTER TO DUO DECAL BASE FOR TESTING NEW NARROW-NECK 110° TUBES

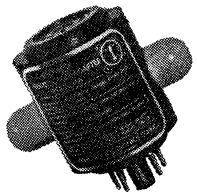
Modernize your present test equipment with this simple adapter, no rewiring necessary. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting. Model 110-S has .820 pin-circle diameter (7 pins, .093 diameter) similar to 17BVP4, etc. Model 110-R has .600 pin-circle diameter (.040 pins) similar to 17BZP4, etc.

Model 110-P is similar to Model 110-R except that it is wired to test 110° Semi-Flat S-F series 17DAP4/SF17, 21EAP4/SF21, etc.

VIBRATOR TEST ADAPTERS



MODEL DA-34
NET 4.95 ea.
FOR CHECKING ANY STANDARD 3 OR 4 PRONG VIBRATOR, 6 OR 12 VOLT

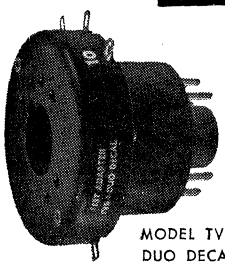


The Vibrator Test Adapter simplifies servicing of auto radios by eliminating the vibrator as a possible source of trouble. Features compact rugged phenolic construction. Instantly shows when contacts are sticking or open. Will indicate starting voltage. Eliminates all guesswork.

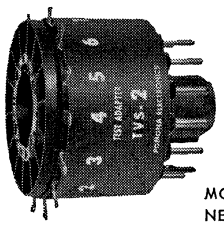
MODEL 4A 4 PRONG 6-12 VOLT
NET 3.25 ea.

MODEL 3D 3 PRONG 12 VOLT
NET 3.25 ea.

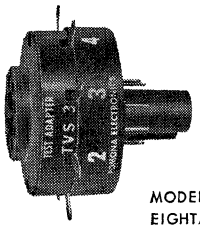
TEST SOCKET CATHODE RAY TUBE ADAPTERS



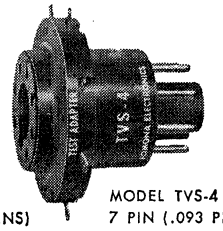
MODEL TVS-1
DUO DECAL
For Television
picture tubes
NET 1.95 ea.



MODEL TVS-2
NEO-DIHEPTAL
For color
Television
picture tubes
NET 7.45 ea.



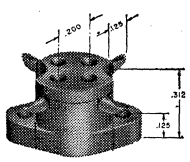
MODEL TVS-3
EIGHTAR (.040 PINS)
For 110°
Television
picture tubes
NET 2.55 ea.



MODEL TVS-4
7 PIN (.093 PINS)
For 110°
Television
picture tubes
NET 1.95 ea.

The PECO Test Socket Adapters are ideal for making measurements of voltage, resistance, and video from the base of the picture tube. The test socket adapter is inserted between the CR Tube base and its socket. This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.

TRANSISTOR SOCKET

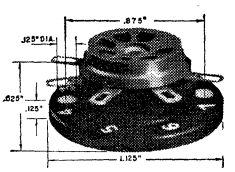


MODEL XS-T4

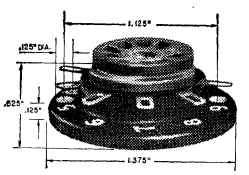
Peco XS-T4, surface mounted socket, designed for JETEC 30 type transistor. Features include: closed-entry, silver plated, gold flash, beryllium copper contacts; contact numbers and location tab molded into top of socket. Easily mounted with two #2 screws. All connections are made on top of chassis, making socket readily adaptable to enclosed-unit circuits. Socket is molded of low-loss mica-filled phenolic per MIL-M-14, type MFE. **NET .45 ea.**

SURFACE MOUNTED BREADBOARD SOCKETS

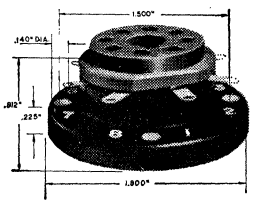
ideal for electronic and experimental use



MODEL XS-7
SEVEN PIN MINIATURE
NET .49 ea.



MODEL XS-9
NINE PIN MINIATURE
NET .57 ea.



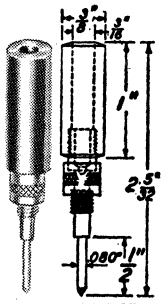
MODEL XS-8
EIGHT PIN OCTAL
NET .57 ea.

Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. They feature: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification; Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.

SEE COMPLETE LISTING IN EEM

HERMAN H. SMITH, INC.

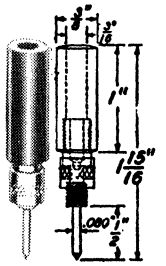
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue White. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

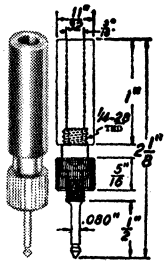
No.	Type	Per C
200	Senior	$25.00



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

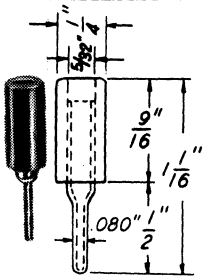
No.	Type	Per C
201	Junior	$25.00



INSULATED TIP PLUG
Signal Corps Approved

HANDLE: ETHYL CELLULOSE. Red, Black. SPECIFY COLOR.
PLUG: Steel, case hardened to Signal Corps specs.
DESCR.: Recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position. **Std. Pkg. 50**

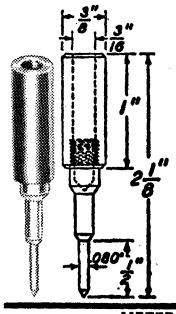
No.	Length	Per C
250	2⅛"	$90.00
358	3"	140.00



INSULATED TIP PLUG
Solder Type

HANDLE: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated our No. 158.
DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jack. **Std. Pkg. 100**

No.	Per C
237	$17.00

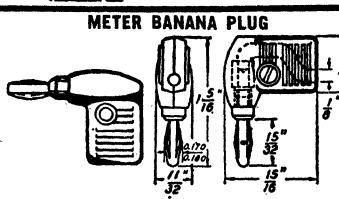


INSULATED TIP PLUG
Heavy Duty Type

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. **Std. Pkg. 100**

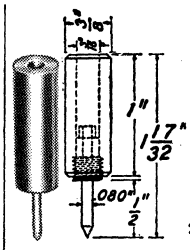
No.	Per C
229	$25.00

METER BANANA PLUG



HANDLE: MOLDED BAKELITE. Red, Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, N. P.
DESCR.: Two halves for easy assembly with screw and nut. Fits stand. banana jacks. **Std. Pkg. 50**

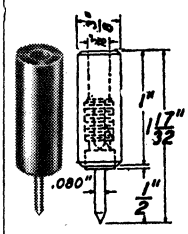
No.		Per C
255		$60.00
255D	Display of 24 Pairs ,	$28.80



INSULATED SHORT TIP PLUG

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 100**

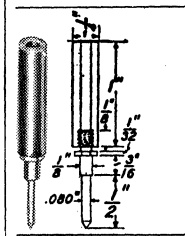
No.	Per C
203	$20.00



INSULATED SHORT TIP PLUG
Solderless

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulated handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 50**

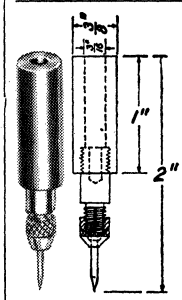
No.	Per C
283	$22.00



SUB-MINIATURE TIP PLUG

HANDLE: BONE FIBRE. Red, Black. SPECIFY COLOR.
DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks. **Std. Pkg. 100**

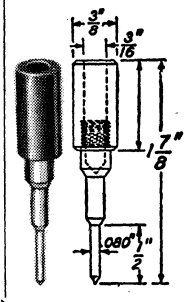
No.	Per C
270	$30.00



INSULATED TIP PLUG
Phono Needle

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

No.	Per C
216	$25.00

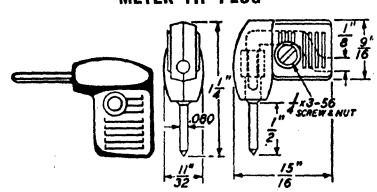


ADAPTER
Banana Plug to Tip Plug

HANDLE: MACHINED PLASTIC, Red, Black, Yellow, Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Accepts standard banana plugs, adapts to standard tip plug. **Std. Pkg. 100**

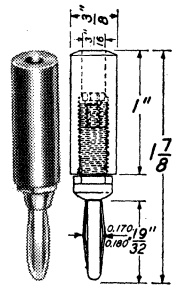
No.	Per C
215	$25.00

METER TIP PLUG



HANDLE: MOLDED BAKELITE, Red, Black. SPECIFY COLOR.
TIP: Brass, nickel plated.
DESCR.: Molded in two halves for easy assembly with screw, nut. Fits standard phone tip jacks. **Std. Pkg. 50**

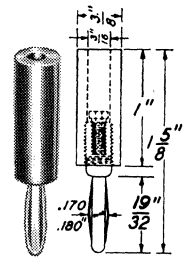
No.		Per C
235		$45.00
235D	Display of 24 Pairs	$21.60



INSULATED BANANA PLUG

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

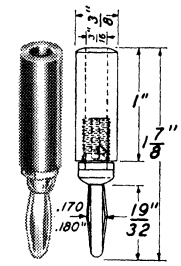
No.	Spring Material	Plating	Per C
212	Phosphor Bronze	Nickel	$35.00
232	Phosphor Bronze	Silver	40.00
242	Beryllium Copper	Nickel	50.00
262	Beryllium Copper	Silver	55.00



INSULATED BANANA PLUG

HANDLE: MOLDED BAKELITE, Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

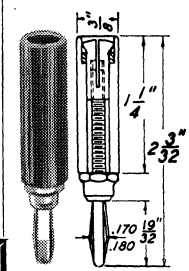
No.	Spring Material	Plating	Per C
211	Phosphor Bronze	Nickel	$30.00
261	Phosphor Bronze	Silver	35.00
271	Beryllium Copper	Nickel	40.00
281	Beryllium Copper	Silver	45.00



INSULATED BANANA PLUG
Solderless

HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Fits standard banana jacks. **Std. Pkg. 50**

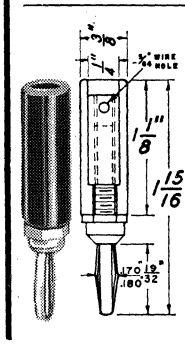
No.	Spring Nut	Plating	Per C
295	Phosphor Bronze	Nickel	$30.00
296	Phosphor Bronze	Silver	35.00
297	Beryllium Copper	Nickel	40.00
298	Beryllium Copper	Silver	45.00



INSULATED BANANA PLUG
With Internal Spring Collett

HANDLE: MACHINED PLASTIC, Red or Black. SPECIFY COLOR.
BODY: Hex brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
DESCR.: Solderless: Spring collett provides quick connect and disconnect of wire or standard phone tip. Tin wire for secure contact. Fits standard banana jack. **Std. Pkg. 100**

No.	Per C
239	$65.00



INSULATED BANANA PLUG
Solderless

HANDLE: MACHINED PLASTIC, Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated with mating brass spacer.
SPRING: Four-leaved phosphor bronze, nickel plated.
DESCR.: Cross drilled hole in spacer enables quick solderless connection of wire to plug. Fits standard banana jacks. **Std. Pkg. 100**

No.	Per C
236	$55.00

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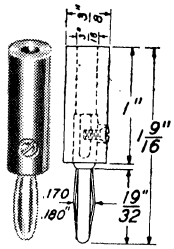
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

INSULATED BANANA PLUG With Side Screw

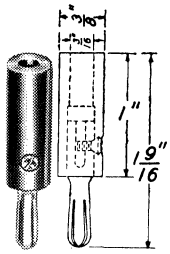


HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor, bronze or beryllium copper, nickel plated.
DESCR.: Set screw secures wire without soldering. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring	Per C
204	Phosphor Bronze	$30.00
254	Beryllium Copper	45.00

INSULATED BANANA PLUG Split Type With Side Screw

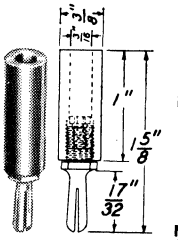


HANDLE: MOLDED PLASTIC. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
DESCR.: Cross-slotted for spring tension. Set screw secures wire, without soldering. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
213	$30.00

INSULATED BANANA PLUG Split Type With Internal Stud

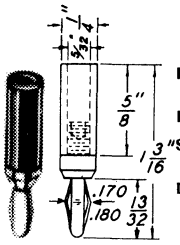


HANDLE: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
PLUG: Brass, nickel plated.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
253	$30.00

INSULATED BANANA PLUG Midget Type

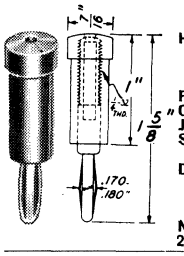


HANDLE: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks.

Std. Pkg. 50

No.	Spring Material	Plating	Per C
291	Phosphor Bronze	Nickel	$30.00
292	Phosphor Bronze	Silver	35.00
293	Beryllium Copper	Nickel	40.00
294	Beryllium Copper	Silver	45.00

ADAPTER Tip Plug to Banana Plug

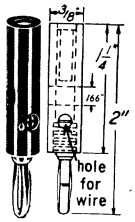


HANDLE: MACHINED PLASTIC with molded Caps. Red or Black. SPECIFY COLOR.
PLUG: Brass, nickel plated.
CONTACT: Phosphor bronze.
JACK: Brass, nickel plated.
SPRING: Four leaved Phosphor bronze, nickel plated.
DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs.

Std. Pkg. 50

No.	Per C
214	$50.00

STACK BANANA PLUG Solderless



HANDLE: PLASTIC. Red, Black, Yellow or Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRINGS: Four-leaved Phosphor Bronze or Beryllium Copper, nickel plated.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Inter-connects unlimited amount of multiple circuits.

Std. Pkg. 50

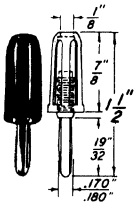
No.	Spring Material	Per C
1511	Phosphor Bronze	$45.00
1512	Beryllium Copper	50.00

NYLON HANDLE PLUGS

COLOR CODE SUFFIX — Add to Catalog Number as Required

— 101 WHITE
— 102 RED
— 103 BLACK
— 104 DARK GREEN (Forest)
— 105 LIGHT BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN (Ecru)
— 109 LIGHT GREEN (Jungle)
— 110 DARK BLUE (Royal)
— 111 IVORY
— 112 VIOLET (Purple)
— 113 GREY

NYLON BANANA PLUG

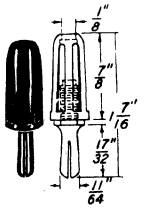


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Plating	Per C
476	Phosphor Bronze	Nickel	$35.00
477	Phosphor Bronze	Silver	40.00
478	Beryllium Copper	Nickel	45.00
479	Beryllium Copper	Silver	50.00

NYLON BANANA PLUG Split Type

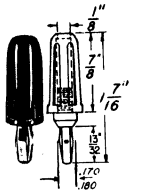


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel plated.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
494	$30.00

NYLON BANANA PLUG Midget

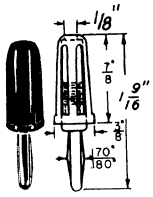


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Plating	Per C
426	Phosphor Bronze	Nickel	$30.00
427	Phosphor Bronze	Silver	35.00
428	Beryllium Copper	Nickel	40.00
429	Beryllium Copper	Silver	45.00

NYLON BANANA PLUG Solderless

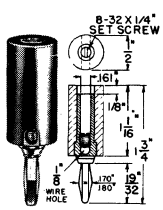


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
DESCR.: Solderless. Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Plating	Per C
455	Phosphor Bronze	Nickel	$35.00
456	Phosphor Bronze	Silver	40.00
457	Beryllium Copper	Nickel	45.00
458	Beryllium Copper	Silver	50.00

STACK BANANA PLUG

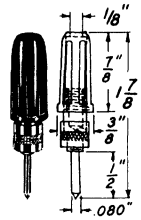


BODY: Molded Red or Black Polystyrene. SPECIFY COLOR.
PLUG: Brass, nickel plated.
SPRING: Four-leaved Phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections.

Std. Pkg. 25

No.	Per C
324	$80.00

NYLON TIP PLUG Solderless

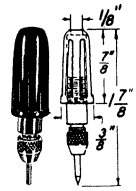


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel plated.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Per C
490	$28.00

NYLON TIP PLUG Phono Needle

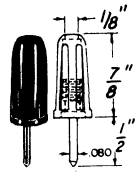


HANDLE: MOLDED NYLON. Specify color as coded above.
BODY: Brass, nickel plated.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion of plating for positive reading.

Std. Pkg. 50

No.	Per C
493	$28.00

NYLON SHORT TIP PLUG Solderless

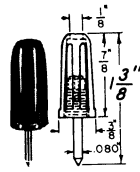


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel plated.
DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Per C
492	$25.00

NYLON SHORT TIP PLUG

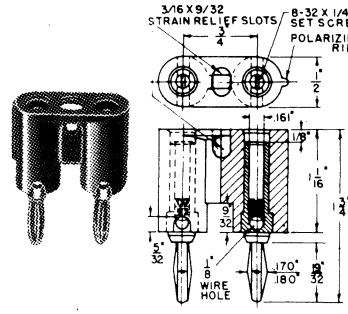


HANDLE: MOLDED NYLON. Specify color as coded above.
PLUG: Brass, nickel plated.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Per C
491	$23.00

DUAL BANANA PLUG



BODY: Molded Red or Black Polystyrene. SPECIFY COLOR.
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
DESCR.: Mates with standard dual binding post ¾" centers. Polarity indicated on side. Wire held with internal set screw. Can be stacked for multiple connections.

Std. Pkg. 25

No.	Per C
210	$120.00

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HERMAN H. SMITH, INC.

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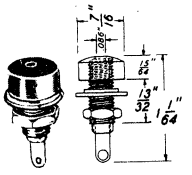
INSULATED PHONE TIP JACK

HEAD: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs.

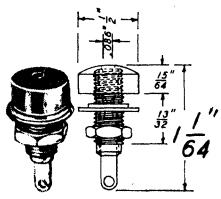


Std. Pkg. 100

No.	Per C
202	$22.00

INSULATED PHONE TIP JACK

HEAD: MACHINED PLASTIC. Red, Black, Yellow, Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Complete with hex nut & fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard phone tip plugs.



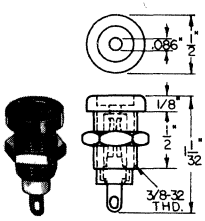
Std. Pkg. 50

No.	Per C
223	$35.00

MOLDED NYLON TIP JACK

All Insulated — **Rated at 5000 Volts AC**

BODY: MOLDED NYLON. Red, Black, Yellow, Green, Blue. SPECIFY COLOR.
CONTACT: Phosphor bronze.
CAP: Brass, nickel plated.
DESCR.: Mounts in 3/8" hole in panels up to 5/16" thick. Accepts standard phone tip plugs.



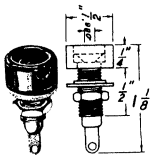
Std. Pkg. 100

No.	Per C
240	$30.00

INSULATED TIP JACK

Meter Type

HEAD: MOLDED PLASTIC. Red, Black, Yellow, Green, Blue. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Supplied complete with hex nut and fibre washer. Mounts in 5/16" hole in panels up to 3/8" thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs.

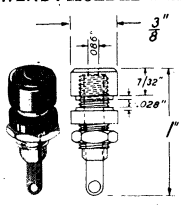


Std. Pkg. 50

No.	Per C
282	$25.00

INSULATED PHONE TIP JACK

HEAD: MOLDED NYLON with molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard tip plugs.

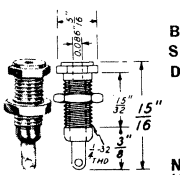


Std. Pkg. 100

No.	Per C
241	$30.00

PHONE TIP JACK

BODY: BRASS nickel plated.
SPRING: Phosphor bronze.
DESCR.: Positive contact with standard phone tip plugs. Supplied with hex nut. Mounts in 1/4" hole in panels up to 3/8" thick.

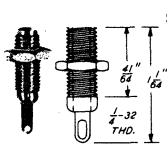


Std. Pkg. 100

No.	Per C
107	$17.00

HEADLESS PHONE TIP JACK

BODY: BRASS nickel plated.
SPRING: Phosphor bronze.
DESCR.: Supplied with hex nut. Used with plastic molded instrument cases, where jack body is screwed into case. Accepts standard phone tip plugs.

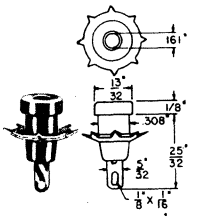


Std. Pkg. 100

No.	Per C
147	$10.00

"SPEEDI-MOUNT" BANANA JACKS

BODY: MOLDED BAKELITE. Red or Black. SPECIFY COLOR.
CONTACT: Brass, Cadmium Plated.
WASHER: Steel cadmium plated, internal and external tooth.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevent pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard banana plug.

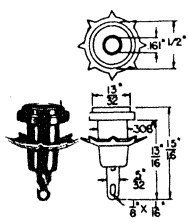


Std. Pkg. 100

No.	Head	Per C
398	13/32	$11.00

Large Head

BODY: Molded Bakelite. Red or Black. SPECIFY COLOR.
CONTACT: Brass, Cadmium Plated.
WASHER: Steel cadmium plated, internal and external tooth.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevent pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts standard banana plug.



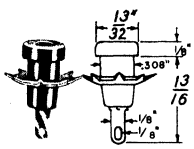
Std. Pkg. 100

No.	Head	Per C
399	1/2"	$11.00

"SPEEDI-MOUNT" TIP JACKS

Small Head

BODY: MOLDED BAKELITE. Red or Black. SPECIFY COLOR.
SPRING: Phosphor bronze.
WASHER: Steel cadmium plated, internal and external tooth.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panels, prevents pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts Accepts standard phone tip plugs.

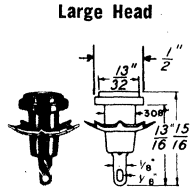


Std. Pkg. 100

No.	Head	Per C
279	13/32"	$11.00

Large Head

BODY: MOLDED BAKELITE. Red or Black. SPECIFY COLOR.
SPRING: Phosphor bronze.
WASHER: Steel cadmium plated, internal and external tooth.
DESCR.: Unusual dished lockwasher permits fast assembly. Teeth embed into jack and panel, prevent pulling out and turning. Mounts in 5/16" hole in panels up to 3/16" thick. Accepts Accepts standard midget banana plugs.

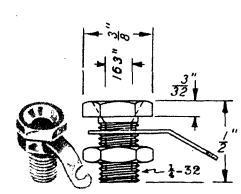


Std. Pkg. 100

No.	Head	Per C
299	1/2"	$11.00

BANANA JACK

BODY: Hex Brass nickel plated with recessed head.
DESCR.: Supplied with hex nut & brass tinned lug. Mounts in 1/4" hole; fits panels up to 3/8" thick. Accepts standard banana plugs.

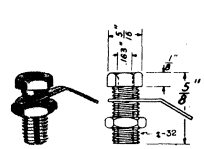


Std. Pkg. 100

No.	Per C
101	$17.00

BANANA JACK

BODY: HEX BRASS, nickel plated.
DESCR.: Supplied with hex nut and brass tinned lug. Mounts in 1/4" hole in panels up to 3/8" thick. Accepts standard banana plugs.

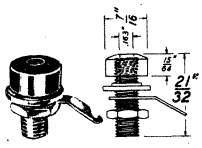


Std. Pkg. 100

No.	Per C
109	$17.00

INSULATED BANANA JACK

HEAD: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Supplied with hex nut, fibre washer, and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8" thick. Accepts standard banana plugs.



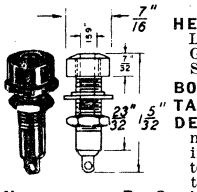
Std. Pkg. 100

No.	Per C
205	$22.00

INSULATED BANANA JACK

With Solder Tab

HEAD: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
TAB: Brass, cadmium plated.
DESCR.: Supplied with hex nut & fibre washer. Mounts in 5/16" hole in panels up to 5/8" thick. Solder direct to tab. Accepts standard banana plugs.

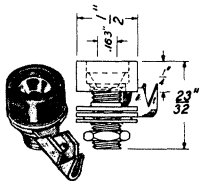


Std. Pkg. 100

No.	Per C
256	$25.00

INSULATED BANANA JACK

HEAD: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue. Specify Color.
BODY: Brass, nickel plated.
DESCR.: Supplied with hex nut, fibre washer, lockwasher and brass tinned lug. Mounts in 5/16" hole in panels up to 3/8" thick. Jack body recessed for snug contact. Accepts standard banana plugs.

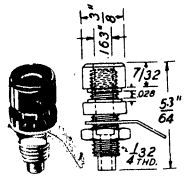


Std. Pkg. 100

No.	Per C
219	$25.00

INSULATED BANANA JACK

HEAD: MOLDED NYLON with molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut, brass tinned lug. Mounts in 5/16" hole in panels up to 1/4" thick. Accepts standard banana plugs.



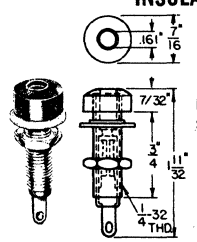
Std. Pkg. 100

No.	Per C
221	$30.00

INSULATED JACK

Combination Type

HEAD: MOLDED BAKELITE. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Supplied with hex nut and fibre washer. Accepts standard phone tip plugs or standard banana plugs.

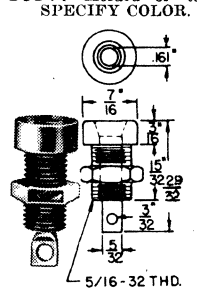


Std. Pkg. 100

No.	Per C
206	$27.00

NYLON BANANA JACK

BODY: Molded of tough low-loss nylon. SPECIFY COLOR.
CONTACT: Brass, Cadmium Plated.
DESCR.: Mounts in 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range.



Std. Pkg. 50

No.	Per C
1508	$20.00

Same as above, except "Double "D" " body mounts in round or punched hole to fit.

Std. Pkg. 50

No.	Per C
1509	$20.00

COLOR CODE SUFFIX

Add to Catalog Number as required.

—101 White	—104 Green	—108 Brown
—102 Red	—105 Blue	—112 Purple
—103 Black	—106 Orange	—113 Grey
	—107 Yellow	

All Prices Subject To Trade Discount

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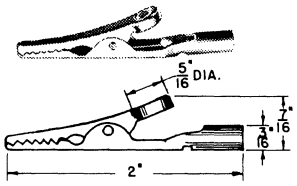
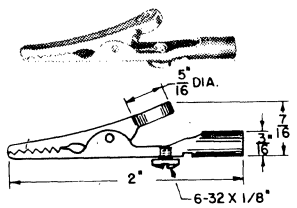
ALLIGATOR CLIPS
Solder Type



DESCR.: 3/8" jaw opening. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	Ea.	Sug. Resale 10
300	Steel, Cd. Pl.	$.07	.05
380	Solid Copper	.10	.075
332	Brass N.P.	.15	.104

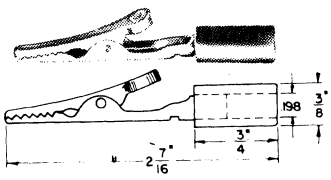
Screw Type



DESCR.: 3/4" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	Ea.	Sug. Resale 10
350	Steel, Cad. Pl.	$.08	.058
360	Solid Copper	.12	.084
339	Brass N.P.	.18	.13

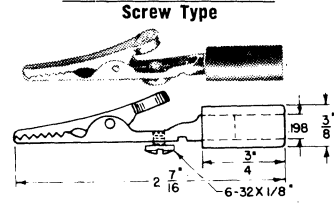
INSULATED ALLIGATOR CLIPS
Solder Type



HANDLE: MOLDED PLASTIC. Red or Black. SPECIFY COLOR.
DESCR.: 3/8" Jaw opening. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	Ea.	Sug. Resale 10
301	Steel, Cad. Pl.	$.13	.085
381	Solid Copper	.14	.105
354	Brass N.P.	.20	.15

Screw Type



HANDLE: MOLDED PLASTIC. Red or Black. SPECIFY COLOR.
DESCR.: 3/8" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

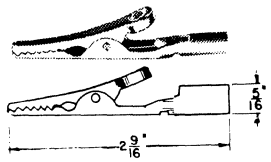
No.	Type	Ea.	Sug. Resale 10
351	Steel, Cad. Pl.	$.14	.095
361	Solid Copper	.16	.11
362	Brass N.P.	.25	.19

ALLIGATOR BOOT CLIP

MATERIAL: MOLDED VINYL PLASTIC. Red or Black. SPECIFY COLOR.
DESCR.: Fully insulates clip while allowing maximum jaw opening. **Std. Pkg. 100**

No.	Ea.	Sug. Resale 10
331	$.07	.048

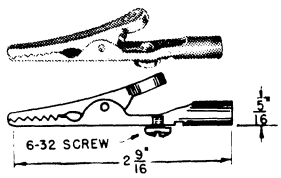
JUMBO ALLIGATOR CLIP
SOLDER CONNECTION



DESCR.: 5/8" jaw opening. Jaws match accurately. For heavy terminal use. **Std. Pkg. 100**

No.	Type	Per C
392	Steel, Cad. Pl.	$25.00
396	Solid Copper	30.00

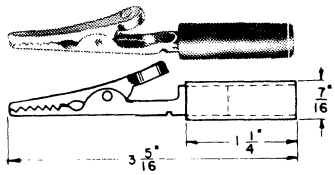
SCREW CONNECTION



DESCR.: 5/8" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use. **Std. Pkg. 100**

No.	Type	Per C
368	Steel, Cad. Pl.	$30.00
356	Solid Copper	35.00

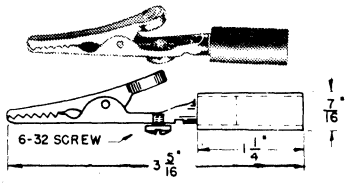
JUMBO ALLIGATOR CLIP INSULATED
SOLDER CONNECTION



HANDLE: Plastic, red or black. SPECIFY COLOR.
DESCR.: 5/8" jaw opening. Jaws match accurately. For heavy terminal use. **Std. Pkg. 100**

No.	Type	Per C
393	Steel, Cal. Pl.	$35.00
397	Colid Copper	40.00

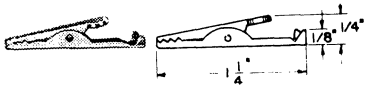
SCREW CONNECTION



HANDLE: Plastic, red or black. SPECIFY COLOR.
DESCR.: 5/8" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use. **Std. Pkg. 100**

No.	Type	Per C
369	Steel, Cad. Pl.	$40.00
357	Solid Copper	45.00

MIDGET ALLIGATOR CLIP

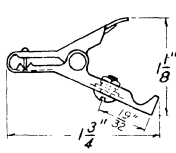


DESCR.: 3/16" jaw opening, jaws match accurately and grip securely. Solder connection and ears for crimping. **Std. Pkg. 100**

No.	Type	Sug. Resale Ea.	10
338	Steel, Cad. Pl.	$.07	.044

BATTERY TEST CLIP

No.	Spread	Lgth.	Cap.	Spring	Sug. Resl. Ea.	10
365	1/2"	1 1/8"	5 amp	7 lbs.	$.07	.05
366	9/16"	2"	10 amp	10 lbs.	.10	.07

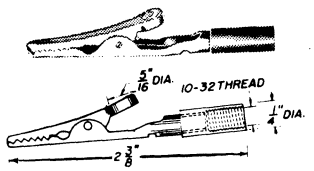


TL137 TEST CLIP

Signal Corps Approved
DESCR.: STEEL, nickel plated, made in accordance with government specs. 3/4" jaw opening. **Std. Pkg. 25**

No.	Each
315	$.70

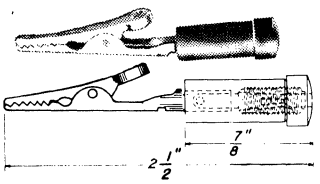
ALLIGATOR CLIP ADAPTER



BUSHING: Brass, Nickel Plated.
CLIP: Steel, Cadmium Plated.
DESCR.: Adapts standard solderless tips to alligator clip. This novel quick-adapter is a must for all types of bench work. **Std. Pkg. 50**

No.	Per C
310	$25.00

ALLIGATOR CLIP ADAPTER

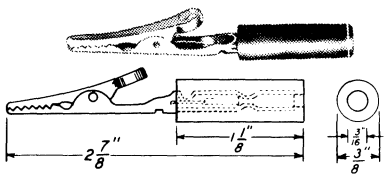


PHONE TIP TO ALLIGATOR CLIP

HANDLE: PLASTIC. Red or Black with molded cap. SPECIFY COLOR.
CLIP: Steel cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips. **Std. Pkg. 25**

No.	Description	Per C
304	Steel Clip	$55.00
334	Copper Clip	60.00

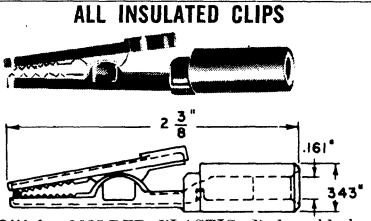
PHONE TIP OR BANANA PLUG TO ALLIGATOR CLIP ADAPTER



HANDLE: PLASTIC. Red or Black with molded cap. SPECIFY COLOR.
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
DESCR.: Combination jack in rear, permits the adapting standard phone tip plug or banana plugs to alligator clip. **Std. Pkg. 25**

No.	Description	Per C
305	Steel Clip	$65.00
335	Copper Clip	70.00

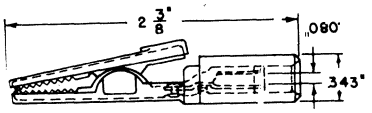
ALL INSULATED CLIPS



INSULA.: MOLDED PLASTIC. Red or black. SPECIFY COLOR.
CLIP: Steel cadmium plated.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Solder type connection. **Std. Pkg. 25**

No.	Each
337	$.40

ALL INSULATED ADAPTER



PHONE TIP TO ALLIGATOR CLIP

INSULA.: MOLDED PLASTIC. Red or Black. SPECIFY COLOR.
CLIP: Steel, cadmium plated.
BODY: Brass.
CONTACT: Phosphor bronze.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips. **Std. Pkg. 25**

No.	Each
336	$.60

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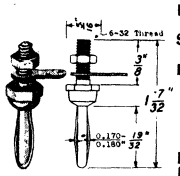
BANANA PLUG

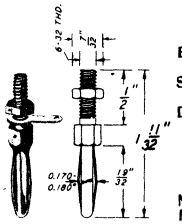


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
102	$25.00

BANANA PLUG

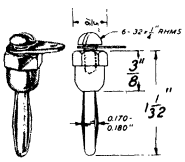


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
103	$25.00

BANANA PLUG

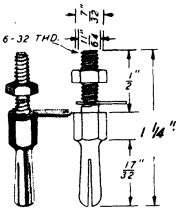


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
DESCR.: Supplied with screw and phosphor bronze tinned lug. Internal female permits use on all size panels. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	Per C
100	Phosphor Bronze	$25.00
190	Beryllium Copper	40.00

BANANA PLUG
Split Type

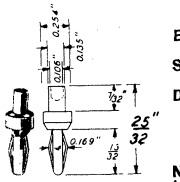


BODY: HEX BRASS, nickel plated, cross-slotted.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	Per C
104	$22.00

MIDGET BANANA PLUG
Rivet Type

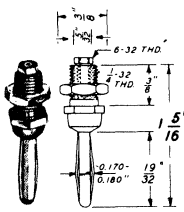


BODY: BRASS, silver plated.
SPRING: Four-leaved phosphor bronze, silver plated.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks.

Std. Pkg. 100

No.	Per C
121	$27.00

BANANA PLUG

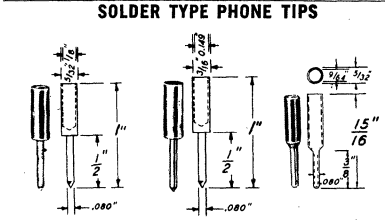


BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze or beryllium copper, nickel plated.
DESCR.: Supplied with hex nut. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection.

Std. Pkg. 50

No.	Spring Material	Per C
145	Phosphor Bronze	$27.00
135	Beryllium Copper	45.00

SOLDER TYPE PHONE TIPS

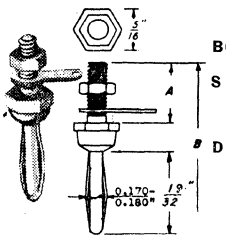


108 123 158

Brass, Nickel Plated
Std. Pkg. 100

No.	Type	Per M
108	Standard	$35.00
123	Large I.D.	44.00
158	Drawn	25.00

BANANA PLUG



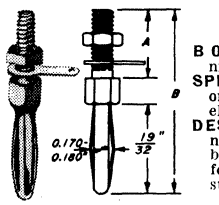
BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall No.	Per C	A	BERYL. COP. SPRING Nickel Plated Overall B	No.	Per C
431	$25.00	6-32x3/8"	1- 7/32"	443	$30.00
432	25.00	6-32x1/2"	1-11/32"	444	30.00
433	25.00	6-32x3/4"	1-19/32"	445	30.00
434	25.00	8-32x3/8"	1- 7/32"	446	30.00
435	25.00	8-32x1/2"	1-11/32"	447	30.00
436	25.00	8-32x3/4"	1-19/32"	448	30.00

PHOS. BR. SPRING Silver Plated Overall No.		A	BERYL. COP. SPRING Silver Plated Overall B	No.	
437	$30.00	6-32x3/8"	1- 7/32"	449	$35.00
438	30.00	6-32x1/2"	1-11/32"	450	35.00
439	30.00	6-32x3/4"	1-19/32"	451	35.00
440	30.00	8-32x3/8"	1- 7/32"	452	35.00
441	30.00	8-32x1/2"	1-11/32"	453	35.00
442	30.00	8-32x3/4"	1-19/32"	454	35.00

BANANA PLUG



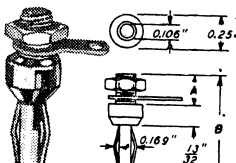
BODY: HEX BRASS, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall No.	Per C.	A	BERYL. COP. SPRING Nickel Plated Overall B	No.	Per C
401	$25.00	6-32x3/8"	1- 7/32"	414	$30.00
403	25.00	6-32x1/2"	1-11/32"	415	30.00
404	25.00	6-32x3/4"	1-19/32"	416	30.00
405	25.00	8-32x3/8"	1- 7/32"	417	30.00
406	25.00	8-32x1/2"	1-11/32"	418	30.00
407	25.00	8-32x3/4"	1-19/32"	419	30.00

PHOS. BR. SPRING Silver Plated Overall No.		A	BERYL. COP. SPRING Silver Plated Overall B	No.	
408	$30.00	6-32x3/8"	1- 7/32"	420	$35.00
409	30.00	6-32x1/2"	1-11/32"	421	35.00
410	30.00	6-32x3/4"	1-19/32"	422	35.00
411	30.00	8-32x3/8"	1- 7/32"	423	35.00
412	30.00	8-32x1/2"	1-11/32"	424	35.00
413	30.00	8-32x3/4"	1-19/32"	425	35.00

MIDGET BANANA PLUG



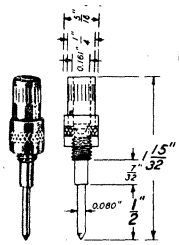
BODY: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper. Nickel or silver plated.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 50

PHOS. BR. SPRING Nickel Plated Overall No.	Per C	A	BERYL. COP. SPRING Nickel Plated Overall B	No.	Per C
460	$25.00	4-40x3/8"	15/16"	468	$30.00
461	25.00	4-40x1/2"	1- 1/16"	469	30.00
462	25.00	6-32x3/8"	15/16"	470	30.00
463	25.00	6-32x1/2"	1- 1/16"	471	30.00

PHOS. BR. SPRING Silver Plated Overall No.		A	BERYL COP. SPRING Silver Plated Overall B	No.	
464	30.00	4-40x3/8"	15/16"	472	$35.00
465	30.00	4-40x1/2"	1- 1/16"	473	35.00
466	30.00	6-32x3/8"	15/16"	474	35.00
467	30.00	6-32x1/2"	1-1/16"	475	35.00

SOLDERLESS TIP PLUG

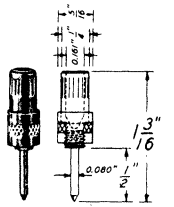


BODY: BRASS nickel plated.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	Per C
105	Senior	$17.00

SOLDERLESS TIP PLUG

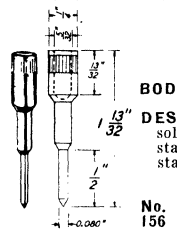


BODY: BRASS nickel plated.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	Per C
106	Junior	$16.00

HEAVY DUTY TIP PLUG
Force Fit

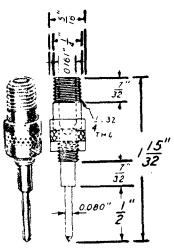


BODY: BRASS nickel plated.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks.

Std. Pkg. 25

No.	Type	Per C
156	Force Fit	$17.00

SOLDERLESS TIP PLUG
Threaded Sr.

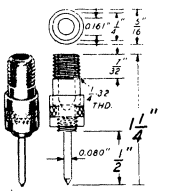


BODY: BRASS nickel plated.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks.

Std. Pkg. 100

No.	Type	Per C
124	Senior	$20.00

SOLDERLESS TIP PLUG
Threaded Jr.

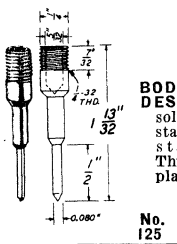


BODY: BRASS nickel plated.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks.

Std. Pkg. 50

No.	Type	Per C
127	Junior	$19.00

HEAVY DUTY TIP PLUG
Threaded

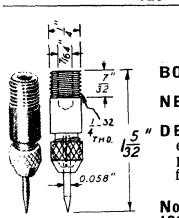


BODY: BRASS nickel plated.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle.

Std. Pkg. 50

No.	Type	Per C
125	Threaded	$17.00

NEEDLE TIP AND CHUCK



BODY: BRASS nickel plated.
NEEDLE: Steel, nickel plated.
DESCR.: Removable chuck for easy replacement. Needle pierces plating or corrosion for positive reading.

Std. Pkg. 50

No.	Per C
128	$22.00

All Prices Subject To Trade Discount
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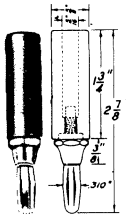
INS. GIANT BANANA PLUG



HANDLE: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.

BODY: Hex brass, nickel plated.

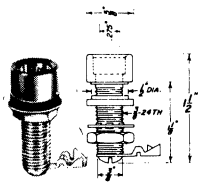
SPRING: Six-leaved, phosphor bronze, nickel plated.

DESCR.: Large deep internal well for soldering heavy duty wire.

Std. Pkg. 50

No.	Per C
285	$77.00

INS. GIANT BANANA JACK



HEAD: MACHINED PLASTIC. Red, Black. SPECIFY COLOR.

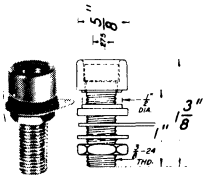
BODY: Hex brass, nickel plated.

DESCR.: Supplied with hex nut, fibre washer, lockwasher, screw and tinned copper lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾" thick.

Std. Pkg. 50

No.	Per C
286	$70.00

INS. GIANT BANANA JACK



HEAD: MACHINED PLASTIC. Red, Black. SPECIFY COLOR.

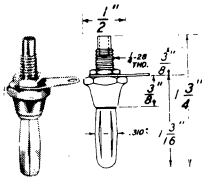
BODY: Brass, nickel plated.

DESCR.: Supplied with hex nut, fibre washer, lockwasher, and brass tinned lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾" thick.

Std. Pkg. 50

No.	Per C
287	$70.00

GIANT BANANA PLUG



BODY: HEX BRASS, nickel plated.

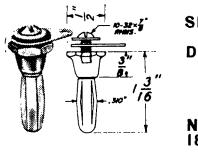
SPRING: Six-leaved phosphor bronze, nickel plated.

DESCR.: Plug portion of #285 plug. Supplied with hex nut and brass tinned lug. Large deep internal well for soldering heavy duty wire.

Std. Pkg. 25

No.	Per C
185	$50.00

GIANT BANANA PLUG



BODY: HEX BRASS, nickel plated.

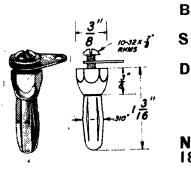
SPRING: six-leaved phosphor bronze, nickel plated.

DESCR.: Supplied with screw and brass tinned lug, internal female permits use on all size panels.

Std. Pkg. 25

No.	Per C
186	$50.00

GIANT BANANA PLUG



BODY: HEX BRASS, nickel plated.

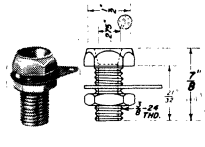
SPRING: Six-leaved phosphor bronze, nickel plated.

DESCR.: Supplied with screw and brass tinned lug. Female permits use on all size panels. Internal screw.

Std. Pkg. 25

No.	Per C
188	$50.00

GIANT BANANA JACK



BODY: HEX BRASS, nickel plated.

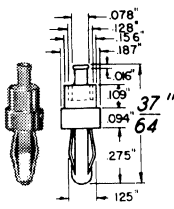
DESCR.: Supplied with hex nut and brass tinned lug, mounts in ⅜" hole in panels up to ½" thick.

Std. Pkg. 25

No.	Per C
187	$50.00

SUB MINIATURE BANANA PLUG

Rivet Type



BODY: BRASS, silver plated.

SPRING: Four leaved beryllium copper, silver plated.

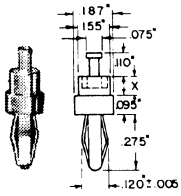
DESCR.: One piece beryllium copper spring insures positive and lasting contact.

Std. Pkg. 100

No.	Per C
191	$25.00

SUB MINIATURE BANANA PLUG

Swage Type



BODY: BRASS, silver plated.

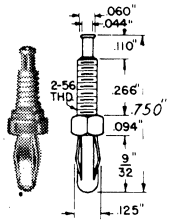
SPRING: Four leaved beryllium copper, silver plated.

DESCR.: One piece beryllium copper spring insures positive and lasting contact.

Std. Pkg. 100

No.	"X" Panel	Per C
2073	.105 1/16"	$25.00
2074	.135 3/32"	25.00
2075	.165 1/8"	25.00

SUB MINIATURE BANANA PLUG



BODY: BRASS, silver plated. 5/32" Hex.

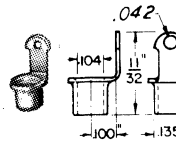
SPRING: Four leaved beryllium copper, silver plated.

DESCR.: One piece beryllium copper spring insures positive and lasting contact.

Std. Pkg. 100

No.	Per C
192	$25.00

SUB MINIATURE BANANA JACK



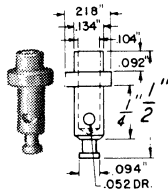
BODY: BRASS, silver plated.

DESCR.: This jack is rivetted directly to chassis or to printed circuit board for easy assembly.

Std. Pkg. 100

No.	Per C
194	$1.50

SUB MINIATURE BANANA JACK



BODY: BRASS, silver plated.

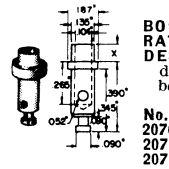
DESCR.: This jack is rivetted directly to chassis or to printed circuit board for easy assembly.

Std. Pkg. 100

No.	Per C
193	$15.00

SUB MINIATURE BANANA JACK

Panel Mount



BODY: BRASS, silver plated.

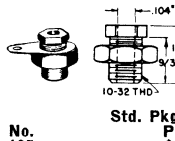
RATING: 15 Amps.

DESCR.: These jacks are rivetted directly to chassis or bakelite board.

Std. Pkg. 100

No.	"X" Dim.	Panel	Per C
2076	.105	1/16"	$15.00
2077	.135	3/32"	15.00
2078	.165	1/8"	15.00

SUBMINIATURE BANANA JACK



BODY: HEX BRASS, nickel plated.

RATING: 15 Amps.

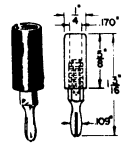
DESCR.: Supplied with hex nut and tinned lug. Mounts in .196 (#10) hole in panels up to ⅛" thick.

Std. Pkg. 100

No.	Per C
195	$13.00

INSULATED BANANA PLUG

Sub Miniature



HANDLE: MACHINED plastic. Red or Black. SPECIFY COLOR.

PLUG: Brass, nickel plated.

RATING: 15 Amps. @ 1000 Volts A.C.

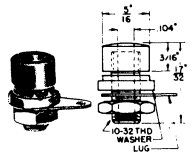
DESCR.: Cross-slotted for spring tension. Wire solders directly into plug. Fits standard midget banana jacks.

Std. Pkg. 100

No.	Per C
197	$25.00

INSULATED BANANA JACK

Sub Miniature



HEAD: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.

BODY: Brass, nickel plated.

RATING: 15 Amps. @ 1000 Volts A.C.

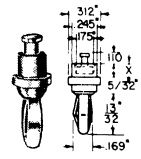
DESCR.: Supplied with hex nut, fibre washer and tinned lug. Mounts in 5/32" hole in panels up to 3/32" thick. Accepts standard midget banana plugs.

St. Pkg. 100

No.	Per C
196	$18.00

RIVET TYPE BANANA PLUG

Wrap Around Type



BODY: BRASS, nickel plated.

SPRING: Four leaved, beryllium copper, nickel plated.

RATING: 15 Amps.

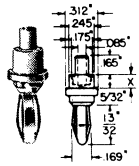
DESCR.: Rivets to panel or bakelite board. Wire wraps around stud and is then soldered.

Std. Pkg. 100

No.	"X" Dim.	Panel	Per C
2082	.105	1/16"	$30.00
2083	.135	3/32"	30.00
2084	.165	1/8"	30.00

RIVET TYPE BANANA PLUG

Solder Well Type



BODY: BRASS, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

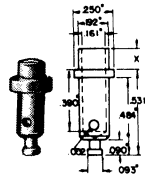
RATING: 15 Amps.

DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug..

Std. Pkg. 100

No.	"X" Dim.	Panel	Per C
2067	.105	1/16"	$30.00
2068	.135	3/32"	30.00
2069	.165	1/8"	30.00

PANEL MOUNT BANANA JACK



BODY: BRASS, nickel plated.

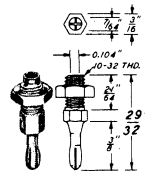
RATING: 15 Amps.

DESCR.: Accepts all standard banana plugs. These jacks are rivetted directly to chassis or bakelite board.

Std. Pkg. 100

No.	"X" Dim.	Panel	Per C
2079	.105	1/16"	$18.00
2080	.135	3/32"	18.00
2081	.165	1/8"	18.00

MIDGET BANANA PLUG



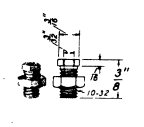
BODY: BRASS, nickel plated, cross-slotted.

DESCR.: Cross-slotted, supplied with hex nut. Fit our No. 112 midget jack.

Std. Pkg. 50

No.	Per C
111	$17.00

MIDGET BANANA JACK



BODY: BRASS, nickel plated.

DESCR.: Supplied with hex nut. Accepts our No. 111 midget plug.

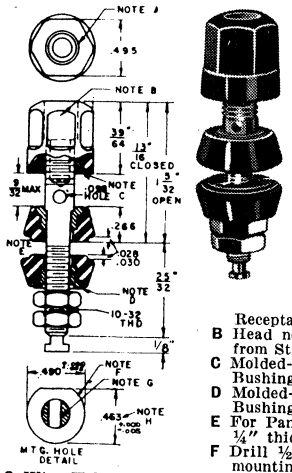
Std. Pkg. 50

No.	Per C
112	$13.00

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

MULTI-PURPOSE BINDING POST



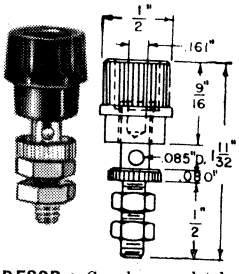
A Banana Plug Receptacle, .161 I.D.
B Head non-removable from Stud.
C Molded-in Brass Bushing in Head.
D Molded-in Brass Bushing in Washers.
E For Panels 1/16" to ¼" thick.
F Drill ½" hole for mounting washers.
G Wire Hole is at right angle to Flat or insulated Washers.
H Production Punch for keyed Slot Slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 2000 V.A.C. RMS test.
CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: Molded nylon head and washer completely insulates post from panel. Mounts in ½" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass plated.
COLORS: Red, Black, Yellow, Green, Blue, White. Specify color. **Std. Pkg. 100**

No.	Per C
257	$60.00

BINDING POSTS

Five-Way Grounding Type



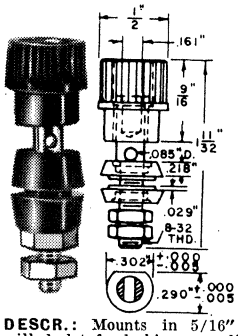
HEAD: CAPTIVE: Molded plastic. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
ACCEPTS Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: Can be completely insulated from panel by using our 2155 and 2163 fibre washers supplied with 2 hex nuts. **Std. Pkg. 100**

No.	Description	Per C
220	8-32 x ½ Threaded Stud	$30.00
230	6-32 x ½ Threaded Stud	30.00
391	Rivet Type	25.00

Same as above with brass nickel plated insert in head.

280	8-32 Threaded Stud	40.00
264	6-32 Threaded Stud	40.00
394	Rivet Type	25.00

ALL-INSULATED TYPE



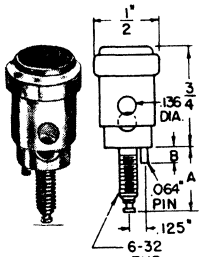
HEAD: CAPTIVE: Molded plastic. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
WASHERS: Molded plastic with brass inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug alligator clip or wire strand.
DESCR.: Mounts in 5/16" hole in panel with milled slot for locking, supplied with two hex nuts. **Std. Pkg. 100**

No.	Description	Per C
260	8-32 Threaded Stud	$45.00
259	6-32 Threaded Stud	45.00

Same as above with brass nickel plated insert in head.

290	8-32 Threaded Stud	55.00
231	6-32 Threaded Stud	55.00

SPRING LOADED BINDING POSTS



HEAD: Captive, Brass nickel plated.
CAP: Molded black bakelite.
BODY: Brass, nickel plated.
PIN: Nickel Silver.
ACCEPTS: Standard phone tip or wire in side hole and locks them in place on release of pressure on cap.
DESCR.: Side dowel pin locates and prevents post from turning when mounted in panel. **Std. Pkg. 50**

WITH DOWEL PIN				LESS DOWEL PIN	
No.	A	B	Per C	No.	Per C
2701	¼"	⅛"	60.00	2801	50.00
2702	⅜"	⅛"	65.00	2802	55.00
2703	½"	¼"	70.00	2803	60.00
2704	¾"	¼"	75.00	2804	65.00
2705	1"	⅜"	80.00	2805	70.00
2706	1¼"	⅜"	85.00	2806	75.00
2707	1½"	½"	90.00	2807	80.00
2708	2"	¾"	95.00	2808	85.00

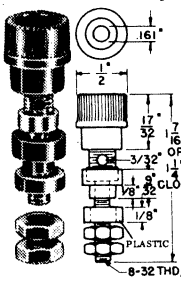
SPECIAL NOTE: Bakelite cap with engraved letters available on special order only.

Same as above less threaded stud. Supplied with 6-32 internal mounting thread.

No.	Description	Per C
2709	With ⅛" lg. Dowel Pin	55.00
2809	Without Dowel Pin	45.00

BINDING POST

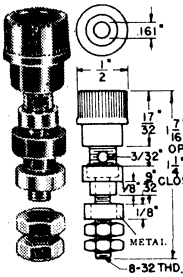
Five-Way With Molded Mounting Washers All Insulated Type



HEAD: Captive—Molded plastic—Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
WASHERS: Molded plastic, BLACK ONLY.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
DESCR.: Mounts in ¼" hole in panel. Supplied with one hex nut. **Std. Pkg. 100**

No.	Per C
386	$40.00

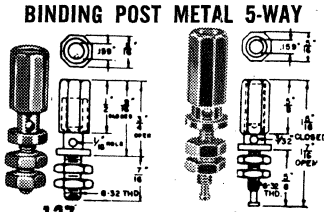
Grounding Type



HEAD: Captive—Molded plastic—Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
WASHERS: Mounting Washer — Molded plastic. BLACK ONLY. Back-up Washer — Brass, nickel plated.
DESCR.: Mounts in ¼" hole in panel. Grounded to panel by back-up washer. Supplied with one hex nut. **Std. Pkg. 100**

No.	Per C
387	$40.00

BINDING POST METAL 5-WAY

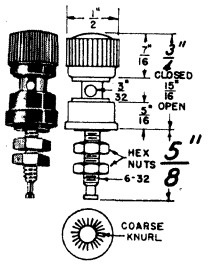


HEAD: CAPTIVE: Hex brass nickel plated.
BODY: Brass, nickel plated.
ACCEPTS: Phone tip, spade lug, banana plug, alligator clip or wire strand.
DESCR.: Can be completely insulated from panel by using our 2155 and 2163 fibre washers. Supplied with two hex nuts. **Std.Pkg.100**

No.	Description	Per C
137	Standard	$35.00
208	Wrap-around	36.00

MOLDED NYLON BINDING POSTS

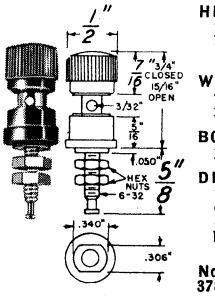
Grounding Type



HEAD: CAPTIVE: Molded nylon, Red or Black with brass nickel plated insert. SPECIFY COLOR.
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
DESCR.: Supplied with 2 hex nuts. Grounds to panel but supplied with nylon washer for uniformity of height with No. 378 when used on same panel. Can be insulated from panel by using our No. 2150 shoulder washer. **Std. Pkg. 100**

No.	Per C
377	$44.00

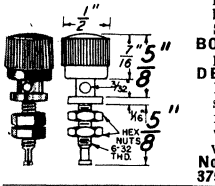
ALL INSULATED



HEAD: CAPTIVE: Molded nylon, Red or Black with brass nickel plated insert. SPECIFY COLOR.
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
DESCR.: Supplied with two hex nuts. Boss washer insulates post from chassis when used with bakelite washer supplied. **Std. Pkg. 100**

No.	Per C
378	$44.00

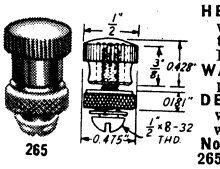
GROUNDING TYPE



HEAD: CAPTIVE: Molded nylon Red or Black with brass nickel plated insert. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Supplied with two hex nuts. Can be insulated from panel by using our No. 2150 shoulder washer and 2162 flat washer. **Std. Pkg. 100**

No.	Per C
379	$35.00

BINDING POST

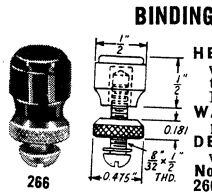


265

HEAD: MOLDED bakelite with molded-in brass threaded insert, Red or Black. Specify Color.
WASHER: Brass, nickel plated.
DESCR.: Supplied complete with screw and lockwasher. **Std. Pkg. 100**

No.	Per C
265	$26.00

BINDING POST

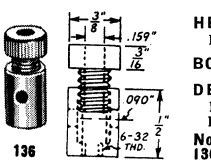


266

HEAD: MOLDED bakelite with molded-in brass threaded insert, Red or Black. Specify Color.
WASHER: Brass, nickel plated.
DESCR.: Supplied complete washer. **Std. Pkg. 100**

No.	Per C
266	$30.00

METAL BINDING POST

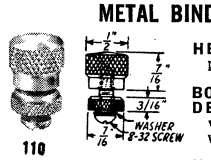


136

HEAD: BRASS nickel plated.
BODY: Brass nickel plated.
DESCR.: Accepts standard phone tips or banana plugs. **Std. Pkg. 50**

No.	Per C
136	$20.00

METAL BINDING POST



110

HEAD: BRASS nickel plated.
BODY: Brass nickel plated.
DESCR.: Supplied complete with screw and lockwasher. **Std. Pkg. 25**

No.	Per C
110	$25.00

All Prices Subject To Trade Discount
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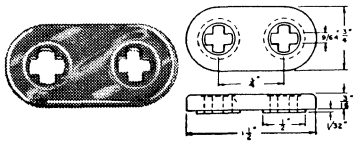
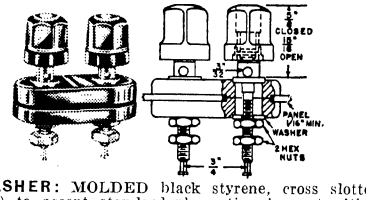


BLACK STYRENE INSULATOR

Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Insulator can be supplied in colors on special order. **Std. Pkg. 100**

No.	Per C
207	$10.00

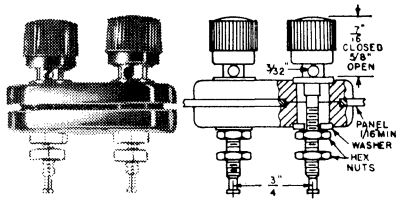
DUAL ASSEMBLY
With Insulated Heads



WASHER: MOLDED black styrene, cross slotted (+) to accept standard phone tips in post either forward or sideways. Supplied in Colors on Special Order.
BODY: Brass, nickel plated
HEAD: Captive: Molded bakelite with molded in brass nickel plated insert.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No.	Description	Each
269BB	Two Black Heads	$1.10
269RR	Two Red Heads	1.10
269RB	One Red, One Black Head	1.10

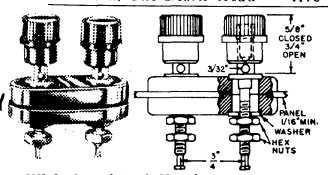
DUAL ASSEMBLY WITH NYLON HEADS



WASHER: MOLDED black styrene, cross slotted (+) to accept standard phone tips in post either forward, back or sideways. Supplied in colors on special order.
BODY: Brass, nickel plated.
HEAD: Captive: Molded nylon, with brass nickel plated insert.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No.	Description	Each
284BB	Two Black Heads	$1.00
284RR	Two Red Heads	1.00
284RB	One Red, One Black Head	1.00

DUAL ASSEMBLY
With Insulated Heads



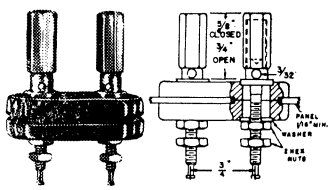
WASHER: MOLDED black styrene, cross slotted (+) to accept standard phone tips in post either forward or sideways. Supplied in colors on special order.
BODY: Brass, nickel plated.
HEAD: Captive: Molded plastic.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No.	Description	Each
224BB	Two Black Heads	$ .90
224RR	Two Red Heads	.90
224RB	One Red, One Black Head	.90

Same as above with brass nickel plated insert in head

263BB	Two Black Heads	1.10
263RR	Two Red Heads	1.10
263RB	One Red, One Black Head	1.10

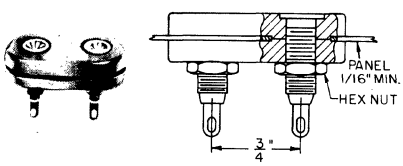
DUAL ASSEMBLY
With Metal Heads



WASHER: MOLDED black stryene, cross slotted (+) to accept standard phone tips in post either forward or sideways. Supplied in Colors on special order.
BODY: Brass, nickel plated.
HEAD: Captive: Hex brass, nickel plated.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No. 209 **$1.00 Each**

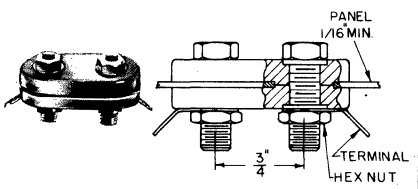
DUAL TIP JACK ASSEMBLY



WASHER: MOLDED black styrene. Supplied in colors on special order.
BODY: Recessed, brass, nickel plated.
DESCR.: Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard phone tip plugs. Supplied with two hex nuts.
Std. Pkg. 10

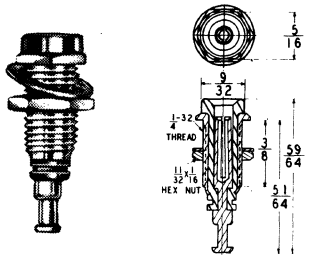
No.	Each
488	$ .90

DUAL BANANA JACK ASSEMBLY



WASHER: MOLDED black styrene. Supplied in colors on special order.
BODY: Brass, nickel plated.
DESCR. Mounts in two ½" holes on ¾" mounting centers in panels up to ¼" thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tinned lugs.
Std. Pkg. 10

No.	Each
489	$ .80

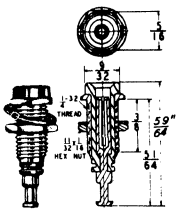


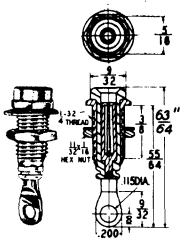
NYLON TIP JACK
With Metal Shell

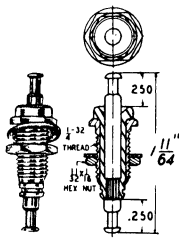
BODY: Molded Nylon, Specify Color as coded above.
SHELL: Brass, nickel plated.
WASHER: Phosphor bronze, nickel plated.
CONTACT: Phosphor Bronze, silver plated.
HEX NUT: Brass, nickel plated.
RATING: Rated at 8000 Volts DC.
DESCR.: Same as 1501 shown above, except does not comply with BU SHIPS MS Specs. For commercial use. **Std. Pkg. 50**

No.	Per C
1599	$43.00

NYLON TIP JACK
With Metal Shell Made to MS-16108 Spec.







Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:
1. Salt Spray Test—Withstands 100 hours
2. Rated Voltage & Current—1000 volt peak at 5 amps. maximum
3. Test Voltage—2500 peak
4. Insulation Resistance—5000 megohms
5. Operating Conditions—
   A. Continuous: 23 hours on, 1 hour off
   B. Elevation: Up to 5,000 feet
   C. Temperature: —55 to + 85C
   D. Humidity: Up to 95%
6. Material Specifications—
   A. Insulator: Nylon, Grade FM 10001
   B. Shell & Nut: Brass Plated Per Spec 72-53
   C. Lockwasher: Phosphor Bronze Nickel Plated per spec 72-53
   D. Center Contact. Numbers 1501 and 1502 Heat Treated Bery. Copper Silver Plated per Spec 72-53. Number 1503 Brass, Tin Plated.
7. Non-Operating Conditions—
   A. Elevation: Up to 50,000 feet
   B. Temperature: Continuous exposure for 72 hours at +160 F and 240 hours at —80 F.
   C. Humidity: Up to 100%

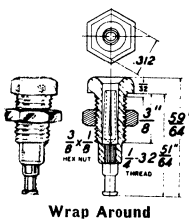
No.	Type	Per C
1501	Wrap Around	$53.00
1502	Spade Terminal	70.00
1503	Feed Through	65.00

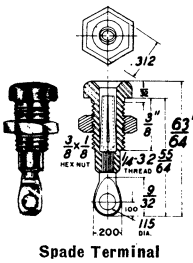
(Std. Pkg. 25)

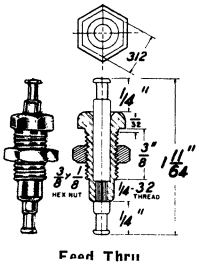
COLOR CODE SUFFIX
Add to Catalog Number as required.

—101 White	—106 Orange
—102 Red	—107 Yellow
—103 Black	—108 Brown
—104 Green	—112 Purple
—105 Blue	—113 Grey

ALL NYLON TIP JACK







Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:
1. Salt Spray Test—Withstands 100 hours
2. Rated Voltage & Current—1000 volts peak at 5 amps. max.
3. Test Voltage—9000 volts DC peak
4. Insulation Resistance—5000 megohms
5. Operating Temperature —55 to + 150 C
6. Nominal Capacity—2.0 mmf
7. Material Specifications
   A. Body: Nylon, Grade FM 10001
   B. Center Contact: Numbers 1505 and 1506 Heat Treated Beryllium Copper Silver plated per Spec. 72-53. Number 1507 Brass, Tin Pl.
   C. Hex Nut: Brass Nickel Plated.

No.	Type	Per C
1505	Wrap Around	$45.00
1506	Spade Term.	50.00
1507	Feed Through	47.00

(Std. Pkg. 25)

COLOR CODE SUFFIX
Add to Catalog Number as required.

—101 White	—106 Orange
—102 Red	—107 Yellow
—103 Black	—108 Brown
—104 Green	—112 Purple
—105 Blue	—113 Grey

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HERMAN H. SMITH, INC.

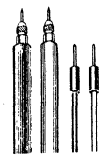
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIP: Solderless: Brass nickel plated.

Std. Pkg. 6

No.	Meter End	Per Pr.
600	Phone Tips (No. 158)	$1.45
601	Spade Lugs (No. 129)	1.45
602	Alligator Clips (No.300)	1.55

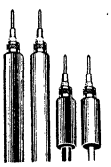


PHONO NEEDLE TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 317).
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.

Std. Pkg. 6

No.	Meter End	Per Pr.
613	Phone Tips (No. 158)	$1.45
614	Spade Lugs (No. 129)	1.45
615	Alligator Clips (No. 300)	1.55

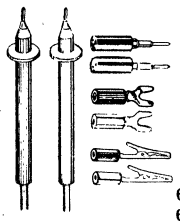


ALL SOLDERLESS TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
TIPS: Solderless: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
603	$2.10



HIGH TENSION TEST LEAD

HANDLE: PROD: FIBRE 5" long x ½" O.D. Red and Black (No. 630).
PLUG: Fibre 1" long x ½" O.D. Red and Black.
TIP: Brass, nickel plated.

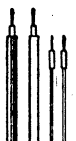
Std. Pkg. 6

No.	Meter End	Per Pr.
620	Ins. Phone Tips	$3.30
621	Ins. Spade Lugs	3.30
622	Ins. Alligator Clips	4.00

SHORT TIP TEST LEAD

HANDLES: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 383).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 203).
TIPS: Brass, nickel plated.

No.	Per Pr.
624	$1.75

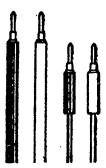


SLIM HANDLE TEST LEAD

HANDLE: MACHINED TENITE 5" long x 5/16 O.D. Red and Black.
TIPS: Prod: Brass, nickel plated.
METER END: Drawn brass, nickel plated (No. 158).

Std. Pkg. 6

No.	Per Pr.
670	$1.10

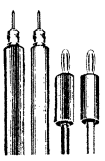


SUB MINIATURE TEST LEAD

HANDLES: PROD: BONE FIBRE 4" long x ¼" O.D. Red and Black (No. 322).
PLUG: Bone fibre 1" long x ¼" O.D. Red and Black. (No. 270).
TIPS: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
678	$2.10

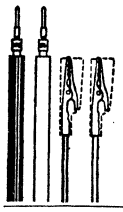


BANANA PLUG TEST LEAD

HANDLES: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black. (No. 302).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black. (No. 211).
TIP: Solderless: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Four leaved phosphor bronze, nickel plated.

Std. Pkg. 6

No.	Per Pr.
623	$2.50

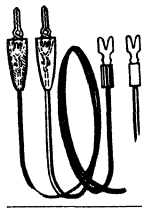


ALLIGATOR CLIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated (No. 300).
BOOT: Vinyl Plastic Red and Black (No. 331).

Std. Pkg. 6

No.	Per Pr.
672	$2.10

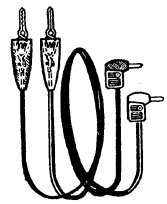


CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadmium plated.
BOOT: Vinyl plastic Red and Black.
HANDLE: Spade Lug: Molded tenite ¾" long x ⅜" O.D. Red and Black (No. 218).
LUG: Steel, Hot tinned (No. 129).

Std. Pkg. 6

No.	Per Pr.
671	$2.00

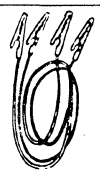


CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadmium plated.
BOOT: Vinyl Plastic Red and Black.
ELBOW: Molded bakelite Red and Black (No. 235).
TIP: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
675	$1.90



ALLIGATOR CLIP TEST LEAD

CLIPS: STEEL, cadmium plated.

Std. Pkg. 6

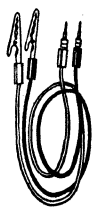
No.	Wire	Per Pr.
604	12 inches	$0.95
605	24 inches	1.05
606	36 inches	1.20
607	48 inches	1.35

INSULATED ALLIGATOR CLIP TEST LEADS

CLIPS: STEEL, cadmium plated.
BOOTS: Vinyl plastic, Red and Black (No. 331).

Std. Pkg. 6

No.	Wire	Per Pr.
629	12 inches	$1.35
657	24 inches	1.45
658	36 inches	1.60
659	48 inches	1.70

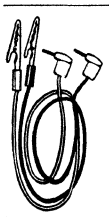


ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
CLIPS: Steel, cadmium plated (No. 301).
TIPS: Solderless: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
627	$1.65

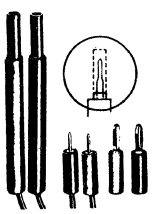


ALLIGATOR CLIP TEST LEAD

HANDLE: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
CLIPS: Steel, Cadmium plated (No. 301).
ELBOWS: Molded bakelite. Red and Black (No. 235).
TIPS: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
628	$2.00



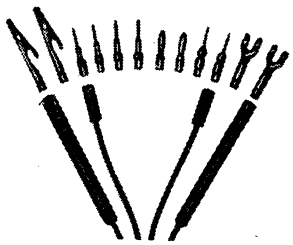
SHIELDED TEST LEADS

HANDLE: MACHINED TENITE 7/16" O.D.x4½" lg. Red and Black.
TIP: Prod tip brass nickel plated. Meter end see Type.
DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or Banana Plug meter ends. Other variations on special order.

Std. Pkg. 6

No.	Type	Per Pr.
616	Phone Tip End (No. 203)	$3.00
617	Banana Plug End (No. 211)	3.10

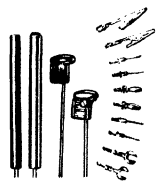
"UNIVERSAL" TEST LEAD
Completely Interchangeable



Fifty Leads in One! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Complete as shown. With plastic kit.

No. 699 **$4.00 Ea.**

"UNIVERSAL" TEST LEAD
Miniature Accessories



Completely Interchangeable Fifty Leads in One. One lead can make any required test lead combination. All parts adapt into prod handle or meter tip. Supplied with miniature tips, clips, banana plugs and spade tips. Complete as shown. With plastic kit.

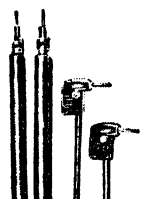
No. 679 **$4.00 Ea.**

TEST LEAD KIT

DESCR.: Each kit is supplied with one pair of test leads. One end test prods, other end ins. banana plugs.
FITTINGS: Two each: Phone tips, alligator clips., spade lugs.

Std. Pkg. 6

No.	Type	Each
610	Solderless Prods	$3.00
611	Needle Tip Prods	3.00

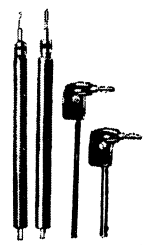


METER TEST LEADS
Solderless Prod

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIP: Solderless: Brass, nickel plated.
ELBOW: Molded bakelite. Red and Black (No. 235, Phone Tip; No. 255, Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated.

Std. Pkg. 6

No.	Type	Per Pr.
625	Phone Tip Meter Tip	$2.25
685	Banana Meter Tip	2.50

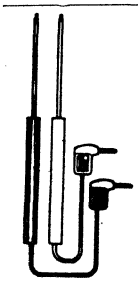


Needle Prod

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 317).
NEEDLE: Steel, nickel plated.
ELBOW: Molded, bakelite, Red and Black (No. 235, Phone Tip; No. 255, Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bronze, nickel plated.

Std. Pkg. 6

No.	Type	Per Pr.
626	Phone Tip Meter Tip	$2.25
686	Banana Meter Tip	2.50



SLIM JIM TEST LEAD

HANDLE: MOLDED TENITE 4" long x ⅜" O.D. Red and Black.
PROBE: Steel, cadmium plated.
INSULATOR: Vinyl spaghetti tubing. Red and Black.
ELBOWS: Molded bakelite. Red and Black (No. 235).
TIPS: Brass, nickel plated.

Std. Pkg. 6

No.	Per Pr.
698	$1.90

All Prices Subject To Trade Discount

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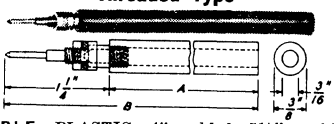
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TEST PROD
Threaded Type

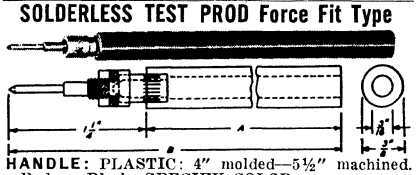


HANDLE: PLASTIC: 4" molded—5½" machined. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
302	4" (Molded)	5¼"	$0.50
303	5½" (Machined)	6¾"	.55

SOLDERLESS TEST PROD Force Fit Type

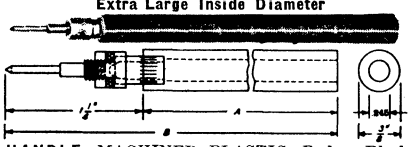


HANDLE: PLASTIC: 4" molded—5½" machined. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
382	4" (Molded)	5¼"	$0.40
383	5½" (Machined)	6¾"	.45

SOLDERLESS TEST PROD Force Fit Type
Extra Large Inside Diameter

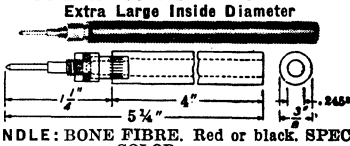


HANDLE: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless. Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Extra large I.D. for heavy duty wire.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
352	4"	5¼"	$0.40
353	5½"	6¾"	.45

SOLDERLESS FIBRE TEST PROD
Extra Large Inside Diameter

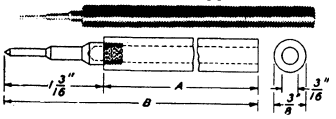


HANDLE: BONE FIBRE. Red or black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless. Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar. Large I.D. permits use of heavy duty wire.

Std. Pkg. 25

No.	Each
323	$0.50

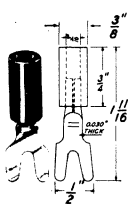
HEAVY DUTY TEST PROD
Threaded Type



HANDLE: PLASTIC: 4" molded—5½" machined. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
319	4" (Molded)	5-3/16"	$0.50
329	5½" (Machined)	6-11/16"	.55



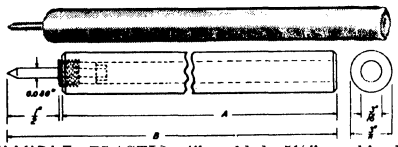
INSULATED SPADE PLUG

HANDLE: MOLDED PLASTIC. Red, Black. SPECIFY COLOR.
LUG: Steel, hot tinned., .030 thick.
DESCR.: Banana plug can be inserted into spade lug thru rear of handle.

Std. Pkg. 100

No.	Description	Per C
218	Insulated Spade Lug	$18.00
129	Lug Only	$20.00 M

SHORT TIP TEST PROD

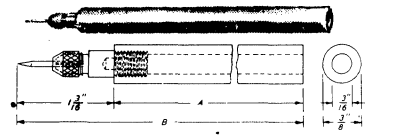


HANDLE: PLASTIC: 4" molded—5½" machined. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
363	4" (Molded)	4½"	$0.35
364	5½" (Machined)	6"	.40

PHONO NEEDLE TEST PROD

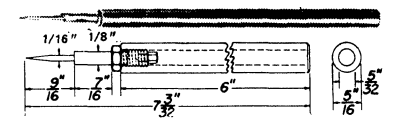


HANDLE: PLASTIC: 4" molded—5½" machined. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
317	4" (Molded)	4-13/16"	$0.50
318	5½" (Machined)	6-5/16"	.55

SOLDERLESS PHONO NEEDLE TEST PROD

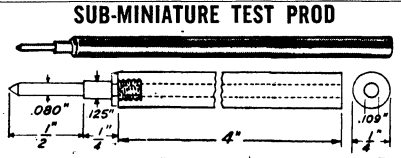


HANDLE: XX BAKELITE lacquered. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
NEEDLE: Phono needle, steel.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to pellet for solderless connections.

Std. Pkg. 25

No.	Handle (A)	Overall (B)	Each
314	4"	5-3/32"	$1.25
313	6"	7-3/32"	1.35

SUB-MINIATURE TEST PROD

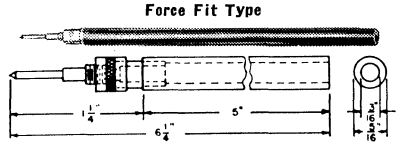


HANDLE: BONE FIBRE. Red or black. SPECIFY COLOR.
TIP: Brass, nickel plated.
DESCR.: Threaded for easy assembly ideally suited for checking all types sub-miniature equipment.

Std. Pkg. 25

No.	Each
322	$0.40

PENCIL TYPE SOLDERLESS TEST PROD
Force Fit Type

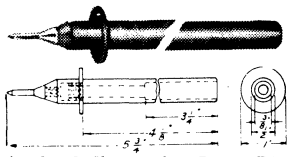


HANDLE: MACHINED PLASTIC. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Solderless: Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled collar.

Std. Pkg. 25

No.	Each
384	$0.35

TEST PROBE

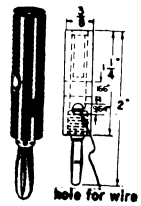


Heavy insulated fibre probe. Large I.D. enables use of Coax cable or 1N-34 crystal for R.F. Probes. Heavy Duty removable tip.

Std. Pkg. 10

No.		Each
630		$ 1.20
630D	Display of 12	14.40

TEST LEAD ACCESSORIES

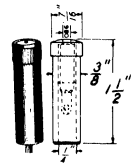


STACK BANANA PLUG
Solderless

HANDLE: PLASTIC. Red, Black, Yellor or Green. SPECIFY Color.
BODY: Brass, nickel plated.
SPRINGS: Four-leaved Phosphor Bronze or Beryllium Copper, nickel plated.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits.

Std. Pkg. 50

No.	Spring Material	Per C
1511	Phosphor Bronze	$45.00
1512	Beryllium Copper	50.00

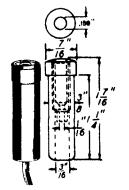


IN-LINE PHONE TIP JACK

HANDLE: MACHINED PLASTIC with molded cap. Red, Black, Yellow, Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Suitable for test lead extension where long leads are required. Accepts standard phone tip plug.

Std. Pkg. 50

No.	Per C
248	$35.00

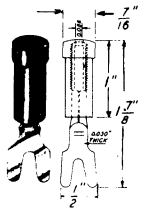


IN-LINE BANANA JACK

HANDLE: MACHINED PLASTIC with molded cap. Red, Black, Yellow, Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
DESCR.: Suitable for test lead extensions where long leads are required. Accepts standard banana plugs.

Std. Pkg. 50

No.	Per C
251	$35.00

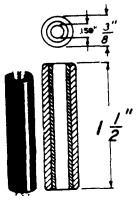


ADAPTER
Phone Tip to Spade Lug

HANDLE: MACHINED PLASTIC with molded cap. Red or black. SPECIFY COLOR.
JACK: Brass.
SPRING: Phosphor Bronze.
SPADE LUG: Steel hot tinned .030 thick.
DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug.

Std. Pkg. 50

No.	Description	Per C
249	Adapter	$55.00

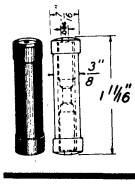


BANANA PLUG SPLICE

HANDLE: MACHINED PLASTIC. Red, Black, Yellow, Green. SPECIFY COLOR.
INSERT: Brass.
DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs.

Std. Pkg. 50

No.	Per C
245	$40.00

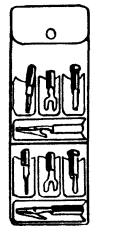


PHONE TIP PLUG SPLICE

HANDLE: MACHINED PLASTIC with molded cap. Red, Black, Yellow, Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
DESCR.: Invaluable for quick splicing connections or for test lead extensions. Accepts standard phone tip plugs.

Std. Pkg. 50

No.	Per C
246	$45.00



LABORATORY INTERCHANGE KIT

Consists of one Red, one Black of the following:
Phone tips No. 200
Spade Lugs No. 218
Tip Plug Adapter No. 214
Alligator clip jack No. 305
DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. Packaged in an electronically sealed vinyl kit.

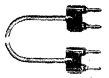
No.	Each
640	$3.75

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

DOUBLE BANANA PLUG PATCH CORDS

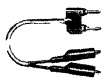
CABLE TYPES AVAILABLE		WIRE "A"	WIRE "B"	WIRE "C"
	DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded microphone cable.	Coaxial shielded cable.
	INSULATION	Vinyl	Polyethylene	Polyethylene
	JACKET	Vinyl	Vinyl	Vinyl
	NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft. RG58C/U.



DOUBLE PLUG to DOUBLE PLUG

HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
WIRE: As specified above.
DESCR. Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. Each end terminates with molded double banana plug.

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
1530-24	1540-24	1580-24	24"	$3.80
1530-36	1540-36	1580-36	36"	4.00
1530-48	1540-38	1580-48	48"	4.20



DOUBLE PLUG to ALLIGATOR CLIPS

HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
CLIP: Steel Cadmium Plated (No. 300).
INS.: Molded Vinyl Plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug other end with insulated alligator clips one red one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
1531-24	1541-24	1581-24	24"	$2.80
1531-36	1541-36	1581-36	36"	3.00
1531-48	1541-48	1581-48	48"	3.20

DOUBLE PLUG to STRIPPED & TINNED LEADS

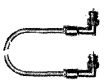
HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on the side. One end terminates with double banana plug, other end stripped and tinned. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
1532-24	1542-24	1582-24	24"	$2.20
1532-36	1542-36	1582-36	36"	2.40
1532-48	1542-48	1582-48	48"	2.60

PL 259A to ALLIGATOR CLIPS

CONN.: PL 259 A.
CLIPS: Steel Cad. Plated (#300).
INS.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns, etc. One end terminates with PL 259A other end with insulated alligator clips one red one black. **Std. Pkg. 10**

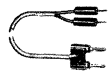
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1536-24	1586-24	24"	$6.60
— — —	1536-36	1586-36	36"	6.80
— — —	1536-48	1586-48	48"	7.00



UG 913/U to UG 913/U

CONN.: UG 913/U.
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG 913/U.

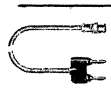
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1538-24	1588-24	24"	$10.00
— — —	1538-36	1588-36	36"	10.20
— — —	1538-48	1588-48	48"	10.40



DOUBLE PLUG to PHONE TIPS

HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

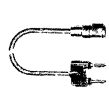
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
1533-24	1543-24	1583-24	24"	$2.80
1533-36	1543-36	1583-36	36"	3.00
1533-48	1543-48	1583-48	48"	3.20



DOUBLE PLUG to UG 88C/U

HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
WIRE: As specified above.
CONN.: UG 88 C/U.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with UG 88 C/U. **Std. Pkg. 10**

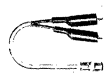
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1544-24	1584-24	24"	$4.80
— — —	1544-36	1584-36	36"	5.00
— — —	1544-48	1584-48	48"	5.20



DOUBLE PLUG to PL 259A

HANDLE: MOLDED BLACK POLYSTYRENE.
BODY: Brass Nickel Plated.
SPRING: Four-leaved Beryllium Copper, nickel plated.
WIRE: As specified above.
CONN.: PL-259A.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with PL-259-A. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1545-24	1585-24	24"	$5.00
— — —	1545-36	1585-36	36"	5.20
— — —	1545-48	1585-48	48"	5.40



UG 88C/U to ALLIGATOR CLIPS

CONN.: UG 88C/U.
CLIPS: Steel Cad. Plated (#300).
INS.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR: For testing of wave patterns etc. One end terminates with UG 88C/U other end with insulated alligator clips one red one black. **Std. Pkg. 10**

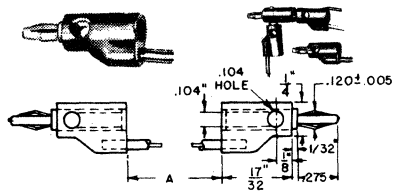
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1537-24	1587-24	24"	$6.60
— — —	1537-36	1587-36	36"	6.80
— — —	1537-48	1587-48	48"	7.00

UG 88C/U to UG 88C/U

CONN.: UG 88C/U.
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG 88C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	Each
— — —	1539-24	1589-24	24"	$7.00
— — —	1539-36	1589-36	36"	7.20
— — —	1539-48	1589-48	48"	7.40

SUB-MINIATURE "CROSS PATCH" PATCH CORDS



WIRE: General purpose, where operating voltage does not exceed 300 volts R.M.S. Temperature range: —40°C. to +105°C. 22 AWG 150/44; 19.0 ohms Max. D.C. Resistance per 1000 ft. at 68°F.
HANDLE: MOLDED PLASTIC (see color code).
BODY: Brass, nickel plated.
SPRING: Four-leaved Beryllium copper, silver plated.
DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for banana plugs on top and side. Special lengths on request. **Std. Pkg. 10**

COLOR CODE SUFFIX

—101 WHITE	—105 BLUE	—108 BROWN
—102 RED	—106 ORANGE	—112 PURPLE
—103 BLACK	—107 YELLOW	—113 GREY
—104 GREEN		

No.	Wire ("A")	Each
1590-6	6 Inches	$1.00
1590-12	12 Inches	1.15
1590-18	18 Inches	1.25
1590-24	24 Inches	1.40

SOLDERLESS COAXIAL CABLE CONNECTORS For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cables

Designed to use the inner conductor of the coaxial cable for the male pin. Can be wrench-tightened for positive contact. Brass, silver-plated. **Std. Pkg. 25**

MALE CONNECTOR
Mates with #1660 chassis connector or #1680 feedthru. Supplied with instruction sheet.

No.		Each
1650	Individually packaged	$ .80
1650D	Display of 24	19.20

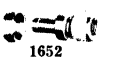
FEMALE CHASSIS FITTING
Mates with #1650 connector. Mounts in 5/16" hole. Threaded stem is ⅜".

No.		Each
1660	Individually Packaged	$ .80
1660D	Display of 24	19.20

FEMALE COUPLING
Accepts two #1680, 1652 or 1656 connectors.

No.		Each
1680	Individually Packaged	$1.00
1680D	Display of 24	24.00

Crimp Type



1652

MALE CONNECTORS
Both types mate with female chassis fitting #1660 and Female Coupling #1680. Designed for quick and easy assembly using #1752 Crimping Tool. Withstand 350-lb pull when assembled. Packaged individually, with instruction sheet.

1656

No.	For Cables	Each
1652	RG-59/U	$ .80
1652D	Display of 24	19.20
1656	RG-6/U	1.05
1656D	Display of 24	25.20
1752	Crimping Tool	3.00

UHF COAXIAL CABLE CONNECTORS Solder Type

R.F. Connectors for use with RG-8, 9, 10, 11, 12, 63, 65/U coaxial cables.

1713

STRAIGHT COAXIAL CONNECTOR
Brass, Silver-plated shell.

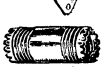
No.	Type	Each
1713	PL-259	$1.25
1714	PL-259A	1.75

1714

1715

CHASSIS TYPE COAXIAL RECEPTACLE

1715	SO-239	$1.25



1716

COAXIAL JUNCTION
For joining separate cable lengths.

1716	PL-258	$2.25

RF COAXIAL CABLE CONNECTORS

1717 1718 1710 1709

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect. Constant impedance, 50 ohms. Brass, silver-plated. For RG-55 and 58/U Cables.

No.	Type	Description	Each
1717	UG-88C/U	Plug	$1.50
1718	UG-913/U	90° Plug	5.00
1709	UG-290A/U	Receptacle	2.00
1710	UG-89B/U	Jack	2.50

All Prices Subject To Trade Discount

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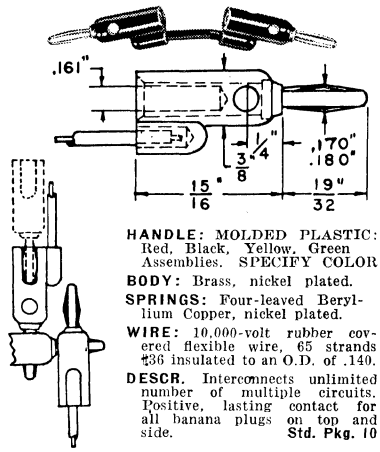
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

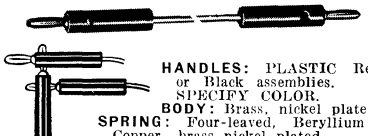
MOLDED CROSS-PATCH PATCH CORDS



HANDLE: MOLDED PLASTIC: Red, Black, Yellow, Green Assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRINGS: Four-leaved Beryllium Copper, nickel plated.
WIRE: 10,000-volt rubber covered flexible wire, 65 strands #36 insulated to an O.D. of .140.
DESCR. Interconnects unlimited number of multiple circuits. Positive, lasting contact for all banana plugs on top and side. **Std. Pkg. 10**

19/32" Plug Spring			13/32" Plug Spring		
No.	Wire	Each	No.	Wire	Each
1510-8	8"	$1.50	1515-8	8"	$1.50
1510-12	12"	1.50	1515-12	12"	1.50
1510-24	24"	1.60	1515-24	24"	1.60
1510-36	36"	1.70	1515-36	36"	1.70

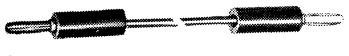
"CROSS PATCH" PATCH CORD



HANDLES: PLASTIC Red or Black assemblies. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Four-leaved, Beryllium Copper, brass nickel plated.
WIRE: 10,000 volt rubber covered flexible wire 65 strands #36 insulated to an O.D. of .140.
DESCR.: Provides a never ending banana plug receptacle, and can be used to interconnect an unlimited amount of multiple circuits. Accepts standard banana plug in side. **Std. Pkg. 10**

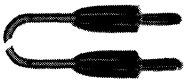
No.	Wire Length	Each
680	8 inches	$1.45
681	12 inches	1.55
682	24 inches	1.65
683	36 inches	1.75

PATCH CORD



HANDLES: MOLDED BAKELITE. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRINGS: Four-leaved Beryllium copper, nickel plated.
WIRE: 10,000 volt rubber covered flexible wire 65 strands #36 insulated to an O.D. of .140.
DESCR.: Uses our standard No. 211 banana plug to interconnect circuits. Fits standard banana jack. **Std. Pkg. 10**

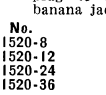
No.	Wire Length	Each
690	8 inches	$ .80
691	12 inches	.90
692	24 inches	1.00
693	36 inches	1.10



PATCH CORD NYLON HANDLE

HANDLES: MOLDED NYLON. Red, Black, Yellow or Green. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRINGS: Four-leaved Beryllium copper, nickel plated.
WIRE: 10,000 volt rubber covered flexible wire 65 strands #36 insulated to an O.D. of .140.
DESCR.: Uses our standard No. 478 banana plug to interconnect circuits. Fits standard banana jacks **Std. Pkg. 10**

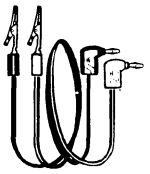
No.	Wire Length	Each
1520-8	8 inches	$ .90
1520-12	12 inches	1.00
1520-24	24 inches	1.10
1520-36	36 inches	1.20



TEST LEAD WIRE

Supplied in 100-foot coils

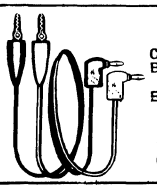
No.	Type	Cond.	Strands	Wall	Voltage	O.D.	Each
660	Standard	20	26/34	.040"	5,000	.125"	$3.25
768	Hv. Duty	18	65/36	.047"	12,000	.150"	5.00



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: Molded Tenite 3/4" long x 3/8" O.D. Red and Black (No. 301).
CLIPS: Steel, cadmium plated.
ELBOWS: Molded Bakelite, Red and Black. (No. 255)
Std. Pkg. 6

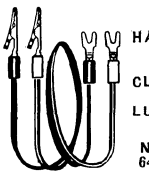
No.	Per Pr.
647	$2.00



CROCODILE CLIP TEST LEAD

CLIPS: Steel, cadmium plated.
BOOTS: Vinyl plastic, Red and Black
ELBOWS: Molded Bakelite, Red and Black (No. 255).
Std. Pkg. 6

No.	Per Pr.
648	$1.90

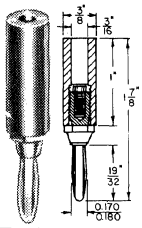


ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP and LUG: Molded Tenite 3/4" long x 3/8" O.D. Red and Black.
CLIPS: Steel, cadmium plated (No. 301).
LUGS: Steel, hot tinned (No. 129).

No.	Per Pr.
649	$2.00

HIGH TEMPERATURE BANANA PLUG



SPRING: Four leaved, INCONEL.
DESCR.: Withstands temperature to 1200 degrees F. Full resiliency non-oxidizing. Excellent for thermocouple connection on plastic extruding die heads.

No.	Each
388	$1.20

AUTOMATIC WIRE STRIPPERS

For Industrial Production, Electrical and Electronic Servicing, Laboratories. Single Squeeze operation — Easy Grip — Precision Action — Adjustable Blades. FOR WIRE SIZES, #8 to # 30 STRANDED OR SOLID.

OPEN-SHUT TYPE
For Stripping Solid Wires

No.	Wire Size	Each
1320	10 to 22	$7.95
1321	14 to 30	7.95
1322	16 to 22	7.95
1323	10 to 18	7.95
1324	8 to 10	7.95
1325	POSJ-18	7.95
1326	300 ohm	7.95

Suggested Dealer Net **$4.55 Each**

TRIGGER TYPE
Strips Solid or Stranded Wire

No.	Wire Size	Each
1330	10 to 22	$9.90
1331	14 to 30	9.90
1332	16 to 22	9.90
1333	10 to 18	9.90
1334	8 to 10	9.90
1335	POSJ-18	9.90
1336	300 ohm	9.90

Suggested Dealer Net **$5.95 Each**

FULLY AUTOMATIC TYPE
Strips Solid or Stranded Wire

No.	Wire Size	Each
1340	8 to 22	$9.90
1341	14 to 30	9.90
1342	16 to 22	9.90
1343	10 to 18	9.90
1344	8 to 10	9.90
1345	POSJ-18	9.90
1346	300 ohm	9.90

Suggested Dealer Net **$5.95 Each**

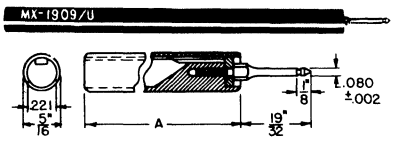
ADJUSTABLE STOP INCLUDED WITH EACH STRIPPER

- **Speeds Production Stripping**
- **Eliminates Wire Waste**

Easy to put on and take off. Ideal for production work where many wires must be stripped to exactly the same length. Max. length of stripping with stop, 7/8". **Supplied free with every stripper.**

REPLACEMENT BLADES are available for all wire strippers. Add suffix "B" to catalog number of stripper for required replacement blade. 1320 series and 1330 series blades are interchangable.
All Blades ..... $1.75 Each
Suggested Dealer Net **$1.05 Each**

NYLON HANDLE PRODS & TIPS
Signal Corps Approved



HANDLE: Molded Nylon.
TIP: Brass Silver Plated.
DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761. **Std. Pkg. 25**

No.	Sig. Corps. Dwg. and Part No.	Size ("A")	Color	Each
176	MX-1906/U	1"	Red	$ .90
177	MX-1907/U	1"	Black	.90
178	MX-1909/U	4"	Red	1.00
179	MX-1910/U	4"	Black	1.00

NYLON LACING CORD

The lacing cord meets specification for yardage and tensile strength and is made to meet Spec. MIL-T-713-A, Type S, Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes. Natural color.

NATURAL COLOR

No.	Class	Test	Yardage	Each
734	1	70 lb.	600	$15.00
735	2	48 lb.	800	15.50
736	3	32 lb.	1140	16.00

BLACK COLOR

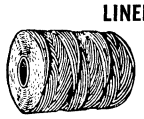
791	1	70 lb.	600	$18.00
792	2	48 lb.	800	18.50
793	3	32 lb.	1140	19.00

NYLON LACING TAPE

Flat nylon tape fungus treated as provided in MIL-T-713A. Has all the application advantages of braided tape but at a much lower cost. Supplied in one pound tubes in natural color.

No.	Width	Yardage	Each
743	1/8"	620	$8.50

LINEN LACING CORD



Made from pure flax, waxed and mildew proofed. Six, Eight and Twelve ply cord meet Spec. MIL-T-713-A. Type N, Classes 3, 2 and 1 respectively. Natural color.

NATURAL COLOR

No.	Tube	Ply	Class	Ydge.	Each
725	4 oz.	4	—	210	$2.75
726	8 oz.	4	—	425	5.00
727	1 lb.	4	—	850	9.00
728	4 oz.	6	3	150	$2.75
729	8 oz.	6	3	300	5.00
730	1 lb.	6	3	600	9.00
737	4 oz.	8	2	115	$2.75
738	8 oz.	8	2	235	5.00
739	1 lb.	8	2	470	9.00
731	4 oz.	9	—	100	$2.75
732	8 oz.	9	—	200	5.00
733	1 lb.	9	—	400	9.00
740	4 oz.	12	1	75	$2.75
741	8 oz.	12	1	150	5.00
742	1 lb.	12	1	300	9.00

BLACK COLOR

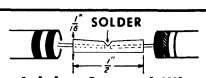
794	1 lb.	4	—	850	$10.00
795	1 lb.	6	3	600	10.00
796	1 lb.	8	2	470	10.00
797	1 lb.	9	—	400	10.00
798	1 lb.	12	1	300	10.00

DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

No.	Class	Test	Yardage	Each
722	1	78 lbs.	750	$16.00
723	2	57 lbs.	1000	16.50
724	3	37 lbs.	1500	17.00

"CLEAPS"



(Connectors for Joining Severed Wires)

MATERIAL: Brass, cadmium plated.
WIRE SIZE: For wires, .010" to .050" (B&S Gauge 16 to 30).
DESCR.: Used to splice cut leads of condensers, resistors, etc., in process of trouble-shooting. Insert wire in each tapered end and solder thru center opening. Packaged 10 per envelope. **Std. Pkg. 100**

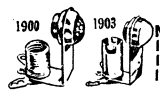
No.	Per C
1270	$5.00

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

PANEL INDICATORS

Indicators supplied with facetted jewels in Red, Green, Amber, Blue, Opal and White. SPECIFY COLOR. **Std. Pkg. 10**

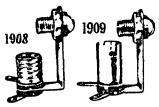


½" JEWEL—Mounts in 7/16" Hole

No.	Type	Each
1900	Miniature Screw	$0.45
1901	Candelabra	.55
1902	Candelabra w/Univ. Bkt.	.58
1903	Bayonet	.45
1904	Bayonet w/Univ. Bkt.	.50
1912	½" Jewel Only	.35

¾" JEWEL—Mounts in 11/16" Hole

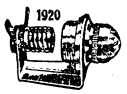
No.	Type	Each
1905	Miniature Screw	$0.95
1906	Bayonet	1.00
1907	Candelabra	1.00
1914	¾" Jewel Only	.70

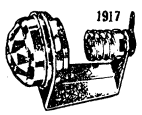


⅜" JEWEL—Mounts in 5/16" Hole

No.	Type	Each
1908	Miniature Screw	$0.45
1909	Bayonet	.48
1941	⅜" Jewel Only	.35

OPEN TYPE





Jewel Removable From Front

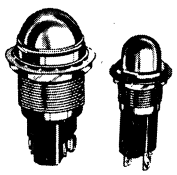
½" JEWEL—Mounts in 11/16" Hole Std. Pkg. 10

No.	Type	Each
1920	Miniature Screw Open Type	$0.65
1921	Bayonet, Open Type	.65
1942	Bayonet, "U" Bkt.	.90
1943	½" Jewel Only	.42

1" JEWEL—Mounts in 1" Hole

No.	Type	Each
1917	Miniature Screw	$1.60
1918	Bayonet	1.60
1919	Candelabra	1.70
1916	1" Jewel Only	1.25

NEON INDICATORS



UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front. Candelabra screw base; 105-125 volts 1" mtg. clearance hole. **Std. Pkg. 10**

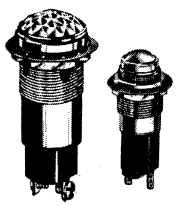
No.	Type	Each
1953		$2.85
1954	Lens Cap Only	1.17

Built-in 56K ohm, ⅓ watt resistor 11/16" mtg. celarance hole.

No.	Type	Each
1955		$2.25
1956	Lens Cap Only	.37

INDICATOR ASSEMBLIES

Enclosed Type

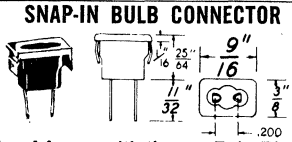


UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. **Std. Pkg. 10**

Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1916 Jewel.
No. 1957 $2.87 Ea.

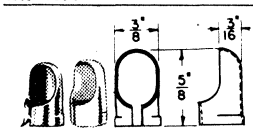
Bayonet base; 11/16" mtg. clearance hole; ½" indicator. Uses No. 1943 jewel.
No. 1958 $2.14 Ea.

SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Miniature Lamps (G.E. #10-25 volts, #12-6.3 volts, or #15-7.0 volts). Easily assembled to any unit for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel — brass, cad. plated; contacts — brass, silver plated. **Std. Pkg. 25**
No. 1504 $17.00 Per C

PILOT LIGHT SHIELD

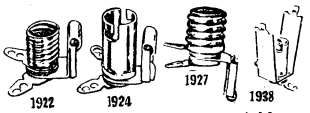


DESCR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb.

No.	Type	Per C
1963	Brass Cad. Plate	$6.00
1968	Plain Brass	5.50
1969	Flared Brass Cad. Plate	7.00

PILOT LIGHT SOCKETS

Clip-On Type

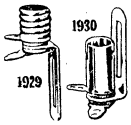


Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. **Std. Pkg. 50**

No.	Type	Per C
1922	Miniature Screw Up Clip	$15.50
1923	Miniature Screw Down Clip	15.50
1924	Miniature Bayonet Up Clip	15.50
1925	Miniature Bayonet Down Clip	15.50
1926	Candelabra Up Clip	17.00
1927	Candelabra Down Clip	17.00
1938	Clip-in Socket	15.50

PILOT LIGHT SOCKETS

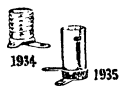
Bracket Type



No.	Type	Per C
1928	Miniature Screw Up Bracket	$15.50
1929	Miniature Screw Down Bracket	15.50
1930	Miniature Bayonet Up Bracket	15.50
1931	Miniature Bayonet Down Bracket	15.50
1932	Candelabra Up Bracket	17.00
1933	Candelabra Down Bracket	17.00

Std. Pkg. 50

UNMOUNTED TYPE SOCKETS



No.	Type	Per C
1934	Miniature Screw Base	$15.50
1935	Miniature Bayonet Base	15.50
1936	Candelabra Base	17.00

Std. Pkg. 50

NAVY TYPE LAMP SOCKETS

75W-125V Bayonet Base

Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. **Std. Pkg. 10**
No. 1950 $1.40 Ea.

SCREW BASE

Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. **Std. Pkg. 10**
No. 1951 $1.40 Ea.

SCREW BASE

Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. **Std. Pkg. 10**
No. 1952 $1.40 Ea.

MINI-SHIELDS FOR MINI-TUBES

These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from jiggling or working loose. Available in two sizes for 1½ & 2" long tubes. **Std. Pkg. 50**

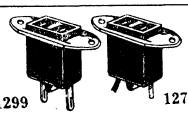
550	for 2" tube	1¾"	$13.00
551	for 1½" tube	1¼"	11.00
553	3 prong base clip		5.50
554	single clips		3.30

MINI-SPRING FOR MINI-TUBES

Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. **Std. Pkg. 50**

No.	Type	Per C
560	Short	$17.00
561	Medium	17.00
562	Long	17.00
563	9 Prong	17.00

SPACE SAVER APPLIANCE RECEPTACLES



Mounting holes 1⅛" centers from #6 screw. Mounts from either top or bottom of mounting bracket. Has barrier to prevent shorts. Fully approved by UL for 15A-125V, AC and DC. **Std. Pkg. 50**

No.		Per C
1299	With soldering terminals	$20.00
1279	With 8" wire leads	38.00

MINIATURE WAFER SOCKETS

Miniature bakelite sockets with brass cadmium plated contacts. XP bakelite top plate 1/16" thick, bottom plate 3/64" thick; high grade spring brass cadmium plated contact; .095 dia. mounting holes. Std. Pkg. 50

SEVEN PIN

No.	Description	MTG. Cen.	Per C
880	Eyelet only	⅞"	$11.00
881	Eyelet and Shield	⅞"	11.50
882	Grd Strap and Shield	⅞"	12.00
887	Eyelet only	1"	11.00
888	Eyelet and Shield	1"	11.50
889	Grd Strap and Shield	1"	12.00

NINE PIN

890	Eyelet only	1⅛"	$14.25
891	Eyelet and Shield	1⅛"	14.75
892	Grd Strap and Shield	1⅛"	15.50

MOLDED MINIATURE SOCKETS

Saddle Type

Molded from either high dielectric black general purpose bakelite or low loss mica-filled bakelite. Both types supplied with center pin. .098 dia. mtg. holes. Std. Pkg. 50

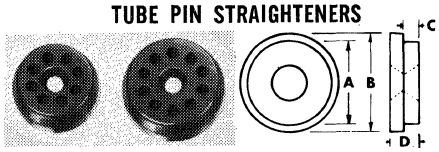
GENERAL PURPOSE BLACK BAKELITE

No.	Type	Pin Ctrs.	Mtg. Hole	Mtg. Hole	Per C
895	Bottom Mount	7	⅞"	⅝"	$15.00
896	Top Mount	7	⅞"	⅝"	15.00
897	Bottom Mount	9	1⅛"	¾"	18.00
898	Top Mount	9	1⅛"	¾"	18.00

LOW LOSS MICA-FILLED BAKELITE

883	Bottom Mount	7	⅞"	⅝"	19.00
884	Top Mount	7	⅞"	⅝"	19.00
885	Bottom Mount	9	1⅛"	¾"	22.00
886	Top Mount	9	1⅛"	¾"	22.00

TUBE PIN STRAIGHTENERS

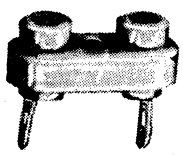


MATERIAL: MOLDED BLACK STYRENE.
DESCR.: Can be mounted from top with #4 wood screw or screw and nut, or from rear thru hole in plate with supporting bracket. **Std. Pkg. 50**

No.	Type	A	B	C	D	Per C
893	7-Pin	39/64"	11/16"	⅛"	¼"	$9.00
894	9-Pin	47/64"	51/64"	⅛"	¼"	9.00
899	Set					17.00

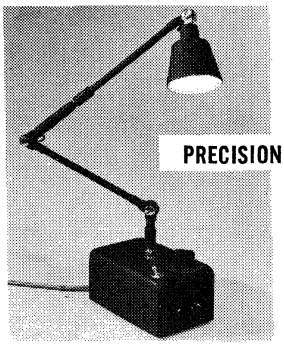
CRYSTAL SOCKET

Suitable for Citizen's Band



Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051. mtg. hole .125. Std. Pkg. 25
No. 1945 $25.00 Per C

PRECISION WORK LAMP



Provides glare-free, concentrated lighting in five discreet steps up to 1000 F.C. at 4". Specifically designed for use in close, critical assembly and inspection. Light shaft has five joints, rotates 360° on base. The light shade, made of cork and aluminum, is only 2½" in diameter, and can be used with or without a magnifier. Bayonet base bulb is standard GE #1133. Lamp voltage varies from 3.9V to 8.5V. Designed for 115V 60 AC input power source.

Supplied with each lamp is a 7½-ft. extension cord permitting critical inspection within large consoles.

No.	Suggested Resale
1275	$46.50

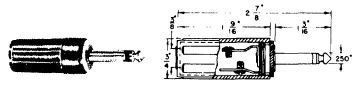
All Prices Subject To Trade Discount

© U.C.P., Inc.

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

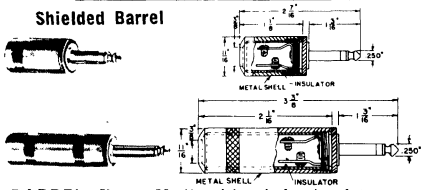
STANDARD PHONE PLUG Bakelite Barrel



BARREL: Molded bakelite. Red or Black. SPECIFY COLOR.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Tested at 1000 VAC. Fits standard phone jacks. **Std. Pkg. 25**

No.	Circuit	Terminals	Each
222	Two	Screw	$0.65
227	Three	Solder	1.40

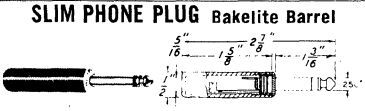
Shielded Barrel



BARREL: Brass, N. P. with tubular insulator.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
CONTACT: TWO CONDUCTOR — Screw connection with heavy ribbed clips and cord anchor. THREE CONDUCTOR—Solder connection only.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks. **Std. Pkg. 25**

No.	Type	Circuit	Each
252	Junior	Two	$0.90
272	Senior	Two	1.10
228	Junior	Three	1.50
238	Senior	Three	1.85

SLIM PHONE PLUG Bakelite Barrel



BARREL: MOLDED bakelite. Red or Black. SPECIFY COLOR.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Tested at 1000 volts A.C. Fits standard phone jacks. **Std. Pkg. 25**

No.	Circuit	Terminals	Each
225	Two	Solder	$0.65
307	Two	Screw	.75
308	Three	Solder	1.05
309	Three	Screw	1.20

BAKELITE BARREL—ECONOMY TYPE

An inexpensive modified version of our popular #225 plug shown above. Features two small solder lugs.

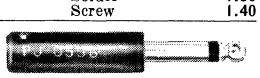
No.	Circuit	Terminals	Each
320	2	Solder	$.50

Shielded Barrel

BARREL: BRASS, N. P. with tubular insulator.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Tested at 1000 volts A.C. Fits standard phone jacks. **Std. Pkg. 25**

No.	Circuit	Terminals	Each
226	Two	Solder	$1.00
316	Two	Screw	1.05
311	Three	Solder	1.30
312	Three	Screw	1.40

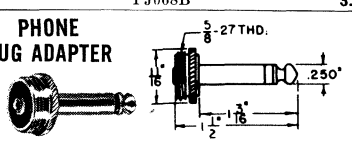
PJ055 AND PJ068 PLUGS



BARREL: MOLDED plastic.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 per Mil P3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve. **Std. Pkg. 25**

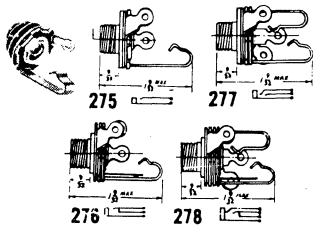
No.	Type	Each
217	PJ055B	$1.35
247	PJ068B	3.65

PHONE PLUG ADAPTER



BODY: BODY, Tip, Sleeve—Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks. **Std. Pkg. 25**
No. 113 **Each $.50**

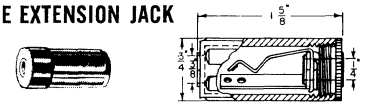
TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: XXXP bakelite, type PBE-P per Mil-P-3115A.
SPRING: Nickel Silver alloy, spring temper.
TERMINAL: Brass, hot tinned.
DESCR.: Notched insulation washers interlock springs and lugs, eliminate possibility of shifting which result in electrical shorts. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated. **Std. Pkg. 50**

No.	Circuit	Each
275	Two Conductor Open	$0.45
276	Two Conductor Closed	.50
277	Three Conductor Open	.60
278	Three Conductor Closed	.75

IN-LINE EXTENSION JACK

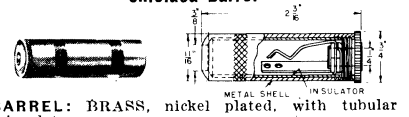


Bakelite Barrel

BARREL: MOLDED Bakelite. Red or Black. SPECIFY COLOR.
BODY: Brass, nickel plated.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs. **Std. Pkg. 50**

No.	Type	Each
274	Solder Connection	$.90
288	Screw Connection	1.10

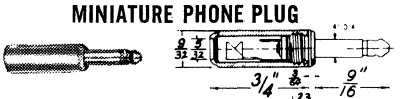
Shielded Barrel



BARREL: BRASS, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plug. **Std. Pkg. 25**

No.	Type	Each
273	Solder Connection	$1.25
289	Screw Connection	1.40

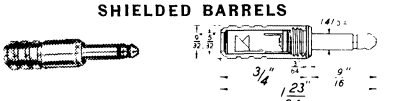
MINIATURE PHONE PLUG



HANDLE: MOLDED plastic. Grey only.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
DESCR.: Designed for use with hearing aids, small meters etc. Solder terminals 500 volt breakdown. **Std. Pkg. 50**

No.	Each
480	$0.70

SHIELDED BARRELS



BARREL: BRASS, nickel plated with tubular insulator.
BODY: Body, Tip, Sleeve—Brass, nickel plated.
DESCR.: Designed for use with hearing aids, small meters, etc. Solder terminals 500 volt breakdowns. **Std. Pkg. 50**

No.	Circuit	Each
481	Two Conductor	$0.85

CAP AND CHAIN

DESCR.: BRASS, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit. **Std. Pkg. 10**

No.		Each
118	5/8-27 Thread	$.60

MICROPHONE CONNECTORS

BODY: BRASS, nickel plated.
SPRING: Steel, cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.

Standard Type 5/8—27 Thread

DESCR.: Designed for use with single conductor cable. Microphone connectors provided with flexible protector spring. Cable clamped firmly to connector by hollow point set screw. **Std. Pkg. 50**

No.	Type	Length	Each
115	Single Contact Male	1¾"	$0.35
116	Single Contact Female	2 "	.53

CHASSIS CONNECTORS

Mount in .385 hole grounded: .500 hole insulated with shoulder washer.

117	Single Contact Male	5/8"	.35
114	Closed Circuit Male	¾"	.50

MINIATURE MICROPHONE CONNECTORS

3/8-32 THREAD

DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts cable up to 3/16" diameter. **Std. Pkg. 50**

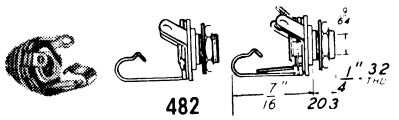
No.	Type	Length	Each
484	Single Contact Female	1¼"	$.60
485	Single Contact Male	1⅛"	.45

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; ¼" hole insulated with shoulder washer.

486	Single Contact Male	5/8"	.35

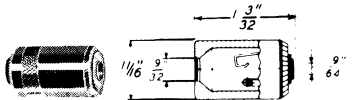
MINIATURE TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: XXXP bakelite, type PBE-P per Mil-P-3115A.
SPRING: Nickel silver alloy, spring temper.
TERM.: Brass, hot tinned.
DESCR.: Notched insulation washers interlock springs and lugs, eliminates possibility of shifting which result in electrical shorts. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated. **Std. Pkg. 50**

No.	Circuit	Each
482	Two Conductor, Open	$.40
483	Two Conductor, Closed	.45

MINIATURE EXTENSION JACK

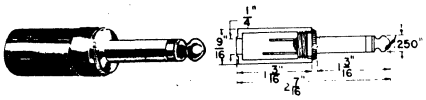


Shielded

BARREL: Brass, Nickel Plated.
BODY: Brass, Nickel Plated.
SPRING: Nickel Silver Alloy, Spring Temper.
INSUL.: Bakelite.
DESCR.: Mates with Miniature Phone Plugs. **Std. Pkg. 25**

No.	Each
487	$1.20

STANDARD (BABY) PHONE PLUG



Baby Bakelite Barrel

BARREL: Molded Bakelite, Red or Black. SPECIFY COLOR.
BODY: Body, Tip, Sleeve - Brass, nickel plated.
DESCR.: Molded Styrene separator insures maximum insulation between conductors. Fits standard phone jacks. **Std. Pkg. 25**

No.	Circuit	Terminals	Each
243	Two	Solder	$0.40

TELEPHONE CORD SLEEVE and CORD CLAMP STRAIN RELIEF

Fully Listed on Page 733

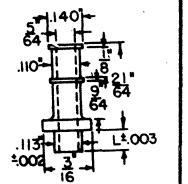
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TURRET TERMINALS

Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. **L** indicates **Shank Length** of Lug. **T** indicates **Thickness** of mounting boards Minimum package 100

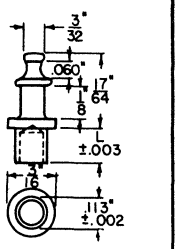
2000
HOLLOW LUG



No.	L	T
2000A	.075	1/32
2000B	.105	1/16
2000C	.135	3/32
2000D	.165	1/8
2000E	.195	5/32
2000F	.230	3/16

List $25.00 Per M

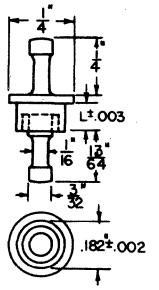
2001
SHORT TERMINAL LUG



No.	L	T
2001A	.075	1/32
2001B	.105	1/16
2001C	.135	3/32
2001D	.165	1/8

List $25.00 Per M

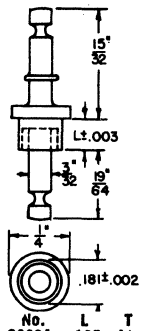
2002
DOUBLE END TERMINAL LUG



No.	L	T
2002A	.105	1/16
2002B	.135	3/32
2002C	.165	1/8
2002D	.195	5/32
2002E	.230	3/16

List $55.00 Per M

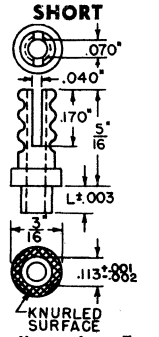
2003
DOUBLE END LUG, LONG



No.	L	T
2003A	.105	1/16
2003B	.135	3/32
2003C	.165	1/8
2003D	.195	5/32
2003E	.230	3/16

List $70.00 Per M

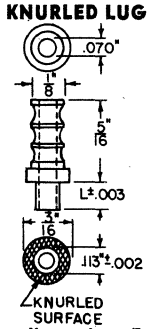
2004
SLOTTED TERMINAL LUG SHORT



No.	L	T
2004A	.075	1/32
2004B	.105	1/16
2004C	.135	3/32
2004D	.165	1/8

List $42.00 Per M

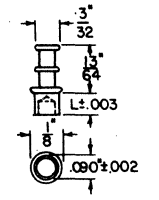
2005
HOLLOW KNURLED LUG



No.	L	T
2005A	.105	1/16
2005B	.135	3/32
2005C	.165	1/8

List $36.00 Per M

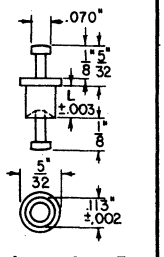
2006
SHORT TERMINAL LUG



No.	L	T
2006A	.075	1/32
2006B	.105	1/16
2006C	.135	3/32
2006D	.165	1/8

List $17.00 Per M

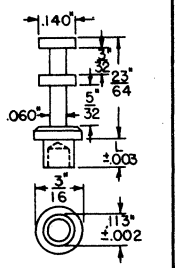
2007
SHORT DOUBLE END LUG



No.	L	T
2007A	.075	1/32
2007B	.105	1/16
2007C	.135	3/32
2007D	.165	1/8

List $23.00 Per M

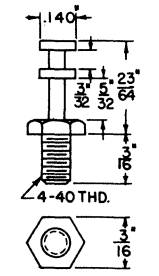
2008
TERMINAL LUG



No.	L	T
2008A	.075	1/32
2008B	.105	1/16
2008C	.135	3/32
2008D	.165	1/8
2008E	.195	5/32
2008F	.230	3/16
2008G	.293	1/4

List $27.00 Per M

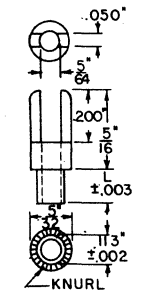
2009
TERMINAL LUG



No. 2009

List $42.00 Per M

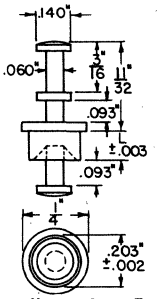
2010
SPLIT TERMINAL LUG



No.	L	T
2010A	.075	1/32
2010B	.105	1/16
2010C	.135	3/32
2010D	.165	1/8

List $40.00 Per M

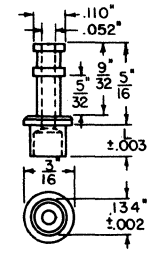
2011
DOUBLE END TERMINAL LUG



No.	L	T
2011A	.105	1/16
2011B	.135	3/32
2011C	.165	1/8
2011D	.195	5/32
2011E	.230	3/16

List $60.00 Per M

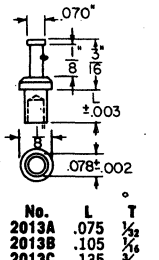
2012
TERMINAL LUG



No.	L	T
2012A	.105	1/16
2012B	.135	3/32
2012C	.165	1/8

List $35.00 Per M

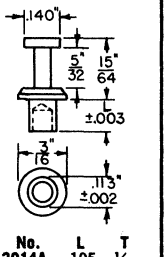
2013
TERMINAL LUG



No.	L	T
2013A	.075	1/32
2013B	.105	1/16
2013C	.135	3/32
2013D	.165	1/8

List $18.00 Per M

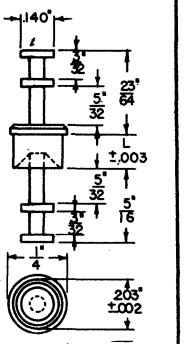
2014
TERMINAL LUG



No.	L	T
2014A	.105	1/16
2014B	.135	3/32
2014C	.165	1/8
2014D	.195	5/32
2014E	.230	3/16

List $23.00 Per M

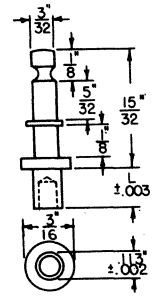
2015
TERMINAL LUG



No.	L	T
2015A	.135	3/32
2015B	.165	1/8
2015C	.195	5/32
2015D	.230	3/16

List $70.00 Per M

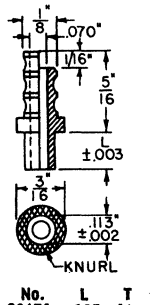
2016
TERMINAL LUG



No.	L	T
2016A	.105	1/16
2016B	.135	3/32
2016C	.165	1/8

List $27.00 Per M

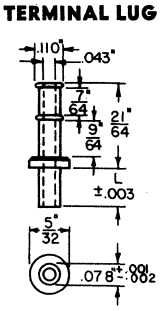
2017
HOLLOW KNURLED LUG



No.	L	T
2017A	.105	1/16
2017B	.135	3/32
2017C	.165	1/8
2017D	.195	5/32

List $40.00 Per M

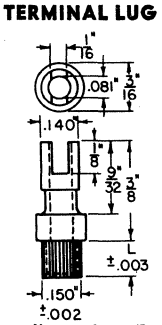
2018
HOLLOW TERMINAL LUG



No.	L	T
2018A	.075	1/32
2018B	.105	1/16
2018C	.135	3/32
2018D	.165	1/8
2018E	.195	5/32
2018F	.230	3/16

List $50.00 Per M

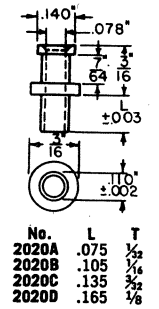
2019
SPLIT TERMINAL LUG



No.	L	T
2019A	.075	1/32
2019B	.105	1/16
2019C	.135	3/32
2019D	.165	1/8
2019E	.195	5/32
2019F	.230	3/16

List $45.00 Per M

2020
TERMINAL LUG



No.	L	T
2020A	.075	1/32
2020B	.105	1/16
2020C	.135	3/32
2020D	.165	1/8

List $25.00 Per M

All Prices Subject To Trade Discount

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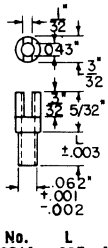
HERMAN H. SMITH INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TURRET TERMINALS

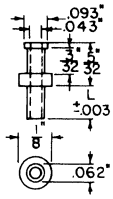
2021
MINIATURE SPADE LUG



No.	L	T
2021A	.037	1/64
2021B	.053	1/32
2021C	.084	1/16
2021D	.115	3/32
2021E	.147	1/8

List $25.00 Per M

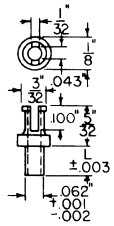
2022
MINIATURE HOLLOW LUG



No.	L	T
2022A	.037	1/64
2022B	.053	1/32
2022C	.084	1/16
2022D	.115	3/32
2022E	.147	1/8

List $25.00 Per M

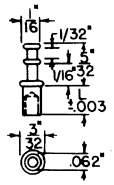
2023
MINIATURE HOLLOW SPLIT LUG



No.	L	T
2023A	.037	1/64
2023B	.053	1/32
2023C	.084	1/16
2023D	.115	3/32
2023E	.147	1/8

List $45.00 Per M

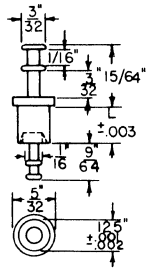
2024
MINIATURE DOUBLE TIE LUG



No.	L	T
2024A	.037	1/64
2024B	.053	1/32
2024C	.084	1/16
2024D	.115	3/32
2024E	.147	1/8

List $30.00 Per M

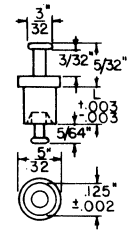
2025
MINIATURE THROUGH LUG



No.	L	T
2025A	.075	1/32
2025B	.105	1/16
2025C	.135	3/32
2025D	.165	1/8

List $45.00 Per M

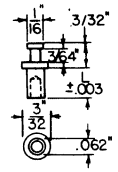
2026
MINIATURE THROUGH LUG



No.	L	T
2026A	.075	1/32
2026B	.105	1/16
2026C	.135	3/32
2026D	.165	1/8

List $45.00 Per M

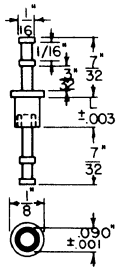
2027
MINIATURE LUG



No.	L	T
2027A	.037	1/64
2027B	.054	1/32
2027C	.084	1/16
2027D	.115	3/32
2027E	.147	1/8

List $20.00 Per M

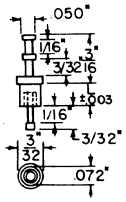
2028
FEED-THRU TERMINAL LUG



No.	L	T
2028A	.054	1/32
2028B	.084	1/16
2028C	.115	3/32
2028D	.147	1/8

List $55.00 Per M

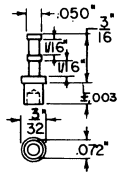
2029
TERMINAL LUG



No.	L	T
2029A	.054	1/32
2029B	.084	1/16
2029C	.115	3/32
2029D	.147	1/8

List $35.00 Per M

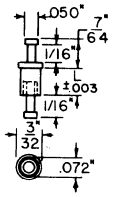
2030
TERMINAL LUG



No.	L	T
2030A	.054	1/32
2030B	.084	1/16
2030C	.115	3/32
2030D	.147	1/8

List $27.00 Per M

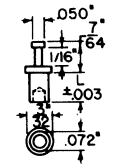
2031
FEED TERMINAL LUG



No.	L	T
2031A	.054	1/32
2031B	.084	1/16
2031C	.115	3/32
2031D	.147	1/8

List $27.00 Per M

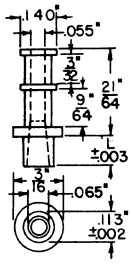
2032
TERMINAL LUG



No.	L	T
2032A	.054	1/32
2032B	.084	1/16
2032C	.115	3/32
2032D	.147	1/8

List $55.00 Per M

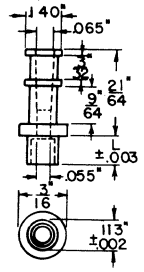
2033
RECEPTACLE LUG



No.	L	T
2033A	.075	1/32
2033B	.105	1/16
2033C	.135	3/32
2033D	.165	1/8
2033E	.195	5/32
2033F	.230	3/16

List $60.00 Per M

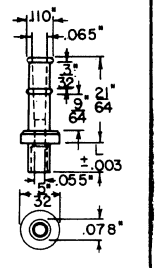
2034
RECEPTACLE LUG



No.	L	T
2034A	.075	1/32
2034B	.105	1/16
2034C	.135	3/32
2034D	.165	1/8
2034E	.195	5/32
2034F	.230	3/16

List $70.00 Per M

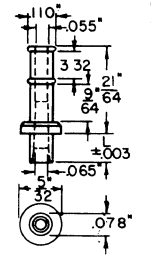
2035
RECEPTACLE LUG



No.	L	T
2035A	.075	1/32
2035B	.105	1/16
2035C	.135	3/32
2035D	.165	1/8
2035E	.195	5/32
2035F	.230	3/16

List $75.00 Per M

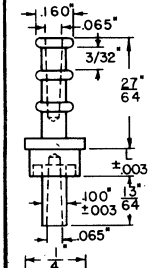
2036
RECEPTACLE LUG



No.	L	T
2036A	.075	1/32
2036B	.105	1/16
2036C	.135	3/32
2036D	.165	1/8
2036E	.195	5/32
2036F	.230	3/16

List $65.00 Per M

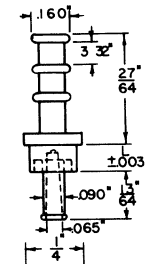
2037
TAPERED TERMINAL



No.	L	T
2037A	.105	1/16
2037B	.135	3/32
2037C	.165	1/8

List $150.00 Per M

2038
TAPERED TERMINAL



No.	L	T
2038A	.105	1/16
2038B	.135	3/32
2038C	.165	1/8

List $170.00 Per M

SUGGESTED RESALE PRICES OF TURRET TERMINALS

Cat. No. Series	List Per M	100-999 Per C	1,000-4,999 Per M	5,000-15,000 Per M
2000	$25.00	$ 1.50	$12.50	$10.00
2001	25.00	1.50	12.50	10.00
2002	55.00	3.30	27.50	22.00
2003	70.00	4.20	35.00	28.00
2004	42.00	2.52	21.00	16.80
2005	36.00	2.06	18.00	14.40
2006	17.00	1.02	8.50	6.80
2007	23.00	1.38	11.50	9.20
2008	27.00	1.62	13.50	10.80
2009	42.00	2.52	21.00	16.80
2010	40.00	2.40	20.00	16.00
2011	60.00	3.60	30.00	24.00
2012	35.00	2.10	17.50	14.00
2013	18.00	1.08	9.00	7.20
2014	23.00	1.38	11.50	9.20
2015	70.00	4.20	35.00	28.00
2016	27.00	1.62	13.50	10.80
2017	40.00	2.40	20.00	16.00
2018	50.00	3.00	25.00	20.00
2019	45.00	2.70	22.50	18.00
2020	25.00	1.50	12.50	10.00
2021	25.00	1.50	12.50	10.00
2022	25.00	1.50	12.50	10.00
2023	45.00	2.70	22.50	18.00
2024	30.00	1.80	15.00	12.00
2025	45.00	2.70	22.50	18.00
2026	45.00	2.70	22.50	18.00
2027	20.00	1.20	10.00	8.00
2028	55.00	3.30	26.50	22.00
2029	35.00	2.10	17.50	14.00
2030	27.00	1.62	13.50	10.80
2031	27.00	1.62	13.50	10.80
2032	55.00	3.30	27.50	22.00
2033	60.00	3.60	30.00	24.00
2034	70.00	4.20	35.00	28.00
2035	75.00	4.50	37.50	30.00
2036	65.00	3.90	32.50	26.00
2037	150.00	9.00	75.00	60.00
2038	170.00	10.20	85.00	68.00

ADDITIONAL NUMBERS

We invite your inquiries on other types of turret terminals not shown here.

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All Prices Subject To Trade Discount

HERMAN H. SMITH, INC.

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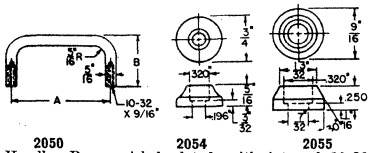
HANDLES AND FERRULES



2050 2054 2055

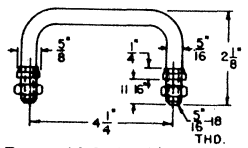
Handles Brass, nickel plated, with internal 10-32 thread. Individually packaged.

Std. Pkg. 10

No.	A	B	Each
2050	3"	1 5/16"	$1.05
2051	4 3/16"	1 1/2"	1.25
2052	6 1/16"	1 3/4"	1.30
2056	4 1/4"	1 1/2"	1.20
2057	3"	1 1/2"	1.05
2058	25/64"	1"	1.00
2059	3 7/64"	1"	1.00

Ferrules Brass, nickel plated. For mounting of handles.

No.			
2054	Std. Pkg. 50	Per C	$16.00
2055	Std. Pkg. 50	Per C	25.00



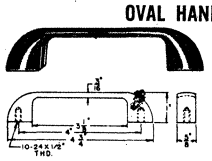
CABINET HANDLE

Brass, nickel plated. Supplied with hex nut and washer. Mounts in 5/16" hole. Individually packaged.

Std. Pkg. 10

No.	Each
2053	$1.50

OVAL HANDLE



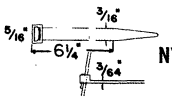
Die Cast Zamac Handle. Brush chrome plated.

No.	Each
2065	$1.50

BAKELITE HANDLE

Std. Pkg. 10

No.	Thread	O.D.	Mtg. Center	Color	Per C
2281	8-32	4 1/4"	2 7/8	Black	$24.00
2282	8-32	4 1/4"	Center	Red	26.00



NYLON LOCKING CLAMP

Wedge and ratchet design makes for positive holding and locking. Accommodates cables from 1/8" to 1 3/4". No knot tying, just slip clamp around cable, insert tongue and pull tight. Std. Pkg. 100

No.	Per C
800	$15.00

NYLON MOUNTING TABS

For use with No. 800 locking clamp when premounted assembly points are desired. Furnished with .203 mounting hole. Std. Pkg. 100

No.	Per C
801	$5.00

NYLON PERFORATED STRAPPING

For bundling of wire, cable and tubing. Time saver for harnessing. Use No. 803 ratchet buckle for fast assembly. Supplied on 50' rolls.

No.	Per Roll
802	$25.00

NYLON RATCHET BUCKLE

For No. 802 strapping. Quick and easier assembly with this ingenious item. Std. Pkg. 100

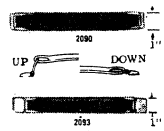
No.		Per C
803	For 1/2" Strapping	$17.00

TIGHTENING TOOL

Used with strapping for fast assembly.

No.	Each
804	$30.00

RETRACTO-LINK HANDLES



HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE.: Steel, Nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles — different lengths.

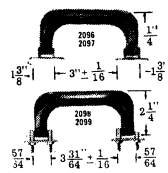
ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Each
2090	4 1/2"	$3.50
2091	5 1/2"	3.50
2092	6 3/4"	3.50

ATTACHES WITH RIVETS OR SCREWS

2093	4 1/2"	3.50
2094	5 1/2"	3.50
2095	6 3/4"	3.50

MOLDED GRIP HANDLES



HANDLE: Molded high impact styrene.
HDWRE.: Steel Nickel plated.
DESCR.: Designed for economy and rugged use.

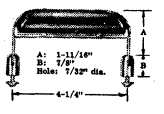
Attaches with Rivets or Screws

No.	Color	Each
2096	Black	$.75
2097	Grey	.75

Attaches with Threaded Stud

2098	Black	1.40
2099	Grey	1.40

MOLDED GRIP HANDLES



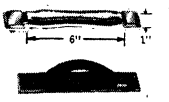
HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws.

No.	Color	Each
2085	Black	$1.75
2086	Grey	1.75

HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with washers and nuts supplied. Will support 100 pounds.

No.	Color	Stud Lgth.	Each
2087	Black	9/16"	$1.75
2088	Grey	9/16"	1.75

SPRING GLIDE HANDLE

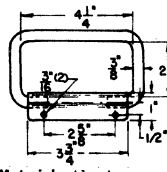


HANDLE: Genuine leather, contoured, Black, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency or decibel extremes will not induce handle rattle.

Handle moves up for comfortable carrying — down when not in use.

No.	Color	Each
2089	Black	$4.00

MIL. SPEC. HANDLES



Material: Aluminum.
Finish: Alodine per MIL-C-5541 Spec. Sprayed to MIL-E-15090. Gloss gray color #1640 per Mil Spec PTC-595.

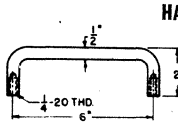
Std. Pkg. 10

No.	Type	Each
2063	Half Bracket	$2.25
2064	Full Bracket	2.25

With Transflux Plastic Protector

2048	Half Bracket	3.00
2049	Full Bracket	3.00

HANDLES

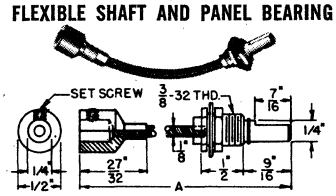


Steel Handles painted with Optical Black finish.

Std. Pkg. 10

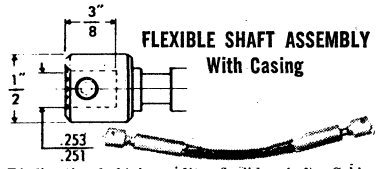
No.	Diam.	Each
2061	1/8"	$3.00
2062	3/8"	2.00

FLEXIBLE SHAFT AND PANEL BEARING



Combination of 1/4" Coupler at one end and Panel Bearing Assembly at other. High quality phosphor bronze non-magnetic, non-rusting flexible shaft, turns at any angle up to 90°. Free from backlash. Std. Pkg. 25

No.	Length "A"	Each
165	4 1/16"	$2.25
166	7 1/16"	2.50

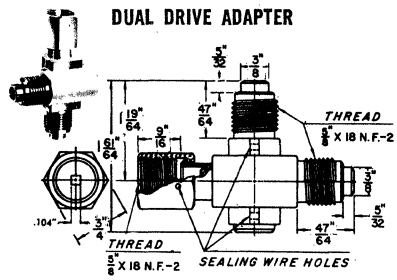


FLEXIBLE SHAFT ASSEMBLY With Casing

Bi-directional high quality flexible shaft. Cable casing acts as a support and reduces amount of deflection in cable. Metal parts steel cadmium plated.

No.	Length	Each
169	8"	$10.00
170	12"	10.50

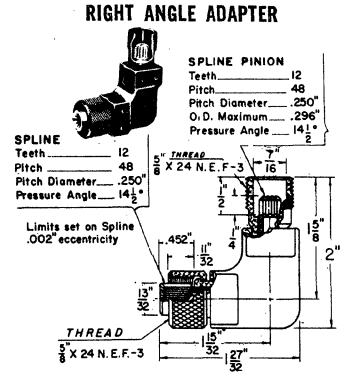
DUAL DRIVE ADAPTER



Designed primarily to be utilized to drive more than one unit from the same power source and/or to provide two gear ratios from the same source. Right hand rotation. Gear Ratio 1:1.

No.	Each
167	$25.00

RIGHT ANGLE ADAPTER



Non-magnetic, designed to provide a connection for flexible shaft control where space limitations do not permit a conjunction without bending the shaft into too small a radius. Gear ratio 1:1.

No.	Each
168	$50.00

ENAMELED CABLE CLAMPS

Steel, Beige enameled, .045" thick.

Std. Pkg. 100

No.	Length	Width	Cable	Mfg. Hole	Per C
1455	23/32"	5/16"	5/32-7/32"	#8	$1.25
1456	7/8"	5/16"	1/4-5/16"	#8	1.35
1457	1 1/8"	1/2"	5/16-3/8"	#10	2.10
1458	1 3/16"	1/2"	1/2-5/16"	#10	2.50
1459	1 13/16"	3/4"	9/16-3/4"	#10	6.20

All Prices Subject To Trade Discount

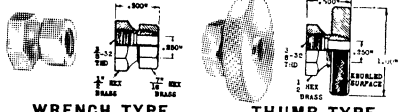
© U.C.P., Inc.

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

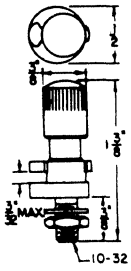
SHAFT LOCKS

Brass Nickel Plated—For ¼" Shaft



WRENCH TYPE	THUMB TYPE
No. 181 $0.40 Ea.	No. 182 $0.55 Ea.
Std. Pkg. 100	Std. Pkg. 25

DIAL LOCK



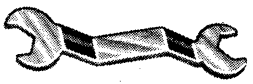
HEAD: Captive: Brass, nickel plated.

BODY: Brass nickel plated.

DESCR.: Prevents detuning of the dial when locked by means of the captive knurled nut. Supplied with hex nut & lock-washer. **Std. Pkg. 25**

No.	Each
199	$1.10

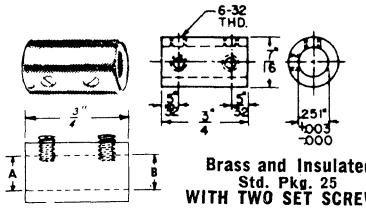
SHAFT WRENCH



Specially designed double end wrench, offset. One end for volume control nuts; other end for toggle switch nuts. Steel, Cadmium Plated.

No. 999 **Std. Pkg. 25** **$.35 Each**

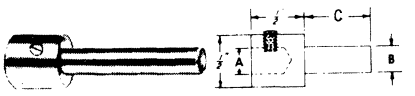
COUPLINGS



Brass and Insulated
Std. Pkg. 25
WITH TWO SET SCREWS

No.	A	B	O.D.	Material	Each
120	¼"-¼"		7/16"	Brass N.P.	$0.30
140	¼"-¼"		7/16"	Fibre	.25
131	3/8"-¼"		½"	Brass N.P.	.30
141	3/8"-¼"		½"	Fibre	.25
133	¾"-3/8"		½"	Brass N.P.	.30
142	⅜"-3/8"		½"	Fibre	.25
	WITH FOUR SET SCREWS				
138	¼"-¼"		7/16"	Brass N.P.	.65

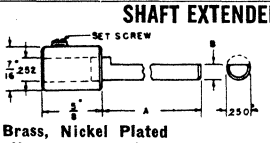
EXTENDERS



Brass and Insulated
LONG SHAFT TYPE
Std. Pkg. 25

No.	A	B	C	Material	Each
150	¼"-¼"		1¼"	Brass N.P.	$0.33
130	¼"-¼"		1¼"	Fibre	.45
132	3/8"-¼"		1¼"	Brass N.P.	.33
134	⅜"-¼"		1¼"	Fibre	.45
	SHORT SHAFT TYPE				
160	¼"-¼"		5/8"	Brass N.P.	$0.30
161	¼"-¼"		5/8"	Fibre	.30
162	3/8"-¼"		5/8"	Brass N.P.	.30
163	⅜"-¼"		5/8"	Fibre	.30

SHAFT EXTENDERS

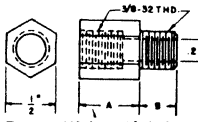


FOR VOLUME CONTROLS

Brass, Nickel Plated **Std. Pkg. 25**

No.	A	B	Each
2356	2"	.250"	$.35
2357	3"	.250"	.40
2358	4"	.250"	.45
2359	2"	.219"	.35
2360	3"	.219"	.40
2361	4"	.219"	.45
2362	2"	.156"	.35
2263	3"	.156"	.40
2364	4"	.156"	.45

BUSHING EXTENDERS

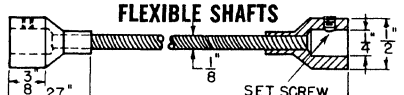


FOR VOLUME CONTROLS

Brass, Nickel Plated **Std. Pkg. 25**

No.	A	B	Each
2350	5/8"	3/16"	$.60
2351	5/8"	¼"	.60
2352	5/8"	3/8"	.60
2353	1 1/16"	3/8"	.60
2354	1 1/16"	½"	.60
2355	¾"	¼"	.60

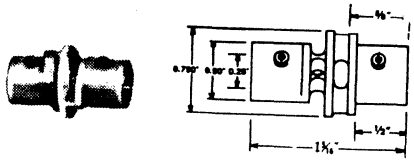
FLEXIBLE SHAFTS



High quality phosphor bronze non-magnetic, non-rusting flexible shafts. Remote control when necessary to mount condensers and potentiometers away from panel at unusual angles. Turns at any angle up to 90°; free from back lash.

No.	Size "A"	Description	Std. Pkg.	Each
151	3"	with ¼" hub	25	$0.75
152	6"	with ¼" hub	25	1.00
153	3 5/8"	with ¼" coupler	25	1.50
154	6 5/8"	with ¼" coupler	25	1.75

NYLON FLEXIBLE SHAFT COUPLING



DESCR.: Molded nylon with molded-in brass bushings. Hi-temp nylon not influenced by moisture. Designed for long reach shaft coupling. Supplied with 2 Allen-head set screws. **Std. Pkg. 25**

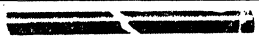
No.	Each
164	$1.75

BRASS THREADED RODS

Std. Pkg. 10

1-Ft. Length No.	Each	Threaded	2-Ft. Length No.	Each
1400-1	$ .40	6-32	1400-2	$ .80
1401-1	.40	8-32	1401-2	.80
1402-1	.60	10-32	1402-2	1.20
1403-1	.90	¼-20	1403-2	1.80

NYLON THREADED RODS



Std. Pkg. 10

1-Ft Length No.	Each	Threaded	2-Ft. Length No.	Each
1420-1	$1.50	6-32	1420-2	$3.00
1421-1	1.70	8-32	1421-2	3.40
1422-1	1.80	10-32	1422-2	3.60
1423-1	2.00	¼-20	1423-2	4.00

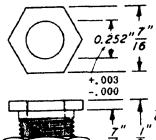
PLAIN RODS

Brass Fibre and Nylon

Std. Pkg. 10

1404	Brass N.P.	6"	¼"	$.33
1405	Brass N.P.	12"	¼"	.66
1406	Fibre	6"	¼"	.25
1407	Fibre	12"	¼"	.50
1408	Nylon	6"	¼"	.50
1409	Nylon	12"	¼"	.75

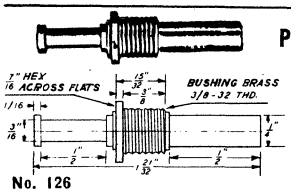
PANEL BEARING



For ¼" Shafts. Mounts in ⅜" hole, in panels up to 5/16". Brass, nickel plated. **Std. Pkg. 100**

No. 119 **$0.25 Ea.**

PANEL BEARING ASSEMBLY



Plated Overall

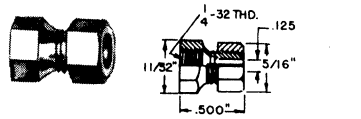
Std. Pkg. 25

No. 126 **$40.00 Per C**

MINIATURE SHAFT ACCESSORIES

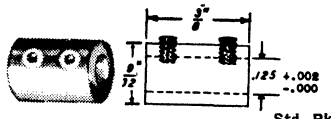
Brass Nickel Plated, for 1/8" Shafts

MINIATURE SHAFT LOCK—WRENCH TYPE



No. 183 **Std. Pkg. 25** **$0.40 Ea.**

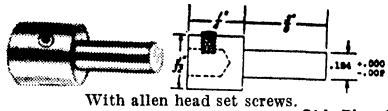
MINIATURE COUPLER



Std. Pkg. 25

No.	Set Screws	Each
180	2	$.40

MINIATURE SHAFT EXTENDER

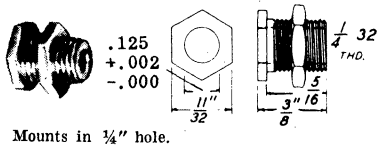


With allen head set screws.

Std. Pkg. 25

No. 189 Std. Pkg. 25 **$0.30 Ea.**

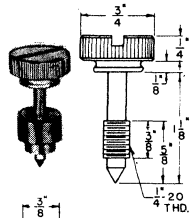
MINIATURE PANEL BEARING



Mounts in ¼" hole.

No. 184 **Std. Pkg. 25** **$0.25 Ea.**

CAPTIVE SCREW & BUSHING

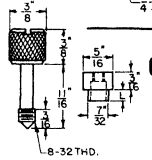


BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non removable from panel.

Panel Bushing No.	Length	Each
2365-A	5/32"	$1.25
2365-B	7/32"	1.25
2365-C	9/32"	1.25

CAPTIVE SCREW & BUSHING Small Head



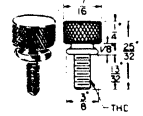
BODY: BRASS, nickel plated.

DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel.

Std. Pkg. 50

Panel Bushing No.	Length (L)	Each
2375-A	5/32"	1.00
2375-B	7/32"	1.00
2375-C	9/32"	1.00

THUMB SCREW

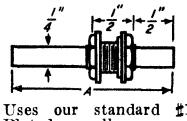


BODY: BRASS, nickel plated.

DESCR.: Used extensively for quick removal of panels from chassis. **Std. Pkg. 25**

No.	Thread	Per C
2366	6-32	$40.00
2367	8-32	40.00
2368	10-32	40.00

PANEL BEARING ASSEMBLY



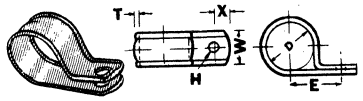
Uses our standard #119 Panel Bearing. Nickel Plated overall. **Std. Pkg. 25**

No.	A	Each
148	3"	$.55
149	6"	.65

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

PLASTIC CABLE CLIPS ETHYL CELLULOSE



These clips are well known for ability to withstand age, moisture, corrosion, shock and vibration. This tough, light weight, durable clip withstands temperatures from —60 to +175 degrees F. Made to Mil Std. 242A (Ships).

T .060 — W 1/2"
X 7/32" — H .204

No.	Hole (D)	E	Per C	Per M
831	1/8	.360	3.90	$32.00
832	5/16	.423	4.00	33.00
833	1/4	.457	4.30	36.00
834	5/16	.498	4.75	40.00
835	3/8	.529	5.00	42.00
836	7/16	.560	5.50	46.00
837	1/2	.592	6.00	50.00
838	9/16	.623	7.00	57.00
839	5/8	.654	7.50	66.00
840	11/16	.752	8.00	71.00
841	3/4	.783	8.50	74.00
842	7/8	.845	9.00	80.00
843	1	.908	9.50	86.00
844	1 1/8	.970	10.00	91.00
845	1 1/4	1.062	10.50	97.00

Standard Package 100

NYLON

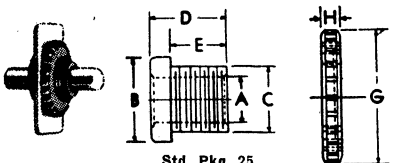
These strong and tough molded nylon clamps hold their shape under severest stress. Do not support combustion. Withstands temperatures from —60 to +250 degrees F. Made to Mil P17091A amend. 2.

	1/8" to 1/2"(D)	9/16" to 1 1/4"(D)
T	.040	.060
W	3/8"	1/2"
X	5/32"	13/64"
H	.167	.204

No.	Hole (D)	E	Per C	Per M
771	1/8	.310	6.00	$50.00
772	3/16	.373	6.50	53.00
773	1/4	.407	7.00	58.00
774	5/16	.448	7.75	64.00
775	3/8	.479	8.00	67.00
776	7/16	.510	8.50	71.00
777	1/2	.542	9.00	75.00
778	9/16	.623	11.00	93.00
779	5/8	.654	12.00	109.00
780	11/16	.752	12.50	115.00
781	3/4	.783	13.50	125.00
782	7/8	.845	14.50	135.00
783	1	.908	17.00	160.00
784	1 1/8	1.002	20.00	180.00
785	1 1/4	1.062	23.00	200.00

Standard Package 100

INSULATED RUBBER GROMMETS

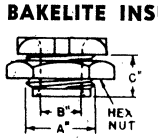


Std. Pkg. 25

Black Phenolic—Matte Finish

No.	BUSHING A	B	C	D	COLLAR E	G	H	Each
931	1/8"	3/8"	1/4"—32	.3750"	1/4"	1/2"	1/8"	$.29
932	3/16"	7/16"	5/16"—32	.4250"	5/16"	5/8"	1/8"	.29
933	1/4"	1/2"	3/8"—27	.4375"	5/16"	11/16"	1/8"	.30
934	5/16"	9/16"	15/32—32	.4500"	5/16"	7/8"	1/8"	.33
935	3/8"	3/4"	5/8"—27	.4500"	5/16"	1"	1/8"	.36

BAKELITE INSULATING BUSHINGS

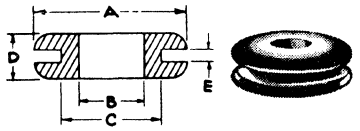


BODY: MOLDED, bakelite, black. U.L. approved recommended for temperatures up to 300 degrees Fahrenheit.
NUT: Steel, cadmium plated.

Std. Pkg. 50

No.	A	B	C	Per C
2136	13/32"	1/64"	1/4"	$14.00
2137	17/32"	5/64"	5/16"	15.00
2138	21/32"	29/64"	5/16"	16.00
2139	27/32"	9/16"	11/32"	17.00

RUBBER GROMMETS



Std. Pkg. 100

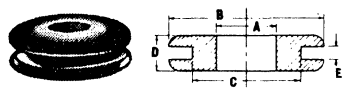
No.	A	B	C	D	E	Per C
2185	5/64"	1/8"	3/16"	3/16"	1/16"	$3.85
2172	7/64"	3/16"	5/16"	3/16"	1/16"	3.30
2170	5/8"	1/4"	3/8"	1/4"	1/16"	3.85
2174	5/8"	5/16"	7/16"	1/4"	1/16"	3.60
2175	11/16"	3/8"	1/2"	1/4"	1/16"	3.85
2177	3/4"	7/16"	9/16"	1/4"	1/16"	3.60
2186	1 1/16"	1/2"	3/4"	5/16"	1/16"	7.00
2187	1 1/16"	5/8"	7/8"	5/16"	1/16"	7.00
2188	1 1/16"	9/16"	3/4"	5/16"	1/16"	7.00
2189	1 "	3/4"	7/8"	5/32"	1/32"	8.50

VINYL GROMMETS

DESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durameter hardness 45 to 85.

No.	A	B	C	D	E	Per C
2145	11/32	1/8	1/4	3/16	1/16	$1.50
2146	7/16	3/16	5/16	5/32	1/16	1.60
2147	5/16	1/4	3/8	1/4	1/16	2.20
2148	5/8	3/8	1/2	1/4	1/16	2.50
2149	13/16	1/2	5/8	9/32	1/16	3.80

GROMMETS



Formerly listed by Radio Essentials, Inc., and American Radio Hardware Inc., (Their catalog numbers as below, minus first digit.)

No.	A	B	C	D	E	Each
91100	3/8"	13/16"	1/2"	13/32"	9/64"	$12.50
91101	7/8"	1 1/16"	1 1/4"	5/8"	3/16"	22.00
91102	9/32"	5/8"	13/32"	3/8"	5/32"	5.25
91103	3/16"	9/16"	15/32"	3/8"	1/8"	5.00
91104	1/4"	7/8"	5/8"	15/32"	3/16"	9.00
91105	5/8"	1 1/4"	31/32"	19/32"	7/32"	24.00
91106	5/16"	5/8"	1/2"	1/2"	3/16"	11.00
91107	3/8"	5/8"	7/16"	5/16"	3/32"	5.50
91108	1/4"	5/8"	7/16"	17/32"	5/32"	7.00
91109	3/8"	1 1/16"	7/8"	3/8"	1/4"	22.50
91110	13/64	3/8 1/2"	9/32"	7/32"	3/32"	7.00
91111	3/8"	7/8 1"	1 1/16"	13/32"	9/64"	11.00
91112	49/64	1 5/8"	13/32"	5/16"	1/16"	11.75
91113	21/64"	5/8"	13/32"	1/4"	1/16"	4.75
91114	1/8"	1 1/32"	1/4"	3/16"	1/16"	3.90
91115	1/4"	9/16"	3/8"	1/2"	7/32"	6.75
91116	5/16"	3/4"	1/2"	3/8"	1/8"	7.25
91117	3/8"	9/16"	15/32"	5/16"	1/8"	5.25
91118	3/16"	7/16"	5/16"	1/2"	1/16"	4.00
91119	17/64"	9/16"	13/32"	1/4"	1/16"	4.25
91120	19/64	5/8"	7/16"	1/4"	1/16"	5.00
91121	3/8"	1 1/16"	1/2"	1/4"	1/16"	4.75
91122	1/4"	1/2"	1 1/32"	5/32"	1/32"	4.75
91123	9/32"	1 1/16"	1/2"	7/16"	1/4"	6.00
91124	7/16"	3/4"	9/16"	1/4"	1/16"	5.75

SNAP-LOCK PLASTIC GROMMETS

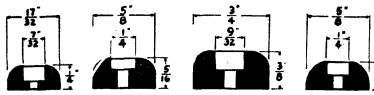
- Snaps in Place—FAST!
- Stays Put—LOCKED IN!

Two identical halves snap tight, lock in place. Provides a rigid bearing surface, greater dielectric, extreme chemical and wear resistance. Identical halves form complete grommet. Color, black.

Std. Pkg. 100

No.	A	B	C	D	E	Per C
2178	3/16"	5/16"	7/16"	1/16"	1/4"	$4.60
2179	1/4"	3/8"	1/2"	1/16"	1/4"	4.80
2180	3/8"	1/2"	5/8"	1/16"	1/4"	5.00

RECESS RUBBER BUMPERS



2192	2193	2194	218a

No.	Per C	No.	Per C
2192	$2.50	2194	$5.00
2193	3.25	2184	5.00

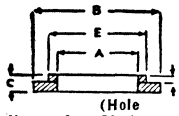
Std. Pkg. 100

FIBRE SHOULDER WASHERS

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.

Std. Pkg. 1000

A. Inside Diameter
B. Outside Diameter
C. Thickness Overall
D. Height of Shoulder
E. Diameter of Shoulder



No.	A	(Hole Size)	B	C	D	E	Per M
2150	.140	No. 6	.375	.093	.031	.237	$11.50
2151	.110	No. 4	.250	.062	.031	.187	9.50
2152	.136	No. 6	.250	.093	.031	.187	10.00
2153	.136	No. 6	.312	.093	.031	.187	11.00
2154	.250	1/4"	.500	.068	.028	.312	12.00
2155	.172	No. 8	.375	.093	.031	.246	11.00
2156	.196	No. 10	.375	.093	.031	.308	11.00
2159	.265	17/64"	.500	.097	.031	.365	12.00
2157	.375	3/8"	.750	.093	.031	.500	14.50
2158	.385	3/8"	.625	.093	.031	.500	14.00

FLAT FIBRE WASHERS

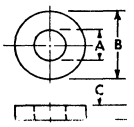
All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710

Std. Pkg. 1000

No.	[(Hole Size)	I.D.]	O.D.	Thickness	Per M
2160	No. 6	.136	.250	1/16	$9.50
2161	No. 4	.110	.250	1/16	8.50
2162	No. 6	.140	.375	1/16	8.50
2163	No. 8	.172	.375	1/16	8.50
2164	No. 10	.196	.375	1/16	8.50
2165	1/4"	.250	.500	1/16	9.00
2166	1/4"	.250	.500	3/32	9.50
2167	5/16"	.312	.500	1/16	9.00
2168	3/8"	.385	.625	1/16	11.00
2169	3/8"	.375	.750	1/16	14.00

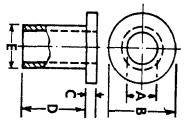
NYLON MOUNTING ACCESSORIES

Natural Color



NYLON FLAT WASHERS

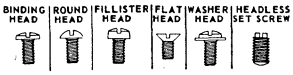
No.	I.D. (A)	O.D.(B)	Thick (C)	Per M
2514	#4(.115)	.281	.047	30.00
2515	#6(.140)	.312	.047	31.00
2516	#8(.170)	.375	.062	35.00
2517	#10(.200)	.437	.062	37.00
2518	1/4"(.260)	.562	.062	40.00



NYLON SPACER BUSHINGS

No.	I.D. (A)	B	C	D	E	Per M
2534	#4(.115)	.235	3/64	1/4	.147	35.00
2535	#6(.140)	.290	3/64	1/4	.170	35.00
2536	#8(.170)	.344	1/16	3/8	.205	37.00
2537	#10(.200)	.399	1/16	3/8	.260	40.00
2538	1/4"(.260)	.513	1/16	3/8	.312	45.00

NYLON SCREWS



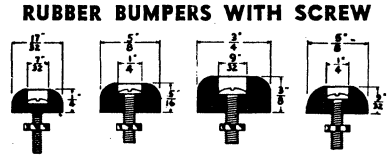
Size	No.	No.	No.	No.	No.	No.	Per M
4-40x1/4	2500	2520	2540	2580	2560	2480	50.00
4-40x3/8	2501	2521	2541	2581	2561	2481	51.00
4-40x1/2	2502	2522	2542	2582	2562	2482	52.00
6-32x1/4	2503	2523	2543	2583	2563	2483	51.00
6-32x3/8	2504	2524	2544	2584	2564	2484	51.00
6-32x1/2	2505	2525	2545	2585	2565	2485	52.00
6-32x5/8	2506	2526	2546	2586	2566	2486	52.00
6-32x3/4	2507	2527	2547	2587	2567	2487	53.00
8-32x1/4	2509	2529	2549	2589	2569	2489	51.00
8-32x3/8	2510	2530	2550	2590	2570	2490	52.00
8-32x1/2	2511	2531	2551	2591	2571	2491	52.00
8-32x5/8	2512	2532	2552	2592	2572	2492	53.00

NYLON HEX NUTS

Std. Pkg. 100

No.	Size	Per C
2554	4-40	$10.00
2555	6-32	10.50
2556	8-32	11.00
2557	10.32	11.50

RUBBER BUMPERS WITH SCREW



2196	2197	2198	2199

Supplied complete with 1/2" screw and hex nut. For panels up to 3/16" thick. Specify larger screw for larger panels. Std. Pkg. 100

No.	Per C	No.	Per C
2196	$11.00	2198	$12.50
2197	11.50	2199	12.50

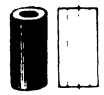
All Prices Subject To Trade Discount

© U.C.P., Inc.

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SPACERS
Brass Cadmium Plated

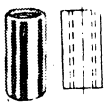


These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a #4, #6, or #8 screw. Std. Pkg. 100

¼" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	Per C
¼"	2340	2100	2105	$ 5.50
⅜"	2341	2101	2106	7.25
½"	2342	2102	2107	8.80
¾"	2343	2103	2108	10.50
1"	2344	2104	2109	12.00
⅜" O.D.				
¼"	2345	2110	2115	$ 8.80
⅜"	2346	2111	2116	10.50
½"	2347	2112	2117	12.00
¾"	2348	2113	2118	13.75
1"	2349	2114	2119	15.50

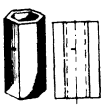
THREADED SPACERS
Brass Cadmium Plated



¼" O.D. Threaded 4-40, 6-32 and 8-32.

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	Per C
¼"	2370	2120	2125	$ 6.50
⅜"	2371	2121	2126	8.25
½"	2372	2122	2127	10.00
¾"	2373	2123	2128	12.00
1"	2374	2124	2129	13.75

HEX SPACERS
Brass Cadmium Plated

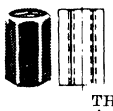


Std. Pkg. 100

¼" HEX

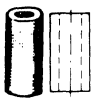
Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	Per C
¼"	2380	2300	2305	$ 6.00
⅜"	2381	2301	2306	7.75
½"	2382	2302	2307	9.30
¾"	2383	2303	2308	11.25
1"	2384	2304	2309	13.00
⅜" HEX				
¼"	2385	2310	2315	$10.30
⅜"	2386	2311	2316	12.00
½"	2387	2312	2317	13.75
¾"	2388	2313	2318	16.50
1"	2389	2314	2319	17.50

THREADED HEX SPACERS
Brass Cadmium Plated
¼" HEX



Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	Per C
¼"	2330	2320	2325	$ 7.00
⅜"	2331	2321	2326	8.75
½"	2332	2322	2327	10.50
¾"	2333	2323	2328	12.75
1"	2334	2324	2329	14.75

FIBRE SPACERS



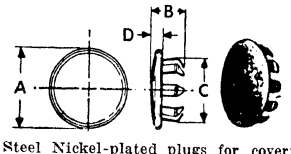
These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

Std. Pkg. 100

¼" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	Per C
¼"	2335	2130	2140	$ 6.50
⅜"	2336	2131	2141	8.25
½"	2337	2132	2142	10.50
¾"	2338	2133	2143	12.00
1"	2339	2134	2144	13.75

SNAP BUTTON HOLE PLUGS



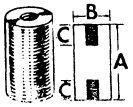
Steel Nickel-plated plugs for covering punched or drilled holes in metal, plastic or wood.

Std. Pkg. 100

No.	Hole	A	B	C	D Prongs	Per C
650	¼"	13/32	¼	17/64	5/64 6	$3.20
651	5/16"	7/16	¼	21/64	5/16 6	3.20
652	⅜"	17/16	⅜	25/64	5/64 6	3.20
653	½"	21/32	17/64	17/32	5/64 8	4.60
654	5/8"	51/64	9/32	41/64	5/64 8	4.60
655	¾"	15/16	19/64	49/64	3/32 12	4.60
608	⅞"	111/16	19/64	57/64	5/16 12	5.50
612	1"	15/32	19/64	11/64	5/64 12	7.50
*656	1"	15/32	19/64	11/32	5/64 12	18.00

* Vent

CERAMIC STANDOFFS

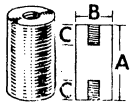


MADE TO JAN. SPECS.

Grade L-5 Ceramic made to JAN 1 - 8 and JAN 1 - 10 Specs. Outside of ceramic is glazed. Std. Pkg. 50

No.	Type	A	B	C	Thd.	Per C
2600	NS5W0104	½"	⅜"	5/32"	6-32	$22.00
2601	NS5W0105	5/8"	⅜"	¼"	6-32	25.00
2602	NS5W0106	¾"	⅜"	¼"	6-32	30.00
2603	NS5W0108	1"	⅜"	⅜"	6-32	35.00
2604	NS5W0110	1¼"	¾"	⅜"	6-32	40.00
2605	NS5W0112	1½"	⅜"	⅜"	6-32	42.00
2606	NS5W0116	2"	⅜"	⅜"	6-32	47.00
2607	NS5W0205	5/8"	½"	3/16"	8-32	25.00
2608	NS5W0206	¾"	½"	¼"	8-32	30.00
2609	NS5W2008	1"	½"	⅜"	8-32	35.00
2610	NS5W0210	1¼"	½"	⅜"	8-32	40.00
2611	NS5W0212	1½"	½"	⅜"	8-32	42.00
2612	NS5W0216	2"	½"	⅜"	8-32	47.00
2613	NS5W0220	2½"	½"	⅜"	8-32	50.00
2614	NS5W0224	3"	½"	⅜"	8-32	55.00
2615	NS5W0308	1"	¾"	⅜"	10-32	30.00
2616	NS5W0310	1¼"	¾"	⅜"	10-32	35.00
2617	NS5W0312	1½"	¾"	⅜"	10-32	40.00
2618	NS5W0316	2"	¾"	⅜"	10-32	47.00
2619	NS5W0320	2½"	¾"	⅜"	10-32	55.00
2620	NS5W0324	3"	¾"	⅜"	10-32	65.00
2621	NS5W0332	4"	¾"	⅜"	10-32	72.00
2622	NS5W0410	1¼"	1"	7/16"	¼-20	55.00
2623	NS5W0412	1½"	1"	½"	¼-20	65.00
2624	NS5W0416	2"	1"	5/8"	¼-20	72.00
2625	NS5W0420	2½"	1"	5/8"	¼-20	80.00
2626	NS5W0424	3"	1"	5/8"	¼-20	90.00
2627	NS5W0432	4"	1"	5/8"	¼-20	110.00
2628	NS5W0440	5"	1"	5/8"	¼-20	130.00
2629	NS5W0448	6"	1"	5/8"	¼-20	150.00

CERAMIC STANDOFFS



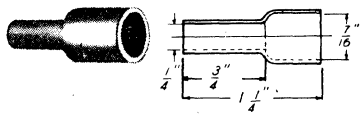
COMMERCIAL

Grade L5 Ceramic with outside glazed.

Std. Pkg. 50

No.	A	B	C	Thd.	Per C
2640	¼"	¼"	ALL	6-32	$17.00
2641	½"	¼"	5/32"	6-32	17.00
2642	⅜"	⅜"	5/32"	6-32	17.00
2643	½"	⅜"	3/16"	6-32	18.00
2644	½"	½"	9/64"	6-32	20.00
2645	¾"	½"	¼"	6-32	20.00
2646	1"	½"	⅜"	6-32	20.00
2647	1½"	½"	9/16"	6-32	23.00
2648	2½"	½"	½"	6-32	23.00
2649	2½"	¾"	¾"	¼-20	33.00
2650	4"	¾"	¾"	¼-20	50.00

TELEPHONE CORD SLEEVE

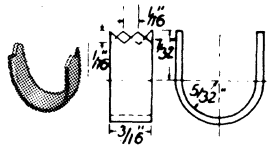


MATERIAL: Neoprene in accordance with Grade SC415AFF Per Mil-R-3065.
DESCR.: Used on Government cord assemblies for Strain Relief, Dust and Moisture Seal.

Std. Pkg 100

No.	Per C
748	$11.00

CORD CLAMP STRAIN RELIEF



MATERIAL: Cold Rolled Steel. Dull finish per Spec. QQ-S-636 and M228 per Spec. Mil-F-14072.
DESCR.: Used on Government Cord Assemblies. Made in accordance with SC-A-7674.

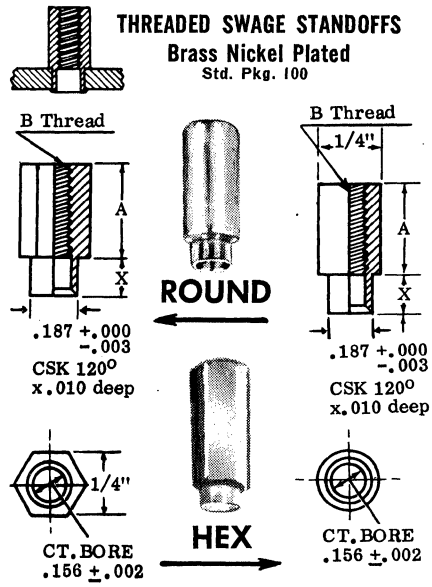
Std. Pkg. 100

No.	Per C
747	$3.00

See Full Listing of Telephone Plugs on Page 747

THREADED SWAGE STANDOFFS
Brass Nickel Plated

Std. Pkg. 100



ROUND No.	Per C	A	B	X	HEX No.	Per C
4100	7.50	¼	4/40	.105	4200	8.50
4101	7.50	¼	4/40	.135	4201	8.50
4102	7.50	¼	4/40	.165	4202	8.50
4103	8.50	⅜	4/40	.105	4203	9.50
4104	8.50	⅜	4/40	.135	4204	9.50
4105	8.50	⅜	4/40	.165	4205	9.50
4106	9.50	½	4/40	.105	4206	10.75
4107	9.50	½	4/40	.135	4207	10.75
4108	9.50	½	4/40	.165	4208	10.75
4109	11.50	⅝	4/40	.105	4209	12.25
4110	11.50	⅝	4/40	.135	4210	12.25
4111	11.50	⅝	4/40	.165	4211	12.25
4112	13.50	¾	4/40	.105	4212	14.00
4113	13.50	¾	4/40	.135	4213	14.00
4114	13.50	¾	4/40	.165	4214	14.00
4115	17.50	1	4/40	.105	4215	18.50
4116	17.50	1	4/40	.135	4216	18.50
4117	17.50	1	4/40	.165	4217	18.50
4118	7.50	¼	6/32	.105	4218	8.50
4119	7.50	¼	6/32	.135	4219	8.50
4120	7.50	¼	6/32	.165	4220	8.50
4121	8.50	⅜	6/32	.105	4221	9.50
4122	8.50	⅜	6/32	.135	4222	9.50
4123	8.50	⅜	6/32	.165	4223	9.50
4124	9.50	½	6/32	.105	4224	10.75
4125	9.50	½	6/32	.135	4225	10.75
4126	9.50	½	6/32	.165	4226	10.75
4127	11.50	⅝	6/32	.105	4227	12.25
4128	11.50	⅝	6/32	.135	4228	12.25
4129	11.50	⅝	6/32	.165	4229	12.25
4130	13.50	¾	6/32	.105	4230	14.00
4131	13.50	¾	6/32	.135	4231	14.00
4132	13.50	¾	6/32	.165	4232	14.00
4133	17.50	1	6/32	.105	4233	18.50
4134	17.50	1	6/32	.135	4234	18.50
4135	17.50	1	6/32	.165	4235	18.50
4136	7.50	¼	8/32	.105	4236	8.50
4137	7.50	¼	8/32	.135	4237	8.50
4138	7.50	¼	8/32	.165	4238	8.50
4139	8.50	⅜	8/32	.105	4239	9.50
4140	8.50	⅜	8/32	.135	4240	9.50
4141	8.50	⅜	8/32	.165	4241	9.50
4142	9.50	½	8/32	.105	4242	10.75
4143	9.50	½	8/32	.135	4243	10.75
4144	9.50	½	8/32	.165	4244	10.75
4145	11.50	⅝	8/32	.105	4245	12.25
4146	11.50	⅝	8/32	.135	4246	12.25
4147	11.50	⅝	8/32	.165	4247	12.25
4148	13.50	¾	8/32	.105	4248	14.00
4149	13.50	¾	8/32	.135	4249	14.00
4150	13.50	¾	8/32	.165	4250	14.00
4151	17.50	1	8/32	.105	4251	18.50
4152	17.50	1	8/32	.135	4252	18.50
4153	17.50	1	8/32	.165	4253	18.50

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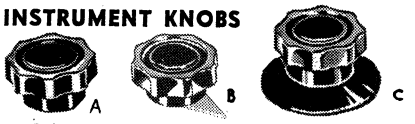
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

INSTRUMENT KNOBS

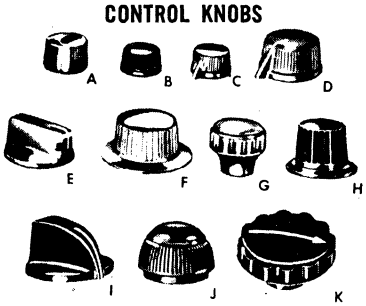


Plain — With Pointer — With Skirt

Molded black bakelite instrument knobs with molded in brass insert for ¼" shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers. **Std. Pkg. 10**

No.	Style	O.D.	Pointer Size	Height	Per C
2200	A	1⅛"		5/8"	$ 47.00
2201	A	1⅜"		11/16"	49.00
2202	A	1⅝"		¾"	56.00
2203	A	2⅜"		⅞"	80.00
2204	B	1⅛"	¾" pointer	11/16"	74.00
2205	B	1⅜"	1 1/16" pointer	¾"	75.00
2206	B	1⅝"	1 3/16" pointer	13/16"	80.00
2207	B	2⅜"	1 9/16" pointer	15/16"	107.00
2208	C	1⅛"	1½" Skirt	13/16"	89.00
2209	C	1⅜"	1¾" Skirt	⅞"	92.00
2210	C	1⅝"	2 1/16" Skirt	29/32"	109.00
2211	C	2⅜"	3" Skirt	1 1/32"	143.00
2212	D	1⅛"		23/32"	58.00
2213	D	1⅜"		25/32"	59.00
2214	D	1⅝"		27/32"	67.00
2215	D	2⅜"		31/32"	92.00
			SKIRT ONLY		
2216		1½"	Skirt only		18.00
2217		1¾"	Skirt only		21.00
2218		2 1/16"	Skirt only		24.00
2219		3"	Skirt only		35.00

CONTROL KNOBS

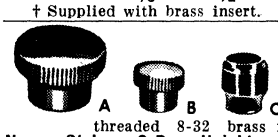


Molded bakelite control knobs. Supplied with ¼" molded hole; complete with set screw. *Recessed for locknut. **Std. Pkg. 25**

No.	Style	O.D.	Height	Color	Per C
2240	A	¾"	19/32"	Black	$20.00
2241	A	¾"	19/32"	Walnut	20.00
2242	B	1 1/16"	13/32"	Black	16.00
2243	B	1 1/16"	13/32"	Walnut	16.00
2244*	B	1"	½"	Black	22.00
2245*	B	1"	½"	Walnut	23.00
2275†	B	1 1/16"	13/32"	Black	36.00
2276†	B	1 1/16"	13/32"	Red	39.00
2246	C	1 1/16"	13/32"	Black	16.00
2247	C	1 1/16"	13/32"	Walnut	16.00
2273†	C	1 1/16"	13/32"	Black	36.00
2274†	C	1 1/16"	13/32"	Red	37.00
2248*	D	1"	½"	Black	28.00
2249*	D	1"	½"	Walnut	29.00
2250*	E	1⅛"	9/16"	Black	24.00
2251*	E	1⅛"	9/16"	Walnut	25.00
2252*	F	1½"	11/16"	Black	29.00
2253*	F	1½"	11/16"	Walnut	30.00
2254*	F	1½"	11/16"	Ivory	32.00
2258	G	⅞"	¾"	Black	25.00
2259	G	⅞"	¾"	Walnut	26.00
2265	H	29/32"	19/32"	Black	23.00
2266	H	29/32"	19/32"	Red	24.00
2267	J	1 3/16"	5/8"	Black	21.00
2268	J	1 3/16"	5/8"	Red	23.00
2269	K	⅞"	5/8"	Black	29.00
2270	K	⅞"	5/8"	Red	31.00
2283	L	⅞"	½"	Black	32.00
2284	L	⅞"	½"	Red	33.00

† Supplied with brass insert.

BINDING POST KNOBS



threaded 8-32 brass inserts

No.	Style	O.D.	Height	Color	Per C
2271	A	¾"	½"	Black	$14.00
2272	A	¾"	½"	Red	16.00
2285	B	½"	7/16"	Red	15.00
2286	B	½"	7/16"	Black	15.00
2287	C	½"	½"	Red	15.00
2288	C	½"	½"	Black	15.00

POINTER KNOBS

A: Length 1¼" Hgt. 5/8" — B: Length 2" Hgt. 5/8" — C: Length 1¼" Hgt. ⅜"

Molded bakelite pointer knobs, supplied with ¼" plain hole or brass inset. Complete with set screw. **Std. Pkg. 25**

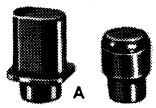
No.	Style	Type Hole	Color	Per C
2220	A	¼" Plain	Black	$18.00
2221	A	¼" Plain	Walnut	19.00
2222	A	¼" Plain	Ivory	20.00
2223	A	¼" Brass Insert	Black	28.00
2224	A	¼" Brass Insert	Walnut	29.00
2225	A	¼" Brass Insert	Red	30.00
2226	B	¼" Plain	Black	36.00
2227	B	¼" Plain	Walnut	37.00
2228	B	¼" Brass Insert	Black	56.00
2229	B	¼" Brass Insert	Walnut	45.00
2230	C	¼" Plain	Black	23.00
2231	C	¼" Plain	Walnut	24.00

LEVER KNOBS

Molded bakelite lever knobs with ¼" brass insert, complete with set screw. **Std. Pkg. 25**

No.	Style	Length	Height	Color	Per C
2232	A	15/8"	19/32"	Black	$37.00
2233	A	15/8"	19/32"	Walnut	38.00
2234	B	1 15/16"	19/32"	Black	64.00
2235	B	1 15/16"	19/32"	Walnut	64.00
2236	C	2½"	5/8"	Black	40.00
2237	C	2½"	5/8"	Walnut	40.00
2238	D	2 13/16"	5/8"	Black	72.00
2239	D	2 13/16"	5/8"	Walnut	73.00

PUSH BUTTON KNOBS



Std. Pkg. 25

No.	Style	O.D.	Height	Color	Per C
2277	A	½"	13/64"	Black	$12.00
2278	A	½"	13/64"	Red	14.00
2279	B	31/64"	9/16"	Black	8.00
2280	B	31/64"	9/16"	Red	10.00

DIAL PLATES

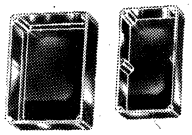
DIAL: BRASS, chrome silver, 1 5/8" O.D.
KNOB: Molded bakelite black (our 2250).
DESCR.: For matching dials on instruments, receivers, amplifiers. Dial has clear black etched numbers. Knob fits 1'4" shaft. **Std. Pkg. 10**

No.	Type	Each
2261	10 to 0 180 Degrees	$1.25
2262	10 to 0 270 Degrees	1.25
	DIAL PLATES ONLY ½" I.D.	
2263	10 to 0 180 Degrees	.75
2264	10 to 0 270 Degrees	.75

KNOB DIAL PLATE

DIAL: Nickel silver, 1 5/8" O.D.
KNOB: Molded bakelite.
DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits ¼" shaft. **Std. Pkg. 10**
No. 2290 **$1.25 Ea.**

METER CASES



Molded Black, with four corner brass inserts for corner mounting

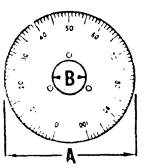
Std. Pkg. 5

No.	Case Size	Insert	Each
2255	3¾" x 6¼" x 2"	6-32	$1.71
2257	5-9/32" x 6-13/16" x 2-5/16"	4-36	2.13
2289	7" x 8" x 2¾"	6-32	4.00
2256	Cover for 2255		.98
2260	Cover for 2257		1.70

CONTROL PLATES

MATERIAL: Brass Black Satin Finish. Etched silver numerals.
DIMENSION: 13/32" I.D. x O.D. as specified.
Std. Pkg. 5

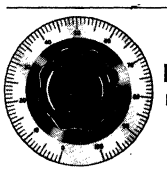
Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	Each
2900	2906	180	2"	$ .75
2901	2907	270	2"	.75
2902	2908	325	2"	.75
2903	2909	180	3½"	1.50
2904	2910	270	3½"	1.50
2905	2911	325	3½"	1.50



DIAL PLATES

MATERIAL: Brass Chrome Silver Finish.
DESCR.: Mounting Holes 9/64".
Std. Pkg. 5

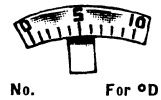
Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	A	B	Each
2912	2928	180	1⅛"	⅜"	$ .75
2913	2929	270	1⅛"	⅜"	.75
2914	2930	325	1⅛"	⅜"	.75
2915	2931	360	1⅛"	⅜"	.75
2916	2932	180	1¾"	31/64"	1.00
2917	2933	270	1¾"	31/64"	1.00
2918	2934	325	1¾"	31/64"	1.00
2919	2935	360	1¾"	31/64"	1.00
2920	2936	180	2¾"	¾"	1.25
2921	2937	270	2¾"	¾"	1.25
2922	2938	325	2¾"	¾"	1.25
2923	2939	360	2¾"	¾"	1.25
2924	2940	180	4"	15/16"	2.00
2925	2941	270	4"	15/16"	2.00
2926	2942	325	4"	15/16"	2.00
2927	2943	360	4"	15/16"	2.00



DIAL AND KNOB ASSEMBLY

DIAL: Brass Chrome Silver Finish.
KNOB: Molded Bakelite with ¼" Brass insert.
Std. Pkg. 5

Clockwise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	Each
2960	2976	180	1⅛"	$2.25
2961	2977	270	1⅛"	2.25
2962	2978	325	1⅛"	2.25
2963	2979	360	1⅛"	2.25
2964	2980	180	1¾"	2.35
2965	2981	270	1¾"	2.35
2966	2982	325	1¾"	2.35
2967	2983	360	1¾"	2.35
2968	2984	180	2¾"	5.00
2969	2985	270	2¾"	5.00
2970	2986	325	2¾"	5.00
2971	2987	360	2¾"	5.00
2972	2988	180	4"	5.75
2973	2989	270	4"	5.75
2974	2990	325	4"	5.75
2975	2991	360	4"	5.75



VERNIER DIAL MARKERS

MATERIAL: Brass Chrome Silver Finish. Supplied with hardware. **Std. Pkg. 5**

No.	For °Dials	Dial O.D.	Each
2944	180	1⅛"	$.50
2945	270	1⅛"	.50
2946	325	1⅛"	.50
2947	360	1⅛"	.50
2948	180	1¾"	.50
2949	270	1¾"	.50
2950	325	1¾"	.50
2951	360	1¾"	.50
2952	180	2¾"	.50
2953	270	2¾"	.50
2954	325	2¾"	.50
2955	360	2¾"	.50
2956	180	4"	.50
2957	270	4"	.50
2958	325	4"	.50
2959	360	4"	.50

All Prices Subject To Trade Discount
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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

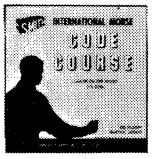
INTERNATIONAL MORSE CODE COURSES

5 RECORDS IN ALBUM— 78 R.P.M.
Ten Lessons Up to 15 Words Per Minute

The complete ablum includes 5 records and 20-page SMITH Instruction Book

The very latest in scientific code-teaching techniques! The SMITH system uses the proven EAR & EYE method, with carefully graduated lessons based on military teaching procedures.

No.	Description	Each
2400	Complete Album with Instruction Book	$10.00
2415	20-Page Instruction Book Only	.80



SINGLE RECORD 33-1/3 R.P.M.

TEN LESSONS UP TO 15 WORDS PER MINUTE
Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 Each $8.00

ADVANCED CODE COURSE

Single Record— 33⅓ R.P.M.
TWELVE LESSONS 16 to 25 Words Per Minute

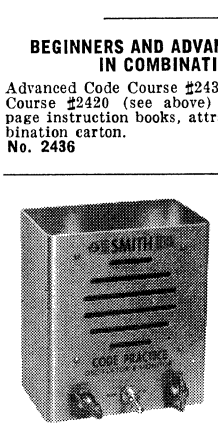
Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each. 20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book $8.00

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 $15.00



CODE PRACTICE OSCILLATOR & MONITOR

Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor to check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammertone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

No.	Description	Each
2425	Kit	$22.50*
2426	Wired	$30.00*

* These Items Subject to Special Jobber Discount

CODE PRACTIC KEY AND BUZZER SET

COMPACT — INGENIOUS — HANDSOME!

Perfect for the beginner! High frequency buzzer has variable pitch adjustment. Sturdy fully adjustable key and terminal binding posts, all plated. Uses one standard flashlight cell. All elements mounted on heavy molded bakelite base 6¾" x 2¾". Supplied less battery.

No. 2443 $5.50 Ea.

BUZZER ONLY

Complete with black bakelite cover.

No. 2444 Each $2.00

TELEGRAPH KEY

A well-built, smooth operating key, low priced, ideal for the beginner. Molded bakelite base and knob. Simple adjustments. All metal parts plated, ⅛" silver contacts. Base size 3¼ x 1 13/16".

No. 2442 Each $2.25

HIGH SENSITIVITY HEADPHONES

The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone tips.

No.	Description	Ohms	Each
2441	Single	1000	$2.75
2440	Double	2000	4.50
2446	Single	2—4	2.75
2447	Double	4—8	4.50
2448	Single	2000	3.00
2449	Double	4000	5.00

FOR STEREO USE

Same as above, except each Phone has leads brought out separately.

2477	Double	2000	5.00
2478	Double	4—8	5.00
2479	Double	4000	5.50

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard earphones. For comfortable listening over long periods of time.

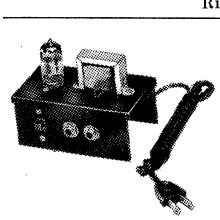
No. 2410 Per Pair $1.50

PLUG-IN COILS

For Short Wave and Broadcast

Molded bakelite, black. Precision wound low loss forms. Four prongs. Equipped with special rim making it easy to insert and pull out. Grooved for color coding.

No.	Description	Each
2408	No Winding	$0.60
2413	Set of 4— 9½ to 217 Meters	5.00
2414	Set of 2— 190 to 500 Meters	4.00
2412	No Winding - Ribbed, 6-Prong	1.00



JUNIOR CODE OSCILLATOR

For Headset Only

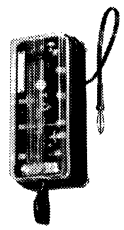
A neat, compact little unit that provides a clean audio tone, ideal for code practice. It is equipped with two standard telephone jacks, to take phone plugs of both key and headset. A single 12AX7 tube is used in an improved circuit, designed for operation on 110 volts AC or DC. Available in wired or kit form, either type supplied with tube.

No.	Description	Each
2430	Kit	$11.00*
2431	Wired	$14.50*

COMPLETE MULTI-VIBRATOR COURSE

"AutoTutor" Modern Teaching Technique, using new "re-inforced learning" principles. Designed as a refresher course for the practicing technician or engineer; as a detailed exploration of Multi-vibrators, for student electronic technician. Complete course consists of 4 hi-fi unbreakable 33⅓ RPM recordings, a 56-page instruction book, illustrations and checksheets, in attractive album package.

No. 2450 ..... Suggested Resale.... $12.60

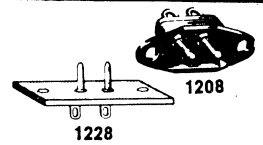


Semi-Automatic

TELEGRAPH KEY

A well-constructed easy-operating automatic key at a very low price! Provides numerous adjustments to suit any operator. Well balanced, has large control lever, tension adjustments on both dot and dash sides, scale type weight on pendulum arm. Molded bakelite weighted base is equipped with suction cup feet. A really substantial, good looking Key that the Hams will Love at First Sight! Complete with Cord and Wedge. Dustproof cover.

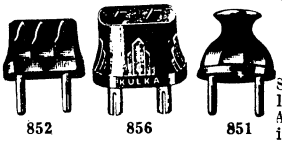
No. 2445 Each $20.00



INTERLOCK PLUGS

Std. Pkg. 100

No.	Type	Per C
1208	Recessed	$13.00
1228	Flush	9.00



AMERICAN-FOREIGN PLUG ADAPTERS

Streamlined bakelite plug adapters. Adapts from American to Foreign type.

No.	Female End	Male End	Per C
852	American	Continental	$40.00
856	American	British	40.00
851	Continental Plug		30.00

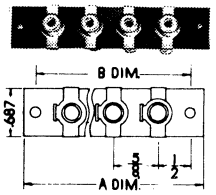
SCRATCH AWL

Scratch awl with unbreakable amber handle. Overall length 5". A "must" in a serviceman's tool kit.

Std. Pkg. 10

No. 814 $0.60 Each

MULTIPLE PHONO JACKS



Individual phono jacks (no interconnected grounds) kmounted on narrow width bakelite strip.

Std. Pkg. 50

No.	No. of Jacks	Dimensions "A"	Dimensions "B"	Per C
1261	1	1⅜"	1.000	$ 8.00
1262	2	2"	1.625	14.50
1263	3	2⅝"	2.250	23.50
1264	4	3¼"	2.875	28.50
1265	5	3⅞"	3.500	36.00
1266	6	4½"	4.125	42.00
1267	7	5⅛"	4.750	49.00
1268	8	5¾"	5.375	56.00

HERMAN H. SMITH, INC.

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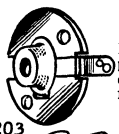
PHONO PLUGS

RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (.175") for coaxial cable. Std. Pkg. 100

No.	Type	Per C
1201	Long Pin (1" overall)	$6.00
1202	Short Pin (13/16" overall)	6.00

PHONO JACKS



Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16" bakelite with 11/16" mounting centers. Std. Pkg. 100

No.		Per C
1203		$7.00
1203-I	Insulating Washer	3.00

Small, compact . . . where space is at a premium. 7/16" Mtg. Ctrs. Std. Pkg. 100

No.	Per C
1223	$12.00

Space Saver . . . Rivets and grounds to chassis. Mounts in 19/64" hole. Std. Pkg. 50

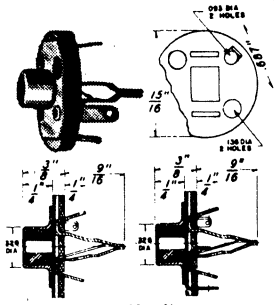
No.	Per C
1233	$11.00

PANEL MOUNT PHONO JACK

Mounts in 29/64" hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. Std. Pkg. 50

No.	Per C
1247	$35.00

STEREO PHONO JACKS



Used for stereo input, phonograph input and amplifier connections. Switches out single track audio for double track stereo when phono plug is inserted. Std. Pkg. 50

No.	Circuit	Per C
1215	2-Cond. Closed	$35.00
1216	3-Cond. Closed	35.00

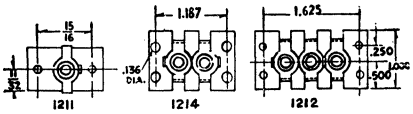
HANDY GRIP PHONO PLUG

Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phono jacks. Std. Pkg. 100

No.	Per C
1246	$15.00

PHONO JACKS

Used on recording units, phono plays, etc. Std. pkg. 50



No.	Per C
1211—Single Jack	$12.00
1214—Double Jack	16.00
1212—Triple Jack	20.00
1214-1—Insulating Washer for No. 1214	4.00

SHIELDED EXTENSION JACK

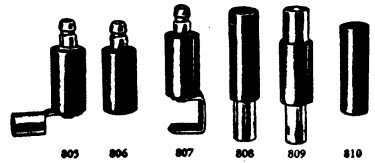
Brass shell, cadmium plated, 1 7/16" long, with black bakelite insert. Provides insulation for solder-coated positive grip contact. Uses No. 1201 phono plug. Std. Pkg. 50

No. 1237 ..... $40.00 Per C

Std. Pkg. 50

No.	Type	Per C
1200	Motorola Type Plug	$17.00
1240	Motorola Type Plug	17.00
1207	Antenna Connector, Takes 1200 Plug	22.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	15.00
1235	Female for #1200 plug, without flange	12.00

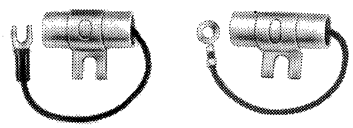
Auto Radio IGNITION SUPPRESSORS



Std. Pkg. 50

Cat. No.	Type	Per C
805	Snap-On Type Suppressor	$45.00
806	Univ. Type with Double Thrd.	45.00
807	Angle Type Suppressor	45.00
808	Distributor Screw Type	45.00
809	Distributor Plug-in Type	45.00
810	Double Screw Type	45.00

AUTO RADIO CONDENSERS



Eliminates radio interference caused by auto electrical system. Fits all cars — Proven quality — Guaranteed long life.

No.	Cap.	Type	Each
811	.5 MFD	General, Univ.	$1.00
812	.25 MFD	Universal	.90

WIRED FUSE RETAINER

Simply cut wire, strip and put in line. Will accommodate either 3 A.G. 20 amp. or SFE 14 amp. fuse.

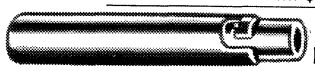
No.		Each
1304	Std. Pkg. 25	$ 0.50
1304-D	Display of 24	12.00

ANTENNA CONNECTOR

For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50

No. 1300 ..... $17.00 Per C

FUSE RETAINER



Recommended for use in auto radio power supply cables. Std. Pkg. 50

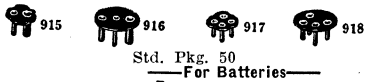
No. 1301 ..... $22.00 Per C

PARTS FOR CONNECTOR & RETAINER

Std. Pkg. 100

No.	Type	Per C
1305	Male Cap for #1300 & #1301	$3.30
1306	Female Shell for #1300	3.85
1307	Contact for #1300 & #1301	5.50
1308	Spring for #1300 & #1301	1.10
1309	Washer for #1300 & #1301	.55
1310	Insulating Tube for #1301	1.00
1311	Female Shell for #1301	5.50

BATTERY PLUGS



Std. Pkg. 50

No.	Voltage	——For Batteries—— Eveready No.	RCA No.	Philco No.	Per C
915	1½ "A"	741, 742 1052P	VS004, VS005 VS008	P94, P96 P8F1	$10.00
916	7½ "A"	687	VS003	—	11.00
917	6 "A", 90 "B"	—	VS044	P60A8F4	10.00
918	6 "A", 90 "B"	—	VS046	P41AFL	11.00

BATTERY CONNECTORS

No.	Volts	Eveready No.	Std. Pkg.	Per C
1205	67½	467, 455, 457	25	$30.00
1206	90	490	25	40.00
1210	67½	477, 437, 479, 495	25	30.00
1217	7½	707	25	30.00
1218	9	276	25	30.00
1219	4½	243	25	40.00
1234	45	216, 246, 415, 416	25	40.00
1296		Female	100	7.50
1297		Male	100	7.00

MINIATURE HUM BALANCING CONTROLS

Rheostat rated at 2 watts, grounded rotor, tolerance ± 20%. Screwdriver slot adjustment from front or rear. Useful for hum balancing, centering, hold and locking, linearity, AGC sensitivity, etc. Std. Pkg. 25

No.	Total Res. Ohms	Per C
2291	50	$65.00
2292	100	65.00
2293	300	65.00
2294	500	65.00
2295	700	65.00
2296	1000	65.00
2297	2000	65.00
2298	3000	65.00
2299	4000	65.00

HEX AND SPLINE KEYS

Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion. Std. Pkg. 50

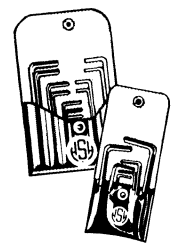
HEX KEYS

No.	Screw Size	Per C
340	No. 2	$13.00
341	No. 3, 4	13.00
342	No. 5, 6	13.00
343	No. 8	13.00
344	No. 10	15.00
345	1/4"	15.00
346	5/16"	15.00

SPLINE KEYS

No.	Screw Size	Per C
370	No. 4	$13.00
371	No. 5	13.00
372	No. 6	13.00
373	No. 8	13.00
374	No. 10	15.00
375	1/4"	15.00
376	5/16"	15.00

HEX AND SPLINE KEY KITS



Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit. Std. Pkg. 25.

Kit of 6 hex keys for screws from No. 3 to 5/16".
No. 355 $100.00 per C

Kit of 6 spline keys for screws from No. 5 to 5/16".
No. 385 $100.0 per C

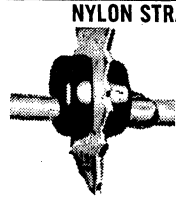
Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 $100.00 per C

Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.
No. 395 $200.00 per C

DISPLAY CARDS

No.		Each
355D	Display of 24 Hex Kits No. 355	$24.00
385D	Display of 24 Spline Kits No. 385	24.00
390D	Display of 24 Comb. Kits No. 390	24.00
395D	Display of 20 Comb. Kits No. 395	40.00

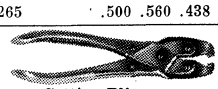
NYLON STRAIN RELIEF BUSHINGS



One piece construction. Eliminates grommets, wire knots and costly labor. Completely insulates wire from chassis and prevents cord pull push and twist. No. 937 ideal for small mike cables; No. 938 for line cords; No. 939 for Co-Ax Wire. Std. Pkg. 50

A: Chassis Hole
B: Diameter of head
C: Length
D: Chassis Thickness

No.	Wire Size	A	B	C	D	Per C
937	1/8-3/16"	.375	.440	.415	to 1/16"	$6.00
938	SP-1 & SPT-1	.437	.468	.406	to 1/16"	6.00
939	.235-.265	.500	.560	.438	to 3/32"	7.00



No. 940 Setting Pliers $13.00 Each

All Prices Subject To Trade Discount

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

STEEL MACHINE SCREWS

Round Head Cadmium Plated

No.	Per M	Size	No.	Gross
1000M	$6.25	6-32 x ¼"	1000G	$1.05
1001M	6.75	6-32 x ⅜"	1001G	1.15
1002M	7.25	6-32 x ½"	1002G	1.20
1006M	8.00	8-32 x ¼"	1006G	1.35
1007M	8.65	8-32 x ⅜"	1007G	1.50
1008M	9.30	8-32 x ½"	1008G	1.55

BRASS MACHINE SCREWS

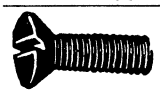
Round Head Nickel Plated

No.	Per M	Size	No.	Gross
1044M	$9.00	4-36 x ¼"	1044G	$1.50
1045M	10.00	4-36 x ⅜"	1045G	1.60
1046M	11.00	4-36 x ½"	1046G	1.70
1047M	9.00	4-40 x ¼"	1047G	1.50
1048M	10.00	4-40 x ⅜"	1048G	1.60
1049M	11.00	4-40 x ½"	1049G	1.70
1050M	12.00	6-32 x ¼"	1050G	2.00
1051M	13.00	6-32 x ⅜"	1051G	2.10
1052M	13.75	6-32 x ½"	1052G	2.30
1056M	16.00	8-32 x ¼"	1056G	2.65
1057M	18.00	8-32 x ⅜"	1057G	3.25
1058M	22.00	8-32 x ½"	1058G	3 70

BINDING HEAD SCREWS

Steel Nickel Plated

No.	Per M	Size	No.	Gross
1425M	$6.25	6-32 x ¼"	1425G	$1.05
1426M	6.75	6-32 x ⅜"	1426G	1.15
1427M	7.25	6-32 x ½"	1427G	1.20
1428M	8.00	8-32 x ¼"	1428G	1.35
1429M	8.65	8-32 x ⅜"	1429G	1.50
1430M	9.30	8-32 x ½"	1430G	1.55



RACK SCREWS

Oval Head, Steel, Nickel Plated

Specially recommended for mounting panels in racks and cabinets. Available in gross packages or packed 1000 to the box.

No.	Per M	Size	No.	Gross
1111M	$10.25	10-32 x ½"	1111G	$1.75
1112M	12.00	10-32 x ¾"	1112G	2.00

COUNTERSUNK WASHERS

Brass, Nickel Plated

Recommended for use with Rack Screws designated above.

No.	Per M	Size	No.	Gross
1115M	$4.50	6	1115G	$0.75
1116M	5.00	8	1116G	.85
1117M	9.00	10	1117G	1.80

FLAT WASHERS

Brass Nickel Plated

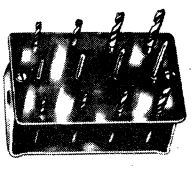
No.	Per M	Size	Material	No.	Gross
1149M	$11.00	4x¾x.037"	Brass	1149G	$1.75
1150M	8.00	6x⅜x.012"	Phos. Br.	1150G	1.30
1151M	8.00	8x⅜x.012"	Phos. Br.	1151G	1.30
1152M	11.00	10x⅜x.037"	Brass	1152G	1.75

STEEL SPADE BOLTS

Steel, cadmium plated finish, threaded 6-32, thread length 5/16", length overall ¾". Std. Pkg. 500

No. 1500 $17.00 Per M

DRILL & TAP KIT



for

- **Hams**
- **Laboratories**
- **Servicemen**

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed. **Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.**

No. 750 Kit Each $9.00
No. 749 Stand Only Each $1.10
Replacement Drills Available.

VOLUME CONTROL AND TOGGLE SWITCH NUTS

Nickel Plated

Std. Pkg. 500

No.	Type	Dimensions	Per M
1195	Vol. Cont. Brass	⅜-32x½x3/32	$25.00
1199	Vol. Cont. Steel	⅜-32x½x5/64	20.00
1196	Toggle Sw. Hex	15-32x9/16x5/64	30.00
1197	Toggle Sw. Ring	15-32x⅝x1/16	50.00

LOCK WASHERS

Steel, Cadmium Plated Internal Teeth

No.	Per M	Type	No.	Gross
1127M	$5.00	No. 4	1127G	$0.85
1128M	5.00	No. 6	1128G	.85
1129M	5.75	No. 8	1129G	.95
1130M	6.10	No. 10	1130G	1.00
1132M	7.75	¼"	1132G	1.30
1131M	13.00	⅜"	1131G	2.00
		Narrow Rim Control Shaft Lockwasher Internal Teeth		
1145M	$13.00	⅜"	1145G	$2.00
		Narrow Rim Toggle Switch Lockwasher Internal Teeth		
1146M	$13.00	15/32"	1146G	$2.00

External Teeth

No.	Per M	Type	No.	Gross
1139M	$5.00	No. 4	1139G	$0.85
1140M	5.00	No. 6	1140G	.85
1141M	5.75	No. 8	1141G	.95
1141M	6.10	No. 10	1142G	1.00
1144M	7.75	¼"	1144G	1.30
1143M	13.00	⅜"	1143G	2.00

HEXAGON NUTS

Brass Nickel Plated

No.	Per M	Size	No.	Gross
1188M	$10.00	4-36 x ¼"	1188G	$1.65
1168M	10.00	4-40 x ¼"	1168G	1.65
1189M	12.90	6-32 x ¼"	1189G	2.10
1190M	12.90	6-32 x 5/16"	1190G	2.10
1192M	14.10	8-32 x 5/16"	1192G	2.30
1193M	15.00	10-32 x 5/16"	1193G	2.65
1187M	30.00	¼-32	1187G	4.45

Steel, Cadmium Plated

No.	Per M	Size	No.	Gross
1179M	$8.75	6-32 x ¼"	1179G	$1.45
1180M	9.25	6-32 x 5/16"	1180G	1.55
1181M	9.50	8-32 x 5/16"	1181G	1.60

Steel, Nickel Plated

1186M	22.00	¼-32	1186G	3.30

SELF TAPPING SCREWS CADMIUM PLATED

Round Head—Type A—Sharp Point

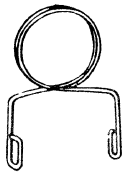
No.	Per M	Size	No.	Gross
1801M	$10.00	4 x ½	1801G	$1.65
1802M	10.00	6 x ¼	1802G	1.65
1803M	10.00	6 x ⅜	1803G	1.65
1804M	13.50	6 x ½	1804G	2.25
1805M	12.50	8 x ⅜	1805G	2.10
1806M	15.75	8 x ½	1806G	2.65

Round Head—Type Z—Blunt Point

No.	Per M	Size	No.	Gross
1807M	$10.00	4 x ½	1807G	$1.65
1808M	10.00	6 x ¼	1808G	1.65
1809M	10.00	6 x ⅜	1809G	1.65
1810M	13.50	6 x ½	1810G	2.25
1811M	12.50	8 x ⅜	1811G	2.10
1812M	15.75	8 x ½	1812G	2.65

Slotted Hex Head—Type B—Blunt Point

No.	Per M	Size	No.	Gross
1830M	$10.00	6 x ¼	1830G	$1.65
1831M	10.00	6 x ⅜	1831G	1.65
1832M	13.50	6 x ½	1832G	2.25
1833M	12.50	8 x ⅜	1833G	2.10
1834M	15.75	8 x ½	1834G	2.65



SPRING GRID CLIP

Small and large type grid clip used to replace clips that have lost their tension due to heat causing poor contact. Available in bulk or 24. $.45. List envelopes on attractive display card.

Std. Pkg. 100

No.	Type	Type Per C	Display	Each
1288	1X2-6BQ6	$8.00	1288D	$10.80
1289	1B3-6BG6	8.00	1289D	10.80

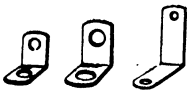
ANGLES

Steel, Cadmium Plated

L1-Lgth. of Leg H1-Hole Location
L2-Lgth. of Leg H2-Hole Location
T -Thickness W -Width

Std. Pkg. 100

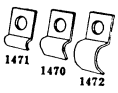
No.	"L1"	"L2"	"T"	"H1"	"H2"	'W' Hole	'H2' Hole	Per C
1444	7/16"	7/16"	.032"	17/64"	¼"	3/8"	#8 7/64"	$1.20
1445	½"	½"	.050"	11/32"	23/64"	½"	#4 7/64"	1.50
1446	49/64"	27/64"	.030"	39/64"	15/64"	5/16"	#6 9/64"	1.50
1447	1 9/64"	½"	.050"	61/64"	23/64"	5/16"	#4 7/64"	1.70



BRASS AND STEEL ANGLES

Std. Pkg. 100

No.	Material	Size	Per C
1474	Brass N.P.	½" x ½"	$3.00
1475	Brass N.P.	⅝" x ⅝"	6.00
1476	Steel H.T.	¾" x ¾"	2.50
1477	Steel H.T.	⅝" x 1⅛"	2.50



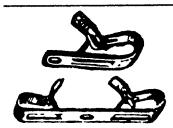
1471 1470 1472

CABLE CLAMPS

Std. Pkg. 100

Steel Cadmium Plated with No. 8 Mtg. Hole.

No.	Length	Width	Cable	Per C
1471	⅝"	⅜"	⅛"	$1.30
1470	¾"	⅜"	¼"	1.40
1472	1"	⅜"	½"	1.50



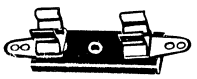
FAHNESTOCK SPRING BATTERY CLIPS

Clips are made of brass, nickel plated and are available in the single and double clip types.

Std. Pkg. 100

No.	Type	Length	Per C
539	Single	⅝"	$ 2.00
533	Single	¾"	2.40
534	Single	1"	3.50
535	Double	1½"	14.00
536	Double	2 1/16"	16.00

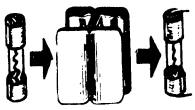
FUSE MOUNTING BASES



Black bakelite, panel mount type. Will accommodate the 3 A G Auto type cartridge fuse.

Std. Pkg. 25

No.	Type	Per C
530	Single	$20.00
531	Double	35.00
532	Clip Only	2.50

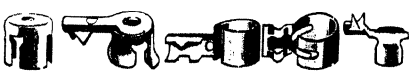


TV SNAP-ON FUSE HOLDER

Snap fuse clip over burned out fuse. Insert new fuse without soldering. Std. Pkg. 50

No.		Each
529		$0.27
529D	Display of 24 No. 529	6.48

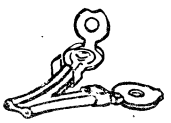
GRID CAPS



1450 1451 1452 1453 1454

Std. Pkg. 100

No.	Tube Type	Per C
1450	⅜" Glass Tubes	$2.00
1451	⅜" Glass Tubes	4.50
1452	⅜" Glass Tubes	2.00
1453	⅜" Glass Tubes	2.00
1454	¼" Mini Tubes	2.00



TV ANTENNA LUG

Solderless Type

A secure, swift, positive and permanent method of connecting TV wire to antenna. Simply strip wire, coil around groove and fold over. Insures positive contact. Std. Pkg. 100

No.	Type	Length	Hole	Per C
1460	Double Cup	13/16"	No. 10	$3.30
1461	Double Cup	15/16"	1/4"	3.50

HERMAN H. SMITH, INC.

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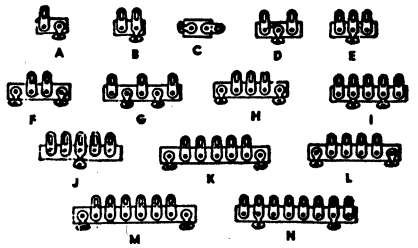
TIE DOWN TERMINAL STRIPS



STANDARD TYPE

LUG: BRASS, cadmium plated, spaced ⅜" centers.
STRIP: XP Bakelite⅜" wide x .062 thick.
MOUNT.: .140 I.D. for No. 6 screw.

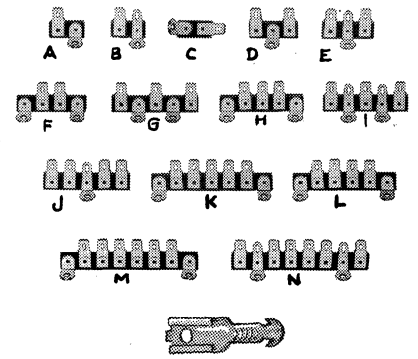
MINIATURE TYPE

LUG: BRASS, cadmium plated, spaced ¼" centers.
STRIP: XP Bakelite, 5/16" wide x .016 thick.
MOUNT.: .096 I.D. for No. 3 screw or 3/32 rivet.

Standard Type No.	Per C	Illustration	Miniature Type No.	Per C
861	$3.50	A	1061	$ 4.00
862	3.50	B	1062	4.50
849	4.00	C	—	—
863	4.00	D	1063	5.50
864	4.00	E	1064	6.00
867	6.00	F	1067	6.50
865	7.00	G	1065	8.75
853	8.00	H	1073	8.75
868	7.00	I	1068	9.50
866	6.00	J	1066	9.00
860	8.25	K	1060	11.00
869	8.50	L	1069	10.00
848	9.75	M	1078	13.60
870	9.75	N	1070	13.50

Standard Package 100

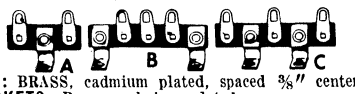
"QUICK-CONNECT" TERMINAL STRIPS



No.	Per C	No.	Per C	No.	Per C
1085	5.20	1090	9.50	1095	16.50
1086	5.50	1091	12.00	1097	15.50
1087	5.20	1092	12.00	1098	19.50
1088	8.00	1094	12.50	1099	19.50
1089	8.50	1094	13.50		

No. 1576 Terminal Strip Connectors $5.50 Per C

BRACKET TYPE TERMINAL STRIPS



LUGS: BRASS, cadmium plated, spaced ⅜" centers.
BRACKETS: Brass, cadmium plated.
STRIPS: X.P. Bakelite ⅜" wide x .062 thick.
MOUNT.: .140 I.D. for No. 6 screw. **Std. Pkg. 100**

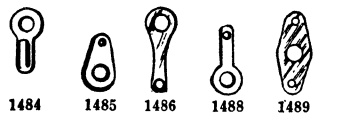
No.	Fig.	Lugs	Per C
1077	A	2	$10.60
1079	C	3	11.00
1080	B	3	11.00
1081	B	4	12.00
1082	B	5	13.00
1083	B	6	14.00

SCREW TYPE TERMINAL BOARD

LUGS: BRASS, hot tinned, spaced 7/16" centers.
SCREW: Steel, cadmium plated 6-32x⅜.
STRIP: X.P. Bakelite ⅝" wide x .062 thick.

No.	Terminals	Mounting Center	Std. Pkg.	Per C
872	2	1 1/16"	50	$10.00
873	3	1 3/4"	50	15.00
874	4	2 3/16"	25	19.00
875	5	2 5/8"	25	22.00
876	6	3 1/16"	25	28.00
877	7	3 1/2"	25	35.00
878		Shorting Link		3.00

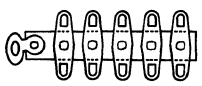
SOLDER TYPE LUGS—Hot Tinned



Std. Pkg. 1000

No.	Material	L.	Thick.	Hole	Per M
1484	Ph. Br.	5/8"	.020"	No. 6	$8.50
1485-4	Ph. Br.	5/16"	.012"	No. 4	9.00
1485-6	Ph. Br.	5/16"	.012"	No. 6	9.00
1485-8	Ph. Br.	5/16"	.012"	No. 8	9.00
1485-10	Ph. Br.	5/16"	.012"	No. 10	9.00
1486-4	Ph. Br.	13/16"	.012"	No. 4	9.00
1486-6	Ph. Br.	13/16"	.012"	No. 6	9.00
1486-8	Ph. Br.	13/16"	.012"	No. 8	9.00
1486-10	Ph. Br.	13/16"	.012"	No. 10	9.00
1488-4	Ph. Br.	5/16"	.012"	No. 4	7.25
1488-6	Ph. Br.	5/16"	.012"	No. 6	7.25
1488-8	Ph. Br.	5/16"	.012"	No. 8	7.25
1489	Brass	7/8"	.015"	No. 8	10.00
1490	Brass	3/4"	.020"	No. 10	11.00
1491	Copper	15/16"	.020"	No. 10	16.50
1493	Brass	1 1/8"	.027"	1/4"	28.00
1494-6	Brass	5/8"	.020"	No. 6	9.00
1494-8	Brass	5/8"	.020"	No. 8	9.00
1495	Brass	5/8"	.020"	No. 8	11.00
1496	Brass	3/4"	.020"	1/4"	17.00
1497	Brass	7/8"	.017"	3/8"	40.00

"T" TYPE TERMINAL STRIPS

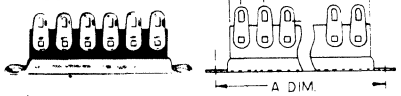


LUGS: BRASS, cadmium plated, spaced ⅜" centers.
STRIP: XP Bakelite ⅜" wide x .062 thick.
MOUNT: .140 I.D. for No. 6 screw.

Std. Pkg. 100

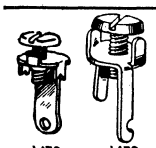
No.	Lugs	Per C
815	1	$4.00
816	2	5.00
817	3	7.00
818	4	9.00
819	5	12.00

TERMINAL STRIP ASSEMBLY



LUG: Brass, cadmium plated.
BASE: Brass, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite **Std. Pkg. 100**

No.	Terminals	Dimensions "A"	"B"	Per C
3002	2	1.000	5/8"	$10.00
3003	3	1.312	15/16"	11.50
3004	4	1.625	1 1/4"	13.00
3005	5	1.937	1 9/16"	14.50
3006	6	2.250	1 7/8"	16.00
3007	7	2.562	2 3/16"	17.50
3008	8	2.875	2 1/2"	19.00
3009	9	3.187	2 13/16"	20.50
3010	10	3.500	3 1/8"	22.00
3011	11	3.812	3 7/16"	23.50
3012	12	4.125	3 3/4"	25.00



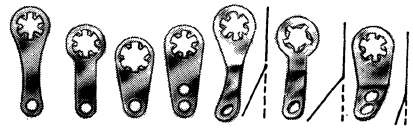
TERMINAL LUGS & SCREWS

Recommended for heavy duty terminal strips. Lugs are tapped with screw inserted. Brass hot tinned.

Std. Pkg. 100

No.	Per C
1478	$6.60
1479	9.00

LOCKING TYPE TERMINAL LUGS



BRASS HOT TINNED No.	L	Thick	STD. PKG. 1000 Hole	Per M
1410-4	7/8"	.018	No. 4	15.00
1410-6	7/8"	.018	No. 6	15.00
1410-8	7/8"	.018	No. 8	15.00
1410-10	57/64"	.018	No. 10	15.00
1411-4	47/64"	.020	No. 4	15.00
1411-6	47/64"	.020	No. 6	15.00
1411-8	47/64"	.020	No. 8	15.00
1412-4	5/8"	.018	No. 4	14.00
1412-6	5/8"	.018	No. 6	14.00
1412-8	5/8"	.018	No. 8	14.00
1413-4	23/32"	.018	No. 4	15.00
1413-6	23/32"	.018	No. 6	15.00
1413-8	23/32"	.018	No. 8	15.00
1414-4	13/16"	.018	No. 4	15.00
1414-6	13/16"	.018	No. 6	15.00
1414-8	13/16"	.018	No. 8	15.00
1414-10	53/64"	.018	No. 10	15.00
1415-4	41/64"	.018	No. 4	15.00
1415-6	41/64"	.018	No. 6	15.00
1415-8	41/64"	.018	No. 8	15.00
1416-4	11/16"	.020	No. 4	15.00
1416-6	11/16"	.020	No. 6	15.00
1416-8	11/16"	.020	No. 8	15.00

LOCKING TYPE TERMINAL LUGS

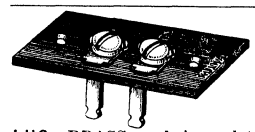
Brass Electro Plated

No.	Hole Size	Thick	Length	Per M
1465	No. 4	.020	47/64"	$17.00
1466	No. 6	.020	47/64"	17.00
1467	No. 8	.020	7/8"	17.00
1468	¼"	.020	13/16"	20.00

CONTACT STRIPS

CONTACTS: STEEL, cadmium plated, spring tension spaced ⅜" centers.
STRIP: X.P. Bakelite ⅝" wide x .062 thick.
BRACKET: Steel cadmium plated .140 I.D. for No. 6 screw.
DESCR.: Quick connect and disconnect. Spring tension contacts for .125 dia. contact pins. Single hole mounting. Even number contacts have mtg. bracket in center; odd number contacts have extra contact on right. Special contacts on request.

No.	Contacts	Std. Pkg.	Per C
822	2	100	$11.00
823	3	50	14.00
824	4	25	17.00
825	5	25	20.00
826	6	25	25.00
827	Pin Only	100	2.00

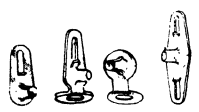


HEAVY DUTY TERMINAL BOARDS

LUG: BRASS, cadmium plated .042 thick spaced ½" centers. Terminals numbered.
STRIP: X.P. Bakelite ⅞" wide x 3/32 thick, numbered.
SCREW: Brass, nickel plated 8-32 x 5/16.

Std. Pkg. 25

No.	Terminals	Mtg. Center	Per C
902	2	1½"	$ 54.00c
903	3	2"	47.00c
904	4	2½"	57.00c
905	5	3"	68.00c
906	6	3½"	77.00c
907	7	4"	87.00c
908	8	4½"	98.00c
909	9	5"	108.00c
910	10	5½"	118.00c
911	11	6"	128.00c
912	12	6½"	138.00c



EYELET TYPE SOLDER LUGS

Std. Pkg. 1000

No.	Length	Hole	Per M
1480	5/8"	3/4 Slot	$ 5.50
1481	5/8"	#8	12.00
1482	5/8"	#8	9.00
1483	15/16"		9.00

All Prices Subject To Trade Discount
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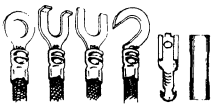
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TERMINALS

AMP Pre-Insulated Diamond Grip



Color-coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	Per C
22	1550	320882	4	3/16	21/32	5/32	$15.00
	1551	31881	6	7/32	21/32	5/32	15.00
to	1552	31886	8	9/32	25/32	1/4	15.00
	1553	31887	10	9/32	25/32	1/4	15.00
16	1554	31894	1/4	15/32	1 1/16	27/64	16.00
14	1555	32441	4	1/4	1 1/16	1 1/64	15.00
	1556	32442	6	1/4	1 1/16	1 1/64	15.00
to	1557	31902	8	11/32	27/32	9/32	15.00
	1558	322238	10	5/16		1/4	15.00
16	1559	31906	1/4	15/32	1/16	7/16	16.00

FLANGED SPADE (B)

22-16	1560	32562	6	19/64	23/32	13/64	$15.00
	1561	32498	8	27/64	13/16	1/4	16.00
	1562	320861	6	19/64	23/32	13/64	15.00
14-16	1563	320862	8	19/64	23/32	13/64	15.00
	1564	320863	10	19/64	23/32	13/64	15.00

SPADE TONGUE (C)

	1565	34541	6	1/4	53/64	19/64	$15.00
22-16	1566	32053	8	3/8	57/64	19/64	15.00
	1567	32054	10	3/8	57/64	19/64	15.00
	1568	35559	6	19/64	47/64	13/64	15.00
14-16	1569	321233	8	19/64	47/64	13/64	15.00
	1570	32060	10	3/8	57/64	5/16	15.00

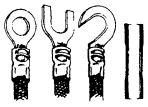
HOOK TONGUE (D)

22-16	1571	34313	6	9/32	47/64	13/64	$15.00
	1572	32456	8	11/32	55/64	9/32	15.00
	1573	320381	6	11/32	27/32	9/32	$15.00
14-16	1574	320306	8	11/32	27/32	9/32	17.00
	1575	35481	10	11/32	27/32	9/32	17.00
18-14	1576	47100	.250 Faston Receptacle (E) w/insulation support				$ 5.50

BUTT CONNECTOR (F)

22-16	1548	320559	.125 I.D.	60.00
16-14	1549	320562	.150 I.D.	60.00

AMP "PLASTI-GRIP" (P.G.)



Insulated, strong, special plastic has high dielectric strength. Applied with single operation of press dies or hand tools. High tensile strength. High conductivity copper, electro-tinned. Color coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	Per C
	2750	34141	4	7/32	21/32	5/32	$11.00
22	2751	34142	6	7/32	21/32	5/32	11.00
	2752	34145	8	9/32	25/32	1/4	11.00
to	2753	34146	10	9/32	25/32	1/4	11.00
	2754	34150	1/4	15/32	1 1/16	27/64	13.00
16	2755	34151	5/16	15/32	1 1/16	27/64	13.00
	2756	34152	3/8	17/32	1 13/64	17/32	13.00
	2757	34157	4	1/4	1 1/16	5/32	$11.00
16	2758	34158	6	1/4	1 1/16	5/32	11.00
	2759	34160	8	11/32	27/32	17/64	11.00
to	2760	34161	10	11/32	27/32	17/64	11.00
	2761	34162	1/4	15/32	1 1/16	27/64	13.00
14	2762	34163	5/16	15/32	1 1/16	27/64	13.00
	2763	34164	3/8	17/32	1 13/64	33/64	13.00

SPADE TONGUE (B)

22	2764	34153	6	11/32	49/64	13/64	$11.00
to	2765	34155	8	3/8	57/64	19/64	11.00
16	2766	34156	10	3/8	57/64	19/64	11.00
16	2767	34165	6	3/8	57/64	19/64	$ 9.50
to	2768	34166	8	3/8	57/64	19/64	11.00
14	2769	34167	10	3/8	57/64	19/64	11.00

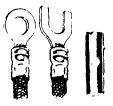
HOOK TONGUE (C)

20-16	2770	34501	6	9/32	47/64	3/16	$11.00
	2771	321699	8	11/32	55/64	9/32	11.00
16-14	2772	320263	8	11/32	55/64	17/64	$16.00

BUTT CONNECTOR (D)

2773	34070	22-16 .140 I.D.	1	$13.50
2774	34071	16-14 .70 I.D.	1 1/64	13.50

AMP "SOLISTRAND" Non-Insulated



The only terminal designed for use with solid, stranded or irregularly shaped wires, or combinations of wires. Corrosion resistant, high strength, electro-tinned; versatile — widely adaptable. **Std. Pkg. 100**

RING TONGUE (A)

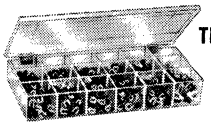
Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	Per C
	2850	32989	4	7/32	17/32	5/32	$ 7.00
22	2851	34194	6	7/32	17/32	5/32	7.00
	2852	32990	8	9/32	11/16	15/64	8.00
to	2853	33214	10	9/32	11/16	9/32	8.00
	2854	33215	1/4	15/32	13/16	27/64	11.00
16	2855	33452	5/16	15/32	13/16	27/64	11.00
	2856	33453	3/8	17/32	1 1/16	17/32	11.00
	2857	32991	4	1/4	9/16	1 1/64	$ 8.00
16	2858	34197	6	1/4	9/16	1 1/64	8.00
	2859	32992	8	5/16	11/32	1/4	8.00
to	2860	320093	10	5/16	11/32	1/4	8.00
	2861	33218	1/4	15/32	13/16	7/16	11.00
14	2862	33454	5/16	15/32	13/16	7/16	11.00
	2863	33455	3/8	17/32	1 1/8	17/32	11.00

SPADE TONGUE (B)

22	2864	32897	6	11/32	5/8	13/64	$ 7.00
to	2865	32898	8	11/32	5/8	13/64	7.00
16	2866	32899	10	11/32	5/8	13/64	7.00
16	2867	32903	6	11/32	5/8	13/64	$ 7.00
to	2868	32904	8	11/32	5/8	13/64	7.00
14	2869	32905	10	11/32	5/8	13/64	7.00

BUTT CONNECTOR (C)

2870	31818	22-16 .140 I.D.	3/64	$ 8.50
2871	31819	16-14 .170 I.D.	3/64	8.50



TERMINAL ASSORTMENTS

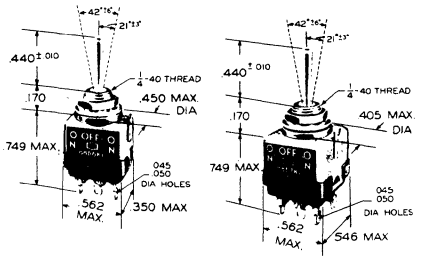
A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 to 14.

No.	Type	Quan.	Each
1577	Pre-Insulated Diamond Grip	200	$30.00
1578	Pre-Insulated Diamond Grip	300	45.00
1526	"PLASTI-GRIP" (P.G.)	200	26.00
1527	"PLASTI-GRIP" (P.G.)	300	39.00
1528	"SOLISTRAND" Non-insul	200	19.00
1529	"SOLISTRAND" Non-insul	300	28.50

HAND CRIMPING TOOL

Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.
No. 1579 **$12.00 Each**

C-H MINIATURE MILITARY SWITCHES



Extremely compact, highly reliable power or dry circuit switches. Usable as a pre-set switch in aircraft recognition systems; for walkie-talkies; for electronic instruments and communication systems.

RATINGS: 2 Amps. @ 28 V.D.C. 1 Amp @ 50 V.D.C. 2 Amps @ 115 V.A.C.

MINIMUM RATING: 30 Microamps. @ 50 Millivolts.

SINGLE POLE

WEIGHT: 5.0 Grams.
CUBIC CONTENT: .147 cubic inches "behind panel" volume. **Std. Pkg. 10**

HHS	C-H	Circuit	Each
1841	8866K1	SPDT On-Off-On	$10.00
1842	8866K2	SPDT Mom. On-Off-Mom. On	10.15
1843	8866K3	SPDT On-Off-Mom. On	10.15
1844	8866K4	SPDT On-None-On	10.00
1845	8866K5	SPST On-Off-None	10.00
1846	8866K6	SPST None-Off-Mom. On	10.15
1847	8866K7	SPST On-None-Off	10.00

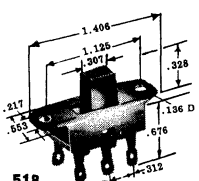
DOUBLE POLE

WEIGHT: 6.5 grams.
CUBIC CONTENT: .230 cubic inches "behind panel" volume. **Std. Pkg. 10**

HHS	C-H	Circuit	Each
1851	8867K1	DPDT On-Off-On	$12.55
1852	8867K2	DPDT Mom. On-Off-Mom. On	14.60
1853	8867K3	DPDT On-Off-Mom. On	14.60
1854	8867K4	DPDT On-None-On	12.55
1855	8867K5	DPST On-Off-None	12.55
1856	8867K6	DPST None-Off-Mom. On	14.60
1857	8867K7	DPST On-None-Off	12.55

CONTINENTAL-WIRT

SLIDE SWITCHES



With Detent

UL APPROVED

General purpose switches, used on hi-fi equipment, test instruments, etc. Steel cadmium plated housings. Black phenolic buttons. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	Each
515	SPST	.75	.75	$.19
516	SPDT	.75	.75	.20
517	DPST	.5	.5	.25
518	DPDT	.5	.5	.30
1105	SPST	6.0	1.0	.24
1106	SPDT	6.0	1.0	.25
1107	DPST	6.0	1.0	.40
1108	DPDT	6.00	1.0	.45

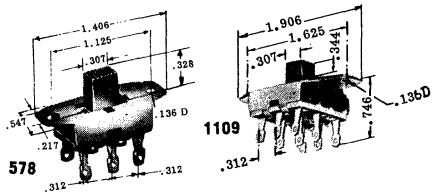
With Spring Return

No.	Circuit	Rating 125V ACDC	Each
568	SPST	.5 Amp	$.40
569	SPDT	.5 Amp	.48

TRIPLE THROW
With Detent

No.	Circuit	Rating 125V ACDC	Each
1053	SP3T	.5 Amp	$.48
1054	DP3T	.5 Amp	.50

SLIDE SWITCHES



SLIDE SWITCHES
With Detent

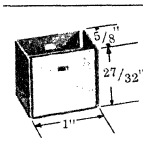
CENTER OFF

No.	Circuit	Rating 125V ACDC	Each
577	SP 3-Position	.5 Amp	$.48
578	DP 3-Position	.5 Amp	.50

MULTI-POLE SWITCHES
With Detent

Unique construction, all poles are in the same plane, more compact, easier wiring. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	DC Amps	Each
1109	3PDT	3.0	1.0	$.80
1110	3PDT	.5	.5	.75
	Same as above but 1.005" wide			
	Same as above but 1.005" wide			
1104	4PDT	.5	.5	1.00



SLIDE SWITCH SHIELD

For terminal protection or electrostatic shielding. Shield is made of steel, cadmium plated, with fibre insulation. **Std. Pkg. 25**
No. 519 **Each $.10**

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

CUTLER-HAMMER SWITCHES

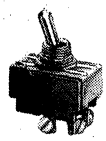
TOGGLE SWITCHES
STANDARD DUTY

15 Amps. 125 Volts — 10 Amps. 250 Volts

AC, UL Approved 15/32" shank; slow-make and break; bakelite case. AC rated only for longer life and greater capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	Each
966	7501K13	SPST	$1.15
967	7505K4	SPDT	1.35
968	7561K4	DPST	1.80
969	7565K5	DPDT	2.10
970	7611K2	TPST	3.65
971	7615K2	TPDT	4.50



BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	Each
972	7500K14	SPST	$1.35
973	7504K4	SPDT	1.60
974	7560K5	DPST	2.10
975	7564K6	DPDT	2.60
976	7610K2	TPST	4.25
977	7614K2	TPDT	5.40

CENTER OFF STANDARD DUTY TOGGLE SWITCHES

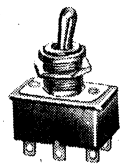
BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	Each
978	7503K13	SPDT	$1.35
979	7563K4	DPDT	2.10
980	7613K2	TPDT	4.50

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	Each
981	7502K13	SPDT	$1.60
982	7562K4	DPDT	2.60
983	7612K2	TPDT	5.40

TOGGLE SWITCHES
LIGHT DUTY



AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. **Std. Pkg. 10**

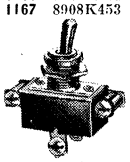
BACK CONNECTED LUG TERMINALS

SMALL BAT HANDLE 15/32" LONG

No.	C-H No.	Type	Current Rating 125 V.	250 V	Each
950	8280K16	SPST		3 Amps.	$1.15
951	8381K8	SPST	6 Amps.	3 Amps.	1.35
952	8282K14	SPDT	3 Amps.	1 Amp.	1.45
953	8284K14	2 circ.	3 Amps.	1 Amp.	1.55
954	8360K7	DPST		3 Amps.	2.10
955	8370K7	DPST	6 Amps.	3 Amps.	2.30
956	8363K7	DPDT		3 Amps.	2.40
957	8373K7	DPDT	6 Amps.	3 Amps.	2.60

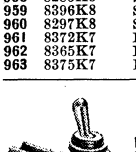
STANDARD BAT. HANDLE 11/16" LONG

1160	8908K446	SPST		3 Amps.	$1.15
1161	8908K447	SPST	6 Amps.	3 Amps.	1.35
1162	8908K448	SPDT	3 Amps.	1 Amp.	1.45
1163	8908K449	2 Circ.	3 Amps.	1 Amp.	1.55
1164	8908K450	DPST		3 Amps.	2.10
1165	8908K451	DPST	6 Amps.	3 Amps.	2.30
1166	8908K452	DPDT		3 Amps.	2.40
1167	8908K453	DPDT	6 Amps.	3 Amps.	2.60



SIDE CONNECTED SCREW TERMINALS

No.	C-H No.	Type	Current Rating 125 V.	250 V.	Each
958	8285K8	SPST		3 Amps.	$1.40
959	8396K8	SPST	6 Amps.	3 Amps.	1.60
960	8297K8	SPDT	3 Amps.	1 Amp.	1.85
961	8372K7	DPST	6 Amps.	3 Amps.	2.75
962	8365K7	DPDT		3 Amps.	3.15
963	8375K7	DPDT	6 Amps.	3 Amps.	3.35



WIRE LEADS— SIX INCHES LONG

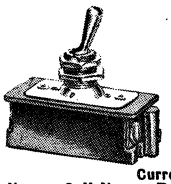
No.	C-H No.	Type	Current Rating 125 V.
964	8290K16	SPST	
965	8391K8	SPST	6 Amps.

No.	C-H No.	250 V.	Each
250 V.		Each 3 Amps.	$1.40
Type		125 V. 3 Amps.	1.60

PUSH BUTTON MOMENTARY SWITCHES

AC-DC, UL Approved, 15/32" shank; rated at ¾ Amp, 125 volts — ¼ Amp, 250 volts.

No.	C-H No.	Type	Term.	Ea.
992	8411K4	SP Norm. Op	Lug	$0.80
993	8411K3	SP Norm. Op	Screw	.90
994	8411K8	SP Norm. Cl	Lug	.60
995	8411K7	SP Norm. Cl	Screw	.65



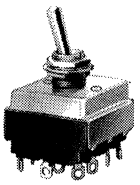
TOGGLE SWITCHES
HEAVY DUTY

AC - DC, UL Approved; 15/32" shank; quick make-quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

No.	C-H No.	Type	Current Rating 125 V	250-V	Each
984*	7321K3	SPST	12 A	6 A	$2.20
985*	7320K3	DPST	12 A	6 A	2.20
986+	7361K5	SPST	15 A	10 A	3.85
987+	7360K8	DPST	15 A	10 A	3.85
988±	7402K4	DPST		20 A	5.40

*1 Hp — 125/250V. +1½ Hp — 125/250V.
±1½ Hp — 125V, 2 Hp — 250V.



FOUR POLE SWITCHES

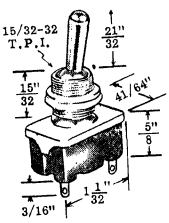
AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps, 115 volt AC—20 amps, 28 volts DC (Nominal rating per pole) SEALED LEVER **Std. Pkg. 10**

No.	C-H No.	Type	Terminals	Each
944	7661K6	4 PST	Solder Lugs	$7.60
945	7665K4	4 PDT	Solder Lugs	9.35
946	7660K8	4 PST	Screw Term.	8.25
947	7664K3	4 PDT	Screw Term.	10.25
		CENTER OFF		
948	7663K5	4 PDT	Solder Lugs	$ 9.35
949	7662K5	4 PDT	Screw Term.	10.25

PUSH BUTTON SWITCHES
Push to make—Push to break

AC-DC, UL Approved; 11/16" shank; bakelite case. Pushing the button once closes the contacts. Pushing it again opens the contacts. Rated at 6 Amps. 125 Volts; 3 Amps. 250 Volts. **Std. Pkg. 10**

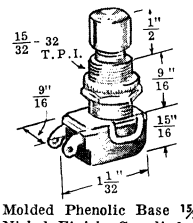
No.	C-H No.	Type	Term.	Each
989	7206K4	SPST	Lug	$1.60
990	7208K4	SPST	Screw	1.80
991	7207K4	SPST	Wire	1.80



MIDGET TOGGLE SWITCH

Bat lever. Molded phenolic base. 15/32-32 x 15/32" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp.-250 volts; 3 amps.-125 volts. **Std. Pkg. 10**

No.	Circuit	Each
920	SPST	$1.55
921	SPDT	1.85
922	2 Circ.	1.90
923	DPST	2.25
924	DPDT	2.60



MIDGET MOMENTARY SWITCH
SLOW MAKE AND BREAK

Molded Phenolic Base 15/32-32 x 5/16" slotted sleeve, Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3 amps.-120 volts A.C. Supplied less button; order button separately. **Std. Pkg. 10**

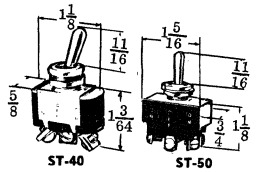
Normally Closed (ON)

No.	Circuit	Each
925	SPST	$1.25
926	2 Circ.	1.35

Normally Open (OFF)

No.	Circuit	Each
927	SPST	$1.25

"ST" SWITCHES



Nominal Rating Per. Pole:
10 Amps. 115 V. AC
20 Amps. 28V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole With Screw Terminals

HHS	C-H	JAN Type	Circuit	Each
1720	8801K13	ST40A SPST	On-None-Off	$2.80
1721	8813K12	ST40B SPST	On-None-Mom-Off	3.10
1722	8811K12	ST40C SPST	On-None-Mom-On	3.10
1723	8810K12	ST40D SPDT	On-None-On	3.40
1724	8800K13	ST40E SPDT	On-Off-On	3.40
1725	8804K12	ST40F SPDT	On-None-Mom-On	3.65
1726	8812K13	ST40G SPDT	Mom-On-Off-Mom-On	3.65
1727	8809K13	ST40H SPDT	Off-On-Mom-On	3.65

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1730	8803K6	ST42A SPST	On-None-Off	2.10
1731	8819K5	ST42B SPST	On-None-Mom-Off	2.30
1732	8817K5	ST42C SPST	On-None-Mom-On	2.30
1733	8816K5	ST42D SPDT	On-None-On	2.45
1734	8802K6	ST42E SPDT	On-Off-On	2.45
1735	8805K5	ST42F SPDT	On-None-Mom-On	2.70
1736	8818K5	ST42G SPDT	Mom-On-Off-Mom-On	2.70
1737	8815K6	ST42H SPDT	Off-On-Mom-On	2.70

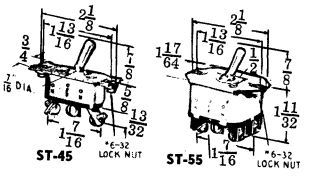
ST-50 SERIES — Double Pole With Screw Terminals

HHS	C-H	JAN Type	Circuit	Each
1740	8822K8	ST50K DPST*	On-None-Off	3.75
1741	8828K5	ST50L DPST	On-None-Mom-Off	4.50
1742	8826K5	ST50M DPST	Off-None-Mom-On	4.50
1743	8824K8	ST50N DPDT*	On-None-On	4.50
1744	8820K10	ST50P DPDT*	On-Off-On	4.50
1745	8830K5	ST50R DPDT	On-None-Mom-On	4.90
1746	8834K4	ST50S DPDT*	Mom-On-Off-Mom-On	4.90
1747	8832K4	ST50T DPDT*	On-Off-Mom-On	4.90

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each
1760	8823K5	ST52K DPST	On-None-Off	2.50
1761	8829K5	ST52L DPST	On-None-Mom-Off	2.80
1762	8827K5	ST52M DPST	Off-None-Mom-On	2.80
1763	8825K5	ST52N DPDT	On-None-On	2.80
1764	8821K5	ST52P DPDT	On-Off-On	2.80
1765	8831K5	ST52R DPDT	On-None-Mom-On	3.25
1766	8835K3	ST52S DPDT	Mom-On-Off-Mom-On	3.25
1767	8833K3	ST52T DPDT	On-Off-Mom-On	3.25



ST-45 SERIES

Nominal Rating Per Pole: 15 Amps. 115 V. AC.
25 Amps. 28 V. DC.
Std. Pkg. 10

HHS	C-H	JAN Type	Circuit	Each
1770	8201K6	ST45A SPST	On-None-Off	3.25
1771	8213K6	ST45B SPST	On-None-Mom-Off	3.60
1772	8211K7	ST45C SPST	Mom-On-None-Off	3.60
1773	8210K7	ST45D SPDT	On-None-On	3.95
1774	8200K7	ST45E SPDT	On-Off-On	3.95
1775	8215K4	ST45F SPDT	On-None-Mom-On	4.25
1776	8212K6	ST45G SPDT	Mom-On-Off-Mom-On	4.25
1777	8209K6	ST45H SPDT	On-Off-Mom-On	4.25

ST-55 SERIES

Nominal Rating Per Pole: 20 Amps. 115 V. AC.
30 Amps. 28 V. D.C.
Std. Pkg. 10

All ST-55 Series Switches are equipped with Sealed Lever.

HHS	C-H	JAN Type	Circuit	Each
1780	8701K14	ST55K DPST	On-None-Off	6.85
1781	8713K14	ST55L DPST	On-None-Mom-Off	7.50
1782	8711K14	ST55M DPST	Off-None-Mom-On	7.50
1783	8710K14	ST55N DPDT	On-None-On	8.20
1784	8700K14	ST55P DPDT	On-Off-On	8.20
1785	8715K14	ST55R DPDT	On-None-Mom-On	8.90
1786	8712K14	ST55S DPDT	Mom-On-Off-Mom-On	8.90
1787	8709K14	ST55T DPDT	On-Off-Mom-On	8.90
1788	8708K14	ST55U DPDT*	On-Off-Mom-On	9.05

* Same as ST55T except with jumper across outside terminals to control one circuit.

All Prices Subject To Trade Discount

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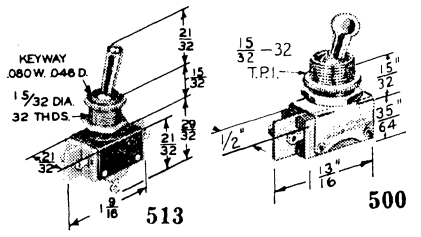
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all other rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Std. pkg. 10

BAT LEVER POSITIVE ACTION

15/32" long shaft No.	Each	CIRCUIT	13/32" long shaft No.	Each
510	$1.15	SPST	584	$1.15
511	1.45	SPDT	585	1.45
542	1.55	2-Circ.	586	1.55
512	2.10	DPST	587	2.10
513	2.40	DPDT	588	2.40

BAT LEVER MOMENTARY ACTION

15/32" long shaft

Normally Closed (ON) No.	Each	CIRCUIT	Normally Open (OFF) No.	Each
1020	$1.85	SPST	1024	$1.85
1021	2.15	SPDT	—	—
1022	2.80	DPST	1025	2.80
1023	3.10	DPDT	—	—

BALL LEVER POSITIVE ACTION

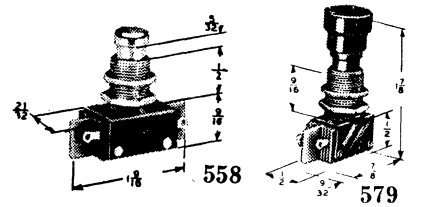
15/"32 long shaft	CIRCUIT	3/4" long shaft
500 $1.15	SPST	501 $1.40
502 1.45	SPDT	503 1.80
540 1.45	2 Circ.	541 1.80
504 2.10	DPST	505 2.40
506 2.40	DPDT	507 2.65

6" WIRE LEADS POSITIVE ACTION

15/32" long shaft

BALL LEVER No.	Each	CIRCUIT	BAT LEVER No.	Each
1010	$1.40	SPST	1015	$1.40
1011	1.95	SPDT	1016	1.95
1012	2.15	2 Circ.	1017	2.15
1013	2.75	DPST	1018	2.75
1014	3.35	DPDT	1019	3.35

MOMENTARY PUSH SWITCHES



Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts. 3 amps-125 volts AC-DC.

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

QUICK MAKE AND BREAK

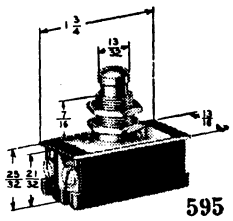
Normally Closed (ON) No.	Each	CIRCUIT	Normally Open (OFF) No.	Each
552	$2.25	SPST	555	$2.25
556	2.60	SPDT	—	—
557	2.55	2 Circ.	—	—
564	3.10	DPST	558	3.10
559	3.45	DPDT	—	—

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC

Normally Closed (ON)		CIRCUIT	Normally Open (OFF)	
582	$1.25	SPST	579	$1.25
580	1.60	2 Circ.	—	—

STANDARD DUTY MOMENTARY PUSH SWITCHES



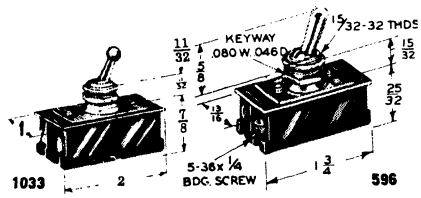
Molded phenolic base. 15/32-32 x 7/16" long slotted sleeve, nickel finish. Screw terminals. Supplied with hex nuts.

Two circ. rated at 3 amps.-250 volts, 6 amps-125 volts. AC-DC. All others rated at 6 amps-250 volts, 12 amps-125 volts AC-DC. DPST also rated at 1 HP at 250 volts AC-DC.

Normally Closed (ON) No.	Each	CIRCUIT	Normally Open (OFF) No.	Each
1026	$3.30	SPST	544	$3.30
1027	3.50	SPDT	—	—
1028	3.50	2 Circ.	—	—
1029	3.30	DPST	595	3.30

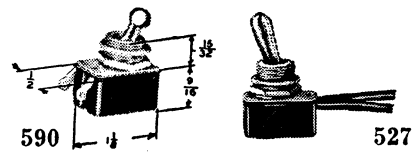
STANDARD DUTY TOGGLE SWITCHES

QUICK MAKE AND BREAK



BALL LEVER	CIRCUIT	BAT LEVER
1030 $2.20	SPST	597 $2.20
1031 2.20	SPDT	598 2.20
1032 2.20	2 Circ.	599 2.20
1033 2.20	DPST	596 2.20

MIDGET SIZE TOGGLE SWITCHES



Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts.

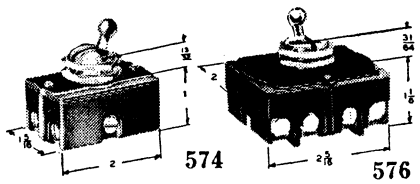
BALL LEVER No.	Each	CIRCUIT	BAT LEVER No.	Each
590	$1.30	SPST	591	$1.30
589	1.65	SPDT	592	1.65
594	1.70	2 Circ.	593	1.70

6" WIRE LEADS

BALL LEVER	CIRCUIT	BAT LEVER
526 $1.60	SPST	527 $1.60
538 2.10	SPDT	528 2.10
543 2.35	2 Circ.	514 2.35

EXTRA HEAVY DUTY POWER SWITCHES

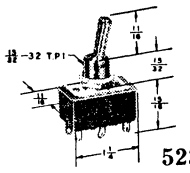
3 POSITION—POSITIVE CENTER OFF



Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts. 10 amps-125 volts plus HP rating shown below. Std. pkg. 5

No.	Circuit	Description	Each
574	DPDT 3/4 HP	250 volts AC-DS	$ 8.15
575	TPDT 1/2 HP	115/230 volts AC, 3 phase	12.55
576	4PDT 1/2 HP	115/230 volts AC, 2 phase	16.75

INTERMEDIATE SIZE TOGGLE SWITCHES

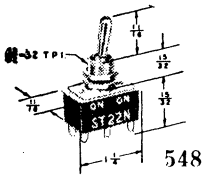


Molded phenolic base. 15/32-32 x 15/32" long slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. SPDT rated at 1 amp-250 volts, 6 amps-125 volts AC-DC; all others rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

BAT LEVER

POSITIVE ACTION No.	Each	CIRCUIT	MOMENTARY ACTION No.		Each
520	$1.55	SPST	524	OFF	$2.20
521	1.85	SPDT	549	—	2.50
583	1.90	2 Circ.	—	—	—
522	2.25	DPST	537	OFF	3.15
523	2.60	DPDT	525	—	3.45

ST TYPE TOGGLE SWITCHES



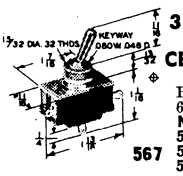
MEETS AN SPEC. JAN-23

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	AWS No.	CIRCUIT	Position	Each
545	ST 12A	SPST	OFF-ON	$2.05
546	ST 12D	SPDT	ON-ON	2.34
1040	ST 12V	2-Circ.	ON-OFF	2.40
547	ST 22K	DPST	OFF-ON	2.95
548	ST 22N	DPDT	ON-ON	3.20

MOMENTARY NORMALLY OPEN (OFF)

1041	ST 12C	SPST	OFF-ON	$2.70
1042	ST 22M	DPST	OFF-ON	3.55



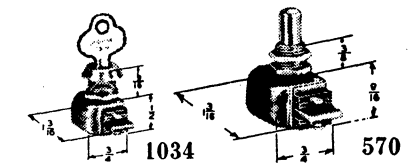
3 POSITION

CENTER OFF

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	CIRCUIT	Each
566	SPDT	$2.80
565	2 Circ.	3.15
567	DPDT	3.45

CANOPY TYPE ROTARY SWITCHES



Laminated type, 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and dress nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts. AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all others. 1⅛" shaft.

KEY TYPE No.	Each	CIRCUIT	ROTARY TYPE No.	Each
1034	$2.20	SPST	570	$1.45
1035	2.50	SPDT	571	1.75
1036	2.55	2 Circ.	—	—
1037	3.15	DPST	572	2.40
1038	3.45	DPDT	573	2.70

SWITCH ACCESSORIES

No.	Description	Per C
508	ON-OFF name plate	9.00
509	HI-LO name plate	9.00
581	Snap-On Button (Red or Black)	40.00
1146	Narrow Rim Lockwasher	1.30
1170	Key—Remove off position	35.00
1171	Key—Remove both positions	35.00
1172	Locking Ring	4.00
1196	Hex Nut—Brass N.P.	3.00
1197	Ring Nut—Brass N.P.	5.00
1198	Dress Nut—Brass N.P.	30.00

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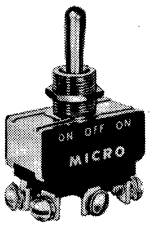
All Prices Subject To Trade Discount

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

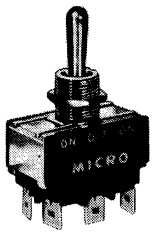
"UL" LISTED "TS" TOGGLE SWITCHES

"UL" listed "Commercial" type are identical to military type except for bat handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA).
Std. Pkg. 10

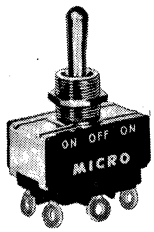


	RATING "A"	RATING "B"	RATING "C"
	15 Amps., 125-250 VAC ½ HP, 125 VAC 1 HP, 250 VAC	10 Amps., 125-250 VAC ¼ HP, 125 VAC ½ HP 250 VAC	15 Amps., 125-250 VAC ⅓ HP, 125 VAC ¾ HP, 250 VAC

HHS	MICRO	CIRCUIT	Rating	Each
		1 POLE		
		SCREW TERMINALS		
3331	11TS15-1	ON-OFF-ON	A	$3.35
3332	11TS15-2	ON-NONE-OFF	A	2.80
3333	11TS15-3	ON-NONE-ON	A	3.35
3334	11TS15-6	OFF-NONE-ON(MOM)	B	3.10
3335	11TS15-61	NONE-OFF-ON(MOM)	B	3.10
3336	11TS15-7	ON(MOM)-OFF-ON(MOM)	B	3.65
		QUICK CONNECT TERMINALS		
3337	11TS95-1	ON-OFF-ON	A	$3.25
3338	11TS95-2	ON-NONE-OFF	A	2.70
3339	11TS95-21	ON-OFF-NONE	A	2.70
3340	11TS95-3	ON-NONE-ON	A	3.25
3341	11TS95-4	ON-NONE-OFF(MOM)	B	3.00
3342	11TS95-5	ON-OFF-ON(MOM)	B	3.55
3343	11TS95-6	OFF-NONE-ON(MOM)	B	3.00
3344	11TS95-61	NONE-OFF-ON(MOM)	B	3.00
3345	11TS95-7	ON(MOM)-OFF-ON(MOM)	B	3.55
3346	11TS95-8	ON-NONE-ON(MOM)	B	3.55
		SOLDER TERMINALS		
3347	11TS115-1	ON-OFF-ON	A	$3.15
3348	11TS115-2	ON-NONE-OFF	A	2.65
3349	11TS115-3	ON-NONE-ON	A	3.15
3350	11TS115-4	ON-NONE-OFF(MOM)	B	2.95
3351	11TS115-7	ON(MOM)-OFF-ON(MOM)	B	3.45



		2 POLE		
		SCREW TERMINALS		
3352	12TS15-1	ON-OFF-ON	A	$4.50
3353	12TS15-2	ON-NONE-OFF	A	3.75
3354	12TS15-21	ON-OFF-NONE	A	3.75
3355	12TS15-3	ON-NONE-ON	A	4.50
3356	12TS15-4	ON-NONE-OFF(MOM)	C	4.50
3357	12TS15-5	ON-OFF-ON(MOM)	C	4.85
3358	12TS15-6	OFF-NONE-ON(MOM)	C	4.50
3359	12TS15-61	NONE-OFF-ON(MOM)	C	4.50
3360	12TS15-7	ON(MOM)-OFF-ON(MOM)	C	4.85
3361	12TS15-8	ON-NONE-ON(MOM)	C	4.85
		QUICK CONNECT TERMINALS		
3362	12TS95-1	ON-OFF-ON	A	$4.25
3363	12TS95-2	ON-NONE-OFF	A	3.55
3364	12TS95-21	ON-OFF-NONE	A	3.55
3365	12TS95-3	ON-NONE-ON	A	4.25
3366	12TS95-4	ON-NONE-OFF(MOM)	C	4.35
3367	12TS95-5	ON-OFF-ON(MOM)	C	4.65
3368	12TS95-6	OFF-NONE-ON(MOM)	C	4.35
3369	12TS95-61	NONE-OFF-ON(MOM)	C	4.35
3370	12TS95-7	ON(MOM)-OFF-ON(MOM)	C	4.65
3371	12TS95-8	ON-NONE-ON(MOM)	C	4.65
		SOLDER TERMINALS		
3372	12TS115-1	ON-OFF-ON	A	$4.05
3373	12TS115-2	ON-NONE-OFF	A	3.45
3374	12TS115-21	ON-OFF-NONE	A	3.45
3375	12TS115-3	ON-NONE-ON	A	4.05
3376	12TS115-4	ON-NONE-OFF(MOM)	C	4.20
3377	12TS115-5	ON-OFF-ON(MOM)	C	4.45
3378	12TS115-6	OFF-NONE-ON(MOM)	C	4.20
3379	12TS115-61	NONE-OFF-ON(MOM)	C	4.20
3380	12TS115-7	ON(MOM)-OFF-ON(MOM)	C	4.45
3381	12TS115-8	ON-NONE-ON(MOM)	C	4.45

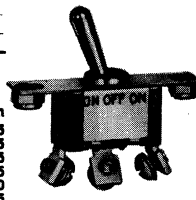


3-HOLE MOUNTED "TS" TOGGLE SWITCHES

"AN" Type tested and approved under MIL specs. "JAN" Type conform to JAN-S-23. Sealed Lever. **Std. Pkg. 10**

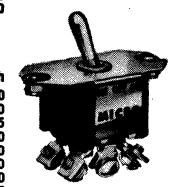
RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	55	40	.75	.5	20	7.5	7	7	20	15
B	55	30	.75	.5	20	7.5	5	4	18	11
C	55	40	.75	.5	25	8	10	7	20	15
D	55	30	.75	.5	20	7	7	4	18	11



HHS	MICRO	"AN" No.	"JAN" No.	CIRCUIT	Rating	Each
			1 POLE (MIL-S-6745)			
3301	31TS1-1	3022-1	ST45E	ON-OFF-ON	A	$3.95
3302	31TS1-2	3022-2	ST45A	ON-NONE-OFF	A	3.25
3303	31TS1-3	3022-3	ST45D	ON-NONE-ON	A	3.95
3304	31TS1-21	——	——	ON-OFF-NONE	A	3.25
3305	31TS1-4	3022-9	ST45B	ON-NONE-OFF(MOM)	B	3.60
3306	31TS1-5*	——	ST45H	ON-OFF-ON(MOM)	B	4.25
3307	31TS1-6	3022-8	ST45C	OFF-NONE-ON(MOM)	B	3.60
3308	31TS1-7	3022-7	ST45G	ON(MOM-OFF-ON(MOM)	B	4.25
3309	31TS1-8	3022-11	ST45F	ON-NONE-ON(MOM)	B	4.25
3310	31TS2-5	3022-6	——	ON-OFF-ON(MOM)	B	4.55
3311	31TS1-61	——	——	NONE-OFF-ON(MOM)	B	3.60

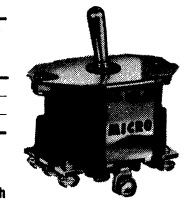
*Has a jumper across the stationary contact terminals.



HHS	MICRO	"MS" No.	CIRCUIT	Rating	Each
		2 POLE (MIL-S-3950A)			
3312	532TS1-1	MS25103-21	ON-OFF-ON	C	$8.20
3313	532TS1-3	MS25103-23	ON-NONE-ON	C	8.20
3314	532TS1-21	MS25103-24	ON-OFF-NONE	C	6.85
3315	532TS1-5	MS25103-31	ON-OFF-ON(MOM)	D	8.90
3316	532TS1-7	MS25103-27	ON(MOM-OFF-ON(MOM)	D	8.90
3317	532TS1-8	MS25103-26	ON-NONE-ON(MOM)	D	8.90
3318	532TS1-41	MS25103-25	ON-OFF(MOM)-NONE	D	7.50
3319	532TS1-61	MS25103-28	NONE-OFF-ON(MOM)	D	8.05

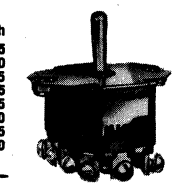
RATING: CURRRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	115 vac	30 vdc	LAMP LOAD 115 vac	INDUCTIVE LOAD 30 vdc	115 vdc
E	30	25	22	5	3	15	15
F	20	20	20	5	4	12	15
G	20	18	11	4	2	10	8



HHS	MICRO	"MS" No.	CIRCUIT	Rating	Each
		3 POLE (MIL-S-3950A)			
3320	533TS1-1	MS25105-21	ON-OFF-ON	E	$7.65
3321	533TS1-3	MS25105-23	ON-NONE-ON	E	7.65
3322	533TS1-21	MS25105-24	ON-OFF-NONE	E	6.40

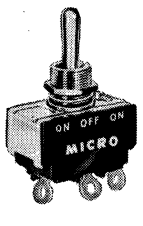
HHS	MICRO	"AN No.	CIRCUIT	Rating	Each
		4 POLE (MIL-S-6745)			
3323	34TS1-1	3227-1	ON-OFF-ON	F	$10.25
3324	34TS1-2	3227-2	ON-NONE-OFF	F	8.20
3325	34TS1-3	3227-3	ON-NONE-ON	F	10.25
3326	34TS1-21	3227-9	ON-OFF-NONE	F	12.05
3327	34TS1-5	3227-5	ON-OFF-ON(MOM)	G	12.35
3328	34TS1-6	3227-8	OFF-NONE-ON(MOM)	G	11.10
3329	34TS1-7	3227-7	ON(MOM)-OFF-ON(MOM)	G	12.35
3330	34TS1-61	3227-10	NONE-OFF-ON(MOM)	G	11.10



SEALED "TS" TOGGLE SWITCHES

RATING: CURRENT CAPACITY (AMPS)

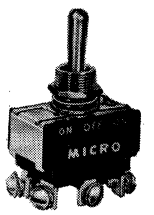
	CONTINUOUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8



HHS	MICRO	CIRCUIT	Rating	Each
		1 POLE		
		SCREW TYPE TERMINALS		
3201	211TS1-1	ON-OFF-ON	A	$5.30
3202	211TS1-2	ON-NONE-OFF	A	4.70
3203	211TS1-3	ON-NONE-ON	A	5.30
3204	211TS1-21	ON-OFF-NONE	A	4.30
3206	211TS1-5	ON-OFF-ON(MOM)	B	5.55
8207	211TS1-6	OFF-NONE-ON(MOM)	B	5.00
3208	211TS1-7	ON(MOM)-OFF-ON(MOM)	B	5.55
3209	211TS1-8	ON-NONE-ON(MOM)	B	5.55
		SOLDER TYPE TERMINALS		
3211	211TS11-1	ON-OFF-ON	A	$5.05
3212	211TS11-2	ON-NONE-OFF	A	4.55
3213	211TS11-3	ON-NONE-ON	A	5.05
3215	211TS11-4	ON-NONE-OFF(MOM)	B	4.85
3216	211TS11-5	ON-OFF-ON(MOM)	B	5.35
3217	211TS11-6	OFF-NONE-ON(MOM)	B	4.85
3218	211TS11-7	ON(MOM)-OFF-ON(MOM)	B	5.35
3219	211TS11-8	ON-NONE-ON(MOM)	B	5.35

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust, liquid and moisture seal at the panel. **Std. Pkg. 10**

HHS	MICRO	CIRCUIT	Rating	Each
		2 POLE		
		SCREW TYPE TERMINALS		
3221	212TS1-1	ON-OFF-ON	C	$6.35
3222	212TS1-2	ON-NONE-OFF	C	5.60
3223	212TS1-3	ON-NONE-ON	C	6.35
3224	212TS1-21	ON-OFF-NONE	C	5.60
3225	212TS1-4	ON-NONE-OFF(MOM)	D	6.35
3226	212TS1-5	ON-OFF-ON(MOM)	D	6.75
3227	212TS1-6	OFF-NONE-ON(MOM)	D	6.35
3228	212TS1-7	ON(MOM)-OFF-ON(MOM)	D	6.75
3229	212TS1-8	ON-NONE-ON(MOM)	D	6.75
		SOLDER TYPE TERMINALS		
3231	212TS11-1	ON-OFF-ON	C	$5.90
3232	212TS11-2	ON-NONE-OFF	C	5.30
3233	212TS11-3	ON-NONE-ON	C	5.90
3235	212TS11-4	ON-NONE-OFF(MOM)	D	6.05
3236	212TS11-5	ON-OFF-ON(MOM)	D	6.25
3237	212TS11-6	OFF-NONE-ON(MOM)	D	6.05
3238	212TS11-7	ON(MOM)-OFF-ON(MOM)	D	6.25
3239	212TS11-8	ON-NONE-ON(MOM)	D	6.25



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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

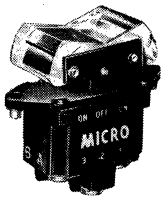
ROCKER-ACTUATED TOGGLE SWITCHES

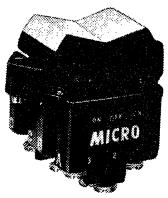
Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Transparent plastic keys mounted above flush. An insert with signs, symbols, or letters can be placed under the key.
Temperature range −65°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case. **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

HHS	MICRO	CIRCUIT	Rating	Each
		1 POLE		
		TRANSLUCENT KEY		
3401	1TP1-1	ON-OFF-ON	A	$13.20
3402	1TP1-2	ON-NONE-OFF	A	13.20
3403	1TP1-3	ON-NONE-ON	A	13.20
3404	1TP1-21	ON-OFF-NONE	A	13.65
3405	1TP1-31	ON-ON-NONE	A	13.65
3406	1TP1-4	ON-NONE-OFF(MOM)	B	13.20
3407	1TP1-5	ON-OFF-ON(MOM)	B	13.20
3408	1TP1-6	OFF-NONE-ON(MOM)	B	13.20
3409	1TP1-7	ON(MOM-OFF-ON(MOM)	B	13.20
3410	1TP1-8	ON-NONE-ON(MOM)	B	13.20
3411	1TP1-41	ON-OFF(MOM)-NONE	B	13.65
3412	1TP1-51	ON(MOM)-ON-NONE	B	13.65
3413	1TP1-61	NONE-OFF-ON(MOM)	B	13.65
		TRANSPARENT KEY		
3414	1TP4-1	ON-OFF-ON	A	$15.85
3415	1TP4-2	ON-NONE-OFF	A	15.85
3416	1TP4-3	ON-NONE-ON	A	15.85
3417	1TP4-21	ON-OFF-NONE	A	16.30
3418	1TP4-31	ON-ON-NONE	A	16.30
3419	1TP4-4	ON-NONE-OFF(MOM)	B	15.85
3420	1TP4-5	ON-OFF-ON(MOM)	B	15.85
3421	1TP4-6	OFF-NONE-ON(MOM)	B	15.85
3422	1TP4-7	ON(MOM)-OFF-ON(MOM)	B	15.85
3423	1TP4-8	ON-NONE-ON(MOM)	B	15.85
3424	1TP4-41	ON-OFF(MOM)-NONE	B	16.30
3425	1TP4-51	ON(MOM)-ON-NONE	B	16.30
3426	1TP4-61	NONE-OFF-ON(MOM)	B	16.30
		2 POLE		
		TRANSLUCENT KEY		
3427	2TP1-1	ON-OFF-ON	C	$15.35
3428	2TP1-2	ON-NONE-OFF	C	15.35
3429	2TP1-3	ON-NONE-ON	C	15.35
3430	2TP1-21	ON-OFF-NONE	C	15.70
3431	2TP1-31	ON-ON-NONE	C	15.70
3432	2TP1-4	ON-NONE-OFF(MOM)	D	15.35
3433	2TP1-5	ON-OFF-ON(MOM)	D	15.35
3434	2TP1-6	OFF-NONE-ON(MOM)	D	15.35
3435	2TP1-7	ON(MOM)-OFF-ON(MOM)	D	15.35
3436	2TP1-8	ON-NONE-ON(MOM)	D	15.35
3437	2TP1-41	ON-OFF(MOM)-NONE	D	15.70
3438	2TP1-51	ON(MOM)-ON-NONE	D	15.90
3439	2TP1-61	NONE-OFF-ON(MOM)	D	15.70
		TRANSPARENT KEY		
3440	2TP4-1	ON-OFF-ON	C	$18.00
3441	2TP4-2	ON-NONE-OFF	C	18.00
3442	2TP4-3	ON-NONE-ON	C	18.00
3443	2TP4-21	ON-OFF-NONE	C	18.35
3444	2TP4-31	ON-ON-NONE	C	18.35
3445	2TP4-4	ON-NONE-OFF(MOM)	D	18.00
3446	2TP4-5	ON-OFF-ON(MOM)	D	18.00
3447	2TP4-6	OFF-NONE-ON(MOM)	D	18.00
3448	2TP4-7	ON(MOM)-OFF-ON(MOM)	D	18.00
3449	2TP4-8	ON-NONE-ON(MOM)	D	18.00
3450	2TP4-41	ON-OFF(MOM)-NONE	D	18.35
3451	2TP4-51	ON(MOM)-ON-NONE	D	18.55
3452	2TP4-61	NONE-OFF-ON(MOM)	D	18.35
		4 POLE		
		TRANSLUCENT KEY		
3453	4TP1-1	ON-OFF-ON	E	$18.90
3454	4TP1-2	ON-NONE-OFF	E	18.90
3455	4TP1-3	ON-NONE-ON	E	18.90
3456	4TP1-21	ON-OFF-NONE	E	19.20
3457	4TP1-31	ON-ON-NONE	E	20.40
3458	4TP1-4	ON-NONE-OFF(MOM)	F	18.90
3459	4TP1-5	ON-OFF-ON(MOM)	F	18.90
3460	4TP1-6	OFF-NONE-ON(MOM)	F	18.90
3461	4TP1-7	ON(MOM)-OFF-ON(MOM)	F	18.90
3462	4TP1-8	ON-NONE-ON(MOM)	F	18.90
3463	4TP1-41	ON-OFF(MOM)-NONE	F	19.20
3464	4TP1-51	ON(MOM)-ON-NONE	F	20.75
3465	4TP1-61	NONE-OFF-ON(MOM)	F	19.20
		TRANSPARENT KEY		
3466	4TP4-1	ON-OFF-ON	E	$21.55
3467	4TP4-2	ON-NONE-OFF	E	21.55
3468	4TP4-3	ON-NONE-ON	E	21.55
3469	4TP4-21	ON-OFF-NONE	E	21.85
3470	4TP4-31	ON-ON-NONE	E	23.05
3471	4TP4-4	ON-NONE-OFF(MOM)	F	21.55
3472	4TP4-5	ON-OFF-ON(MOM)	F	21.55
3473	4TP4-6	OFF-NONE-ON(MOM)	F	21.55
3474	4TP4-7	ON(MOM)-OFF-ON(MOM)	F	21.55
3475	4TP4-8	ON-NONE-ON(MOM)	F	21.55
3476	4TP4-41	ON-OFF(MOM)-NONE	F	21.85
3477	4TP4-51	ON(MOM)-ON-NONE	F	23.45
3478	4TP4-61	NONE-OFF-ON(MOM)	F	21.85





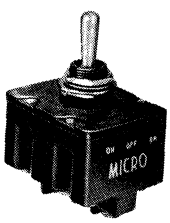
BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of −85°F to +250°F. **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8

HHS	MICRO	"MS" No.	CIRCUIT	Rating	Each
			1 POLE (MS 24523)		
3101	1TL1-1	MS24523-21	ON-OFF-ON	A	$6.40
3102	1TL1-2	MS24523-22	ON-NONE-OFF	A	6.40
3103	1TL1-3	MS24523-23	ON-NONE-ON	A	6.40
3104	1TL1-21	MS24523-24	ON-OFF-NONE	A	6.80
3105	1TL1-31	MS24523-33	ON-ON-NONE	A	6.80
3106	1TL1-4	MS24523-29	ON-NONE-OFF(MOM)	B	6.40
3107	1TL1-5	MS24523-31	ON-OFF-ON(MOM)	B	6.40
3108	1TL1-6	MS24523-30	OFF-NONE-ON(MOM)	B	6.40
3109	1TL1-7	MS24523-27	ON(MOM)-OFF-ON(MOM)	B	6.40
3110	1TL1-8	MS24523-26	ON-NONE-ON(MOM)	B	6.40
3111	1TL1-41	MS24523-25	ON-OFF(MOM)-NONE	B	6.80
3112	1TL1-51	MS24523-32	ON(MOM)-ON-NONE	B	6.80
3113	1TL1-61	MS24523-28	NONE-OFF-ON(MOM)	B	6.80
			2 POLE (MS 24524)		
3114	2TL1-1	MS24524-21	ON-OFF-ON	C	$8.50
3115	2TL1-2	MS24524-22	ON-NONE-OFF	C	8.50
3116	2TL1-3	MS24524-23	ON-NONE-ON	C	8.50
3117	2TL1-21	MS24524-24	ON-OFF-NONE	C	8.85
3118	2TL1-31	MS24524-33	ON-ON-NONE	C	8.85
3119	2TL1-4	MS24524-29	ON-NONE-OFF(MOM)	D	8.50
3120	2TL1-5	MS24524-31	ON-OFF-ON(MOM)	D	8.50
3121	2TL1-6	MS24524-30	OFF-NONE-ON(MOM)	D	8.50
3122	2TL1-7	MS24524-27	ON(MOM)-OFF-ON(MOM)	D	8.50
3123	2TL1-8	MS24524-26	ON-NONE-ON(MOM)	D	8.50
3124	2TL1-41	MS24524-25	ON-OFF(MOM)-NONE	D	8.85
3125	2TL1-51	MS24524-32	ON(MOM)-ON-NONE	D	9.05
3126	2TL1-61	MS24524-28	NONE-OFF-ON(MOM)	D	8.85
			4 POLE (MS 24525)		
3127	4TL1-1	MS24525-21	ON-OFF-ON	C	$11.95
3128	4TL1-2	MS24525-22	ON-NONE-OFF	C	11.95
3129	4TL1-3	MS24525-23	ON-NONE-ON	C	12.05
3130	4TL1-21	MS24525-24	ON-OFF-NONE	C	12.35
3131	4TL1-31	MS24524-33	ON-ON-NONE	C	13.55
3132	4TL1-4	MS24525-29	ON-NONE-OFF(MOM)	D	11.95
3133	4TL1-5	MS24525-31	ON-OFF-ON(MOM)	D	12.05
3134	4TL1-6	MS24525-30	OFF-NONE-ON(MOM)	D	11.95
3135	4TL1-7	MS24525-27	ON(MOM-OFF-ON(MOM)	D	12.05
3136	4TL1-8	MS24525-26	ON-NONE-ON(MOM)	D	12.05
3137	4TL1-41	MS24525-25	ON-OFF(MOM)-NONE	D	12.35
3138	4TL1-51	MS24525-32	ON(MOM-ON-NONE	D	13.95
3139	4TL1-61	MS24525-28	NONE-OFF-ON(MOM)	D	12.35



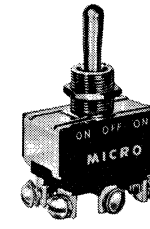
BUSHING-MOUNTED "TS" TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Terminals plated to enable conversion for solder use by removing screws. Sealed toggle lever **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CONTINUOUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

HHS	MICRO	"MS" No.	CIRCUIT	Rating	Each
			1 POLE (MS 35058)		
3141	511TS1-1	MS35058-21	ON-OFF-ON	A	$3.35
3142	511TS1-2	MS35058-22	ON-NONE-OFF	A	2.80
3143	511TS1-3	MS35058-23	ON-NONE-ON	A	3.35
3144	511TS1-21	MS35058-24	ON-OFF-NONE	A	2.80
3145	511TS1-4	MS35058-29	ON-NONE-OFF(MOM)	B	3.10
3146	511TS1-5	MS35058-31	ON-OFF-ON(MOM)	B	3.65
3147	511TS1-6	MS35058-30	OFF-NONE-ON(MOM)	B	3.10
3148	511TS1-7	MS35058-27	ON(MOM)-OFF-ON(MOM)	B	3.65
3149	511TS1-8	MS35058-26	ON-NONE-ON(MOM)	B	3.65
3150	511TS1-61	MS35058-28	NONE-OFF-ON(MOM)	B	3.10
3151	511TS1-41	MS35058-25	ON-OFF(MOM)-NONE	B	3.10
			2 POLE (MS 35059)		
3152	512TS1-1	MS35059-21	ON-OFF-ON	C	$4.50
3153	512TS1-2	MS35059-22	ON-NONE-OFF	C	3.75
3154	512TS1-3	MS35059-23	ON-NONE-ON	C	4.50
3155	512TS1-21	MS35059-24	ON-OFF-NONE	C	3.75
3156	512TS1-4	MS35059-29	ON-NONE-OFF(MOM)	D	4.50
3157	512TS1-5	MS35059-31	ON-OFF-ON(MOM)	D	4.85
3158	512TS1-6	MS35059-30	OFF-NONE-ON(MOM)	D	4.50
3159	512TS1-7	MS35059-27	ON(MOM-OFF-ON(MOM)	D	4.85
3160	512TS1-8	MS35059-26	ON-NONE-ON(MOM)	D	4.85
3161	512TS1-61	MS35059-28	NONE-OFF-ON(MOM)	D	4.50
3162	512TS1-41	MS35059-25	ON-OFF(MOM)-NONE	D	4.50



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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

Height 13/32", Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 5-40 x 1/4 Screws.

To Series Number Add Suffix	600-2 General Purpose Bakelite	600-2 CFG 'C'	600-2 MFE 'M'	600-2 MME 'GMF' MDG 'B'	600-2 MAI-60 'D'	To Series Number Add Suffix	600-¾ST-2 General Purpose Bakelite	600-ST-2 CFG 'C'	600-ST-2 MFE 'M'	600-Y-2 MME 'GMF' MDG 'B'	600-Y-2 MAI-60 'D'	To Series Number Add Suffix	600-XY-2 General Purpose Bakelite	600-XY-2 CFG 'C'	600-XY-2 MFE 'M'	600-Z-2 MME 'GMF' MDG 'B'	600-Z-2 MAI-60 'D'
600-SERIES	600-						600-¾ST-		600-ST-	600-Y-			600-XY-			600-Z-	
- 1	$ .15	$ .16	$ .30	$. 42	$ .50	- 1	$ .19	$ .20	$ .38	$ .45	$ .53	- 1	$ .23	$ .24	$ .46	$ .53	$ .61
- 2	.24	.25	.48	.68	.82	- 2	.32	.33	.64	.76	.89	- 2	.40	.41	.80	.92	1.05
- 3	.33	.36	.66	.91	1.09	- 3	.44	.47	.88	1.00	1.18	- 3	.60	.63	1.20	1.32	1.50
- 4	.42	.46	.84	1.15	1.38	- 4	.57	.61	1.14	1.30	1.53	- 4	.73	.81	1.46	1.62	1.85
- 5	.51	.56	1.02	1.40	1.68	- 5	.69	.74	1.38	1.58	1.86	- 5	.93	.98	1.86	2.06	2.34
- 6	.59	.65	1.18	1.62	1.94	- 6	.83	.89	1.66	1.86	2.18	- 6	1.07	1.17	2.14	2.34	2.66
- 7	.68	.75	1.36	1.89	2.27	- 7	.95	1.02	1.90	2.14	2.51	- 7	1.23	1.34	2.46	2.70	3.07
- 8	.77	.85	1.54	2.11	2.53	- 8	1.08	1.16	2.16	2.42	2.84	- 8	1.40	1.52	2.80	3.16	3.58
- 9	.86	.95	1.72	2.36	2.83	- 9	1.21	1.30	2.42	2.72	3.24	- 9	1.57	1.70	3.14	3.44	3.91
- 10	.95	1.05	1.90	2.61	3.13	- 10	1.33	1.43	2.66	2.99	3.55	- 10	1.73	1.87	3.46	3.76	4.28
- 11	1.03	1.13	2.06	2.83	3.40	- 11	1.45	1.55	2.90	3.25	3.86	- 11	1.89	2.03	3.78	4.13	4.69
- 12	1.12	1.23	2.24	3.08	3.70	- 12	1.58	1.69	3.16	3.54	4.20	- 12	2.06	2.21	4.12	4.50	5.11
- 13	1.21	1.33	2.42	3.32	3.98	- 13	1.71	1.83	3.42	3.82	4.54	- 13	2.23	2.39	4.46	4.86	5.52
- 14	1.31	1.44	2.62	3.60	4.32	- 14	1.84	1.97	3.68	4.13	4.90	- 14	2.40	2.57	4.80	5.05	5.77
- 15	1.40	1.54	2.80	3.85	4.62	- 15	1.96	2.10	3.92	4.41	5.18	- 15	2.56	2.74	5.12	5.61	6.38
- 16	1.49	1.64	2.98	4.10	4.92	- 16	2.09	2.24	4.18	4.70	5.52	- 16	2.73	2.92	5.46	5.88	6.70
- 17	1.57	1.70	3.14	4.31	5.17	- 17	2.21	2.37	4.42	4.96	5.82	- 17	2.89	3.09	5.78	6.32	7.18
- 18	1.66	1.83	3.32	4.56	5.47	- 18	2.34	2.51	4.68	5.25	6.16	- 18	3.06	3.27	6.12	6.69	7.60
- 19	1.75	1.93	3.50	4.81	5.77	- 19	2.46	2.64	4.92	5.52	6.48	- 19	3.22	3.44	6.44	7.04	8.00
- 20	1.84	2.03	3.68	5.06	6.07	- 20	2.60	2.78	5.20	5.82	6.83	- 20	3.40	3.70	6.80	7.42	8.43
- 21	1.93	2.13	3.86	5.30	6.36	- 21	2.72	2.90	5.44	6.10	7.16	- 21	3.56	3.90	7.12	7.78	8.84
- 22	2.02	2.23	4.04	5.55	6.66	- 22	2.86	3.07	6.14	6.40	7.51	- 22	3.74	3.98	7.48	8.04	9.15

Height 13/32"; Width 7/8", Thickness 1/4", Terminals 3/8" Centers, 5/16" Mtg., 6-32 x 1/4 Screws.

600A-SERIES	600A-					Suffix	600A-¾ST-		600A-ST-	600A-Y-		Suffix	600A-XY-			600-A-Z-	
- 1	$ .16	$ .18	$ .32	$ .47	$ .56	- 1	$ .20	$ .22	$ .40	$ .50	$ .59	- 1	$ .24	$ .26	$ .48	$ .54	$ .63
- 2	.25	.28	.50	.70	.91	- 2	.33	.37	.66	.83	.97	- 2	.41	.45	.82	.91	1.05
- 3	.36	.40	.72	1.00	1.20	- 3	.47	.51	.94	1.10	1.30	- 3	.63	.63	1.26	1.39	1.59
- 4	.46	.51	.92	1.26	1.51	- 4	.61	.66	1.22	1.48	1.68	- 4	.81	.82	1.62	1.80	2.05
- 5	.56	.62	1.12	1.54	1.85	- 5	.74	.80	1.48	1.74	2.04	- 5	.98	1.00	1.96	2.16	2.46
- 6	.65	.72	1.30	1.79	2.15	- 6	.89	.96	1.78	2.05	2.40	- 6	1.17	1.20	2.34	2.57	2.92
- 7	.75	.83	1.50	2.06	2.47	- 7	1.02	1.10	2.04	2.36	2.77	- 7	1.34	1.38	2.68	2.94	3.35
- 8	.85	.94	1.70	2.33	2.80	- 8	1.16	1.25	2.32	2.67	3.18	- 8	1.52	1.57	3.04	3.34	3.80
- 9	.95	1.05	1.80	2.60	3.12	- 9	1.30	1.40	2.60	3.00	3.52	- 9	1.70	1.76	3.40	3.67	4.19
- 10	1.05	1.16	2.10	2.88	3.46	- 10	1.43	1.54	2.86	3.30	3.87	- 10	1.87	1.94	3.74	4.11	4.68
- 11	1.13	1.25	2.26	3.12	3.74	- 11	1.55	1.67	3.10	3.58	4.20	- 11	2.03	2.11	4.06	4.46	5.08
- 12	1.23	1.36	2.46	3.38	4.06	- 12	1.69	1.82	3.38	3.90	4.57	- 12	2.21	2.30	4.42	4.86	5.53
- 13	1.33	1.47	2.66	3.65	4.38	- 13	1.83	1.97	3.66	4.21	4.94	- 13	2.39	2.49	4.78	5.25	5.98
- 14	1.44	1.60	2.88	3.96	4.75	- 14	1.97	2.13	3.94	4.54	5.33	- 14	2.57	2.69	5.14	5.65	6.44
- 15	1.54	1.71	3.08	4.23	5.08	- 15	2.10	2.27	4.20	4.85	5.69	- 15	2.74	2.87	5.48	6.02	6.86
- 16	1.64	1.82	3.28	4.51	5.41	- 16	2.24	2.42	4.48	5.17	6.07	- 16	2.92	3.08	5.84	6.42	7.32
- 17	1.73	1.91	3.46	4.74	5.69	- 17	2.37	2.55	4.74	5.46	6.40	- 17	3.09	3.23	6.18	6.79	7.73
- 18	1.83	2.02	3.66	5.02	6.02	- 18	2.51	2.70	5.02	5.78	6.78	- 18	3.27	3.42	6.54	7.15	8.15
- 19	1.93	2.13	3.86	5.29	6.35	- 19	2.64	2.84	5.28	6.18	7.23	- 19	3.44	3.60	6.88	7.56	8.61
- 20	2.03	2.24	4.06	5.57	6.68	- 20	2.78	3.00	5.56	6.40	7.51	- 20	3.62	3.80	7.24	7.96	9.07
- 21	2.13	2.35	4.26	5.83	7.00	- 21	2.90	3.14	5.80	6.71	7.88	- 21	3.78	3.98	7.56	8.31	9.47
- 22	2.23	2.46	4.46	6.10	7.32	- 22	3.07	3.29	6.14	7.24	8.46	- 22	3.99	4.17	7.98	8.77	9.99

Height 1/2", Width 1 1/8", Thickness 5/16", Terminals 7/16" Centers, 27/64" Mtg., 6-32 x 1/4 Screws.

601-SERIES	601-					Suffix	601-¾ST-		601-ST-	601-Y-		Suffix	601-XY-			601-Z-	
- 1	$ .20	$ .22	$ .40	$ .55	$ .66	- 1	$ .24	$ .26	$ .48	$ .59	$ .70	- 1	$ .28	$ .30	$ .56	$ .63	$ .74
- 2	.31	.34	.62	.85	1.02	- 2	.41	.44	.82	.95	1.12	- 2	.49	.52	.98	1.03	1.19
- 3	.42	.46	.84	1.15	1.38	- 3	.57	.61	1.14	1.30	1.53	- 3	.69	.73	1.38	1.51	1.74
- 4	.54	.59	1.08	1.48	1.78	- 4	.74	.79	1.48	1.68	1.97	- 4	.90	.95	1.80	1.98	2.27
- 5	.64	.72	1.28	1.76	2.11	- 5	.90	.98	1.80	2.02	2.37	- 5	1.10	1.18	2.20	2.42	2.77
- 6	.75	.83	1.50	2.06	2.47	- 6	1.07	1.15	2.14	2.38	2.79	- 6	1.31	1.39	2.62	2.84	3.25
- 7	.88	.97	1.76	2.42	2.90	- 7	1.23	1.32	2.46	2.77	3.25	- 7	1.51	1.60	3.02	3.32	3.80
- 8	.99	1.09	1.98	2.72	3.26	- 8	1.40	1.50	2.80	3.13	3.67	- 8	1.72	1.82	3.44	3.74	4.28
- 9	1.10	1.21	2.20	3.02	3.62	- 9	1.56	1.67	3.12	3.48	4.08	- 9	1.92	2.03	3.84	4.22	4.82
- 10	1.22	1.34	2.44	3.35	4.02	- 10	1.73	1.85	3.46	3.86	4.52	- 10	2.13	2.25	4.26	4.66	5.33
- 11	1.33	1.46	2.66	3.65	4.38	- 11	1.89	2.02	3.78	4.21	4.94	- 11	2.33	2.46	4.66	5.06	5.79
- 12	1.44	1.58	2.88	3.96	4.75	- 12	2.06	2.20	4.12	4.58	5.37	- 12	2.54	2.68	5.08	5.50	6.29
- 13	1.56	1.72	3.12	4.29	5.15	- 13	2.22	2.38	4.44	4.95	5.80	- 13	2.74	2.90	5.48	6.00	6.85
- 14	1.67	1.84	3.34	4.59	5.51	- 14	2.39	2.56	4.78	5.31	6.22	- 14	2.95	3.12	5.90	6.40	7.31
- 15	1.78	1.96	3.56	4.90	5.88	- 15	2.55	2.73	5.10	5.72	6.70	- 15	3.15	3.33	6.30	6.70	7.68
- 16	1.90	2.09	3.80	5.22	6.26	- 16	2.72	2.91	5.42	6.09	7.13	- 16	3.36	3.55	6.72	7.39	8.43
- 17	2.01	2.21	4.02	5.52	6.62	- 17	2.88	3.08	5.76	6.45	7.55	- 17	3.56	3.76	7.12	7.84	8.94
- 18	2.12	2.33	4.24	5.83	7.00	- 18	3.05	3.26	6.10	6.80	7.96	- 18	3.77	3.98	7.54	8.25	9.41
- 19	2.24	2.46	4.48	6.16	7.39	- 19	3.21	3.43	6.42	7.19	8.41	- 19	3.97	4.19	7.94	8.73	9.99
- 20	2.35	2.59	4.70	6.46	7.75	- 20	3.38	3.62	6.76	7.54	8.82	- 20	4.18	4.42	8.36	9.19	10.48
- 21	2.47	2.72	4.94	6.79	8.15	- 21	3.55	3.80	7.10	7.92	9.28	- 21	4.38	4.64	8.76	9.63	10.98
- 22	2.59	2.85	5.18	7.12	8.54	- 22	3.72	3.98	7.44	8.30	9.72	- 22	4.58	4.86	9.16	10.07	11.49
- 23	2.71	2.98	5.42	7.45	8.94	- 23	3.89	4.16	7.78	8.68	10.17	- 23	4.78	5.08	9.56	10.51	12.00

Height 5/8", Width 1 5/16", Thickness 3/8", Terminals 9/16" Centers, 1/2" Mtg., 8-32 x 5/16 Screws.

602-SERIES	602-					Suffix	602-¾ST-		602-ST-	602-Y-		Suffix	602-XY-			602-Z-	
- 1	$ .23	$ .25	$ .46	$ .63	$ .76	- 1	$ .30	$ .32	$ .60	$ .70	$ .82	-1	$ .34	$ .36	$ .60	$ .74	$ .86
- 2	.36	.40	.72	.99	1.19	- 2	.50	.54	1.00	1.13	1.33	-2	.58	.62	1.00	1.21	1.39
- 3	.51	.56	1.02	1.40	1.68	- 3	.70	.75	1.40	1.59	1.87	-3	.82	.87	1.40	1.71	1.99
- 4	.65	.72	1.30	1.78	2.14	- 4	.90	.97	1.80	2.09	2.38	-4	1.06	1.13	1.80	2.19	2.54
- 5	.78	.86	1.56	2.15	2.58	- 5	1.11	1.19	2.22	2.48	2.91	-5	1.31	1.39	2.22	2.68	3.11
- 6	.92	1.01	1.84	2.53	3.04	- 6	1.31	1.40	2.62	2.92	3.42	-6	1.55	1.64	2.62	3.14	3.64
- 7	1.07	1.18	2.14	2.94	3.53	- 7	1.52	1.63	3.14	3.39	3.97	-7	1.80	1.91	3.14	3.67	4.25
- 8	1.20	1.32	2.40	3.30	3.96	- 8	1.72	1.84	3.44	3.82	4.48	-8	2.04	2.16	3.44	4.14	4.80
- 9	1.34	1.47	2.68	3.68	4.42	- 9	1.93	2.06	3.86	4.27	5.00	-9	2.29	2.42	3.86	4.63	5.36
- 10	1.49	1.64	2.98	4.10	4.92	- 10	2.12	2.27	4.24	4.63	5.45	-10	2.52	2.67	4.24	5.03	5.85
- 11	1.62	1.78	3.24	4.45	5.34	- 11	2.33	2.49	4.66	5.16	6.05	-11	2.77	2.93	4.66	5.60	6.49
- 12	1.76	1.94	3.52	4.84	5.81	- 12	2.53	2.71	5.06	5.61	6.57	-12	3.01	3.19	5.06	6.09	7.05
- 13	1.90	2.09	3.80	5.22	6.26	- 13	2.74	2.93	5.48	6.06	7.10	-13	3.26	3.45	5.48	6.52	7.56
- 14	2.04	2.24	4.08	5.61	6.73	- 14	2.94	3.14	5.88	6.31	7.43	-14	3.50	3.70	5.88	6.87	7.99
- 15	2.18	2.40	4.36	6.00	7.20	- 15	3.15	3.47	6.30	6.97	8.17	-15	3.75	4.07	6.30	7.57	8.77
- 16	2.32	2.55	4.64	6.38	7.66	- 16	3.34	3.67	6.68	7.40	8.67	-16	3.98	4.31	6.68	8.04	9.31
- 17	2.45	2.70	4.90	6.73	8.08	- 17	3.54	3.79	7.08	7.82	9.16	-17	4.32	4.47	7.08	8.50	9.84
- 18	2.58	2.85	5.16	7.10	8.52	- 18	3.74	4.01	7.48	8.26	9.68	-18	4.46	4.73	7.48	8.98	10.40
- 19	2.76	3.00	5.52	7.59	9.11	- 19	3.99	4.23	7.98	8.82	10.33	-19	4.75	4.99	7.98	9.58	11.09
- 20	2.90	3.15	5.80	7.97	9.56	- 20	4.20	4.45	8.40	9.27	10.86	-20	5.00	5.25	8.40	10.07	11.66
- 21	3.04	3.30	6.08	8.36	10.03	- 21	4.41	4.67	8.82	9.73	11.40	-21	5.25	5.51	8.82	10.57	12.24
- 22	3.19	3.45	6.38	8.77	10.52	- 22	4.62	4.88	9.24	10.20	11.95	-22	5.50	5.76	9.24	11.08	12.83
- 23	3.33	3.60	6.66	9.15	10.98	- 23	4.83	5.10	9.66	10.65	12.48	-23	5.75	6.02	9.86	11.57	13.39
- 24	3.48	3.75	6.96	9.57	11.48	- 24	5.04	5.31	10.08	11.13	13.04	-24	6.00	6.27	10.08	12.09	14.00
- 25	3.62	3.90	7.24	9.95	11.94	- 25	5.25	5.53	10.50	11.58	13.57	-25	6.25	6.54	10.50	12.60	14.59
- 26	3.76	4.05	7.52	10.34	12.41	- 26	5.46	5.75	10.92	12.04	14.10	-26	6.50	6.77	10.92	13.10	15.16

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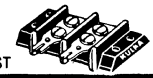


To Series Number Add Suffix

Height ¾", Width 1 13/16", Thickness 7/16", Terminals 1 1/16" Centers, 5/8" Mtg., 10-32 x 3/8" Screws.

603- SERIES	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'
			603-			603-¾ST-			603-ST-	
- 1	$ .55	$ .61	$1.10	$1.51	$1.81	$ .66	$ .72	$1.32	$1.62	$1.92
- 2	.94	1.03	1.88	2.58	3.10	1.13	1.22	2.26	2.77	3.28
- 3	1.32	1.45	2.64	3.63	4.36	1.60	1.73	3.20	3.91	4.63
- 4	1.71	1.88	3.42	4.70	5.64	2.07	2.24	4.14	5.06	6.00
- 5	2.09	2.30	4.18	5.75	6.90	2.53	2.73	5.06	6.18	7.23
- 6	2.48	2.73	4.96	6.82	8.18	3.00	3.25	6.00	7.34	8.70
- 7	2.86	3.15	5.72	7.86	9.43	3.46	3.75	6.92	8.46	10.02
- 8	3.25	3.58	6.50	8.93	10.72	3.92	4.25	7.48	9.60	11.38
- 9	3.63	3.99	7.26	9.99	11.99	4.40	4.77	8.80	10.75	12.74
- 10	4.02	4.45	8.04	11.05	13.26	4.80	5.23	9.60	11.83	14.03

Height 1 5/16", Width 2", Thickness ½", Terminals 7/8" Centers, ¾" Mtg., 12-32 x 3/8" Screws.

604- SERIES										
			604-			604-¾-ST-			604-ST-	
- 1	$ .90	$ .99	$1.80	$2.47	$2.96	$1.10	$1.19	$2.20	$2.67	$3.15
- 2	1.65	1.82	3.30	4.53	5.44	2.00	2.17	4.00	4.92	5.82
- 3	2.40	2.64	4.80	6.60	7.92	2.90	3.14	5.80	7.10	8.42
- 4	3.15	3.46	6.30	8.66	10.39	3.80	4.11	7.60	9.31	11.03
- 5	3.90	4.29	7.80	10.72	12.86	4.70	5.09	9.40	11.52	13.66
- 6	4.65	5.11	9.30	12.78	15.34	5.60	6.06	11.20	13.73	16.27
- 7	5.40	5.94	10.80	14.85	17.82	6.50	7.04	13.00	15.95	18.91
- 8	6.15	6.76	12.30	16.91	20.29	7.40	8.01	14.80	18.16	21.54

Height 1 1/8", Width 2 1/2", Thickness 5/8", Terminals 1 1/8" Centers, 7/8" Mtg. 1/4-28 x 1/2" Screws

605- SERIES										
			605-			605-¾-ST-			605-ST-	
- 1	$1.25	$1.38	$2.50	$3.43	$4.12	$1.45	$1.58	$2.90	$3.63	$4.31
- 2	2.40	2.64	4.80	6.60	7.92	2.80	3.04	5.60	7.00	8.32
- 3	3.50	3.85	7.00	9.62	11.54	4.20	4.55	8.40	10.32	12.24
- 4	4.70	5.17	9.40	12.92	15.50	5.60	6.07	11.20	13.82	16.40
- 5	5.80	6.38	11.60	15.95	19.14	7.00	7.50	14.00	17.15	20.33
- 6	7.00	7.70	14.00	19.25	23.10	8.30	9.00	16.60	20.55	24.39

599 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height 13/32", Width 9/16", Thickness ¼", Terminals 3/8" Centers, .156 dia mtg. holes: 5-40 x ¼" brass nickel plated screws.

To Series Number Add Suffix

599-	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'
						599-¾-ST-Z				
- 1	$ .15	$ .16	$ .30	$ .42	$ .50	$ .19	$ .20	$ .38	$ .45	$ .53
- 2	.24	.25	.50	.69	.82	.32	.33	.64	.76	.89
- 3	.33	.36	.66	.91	1.09	.44	.47	.88	1.00	1.18
- 4	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.53
- 5	.51	.56	1.02	1.40	1.68	.69	.74	1.38	1.58	1.85
- 6	.59	.65	1.18	1.62	1.94	.83	.89	1.66	1.86	2.18
- 7	.68	.75	1.36	1.89	2.27	.95	1.02	1.90	2.14	2.51
- 8	.77	.85	1.54	2.11	2.53	1.08	1.16	2.16	2.42	2.84
- 9	.86	.95	1.72	2.36	2.83	1.21	1.30	2.42	2.72	3.19
- 10	.95	1.05	1.90	2.61	3.13	1.33	1.43	2.66	2.99	3.51
- 11	1.03	1.13	2.06	2.83	3.40	1.45	1.55	2.90	3.25	3.81
- 12	1.12	1.23	2.24	3.08	3.70	1.58	1.69	3.16	3.54	4.15
- 13	1.21	1.33	2.42	3.32	3.98	1.71	1.83	3.42	3.82	4.48
- 14	1.31	1.44	2.62	3.60	4.32	1.84	1.97	3.68	4.13	4.85
- 15	1.40	1.54	2.80	3.85	4.62	1.96	2.10	3.92	4.41	5.18
- 16	1.49	1.64	2.98	4.10	4.92	2.09	2.24	4.18	4.70	5.52
- 17	1.57	1.73	3.14	4.31	5.17	2.21	2.37	4.42	4.96	5.82
- 18	1.66	1.83	3.32	4.56	5.47	2.34	2.51	4.68	5.25	6.16
- 19	1.75	1.93	3.50	4.81	5.77	2.46	2.64	4.92	5.52	6.48
- 20	1.84	2.03	3.68	5.06	6.07	2.60	2.78	5.20	5.82	6.83
- 21	1.93	2.13	3.86	5.30	6.36	2.72	2.90	5.44	6.10	7.16
- 22	2.02	2.23	4.04	5.55	6.66	2.86	3.07	6.14	6.40	7.51

699 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height ½", Width 5/8", Thickness 5/16", Terminals 7/16" Centers. .175 Dia. Mtg. Holes 6-32 x ¼" Brass Nickel Plated Screws.

To Series Number Add Suffix

699-	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'	General Purpose Bakelite 'C'	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 'D'
						699-¾-ST-Z				
- 1	$ .20	$ .22	$ .40	$ .55	$ .66	$ .24	$ .26	$ .48	$ .59	$ .69
- 2	.31	.34	.62	.85	1.02	.41	.44	.82	.95	1.11
- 3	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.52
- 4	.54	.59	1.08	1.48	1.78	.74	.79	1.48	1.68	1.96
- 5	.64	.72	1.28	1.76	2.11	.90	.98	1.80	2.02	2.36
- 6	.75	.83	1.50	2.06	2.47	1.07	1.15	2.14	2.38	2.78
- 7	.88	.97	1.76	2.42	2.90	1.23	1.32	2.46	2.77	3.25
- 8	.99	1.09	1.98	2.72	3.26	1.40	1.50	2.80	3.13	3.67
- 9	1.10	1.21	2.20	3.02	3.62	1.56	1.67	3.12	3.48	4.08
- 10	1.22	1.34	2.44	3.35	4.02	1.73	1.85	3.46	3.86	4.53
- 11	1.33	1.46	2.66	3.65	4.38	1.89	2.02	3.78	4.21	4.93
- 12	1.44	1.58	2.88	3.96	4.75	2.06	2.20	4.12	4.58	5.36
- 13	1.56	1.72	3.12	4.29	5.15	2.22	2.38	4.44	4.95	5.79
- 14	1.67	1.84	3.34	4.59	5.51	2.39	2.56	4.78	5.31	6.22
- 15	1.78	1.96	3.56	4.90	5.88	2.55	2.73	5.10	5.72	6.70
- 16	1.90	2.09	3.80	5.22	6.26	2.72	2.91	5.42	6.09	7.13
- 17	2.01	2.21	4.02	5.52	6.62	2.88	3.08	5.76	6.45	7.55
- 18	2.12	2.33	4.24	5.83	7.00	3.05	3.26	6.10	6.80	7.96
- 19	2.24	2.46	4.48	6.16	7.39	3.21	3.43	6.42	7.19	8.41
- 20	2.35	2.59	4.70	6.46	7.75	3.38	3.62	6.76	7.54	8.82
- 21	2.47	2.72	4.94	6.79	8.15	3.55	3.80	7.10	7.92	9.27
- 22	2.59	2.85	5.18	7.12	8.54	3.72	3.98	7.44	8.30	9.72
- 23	2.71	2.98	5.42	7.45	8.94	3.89	4.16	7.78	8.68	10.16

411 SERIES MINIATURE TERMINAL BLOCK

Single Screw Terminal. Height 5/16" Width 13/32", Thickness 7/32", Terminals .250 Centers, .125 mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.

Cat. No.	Gen. Pur. Bake. CFG 'C'	MFE 'M' MME GMF MDG 'B'
411-1	.23	.46
411-2	.32	.69
411-3	.41	.93
411-4	.50	1.17
411-5	.59	1.31
411-6	.68	1.65
411-7	.77	1.85
411-8	.87	2.10
411-9	.97	2.25
411-10	1.07	2.40
411-11	1.17	2.55
411-12	1.27	2.60
411-13	1.37	2.75
411-14	1.47	2.90
411-15	1.57	3.05
411-16	1.67	3.20
411-17	1.77	3.35
411-18	1.87	3.50
411-19	1.97	3.65
411-20	2.07	3.80
411-21	2.17	3.95
411-22	2.27	4.10

609 SERIES NARROW WIDTH TERMINAL BLOCK

Single Screw Terminal. Height ½", Width 3/8", Thickness 9/32", Terminals 3/8" Centers, .156 dia. mtg. holes; 4-40 x 5/16" Pan-head, phillips type sems brass nickel plated screws.

Cat. No.	Gen. Pur. Bake. CFG 'C'	MFE 'M' MME GMF MDG 'B'
609-1	.20	.50
609-2	.30	.75
609-3	.42	1.02
609-4	.54	1.29
609-5	.66	1.56
609-6	.78	1.83
609-7	.90	2.00
609-8	1.02	2.30
609-9	1.14	2.60
609-10	1.26	2.90
609-11	1.38	3.20
609-12	1.50	3.50
609-13	1.62	3.80

409 SERIES SUBMINIATURE TERMINAL BLOCK

Single Screw Terminal. Height .260, Width .312, Thickness 7/16" Terminals .187 Centers, .093 dia. mtg. holes; 0.80 x 1/8" brass silver plated or gold flash screws.

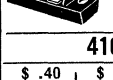
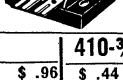
¾ST — ST

To Series Number Add Suffix

409-	General Purpose Bakelite 'C'	MME 'M' MFE 'GMF' MDG 'B'	MAI-60	General Purpose Bakelite 'C'	MFE 'M' MME 'GMF' MDG 'B'	MAI-60 'D'
		409-		409-¾ST-	409-ST-	
- 1	$ .40	$ .80	$ .90	$ .47	$ .87	$ .97
- 2	.60	1.10	1.20	.74	1.24	1.34
- 3	.80	1.40	1.50	.99	1.59	1.69
- 4	1.00	1.70	1.80	1.25	1.95	2.05
- 5	1.20	2.00	2.10	1.53	2.33	2.43
- 6	1.40	2.30	2.40	1.79	2.69	2.79
- 7	1.60	2.60	2.70	2.05	3.05	3.15
- 8	1.80	2.90	3.00	2.32	3.42	3.52
- 9	2.00	3.20	3.30	2.59	3.79	3.89
- 10	2.20	3.50	3.70	2.83	4.13	4.33
- 11	2.40	3.80	4.00	3.11	4.51	4.71
- 12	2.60	4.10	4.30	3.33	4.88	5.08
- 13	2.80	4.40	4.60	3.64	5.24	5.44
- 14	3.00	4.70	4.90	3.90	5.60	5.80
- 15	3.20	5.00	5.20	4.17	5.97	6.17
- 16	3.40	5.30	5.50	4.42	6.32	6.52
- 17	3.60	5.60	5.80	4.69	6.69	6.89
- 18	3.80	5.90	6.10	4.96	7.06	7.26
- 19	4.00	6.20	6.40	5.23	7.53	7.73
- 20	4.20	6.50	6.70	6.50	7.80	8.00
- 21	4.40	6.80	7.00	5.77	8.17	8.37

410 SERIES MINIATURE TERMINAL BLOCK

Double Screw Terminals. Height 5/16", Width 5/8", Thickness 7/32", Terminals ¼" Centers, .125 dia. mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.

To Series Number Add Suffix

410-	General Purpose Bakelite 'C'	MME 'M' MFE 'GMF' MDG 'B'	MAI-60	General Purpose Bakelite 'C'	MFE 'M' MME 'GMF' MDG 'B'	MAI-60 'D'
		410-		410-¾ST	410-ST-Y	
- 1	$ .40	$ .80	$ .96	$ .44	$ .84	$1.00
- 2	.56	1.08	1.30	.63	1.15	1.37
- 3	.72	1.34	1.61	.83	1.45	1.72
- 4	.88	1.60	1.92	1.03	1.75	2.07
- 5	1.04	1.86	2.23	1.22	2.04	2.41
- 6	1.20	2.12	2.54	1.44	2.36	2.78
- 7	1.36	2.38	2.86	1.63	2.65	3.43
- 8	1.52	2.64	3.17	1.83	2.95	3.48
- 9	1.68	2.90	3.48	2.03	3.25	3.83
- 10	1.84	3.16	3.79	2.22	3.54	4.17
- 11	2.00	3.42	4.10	2.42	3.84	4.52
- 12	2.16	3.68	4.42	2.62	4.14	4.88
- 13	2.32	3.94	4.73	2.82	4.44	5.23
- 14	2.48	4.20	5.04	3.01	4.73	5.57
- 15	2.64	4.46	5.35	3.20	5.02	5.91
- 16	2.80	4.72	5.66	3.40	5.32	6.26
- 17	2.96	4.98	5.98	3.60	5.62	6.62
- 18	3.12	5.24	6.29	3.80	5.92	6.97
- 19	3.28	5.50	6.60	4.00	6.22	7.32
- 20	3.44	5.76	6.91	4.20	6.52	7.67
- 21	3.60	6.02	7.22	4.40	6.82	8.02
- 22	3.76	6.28	7.54	4.60	7.12	8.38

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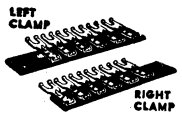
HERMAN H. SMITH, INC.

Exclusive Distributors of **KULKA BARRIER TERMINAL BLOCKS** To Radio Parts Jobbers Only

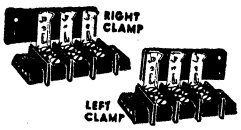
FLAT STYLE



For faster, better wiring of multiple connections to terminal blocks. Lugs are double eyeletted to prevent shift. Upturned ends of lugs acts as extra lock. Made of laminated black XP Phenolic (also supplied in XXXP natural Phenolic and GMG Glass Cloth Melamine resin per MIL-P-15037B).

Supplied in two styles, flat or angle—each style either right hand or left hand mounting.

ANGLE STYLE



650 SERIES

Connecting strip for 600 series terminal block. Strips are 3/32" thick, ½" wide, ⅜" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
650-L-2	650-R-2	2	$.13
650-L-3	650-R-3	3	.20
650-L-4	650-R-4	4	.25
650-L-5	650-R-5	5	.32
650-L-6	650-R-6	6	.39
650-L-7	650-R-7	7	.45
650-L-8	650-R-8	8	.51
650-L-9	650-R-9	9	.57
650-L-10	650-R-10	10	.64
650-L-11	650-R-11	11	.70
650-L-12	650-R-12	12	.76
650-L-13	650-R-13	13	.83
650-L-14	650-R-14	14	.89
650-L-15	650-R-15	15	.96
650-L-16	650-R-16	16	1.01
650-L-17	650-R-17	17	1.08
650-L-18	650-R-18	18	1.16
650-L-19	650-R-19	19	1.21
650-L-20	650-R-20	20	1.28
650-L-21	650-R-21	21	1.33
650-L-22	650-R-22	22	1.38
650-AL-2	650-AR-2	2	.19
650-AL-3	650-AR-3	3	.29
650-AL-4	650-AR-4	4	.37
650-AL-5	650-AR-5	5	.47
650-AL-6	650-AR-6	6	.57
650-AL-7	650-AR-7	7	.66
650-AL-8	650-AR-8	8	.75
650-AL-9	650-AR-9	9	.84
650-AL-10	650-AR-10	10	.94
650-AL-11	650-AR-11	11	1.03
650-AL-12	650-AR-12	12	1.12
650-AL-13	650-AR-13	13	1.22
650-AL-14	650-AR-14	14	1.31
650-AL-15	650-AR-15	15	1.41
650-AL-16	650-AR-16	16	1.49
650-AL-17	650-AR-17	17	1.59
650-AL-18	650-AR-18	18	1.70
650-AL-19	650-AR-19	19	1.78
650-AL-20	650-AR-20	22	1.88
650-AL-21	650-AR-21	21	1.96
650-AL-22	650-AR-22	22	2.08

651 SERIES

Connecting strip for 601 series terminal block. Strips are 3/32" thick, ⅝" wide, 7/16" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
651-L-2	651-R-2	2	$.14
651-L-3	651-R-3	3	.21
651-L-4	651-R-4	4	.26
651-L-5	651-R-5	5	.33
651-L-6	651-R-6	6	.40
651-L-7	651-R-7	7	.46
651-L-8	651-R-8	8	.52
651-L-9	651-R-9	9	.58
651-L-10	651-R-10	10	.65
651-L-11	651-R-11	11	.72
651-L-12	651-R-12	12	.77
651-L-13	651-R-13	13	.84
651-L-14	651-R-14	14	.91
651-L-15	651-R-15	15	.97
651-L-16	651-R-16	16	1.03
651-L-17	651-R-17	17	1.09
651-L-18	651-R-18	18	1.17
651-L-19	651-R-19	19	1.22
651-L-20	651-R-20	20	1.29
651-L-21	651-R-21	21	1.36
651-L-22	651-R-22	22	1.43
651-L-23	651-R-23	23	1.50
651-AL-2	651-AR-2	2	.20
651-AL-3	651-AR-3	3	.30
651-AL-4	651-AR-4	4	.38
651-AL-5	651-AR-5	5	.48
651-AL-6	651-AR-6	6	.58
651-AL-7	651-AR-7	7	.67
651-AL-8	651-AR-8	8	.76
651-AL-9	651-AR-9	9	.85
651-AL-10	651-AR-10	10	.95
651-AL-11	651-AR-11	11	1.05
651-AL-12	651-AR-12	12	1.13
651-AL-13	651-AR-13	13	1.23
651-AL-14	651-AR-14	14	1.33
651-AL-15	651-AR-15	15	1.42
651-AL-16	651-AR-16	16	1.51
651-AL-17	651-AR-17	17	1.60
651-AL-18	651-AR-18	18	1.71
651-AL-19	651-AR-19	19	1.79
651-AL-20	651-AR-20	20	1.89
651-AL-21	651-AR-21	21	1.99
651-AL-22	651-AR-22	22	2.09
651-AL-23	651-AR-23	23	2.19

652 SERIES

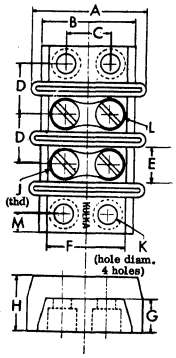
Connecting strip for 602 series terminal block. Strips are 3/32" thick, ⅝" wide, 9/16" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
652-L-2	652-R-2	2	$.17
652-L-3	652-R-3	3	.23
652-L-4	652-R-4	4	.29
652-L-5	652-R-5	5	.35
652-L-6	652-R-6	6	.43
652-L-7	652-R-7	7	.48
652-L-8	652-R-8	8	.55
652-L-9	652-R-9	9	.61
652-L-10	652-R-10	10	.68
652-L-11	652-R-11	11	.74
652-L-12	652-R-12	12	.80
652-L-13	652-R-13	13	.86
652-L-14	652-R-14	14	.94
652-L-15	652-R-15	15	.99
652-L-16	652-R-16	16	1.06
652-L-17	652-R-17	17	1.11
652-L-18	652-R-18	18	1.16
652-L-19	652-R-19	19	1.21
652-L-20	652-R-20	20	1.26
652-L-21	652-R-21	21	1.31
652-L-22	652-R-22	22	1.36
652-L-23	652-R-23	23	1.41
652-L-24	652-R-24	24	1.46
652-L-25	652-R-25	25	1.51
652-L-26	652-R-26	26	1.56
652-AL-2	652-AR-2	2	.23
652-AL-3	652-AR-3	3	.32
652-AL-4	652-AR-4	4	.41
652-AL-5	652-AR-5	5	.50
652-AL-6	652-AR-6	6	.61
652-AL-7	652-AR-7	7	.69
652-AL-8	652-AR-8	8	.79
652-AL-9	652-AR-9	9	.89
652-AL-10	652-AR-10	10	.98
652-AL-11	652-AR-11	11	1.07
652-AL-12	652-AR-12	12	1.16
652-AL-13	652-AR-13	13	1.25
652-AL-14	652-AR-14	14	1.36
652-AL-15	652-AR-15	15	1.44
652-AL-16	652-AR-16	16	1.54
652-AL-17	652-AR-17	17	1.62
652-AL-18	652-AR-18	18	1.72
652-AL-19	652-AR-19	19	1.82
652-AL-20	652-AR-20	20	1.92
652-AL-21	652-AR-21	21	2.02
652-AL-22	652-AR-22	22	2.12
652-AL-23	652-AR-23	23	2.22
652-AL-24	652-AR-24	24	2.32
652-AL-25	652-AR-25	25	2.42
652-AL-26	652-AR-26	26	2.52

ELECTRICAL RATING CHART

Rated Voltage Taken at 1/3 Voltage Breakdown

Type Number	Rated Voltage Without Marker Strip	Rated Voltage With Marker Strip	Current Rating	Maximum Wire Sizes With Solder or Solderless Lugs
409	750V. RMS	1500V. RMS	2 Amp.	Lug for #26 to 22 Ga.
410	1000V. RMS	2000V. RMS	5 Amp.	Lug for #20 to 18 Ga.
411	1000V. RMS	2000V. RMS	5 Amp.	Lug for #20 to 18 Ga.
599	1100V. RMS	2500V. RMS	15 Amp.	Lug for #22 to 16 Ga.
600	1100V. RMS	2500V. RMS	15 Amp.	Lug for #22 to 16 Ga.
601	1100V. RMS	3000V. RMS	20 Amp.	Lug for #16 to 14 Ga.
602	1600V. RMS	3300V. RMS	30 Amp.	Lug for #14 to 12 Ga.
603	1700V. RMS	3000V. RMS	50 Amp.	Lug for #6 Ga.
604	1800V. RMS	3400V. RMS	70 Amp.	Lug for #4 Ga.
605	2100V. RMS	3800V. RMS	90 Amp.	Lug for #2 Ga.
609	1000V. RMS	2000V. RMS	10 Amp.	Lug for #20 to 18 Ga.
699	1100V. RMS	3000V. RMS	20 Amp.	Lug for #16 to 14 Ga.



DIMENSIONAL DRAWING OF TERMINAL BLOCKS

Series No.	A	B	C	D	E	F	G	H	J	K	L	M	Max. Tms.
409	5/16	1/4	—	3/16	9/64	3/16	5/32	17/64	0-80	.093	1/8	1/4	21
410	5/8	5/8	1/4	1/4	3/16	5/8	7/32	5/16	2-56	.125	3/16	1/8	22
411	13/32	13/32	—	1/4	3/16	13/32	7/32	5/16	2-56	.125	3/16	1/8	22
599	9/16	3/8	—	3/8	13/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22
600	7/8	11/16	5/16	3/8	13/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22
601	1 1/8	7/8	27/64	7/16	21/64	3/4	5/16	1/2	6-32	.175	1/4	5/32	23
602	1 5/16	1 1/16	1/2	5/16	27/64	7/8	3/8	5/8	8-32	.209	5/16	13/64	26
603	1 13/16	1 5/16	5/8	11/16	15/32	1 1/16	7/16	3/4	10-32	.165	3/8	7/32	10
604	2	1 1/2	3/4	7/8	9/16	1 1/4	1/2	15/16	12-32	.195	3/8	17/64	8
609	3/8	3/8	—	1 1/8	21/32	1 1/2	5/8	1 1/8	1/4-29	.209	1/2	5/16	6
605	2 1/2	1 13/16	7/8	3/8	1/4	3/8	9/32	1/2	4-40	.156	5/16	11/64	13
699	1 1/16	1/2	—	7/16	21/64	13/32	5/16	1/2	6-32	.156	1/4	5/32	23

NAVY TERMINAL BOARDS

Made According to BUREAU of SHIPS Drawings No. 9000 —S6505F-73214 Rev. 5 and Spec. MIL-T-16784 (Ships).

Cat. No.	Piece No.	Material	Studs	Ea.
3TB10	5	MAI-60	10	$10.00
4TB8	28	MAI-60	16	4.10
4TB20	26	MAI-60	20	7.50
5TB8	35	MAI-60	8	7.50
5TB10	1	MAI-60	10	8.50
5TB12	37	MAI-60	24	9.00
6TB6	24	MAI-60	6	3.40
6TB10	22	MAI-60	10	3.75
6TB24	18	MAI-60	24	7.05
7TB8	30	MAI-60	8	5.00
7TB12	33	MAI-60	12	6.25
8TB2	68	MAI-60	4	1.20
8TB2C	68	CFI-5	4	.80
8TB2M	68	MFG	4	1.00
8TB6	16	MAI-60	12	2.30
8TB6C	16	CFI-5	12	1.80
8TB6M	16	MFG	12	2.00
8TB8	14	MAI-60	16	2.86
8TB8C	14	CFI-5	16	2.30
8TB8M	14	MFG	16	2.60
8TB10	9	MAI-60	20	3.50
8TB10C	9	CFI-5	20	2.80
8TB10M	9	MFG	20	3.20
9TB2	73	MAI-60	2	2.00
9TB4	75	MAI-60	4	2.25
10TB8	51	MAI-60	8	4.25
10TB12	52	MAI-60	12	4.75
10TB18	53	MAI-60	18	5.25
10TB28	54	MAI-60	28	6.66
11TB4	55	MAI-60	4	3.86
11TB6	56	MAI-60	6	4.20
11TB9	57	MAI-60	9	5.20
11TB14	58	MAI-60	14	6.60
15TB10	79	MAI-60	10	4.00
15TB24	80	MAI-60	24	6.50
16TB4	83	MAI-60	8	3.60
16TB10	85	MAI-60	20	6.50
17TB4	87	MAI-60	8	5.00
17TB10	86	MAI-60	20	9.00

Stud Connector $40.00 M List

TERMINAL LUGS Std. Pkg. 100

Series	One-Sided -¾STL	Two-Sided -STL	Bent -YL	Flag -SLF	Spade -SLS	Hole -SLH	Outside Bent -ZL	Comb. YL-¾STL -XYL	Long Bent -YSYL	Jumper -J	Straddle Plate -SP
409	—	44.00 M	—	—	—	—	—	—	—	—	—
410	44.00 M	44.00 M	—	30.00 M	30.00 M	30.00 M	—	—	—	35.00 M	35.00 M
599	44.00 M	—	—	30.00 M	30.00 M	30.00 M	44.00 M	—	—	35.00 M	—
600	44.00 M	44.00 M	44.00 M	30.00 M	30.00 M	30.00 M	44.00 M	44.00 M	44.00 M	35.00 M	35.00 M
601	59.00 M	59.00 M	59.00 M	35.00 M	35.00 M	35.00 M	60.00 M	—	60.00 M	40.00 M	40.00 M
602	72.00 M	72.00 M	72.00 M	40.00 M	40.00 M	40.00 M	72.00 M	72.00 M	72.00 M	45.00 M	45.00 M
603	100.00 M	100.00 M	—	50.00 M	50.00 M	50.00 M	—	—	—	55.00 M	75.00 M
604	180.00 M	180.00 M	—	—	—	—	—	—	—	75.00 M	150.00 M
605	260.00 M	260.00 M	—	—	—	—	—	—	—	100.00 M	200.00 M
699	59.00 M	—	—	35.00 M	35.00 M	35.00 M	—	—	—	—	—

CABLE CLAMPS For Terminal Connecting Strips

Made of nickel plated brass with 6-32 plated brass screws.

No.	Size	Per C
1435	3/16"	$14.00
1436	1/4"	14.00
1437	5/16"	14.00
1438	3/8"	14.00
1439	7/16"	14.00

All Prices Subject To Trade Discount

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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

FIBRE AND XP BAKELITE MARKER STRIPS

Marker strips are supplied to fit each size terminal block — either plain or imprinted — in vulcanized fibre or Bakelite (1/32" thick).

410—410-¾ST—410ST
411—599—599-¾ST
600—600-¾ST—600ST
600A—600A-¾ST—600ST

Cat. No.	Fibre Per C	Imp. Fibre Per C	Bake. Per C	Imp. Bake. Per C
MS600-1	$ 2.90	$ 7.90	$ 3.40	$ 8.40
MS600-2	3.80	8.80	4.60	9.60
MS600-3	4.70	9.70	5.70	10.70
MS600-4	5.70	10.70	6.80	11.80
MS600-5	6.60	11.60	8.00	13.00
MS600-6	7.60	12.60	9.10	14.10
MS600-7	8.50	13.50	10.20	15.20
MS600-8	9.50	14.50	11.40	16.40
MS600-9	10.40	15.40	12.50	17.50
MS600-10	11.40	21.40	13.70	23.70
MS600-11	12.30	22.30	14.80	24.80
MS600-12	13.30	23.30	15.90	25.90
MS600-13	14.20	24.20	17.10	27.10
MS600-14	15.20	25.20	18.20	28.20
MS600-15	16.10	31.10	19.40	34.40
MS600-16	17.10	32.10	20.50	35.50
MS600-17	18.00	33.00	21.60	36.60
MS600-18	19.00	34.00	22.80	37.80
MS600-19	19.90	34.90	23.90	38.90
MS600-20	20.90	40.90	25.00	45.00
MS600-21	21.80	41.80	26.20	46.20
MS600-22	22.70	42.70	27.40	47.40

600-Y—600-XY — 600A-Y—600A-XY

MS600-Y-1	$ 6.60	$11.60	$ 7.20	$12.20
MS600-Y-2	7.60	12.60	8.30	13.30
MS600-Y-3	8.50	13.50	9.50	14.50
MS600-Y-4	9.50	14.50	10.60	15.60
MS600-Y-5	10.40	15.40	11.80	16.80
MS600-Y-6	11.40	16.40	12.90	17.90
MS600-Y-7	12.30	17.30	14.00	19.00
MS600-Y-8	13.30	18.30	15.20	20.20
MS600-Y-9	14.20	19.20	16.30	21.30
MS600-Y-10	15.20	25.20	17.50	27.50
MS600-Y-11	16.10	26.10	18.60	28.60
MS600-Y-12	17.10	27.10	19.70	29.70
MS600-Y-13	18.00	28.00	20.90	30.90
MS600-Y-14	19.00	29.00	22.00	32.00
MS600-Y-15	19.90	34.90	23.10	38.10
MS600-Y-16	20.90	35.90	24.30	39.30
MS600-Y-17	21.80	36.80	25.40	40.40
MS600-Y-18	22.80	37.80	26.60	41.60
MS600-Y-19	23.70	38.70	27.70	42.70
MS600-Y-20	24.70	44.70	28.80	48.80
MS600-Y-21	25.60	45.60	30.00	50.00
MS600-Y-22	26.50	46.50	31.20	51.20

601—601-¾ST—601ST

MS601-1	$ 3.20	$ 8.20	$ 3.80	$ 8.80
MS601-2	4.40	9.40	5.30	10.30
MS601-3	5.70	10.70	6.80	11.80
MS601-4	7.00	12.00	8.30	13.30
MS601-5	8.20	13.20	9.90	14.90
MS601-6	9.50	14.50	11.40	16.40
MS601-7	10.80	15.80	12.90	17.90
MS601-8	12.00	17.00	14.40	19.40
MS601-9	13.30	18.30	15.90	20.90
MS601-10	14.50	24.50	17.50	27.50
MS601-11	15.80	25.80	19.00	29.00
MS601-12	17.10	27.10	20.50	30.50
MS601-13	18.30	28.30	22.00	32.00
MS601-14	19.60	29.60	23.50	33.50
MS601-15	20.90	35.90	25.00	40.00
MS601-16	22.10	37.10	26.60	41.60
MS601-17	23.40	38.40	28.10	43.10
MS601-18	24.70	39.70	29.60	44.60
MS601-19	25.90	40.90	31.10	46.10
MS601-20	27.20	47.20	32.60	52.60
MS601-21	28.50	48.50	34.10	54.10
MS601-22	29.80	49.80	35.50	55.50
MS601-23	31.10	51.10	37.00	57.00

603—603-¾ST—603-ST

MS603-1	$ 7.60	$12.60	$ 9.10	$14.10
MS603-2	9.40	14.40	11.20	16.20
MS603-3	11.10	16.10	13.40	18.40
MS603-4	12.90	17.90	15.50	20.50
MS603-5	14.70	19.70	17.60	22.60
MS603-6	16.40	21.40	19.70	24.70
MS603-7	18.20	23.20	21.90	26.90
MS603-8	20.00	25.00	24.00	29.00
MS603-9	21.80	26.80	26.10	31.10
MS603-10	23.50	33.50	28.20	38.20

604—604-¾ST—604-ST

MS604-1	$ 7.70	$12.70	$ 9.20	$14.20
MS604-2	11.70	16.70	14.10	19.10
MS604-3	15.50	20.50	18.60	23.60
MS604-4	19.30	24.30	23.20	28.20
MS604-5	23.10	28.10	27.70	32.70
MS604-6	26.90	31.90	32.30	37.30
MS604-7	30.70	35.70	36.80	41.80
MS604-8	34.50	39.50	41.40	46.40

601-Y—601-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	Bake. Per C	Per C Imp. Bake.
MS601-Y-1	$ 7.00	$12.00	$ 7.60	$12.60
MS601-Y-2	8.20	13.20	9.10	14.10
MS601-Y-3	9.50	14.50	10.60	15.60
MS601-Y-4	10.80	15.80	12.10	17.10
MS601-Y-5	12.00	17.00	13.70	18.70
MS601-Y-6	13.30	18.30	15.20	20.20
MS601-Y-7	14.50	19.50	16.70	21.70
MS601-Y-8	15.80	20.80	18.20	23.20
MS601-Y-9	17.10	22.10	19.70	24.70
MS601-Y-10	18.30	28.30	21.30	31.30
MS601-Y-11	19.60	29.60	22.80	32.80
MS601-Y-12	20.90	30.90	24.30	34.30
MS601-Y-13	22.10	32.10	25.80	35.80
MS601-Y-14	23.40	33.40	27.30	37.30
MS601-Y-15	24.70	39.70	28.80	43.80
MS601-Y-16	25.90	40.90	30.40	45.40
MS601-Y-17	27.20	42.20	31.90	46.90
MS601-Y-18	28.50	43.50	33.40	48.40
MS601-Y-19	29.70	44.70	34.90	49.90
MS601-Y-20	31.00	51.00	36.40	56.40
MS601-Y-21	32.30	52.30	37.90	57.90
MS601-Y-22	33.60	53.60	39.40	59.40
MS601-Y-23	34.90	54.90	40.90	60.90

602—602¾ST—602ST

MS602-1	$ 3.50	$ 8.50	$ 4.20	$ 9.20
MS602-2	5.10	10.10	6.10	11.10
MS602-3	6.60	11.60	8.00	13.00
MS602-4	8.20	13.20	9.90	14.90
MS602-5	9.80	14.80	11.80	16.80
MS602-6	11.40	16.40	13.70	18.70
MS602-7	13.00	18.00	15.60	20.60
MS602-8	14.50	19.50	17.50	22.50
MS602-9	16.10	21.10	19.40	24.40
MS602-10	17.70	27.70	21.30	31.30
MS602-11	19.30	29.30	23.10	33.10
MS602-12	20.90	30.90	25.00	35.00
MS602-13	22.50	32.50	26.90	36.90
MS602-14	24.00	34.00	28.80	38.80
MS602-15	25.60	40.60	30.70	45.70
MS602-16	27.20	42.20	32.60	47.60
MS602-17	28.80	43.80	34.50	49.50
MS602-18	30.40	45.40	36.50	51.50
MS602-19	32.00	47.00	38.50	53.50
MS602-20	33.60	53.60	40.40	60.40
MS602-21	35.20	55.20	42.30	62.30
MS602-22	36.80	56.80	44.30	64.30
MS602-23	38.40	58.40	46.30	66.30
MS602-24	40.00	60.00	48.20	68.20
MS602-25	41.60	66.60	50.20	75.20
MS602-26	43.20	68.20	52.20	77.20

602-Y—602-XY

MS602-Y-1	$ 7.30	$12.30	$ 8.00	$13.00
MS602-Y-2	8.90	13.90	9.90	14.90
MS602-Y-3	10.40	15.40	11.80	16.80
MS602-Y-4	12.00	17.00	13.70	18.70
MS602-Y-5	13.60	18.60	15.60	20.60
MS602-Y-6	15.20	20.20	17.50	22.50
MS602-Y-7	16.80	21.80	19.40	24.50
MS602-Y-8	18.30	23.30	21.30	26.30
MS602-Y-9	19.90	24.90	23.10	28.10
MS602-Y-10	21.50	31.50	25.00	35.00
MS602-Y-11	23.10	33.10	26.90	36.90
MS602-Y-12	24.70	34.70	28.80	38.80
MS602-Y-13	26.30	36.30	30.70	40.70
MS602-Y-14	27.80	37.80	32.60	42.60
MS602-Y-15	29.40	44.40	34.50	49.50
MS602-Y-16	31.00	46.00	36.40	51.40
MS602-Y-17	32.60	47.60	38.30	53.30
MS602-Y-18	34.20	49.20	40.20	55.20
MS602-Y-19	35.80	50.80	42.10	57.10
MS602-Y-20	37.40	57.40	44.00	64.00
MS602-Y-21	39.00	59.00	45.90	65.90
MS602-Y-22	40.60	60.60	47.80	67.80
MS602-Y-23	42.20	62.20	49.70	69.70
MS602-Y-24	43.80	63.80	51.60	71.60
MS602-Y-25	45.40	70.40	53.50	78.50
MS602-Y-26	47.00	72.00	55.40	80.40

605—605-¾ST—605-ST

MS605-1	$ 8.20	$13.20	$ 9.90	$14.90
MS605-2	14.50	19.50	17.50	22.50
MS605-3	20.90	25.90	25.00	30.00
MS605-4	27.20	32.20	32.60	37.60
MS605-5	33.50	38.50	40.20	45.20
MS605-6	39.80	44.80	47.80	52.80

EXTRA SERVICES

	600-1-2	603	604	605
Phillips Screws	.01	.02	.05	.05
Sems Screws	.02	.03	.04	.05
Phillips Sems Screws	.03	.03	.06	.06
K Monel Sems Screws	.04	.06	.08	.09
Fungus Varnish	.05	.05	.05	.05
Staked Screws	.05	.05	.05	.05
Stamped End	.10	.10	.10	.10

List Prices shown are per screw or per end.
All other series prices in first column.

Exclusive Distributors of

KULKA AIRCRAFT TYPE SWITCHES

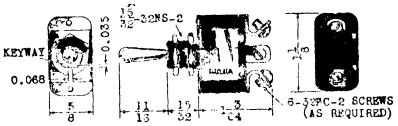
TO RADIO PARTS JOBBERS ONLY

Made to Joint Army and Navy Specifications
No. Jan-S-23 superseded by Mil S-3950

For Electronic & Communications Use

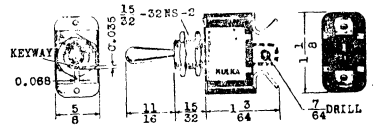
Bakelite housing for DC, or AC circuits up to 1600 cycles, one hole mounting. Two styles available—binding screw terminals (ST-40 Series and ST-50 Series). Solder lugs (ST-42 Series and ST-52 Series)—terminals and screws silver-plated to prevent corrosion; Solder lugs hot-tinned to facilitate soldering. Supplied with 2 mounting nuts, 1 sleeve lock-washer and if needed, locking rings. Terminal screws are Sems type, with external teeth. **Std. Pkg. 10**

SINGLE POLE Style 40—With Screw Term.



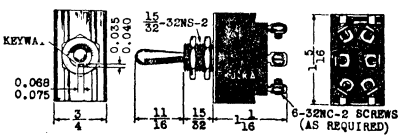
Cat. No.	Type	Up Position	Center Position	Down Position	Each
ST-40A	SPST	ON	NONE	OFF	$1.75
ST-40B	SPST	ON	NONE	MOM. OFF	1.95
ST-40C	SPST	OFF	NONE	MOM. ON	1.95
ST-40D	SPDT	ON	NONE	ON	2.15
ST-40E	SPDT	ON	OFF	ON	2.15
ST-40F	SPDT	ON	NONE	MOM. ON	2.35
ST-40G	SPDT	MOM. ON	OFF	MOM. ON	2.35
ST-40H	SPDT	ON	OFF	MOM. ON	2.35

SINGLE POLE Style 42—With Solder Lugs



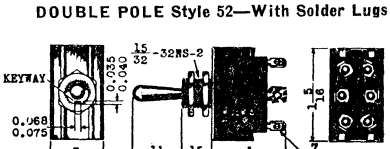
Cat. No.	Type	Up Position	Center Position	Down Position	Each
ST-42A	SPST	ON	NONE	OFF	$1.65
ST-42B	SPST	ON	NONE	MOM. OFF	1.80
ST-42C	SPST	OFF	NONE	MOM. ON	1.80
ST-42D	SPDT	ON	NONE	ON	1.95
ST-42E	SPDT	ON	OFF	ON	1.95
ST-42F	SPDT	ON	NONE	MOM. ON	2.15
ST-42G	SPDT	MOM. ON	OFF	MOM. ON	2.15
ST-42H	SPDT	ON	OFF	MOM. ON	2.15

DOUBLE POLE Style 50—With Screw Term.



Cat. No.	Type	Up Position	Center Position	Down Position	Each
ST-50K	DPST	ON	NONE	OFF	$2.60
ST-50L	DPST	ON	NONE	MOM. OFF	2.60
ST-50M	DPST	OFF	NONE	MOM. ON	2.60
ST-50N	DPDT	ON	NONE	ON	2.60
ST-50P	DPDT	ON	NONE	ON	2.60
ST-50R	DPDT	ON	OFF	MOM. ON	2.95
ST-50S	DPDT	MOM. ON	NONE	MOM. ON	2.95
ST-50T	DPDT	ON	OF	MOM. ON	2.95

DOUBLE POLE Style 52—With Solder Lugs

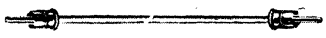


Cat. No.	Type	Up Position	Center Position	Down Position	Each
ST-52K	DPST	ON	NONE	OFF	$2.00
ST-52L	DPST	ON	NONE	MOM. OFF	2.25
ST-52M	DPST	OFF	NONE	MOM. ON	2.25
ST-52N	DPDT	ON	NONE	ON	2.25
ST-52P	DPDT	ON	OFF	ON	2.25
ST-52R	DPDT	ON	NONE	MOM. ON	2.60
ST-52S	DPDT	MOM. ON	OFF	MOM. ON	2.60
ST-52T	DPDT	ON	OFF	MOM. ON	2.60

HERMAN H. SMITH, INC

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

JUMPER CORDS



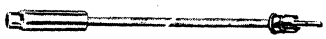
Male Phono Plug (our No. 1201) with finger-grip handle on each end. Std. pkg. 6

No. 631	18 inches	$0.85 Ea.
No. 632	24 inches	.90 Ea.
No. 633	36 inches	.95 Ea.
No. 634	48 inches	1.05 Ea.
No. 635	72 inches	1.15 Ea.
No. 636	120 inches	1.45 Ea.

STEREO JUMPER CORD

745	15 feet	$2.00

EXTENSION CORDS



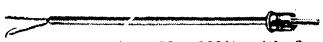
Male Phono Plug (our No. 1201) with finger-grip handle on end. Female in-Line Jack (our No. 1237) other end. Std. pkg. 6

No. 641	18 inches	$1.25 Ea.
No. 642	24 inches	1.30 Ea.
No. 643	36 inches	1.35 Ea.
No. 644	48 inches	1.40 Ea.
No. 645	72 inches	1.50 Ea.
No. 646	120 inches	1.80 Ea.

PHONO PLUG CONNECTOR CORDS

Male Phono Plug (our No. 1201) with finger-grip handle, one end. Spade lugs other end. Std. pkg. 6

No. 668	72 inches	$1.00 Ea.



Male Phono Plug (our No. 1201) with finger-grip handle, one end. Other end stripped and tinned. Std. pkg. 6

No. 637	36 inches	$0.75 Ea.
No. 638	72 inches	.90 Ea.

Male Phono Plug (our No. 1201) with finger-grip handle, one end. Insulated alligator clips other end. Std. pkg. 6

No. 673	36 inches	$1.20 Ea.
No. 674	72 inches	1.50 Ea.

PHONE PLUG CONNECTOR CORDS

Male Phone Plug (our No. 225) one end. Spade Lugs other end. Std. pkg. 6

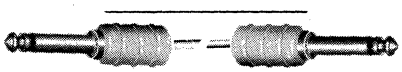
No. 665	72 inches	$1.65 Ea.

Male Phone Plug (our No. 225) one end. Other end stripped and tinned. Std. pkg. 6

No. 667	72 inches	$1.45 Ea.

Male Phone Plug (our No. 225) one end. Insulated alligator clips other end. Std. pkg. 6

No. 664	72 inches	$1.90 Ea.



Male Phone Plugs (our No. 225) on each end.

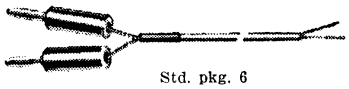
		Std. Pkg. 6
No. 677	72 inches	$2.25 Ea.

FEED THRU

Accepts phono plug on Each End — Std. Pkg. 10
No. 661 — $1.00 Ea.

CONNECTOR CORDS

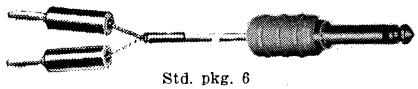
For Imported Hi-Fi Equipment



Std. pkg. 6

Two banana plugs one end, stripped and tinned other end.

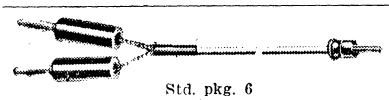
No. 709	72 Inches	$1.45 Ea.



Std. pkg. 6

Two banana plugs [illegible] end, phone plug other end.

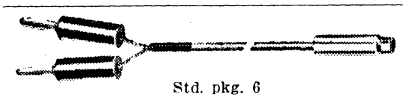
No. 710	72 Inches	$2.00 Ea.



Std. pkg. 6

Two banana plugs one end, phono plug other end.

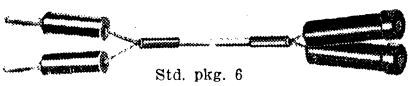
No. 711	72 Inches	$1.65 Ea.



Std. pkg. 6

Two banana plugs one end, phono jack other end.

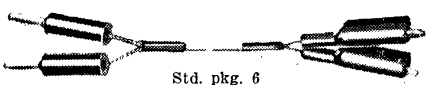
No. 712	72 Inches	$1.90 Ea.



Std. pkg. 6

Two banana plugs one end, in-line banana jacks other end.

No. 713	72 Inches	$2.25 Ea.



Std. pkg. 6

Two banana plugs one end, ins. alligator clips other end.

No. 714	72 Inches	$1.90 Ea.

INPUT-OUTPUT CORDS

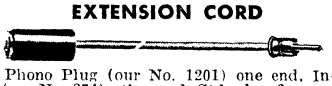
Male Phono Plug (our No. 1201) with finger-grip handle, one end. Male Phone Plug (our No. 225) other end. Std. pkg 6

No. 662	72 inches	$1.50 Ea.

Male Phone Plug (our No. 225) one end. Female In-Line Jack (our No. 1237) other end. Std. pkg. 6

No. 663	72 inches	$2.20 Ea.

EXTENSION CORD



Male Phono Plug (our No. 1201) one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 639	72 inches	$2.05 Ea.

Male Phone Plug (our No. 225) one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 669	72 inches	$2.70 Ea.

PHONO PLUG TO PHONE PLUG ADAPTER

Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. pkg. 10.

No. 707	With Resistor	$1.75 Ea.
No. 708	Without Resistor	$1.00 Ea.

HI-FI CORDS FOR REVERE EQUIPMENT

These cords are designed for use exclusively with Revere Tape Recorders and Hi-Fi equipment all using the special type phone plug 3/16" O.D. necessary for use with this type equipment.

CONNECTOR CORDS

3/16" O.D. phone plug one end, other end stripped and tinned. Std. pkg. 6

No. 700	120 inches	$2.90 Ea.

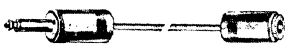
3/16" O.D. phone plug one end, other end spade lugs. Std. pkg. 6

No. 701	120 inches	$3.10 Ea.

3/16" O.D. phone plug one end, insulated alligator clips other end. Std. pkg. 6

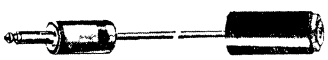
No. 702	120 inches	$3.35 Ea.

EXTENSION CORDS



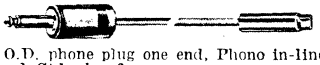
3/16" phone plug one end, Revere type in-line jack othed end. Std. pkg. 6

No. 703	120 inches	$5.25 Ea.



3/16" O.D. phone plug one end, Standard in-line jack other end. Std. pkg. 6

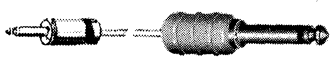
No. 704	120 inches	$4.00 Ea.



3/16" O.D. phone plug one end, Phono in-line jack other end. Std. pkg. 6

No. 705	120 inches	$3.65 Ea.

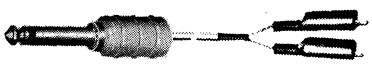
INPUT-OUTPUT



3/16" O.D. phone plug one end, Standard phono plug other end. Std. pkg. 6

No. 706	120 inches	$3.65 Ea.

CONNECTOR CORD FOR WEBCOR TAPE RECORDER



Three way phone plug with built in resistor to cut down on audio one end, insulated alligator clips other end. Std. pkg. 6

No. 676	120 inches	$3.25 Ea.

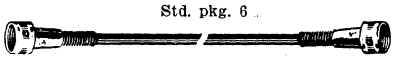
COAXIAL EXTENSION CABLE

Std. pkg. 6

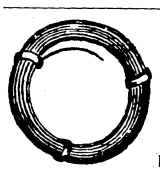
No. 687	36 inches	$2.00 Ea.
No. 688	72 inches	2.50 Ea.
No. 689	144 inches	3.60 Ea.

COAXIAL JUMPER CABLE

Std. pkg. 6



No. 694	36 inches	$2.25 Ea.
No. 696	72 inches	2.75 Ea.
No. 697	144 inches	3.85 Ea.



HI-FI WIRE

Cond.	Strand.	Wall
22	7/30	.062
Cap.	**Shield**	**O.D.**
37 Mmf.	Spiral	.140

No. 765 — 100-ft. — $5.50 Ea.

All Prices Subject To Trade Discount

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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

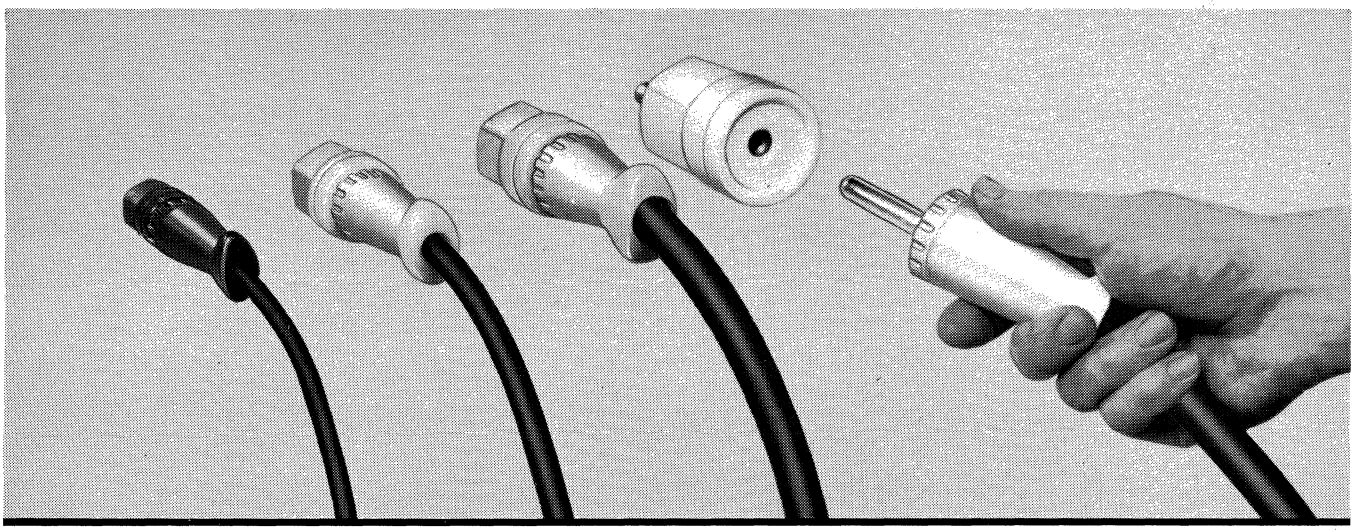
DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

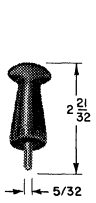
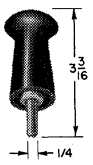
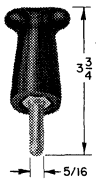
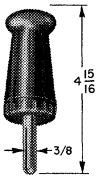
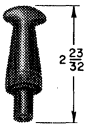
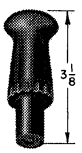
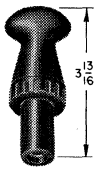
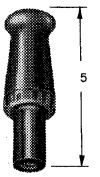
Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

SUPERCON® *Electrical Connectors*



Current carrying parts gold-plated • Simplified, quick assembly

Socket and pin types of single conductor plugs and receptacles are offered. Plugs have a functionally designed grip for handling ease and convenience. Wiring connection to the same plug can be either soldered or solderless. Two cable-fastening screws are provided which permit a range of cable sizes to be accommodated by the plug. All socket plug grips and 25 and 250 ampere pin plug grips are of a simple, two-piece threaded construction for quick assembly. The 50 and 100 ampere pin plugs are assembled by a single nut after cable connection. All plastic parts of a receptacle are molded of the same color nylon to permit more rapid and accurate circuit identification on both the front and back of the panel when installed. Six colors are available.

	PIN PLUGS				SOCKET PLUGS			
COLOR	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES
BLACK	PP25GB	PP50GB	PP100GB	PP250GB	PS25GB	PS50GB	PS100GB	PS250GB
YELLOW	PP25GY	PP50GY	PP100GY	PP250GY	PS25GY	PS50GY	PS100GY	PS250GY
RED	PP25GR	PP50GR	PP100GR	PP250GR	PS25GR	PS50GR	PS100GR	PS250GR
BLUE	PP25GBL	PP50GBL	PP100GBL	PP250GBL	PS25GBL	PS50GBL	PS100GBL	PS250GBL
GREEN	PP25GGN	PP50GGN	PP100GGN	PP250GGN	PS25GGN	PS50GGN	PS100GGN	PS250GGN
WHITE	PP25GWT	PP50GWT	PP100GWT	PP250GWT	PS25GWT	PS50GWT	PS100GWT	PS250GWT
								
PANEL:	3/16. MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX.	3/16 MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX.
HOLE:	11/16	1	1 3/16	1 9/16	11/16	1	1 3/16	1 9/16
BLACK	RS25GB	RS50GB	RS100GB	RS250GB	RP25GB	RP50GB	RP100GB	RP250GB
YELLOW	RS25GY	RS50GY	RS100GY	RS250GY	RP25GY	RP50GY	RP100GY	RP250GY
RED	RS25GR	RS50GR	RS100GR	RS250GR	RP25GR	RP50GR	RP100GR	RP250GR
BLUE	RS25GBL	RS50GBL	RS100GBL	RS250GBL	RP25GBL	RP50GBL	RP100GBL	RP250GBL
GREEN	RS25GGN	RS50GGN	RS100GGN	RS250GGN	RP25GGN	RP50GGN	RP100GGN	RP250GGN
WHITE	RS25GWT	RS50GWT	RS100GWT	RS250GWT	RP25GWT	RP50GWT	RP100GWT	RP250GWT
	SOCKET RECEPTACLES				PIN RECEPTACLES			

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.

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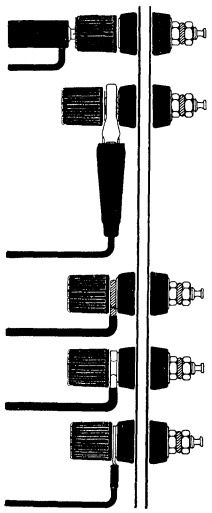
SUPERIOR 5-WAY® *Binding Posts*

● 5 WAYS TO CONNECT ● GOLD-PLATED BRASS PARTS ● RANGE OF COLORS

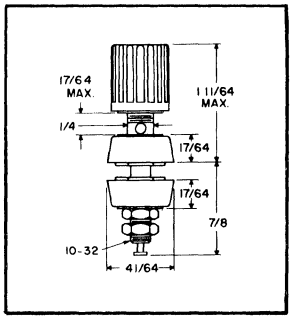


Fluted Nut With **LEXAN*** Polycarbonate Resin

These are the *original* SUPERIOR 5-WAY Binding Posts in a new functionally styled design. They combine the long life, stable electrical contact, corrosion resistant, fast soldering characteristics of gold-plated brass with those of Lexan polycarbonate resin: low loss and power factor, high voltage insulation, superior heat resistance, non-sink dimensional stability, non-corrosiveness. The selection of six attractive colors and five ways to connect – plus the solder tip – provides wider use flexibility. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Can be mounted in a single keyed or nonkeyed ½" hole in panels from 1/16" to ¼" thick. Fluted types with nickel-plated brass parts are available on special order.

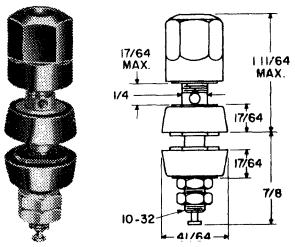
*Lexan is the General Electric Company trademark for its polycarbonate resin.

TYPE DF31BC



COLOR	FLUTED NUT TYPE
RED	DF31RC
BLUE	DF31BLC
GREEN	DF31GNC
WHITE	DF31WTC
BLACK	DF31BC
YELLOW	DF31YC

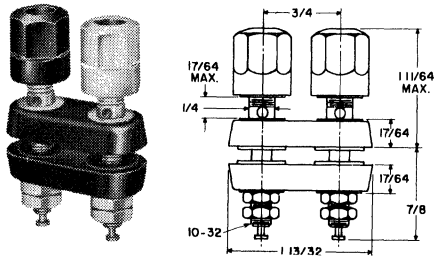
HEX NUT



TYPE DF30BC

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
HEX TYPE	DF30RC	DF30BLC	DF30GNC	DF30WTC	DF30BC	DF30YC

DOUBLE ASSEMBLY

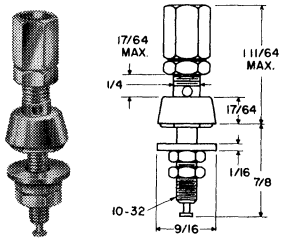


TYPE DF30-2-BWTC

COLOR OF NUTS	WHITE & BLACK	BLACK & BLACK	RED & BLACK
DOUBLE ASSEMBLY TYPE	DF30-2-BWTC	DF30-2-BBC	DF30-2-BRC

INSULATORS AVAILABLE IN BLACK ONLY

ALL METAL GROUNDING



TYPE GP30NC

Finely machined brass, nickel-plated and polished. Panel grounding collar has "D" type shoulder for locking in keyed panel hole if desired. Design complements other hex shaped SUPERIOR 5-WAY Binding Posts.

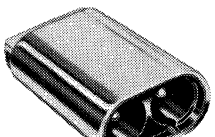
DUB-L-PLUG *Dual Electrical Connectors*

DUB-L-PLUG Dual Electrical Connectors are designed for making safe, rapid connections to binding posts mounted on ¾" centers. All conducting metal parts are gold-plated. Completely recessed integral banana plugs prevent accidental shorting; captive black and white thumbnuts facilitate circuit and polarity identification.

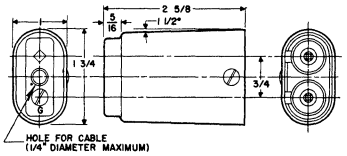
NYLON BODY COLOR	INSULATED TYPE	SHIELDED, INSULATED TYPE
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

SHIELDED/INSULATED

Has sturdy, die-cast chrome-plated case, removable grounding banana plug, black nylon body.

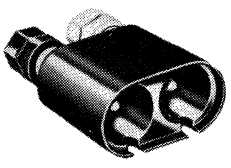


TYPE SPGK2BC

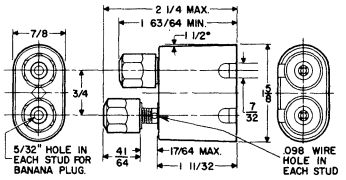


INSULATED TYPES

Have wire slots to permit stacking if desired. Available with bodies in choice of six colors.



TYPE IPG2BC



FOR MORE DETAILED INFORMATION about specifications and technical data on SUPERCON electrical connectors, SUPERIOR 5-WAY binding posts and DUB-L-PLUG dual electrical connectors, request either individual bulletins or complete electrical connector literature file.

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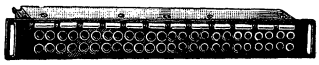
SECTION 2100

TRIMM

AUDIO JACK PANELS



Extensively used in the broadcast field, on instrumentation systems, communication networks, etc. Listed below are the most common of a large variety of standard types. Jacks as ordinarily supplied (mounted on panels) have offset ground lugs, which considerably reduces wiring cost of installation. Straight ground lugs (duplicating W.E. jacks) available. Types 96-71 and 96-72 used with tip, ring, and sleeve plugs (No. 516 and No. 517); others usually used with twin plugs (No. 506) but will fit standard two-circuit plugs.

Code No.	Mtg. Strip Type	Uses Qty. Jacks	Jack Type	List
96-01	96-21	24	90L-02	**$47.50**
96-02	96-22	48	90L-02	**77.25**
96-03	96-23	48	90L-02	**84.50**
96-06	96-26	26	90L-02	**50.75**
96-07	96-27	52	90L-02	**82.75**
96-71	96-21	24	90L-26	**58.80**
96-72	96-27	48	90L-26	**99.00**

JACK MOUNTING STRIPS — LESS JACKS

Used where non-standard jacks, lamp sockets, turn keys, push keys, video jacks, etc., are desired to be mounted onto a jack strip. Listed below are the most common types normally used on standard jack panel assemblies. Strips have steel reinforcing rib on both sides, end mounting brackets, and one designation strip (type JP-30 except where noted) including cards and windows. All fit standard 19″ racks. Numerous other types available.

Code No.	Rows	Jack Holes	Width	List
96-21	1	24	1¾″	**$21.00**
96-22	2	48	2⅛″	**24.00**
96-23	2	48	3½″	**31.25**
***96-26**	1	26	1¾″	**22.00**
***96-27**	2	52	1¾″	**25.00**

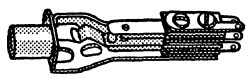
* No. 96-26 normally has 1 (JP-34) designation strip.
* No. 96-27 has 2 (JP-34) designation strips; types JP-31 and JP-32 can also be used on these.

DESIGNATION STRIPS

Listed below are the most common designation strips. Others differing in length and accepting up to 5 rows of typing can be produced.

Code No.	Size	List
JP-30—Individual windows for each of 12 pairs of jacks	15/32″ wide x 16¾″ lg.	**$1.60**
JP-34—One long window	¼″ wide x 17″ lg.	**2.75**
JP-35—One long window	15/32″ wide x 16¾″ lg.	**1.60**

"90" SERIES JACKS



Commonly known as the telephone jack. Extensively used on jack panels. Bushing fits 29/64″ dia. hole. Available in two modifications, generally referred to as the "A" and "C" frame. These differ only in the orientation of the springs with respect to the plane of the jack mounting. Frame of steel, cadmium plated with dichromate treatment. Bushing of brass, natural finish standard (nickel plated to order). Springs of nickel silver, terminals hot tinned. Standard contacts are silver with diffused gold coating. Numerous special contacts available. Straight ground lug illustrated, offset lug available by changing of "S" in code number to "L". Dash numbers up to "—24" fit two-circuit plugs; "—25" to "—49" three-circuit 0.250″ dia. plugs; and "—50" to "—74" three-circuit 0.206″ dia. plugs.

Code No.	List	Code No.	List
No. 90S-01	**$1.05**	**No. 90S-12**	**$1.60**
No. 90S-02	**1.20**	**No. 90S-14**	**2.50**
No. 90S-06	**1.40**	**No. 90S-25**	**1.20**
No. 90S-08	**1.40**	**No. 90S-26**	**1.60**
No. 90S-09	**1.50**	**No. 90S-27**	**1.80**
No. 90S-09A	**1.50**	**No. 90S-50**	**1.40**
No. 90S-10	**1.80**	**No. 90S-51**	**1.80**

See Bulletin R-35/5 for more information. Refer to facing page for circuit identification.

TELEPHONE TYPE PLUGS

High temperature (over 500°) and high impact injection molded insulation used on all these plugs, interlocking all parts of plug into a single unit. Precision machined to minimize jack bushing wear. All are 0.250″ dia. except plug No. 508, which is 0.206″ dia.

Code No.	W.E. Equivalent	Description	List
No. 500	347A	Single, two-circuit	**$2.00**
No. 502		Single, two-circuit	**1.85**
No. 504	327	Twin, four-circuit	**4.50**
No. 505	289B	Twin, four-circuit	**4.50**
No. 506	241A	Twin, three-circuit	**4.50**
No. 508	309	Single, three-circuit	**2.50**
No. 516	310	Single, three-circuit	**2.50**
No. 517	291	Single, three-circuit	**2.70**

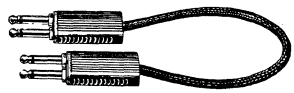
VIDEO JACK PANELS

A variety of standard as well as special panels are regularly produced. The jacks used in these mount in the same hole size as standard telephone types and can be assembled on any of our regular mounting strips described elsewhere. Listed below are several standard types of panels as usually used in broadcast stations. All use the No. 89-02 jack except panel No. 99-80 which uses No. 89-32 type jacks. The "99" series use an aluminum, sandwich-like panel construction. The "96" series use standard ⅝″ thick bakelite panels. Of these, those with "—80" numbers are intended for direct attachment of the cable. Those with "—90" numbers have, behind the main panel, a sub-panel on which are mounted Amphenol No. 83-1R connectors from which wiring may be run to the coaxial jacks. Wiring not installed by TRIMM unless specified by purchaser.

Code No.	Jacks	Jack Mounting Strip	List
No. 99-80	12 Jacks, 1 row	99-20	**$169.00**
No. 96-82	48 Jacks, 2 rows	96-22	**554.00**
No. 96-85	24 Jacks, 2 rows	96-25	**303.00**
No. 96-89	12 Groups of 3 jacks (36 total)	96-29	**421.00**
No. 96-92-2	48 Jacks, 2 rows, plus 24 connectors in sub-chassis	96-22	**660.00**

Other types with sub-chassis regularly available to fit individual requirements.

AUDIO PATCH CORDS



A superior line of patch cords featuring a braided nylon outer covering insuring long cord life and neat appearance. Cords normally shielded with shield connected to plug at one end only. Also available less shielding or with shield connected at both ends of cord. Black cords are standard but blue, green, grey (slate), red, brown, and white can be supplied at extra cost. Lengths of 4, 5, 6, and 10 ft. also supplied. Plugs used are described under "Telephone Plug" section.

No. 840 Series—The accepted standard in the broadcast field. Used also in instrumentation and communication systems. TRIMM No. 506 "Twin" plugs used.

Code No.	List
No. 840-1-PP	**$11.70**
No. 840-2-PP	**12.00**
No. 840-3-PP	**12.30**

No. 841 Series—Uses TRIMM No. 517 plugs which have a special contour allowing the ring spring to make contact before the normally closed tip contact spring is opened.

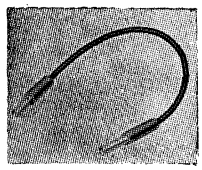
No. 841-1-PP	**9.00**
No. 841-2-PP	**9.30**
No. 841-3-PP	**9.60**

No. 851 Series—Uses standard telephone switchboard type plugs, TRIMM No. 516 (W.E. 310). Tip spring of jack seats in grooved ball-shaped tip of plug.

No. 851-1-PP	**9.00**
No. 851-2-PP	**9.30**
No. 851-3-PP	**9.60**

Replacement cords for above available. See TRIMM Bulletin R-36/7 for listing.

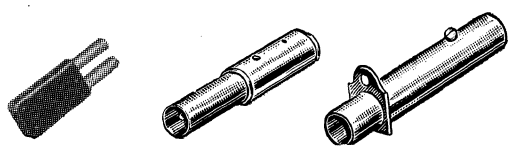
VIDEO PATCH CORDS



Single cords (849 series) use No. 530-2 plugs and RG-59A/U cable. Color cords (859 series) use special molded three pronged plugs. Note use of 531 series plug in place of patch cords. Length in feet between plugs shown by 1.5 (18″ cord); 2; etc.

Code No.	List
No. 849-1.5X-PPG	**$18.00**
No. 849-2X-PPG	**18.40**
No. 849-3X-PPG	**18.80**
No. 859-1.5X-PPG	**48.00**
No. 859-2X-PPG	**50.00**
No. 859-3X-PPG	**52.00**

COAXIAL JACKS AND PLUGS



Used for video, pulse, and special RF applications, serving the analogous function as telephone jacks serve for audio patching systems. Quick disconnect and patching with only extremely slight discontinuity. Circuits carried through concentrically arranged inner and outer conductors. All contacts and conducting surfaces gold plated. Where applicable are simultaneously compatible with both W.E. and RCA types. Available to fit a wide assortment of RG cable types, only the most common being listed below. See Bulletin R-40 for details of construction.

Code No.	RG Cable	Notes	List
No. 89-01	58	Jack	**$10.75**
No. 89-02	59	Jack; fits W.E. & RCA	**10.75**
No. 89-04	62	Jack	**10.75**
No. 89-05	11	Jack	**11.00**
No. 89-06	8	Jack	**11.00**
No. 89-32		Jack; BNC UG-88/U on rear end.	**11.00**
No. 530-1	58	Plug	**7.00**
No. 530-2	59	Plug	**7.00**
No. 530-4	62	Plug	**7.00**
No. 530-5	11	Plug	**8.25**
No. 531-2		Plug; bridging, 70 ohm.	**15.06**

Trade Discount Applies To List Prices Only

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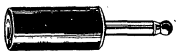
TRIMM

PLUGS • JACKS • TERMINAL BLOCKS



STANDARD PHONE PLUGS

The standard radio phone plug, widely used on P.A. equipment, tape recorders, radios, etc. Designed to fit all standard jacks and available in two-circuit and three-circuit types. The two-circuit "511" series is supplied with binding head screws for termination and has a molded bakelite shell or metal shell when shielded plugs are required. The "513" series are three-circuit types. The "515" adapter couples Amphenol type mike plug to standard phone jack.

	List
No. 511 —Black plastic shell	$.69
No. 511-1—Red plastic shell	.69
No. 511-2—Shielded, single piece shell	1.17
No. 511-3—Shielded, two piece shell	1.77
No. 511-4—Shielded, stubby shell	.97
No. 511-5—Two-circuit, shielded, stubby shell. Has long tip to sleeve insulator which leaves "ring" spring open when inserted in three-circuit jack	1.09
No. 513 —Three-circuit, black plastic shell	1.09
No. 513-1—Three-circuit, red plastic shell	1.09
No. 513-2—Three-circuit, shielded, single piece shell	1.59
No. 513-3—Three-circuit, shielded, two piece shell	2.19
No. 513-4—Three-circuit, shielded, stubby shell	1.40
No. 515 —Adapter	.47

TELEPHONE TYPE PLUGS

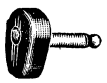
For detailed description, see facing page, under Audio Section.

"514" MIN-A-PLUG

Developed especially for shielded microphone cable. Wing type terminal clamps directly onto cord shield. Center conductor solders to lug. Also widely used for ordinary cords.

	List
No. 514 —Black plastic shell	$.67
No. 514-1—Red plastic shell	.67
No. 514-2—Shielded, single piece shell	1.07
No. 514-4—Shielded, stubby shell	.97

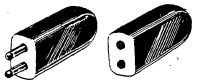
"512" FLAT TYPE PLUG



Compact, non-protruding design. Ideal for group hearing aid systems, centralized radio systems, etc. Body molded of phenolic plastic. All exposed edges rounded. Provision for stay cord anchorage. Fits standard jacks.

	List		List
No. 512 —Black	$.87	**No. 512-1**—Red	$.87

"518" PLUG — "562" JACK



Two-circuit miniature disconnect plug and jack series. Ideal for small size cordage. Plugs have two grooved, parallel pins which engage with multi-leafed contract springs in jack. No. 518 and 562 have acetate half shells cemented together. No. 518-7 and 562-7 have molded bakelite shells held together with screws.

	List
No. 518 —Plug	$.60
No. 518-7—Plug	.80
No. 562 —Jack	1.00
No. 562-7—Jack	1.10

"525" CONNECTORS

The "525" series provides means of attaching headset cords, or any two wires, to single contact mike plugs (Amphenol 75-MC series of plugs). Main body of connector is similar to handle of "511" series plug. Connector held to receptacle by threaded retaining ring.

No. 525—Connector ..... List $.87

"501" PLUG

Widely used for high quality communication equipment. Commonly known as PJ-055. Features a one-piece tip-rod construction preventing loosening or separating of parts while in service. Nylon insulation interlocks all parts of plug.

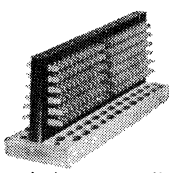
	List
No. 501 —Black plastic shell	$1.40
No. 501-1 —Red plastic shell	1.40
No. 501-2 —Shielded shell	1.90
No. 501-10—Black plastic shell embossed with PJ-055B	1.40

"509" PLUG

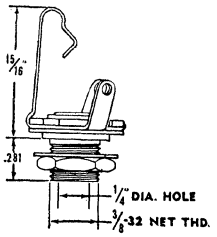
For use on microphone circuits and usually identified as PJ-068. Tip, ring, and sleeve circuits are insulated and interlocked by injected nylon. Sleeve diameter is 0.206".

	List
No. 509 —Black plastic shell	$2.95
No. 509-10—Black plastic shell embossed with PJ-068	3.00

TERMINAL BLOCKS



Referred to as telephone "Christmas Tree" type. Terminals are notched top and bottom, electro-tin plated and individually removable. New "wire-wrap" type terminals available. All types available from one to ten rows high. Special terminal arrangements upon request. No. 421 series has twenty terminals per row; No. 425 series, twenty-four terminals per row; No. 427 series, twenty-six terminals per row. Hard maple base. Numerous variations available.



"95" SERIES JACKS

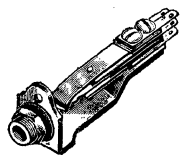
Widely used on P.A. amplifiers, tape recorders, short wave radios, servicemen test instruments, etc. Used where space behind panel is limited. Jack is mounted by a threaded bushing which fits a 3/8" dia. hole. Springs are nickel silver and are held in place by interlocking insulators. Circuit types can be identified by referring to "Jack Circuits" as shown below.

	List
No. 95-01—Open circuit, two conductor	$.45
No. 95-02—Closed circuit, two conductor	.54
No. 95-25—Open circuit, three conductor (for 0.250" dia. plugs)	.60
No. 95-50—Open circuit, three conductor (for 0.206" dia. plugs)	.65

"90" SERIES JACKS

See facing page, under Audio section, for detailed description.

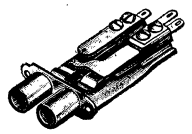
"91" SERIES JACKS



A long frame jack having a threaded bushing which can be used for mounting as well as by a mounting screw. Can be mounted in panels up to 1/4" thick. The most common circuits are shown below, but most other circuits can be supplied.

	List
No. 91-01	$.75
No. 91-02	.95
No. 91-25	.95
No. 91-26	1.20

"92" SERIES JACKS



Twin jacks, used in microwave systems and certain carrier frequency applications requiring activation of crossover contact springs by insertion of single plug in either jack bushing. Uses 100% palladium cross-bar contacts. Two-circuit plugs used on types 92-1009 and 92-1029 (equivalent to W.E. 410A and 410D respectively). Three-circuit plugs (0.250" dia.) used on 92-1030 (equivalent to W.E. 482A).

	List
No. 92-1009	$3.50
No. 92-1029 Gold plated contacts	4.35
No. 92-1030	4.80

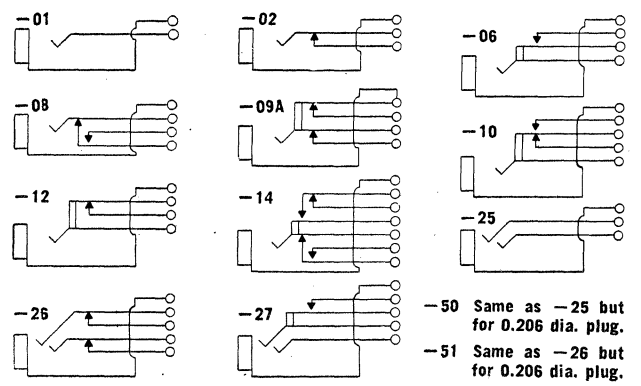
"93" SERIES JACKS

A short frame jack with springs mounted parallel to panel. Used particularly where depth behind panel is limited, on such applications as intercom systems, P.A. amplifiers, etc. Mounting is by means of threaded bushing 3/8" diameter, rigidly attached to a steel frame. May be mounted on panels up to 3/16" thick. Contact springs of nickel silver, terminals hot tinned. See diagrams below for circuits.

	List		List
No. 93-01	$.70	**No. 93-25**	$.85
No. 93-02	.85	**No. 93-26**	1.10

JACK CIRCUITS

All TRIMM jacks have a standardized coding consisting of the Jack series number plus a dash number indicating spring arrangement, a few of which are shown below.



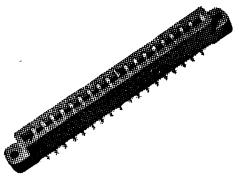
—50 Same as **—25** but for 0.206 dia. plug.

—51 Same as **—26** but for 0.206 dia. plug.

THE ONLY COMPLETE SOURCE FOR YOUR PRECISION CONNECTORS

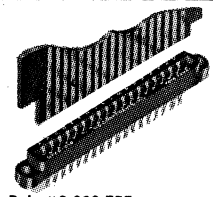
U. S. COMPONENTS

AVIONICS ● AUTOMATION ● COMMUNICATION ● CONTROLS ● INSTRUMENTATION
MISSILES ● PORTABLE EQUIPMENT ● PRINTED CIRCUITS ● TEST APPARATUS

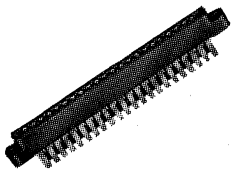


UPCR SERIES
Single Row Printed Card Receptacle
Number of contacts—(Beryllium Copper)
6, 10, 15, 18, 22
Solder wire hole size ..... 1/16"x3/32"
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ..... 5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,853,689.

UPCR-D. Double Row Printed Card Receptacle. Solder Type Terminals
Card range thickness accommodation
UPCR-D ..... .052—.072 (nom. 1/16")
UPCR-93D ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Solder wire hole size ..... 3/64"x3/32"
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ..... 5 amps.

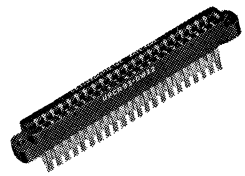


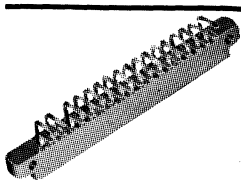
Pat. #2,909,755



UPCR-DT. Double Row Printed Card Receptacle. Taper Tab Terminals
UPCR-DT ..... uses #78 taper tab
Card range thickness accommodation
UPCR-DT ..... .052—.072 (nom. 1/16")
UPCR-93 DT ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V.A.C. RMS.
Current rating ..... 5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,909,755

UPCR-DW. Double Row Printed Card Receptacle. "Wire-Wrap"* Terminals
Card range thickness accommodation
UPCR-DW .052—.072 (nom. 1/16")
UPCR-93 DW ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ..... 5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,909,755
* T.M. of Gardner-Denver Co.

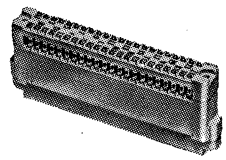


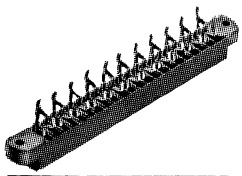


Pat. #2,909,755

UPCR-RD. Double Row Printed Card Receptacle. Dip Solder. Right Angle Terminals
Card range thickness accommodation
UPCR-RD ..... .052—.072 (nom. 1/16")
UPCR-93 RD ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ..... 5 amps.

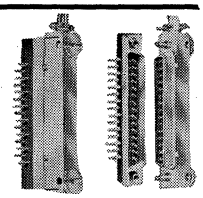
UPCR-D. Double Row Special Design Printed Card Receptacle
UPCR-93D22EAB Illustrated
Special designs custom built to requirements. Above unit is typical of many types engineered to suit various applications.
Pat. #2,909,755

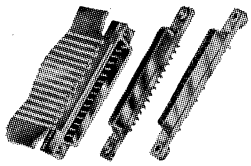




UPCR-SD. Double Row Printed Card Receptacle. Scatter Solder Dip Terminals
Card range thickness accommodation
UPCR-SD ..... .052—.072 (nom. 1/16")
UPCR-93 SD ..... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ..... 5 amps.
Pat. #2,909,755

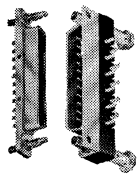
UPCC-SLH SERIES. Hooded Screw Lock
UPCC-M2SL ..... **Male Chassis Screw Lock**
UPCC-F2HSL ..... **Female Hooded Mating Unit**
Available ..... 7, 11, 15, 19, 23, 32 contacts
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Male — available solder dip, wire solder turret, taper tab terminals
Female — available wire solder, turret tab terminals
Pat. #2,953,767



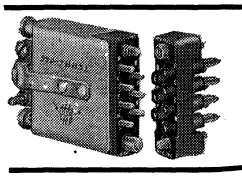


UPCC SERIES. Printed Circuit Connector
Card range thickness accommodation—
Male Dip Solder
UPCC-M ( ) A ..... 1/16"
UPCC-M ( ) B ..... 1/8"
UPCC-M ( ) C ..... 1/4"
UPCC-F ( ) female ..... #20 AWG wire
UPCC-FDN ( ) ..... Solder dip terminals
Maximum wire size—female ..... #20 AWG wire
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Current rating ..... 7.5 amps.

UPCC-SL SERIES. Printed Circuit Screw Lock
Card range thickness accommodation—
Male Dip Solder
UPCC MSL ( ) A ..... 1/16"
UPCC MSL ( ) B ..... 1/8"
UPCC MSL ( ) C ..... 1/4"
UPCC-FSL ( ) female ..... #20 AWG wire
UPCC-FD-SL ( ) ..... Solder dip terminals
Number of contacts 7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Current rating ..... 7.5 amps.

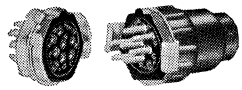


Pat. #2,953,767

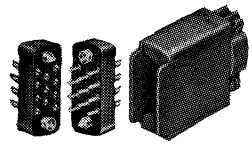


990-SL SERIES. Power Screw Lock
Number of contacts 7, 10, 15, 18
Maximum wire size ..... #16 AWG, wire
Voltage breakdown between contacts—sea level
5300 V. A.C. RMS.
Current rating ..... 13 amps.
990-SL-SDL (solderless ..... uses #53 taper pin
Patent #2,761,108. Double lead threads. "Twice the speed with double lead."

MH SERIES. Miniature Hex
Number of contacts 4, 5, 7, 9
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
1215 V A.C. RMS.
Current rating ..... 7.5 amps.
MH-SDL (solderless) uses #37 taper receptacle
Also available HMH Hermetic Seal. Plug Series.

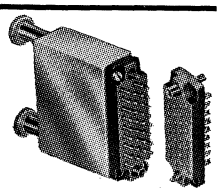


Pat. #2,848,702



SMI SERIES. Subminiature
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-SDL (solderless)
uses #37 taper receptacle
Other configurations upon request.

SMI-SL SERIES. Subminiature Screw Lock
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-SL-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.
Pat. #2,761,108



GENERAL NOTE
All Sub-miniature (SMI), Miniature (MI), 980, 990 series Connectors, available with Solder Type, Solderless Type (SDL) and Turret Type (TU) Terminals

Connectors are available with molded bodies made of asbestos-filled melamine, glass-filled alkyd, asbestos or glass-filled diallyl phthalate, or mica-filled bakelite. All connectors meet or surpass all applicable sections of MIL-Q-9858, MIL-C-8384B, MS, MIL-C-21097A, MIL-C-25955 and NAS specifications. Rigid quality control is applied on a 100% basis for inspection and testing. All solder cups can be provided with 60-40 solder or projecting terminals can be solder dipped.

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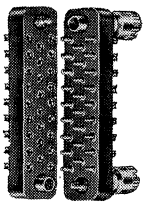
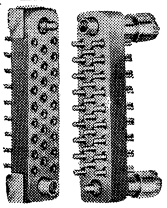


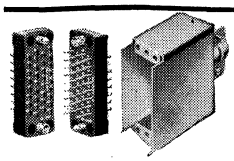
SMI-K SERIES

Subminiature Hoodless Knob Type Screw Lock
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.

SMI-KC SERIES

Subminiature Hoodless Knob Type Screw Lock
Reentrancy female contact....Anti-Rotation Brackets
Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating ..... 7.5 amps.
SMI-K-SDL (solderless)
uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.



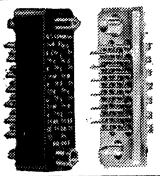


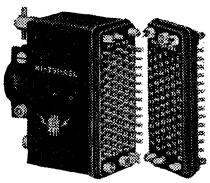
MI-SERIES. Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MII-SDL (solderless) uses #37 taper receptacle
MIP Series #18 wire — MIW Series #16 wire

HMI SERIES. Hermetic Seal Miniature

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ..... 7.5 amps.
Mates with corresponding MI-F (female) series connectors.





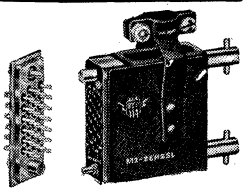
Pat. #2,761,108

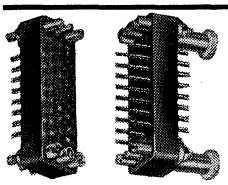
MI-SL SERIES. Miniature Screw Lock

Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MI-SL-SDL (solderless)
uses #37 taper receptacle
Pat. #2,761,108
ALSO AVAILABLE FOR #18 AWG WIRE
6-32—Double or single lead threads can be furnished.

HMI-SL SERIES

Hermetic Seal Miniature Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2200 V A.C. RMS.
Current rating ..... 7.5 amps.
Mates with corresponding MI-FSL (female screw lock) series connectors.
6-32—Double or single lead threads can be furnished.





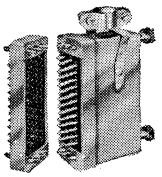
Pat. #2,761,108

MI-KSL SERIES

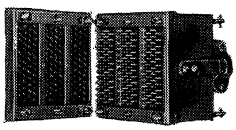
Miniature Hoodless Knob Type Screw Lock
Number of contacts
7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
MI-K-SDL (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE

MI-BSL "FBI" SERIES

Miniature Bracket Screw Lock
Number of contacts 34, 41, 50, 75
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
2800 V A.C. RMS.
Current rating ..... 7.5 amps.
Hoods ..... aluminum anodized
Brackets ..... die-cast aluminum
MI-BSL-SDL (solderless)
uses #37 taper receptacle

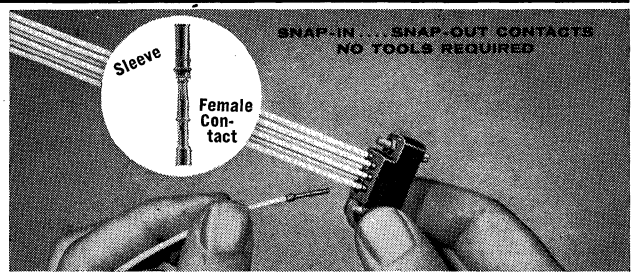


Pat. #2,761,108; #2,845,603; #2,845,604



MI-MBSL SERIES

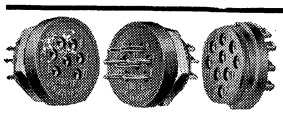
Miniature Bracket Modular Screw Lock
Number of contacts 123, 150, 225
Maximum wire size ..... #20 AWG wire
Voltage Breakdown between contacts—sea level
2800 V. A.C. RMS.
Current rating ..... 7.5 amps.
Hoods ..... aluminum anodized
Brackets ..... die-cast aluminum
MI-BMSL-SLD (solderless)
uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE
Pat. #2,761,108; #2,845,603; #2,933,713; #2,845,604; Additional Patents Pending.
Other configurations upon request.



REMI SERIES—Standard and Screwlock

Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Type of contact ..... crimp style, removable with "snap-in, snap-out" feature
Wire sizes accommodated ..... #20, #22 A.W.G. (#18 if required)
Pats. applied for

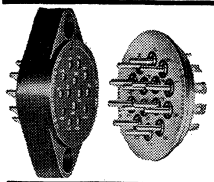
REMI counterparts of our MI, MI-SL, MI-KSL, MI-BSL and MI-BMSL SERIES can be provided.



ALSO AVAILABLE FOR #18 AWG WIRE

MRO-MRA. Miniature Round

Number of contacts 7, 9
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
1215 V A.C. RMS.
Current rating ..... 7.5 amps.
MRO-SDL—MRA-SDL (solderless)
uses #37 taper receptacle

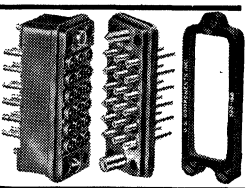


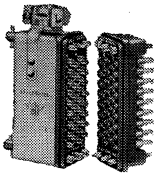
MR-HMR Miniature Relay

Number of contacts 14
Maximum wire size ..... #20 AWG wire
Voltage breakdown between contacts—sea level
700 V A.C. RMS.
Current rating ..... 7.5 amps.
MR-SDL (solderless) uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE
Other versions custom built upon request

980 SERIES. Power-Guide Pin Spring Release

Number of contacts 12, 18, 24, 34
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ..... 13 amps.
980-SL-SDL (solderless) ..... uses #53 taper pin
Patent #2,658,182



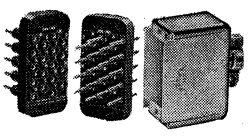


980-SL SERIES. Power Screw Lock

Number of contacts 12, 18, 24, 34
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
4000 V A.C. RMS.
Current rating ..... 13 amps.
980-SDL (solderless) ..... uses #53 taper pin
Patents #2,658,182; #2,761,108

990 and 990S (Short Contacts) SERIES. Power

Number of contacts 7, 10, 15, 18
Maximum wire size ..... #16 AWG wire
Voltage breakdown between contacts—sea level
5300 V A.C. RMS.
Current rating ..... 13 amps.
990-SDL (solderless) ..... uses #53 taper pin



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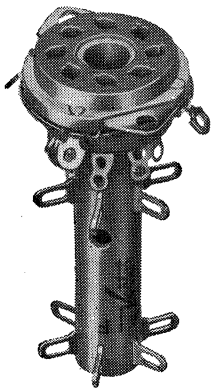
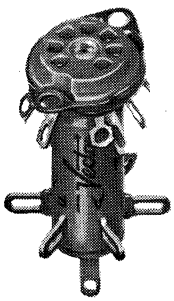


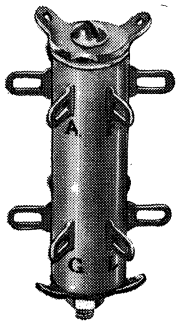
10-0-12T

OCTAL



6-M-6T

7-PIN



6-12

TERMINAL

VECTOR SOCKET TURRETS AND TERMINAL TURRETS simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Military types (premium grade- have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret post with fused tin brass terminals. Commercial types have mica filled sockets, hot tin dipped steel saddle, XXXP Phenolic turret post with brass fused tin terminals.

ORDERING INFORMATION

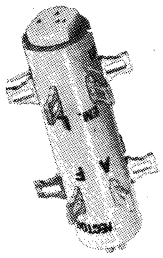
CATALOG NUMBERS		TURRET DETAILS				NET PRICE
Commercial Types	Military Types	Height	No. of Term	No. of Rings	Space Between Rings	Comm. Type 1-19
OCTAL SOCKET-TURRETS						
6-0- 6T	680	1½"	6	1	—	.54
♦ 8-0- 9T	681	2"	9	2	1"	.60
8-0-12T	682	2"	12	2	1"	.63
♦ 10-0- 9T	683	2½"	9	2	1⅜"	.63
10-0-12T	684	2½"	12	2	1⅜"	.66
7-PIN SOCKET TURRETS						
♦ 6-M - 6T	687	1½"	6	1	—	.63
♦ 8-M - 9T	688	2"	9	2	1"	.69
8-M -12T	689	2"	12	2	1"	.72
10-MB-12T	690	2½"	12	2	1⅜"	.81
9-PIN SOCKET TURRETS						
♦ 6-N - 6T	693	1½"	6	1	—	.63
♦ 8-N - 9T	694	2"	9	2	1"	.69
8-N -12T	695	2"	12	2	1"	.72
10-NB-12T	696	2½"	12	2	1⅜"	.81
TERMINAL-TURRETS						
6-12	676	1 11/32"	12	2	⅝"	.45
♦ 8-12	677	1 27/32"	12	2	1"	.48
♦ 10-12	678	2 11/32"	12	2	1⅜"	.51

NOTE: Tolerance on dimensions ±1/16"

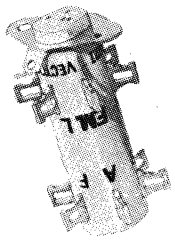
♦ Indicates preferred types

Longer or shorter types and other terminal configurations can be readily made to order.

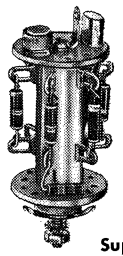
TRANSISTOR TURRETS



7-A-12T-440



8-A-12T



#654 Supplied without wiring

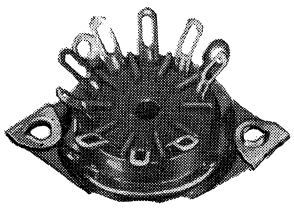
VECTOR TRANSISTOR TURRETS enable the user to mount transistors and other necessary circuit components on one structure.

TRANSISTOR SOCKET TURRET: Dual Purpose Socket accommodating 3-in-line or "top-hat" type transistors.

TRANSISTOR WAFER TURRET: Holds four transistors on Wafer punched to take JETEC or in-line leads.

Catalog No.	Height	Space Between Rings	Space Between Wafers	Saddle	Knurl Nut	Net Price 1-19
6-A-12T	1½"	⅞"	—	YES	NO	1.06
7-A-12T-440	1¾"	⅞"	—	NO	YES	1.04
8-A-12T	2"	1⅜"	—	YES	NO	1.08
652	2"	1"	1 1/16"	NO	NO	.81
654	2½"	1⅜"	2 3/16"	NO	NO	.87

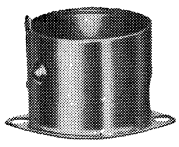
SOCKET SADDLE NUTS



U nut designed especially to slip over and clamp on socket saddles provide convenient means for quickly screwing sockets to chassis. Two types are available, No. 4-40 U which fits No. 4-40 screws and No. 4Z U which fits a No. 4 sheet metal screw. The latter is stronger since it is of thicker metal than the former. Screws should be hardened steel for both nuts to avoid stripping and are also listed below: Material is cad. plated steel. Bags of 50 each.

Cat. No.	Thread	Screw Length	Net Price 1-19 Bags
♦ 4-40 U Nut	4-40	—	1.00
4-Z U Nut	4 Z	—	1.25
4-40 x 1/4" Screw	4-40	1/4"	.60
4Z x 1/4" Screw	4 Z	1/4"	.40

TUBE BASE SHIELDS



TUBE BASE SHIELDS are intended to be mounted above the socket as a base for conventional bayonet type tube shields.

CATALOG NO.		DESCRIPTION	NET PRICE 1-19
Commercial	Military		
♦ S7	—	7 Pin Steel Cad. Plated	.09
S7.17	—	7 Pin Steel Cad. Iridited	.09
—	S7.22	7 Pin Brass Nickel Plated	.12
♦ S9	—	9 Pin Steel Cad. Plated	.09
S9.17	—	9 Pin Steel Cad. Iridited	.09
—	S9.22	9 Pin Brass Nickel Plated	.12

Net

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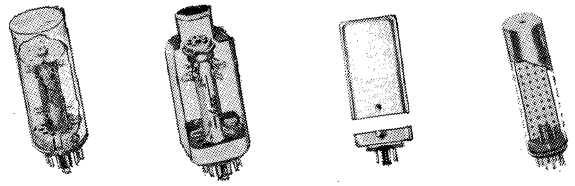
SMALL ROUND OR SQUARE PLUG INS



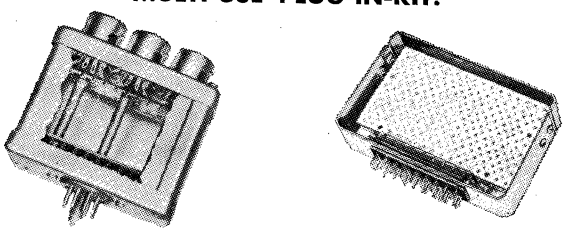
G2-10-T-1 B-10-M C-10 G2.1-8-4

SMALL ROUND & SQUARE PLUG-INS for amplifiers, counters, oscillators, flip flops, and other circuits can be easily assembled and packaged from the wide variety of readily available Vector Plug-in Units and Cases. Cases are deep-drawn aluminum with caustic etch finish. Plugs are tube base type; Octal 8 pins for B, C, and G2 types, 9 pin Noval for G2.1 size, and 7 pin miniature for G2.2. Sockets are mica filled phenolic, with brass cad. plated contacts. Military types (premium grade) have MIL sockets with beryllium copper silver plated contacts. (Add J to catalog number for this).

Catalog Number	Type of Plug	Type of Socket	Type of Turret	Dimensions Height	Dimensions Size	Net Price 1-19
B-8	Octal 8	None	None	2"	1 1/16" Sq.	.99
B-10	Octal 8	None	None	2 1/2"	1 1/16" Sq.	1.03
B-10-M	Octal 8	7 P. Min.	Post	2 1/2"	1 1/16" Sq.	1.91
B-10-N	Octal 8	9 P. Nov.	Post	2 1/2"	1 1/16" Sq.	1.95
B-10-T	Octal 8	None	Post	2 1/2"	1 1/16" Sq.	1.65
B-10-4	Octal 8	None	Strip "A"	2 1/2"	1 1/16" Sq.	1.82
C-10	Octal 8	None	None	2 1/2"	2" Sq.	1.16
C-12	Octal 8	None	None	3"	2" Sq.	1.20
C-12-M	Octal 8	7 P. Min.	Post	3"	2" Sq.	2.24
C-12-N	Octal 8	9 P. Nov.	Post	3"	2" Sq.	2.27
C-12-T	Octal 8	None	Post	3"	2" Sq.	1.88
C-12-4	Octal 8	None	Strip "A"	3"	2" Sq.	2.85
C-10-NN	Octal 8	9 p. Nov. (2)	Post	2 1/2"	2" Sq.	3.01
C-12-NN	Octal 8	9 p. Nov. (2)	Post	3"	2" Sq.	3.04
G2-10	Octal 8	None	None	2 1/2"	1 1/4" Dia.	.97
G2-10-M	Octal 8	7 P. Min.	None	2 1/2"	1 1/4" Dia.	1.66
G2-10-N	Octal 8	9 P. Nov.	None	2 1/2"	1 1/4" Dia.	1.69
G2-10-4	Octal 8	None	Strip "D"	2 1/2"	1 1/4" Dia.	1.85
G2-10-T-1	Octal 8	None	Wafer	2 1/2"	1 1/4" Sq.	1.68
G2.1-8	9 P. Nov.	None	None	2"	3/4" Dia.	1.35
G2.1-8-N	9 P. Nov.	9 P. Nov.	None	2"	3/4" Dia.	2.04
G2.1-8-4	9 P. Nov.	None	Strip "G"	2"	3/4" Dia.	1.90
G2.2-8	7 P. Min.	None	None	2"	5/8" Dia.	1.21
G2.2-8-M	7 P. Min.	7 P. Min.	None	2"	5/8" Dia.	1.93
G2.2-8-4	7 P. Min.	None	Strip "G"	2"	5/8" Dia.	1.88

NOTE: Strip "A" has .093" holes sp. 0.265". Strip "D" has .093" holes spaced 0.2" x 0.25". Strip "G" has 1/16" holes spaced 0.141" to fit JETEC transistor leads. "Wafer" is 1" diameter as used on transistor turret #654.

MULTI-USE PLUG-IN-KIT:



TUBE SOCKET TYPE TRANSISTOR TYPE

MULTI USE PLUG-IN KITS enable the user to readily wire and package a wide variety of circuits. Kits consist of an aluminum case with plug and accessories for mounting (a) Tube Sockets, or (b) Transistor type assemblies. For the tube circuits the Lip-Loc Case units (see left fig.) are used. These include the following parts: Mounted noval sockets, shield bases, 2 Zip wiring decks, and 11-pin Octal plug plus extra components as follows: equal number of 7-pin miniature sockets, shield bases and adapter mounting rings; plug buttons to close unused socket holes; one extra unpunched base with spacers and screws for mounting larger plugs such as the Amphenol Blue Line (not supplied in kit); one extra zip wiring deck. The extra components may be readily installed as required in place of the furnished items.

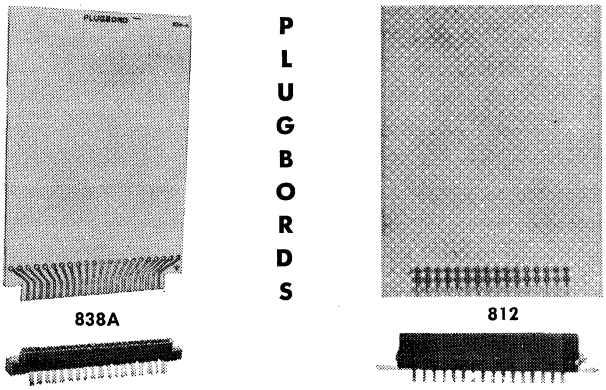
For transistor and printed circuit assemblies the Frame-Loc type case shown at the right above is used with Elco Varicon 16 pin plug and optional perforated epoxy-paper center wall with 1/16" holes on alternate centers of a 0.1" grid. T28 Push-In Terminals supplied (not installed).

Material specifications are as follows: case, caustic etch on aluminum; sockets, mica-filled phenolic, commercial grade; terminal strips and spacers are phenolic for tube units and epoxy-paper for transistor units. Overall height of all units is 3".

Cat. No.	Sockets	Base Dimen.	Deck Spacing (2 Decks)	Number Terminals per Deck	Base Price 1-19
4-EK3	3N & 3M	1 5/8" x 3 7/8"	1 7/16	22	5.97
5-E2K3	4N & 4M	1.68" x 4.82"	1 7/16	30	6.57
6-E1K3	5N & 5M	1 5/8" x 5 7/8"	1 7/16	38	7.17
4-HK3	None	1" x 4"	1 Wall	—	5.60
5-HK3	None	1" x 5"	1 Wall	—	5.74
6-HK3	None	1" x 6"	1 Wall	—	6.19

Many other case sizes and structures are obtainable at the factory.

PLUGBORDS



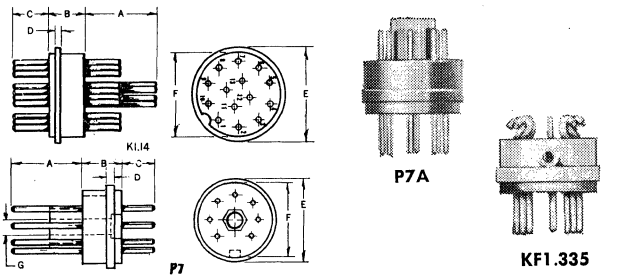
838A 812

R622 R616

Use Plugbords for test circuits, P.C. prototypes, modular Plug-Ins. Plugbords made from 1/16" epoxy paper or glass with 1/16" holes on alternate 0.1" centers. Use Vector T-28 Push-In, eyelets or turned terminals. Elco Varicon or P.C. plug contacts attached to board. Copper clad boards also listed can be etched by user.

Catalog Number	Description	Net Price 1-19
812	4 1/2" x 6 1/2" Epoxy-Paper, 16 Varicon Contacts	$2.73
812WE	4 1/2" x 6 1/2" Epoxy-Glass, 16 Varicon Contacts	3.23
R616	Receptacle for Above, 16 Contacts	2.22
837	3" x 4 1/2" Epoxy-Paper, 12 Varicon Contacts	2.13
837WE	3" x 4 1/2" Epoxy-Glass, 12 Varicon Contacts	2.36
R612	Receptacle for Above, 12 Contacts	1.75
838A	4 1/2" x 6 1/2" Epoxy-Paper, 22 Etched Contacts	2.57
R622	Receptacle for Above, 22 Contacts	3.15
838	4 1/2" x 6 1/2" Epoxy-Paper, 43 Contacts, 2 Sides	3.34
R644	Receptacle for Above, 43 Contacts	3.15
838C	Copper Clad, 1 Side, Epoxy-Paper, Sim. to 838A, No Etch.	1.50
838D	Copper Clad, 2 Side, Epoxy-Paper, Sim. to 838, No Etch.	1.75

TUBE BASE PLUGS



VECTOR TUBE BASE PLUGS have mica-filled castings and phosphor-bronze pins. The wide variety of pin configurations on the top side of the plugs make possible design features not possible with other plugs. Plugs may be mounted as follows:

1. With a 4-40 or 5-40 screw through the center of the plug. The 7-pin miniature and 9-pin noval plugs have a recessed hexagonal hole in the base which fits a 4-40 or 5-40 small pattern nut.

2. With a retainer ring in a plate or chassis. Retainer rings are indicated by adding "R" after K or P in the catalog number.

3. Where round shells are to be attached, the 7-pin and 9-pin plugs without a keyway can be furnished with a threaded insert in each side which accommodate a 1-72 thread screw. Threaded inserts are indicated by "F" in catalog number.

Cat. No.	Type	DIMENSIONS A	B	C	D	E	F	G	Net Price 1-19
P7	7-pin min.	17/32"	.300"	.265"	1/16"	.621	.568	.125	.47
P9	9-pin noval	17/32"	.300"	.265"	1/16"	.748	.700	.125	.52
P7A	7-pin min.	3/16"	.300"	.265"	1/16"	.621	.568	.125	.47
P9A	9-pin noval	3/16"	.300"	.265"	1/16"	.748	.700	.125	.52
K1.302	(Same as P7 exc. no centerpost)								.47
K1.402	(Same as P9 exc. no centerpost)								.52
K1.334	Min. hooked Pin	.150	.300"	.265"	1/16"	.621	.568	.125	.59
K1.434	Noval hooked pin	.162	.300"	.265"	1/16"	.748	.700	.125	.64
P8L	Loctal	13/16"	7/16"	13/32"	100	1.17	1.00	.110	1.23
K1.14	14 pin	17/32"	.300"	.265"	1/16"	.750	.700	None	.63
KF1.301	(Same as P7 + knurl nuts exc. no keyway)								.76
KF1.311	(Same as P7A + knurl nuts exc. short pins, no keyway)								.76
KF1.401	(Same as P9 + knurl nuts exc. no keyway)								.79
KF1.411	(Same as P9A + knurl nuts exc. short pins, no keyway)								.79
KF1.335	(Same as K1.334 + knurl nuts exc. no keyway)								.88

Add R after "P" or "K" for retainer ring. .45

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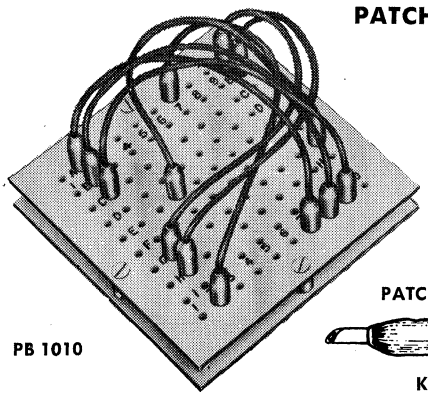
PATCH BOARDS



PB 1010

PATCH CORD

K2.06

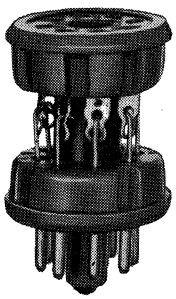
VECTOR PATCH-BOARDS provide simple, but reliable low-cost units for multiple connection, single conductor patching on computers and test fixtures. Standard units are made up in blocks of 100 receptacles on .265" centers, ten rows of ten receptacles each. Horizontal rows lettered alphabetically starting at top. Vertical columns numbered starting "1" at left. Furnished with four brackets and drilled mounting holes. Special size patchboards available to order.

Specifications: Panels epoxy paper, ivory color, .093" thick. Terminals beryllium copper, silver plated with gold flash. Dimensions 3¼" x 3¼" x ⅞". Hole diameter 0.094 ±.002. Recommended plug. 0.087" — .091" diameter by .468" long. Contact tabs provided with 2 holes for soldering on wires.

Cat. No.	Description	Net Price 1-19
PB1010	Patch Board (Standard) 100 Contacts	10.75
K2.06	Patchcord Single Conductor 6" (25 per bundle)	2.00
K2.09	Patchcord Single Conductor 9" (25 per bundle)	2.25
K2.15	Patchcord Single Conductor 15" (25 per bundle)	2.50

EXPERIMENTER'S TEST ADAPTERS

EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections (Outer shells available at factory — add "S" to number to obtain).

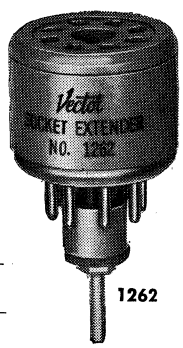


TX-8-0

Cat. No.	Socket Type	Net Price 1-19
TX-8-0	Octal	1.30
TX-7-M	Miniature	.80
TX-9-N	Noval	.85
TX-789	Set of above three in kit	3.25

SOCKET EXTENDERS

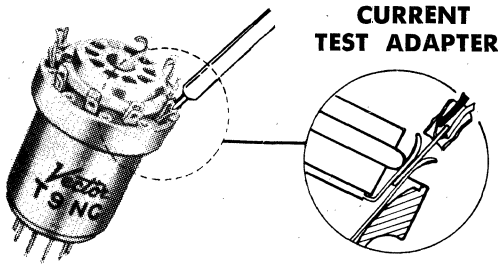
SOCKET EXTENDERS provide a replaceable unit for use in tube testers. Wear is shifted from the socket in the tester to the one in the Extender so that when it is worn out a new one can be easily inserted. Sockets have highest grade beryllium copper contacts. A screw projects thru the plug and may be used to hold the unit firmly in place if desired. Socket to plug leads are soldered and an outer shell is used.



1262

Cat. No.	Socket Type	Net Price 1-19
#1262	Octal 8	1.90
#1263	9 P. Noval	1.90
#1264	7 P. Miniature	1.90

CURRENT TEST ADAPTERS

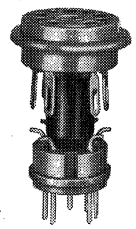


Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or votage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.20
T-8-O-C	8 Pin Octal	2.45
T-9-N-C	9 Pin Noval	2.45
P-2	Dual Sided Plug-in Probe, Required for above	.75
T-789-C	Set of Above 3 Adapters with P-2 Probe in Case	8.40

SOCKET CHANGE ADAPTERS

SOCKET CHANGE ADAPTERS facilitate use of unlike tube bases in existing sockets where a change of tube types is required. To be wired by user. Add "S" to number for an outer shell which may be cemented in place.



T97

Cat. No.	Socket	Plug	Net Price 1-19
T 780	7 P. Min.	Octal 8	1.05
T 79	7 P. Min.	9 P. Nov.	1.02
T 807	Octal 8	7 P. Min.	1.23
T 809	Octal 8	9 P. Nov.	1.23
T 97	9 P. Nov.	7 P. Min.	1.02
T 980	9 P. Nov.	Octal 8	1.05

THE ROTOPROBE

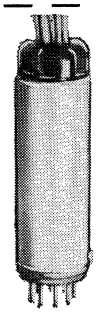
THE ROTOPROBE is a new type of test adapter to which a rotating test lead is permanently attached. Rotation of the shell causes a contact arm to move across the pins connecting the socket elements so that any position may be quickly contacted. This serves the same purpose as the usual Test Adapters but is more convenient and faster.

T8B

Cat. No.	Socket Type	Net Price 1-19
T-8-B	Octal	3.45
T-7-B	Miniature	3.30
T-9-B	Noval	3.60
T-789-B	Set of above three in kit	11.18

CABLE CONNECTOR PLUGS

CABLE CONNECTOR PLUGS permit connecting cables to miniature and noval tube sockets. Aluminum shells are fitted to 7-pin and 9-pin plugs. In type "C" a rubber grommet (with ¼" hole) is mounted in the side wall and a center screw holds the assembly together. In type "D" a Heyco strain relief grommet is mounted in the end of the shell and the base screws hold the shell on the plug. Approx. length (exc. pins) 2.125".



P9D

End Outlet Cat. No.	Side Outlet Cat. No.	No. of pins	Outside Diam.	Net Price 1-19 End Outlet	Side Outlet
P7D	P7C	7	⅝"	1.50	1.08
P9D	P9C	9	¾"	1.59	1.20

(Similar connectors for other tube type supplied to order).

Net

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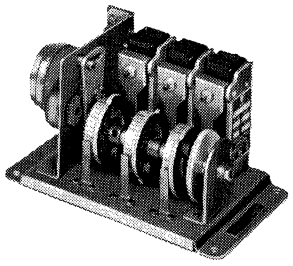
Timers

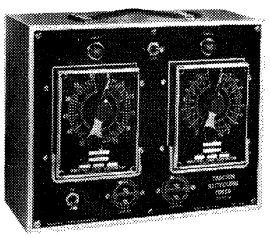
INDUSTRIAL TIMER CORPORATION

NEWARK, N. J., U. S. A.

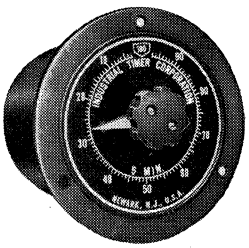
RECYCLING



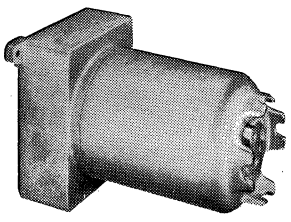
Recycling Cam Timers, 1 to 20 load switches, 2/3 sec. to 72 hours in 600 steps. Details in Bulletin #200, 201, 202, & 203.



Tandem Recycling Timer, interchangeable elements, time cycles from 1/60 sec. to 3 hours. Details in Bulletin #500.

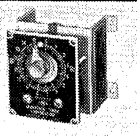


Percentage Timer, dial adjustable for ON-OFF percentage of given time cycle. Details in Bulletin #500.

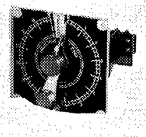


Explosion Proof Cam Timers, 1 to 20 load switches, 2/3 sec. to 72 hours. Details in Bulletin #800.

TIME DELAY



Series SFC, 1/10 sec. to 5 minutes, Auto-Reset, 10 amp. contact rating, Back mounted. Details in Bulletin #300.

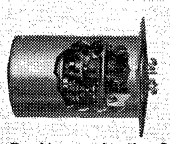


Series H, 1/10 sec. to 5 min., Auto-Reset, 10 amp. contact rating, flush mounted. Bulletin #300.

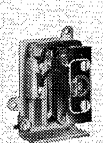
Series TD, 1/10 sec. to 5 min., Auto-Reset, 10 amp. contact rating, mounts through a hole. Bulletin #300.

Series TDAF, 1/60 sec. to 3 hours, instant reset, 10 amp. contact rating, flush mounting. Bulletin #300.

Series TDAB, 1/60 sec. to 3 hours, instant reset, 10 amp. contact rating, back mounted or available in case. Bulletin #300.

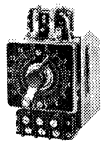


Series R, Hermetically Sealed, Ruggedized, time cycles from 1 sec. to 60 hours, 5 amp. contact rating. Details in Bulletin #600.



Series TH, Thermal Time Delay Switch, 10 amp. contact rating, time cycles from 15 sec. to 2 minutes, snap action switch. Details in Bulletin #301.

INTERVAL



Series PAB, 1/60 sec. to 3 hours, auto-reset, 15 amp. contact rating, available in housing, or back mount, extremely accurate. Bulletin #400.

Series P, 1/10 sec. to 5 min., self powered, auto-reset, 10 amp. contact rating. Bulletin #400.

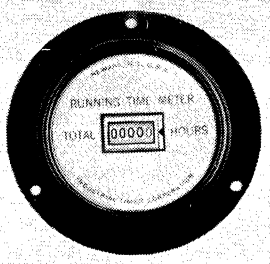
Series M, 1 minute only, 10 amp. contact rating, auto-reset. Bulletin #400.

Series RS, 15 minutes to 60 hours, 20 amp. contact rating, manual set. Request Bulletin #400.

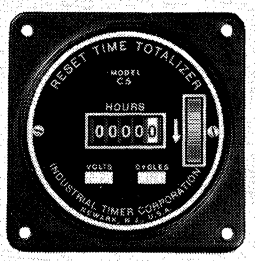
Series PAF, 1/60 sec. to 3 hours, instant reset, 15 amp. contact rating, panel mounting, extremely accurate. Bulletin #401.

Series SAR, Auto-reset Signalling Timer, time cycles from 15 min. to 3 hours. Bulletin #402.

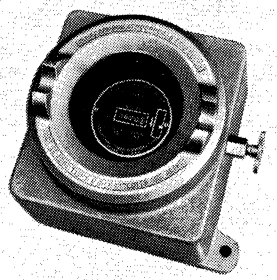
RUNNING TIME METERS



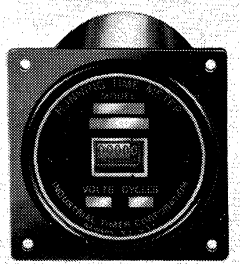
Series C-2, 1/10 sec. count to 1 hour count. Bulletin #700.



Series C-5, Time totalizer, reset to zero type, counts available from 1 sec to 1 hour. Bulletin #700.



Series TTXP, Explosion Proof, external reset. Bulletin #800.



Series T3, Hermetically sealed and ruggedized, same counts as Series C-2. Complete details in Bulletin #600.

Send for our Complete Timing Controls Catalog, free upon request . . . .

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BLILEY

BULLETIN 44E

THE STANDARD OF QUALITY... FOR OVER 30 YEARS...

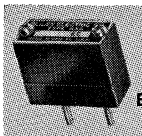
AMATEUR CRYSTALS

CODE	TYPE	APPLICATION	TOL.	PRICE
E17	AX2	1800-1825 kc.; 1875-1900 kc.; 1900-1925 kc.; 1975-2000 kc.	*	$3.75
E18	AX2	3500-4000 kc. (Novice frequencies for 80... 3700.0 kc. to 3750.0 kc.; Multiplies to 40... 3587.5 to 3600.0 kc.; Multiplies to 15... 3516.66 to 3541.66 kc.)	*	2.95
E19	AX2	7000-7425 kc.; 8000-8222 kc. (Novice frequencies for 40...7175.0 to 7200.0 kc.; Multiplies to 15...7033.33 to 7083.33 kc.)	*	2.95
E20	AX2	14,000-14,500 kc.	±10 kc.	3.95
E22A	SR10	12 mc-27.5 mc experimental frequencies (Novice frequencies for 15...21, 100 to 21,250.0 kc.; Multiplies to 2...24,166.66 to 24,500.0 kc.)	±.03%	8.50

*Note: We will supply to integral spot frequencies (no fractions) as ordered; calibration ±500 cycles in factory test oscillator.

TYPE **KV3**
CODE **E10**
CASE LENGTH: $1\frac{9}{32}$"
DIAMETER: $1\frac{3}{16}$"
PIN SIZE: .093"
PIN SPACE: .486"

TYPE **MS433A**
CODE **E27**
CASE LENGTH: $2\frac{1}{32}$"
DIAMETER: $1\frac{7}{32}$"
PIN SIZE: .093"
PIN SPACE: OCTAL



TYPE **AX2**
CODE **E17, E18, E19, E20**
CASE LENGTH: $\frac{15}{16}$"
WIDTH: $1\frac{1}{16}$"
THICKNESS: $\frac{7}{16}$"
PIN SIZE: .093"
PIN SPACE: .486"

TYPE **MC7**
CODE **E5**
CASE LENGTH: $1\frac{39}{64}$"
WIDTH: $1\frac{1}{8}$"
THICKNESS: $\frac{21}{32}$"
PIN SIZE: .125"
PIN SPACE: .750"

GENERAL COMMUNICATIONS CRYSTALS

CODE	TYPE	APPLICATION	TOL.	PRICE
E5	MC7	Radiotelephone 2-3.5 mc	±.02%	$7.50
E22	MC9	3-12 mc experimental frequencies	±.03%	6.50
E22A	SR10	12-27.5 mc experimental frequencies	±.03%	8.50

TYPE **MC9**
CODE **E3, E8, E9, E11A, E22**
CASE LENGTH: $1\frac{11}{64}$"
WIDTH: $\frac{13}{16}$"
THICKNESS: $\frac{7}{16}$"
PIN SIZE: .093"
PIN SPACE: .486"

TYPE **TCO-14LS**
CODE **E26**
CASE LENGTH: $2\frac{11}{32}$"
DIAMETER: $1\frac{1}{4}$"
OCTAL BASE

CRYSTALS FOR STANDARD FREQUENCIES

CODE	TYPE	APPLICATION	TOL.	PRICE
E3	MC9	TV Service—4.5 mc intercarrier	±.02%	$3.95
E8	MC9	TV Service—5.0 mc signal generator	±.02%	3.95
E9	MC9	TV Service—10.7 mc FM—i-f alignment	±.05%	3.95
E10	KV3	Reference frequency 100 kc.	±.005%	8.50
E11A	MC9	Marker frequency 1000 kc.	±.05%	8.00
E15	CF6	455 kc.—456 kc.—465 kc. Single Signal Filters	±5 kc.	4.50
E27	MS433A	Reference frequency 1000 kc.	±.005%	17.00

TYPE **SR10**
CODE **E22A**
CASE LENGTH: $\frac{51}{64}$"
WIDTH: $\frac{3}{4}$"
THICKNESS: $\frac{11}{32}$"
PIN SIZE: .093"
PIN SPACE: .486"

TYPE **BH6A**
CODE **E24**
CASE LENGTH: $1\frac{1}{32}$"
WIDTH: $\frac{3}{4}$"
THICKNESS: $\frac{11}{32}$"
PIN SIZE: .050"
PIN SPACE: .486"

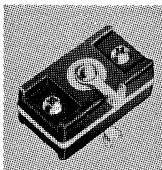
HIGH STABILITY PACKAGE . . . OVEN AND CRYSTAL

FOR 100 kc. OR 1000 kc.
For precision calibration of signal generators or other test instrumentation.

CODE	TYPE	DESCRIPTION	STABILITY	PRICE
E24	BH6A	1000 kc. Crystal	±.0002%	$14.75
E25	BH9A	100 kc. Crystal	±.0005%	11.25
E26	TCO-14LS	Oven	75°C. ±2°C.	12.95

Crystal units described are calibrated in recommended oscillator circuit-adjustable to zero beat (at 75°C.) in this circuit. Oven rating: 6.3 V; 10 watts.

SPECIFY CODE E26 FOR TCO-14LS OVEN ONLY
SPECIFY CODE E24 FOR BH6A 1000 KC. CRYSTAL ONLY
SPECIFY CODE E25 FOR BH9A 100 KC. CRYSTAL ONLY
SPECIFY CODE E28 FOR OVEN WITH BH6A AND BH9A CRYSTALS



TYPE **CF6**
CODE **E15**
CASE LENGTH: $1\frac{17}{32}$"
WIDTH: $\frac{15}{16}$"
THICKNESS: .695"

TYPE **BH9A**
CODE **E25**
CASE LENGTH: $1\frac{25}{32}$"
WIDTH: $\frac{3}{4}$"
THICKNESS: $\frac{11}{32}$"
PIN SIZE: .050"
PIN SPACE: .486"

Bliley BLILEY ELECTRIC COMPANY, UNION STATION BUILDING, ERIE, PENNSYLVANIA

ABOVE PRICES EFFECTIVE MAY 1, 1960

THE COMPANY RESERVES THE RIGHT TO CHANGE PRICES AND SPECIFICATIONS WITHOUT NOTICE.

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PR Crystals

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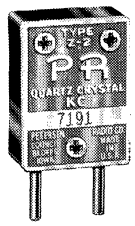
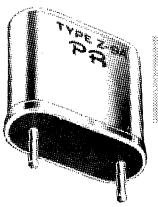


FOR AMATEUR SERVICE



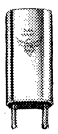
Z-2 Crystals are supplied **only** in the following bands and calibrated **integral kilocycles** only, **no fractions.**

Type	Frequency Range		For	Price
Z-2 Fundamental	3500 to 4000 Kc. 7000 to 7425 Kc. 8000 to 8222 Kc. 8334 to 9000 Kc.	±500 Cycles	80M. 40M. 2M. 6M.	**$2.95**

(All Z-2 Crystals calibrated with a load of 32 mmfd.)

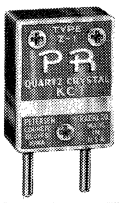
Type	Frequency Range		Price
Z-9A 3d Overtone	24000 to 24666 Kc. 25000 to 27000 Kc.	±3 Kc.	**$3.95**
Z-9A 5th Overtone	50000 to 54000 Kc.	±15 Kc.	**$4.95**

SPECIAL CRYSTALS



Type Z-6A, Frequency Standard

100 Kc. $6.95



Type Z-1, MARS and CAP

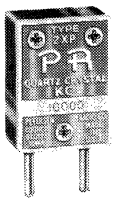
Calibrated to .005%

Official assigned transmitter frequencies in the range.

1600 to 10000 Kc. $3.45

Type Z-1, TV Marker Crystals

Channels 2 through 13	$6.45
4.5 Mc. Intercarrier,.01%	$2.95
5.0 Mc. Signal Generator, .01%	$2.95
10.7 Mc. FM, IF, .01%	$2.95



Type 2XP

Suitable for converters, experimental, etc. Same holder dimensions as Type Z-2.

1600 to 12000 Kc. ±5Kc. (Fund.) $3.45

12001 to 25000 Kc. ±10 Kc. (3d Overtone) $4.45

Broadcast Crystals Regrinding Service

Any Frequency, 550 to 1600 Kc. $20.00

COMMERCIAL TYPES

Available from 100 Kc. to 70 Mc. Prices on request.

CITIZENS BAND CLASS "D"

Type Z-9R, Transmitter

FCC Assigned Frequencies in Megacycles.

26.965	27.025	27.085	27.155	27.215
26.975	27.035	27.105	27.165	27.225
26.985	27.055	27.115	27.175	27.255
27.005	27.065	27.125	27.185	
27.015	27.075	27.135	27.205	

Be sure to specify manufacturer and model number of equipment. Calibrated .005%. Each $2.95

Citizens Band Class "D" Type Z-9R, Receiver

In ordering Receiver Crystals, specify I. F. Frequency, also whether receiver oscillator is above or below Transmitter Frequency. Be sure to specify manufacturer and model number of equipment. Calibrated .005%. Each $2.95

Type Z-9R, RADIO CONTROL

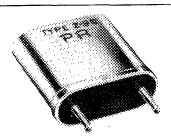
FCC Assigned Frequencies in Megacycles.

26.995	27.095	27.195
27.045	27.145	27.255

Be sure to specify manufacturer and model number of equipment. Calibrated .005%. Each..... $2.95

VHF Type Z-9R, AIRCRAFT

For LEAR, NARCO and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Each $4.95



ACCESSORIES

Single Sockets for Z-9, Z-9A, Z-9R	25c
Single Sockets for Z-1, Z-2, and 2XP	30c
Dual Sockets for Z-1, Z-2 and 2XP	35c
Adapters, to adapt Z-1, Z-2 and 2XP to ¾" Socket	40c

ALL PR CRYSTALS ARE UNCONDITIONALLY GUARANTEED.

PETERSEN RADIO Company, Inc., Council Bluffs, Iowa

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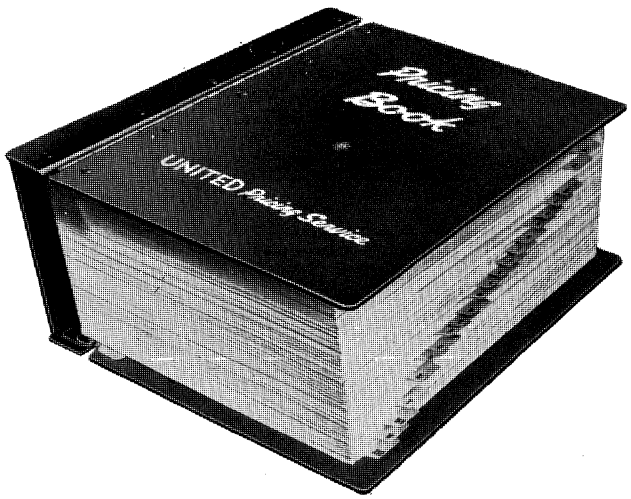

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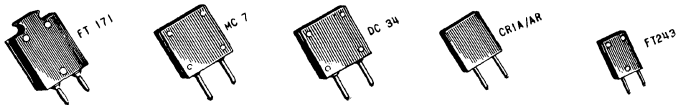
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

TEXAS CRYSTALS...*FOR EVERY PURPOSE*



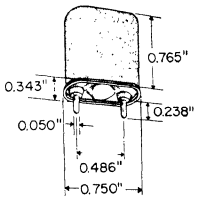
CRYSTALS MADE TO ORDER

M 1,001	to	1,600 KC	.005% TOL.	$4.50
1,601	to	2,600 KC	.005% TOL.	$2.75
2,600	to	9,000 KC	.005% TOL.	$2.50
9,000	to	10,000 KC	.005% TOL.	$3.00

Made to order crystals in pressure type holders can be supplied in five types as shown. All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

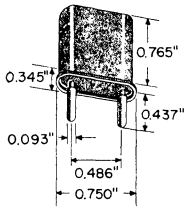
Low frequency crystals from 1001 KC to 2100 KC are space mounted —all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without fracture. Order by frequency, type holder, tolerance, and circuit capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER



HC 6/U .050 PINS

In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G. E., Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



HC 17/U .093 PINS

1,400 KC	to	2,500 KC	(Fundamental Frequency)..... $6.00 ea.
2,501 KC	to	5,000 KC	(Fundamental Frequency)..... 3.50 ea.
5,001 KC	to	10,000 KC	(Fundamental Frequency)..... 3.25 ea.
10,001 KC	to	15,000 KC	(Fundamental Frequency)..... 3.75 ea.
15 MC	to	20 MC	(Fundamental Frequency)..... 5.00 ea.

OVERTONE CRYSTALS

15 MC to 30 MC Third Overtone	$3.85 ea.
30 MC to 40 MC Third Overtone	4.10 ea.
45 MC to 65 MC Third or Fifth Overtone	4.50 ea.
65 MC to 100 MC Fifth Overtone	6.00 ea.

HC-6/U

CLASS "D" CITIZEN BAND CRYSTALS

22 Frequencies — 3rd Overtone — .005% TOL.

All "Citizen Band" crystals supplied in HC-6/U holders. Pin spacing .493—Pin dia. .050—Frequencies listed in megacycles. Use circuit recommended on P5 for best results. Order by frequency.

CE-1 ..... 20c
Ceramic Low Loss Socket for HC-6/U Holder — ½" Pin Spacing .050" Holes.

CHANNEL		CHANNEL		CHANNEL		CHANNEL		CHANNEL	
26.965	1	27.005	4	27.065	9	27.105	12	27.175	18
26.975	2	27.015	5	27.075	10	27.115	13	27.185	19
26.985	3	27.025	6	27.085	11	27.125	14	27.205	20
		27.035	7			27.135	15	27.215	21
		27.055	8			27.155	16	27.225	22
						27.165	17		

Can be supplied with .093 pins—15c extra. Available in counter display unit

We can supply crystals for the following manufacturers of Citizen Band Transceivers. Please specify manufacture and model number. All crystals .005% Tol. in HC6/U holders at $2.95 ea. Action Laboratories, Apelco, Arkay, Chickasha Electronics, Citizens Electronicsc, Dixon Electronics, Dunlap Electronics, Eico, Electronic Design, Essco CB, Globe, Gonset, Grove Electronics, Hallicrafters, Heath Co., Hershel Radio, International Crystal, Johnson Vikin, Kaar Engineering, Kay Townes, LaFayette Radio, Lakeland Electronics, Maxwell Electronics, Morrow Radio, Multi Products, Citi-Fone, Numaker Electronics, Pearce Simpson, Philmore, Polytronics, RCA, Radio Mfg. Eng., Radio Shack Corp., Radsen Eng., Ray Jefferson, Raytheon Mfg., Regency, Shell Electronics, Springfield Enterprises, Tecraft Sales, Transpace Inc., U.S. Electronics, Utica Communication, Vanguard Electronics, Vocaline, Western Radio, Wrightman Eng., and World Radio.

$2.95 EACH

TEXAS AMATEUR CRYSTALS

Order by Fundamental Frequency — $1.50 each. Available in self-selling counter display.

Band	Freq. Range	Multiplier	Crystal Freq.
80—Meter General	3,500 to 4,000 KC	Fundamental	3501-3999
80—Meter Novice	3701 to 3,749	Fundamental	3701-3749
40—Meter General	7,000 to 7,300	Double	3500-3650
40—Meter General	7,000 to 7,300	Fundamental	7000-7300
40—Meter Novice	7,151 to 7,199	Double	3576-3599
40—Meter Novice	7,151 to 7,199	Fundamental	7151-7199
20—Meter General	14,000 to 14,350	Double	7000-7175
20—Meter General	14,000 to 14,350	Triple	4667-4780
15—Meter General	21,000 to 21,450	Triple	7000-7150
15—Meter Novice	21,100 to 21,250	Triple	7034-7082
10—Meter General	28,000 to 29,700	X4	7000-7425
6—Meter Gen. & Tech.	50 MC to 54 MC	X6	8334-8900
2—Meter General	144 MC to 148 MC	X18	8001-8221
2—Meter Novice	145 MC to 149 MC	X18	8056-8277

AIRCRAFT CRYSTALS

All crystals are supplied at ¼ operating frequency unless otherwise specified. Tolerance .005%. Order by final frequency and type equipment. Be sure to designate 'HC6/U' holder, or 'miniature' type.

Frequencies in stock from 118 MC to 130 MC

Type HC6/U—all frequencies ..... $3.85 each
Miniature type—all frequencies ..... 4.75 each

Note: Above crystals can be supplied with wire leads for soldering directly to equipment at 25c per crystal extra.

AIRPORT OWNERS AND SERVICE DEPARTMENTS WRITE FOR QUANTITY PRICES

MARINE CRYSTALS

Supplied in 4 types of holders—FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC
IN FT243, FT171, MC7 or CR1AR $2.50
HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY (Specify either .050 or .093 pins) 3.50

CIVIL AIR PATROL CRYSTALS

Supplied in DC34, FT243, FT171 or CR1/AR holders

PROMPT DELIVERY ON ALL ORDERS. ALL CAP frequencies supplied at above prices.

2374 KC, 2394 KC, 4325 KC, 4507.5 KC, 4585 KC, 5500 KC, 8230 KC & 8008.24 KC. — .005% TOLERANCE. $2.50 each.

TEXAS CRYSTALS

FORT MYERS, FLORIDA

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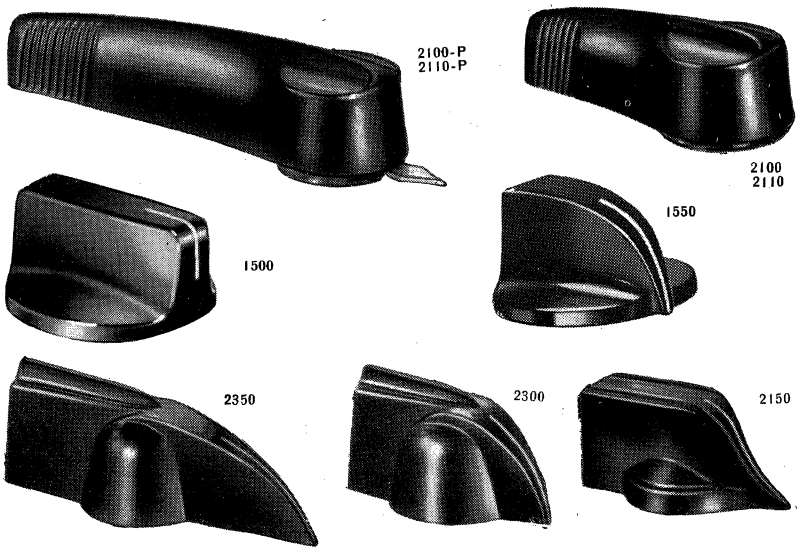
Harry Davies Molding Co.

Molders of Plastics

POINTER AND BAR KNOBS



No. 1500. Dia. 1⅛", hgt. 9/16", ¼" molded hole, set screw or knurled hole mounting, locknut recess, indicator line filled or unfilled.

No. 1550. Dia. 1-⅛", hgt. ⅝", ¼" molded hole or metal insert, set screw, spring or knurled hole mounting, locknut recess.

No. 2100. Length 2½", hgt. ⅝", width ¾", ¼" molded hole or metal insert, set screw mounting, locknut recess.

No. 2110. Length, 1⅝", hgt. 19/32", width ¾", ¼" molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

No. 2100-P. Length 2½", hgt. ⅝", width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.

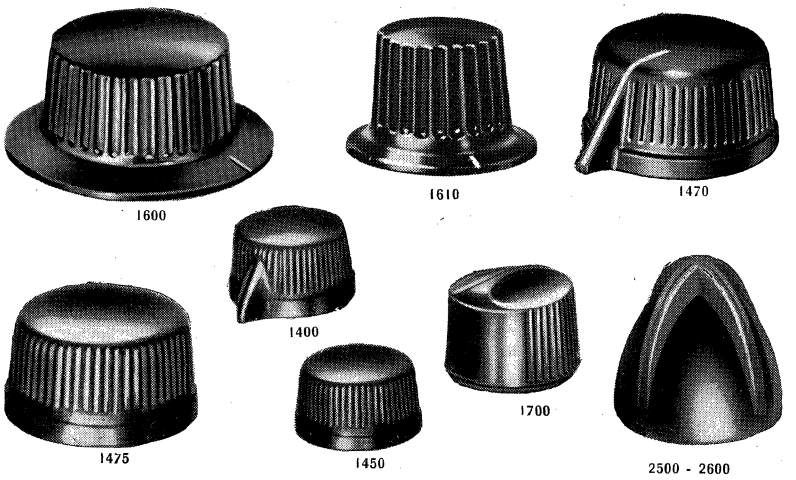
No. 2110-P. Length 1⅝", hgt. 19/32", width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.

No. 2150. Length 1¼", hgt. 9/16", ¼" molded hole, set screw mounting, locknut recess.

No. 2300. Length 1¼", hgt. ⅝", ¼" molded hole, also ¼" metal insert, set screw or knurled hole mounting, locknut recess.

No. 2350. Length 2", hgt. ⅝", ¼" molded hole or metal insert, set screw mounting, locknut recess.

CONTROL KNOBS



No. 1406. Dia. 11/16", hgt. 13/32", ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1450. Dia. 11/16", hgt. 13/32", ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1470. Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.

No. 1475. Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1600. Dia. 1½", hgt. 11/16", ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

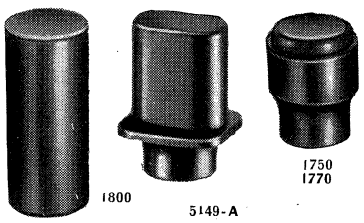
No. 1610. Dia. 15/16", hgt. ⅝", ⅛" or ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

No. 1700. Dia. ¾", hgt. 19/32", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 2500. Dia. ¾", hgt. ¾", ¼" molded hole, set screw, spring or knurled hole mounting.

No. 2600. Dia. ⅞", hgt. ⅞", ¼" molded hole, set screw, spring or knurled hole mounting.

PUSH BUTTONS



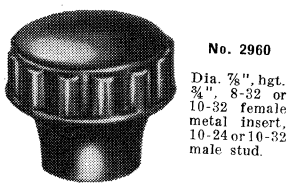
No. 1800. Dia. 7/16", hgt. 1" to 1⅜", touch tuning, plain or recessed top, push on, to fit flatted shaft .050" x .187 patented friction fit. Also with studs of various lengths.

No. 5149-A. Hgt. 51/64", oval touch tuning. Push-on to fit flatted shaft, .050" x .187".

No. 1750. Dia. 31/64", hgt. 9/16" to 15/16", touch tuning, push on, to fit flatted shaft .050" x .187".

No. 1770. Dia. 31/64", hgt. ½" to ⅞", 6-32 or 8-32 female metal insert. 8-32 male stud.

TERMINAL NUTS

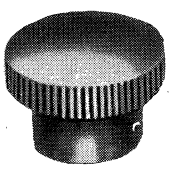


No. 2960

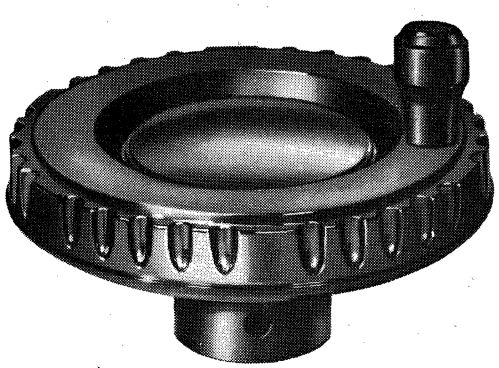
Dia. ⅞", hgt. ¾", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.

No. 2710

Dia. ¾", hgt. ½", 8 - 32, 10 - 32, 10 - 24 metal insert.



SPINNER KNOBS



No. 99. Dia. 3⅜", hgt. 1½", ⅜" or ½" molded hole or metal insert. Set screw mounting, with or without spinner.

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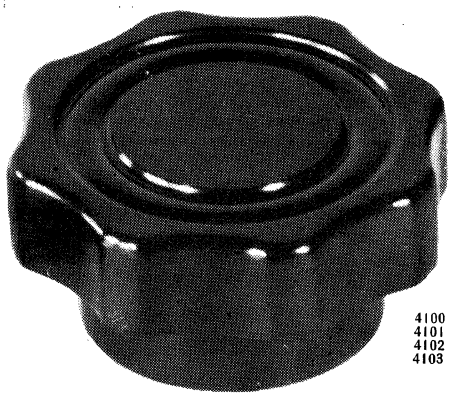
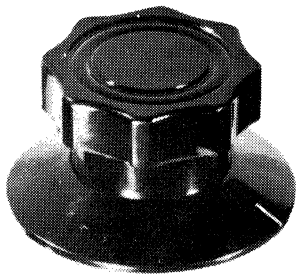
Harry Davies Molding Co.

Molders of Plastics

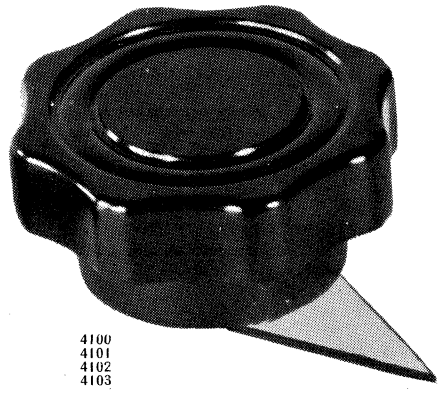
INSTRUMENT KNOBS



4100
4101
4102
4103



4104
4107
4108
4109



4100
4101
4102
4103

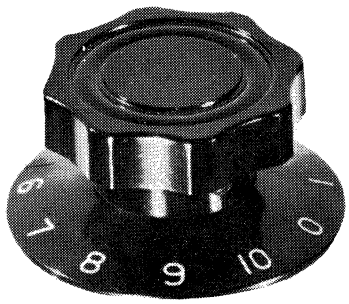
This series can be furnished in compliance with MS 91531.

Part No.	Knob Dia.	Knob Hgt.
4100	1⅛"	⅝"
4101	1⅜"	11/16"
4102	1⅝"	¾"
4103	2⅜"	⅞"

Entire series available with ¼" molded hole or metal insert, set screw mounting. White vinylite pointer available. Pointer lengths, ⅝", ¾", ⅞", 1 1/16", ⅞", 1¼", 1 5/16".

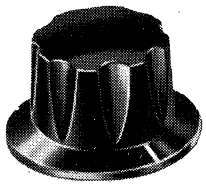
Part No.	Knob Dia.	Skirt Dia.
4104	1⅛"	1½"
4107	1⅜"	1¾"
4108	1⅝"	2 1/16"
4109	2⅜"	3"

Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

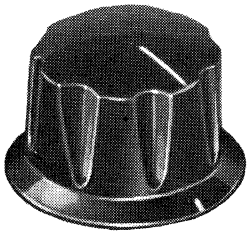


NEW FLUTED INSTRUMENT KNOBS

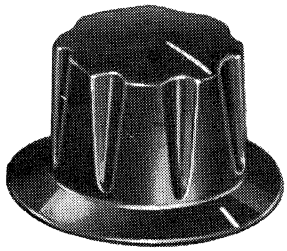
1910



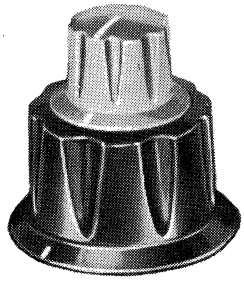
1913



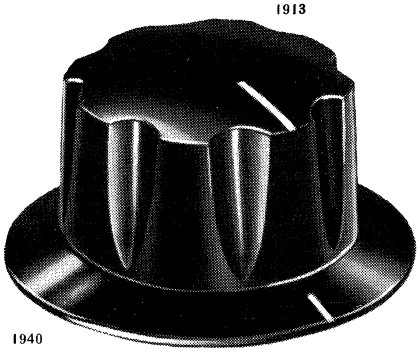
1920



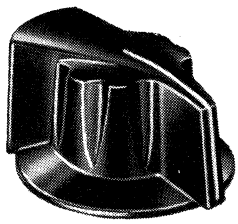
1930



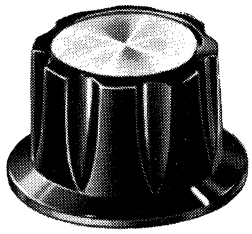
1915



1940



1919



1925

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

No. 1910. Dia. ¾", hgt. ½". ⅛" or ¼", molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1913. Dia. 1⅛", hgt. ⅝". ¼" molded hole or brass insert. Set screw mounting.

No. 1915. Dia. 1¼", hgt. 1 3/16". Dual concentric control. ¼" molded hole or brass insert.

No. 1919. Length 1¼", hgt. ⅝". ¼" molded hole or brass insert. Set screw screw mounting.

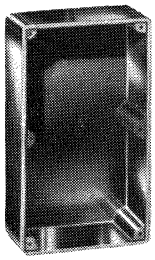
No. 1920. Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1925. Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert. Set screw mounting with or without decorative inlay.

No. 1930. Dia. 1½", hgt. ⅞". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1940. Dia. 2", hgt. 15/16". ¼" molded hole or brass insert. Set screw mounting.

METER CASE AND COVERS



240

241

No. 240. 2" hgt. x 3¾" wide x 6¼" long. (Outside Dimensions)—⅛" (Wall Thickness).

No. 241. Mating cover with interlocking lip for No. 240 series cases.

No. 260. 2 5/16" height x 5 9/32" wide x 6 13/16" long. (Outside Dimensions) — 5/32" (Wall Thickness).

No. 261. Mating cover with interlocking lip for No. 260 case.

Knobs shown are only part of our stock on hand. Our stock molds are interchangeable and meet most requirements with only minor tooling variations. Let us quote on your specifications.

Write for Free Catalog

Harry Davies Molding Co.
CHICAGO, ILLINOIS

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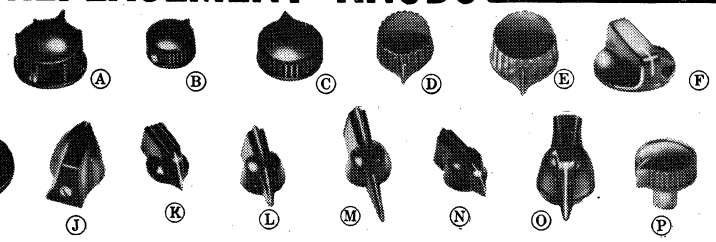
GC ELECTRONICS REPLACEMENT KNOBS



POINTER KNOBS

(A) TENITE POINTER KNOB—1" Diameter, ½" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-464	Walnut	Net $	.08
24-466	Ivory		.08

Set Screw

Cat. No. 24-468	Walnut	Net $	.17
24-470	Ivory		.17

(B) TENITE POINTER KNOB — 23/32" Diameter, 3/8" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-472	Walnut	Net $	.07
24-474	Ivory		.07

Set Screw

Cat. No. 24-476	Walnut	Net $	.13
24-478	Ivory		.13

(C) TENITE POINTER KNOB — 15/16" Diameter, 7/16" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-480	Walnut	Net $	.07
24-482	Ivory		.07

(D) BAKELITE POINTER KNOB — 1" Diameter, ½" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-484	Walnut	Net $	.13
24-486	Black		.13

With Insert—Set Screw

Cat. No. 24-488	Walnut	Net $	.30
24-490	Black		.30

(E) BAKELITE POINTER KNOB—1¼" Diameter, 5/8" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-492	Walnut	Net $	.22
24-494	Black		.22
24-496	Ivory		.22

Brass Insert—Set Screw

Cat. No. 24-498	Walnut	Net $	.33
24-500	Black		.33
24-502	Ivory		.33

(F) BAKELITE POINTER KNOB—Line filled, 1⅛" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-504	Walnut	Net $	.22
24-506	Black		.22
24-508	Red		.22
24-510	Ivory		.22

(G) BAKELITE POINTER KNOB—13/16" Length, ¾" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-512	Walnut	Net $	.15
24-514	Black		.15

(H) TENITE POINTER KNOB — 1¼" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-516	Walnut	Net $	.23
24-518	Black		.23
24-520	Red		.23
24-522	White		.23

(J) BAKELITE POINTER KNOB—1¼" Length, 11/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-524	Black	Net $	.22
24-526	Red		.22
24-528	Ivory		.22

(K) BAKELITE POINTER KNOB—1¼" Length, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-530	Black	Net $	.18
24-532	Walnut		.18
24-534	Red		.18
24-536	Ivory		.18

(L) BAKELITE POINTER KNOB—1¼" Length, 5/8" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-538	Black	Net $	.17
24-540	Walnut		.17
24-542	Red		.17
24-544	Ivory		.17

(M) BAKELITE BRASS INSERT — 2" Length, 5/8" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-546	Black	Net $	.30
24-548	Walnut		.30
24-550	Red		.30
24-552	Ivory		.30

Brass Insert—Set Screw

Cat. No. 24-554	Black	Net $	.38
24-556	Walnut		.38
24-558	Red		.38
24-560	Ivory		.38

(N) BAKELITE BRASS INSERT—1¼" Length, 5/8" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-562	Black	Net $	.23
24-564	Walnut		.23
24-566	Red		.23
24-568	Ivory		.23

(O) BAKELITE POINTER KNOB—1¼" Length, 5/8" Height, Fits ¼" shafts.

No Insert—Set Screw

Cat. No. 24-570	Walnut	Net $	.13
24-572	Black		.13
24-574	Red		.13
24-576	Ivory		.13

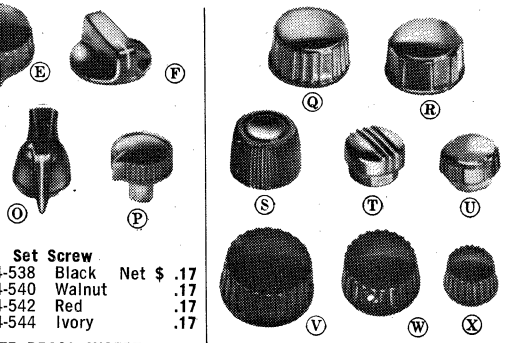
Brass Insert—Set Screw

Cat. No. 24-578	Walnut	Net $	.22
24-580	Black		.22
24-582	Red		.22
24-584	Ivory		.22

(P) PLASTIC POINTER KNOB — 15/16" Diameter, ½" shank extension for ¼" knurled shaft.

Knurl

Cat. No. 24-586	Walnut	Net $	.08
24-588	Ivory		.08



(Q) BAKELITE KNOB—1 1/16" Diameter, 9/16" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-772	Walnut	Net $	.22
24-774	Ivory		.22

(R) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-776	Walnut	Net $	.20
24-778	Ivory		.20

(S) TENITE KNOB — 1" Diameter, 11/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-780	Walnut	Net $	.10
24-782	Ivory		.10

Spring Type

Cat. No. 24-784	Walnut	Net $	.10
24-786	Ivory		.10

(T) BAKELITE KNOB—7/8" Diameter, 5/8" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-788	Walnut	Net $	.27
24-790	Ivory		.27

(U) BAKELITE KNOB—7/8" Diameter, 5/8" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-792	Walnut	Net $	.12

(V) BAKELITE KNOB—1¼" Diameter, 5/8" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-796	Walnut	Net $	.23
24-798	Black		.23

Brass Insert—Set Screw

Cat. No. 24-800	Walnut	Net $	.27
24-802	Black		.27

(W) BAKELITE KNOB—1" Diameter, ½" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-804	Black	Net $	.20
24-806	Red		.20

Brass Insert—Set Screw

Cat. No. 24-808	Black	Net $	.22
24-810	Red		.22

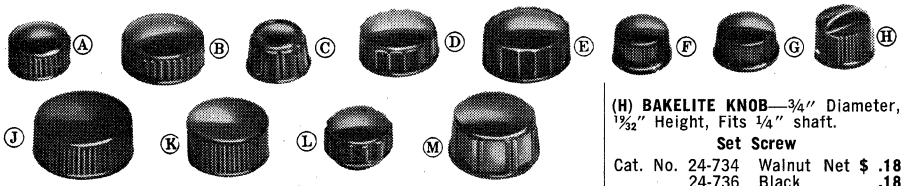
(X) BAKELITE KNOB—5/8" Diameter, 13/32" Height, Fits ¼" shaft.

Set Screw—No Insert

Cat. No. 24-812	Walnut	Net $	.12
24-814	Black		.12
24-816	Red		.13
24-818	Ivory		.13

Set Screw—Brass Insert

Cat. No. 24-820	Walnut	Net $	.18
24-822	Black		.18
24-824	Red		.18
24-826	Ivory		.18



(A) TENITE KNOB—23/32" Diameter, 13/32" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-666	Walnut	Net $	.08
24-668	Ivory		.08

Set Screw

Cat. No. 24-670	Walnut	Net $	.15
24-672	Ivory		.15

(B) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-674	Walnut	Net $	.08
24-676	Ivory		.08

Spring Type

Cat. No. 24-678	Walnut	Net $	.08
24-680	Ivory		.08

(C) TENITE KNOB—¾" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-682	Walnut	Net $	.08
24-684	Ivory		.08

Set Screw

Cat. No. 24-686	Walnut	Net $	.12
24-688	Ivory		.12

(D) TENITE KNOB—15/16" Diameter, 7/16" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-690	Walnut	Net $	.08
24-692	Ivory		.08

Spring Type

Cat. No. 24-694	Walnut	Net $	.08

(E) TENITE KNOB—1⅛" Diameter, 9/16" Height, Fits ¼" shafts.

Knurl

Cat. No. 24-700	Walnut	List $	.08
24-702	Ivory		.08

Spring Type

Cat. No. 24-704	Walnut	Net $	.08
24-706	Ivory		.08

Set Screw

Cat. No. 24-708	Walnut	Net $	.15
24-710	Ivory		.15

(F) BAKELITE KNOB—11/16" Diameter, 13/32" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-712	Walnut	Net $	.13
24-714	Black		.13
24-716	Red		.13
24-718	Ivory		.13

Set Screw with Arrow

Cat. No. 24-720	Walnut	Net $	.20
24-722	Black		.20
24-724	Red		.20
24-726	Ivory		.20

(G) BAKELITE KNOB—1" Diameter, ½" Height, Fits ¼" shafts.

Set Screw

Cat. No. 24-728	Black	Net $	.22
24-730	Red		.22
24-732	Ivory		.22

(H) BAKELITE KNOB—¾" Diameter, 19/32" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-734	Walnut	Net $	.18
24-736	Black		.18
24-738	Ivory		.18

(J) TENITE KNOB—13/16" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-740	Walnut	Net $	.10
24-742	Ivory		.10

(K) TENITE KNOB—1 1/16" Diameter, ½" Height, Fits ¼" shaft.

Knurl

Cat. No. 24-744	Walnut	Net $	.08
24-746	Ivory		.08

Set Screw with Arrow

Cat. No. 24-748	Walnut	Net $	.08
24-750	Ivory		.08

(L) BAKELITE KNOB—7/8" Diameter, ½" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-752	Walnut	Net $	.20
24-754	Black		.20
24-756	Ivory		.22

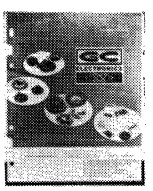
Set Screw with Arrow

Cat. No. 24-758	Walnut	Net $	.27
24-760	Black		.27
24-762	Ivory		.27

(M) BAKELITE KNOB—1" Diameter, 9/16" Height, Fits ¼" shaft.

Set Screw

Cat. No. 24-764	Walnut	Net $	.17
24-766	Ivory		.17



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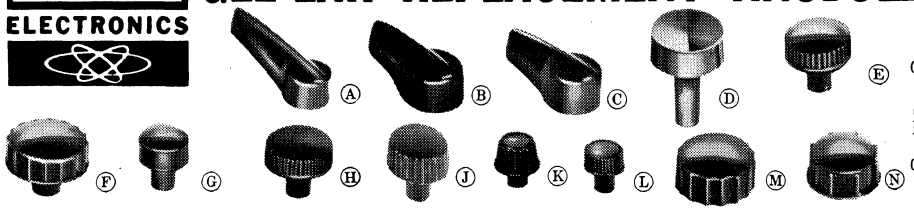
GC ELECTRONICS GEE-LAR REPLACEMENT KNOBS



(A) BAKELITE KNOB—2½" Length, ⅝" Height, Fits ¼" shafts.

NO INSERT—SET SCREW

Cat. No. 24-590 Black Net $ .27
24-592 Walnut .27

BRASS INSERT—SET SCREW

Cat. No. 24-594 Black Net $ .33
24-596 Walnut .33

(B) BAKELITE KNOB—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW

Cat. No. 24-598 Black Net $ .22
24-600 Walnut .22

(C) BAKELITE BRASS INSERT—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW

Cat. No. 24-602 Black Net $ .33
24-604 Walnut .33

(D) TENITE KNOB—1¾" Shank, 1⅛" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL

Cat. No. 24-606 Walnut Net $ .12
24-608 Ivory .12

(E) TENITE KNOB—15/16" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-610 Walnut Net $ .08
24-612 Ivory .08

(F) TENITE KNOB—1¼" Diameter, 5/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-614 Walnut Net $ .12
24-616 Ivory .12

(G) TENITE KNOB—¾" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-618 Walnut Net $ .08
24-620 Ivory .08

(H) TENITE KNOB—15/16" Diameter, ⅝" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-622 Walnut Net $ .10
24-624 Ivory .10

(J) PLASTIC KNOB—15/16" Diameter, ½" Shank Extension for ¼" Knurled Shaft.

KNURL

Cat. No. 24-626 Walnut Net $ .08
24-628 Ivory .08

(K) PLASTIC KNOB MIDGET TYPE—¾" Diameter, ⅜" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-634 Walnut Net $ .08
24-636 Ivory .08

(L) PLASTIC KNOB MIDGET TYPE—23/32" Diameter, ½" Shank Extension, Fits ¼" shafts.

KNURL

Cat. No. 24-638 Walnut Net $ .08
24-640 Ivory .08

(M) TENITE KNOB—1⅛" Diameter, ½" Height, Fits ¼" shafts.

KNURL

Cat. No. 24-642 Walnut Net $ .08
24-644 Ivory .08

SPRING TYPE

Cat No. 24-646 Walnut Net $ .15
24-648 Ivory .15

SET SCREW

Cat. No. 24-650 Walnut Net $ .15
24-652 Ivory .15

(N) TENITE KNOB—1" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL

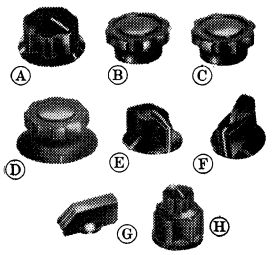
Cat. No. 24-654 Walnut Net $ .08
24-656 Ivory .08

SPRING TYPE

Cat. No. 24-658 Walnut Net $ .12
24-660 Ivory .12

SET SCREW

Cat. No. 24-662 Walnut Net $ .15
24-664 Ivory .15



GEE-LAR KURZ-KASCH KNOBS

(A) POINTER KNOBS—Indicator line. ¾" Diameter, 7/16" Height.
Cat. No. 25-034 Net $ .45
1" Diameter, 19/32" Height.
Cat. No. 25-036 Net $ .52
1¼" Diameter, 21/32" Height.
Cat. No. 25-038 Net $ .52
1½" Diameter, ¾" Height.
Cat. No. 25-040 Net $ .52
2" Diameter, ⅞" Height.
Cat. No. 25-042 Net $ .97
No Indicator Line.
1½" Diameter, ¾" Height.
Cat. No. 25-044 Net $ .48
2" Diameter, ⅞" Height.
Cat. No. 25-046 Net $ .93

(B) POINTER KNOBS—1" Diameter 5/8" Height, ¾" Pointer.
Cat. No. 25-048 Net $ .67
1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-050 Net $ .67
1⅜" Diameter, 11/16" Height, 1 1/16" Pointer.
Cat. No. 25-052 Net $ .90
1⅝" Diameter, ¾" Height, 1 3/16" Pointer.
Cat. No. 25-054 Net $ .90
2⅜" Diameter, ⅞" Height, 1 5/16" Pointer.
Cat. No. 25-056 Net $1.22

(C) NO POINTER—1" Diameter, ⅝" Height.
Cat. No. 25-058 Net $ .57
1⅛" Diameter, ⅝" Height.
Cat. No. 25-060 Net $ .68
1⅜" Diameter, 11/16" Height.
Cat. No. 25-062 Net $ .90
1⅝" Diameter, ¾" Height.
Cat. No. 25-064 Net $ .75
2⅜" Diameter, ⅞" Height.
Cat. No. 25-066 Net $1.08

(D) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-068 Net $1.33
1⅜" Diameter, 27/32" Height, 1¾" Skirt.
Cat. No. 25-070 Net $1.28
1⅝" Diameter, ⅞" Height, 2 1/16" Skirt.
Cat. No. 25-072 Net $1.45
2⅜" Diameter, 15/16" Height, 3" Skirt.
Cat. No. 25-074 Net $2.25

(E) POINTER KNOB BRASS INSERT—1⅛" Diameter, ⅝" Height.
Cat. No. 25-076 Net $ .60

(F) POINTER KNOB NO BRASS INSERT—1⅛" Diameter, 11/16" Height, 1 Set Screw.
Cat. No. 25-078 Net $ .15

(G) BAR KNOB NO BRASS INSERT—1½" Length, ⅝" Height, 1 Set Screw.
Cat. No. 25-080 Net $ .30

(H) DUAL CONTROL—1" Diameter, 1 3/64" Height.
Cat. No. 25-086 Net $ .98

GEE-LAR KURZ-KASCH

(A) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height, MIL Spec. AN3219-1.
Cat. No. 25-088 Black Net $ .28

(B) POINTER KNOB BRASS INSERT—1½" Length, ⅞" Height.
Cat. No. 25-092 Black Net $ .37

(C) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-098 Black Net $ .80

(D) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-100 Black Net $ .75

(E) BRASS INSERT NO ARROW—¾" Diameter, 5/16" Height, Black only.
Cat. No. 25-102 Black Net $ .42

(F) BRASS INSERT WITH ARROW—1⅛" Diameter, 5/16" Height.
Cat. No. 25-104 Net $ .38
1½" Diameter, ¾" Height, Black only.
Cat. No. 25-106 Black Net $ .43

(G) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height.
Cat. No. 25-108 Black Net $ .38

(H) POINTER KNOB ⅛" BRASS INSERT—¾" Diameter, 7/16" Height.
Cat. No. 25-116 Black Net $ .47

(J) BAKELITE POINTER KNOB—1 1/16" Diameter, 13/32" Height, Fine serrations, Fits ¼" shaft.

SET SCREW

Cat. No. 24-430 Walnut Net $ .13
24-432 Black .13
24-434 Red .15
24-436 Ivory .15

(K) BAKELITE POINTER KNOB—1 1/16" Diameter, 13/32" Height, Fits ¼" shaft.

NO INSERT—SET SCREW

Cat. No. 24-440 Walnut Net $ .12
24-442 Black .12
24-444 Red .12
24-446 Ivory .12

WITH BRASS INSERT

Cat. No. 24-448 Walnut Net $ .18
24-450 Black .18
24-452 Red .18
24-454 Ivory .25

(L) POINTER BAR KNOB BRASS BUSHING—2¾" Length, Fits ¼" shaft, Metal pointer can be removed.

SET SCREW

Cat. No. 24-456 Black Net $ .50
24-458 Walnut .55

(M) POINTER BAR KNOB BRASS BUSHING 1⅝" Length, Fits ¼" shaft, Metal pointer can be removed.

SET SCREW

Cat. No. 24-460 Black Net $ .50
24-462 Walnut .50

(N) BAKELITE POINTER KNOB—1¾" Diameter, ⅞" Height, with molded white arrow, brass bushing, Black only.
Cat. No. 25-000 Set Screw Type Net $ .43

(O) BAKELITE WITH BRASS INSERT—1½" Diameter, ¾" Height, Indicator line, Black only.
Cat. No. 25-002 Set Screw Type Net $ .30

(P) BAKELITE SKIRT KNOBS—1½" Skirt Diameter, 11/16" Height.
Cat. No. 25-004 Set Screw Type Net $ .23

(Q) POINTER KNOBS—1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-006 Net $ .60
1⅜" Diameter, 11/16" Height, 1 1/16" Pointer.
Cat. No. 25-008 Net $ .62
1⅝" Diameter, ¾"Height, 1 3/16" Pointer.
Cat. No. 25-010 Net $ .68
2⅜" Diameter, ⅞" Height, 1 5/16" Pointer.
Cat. No. 25-012 Net $ .78

(R) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-014 Net $ .75
1⅛" Diameter, 13/16" Height, 1¾" Skirt.
Cat. No. 25-016 Net $ .75
1⅜" Diameter, ⅞" Height, 1½" Skirt.
Cat. No. 25-018 Net $ .77
1⅜" Diameter, ⅞" Height, 1¾" Skirt.
Cat. No. 25-020 Net $ .77
1⅝" Diameter, 29/32" Height, 2 1/16" Skirt.
Cat. No. 25-022 Net $ .90
2⅜" Diameter, 1 1/32" Height, 3" Skirt.
Cat. No. 25-024 Net $1.25

(S) BAKELITE KNOB—1⅛" Diameter, ⅝" Height.
Cat. No. 25-026 Net $ .37
1⅜" Diameter, 11/16" Height.
Cat. No. 25-028 Net $ .42
2⅜" Diameter, ⅞" Height.
Cat. No. 25-032 Net $ .48
1⅝" Diameter, ¾" Height.
Cat. No. 25-030 Net $ .67

GEE-LAR KURZ-KASCH PUSH BUTTON KNOBS

PUSH BUTTON KNOB—½" Diameter, 15/32" Height, ⅜" Hole Depth, Black only. Tapered sides.
Cat. No. 25-118 Black Net $ .12

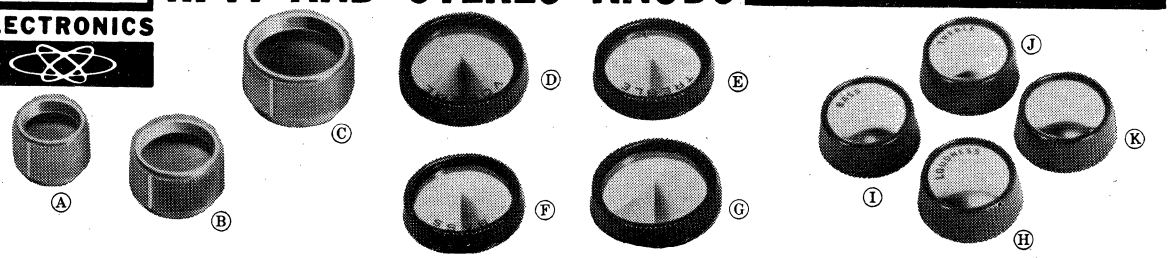
PUSH BUTTON RECESSED TOP—½" Diameter, 15/32" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-120 Black Net $ .12

PUSH BUTTON KNOB—7/16" Diameter 15/32" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-122 Black Net $ .12

PUSH BUTTON KNOB—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-124 Black Net $ .13

PUSH BUTTON RECESSED TOP—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-126 Black Net $ .13

GC ELECTRONICS HI-FI AND STEREO KNOBS



HI-FI STEREO KNOB SERIES—For Hi-Fi Stereo Cabinets and Custom Installations. Precision made of TENITE with sparkling brass top ring inserts and indicator lines. Set screw type.

Cat. No. 24-012 Set of 3, Black Net $ .97
24-014 Set of 3, Ivory Net $ .97

INDIVIDUAL KNOBS

"A" Small
1" Diameter 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-000 Black Net $ .30
24-002 Ivory .30

"B" Medium
1 5/16" Diameter, 13/16" Height, Fits 1/4" shaft.
Cat. No. 24-004 Black Net $ .33
24-006 Ivory .33

"C" Large
1 1/2" Diameter, 7/8" Height, Fits 1/4" shaft.
Cat. No. 24-008 Black Net $ .40
24-010 Ivory .40

AUDIO-PHILE KNOB SERIES—For Hi-Fi Custom Installations. TENITE with brass inserts. Indicated for Volume, Treble, Bass or Plain.
Cat. No. 24-024 Set of 4, Maroon Net $1.42

"D" Volume
1 1/2" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-016 Maroon Net $ .40

"E" Treble
1 1/2" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-018 Maroon Net $ .40

"F" Bass
1 1/2" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-020 Maroon Net $ .40

"G" Plain
1 1/2" Diameter, 5/16" Height, Fits Knurl shaft.
Cat. No. 24-022 Maroon Net $ .30

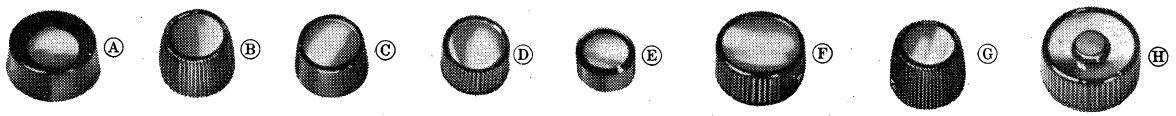
HIGH-FIDELITY KNOB SERIES TENITE—with handsome, individually marked brass inserts for Volume, Bass, Treble and Plain.
Cat. No. 24-034 Set of 4, Maroon Net $1.35

"H" Loudness
1 1/8" Diameter, 1/2" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-026 Maroon Net $ .35

"I" Bass
1 1/8" Diameter, 1/2" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-028 Maroon Net $ .35

"J" Treble
1 1/8" Diameter, 1/2" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-030 Maroon Net $ .35

"K" Plain
1 1/8" Diameter, 1/2" Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-032 Maroon Net $ .33



(A) TENITE PLATED GOLD INLAY—1 1/4" Diameter, 1/2" Height, Fits 1/4" shaft.

SPRING TYPE
Cat. No. 24-070 Walnut Net $ .30
24-072 Ivory .30

(B) TENITE PLATED GOLD INLAY—1" Diameter, 5/8" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-074 Walnut Net $ .22
24-076 Ivory .22

(C) TENITE PLATED GOLD INLAY—1" Diameter, 1/2" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-078 Walnut Net $ .20
24-080 Ivory .20

(D) TENITE PLATED GOLD INLAY—1" Diameter, 3/8" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-082 Walnut Net $ .22
24-084 Ivory .22

SPRING TYPE
Cat. No. 24-086 Walnut Net $ .23
24-088 Ivory .23

SET SCREW
Cat. No. 24-090 Walnut Net $ .30
24-092 Ivory .30

(E) TENITE PLATED GOLD INLAY—3/4" Diameter, 3/8" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-094 Walnut Net $ .18
24-096 Ivory .18

SPRING TYPE
Cat. No. 24-098 Walnut Net $ .23
24-100 Ivory .23

(F) TENITE PLATED GOLD INLAY—1 3/16" Diameter, 1/2" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-102 Walnut Net $ .23
24-104 Ivory .23

SET SCREW
Cat. No. 24-106 Walnut Net $ .37
24-108 Ivory Net $ .37

(G) TENITE PLATED GOLD INLAY—1" Diameter, 11/16" Height, Fits 1/4" shaft.

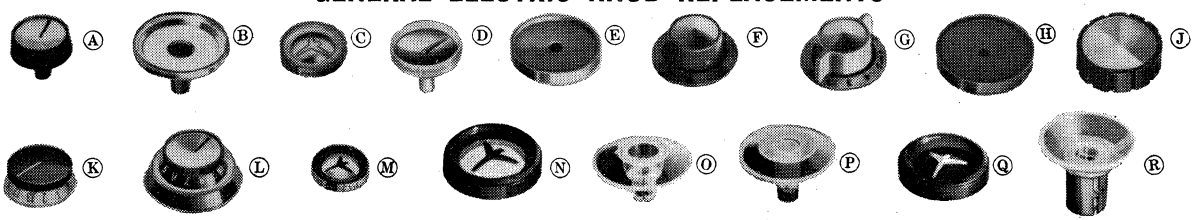
SET SCREW
Cat. No. 24-110 Walnut Net $ .33
24-112 Ivory .33

(H) TENITE PLATED GOLD INLAY—1 3/16" Diameter, 1/2" Height, Fits 1/4" shaft.

KNURL TYPE
Cat. No. 24-114 Walnut Net $ .25
24-116 Ivory .25

SET SCREW
Cat. No. 24-118 Walnut Net $ .32
24-120 Ivory .32

GENERAL ELECTRIC KNOB REPLACEMENTS



(A) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. G 1001, Color Black & Gold.
Cat. No. 27-064 Channel Knob Net $ .92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. G 1002, Color Black & Silver.
Cat. No. 27-066 Channel Knob Net $ .92

(B) FINE TUNING KNOB—Original Mfg.'s Part No. G 1003, Color Silver.
Cat. No. 27-068 Fine Tuning Net $ .92

(C) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. GWT43x246, Color Green & Gold.
Cat. No. 27-070 Channel Knob Net $1.25

(D) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. GWT43x269, Color Clear & Gold.
Cat. No. 27-072 Channel Knob Net $2.10

(E) FINE TUNING KNOB—Original Mfg.'s Part No. WT43x40 (RDK222), Color Fawn.
Cat. No. 27-074 Fine Tuning Net $ .57

(F) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x41 (RDK223), Color Fawn.
Cat. No. 27-076 Off-On Volume Net $ .75

(G) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x42 (RDK224), Color Fawn.
Cat. No. 27-078 Channel Knob Net $ .87

(H) PICTURE VOLUME KNOB —Original Mfg.'s Part No. WT43x43 (RDK225), Color Fawn.
Cat. No. 27-080 Picture Volume Net $ .57

(J) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x53 (RDK263), Color Brown & Fawn.
Cat. No. 27-082 Off-On Volume Net $1.00

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x54 (RDK264), Color Brown & Fawn.
Cat. No. 27-084 Channel Knob Net $1.50

(K) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x76 (RDK331), Color Brown & Gold.
Cat. No. 27-086 Channel Knob Net $1.92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x152 (RDK455), Color Brown.
Cat. No. 27-090 Channel Knob Net $2.85

(L) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x139 (RDK434), Color Brown & Gold.
Cat. No. 27-092 Channel Knob Net $2.10

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x141 (RDK438), Color Fawn & Gold.
Cat. No. 27-094 Channel Knob Net $2.28

(M) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. WT43x159 (RDK469), Color Brown.
Cat. No. 27-096 Channel Knob Net $1.77

(N) ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT43 x158 (RDK467), Color Mahogany & Gold.
Cat. No. 27-462 On-Off Volume Net $1.27

ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT-43x163 (RDK473), Color Brown.
Cat. No. 27-464 On-Off Volume Net $1.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x164 (RDK474), Color Mahogany.
Cat. No. 27-466 Channel Knob Net $1.50

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. WT43x165 (RDK475), Color Mahogany & Gold.
Cat. No. 27-468 On-Off Volume Net $1.27

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x169 (RDK479), Color Mahogany & Gold.
Cat. No. 27-470 UHF Channel Net $1.77

(O) PICTURE TUNING KNOB — Original Mfg.'s Part No. WT43x171 (RDK490), Color Clear.
Cat. No. 27-472 Picture Knob Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x176 (RDK521), Color Mahogany & Gold.
Cat. No. 27-474 UHF Channel Net $1.77

Continued next page

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GC ELECTRONICS REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS . . . See previous page for illustrations

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x179 (RDK524), Color Mahogany.
Cat. No. 27-476 Channel Knob
Net **$1.50**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x182 (RDK527), Color Gold.
Cat. No. 27-478 UHF Channel
Net **$1.77**

(P) CONTRAST TUNING KNOB—Original Mfg.'s Part No. WT43x184 (RDK530), Color Clear.
Cat. No. 27-480 Contrast Tuning
Net **$ .90**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x187 (RDK540), Color Navy Blue.
Cat. No. 27-482 UHF Channel
Net **$1.17**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x192 (RDK550), Color Bronze & Gold.
Cat. No. 27-484 UHF Channel
Net **$1.77**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x194 (RDK552), Color Peacock Blue & Gold.
Cat. No. 27-486 UHF Channel
Net **$1.77**

(Q) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x209 (RDK569), Color Navy Blue.
Cat. No. 27-488 Brightness Knob
Net **$1.00**

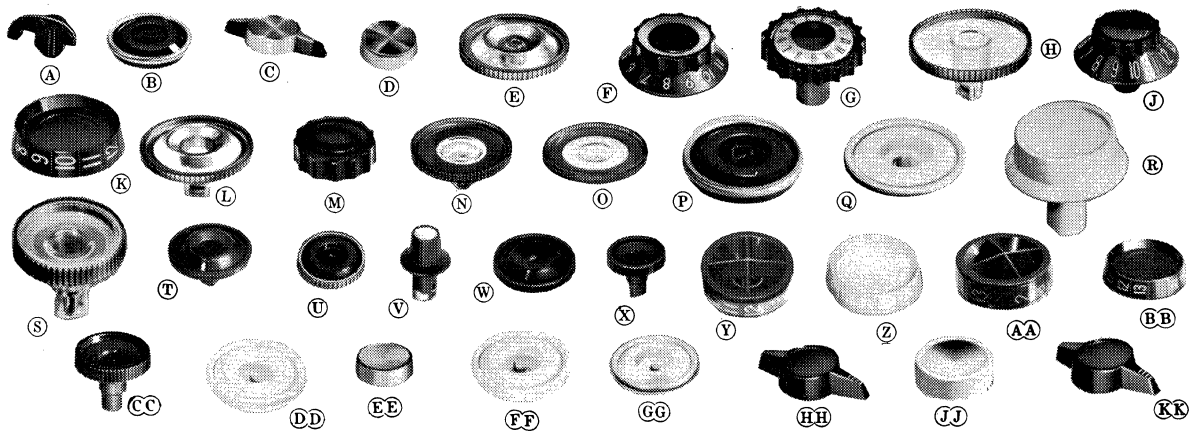
UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x207 (RDK568), Color Cream & Gold.
Cat. No. 27-490 UHF Channel
Net **$1.77**

VHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x217 (RDK587), Color Cream & Gold.
Cat. No. 27-492 VHF Channel
Net **$1.77**

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x219 (RDK599), Color Green & Gold.
Cat. No. 27-494 UHF Channel
Net **$1.77**

(R) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x226 (RDK609), Color Clear.
Cat. No. 27-496 Brightness Knob
Net **$ .42**

RCA EXACT TV REPLACEMENT KNOBS



(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 76770, Color Dark Maroon & Gold.
Cat. No. 27-200 Channel Knob
Net **$ .76**

(B) FINE TUNING KNOB — Original Mfg.'s Part No. 77707, Color Brown with Polished Brass Shell.
Cat. No. 27-202 Fine Tuning
Net **$1.57**

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708, Color Red with Polished Brass Shell.
Cat. No. 27-204 Channel Knob
Net **$1.50**

(D) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710, Color Black with Polished Brass Shell.
Cat. No. 27-206 On-Off Volume
Net **$1.57**

(E) FINE TUNING KNOB — Original Mfg.'s Part No. 79464, Color Gold & Maroon.
Cat. No. 27-208 Fine Tuning
Net **$1.26**

(F) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold.
Cat. No. 27-210 Channel Knob
Net **$1.77**

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100627, Color Maroon & Polished Brass.
Cat. No. 27-212 Channel Knob
Net **$2.70**

(H) FINE TUNING KNOB — Original Mfg.'s Part No. 100629, Color Clear with Gold Edge.
Cat. No. 27-214 Fine Tuning
Net **$1.27**

(J) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100637, Color Brown.
Cat. No. 27-216 Channel Knob
Net **$1.77**

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100944, Color Dark Wine.
Cat. No. 27-218 Channel Knob
Net **$1.35**

(L) FINE TUNING KNOB — Original Mfg.'s Part No. 101015, Color Gold & Maroon.
Cat. No. 27-220 Fine Tuning
Net **$1.26**

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 101150, Color Dark Wine.
Cat. No. 27-222 Channel Knob
Net **$ .90**

(N) FINE TUNING KNOB — Original Mfg.'s Part No. 101154, Color Gold & Maroon.
Cat. No. 27-224 Fine Tuning
Net **$1.00**

(O) FINE TUNING KNOB — Original Mfg.'s Part No. 101276, Color Gold & Maroon.
Cat. No. 27-226 Fine Tuning
Net **$1.26**

(P) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77709, Color Brown & Gold.
Cat. No. 27-700 Brightness
Net **$1.35**

(Q) FINE TUNING KNOB — Original Mfg.'s Part No. 77717, Color Beige & Gold.
Cat. No. 27-702 Fine Tuning
Net **$1.35**

BRIGHTNESS KNOB — Original Mfg's. Part No. 77718, Color Beige & Gold.
Cat. No. 27-704 Brightness
Net **$1.35**

(R) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 100621, Color Gray.
Cat. No. 27-706 On-Off Volume
Net **$ .67**

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 101138, Color Brown.
Cat. No. 27-708 On-Off Volume
Net **$ .67**

(S) BRIGHTNESS KNOB — Original Mfg.'s Part No. 101124, Color Clear & Gold.
Cat. No. 27-710 Brightness
Net **$1.17**

(T) FINE TUNING KNOB — Original Mfg.'s Part No. 100639, Color Brown.
Cat. No. 27-712 Fine Tuning
Net **$1.26**

(U) CONTRAST-BRIGHTNESS—Original Mfg.'s Part No. 79470, Color Mahogany.
Cat. No. 27-714 Contrast-Bright-
Net **$1.50**

(V) HORIZONTAL CONTROL KNOB—Original Mfg.'s Part No. 101010, Color Maroon.
Cat. No. 27-716 Horizontal
Net **$ .82**

(W) FINE TUNING KNOB — Original Mfg.'s Part No. 79864, Color Brown.
Cat. No. 27-718 Fine Tuning
Net **$1.26**

(X) CONTRAST KNOB—Original Mfg.'s Part No. 100622, Color Mahogany.
Cat. No. 27-720 Contrast
Net **$ .82**

CONTRAST KNOB — Original Mfg.'s Part No. 100623, Color Gray.
Cat. No. 27-722 Contrast
Net **$ .82**

(Y) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104304, Color Mahogany.
Cat. No. 27-724 Channel Knob
Net **$1.35**

(Z) UHF CHANNEL SELECTOR—Original Mfg.'s Part No. 104305, Color Mahogany.
Cat. No. 27-726 Channel Knob
Net **$1.35**

UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104306, Color Gray.
Cat. No. 27-728 Channel Knob
Net **$1.35**

(AA) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102503, Color Gray.
Cat. No. 27-730 Channel Knob
Net **$3.00**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102502, Color Mahogany.
Cat. No. 27-732 Channel Knob
Net **$3.00**

(BB) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104303, Color Gray.
Cat. No. 27-734 Channel Knob
Net **$1.35**

(CC) CONTRAST KNOB — Original Mfg.'s Part No. 104386, Color Maroon.
Cat. No. 27-736 Contrast Knob
Net **$ .86**

(DD) BRIGHTNESS KNOB — Original Mfg.'s Part No. 79080, Color Beige.
Cat. No. 27-738 Brightness Knob
Net **$1.35**

(EE) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710M, Color Mahogony & Gold.
Cat. No. 27-740 On-Off Volume
Net **$1.35**

VOLUME KNOB—Original Mfg.'s Part No. 79445, Color Beige & Gold.
Cat. No. 27-742 Volume Knob
Net **$1.35**

VOLUME KNOB — Original Mfg.'s Part No. 79471, Color Mahogany & Gold.
Cat. No. 27-744 Volume Knob
Net **$1.35**

(FF) FINE TUNING KNOB — Original Mfg.'s Part No. 79077, Color Beige.
Cat. No. 27-746 Fine Tuning
Net **$1.35**

(GG) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77718M, Color Mahogany & Gold.
Cat. No. 27-748 Brightness Knob
Net **$1.35**

FINE TUNING KNOB — Original Mfg.'s Part No. 77717M, Color Mahogany & Gold.
Cat. No. 27-750 Fine Tuning
Net **$1.35**

(HH) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. 79222BL, Color Black.
Cat. No. 27-752 Channel Knob
Net **$1.17**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79222, Color Mahogany.
Cat. No. 27-754 Channel Knob
Net **$1.17**

(JJ) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710B, Color Beige & Gold.
Cat. No. 27-756 On-Off Volume
Net **$1.35**

(KK) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708B, Color Beige & Gold.
Cat. No. 27-758 Channel Knob
Net **$1.35**

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708M, Color Brown & Gold.
Cat. No. 27-760 Channel Knob
Net **$1.35**

ALSO AVAILABLE

Replacement Knobs for

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Crosley
Emerson
Hotpoint
Motorola
Muntz
Olympic
Philco
Westinghouse
Zenith

GC ELECTRONIC COMPONENTS

ELECTRONICS

GC TV-RADIO DIAL CABLES

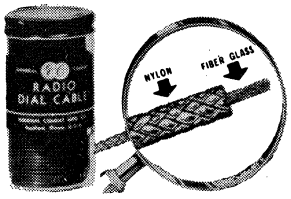
Nylon cord with a fibreglass core. All especially treated to prevent stretching and slipping. G-C Cords No. 75, 75-A and 74 will handle 90% of replacements. 25-Ft., 50-Ft., 100-Ft. Spools are supplied in permanent, clear plastic containers.

G-C No. 75 STANDARD THIN NYLON CORD .028" Diameter — Used on 95% of the latest sets manufactured. Made of finest braided Nylon over a Fiberglas Core. It is prestretched and chemically treated.

Cat. No. 75-25	25 ft. spool	Net $	.75
75-50	50 ft. spool		1.43
75-100	100 ft. spool		2.37
75-1000	1000 ft. spool		15.57

G-C No. 75-A EXTRA THIN NYLON CORD .025" Diameter—Used on Motorola, RCA, GE, Sentinel, Stromberg Carlson and others. Extra thin, made of finest braided Nylon, chemically treated.

Cat. No. 75A-25	25 ft. spool	Net $	.75
75A-50	50 ft. spool		1.43



75A-100	100 ft. spool		2.37
75A-1000	100 ft. spool		14.25

G-C No. 74 MEDIUM NYLON CORD .040" Diameter—Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fiberglas Core.

Cat. No. 74-25	25 ft. spool	Net $	.75
74-50	50 ft. spool		1.43
74-100	100 ft. spool		2.37
74-1000	1000 ft. spool		19.77

G-C No. 70 BRAIDED BRONZE CABLE .040" Diameter—Braided phosphor bronze cable made over a Fiberglas core for greater strength and flexibility. Will not unravel.

Cat. No. 70-25	25 ft. spool	Net $	.97
70-50	50 ft. spool		1.43
70-100	100 ft. spool		2.70
70-1000	1000 ft. spool		22.20

G-C No. 71 42-STRAND BRONZE CABLE .040" Diameter — 42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 fine strands braided over a cotton core.

Cat. No. 71-25	25 ft. spool	Net $	1.23
71-50	50 ft. spool		1.88
71-100	100 ft. spool		3.52
71-1000	1000 ft. spool		25.80

G-C No. 73 HEAVY NYLON CORD .062" Diameter—This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No. 73-25	25 ft. spool	Net $	1.02
73-50	50 ft. spool		1.73
73-100	100 ft. spool		2.97
73-1000	1000 ft. spool		24.90

G-C No. 76 SPECIAL THIN BRONZE CABLE .025" Diameter—Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtails, etc.

Cat. No. 76-25	25 ft. spool	Net $	.97
76-50	50 ft. spool		1.43
76-100	100 ft. spool		2.70
76-1000	1000 ft. spool		20.47

G-C COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025" Diameter—Supplied on metal spools.

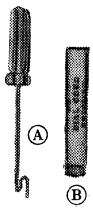
Cat. No. 87-25	25 ft. spool	Net $	.90
87-100	100 ft. spool		2.70

STANDARD .028" Diameter — Supplied on metal spools.

Cat. No. 88-25	25 ft. spool	Net $	.90
88-100	100 ft. spool		2.70

MEDIUM .040" Diameter—Supplied on metal spools.

Cat. No. 89-25	25 ft. spool	Net $	.90
89-100	100 ft. spool		2.70



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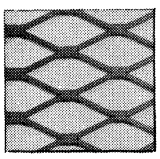
(A) G-C DIAL CABLE TOOL—A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.
Cat. No. 5096 Net $ .53

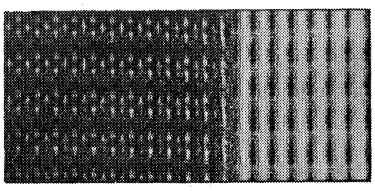
(B) G-C DIAL CORD NON-SLIP DRESSING STICK—Simply rub the stick on cord and job is done. Prevents and stops slipping.
Ⓑ Cat. No. 1212 Net $ .25

G-C SWED. STEEL SPEAKER SHIMS—Four sizes are furnished in a handy gold-lettered partitioned snap case. .004, .006, .008 and .010 in. Instructions included with kit.
Cat. No. 701 Net $ .53



G-C ORNAMENTAL METAL GRILLE SCREEN — Made of heavy metal, finished in beautiful "Brushed Brass-Rich Gold Color" and lacquered for durability.

Cat. No. 9252	12"x18"	Net $	2.40
9253	18"x24"		3.67
9254	24"x36"		6.27
9255	24"x48"		8.67
9256	36"x48"		11.70



G-C PLASTIC SARAN WOVEN GRILLE CLOTH—A beautiful "lumite" plastic woven cloth in attractive patterns. Easily cleaned with a damp cloth. Won't stain, rot or mildew.

Cat. No. 8736	12"x18" Bronze & Gold	Net $	.98
8739	36"x36" Bronze & Gold	Net $	5.55
8737	12"x18" Ecru & Ivory	Net $	.98
8740	36"x36" Ecru & Ivory	Net $	5.55

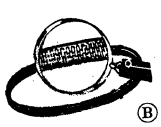
G-C GRILLE CLOTH ASSORTMENT—All patterns are modern and the assortment will provide for nearly all of the smaller and moderate size speaker grille openings.
Cat. No. 9114 Net $ 1.08

G-C TV GRILLE CLOTH—New, modern patterns specially selected to blend in with the best of television cabinets. Gold metallic braid makes this an outstanding TV grille cloth. Colors: Walnut, Mahogany and Blonde. (Specify color when ordering).

Cat. No. 8656-E	Envelope 18"x24"	Net $	1.92
8657-E	Envelope 24"x36"		3.50
8658-E	Envelope 36"x36"		5.13
8659	36"Wide, per yard, bulk		4.97

G-C RADIO CABINET SPEAKER GRILLE CLOTH—The cloth is supplied in light and dark shades in patterns for both small and large cabinets. It is also available in the light and ivory shades for light wood and plastic cabinets. Colors: Walnut, Mahogany, Ivory, (Specify Color Wanted).

Cat. No. 949-1	1-Yard Packages	Net $	3.78
949-1R	40" Wide Cont. Length, Yd.		3.60
949-2R	50" Wide Cont. Length, Yd.		3.90
940	18"x20"		.90
941	9"x18"		.45
942	12"x12"		.48
943	14"x18"		.60
944	24"x13"		.82
945	18"x13"		.53
955	18"x25"		1.35



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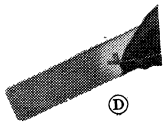

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(B) G-C RADIO DIAL BELTS—G-C Belt are approved replacements for all sets. They are made of the very best quality belting material and will not stretch. Especially treated to prevent slipping.
Cat. No. 101 thru 195 Net $ .30

G-C SERVICEMEN'S KIT—Kits contain more popular belts, belt scale and complete listing of over 1100 models. Cat. No. G-25 Net $8.37

(D) G-C WIRE MARKERS—Handy wire markers needed for tracing circuits, marking wires in replacing parts, etc. Nos. 1 to 33—3 full strips included to kit. Cat. No. 9229 Net $1.00

(E) G-C MOTOROLA TV DIAL BELT—Replacement belt as used on Motorola TV Tuners. Original replacement part. Cat. No. 196 Net $ .30

(F) G-C RCA TUNER BELT—Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.
Cat. No. 195 Net $ .30

(G) G-C RCA-TV CHANNEL INDICATOR DRIVE BELT—Exact replacement for 1956 model RCA TV sets. Cat. No. 197 Net $1.10

Net

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LERCO DIVISION OF MICRODOT INC.

MIL-SPEC CONTROL KNOBS

Select from six types in six sizes as listed below — rounds, skirted rounds, dial skirted rounds, plain and skirted pointers, and crank-type knobs. A quality line to use where quality counts!

MIRROR OR MATTE FINISH available on all knobs . . . black only

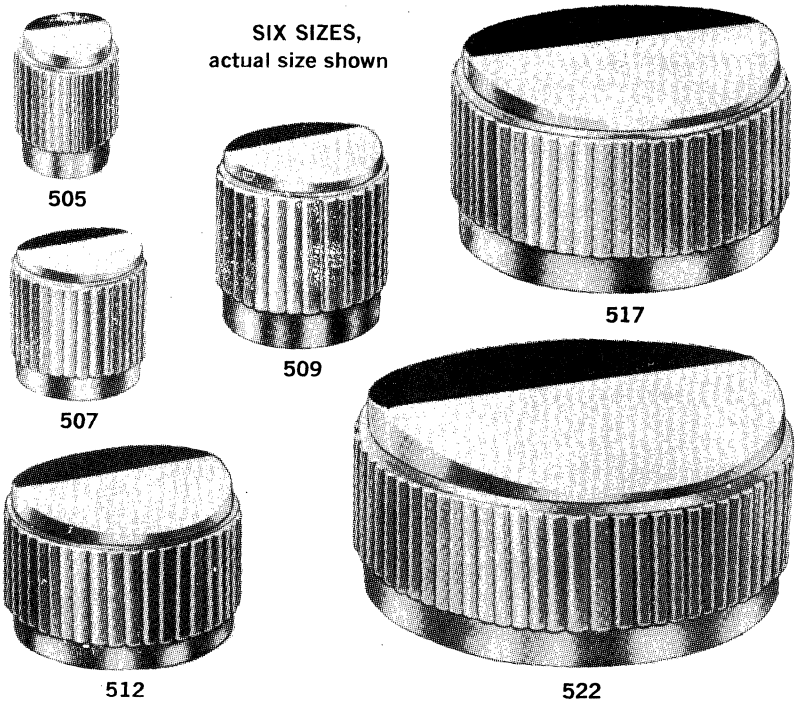
TWO HARDENED SET SCREWS furnished with each knob

RIBBED CONSTRUCTION for added strength in large diameter knobs

MEETS MS-91528 SPECIFICATIONS for use in military applications

SHAFT SIZES Series 505 furnished with 1/8" shaft hole. All others furnished with 1/4" hole (Series 507 available with 1/8" hole on special order)

Write for complete catalog or quotation on special orders



SIX STYLES ➧	Round	Skirted Round	Round Dial Skirt	Pointer	Skirted Pointer	Crank
MIRROR	505-1-1 50	505-2-1 56	505-3-1 64	505-4-1 50	505-5-1 56	–
MATTE	505-1-1M . . .55	505-2-1M . . .61	505-3-1M . . .69	505-4-1M . . .55	505-5-1M . . .61	–
MIRROR	507-1-2 62	507-2-2 70	507-3-2 78	507-4-2 62	507-5-2 70	–
MATTE	507-1-2M . . .67 MS91528—1N2D	507-2-2M . . .75 MS91528—1D2D	507-3-2M . . .83 MS91528—1F2D	507-4-2M . . .67 MS91528—1P2D	507-5-2M . . .75 MS91528—1K2D	–
MIRROR	509-1-2 66	509-2-2 74	509-3-2 82	509-4-2 70	509-5-2 78	–
MATTE	509-1-2M . . .71 MS91528—2N2D	509-2-2M . . .79 MS91528—2D2D	509-3-2M . . .87 MS91528—2F2D	507-4-2M . . .75 MS91528—2P2D	509-5-2M . . .83 MS91528—2K2D	–
MIRROR	512-1-2 70	512-2-2 78	512-3-2 86	–	–	512-6-2 . . . 1.80
MATTE	512-1-2M . . .75 MS91528—3N2D	512-2-2M . . .83 MS91528—3D2D	512-3-2M . . .91 MS91528—3F2D	–	–	512-6-2M . . 1.85 MS91528—3S2D
MIRROR	517-1-2 82	517-2-2 90	517-3-2 . . . 1.00	–	–	517-6-2 . . . 2.00
MATTE	517-1-2M . . .87 MS91528—4N2D	517-2-2M . . .95 MS91528—4D2D	517-3-2M . . 1.05 MS91528—4F2D	–	–	517-6-2M . . 2.05 MS91528—4S2D
MIRROR	522-1-2 94	522-2-2 . . . 1.02	522-3-2 . . . 1.14	–	–	522-6-2 . . . 2.08
MATTE	522-1-2M . . 1.00 MS91528—5N2D	522-2-2M . . 1.08 MS91528—5D2D	522-3-2M . . 1.20 MS91528—5F2D	–	–	522-6-2M . . 2.14 MS91528—5S2D

LERCO DIVISION OF MICRODOT INC.
BURBANK, CALIFORNIA

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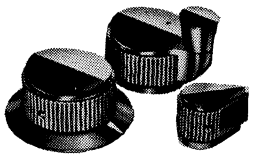
MASTER

MIL-Spec AND COMMERCIAL KNOBS

NATIONAL RADIO COMPANY, INC.
MELROSE 76, MASS.
A WHOLLY OWNED SUBSIDIARY OF NATIONAL COMPANY, INC.

KMS KNOBS

There are an unlimited number of different control knobs in the National Radio Company KMS series, consisting of five sizes, six styles, three shaft diameters, and three finishes. KMS knobs are made in conformance to MS-91528 and MIL-K-3926.



Example

9	F	2	D
Size	Style Designation	Shaft Size	Finish

9=0.906 in. diameter
F=Round, dial skirted
2=¼ in. shaft size
D=semi gloss

SIZES

Size No.	Diameter
KMS — 7	0.703 in.
9	0.906 in.
12	1.250 in.
17	1.750 in.
22	2.250 in.

STYLES

Designation	Description	Sizes Available
N*	Round	All
D*	Round, plain skirted	All
F	Round, dial skirted	All
S	Crank	12, 17, 22
P	Pointer, plain	7, 9
K	Pointer, skirted	7, 9

*Available on special order with optional white dot.

SHAFT SIZES

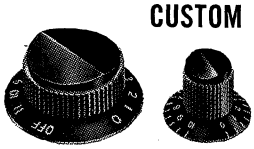
Designation	Size	Types Available	Sizes Available
1	⅛"	N, D, F, P, K	7
2	¼"	All	All
3	3/16"	N, D, F, P, K	This shaft size provided only on special order

FINISHES**

Designation	Description
D (per MIL-SPEC)	Semi gloss - No. 27038 per Fed Std No. 595
L (per MIL-SPEC)	Lusterless - No. 37038 per Fed Std No. 595
S	Glossy black

**Other colors and color combinations available on special order. Quotations on request.

CUSTOM DIAL MARKINGS FOR ALL NATIONAL KNOBS



National Radio Company can supply any type of custom marking on its Mil-Spec and commercial knobs. Any special combination of numbers or letters can be supplied according to specific customer designation. National will also provide dials in contrasting colors for all its Mil-Spec knobs.

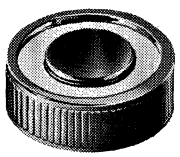
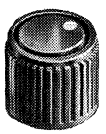
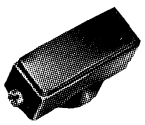
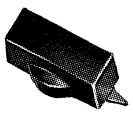
NATIONAL MIL-Spec KNOBS AVAILABLE IN ALL THESE SHAPES AND SIZES

N Type No.	N Mil No.	D Type No.	D Mil No.	F Type No.	F Mil No.	S Type No.	S Mil No.	P Type No.	P Mil No.	K Type No.	K Mil No.
7N1D	1N1D	7D1D	1D1D	7F1D	1F1D			7P1D	1P1D	7K1D	1K1D
7N2D	1N2D	7D2D	1D2D	7F2D	1F2D			7P2D	1P2D	7K2D	1K2D
7N1S		7D1S		7F1S				7P1S		7K1S	
7N2S		7D2S		7F2S				7P2S		7K2S	
7N1L		7D1L		7F1L				7P1L		7K1L	
7N2L		7D2L		7F2L				7P2L		7K2L	
9N2D	2N2D	9D2D	2D2D	9F2D	2F2D			9P2D	2P2D	9K2D	2K2D
9N2S		9D2S		9F2S				9P2S		9K2S	
9N2L		9D2L		9F2L				9P2L		9K2L	
12N2D	3N2D	12D2D	3D2D	12F2D	3F2D	12S2D	3S2D				
12N2S		12D2S		12F2S		12S2S					
12N2L		12D2L		12F2L		12S2L					
17N2D	4N2D	17D2D	4D2D	17F2D	4F2D	17S2D	4S2D				
17N2S		17D2S		17F2S		17S2S					
17N2L		17D2L		17F2L		17S2L					
22N2D	5N2D	22D2D	5D2D	22F2D	5F2D	22S2D	5S2D				
22N2S		22D2S		22F2S		22S2S					
22N2L		22D2L		22F2L		22S2L					

Note: Styles N, D, F, P, K available without caps on special order. All styles may be procured with colored caps, bodies or dials on special order.

HR KNOBS

Series HR knobs are a matched line for industrial and consumer use. This series, designed and manufactured by National Radio Company, Inc., offers a wide variety of styles and sizes. All HR knobs are quality constructed and through their various shapes and sizes allow the designer to completely 'human engineer' all control functions. All knobs in this series share a family resemblance giving the finished job a more unitized appearance.

Type HRT

The HRT knob is the largest in the HR series, molded of tenite with coarse knurling for positive turning control. A chrome plated ring is inlaid in knob cap, markings can be supplied on this ring for special orders. The HRT knob is designed to fit ¼ inch shaft and can be supplied with one or two No. 8-32 set screws 90 degrees apart. Stock colors grey and black, other tenite colors available in quantity on special orders.

Type HRT-M

The HRT-M knob is a small version of the HRT. All details (colors, stylings, markings, etc.) of the HRT knob apply to the HRT-M, except the outside diameter. Height is the same.

Type HR

The HR knob, molded of tenite, has a long body and coarse knurling for positive turning control. This knob is designed to fit a ¼ inch shaft and can be supplied with one or two No. 8-32 set screws 90 degrees apart. The HR knob is supplied either with or without a white dot. Stock colors are grey and black, other tenite colors available in quantity on special orders.

Type HRP

The HRP is a bar knob of molded black bakelite, is 1¼" long, ¾" wide, 11/16" from front to back, fits a ¼" shaft, stock version supplied with one No. 8-32 set screw. Supplied in quantity on special orders with the following variations:

1. With two set screws either Allen or slotted type, with No. 6-32 or No. 8-32 thread.
2. With white dot on face of knob.
3. With projecting index pin for use with dial plate.

Type HRP-P

The HRP-P is to HRP knob in all details with the addition of a nickel-plated brass pointer staked on the bottom face.

Type HRS

The HRS knob, molded of tenite, has the same body as the HR knob, plus a chrome plated bevel dial. The HRS knob is designed to fit ¼" shaft and is available with one or two No. 8-32 set screws 90 degrees apart. Markings on the dial are depressed and black enameled for high visibility. Other dial markings available on special orders. Stock colors are grey and black, other tenite colors available in quantity on special orders.

HRS-3 is numbered 0-10 through an arc of 300 degrees clockwise.

HRS-4 has a single etched line for use as a center line index.

HRS-5 is numbered 0-10, like HRS-3, except that the arc is only 180 degrees clockwise. This knob is the one illustrated

WRITE FOR COMPLETE CATALOG

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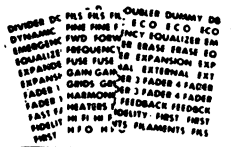
Walsco ELECTRONICS DECALS TEKNI-LABELS • TEK-TITLES

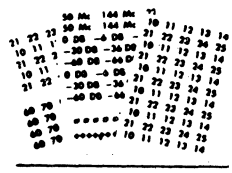
WALSCO TEKNI-LABELS provide thousands of handy titles and designs for fast-easy labeling of electronic equipment. Each package contains hundreds of electronic terms, symbols, designs, abbreviations and letters for almost every conceivable use. Tekni-Labels are used by engineers, designers, manufacturers, technicians, hi-fi enthusiasts, amateurs, custom builders and particularly the "do-it-yourself" group



RECEIVER LABELS

For the engineer, designer or builder of receiver type equipment. Over 1300 titles, miscellaneous letters, alphabets and marks.

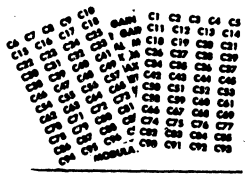
Cat. No. 2102 White — Net **$1.50**
Cat. No. 2112 Black — Net **$1.50**



TRANSMITTER LABELS

For transmitting equipment. Set contains over 1200 titles, including large, ¼" high labels for titling stages or separate major components of transmitter equipment.

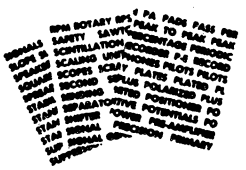
Cat. No. 2100 White — Net **$1.50**
Cat. No. 2108 Black — Net **$1.50**



TELEVISION LABELS

For the Television experimenter, engineer or designer of Television equipment and custom installer. Includes special color experimental Television titles of great usefulness in Television work.

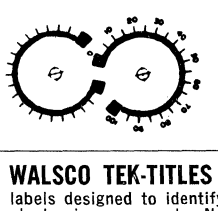
Cat. No. 2103 White — Net **$1.50**
Cat. No. 2113 Black — Net **$1.50**



INSTRUMENTS

Set includes all labels necessary for an Oscilloscope, Variable Frequency Oscillator, Grid Dip Meter, Standing Wave Meter, Null Detector, AC-DC Voltmeter, Audio Signal Generator, Modulation Monitor, Distortion Meter and Tube Tester and others.

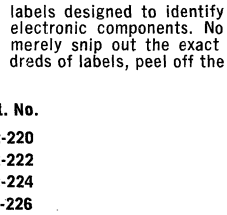
Cat. No. 2101 White — Net **$1.50**
Cat. No. 2109 Black — Net **$1.50**

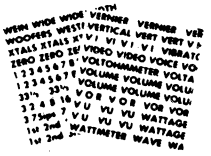


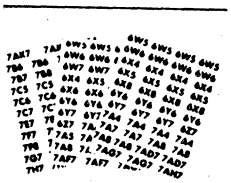
DIAL LABELS

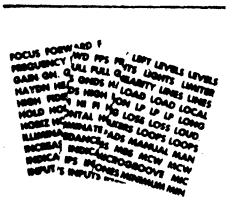
For general use to match titles in other decal sets of our manufacture. Dials impart a wholly professional look to front panels and add greatly to the usefulness and ease of operation of any equipment.

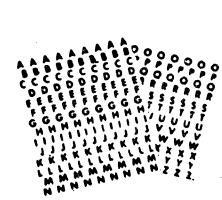
Cat. No. 2104 White — Net **$1.50**
Cat. No. 2110 Black — Net **$1.50**

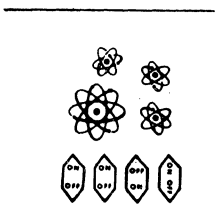


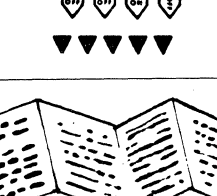


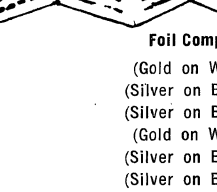


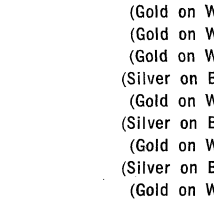


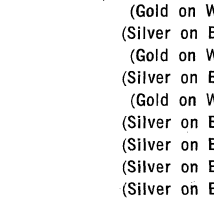












AUDIO LABELS

For use in the Audio and Sound field by engineers, designers, Custom Builders and installers of sound system. Set contains all necessary titles as well as recent new Hi-Fi titles.

Cat. No. 2105 White — Net **$1.50**
Cat. No. 2107 Black — Net **$1.50**

RECEIVING TUBES

For identification of all tube sockets. More than 320 different tubes listed including most commonly used types. Tubes not listed can be made up by combining portions of titles.

Cat. No. 2106 White — Net **$1.50**

PANEL TITLES

For Custom Builders and service men in titling front panels of finished wood cabinets, especially broadcast receivers. Television sets, Hi-Fi amplifiers, tape recorders and similar equipment.

Cat. No. 2111 Gold — Net **$1.50**

ALPHABETS

Seven complete alphabets in each package ranging from ¾" high letters down to 1/10" high. Set includes large block letters as well as Greek and Old English. This assortment is ideal to make individualized titles and designs on all equipment. Arresting results are easily obtainable by combining these letters with markings in the "Trademarks" set, especially if two or more colors are combined.

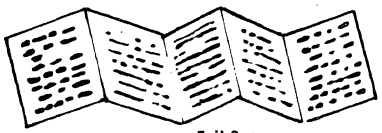
Cat. No. 2115 White — Net **$1.50**
Cat. No. 2125 Black — Net **$1.50**
Cat. No. 2135 Gold — Net **$1.50**
Cat. No. 2145 Red — Net **$1.50**

TRADEMARKS

Hundreds of electrical and electronic markings are included in this assortment, among them are circles, ovals, triangles, squares, arrows, dots, music notes, lighting flash, multi-orbit "Atomic" designs, name plates, corner designs, borders and many others which are extremely useful in decorating all electronic equipment.

Cat. No. 2116 White — Net **$1.50**
Cat. No. 2126 Black — Net **$1.50**
Cat. No. 2136 Gold — Net **$1.50**
Cat. No. 2146 Red — Net **$1.50**

WALSCO TEK-TITLES are handsome gold and silver foil labels designed to identify controls, knobs, switches and other electronic components. No water or adhesive is required; you merely snip out the exact title desired from the sheet of hundreds of labels, peel off the backing and press label into position.



Cat. No.		Foil Comp.
42-220	Stereo & High Fidelity Systems	(Gold on White)
42-222	Stereo & High Fidelity Systems	(Silver on Black)
42-224	Transistor Titles	(Silver on Black)
42-226	Intercom Systems	(Gold on White)
42-228	Intercom Systems	(Silver on Black)
42-230	Lubrication Titles	(Silver on Black)
42-232	Maintenance & Calibration	(Gold on White)
42-234	Repairman's Titles	(Gold on White)
42-236	Sound Systems	(Gold on White)
42-238	Amateur Equipment	(Silver on Black)
42-240	Alphabets, Large	(Gold on White)
42-242	Alphabets, Large	(Silver on Black)
42-244	Alphabets & Numerals, Medium	(Gold on White)
42-246	Alphabets & Numerals, Medium	(Silver on Black)
42-248	Numerals, Large	(Gold on White)
42-250	Numerals, Large	(Silver on Black)
42-252	Alphabets & Numerals, Small	(Gold on White)
42-254	Alphabets & Numerals, Small	(Silver on Black)
42-256	Electrical Distribution	(Gold on White)
42-258	School Electrical Systems	(Silver on Black)
42-260	U.S. Government Property	(Silver on Black)
42-262	U.S. Army Property	(Silver on Black)
42-264	U.S. Navy Property	(Silver on Black)
42-266	U.S. Air Force Property	(Silver on Black)

Dealer Net, each **$1.35**

SEND FOR COMPLETE WALSCO CATALOG . . . or ask your jobber.

Net

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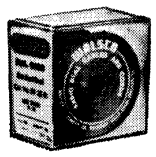
Walsco ELECTRONICS DIAL CORDS • CABLES • BELTS



Same quality as used on original equipment, in variety of sizes and types and conveniently packaged.

"SPECIAL THIN"

Diameter .025", Breaking Strength 15 lbs.

Cat. No. 656-02	25 feet	Net $ .75
Cat. No. 656-10	100 feet	Net 2.37
Cat. No. 656-50	500 feet	Net 8.58

MEDIUM

Diameter .040", Breaking Strength 35 lbs.

Cat. No. 652-02	25 feet	Net $ .75
Cat. No. 652-10	100 feet	Net 2.37
Cat. No. 652-50	500 feet	Net 10.57

PHOSPHOR BRONZE CABLE

42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extraordinary flexibility.

Cat. No. 662-02	25 feet	Net $ 1.23
Cat. No. 662-10	100 feet	Net 3.52
Cat. No. 662-50	500 feet	Net 16.20

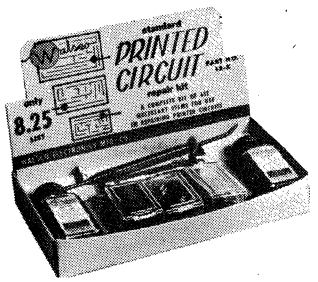
WALSCO SAFETY GLASS REMOVER

Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets.

Cat. No. 2575 Net $ .90

PRINTED CIRCUIT ACCESSORIES

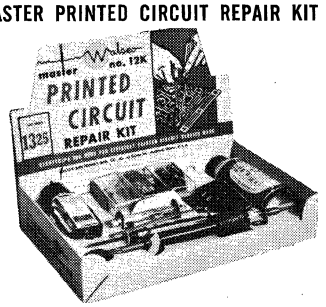
STANDARD PRINTED CIRCUIT REPAIR KIT



Contains one box each of foil, solder washers, solder wire, 1 solder-ease tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.

Cat. No. 13-K Net **$4.95**

MASTER PRINTED CIRCUIT REPAIR KIT



Contains all items above plus 1 Ungar soldering iron with 1 special tip and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.

Cat. No. 12-K Net **$9.50**

BRAIDED BRONZE CABLE

16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.

Cat. No. 660-02	25 feet	Net $ .97
Cat. No. 660-50	500 feet	Net 2.70
Cat. No. 654-02	25 feet	Net 12.00

STANDARD

Diameter .032", Breaking Strength 20 lbs.

Cat. No. 660-10	100 feet	Net $ .75
Cat. No. 654-10	100 feet	Net 2.37
Cat. No. 654-50	50 feet	Net 8.58

HEAVY

(Used on many Philco and Majestic sets.) **Diameter .060".**

Cat. No. 650-02	25 feet	Net $1.02
Cat. No. 650-10	100 feet	Net 2.97

THIN BRONZE CABLE

An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-raveling.

Cat. No. 664-02	25 feet	Net $ .97
Cat. No. 664-10	100 feet	Net 2.70
Cat. No. 664-50	500 feet	Net 12.00

DIAL CORD CLIPS

This assortment of 24 Walsco Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.

Cat. No. 7745-F Net $ .36

FLAT NYLON LACING CORD

The new, waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Will not cut wire insulation. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".

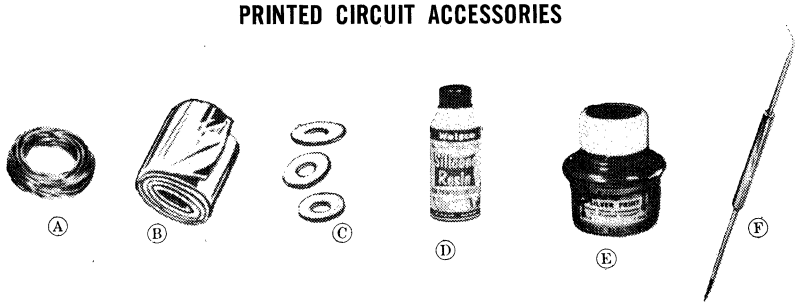
Cat. No. 666-15	150 ft. spool	Net $2.97
Cat. No. 666-75	750 ft. spool	Net 9.00

STANDARD LACING CORD

Meets specifications JAN T-713—type N —Class 3. In natural gray color. Approximately .040". Min. tensile strength 32 lbs., low stretch.

Cat. No. 665-10	100 ft. spool	Net $1.05
Cat. No. 665-45	450 ft. spool	Net 2.00
Cat. No. 665-80	1800 ft. spool	Net 6.60

PRINTED CIRCUIT ACCESSORIES



(A) PRINTED CIRCUIT REPAIR SOLDER — Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.

Cat. No. 649 Net $ .52

(B) PRINTED CIRCUIT REPAIR FOIL — Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.

Cat. No. 647 Net $ .48

(C) PRINTED CIRCUIT SOLDER WASHERS — Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers.

Cat. No. 648 Net $ .60

(D) PRINTED CIRCUIT INSULATING VARNISH — A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.

Cat. No. 120-02	2 oz. bottle with brush	Net $1.30
Cat. No. 120-06	6 oz. spray can	$2.42 each

INSULATING VARNISH SOLVENT — Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the Walsco Printed Circuit Insulating Varnish.

Cat. No. 205-02 2 oz. Net $ .37 each

(E) WALSCO SILVER AND COPPER PRINT — "No more wires" when you use Silver or Copper Print. The same "Pure Silver" or Copper compound as used in Printed Circuit design.

Cat. No. 36 ½ Troy oz. Silver Print Net $2.47
Cat. No. 36-1 1 Troy oz. Silver Print Net $4.75
Cat. No. 37-02 2 oz. bottle Copper Print Net $1.43

(F) PRINTED CIRCUIT SOLDER-AID TOOL — Has probe on one end for tightening contacts, etc., and a fork on opposite end for handling wires or wire leads while soldering and unsoldering. 8" long plastic handle.

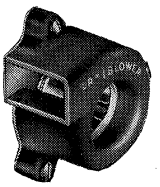
Cat. No. 2530 Net $1.00

SEND FOR COMPLETE CATALOG...

shows hundreds of Walsco Electronic Products.

Superior . . . RIPLEY COMPANY, INC. RIPLEY ESTABLISHED 1936 through Research MIDDLETOWN, CONN.

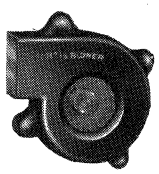
L-R BLOWERS—"Mighty-Mites"



No. 1

High impact Phenolic Housing. Weight 1 ounce. Wheel is 1" in dia. Standard shaft bores, 1/8" or 3/16". Overall height 2-5/16". Overall width 2-1/8". Depth 63/64". Blower outlet 63/64" wide by 11/16" high.

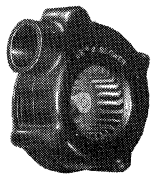
List Price $3.64 ea.



No. 1½

High impact Phenolic Housing. Weight 2-1/2 ounces. Wheel is 1-1/2" dia. Standard shaft bores, 3/16" or 1/4". Overall height 3". Overall width 2-7/8". Depth 1". Blower outlet 1" wide by 1-3/16" high.

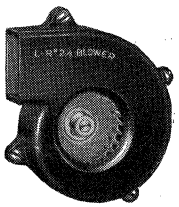
List Price $4.44 ea.



No. 2

High impact Phenolic Housing. Weight 5 ounces. Wheel is 2" dia. Standard shaft bores, 3/16" or 1/4". Overall height 3-3/4". Overall width 3-1/2". Depth 1-3/8". Blower outlet 1-1/8" diameter.

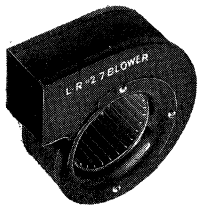
List Price $4.53 ea.



No. 2½

High impact Phenolic Housing. Weight 5-1/2 ounces. Wheel is 2" in dia. Standard shaft bores, 3/16" or 1/4". Overall height 4-3/8". Overall width 3-7/8". Depth 1-7/16". Blower outlet 1-7/16" wide by 1-19/32" high.

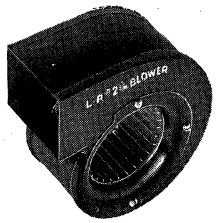
List Price $4.65 ea.



No. 2.7

Rigid Steel Housing. Weight 8-1/2 ounces. Wheel is 2-1/2" in dia. Standard shaft bores, 1/4" or 5/16". Overall height 4-5/8". Overall width 4-13/32". Depth 1-33/64". Blower outlet 1-33/64" wide by 1-3/4" high.

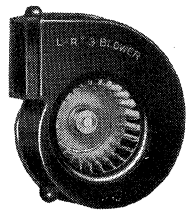
List Price $4.90 ea.



No. 2¾

Rigid Steel Housing. Weight 10 ounces. Wheel is 2-1/2" in dia. Standard shaft bores, 1/4" or 5/16". Overall height 4-5/8". Overall width 4-13/32". Depth 2-5/64". Blower outlet 2-5/64" wide by 1-3/4" high.

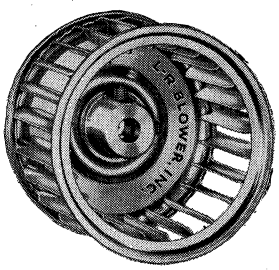
List Price $4.90 ea.



No. 3

High impact Phenolic Housing. Weight 12-1/2 ounces. Wheel is 3" in dia. Standard shaft bores, 1/4" or 5/16". Overall height 6-7/16". Overall width 5-1/2". Depth 2-3/8". Blower outlet 2-3/8" wide by 2-1/2" high.

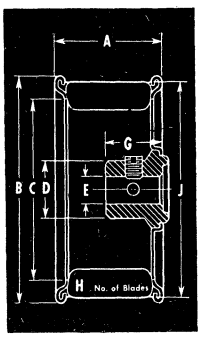
List Price $5.36 ea.



L-R *Whirlwind* BLOWER WHEELS

A key factor in the superior efficiency of any blower is the wheel utilized in the housing. The Ripley Company provides the utmost in equipment and engineering "know-how" to produce small blower wheels of the highest standard and quality. Manufactured from the finest material available, precision engineered and rigidly inspected to meet your most exacting requirements. Standard wheels are cadmium plated steel. Other material and finishes available. Available for CW or CCW Rotation.

DIMENSIONS AND SPECIFICATIONS



ROTATION is determined viewing closed end of wheel

Wheel Size Dia.	Wheel Size Width	Used in Blower No.	A Width (± 1/32)	B Dia. (± 1/32)	C Dia. (± 1/64)	D Dia. (± .005)	E* (+.001 — .000)	F Set Screw	G (± .010)	H Number of Blades	J Dia. (± 1/32)
1	20/32	1	5/8	1	1 1/16	.3125	.125, .1875	5-40	.3125	10	5/64
1 16/32	20/32	1½	5/8	1½	1 9/16	.5625	.1875, .250	8-32	.5156	16	1 15/32
2	31/32	2, 2½	31/32	2	1 33/64	.5625	.1875, .250	8-32	.5156	24	1 29/32
2 16/32 2 16/32	31/32 1 15/32	2.7 2¾	31/32 1 15/32	2½	2 1/8	.750	.250, .3125	8-32	.6562	31 28	2 15/32
3	1 28/32	3	1 7/8	3	2 29/64	.750	.250, .3125	10-32	.6562	24	2 15/16
3 26/32	1 28/32		1 7/8	3 13/16	3 3/8	.9375	.250, .3125	¼-28	.750	30	3¾

* Standard Bore—Other Sizes Available

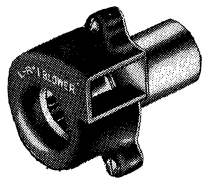
Trade Discount Applies To List Prices Only

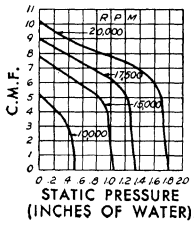
© U.C.P., Inc.

Superior . . . RIPLEY COMPANY, INC. RIPLEY ESTABLISHED 1936 through Research MIDDLETOWN, CONN.

L-R MOTOR & BLOWER ASSEMBLIES

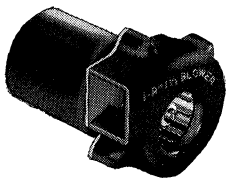
NO. 1

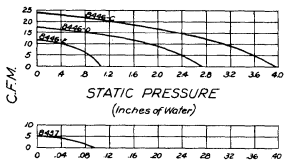




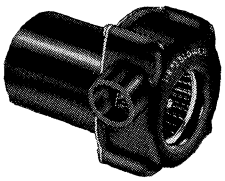
STATIC PRESSURE (INCHES OF WATER)

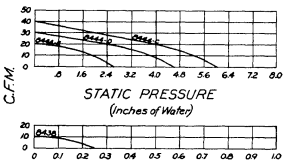
NO. 1½



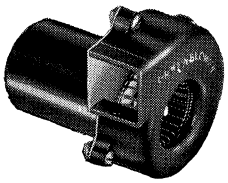


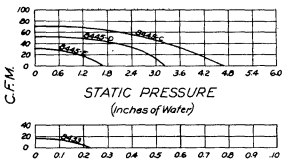
NO. 2



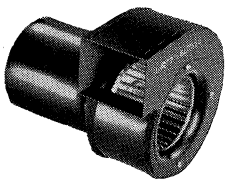


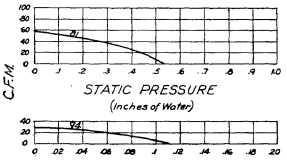
NO. 2½



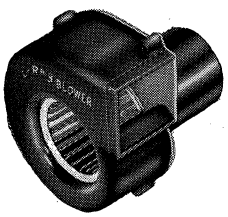


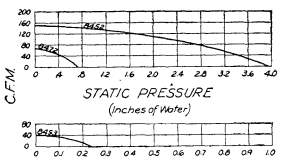
NO. 2¾





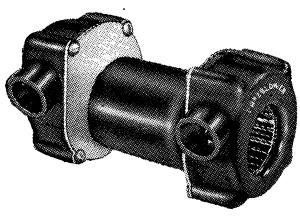
NO. 3

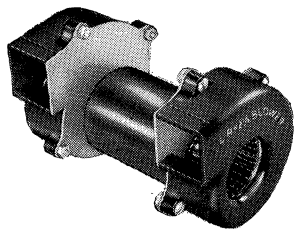




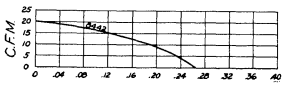
Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8474	1	27.5V. DC.	8	Continuous	18,000	9	2 21/64	7/8	$49.00
8437	1½	115V. AC-60 Cycle	15	Continuous	3,150	4	4 1/16	2¼	13.29
8446-E	1½	115V. AC/DC	25	Intermittent	8,000	12	4½	2 7/32	17.96
8446-D	1½	115V. AC/DC	45	Intermittent	11,000	17	4½	2 7/32	17.96
8446-C	1½	115V. AC/DC	70	Intermittent	15,000	23	4½	2 7/32	17.96
8438	2	115V. AC-60 Cycle	16	Continuous	3,100	10	4½	2¼	13.48
8444-E	2	115V. AC/DC	27	Intermittent	6,500	20	4 15/16	2 7/32	18.14
8444-D	2	115V. AC/DC	53	Intermittent	10,000	30	4 15/16	2 7/32	18.14
8444-C	2	115V. AC/DC	90	Intermittent	13,000	40	4 15/16	2 7/32	18.14
8433	2½	115V. AC-60 Cycle	17	Continuous	2,800	17	4½	2¼	13.60
8445-E	2½	115V. AC/DC	30	Intermittent	6,000	35	4 27/32	2 7/32	18.26
8445-D	2½	115V. AC/DC	55	Intermittent	9,000	53	4 27/32	2 7/32	18.26
8445-C	2½	115V. AC/DC	105	Intermittent	12,000	70	4 27/32	2 7/32	18.26
94	2¾	115V. AC-60 Cycle	26	Continuous	1,600	28	5 11/64	3¼	16.50
81	2¾	115V. AC-60 Cycle	40	Continuous	3,100	58	5 51/64	2 13/16	16.50
8453	3	115V. AC-60 Cycle	35	Continuous	1,600	40	5 15/32	3¼	16.95
8472	3	115V. AC-60 Cycle	40	Continuous	3,100	77	6 5/64	2 13/16	16.05
8452	3	115V. AC/DC	120	Intermittent	6,000	150	6¾	2¾	22.40

L-R BLOWERS DUAL ASSEMBLY

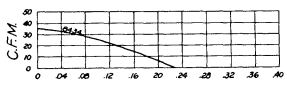




NO. 2 Dual



NO. 2½ Dual



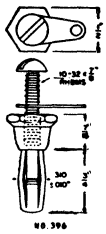
Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8442	2 Dual	115V. AC-60 Cycle	18	Continuous	3,000	10-10	5 11/16	2¼	$19.52
8434	2½ Dual	115V. AC-60 Cycle	20	Continuous	2,800	17-17	5 11/16	2¼	20.59

Birnbach

GIANT, STANDARD, MIDGET BANANA JACKS and PHONE TIPS

VARIATIONS OF STANDARD PLUGS AVAILABLE TO ORDER. PLATED TO GOV'T. SPECS.

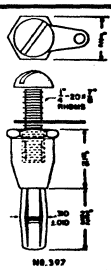
GIANT PLUG No. 396



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

Cat. No.	Spring	Std. Pkg.
396	Phos. Brz.	25
396B	Beryl. Cop.	25

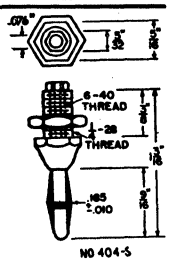
GIANT PLUG No. 397



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

Cat. No.	Spring	Std. Pkg.
397	Phos. Brz.	25
397B	Beryl. Cop.	25

BANANA PLUG No. 404S

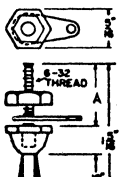


Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scrulok connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Std. Pkg.
404S	100

Scrulok Banana Plug

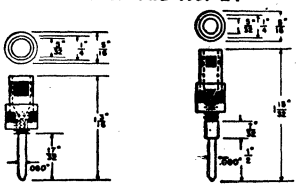
BANANA PLUG No. 400



Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps. Stand. pkg. 100

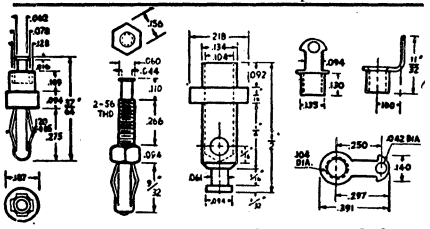
Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	½"
400A	Phos. Bronze	⅜"
400B	Beryl. Copper	½"

SOLDERLESS PHONE TIPS No. 23 and No. 24



Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

Cat. No.		Std. Pkg.
23	—Junior Solderless Phone Tip	100
24	—Senior Solderless Phone Tip	100



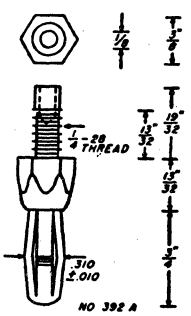
590 591 592 593

SUB MINIATURE BANANA PLUGS & JACKS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description	Std. Pkg.
590	Rivet Type Plug	100
591	Screw Type Plug	100
592	Force Fit Jack	100
593	Rivet Type Jack	100

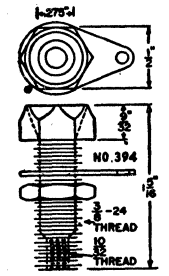
GIANT PLUG No. 392A



Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

Cat. No.	Spring	Std. Pkg.
392A	Phos. Brz.	25

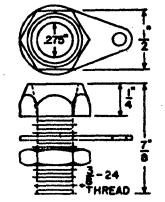
GIANT JACK No. 394



Hexed brass nickel plated. Fits all Giant Banana Plugs. Mounts in ⅜" hole in panels up to ⅞" thick. Complete with n.pl. nut and tinned copper lug.

Cat. No.	Std. Pkg.
394 Giant Jack	25

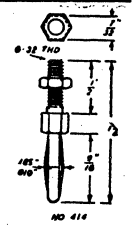
GIANT JACK No. 395



Fits all giant banana plugs. Hexed brass head nickel plated overall. Mounts in ⅜" hole. Complete with nut and tinned copper lug.

Cat. No.	Std. Pkg.
395 Giant Jack	25

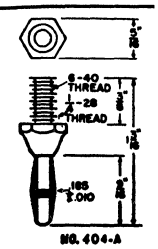
BANANA PLUG No. 414



Hexed brass, nickel plated. One-piece construction. Four-leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
414	Phos. Brz.	100

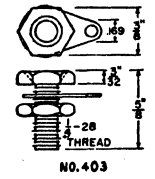
BANANA PLUG No. 404A



Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Std. Pkg.
404A Banana Plug	100

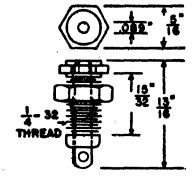
BANANA JACK No. 403



Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in ¼" hole in panels up to ⅜" thick. Fits standard plugs.

Cat. No.	Std. Pkg.
403 Banana Jack	100

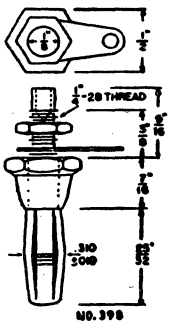
PHONE TIP JACK No. 26



Brass nickel pl. body. Double phosphor bronze springs, hot tinned. Fits standard phone tip plugs. Mounts in ¼" hole in panels up to ⅜" thick. Complete with hex n.pl. brass nut.

Cat. No.		Std. Pkg.
26	Phone Tip Jack	100

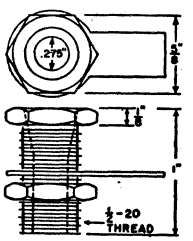
GIANT PLUG No. 398



Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

Cat. No.	Spring	Std. Pkg.
398	Phos. Brz.	25
398B	Beryl. Cop.	25

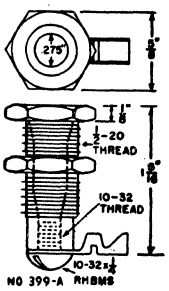
GIANT JACK No. 399



Hexed brass nickel plated. Complete with hex brass n.pl. nut and tinned copper lug. Fits all giant banana plugs. Mounts in ½" hole in panels up to 3½" thick.

Cat. No.	Std. Pkg.
399 Gt. Jack	25

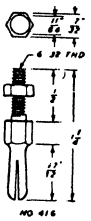
GIANT JACK No. 399A



Hexed brass nickel plated. Mounts in ½" hole. Fits panels up to ¾" thick. Tapped at end with screw and lug connection. Complete with hex brass n.pl. nut, screw and hot tinned copper lug.

Cat. No.	Std. Pkg.
399A Gt. Jack	25

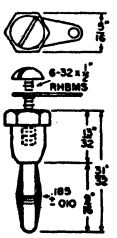
BANANA PLUG No. 416



Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.	Std. Pkg.
416 Banana Plug	100

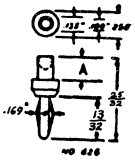
BANANA PLUG No. 401



Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
401	Phos. Brz.	100
401B	Beryl. Cop.	100

MIDGET BANANA PLUG RIVET TYPE—No. 426



Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"	St. Pkg.
426	7/32"	100
426A	5/32"	100

Midget Banana Plug Rivet Type

Additional Midget Plugs & Jacks Available. Also Sub-Miniature Plugs & Jacks.

See Pages 1553-1558 for Birnbach Prices for Above Items

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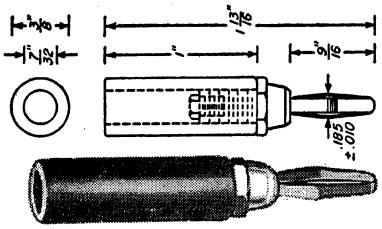
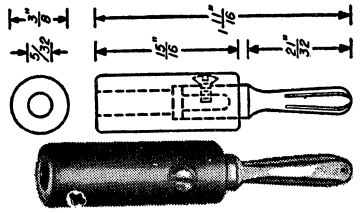
BIRNBACH — INSULATED BANANA — GIANT — PLUGS and JACKS



INSULATED BANANA PLUG

Hexed brass N. Pl. spring type. Fits standard banana jacks. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

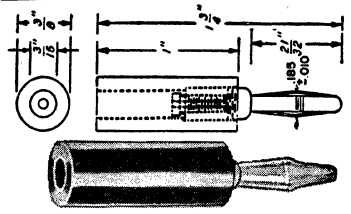
Cat. No.	Spring	Std. Pkg.
404	Phos. Brz.	50
404-CB	Beryl. Cop.	50



INSULATED BANANA PLUG

Split type plug brass n. pl. fits standard banana jacks. Set screw. Solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

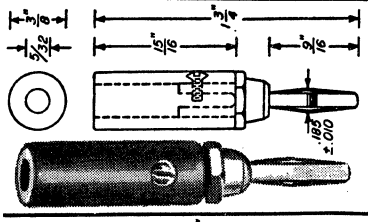
Cat. No.		Std. Pkg.
604	Banana Plug	50



INSULATED BANANA PLUG

Brass n.pl. plug. Fits standard banana jacks. Spring type. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

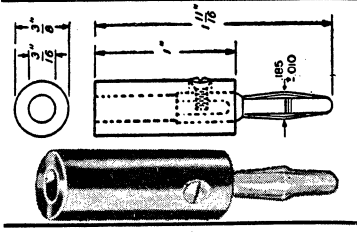
Cat. No.	Spring	Std. Pkg.
465	Phos. Brz.	50
465-B	Beryl. Cop.	50



SPRING BANANA PLUG

Hexed brass n.pl. plug. Set screw solderless connection. 404-BC Beryllium springs, highly resilient. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

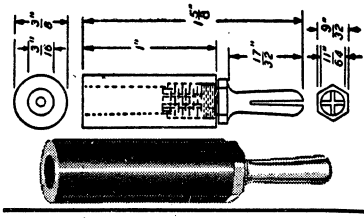
Cat. No.	Spring	Std. Pkg.
404-B	Phos. Brz.	50
404-BC	Beryl. Cop.	50



INSULATED BANANA PLUG

Plug brass n.pl. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

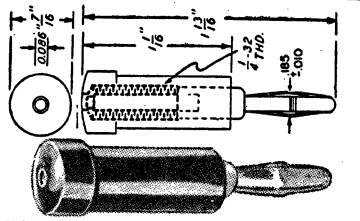
Cat. No.	Hdl.	Spring	Std. Pkg.
466	1"	Ph. Brz.	50
466A	1½"	Ph. Brz.	50



INSULATED BANANA PLUG

Split type, brass n.pl. Scrulok solderless connection. Fits standard jacks. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

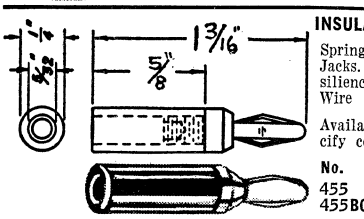
Cat. No.		Std. Pkg.
606	Banana Plug	50



TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Std. Pkg.
467	Phos. Brz.	50
467B	Beryl. Cop.	50

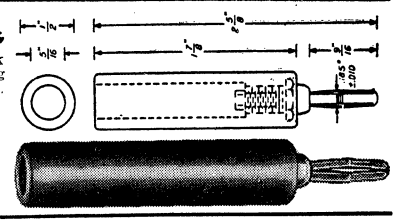


INSULATED MIDGET BANANA PLUG

Spring Type. Fits all standard Banana Jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into Plug.

Available in Red or Black only. Specify color. Std. pkg. 50.

No.	Spring Material	Plating
455	Phosphor Bronze	Nickel
455BC	Beryllium Copper	Silver

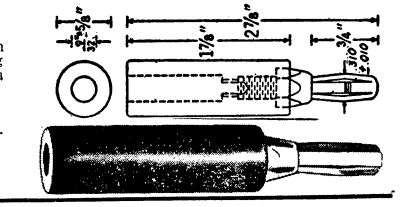


INSUL. BANANA PLUG

Plug brass n.pl. Scrulok solderless connection. Spring type. Fits standard jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring	Std. Pkg
341	Phos. Brz.	50
341B	Beryl. Cop.	50

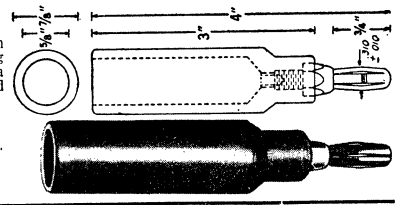


INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring	Std. Pkg.
392	Phos. Brz.	50
392B	Beryl. Cop.	50

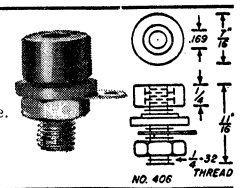


INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.

Colors: Red, Black.

Cat. No.	Spring	Std. Pkg.
342	Phos. Brz.	50
342B	Beryl. Cop.	50

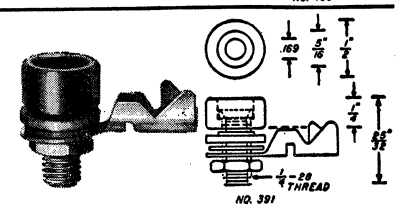


INSULATED BANANA JACK

Takes all standard banana plugs. Body is brass n.pl. Mounts in $\frac{5}{8}$" hole in panels up to $\frac{3}{8}$" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
406	Insulated Jack	50

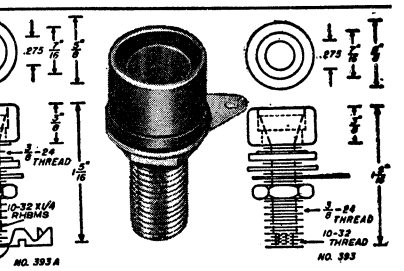


INSULATED BANANA JACK

Accommodates all standard banana plugs. Body is brass n.pl. Mounts in $\frac{5}{8}$" hole in panels up to $\frac{3}{8}$" thick. Complete with all hardware. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
391	Insulated Jack	50

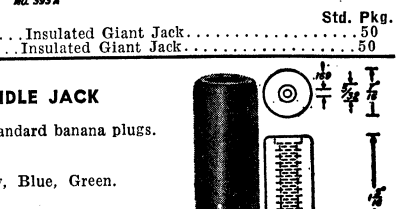


INSULATED GIANT JACK

Accommodates all giant plugs. Body is brass n.pl. Mounts in $\frac{3}{8}$" hole in panels up to $\frac{5}{8}$" thick. Molded plastic head.

Colors: Red, Black.

Cat. No.		Std. Pkg.
393	Insulated Giant Jack	50
393A	Insulated Giant Jack	50

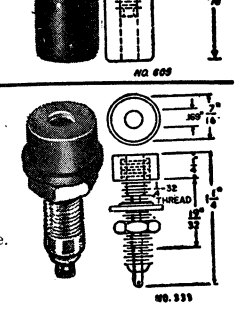


INSULATED HANDLE JACK

Jack brass, n.pl. Fits all standard banana plugs. Plastic handle.

Colors: Red, Black, Yellow, Blue, Green.

Cat. No.		Std. Pkg.
605	Insulated Handle Jack	50



INSULATED COMBINATION JACK

Takes standard senior phone tip or banana plugs. Body is brass n.pl. Double Phosphor Bronze spring. Mounts in $\frac{5}{8}$" hole in panels up to ½" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
333	Insulated Combination Jack	50

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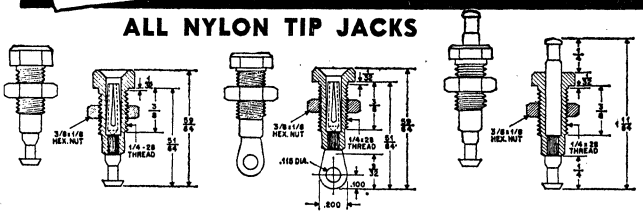
See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

INSULATED PHONE TIPS, TIP JACKS TEST PRODS

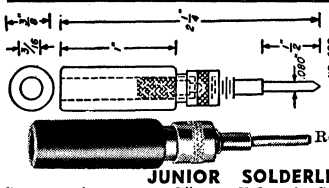
ALL NYLON TIP JACKS



No. 1180 **No. 1182** **No. 1184**

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volts peak at 5 amps. max. 3. Test Voltage—9000 volts DC peak. 4. Insulation Resistance—5000 megohms. 5. Operating Temperature—55 to +150 C. 6. Nominal Capacity—2.0 mmf. 7. Matrial Specifications—A. Body: Nylon Grade FM 10001; A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass, Tin Pl.; C. Hex Nut: Brass Nickel Pl. 8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1180	Wrap Around	25
1182	Spade Terminal	25
1184	Feed Through	25



SENIOR SOLDERLESS PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Wire fastens under knurled nut. Molded handle.

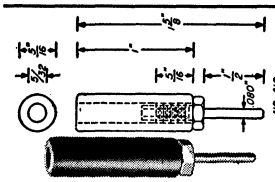
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 409 Sr. . . Std. Pkg. 50

JUNIOR SOLDERLESS PHONE TIP

Same as above except 2" overall length. Specify colors.

Cat. No. 415 Jr. ..... **Std. Pkg.** 50

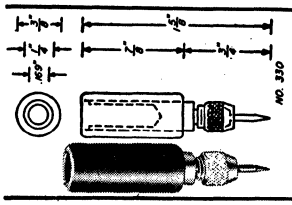


SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 412 ..... **Std. Pkg.** 50

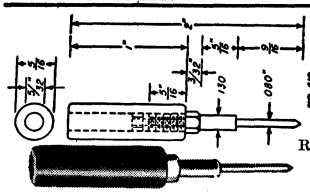


NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.

Colors: Red, Black.

Cat. No. 330 ..... **Std. Pkg.** 50

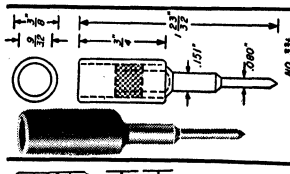


SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 419 ..... **Std. Pkg.** 50

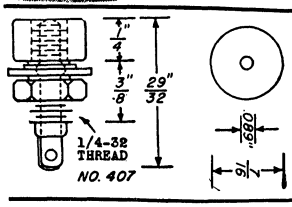


PHONE TIP

Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.

Red, Black, Yellow, Blue, Green, White.

Cat. No. 331 ..... **Std. Pkg.** 50

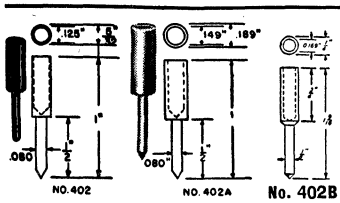


PHONE TIP JACK

Fits all standard phone tips. Body is brass, n.pl. Double Phosphor Bronze springs. Mounts in ⅝" hole in panels up to ⅜" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 407 ..... **Std. Pkg.** 50



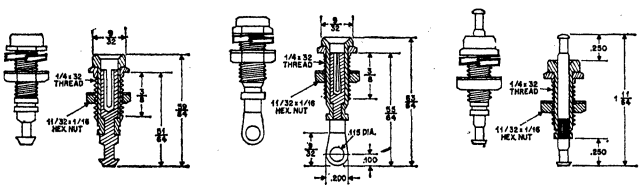
BRASS NICKEL PLATED TIPS

Fits all standard phone tip jacks.

Cat. No.		Std. Pkg.
402	—Standard Phone Tip	100
402A	— Phone Tip Larger Diam	100
402B	— Heavy Duty Phone Tip	100

NYLON TIP JACK WITH METAL SHELL

Made to Meet MS-16108 Spec.

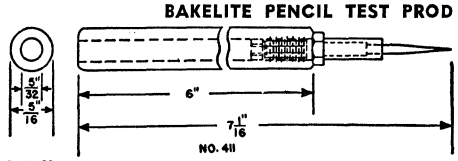


No. 1190 **No. 1192** **No. 1194**

Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volt peak @ 5 amps. maximum. 3. Test Voltage—2500 peak. 4. Insulation Resistance—5000 megohms. 5. Operating Conditions—A. Continuous; 23 hours on, 1 hour off; B. Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; D. Humidity: Up to 95%.
6. Material Specifications—A. Insulator: Nylon, Grade FM 10001; B. Shell & Nut: Brass Nickel Plated Per Spec 72-53;, C. Lockwasher: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact. Numbers 1190 and 1192 Heat Treated Bery. Copper Silver Plated per Spec 72-53. Number 1194 **Brass,** Tin Plated.
7. Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.
8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1190	Wrap Around	25
1192	Spade Terminal	25
1194	Feed Through	25

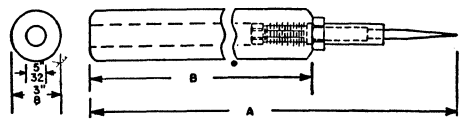
BAKELITE PENCIL TEST PROD



Body is brass nickel plated with steel n.pl. needle. Has Scrulok solderless connection. Bakelite handle. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
411	Bakelite Pencil Test Prod	12

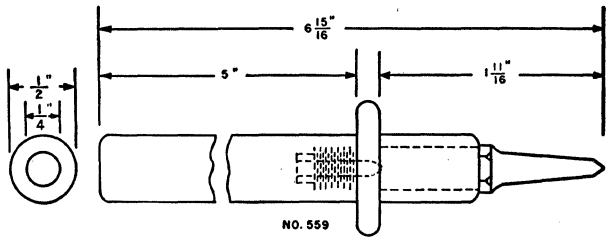
SCRULOK NEEDLEPOINT TEST PRODS



Phenolic insulated prod, has Scrulok solderless connection. Body is brass nickel plated with steel n.pl. needle. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
417	5-3/32"	4"	50
418	6-3/32"	5"	50

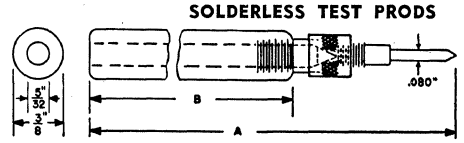
HEAVY DUTY HI-VOLTAGE TEST PROD HANDLE



Tip is heavy brass nickel plated. Bakelite finger guard. Accommodates IN-34 diode and condenser for use as RF Probe. **Colors,** Red, Black.

Cat. No.		Std. Pkg.
559	6" H.V. Test Prod. Handles	20

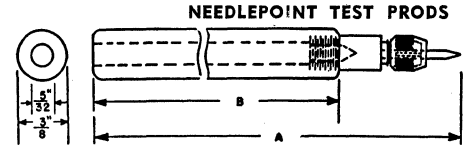
SOLDERLESS TEST PRODS



Body is brass nickel plated with solderless knurled nut connection. Heavy duty needlepoint, nickel plated. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
410	5⅛"	4"	50
343	6⅛"	5"	50

NEEDLEPOINT TEST PRODS



Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
344	4-15/16"	4"	50
345	5-15/16"	5"	50

See Pages 1553-1558 for Birnbach Prices for Above Items

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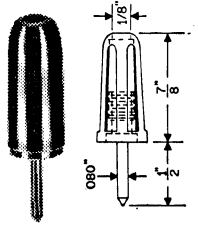
Birnbach — PHONE TIPS, TIP JACKS TEST PRODS

NEW NYLON INSULATED PLUG



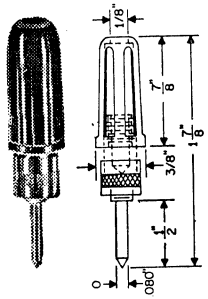
Molded of tough low-loss Nylon—provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

Cat. No.	Std. Pkg.
1169	100

Specify color as indicated above.

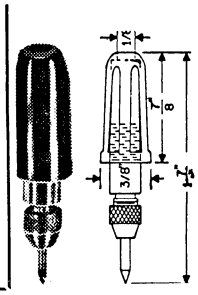
NYLON SOLDERLESS TIP PLUG



Molded Nylon handle, Brass N.Pl. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

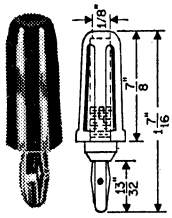
Cat. No.	Std. Pkg.
1170	100

Specify color as indicated above.



NYLON BANANA PLUG—MIDGET

Molded Nylon Handle Brass N.Pl. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.



Cat. No.	Spring Material	Plating	Std. Pkg.
1172	Phospor Bronze	Nickel	100
1173	Phospor Bronze	Silver	100
1174	Berylium Copper	Nickel	100
1175	Berylium	Silver	100

Specify color as indicated in Color Code at right.

Color Code For NYLON HANDLE PLUGS
Add to Catalog Numbers

—01 White	—08 Brown
—02 Red	—09 Lt. Green
—03 Black	—10 Dk. Blue
—04 Dk. Green	—11 Ivory
—05 Lt. Blue	—12 Violet (Purple)
—06 Orange	—13 Grey
—07 Yellow	

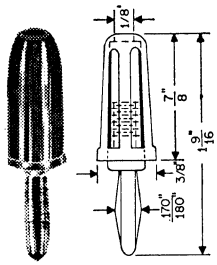
PHONE NEEDLE TIP PLUG

Molded Nylon Handle, Brass N.Pl. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

Cat. No.	Std. Pkg.
1171	100

Specify color as indicated above.

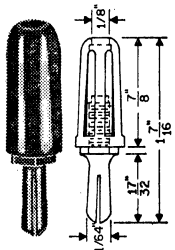
Same as above with Solderless Scrulock Connection.



1164	Phosphor Bronze	Nickel	100
1165	Phosphor Bronze	Silver	100
1166	Berylium Copper	Nickel	100
1167	Berylium Copper	Silver	100

Specify color as indicated above.

NYLON BANANA PLUG

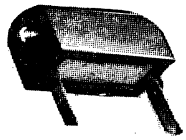


Molded Nylon handle, brass N.P. plug, split type with solderless scrulock connection.

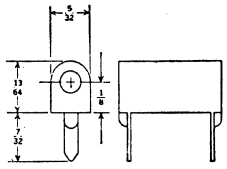
Cat. No.	Std. Pkg.
1168	100

PRINTED CIRCUIT TEST JACKS

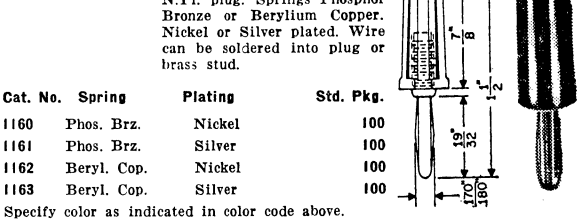
Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Berylium copper contacts which provide low resistance contact. Takes standard .080" diameter test probes. Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.



Cat. No.	Std. Pkg.
1177 Printed Circuit Jack	25



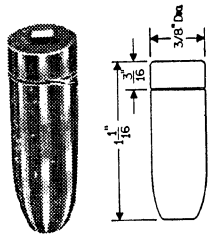
NYLON BANANA PLUG



Molded Nylon handle, Brass N.Pl. plug. Springs Phosphor Bronze or Berylium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.

Cat. No.	Spring	Plating	Std. Pkg.
1160	Phos. Brz.	Nickel	100
1161	Phos. Brz.	Silver	100
1162	Beryl. Cop.	Nickel	100
1163	Beryl. Cop.	Silver	100

Specify color as indicated in color code above.



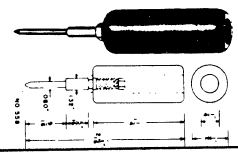
NYLON HANDLE JACK

Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.	Std. Pkg.
1179 Nylon Handle Jack	100

Specify color as indicated above.

HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLES — No. 558



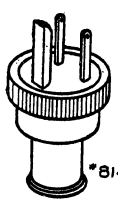
These bakelite prods are the same as used on the meter end of high voltage test leads Cat. No. 562. Tips are heavy brass with nickel plating.

Colors: Red, Black.

Cat. No.	Std. Pkge.
558—1¼" H.V. Test Prod Handles..	20

ADAPTER PLUGS

NEW TYPE 3 PRONG PLUG

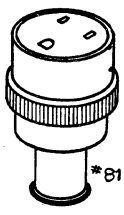


*814T

NO.	LIST PRICE	STD. PKGE.
814T	.90	100

Two parallel blades plus ground pin for safe grounding of appliance.

FEMALE CONNECTOR

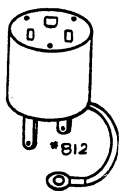


*811

NO.	LIST EA.	STD. PKGE.
811	2.25	25

For new type 3 prong plug. Female mate to No. 814T.

ADAPTER FOR USING NEW TYPE 3 PRONG PLUG IN STANDARD OUTLET



*812

NO.	LIST EA.	STD. PKGE.
812	.75	100

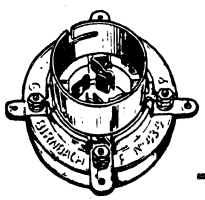
BIRNBACH TRANSMITTING SOCKETS

Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

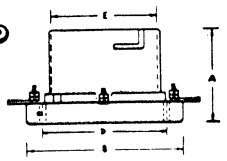
No. 434—"50 watt" socket for medium power bayonet based tubes such as 575A, 805, 810, 838, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phospher bronze cadmium plated double wiping filament contacts will handle heavy currents. Terminals designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

No. 435—"10 watt" socket for economy, has heavy phospher bronze, cadmium plated side wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 808, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.

Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base	Std. Pkg.
434	50	2-9/32"	3⅜"	2-13/16"	1.886"	2	4	Std. Jumbo	25
435	10	1⅞"	2½"	2-1/16"	1.386"	2	4	Med. Bay	25



Nos. 434-435



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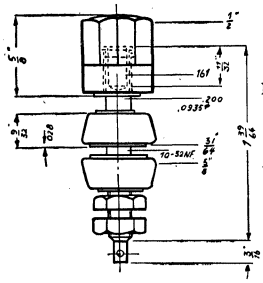
See Pages 1553-1558 for Birnbach Prices for Above Items

ALLIGATOR CLIPS — TEST CLIPS — SPADE LUGS — BINDING POSTS

BINDING POST

#276



NEW! BIRNBACH "Multi-Use" Binding Posts Safe-Positive-Heavy Duty

Rugged, versatile "Multi-Use" binding post made of molded phenolic with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels 1/16" to ¼" thick. Mounting hole ½". Current Capacity: 30 Amps. Voltage: 2000 V.A.C. RMS Test. **No. 276 Can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.**

Cat. No.		Std. Pkg.
276	Nickel Plated Red or Black	100

Red, Black, Yellow, Green. White, Blue, Brown

BINDING POST

#274

WRAP AROUND TYPE

No.		Std. Pkg.
274	Standard Brass	100
275	Stand. Nickel Plated specify Red or Black	100

NOTES:

A Banana Plug Receptacle, .161 I. D.; B Head non-removable from Stud; C Molded in Brass Bushing in Head; D Molded in Brass Bushing in Washers; E For Panels 1/16" to ¼" thick; F Drill ½" hole for mounting washers; G Wire Hole is at right angle to Flat on insulated Washers; H Production Punch for keyed Slot for mounting Washers.

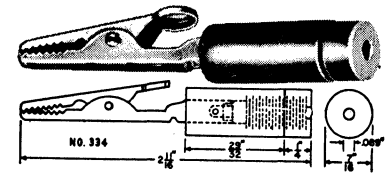
STANDARD DUTY 5-WAY BINDING POST

Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

#278 #279

Cat. No.	Description	Std. Pkg.
278	Red or Black	100
279*	Red or Black	100

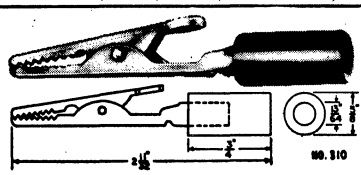
*Same as above, but normally grounded. (Without bottom insulating section.)



ALLIGATOR CLIP WITH PHONE TIP JACK

Handle has our No. 31 clip and our No. 407 tip jack in rear for all standard phone tip plugs. **Colors.** Red, Black.

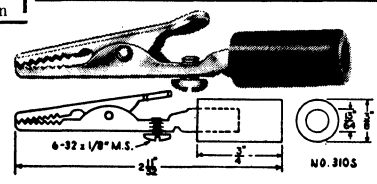
Cat. No.		Std. Pkg.
334	Alligator Clip with Phone Tip Jack	50
336	Same as above except with our #31C screw type Copper Alligator Clip	50



INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip. **Colors:** Red, Black.

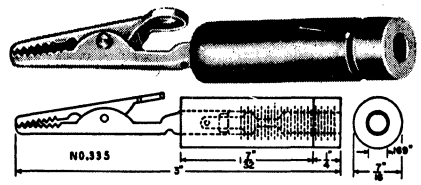
Cat. No.		Std. Pkg.
310	Insulated Alligator Clip	50
310B	1½" Insulated Alligator Clip	50



INSULATED ALLIGATOR CLIP (Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle.

Cat. No.	Colors: Red, Black.	Std. Pkg.
310S	Insulated Alligator Clip	50
310C	Insulated Copper Alligator Clip	50



ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of our #31, steel, cadmium plated Alligator Clip with our #333 **Combination Jack in rear** allowing the adaption of both standard senior phone tip plugs and banana plugs to Alligator Clips. **Colors** d, Black.

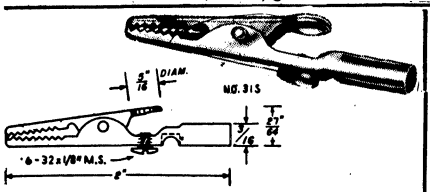
Cat. No.		Std. Pkg.
335	Alligator Clip Combination Jack	50
337	Same as above except with our #31C screw type Copper Alligator Clip	50

MICRO-GATOR CLIPS

The Alligator Clip With the Microscopic Tip. Use it where no other clip can go—for tight spots, printed circuits, etc. Length 1¾2". Jaw spread, 7/32". Tiny tip, 1/32" across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.

Specify color:
Red, black, blue, yellow, white, green

CAT. NO.	TYPE	STD. PKGE.
31 MG/S	Steel, Cad. Plated	50
31 MG/C	Solid Copper	50
31 FB	Insulator Boots to Fit 31 MG/S or 31 MG/C	50



ALLIGATOR CLIP (Screw Type)

Made of cadmium plated steel. The jaws match accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.

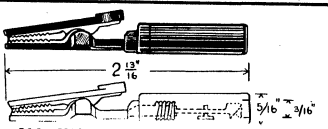
Cat. No.		Std. Pkg.
31	Alligator Clip (no screw)	50
31S	Alligator Clip with screw	50
31C	Alligator Clip (Copper) w/scr.	50

MINIATURE ALLIGATOR CLIPS

Very small and compact ● Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1-3/32" Jaws open to 3/16". Has lip for soldering.

CAT. NO.	TYPE	STD. PKG.
31 MS	STEEL (Cad Plate)	50
31 MC	Solid Copper	50

31 MB INSULATOR BOOT to fit 31 MS or 31 MC. Specify Black, Red, Blue, Yellow, White, Green.



ALL INSULATED ALLIGATOR CLIP

Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.
Cat. No. 123 Std. pkg. 50

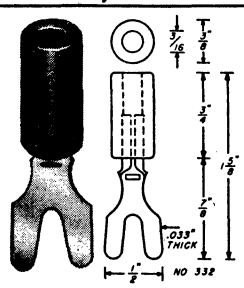
PHONE TIP TO CLIP ADAPTER

Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.
Cat. No. 124 Std. pkg. 50

ALLIGATOR CLIP VINYL INSULATOR

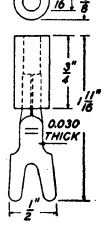
Extremely flexible. Made to fit Nos. 31, 31S, 31C. **Colors:** White, Red, Black, Yellow, Blue Green.

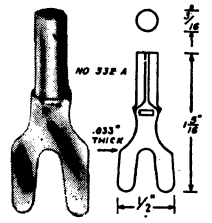
Cat. No.		Std. Pkg.
31R	Vinyl Insulator	50



INSULATED SPADE LUG

Accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a splade lug. Lug is Steel Hot Tinned.
Colors:
Red or Black
Cat. No. 332
Std. Pkg. 50





SPADE LUG

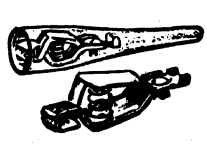
Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

Cat. No.	Std. Pkg.
332A	50

Spade Lug

BIRNBACH TEST CLIPS

The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper clip with a brass screw designed for high frequency work.



Cat. No.	Length	Jaw Spread	Capacity	Std. Pkg.
27—Pee Wee	1½"	⅜"	5 Amp.	50
28—Midget	2"	9/16"	10 Amp.	50
29—Medium	2⅞"	1"	25 Amp.	50
30—Large	4"	1¼"	50 Amp.	50
27C—Pee Wee Copper	1½"	⅜"	10 Amp.	50
27R—Rubber Sleeve—Red or Black				50

See Pages 1553-1558 for Birnbach Prices for Above Items

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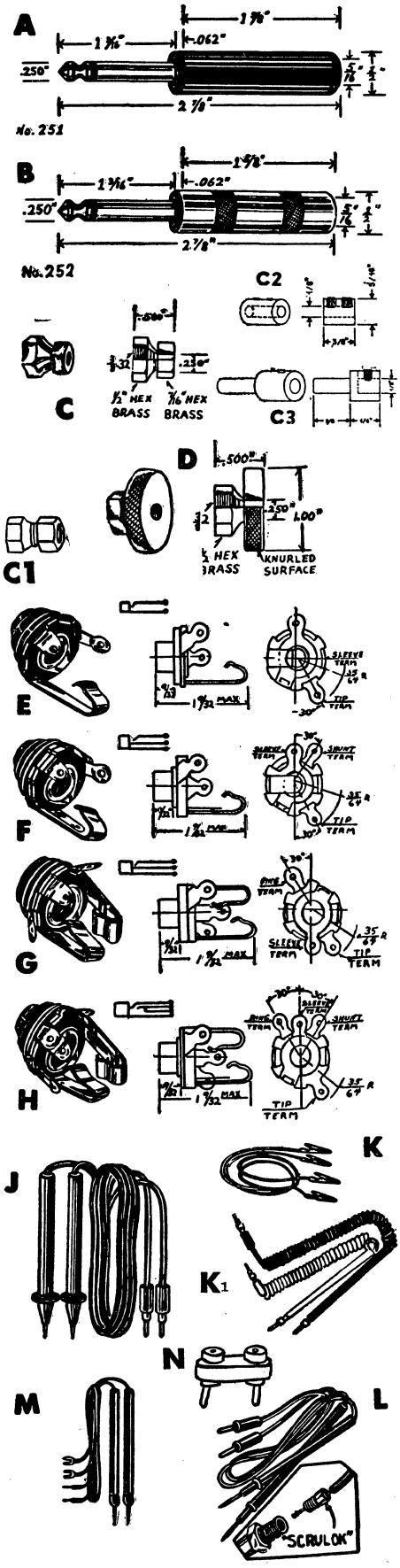
Birnbach

STANDARD AND MINIATURE TELEPHONE TYPE JACKS • PLUGS • SHAFT LOCKS • TEST LEADS



TELEPHONE TYPE PLUGS

This standard two conductor plug fits all standard jacks. All metal parts brass with nickel plating except for contact screw. Barrel is molded bakelite. Red or Black.

A — BAKELITE DOUBLE PHONE PLUG
Cat. No. 251 ..... Std. Pkg. 25

B — SHIELDED PHONE PLUG
Cat. No. 252 ..... Std. Pkg. 25

SHAFT LOCKS

C — WRENCH TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 7/16" hex brass.

Cat. No.		Std. Pkg.
546	— For ¼" Shaft	25

D — THUMB TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 1" diam. knurled nut.

Cat. No.		Std. Pkg.
547	— For ¼" Shaft	25

MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for ⅛" shafts.

C1 — MINIATURE LOCK—WRENCH TYPE
Cat. No. 546A — Std. Pkg. 25

C2 — MINIATURE BRASS COUPLER
with allen head set screws
Cat. No. 531A — Std. Pkg. 25

C3 — MINIATURE SHAFT EXTENDER
with allen head set screws
Cat No. 538A — Std. Pkg. 25

TELEPHONE TYPE JACKS

The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in ⅜" hole.

E — Cat. No. 257 — Open Circuit Two Conductor ..... Std. Pkg. 25
F — Cat. No. 258 — Single Closed Circuit Two Conductor ..... Std. Pkg. 25
G — Cat. No. 259 — Open Circuit Three Conductor ..... Std. Pkg. 25
H — Cat. No. 260 — Single Closed Circuit Three Conductor ..... Std. Pkg. 25

TEST LEADS

J — BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.

Cat. No.		Std. Pkg.
562	— Heavy Duty High Voltage Test Leads	10

L — DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.

Cat. No.		Std. Pkg.
408	— Bakelite Pencil Type Test Leads, 6" handles	10
560	— DeLuxe Solderless Prod Test Leads, 5" handles	25
561	— DeLuxe Needlepoint Prod Test Leads, 5" handles	25

N — CRYSTAL SOCKET

Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051, mtg. hole .125. Std. Pkg. 25.

Cat No. 595 — Crystal Socket

K — ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire Length	Std. Pkg.
675	12"	25
676	24"	25
677	36"	25
678	48"	25

SPECIAL ASSEMBLIES AVAILABLE TO ORDER

K_1 — STRETCH LEADS

Kink-Proof Retracted 9" Coil

No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.

Cat. No. 564 Solderless phone tip, retractile wire, solderless prod. Std. Pkg. 10.

L — PUSH BUTTON KINKLESS TEST LEADS

556	Solderless phone tip one end, push button tip other end. Std. Pkg. 12
557	Solderless phone tip one end, push button banana plug other end. Std. Pkg. 12

M — BIRNBACH NEEDLEPOINT TEST LEADS

Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.

Cat. No.		Std. Pkg.
420	— Needlepoint Phone Tip Test Leads	25
421	— Needlepoint Spade Lug Test Leads	25
422	— Solderlss Phone Tip Test Leads	25
423	— Solderless Spade Lug Test Leads	25

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

WIRE MEASURING MACHINE, BINDING POSTS, PHONO JACKS - HANDLES

"NEW" COMPLETE WIRE MEASURING OUTFIT

ACCURATE • COMPACT • NOISELESS

CERTIFICATE OF APPROVAL NO. 498-61 DEPARTMENT OF AGRICULTURE STATE OF CALIFORNIA

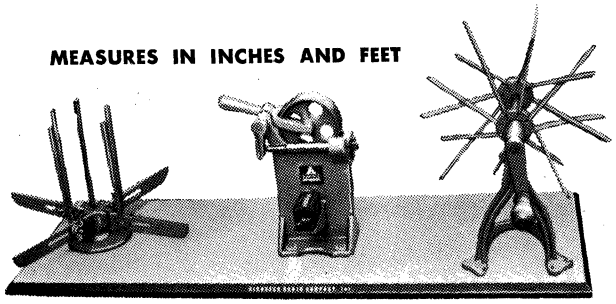
MEASURING MACHINE

Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to .9,999 feet for direct accurate reading. Can be easily reset to zero position.

Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.

Two hardened lead bushings with an opening of 5/8" diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1" dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

MEASURES IN INCHES AND FEET



Sold without baseboard.

WIRE WINDER

Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL

Compact, adjustable to size of coil and folding. Will hold spools or coils of wire.

PRICES

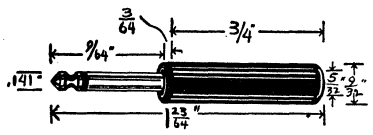
	MODEL	LIST	NET
COMPLETE WIRE MEASURING OUTFIT	7389A	$252.50	$126.25
Separately:			
HOLDING REEL	7398-1M	35.00	17.50
MEASURING MACHINE	7398-2MA	175.00	87.50
WIRE WINDER	7398-3M	59.00	29.50

MINIATURE PLUGS & JACKS

MINIATURE PHONE PLUG

Insulated type, Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments, etc. Rated 500 volts.

No.	Std. pkg.
130 Red or Black	50

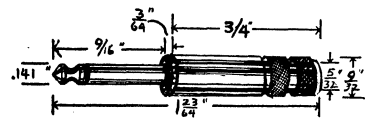


No. 130

SHIELDED MINIATURE PHONE PLUG

Same as **No. 130** except with brass, bright nickel plated barrel with insulating tube inside.

No.	Std. pkg.
131	50

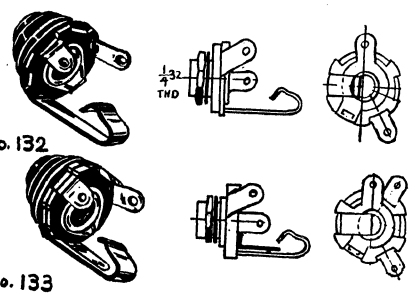


No. 131

MINIATURE TELEPHONE TYPE JACK

Rugged construction, smaller than standard type Jacks. Mount in 1/4" dia. hole in panels up to 1/8" thick.

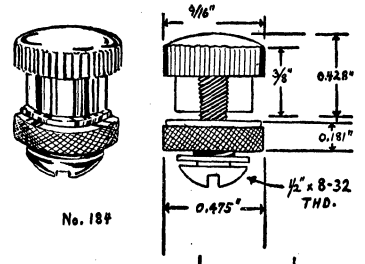
	Std. pkg.
No. 132 Open circuit type	50
No. 133 Single closed circuit type	50



No. 132

No. 133

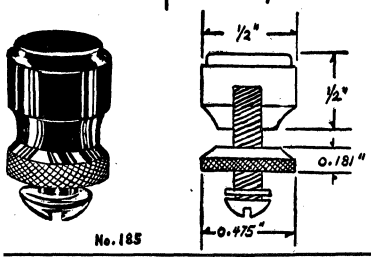
INSULATED BINDING POST



No. 184

Milded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw, lock washer. Has brass insert molded-in. Supplied with washer. Available in black.

Cat. No.	Std. pkg.
184..Binding Post	50



No. 185

Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x 1/2" screw and lock washer. Has brass nickel-plated retaining washer.

Colors: Red, Black.

Cat. No.	Std. pkg.
185..Binding Post	50

Brass, heavily nickel-plated overall. Complete with screw and lock washer. Designed for high amperage, low resistance connections.

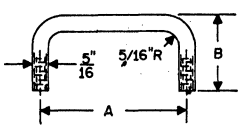
Cat. No.	Std. pkg.
186.Metal Binding Post	50

BIRNBACH FLEXIBLE SHAFTS

Modern construction calls for more compact arrangement of parts. At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90 degrees. The flexible shafts are made of phosphor bronze and fitted into 1/4" dia. hubs.

Cat. No.	Std. Pkg.
553—Flexible Shaft 3" long	25
554—Flexible Shaft 6" long	25

HANDLES

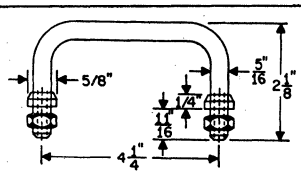


MATERIAL: BRASS
FINISH: NICKEL PLATED

Has 10-32 thread individually packaged for a perfect finish.

Cat. No.	A	B	Std. Pkg.
1065-3	3"	15/16"	10
1065-4	4 9/16"	1 1/2"	10
1065-6	6 7/16"	1 3/4"	10
1065-9	9"	1 3/4"	10

CABINET HANDLE



MATERIAL: BRASS
FINISH: NICKEL PLATED

Mounts in 5/16" Hole.

Supplied with Hex Nut and Washer. Individually packaged for perfect finish.

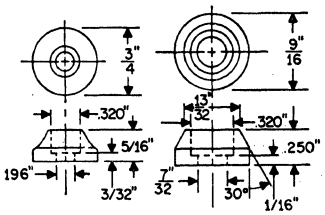
Cat. No.		Std. Pkg.
1066	Handle	10

FERRULE

BRASS—NICKEL PLATED

Used for mounting handles.

Cat. No.		Std. Pkg.
1068	Ferrule	100
1069	Ferrule	100



See Pages 1553-1558 for Birnbach Prices for Above Items

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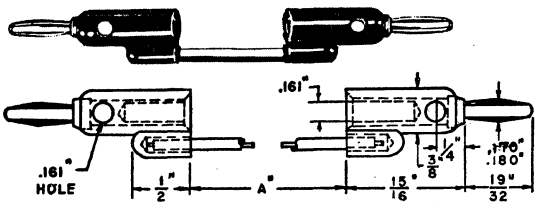
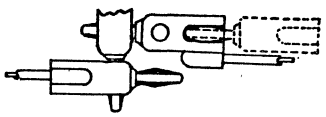
Birnbach

PATCH CORDS
PHONO JACK & PLUGS - PHONO SPLICE/TIP

MOLDED "STACKING TYPE" PATCH CORDS



1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive and lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
   a. 360 degrees spring contact
   b. maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color)
   (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
   a. 65 strands #36 insulated to an O.D. of .140.



Cat. No.	("A") Wire	Std. Pkg.
655-8	8 inches	12
655-12	12 inches	12
655-24	24 inches	12
655-36	36 inches	12

PHONO-JACKS

Small, compact . . . where space is at a premium.

Cat. No.	Std. Pkg.
597	50

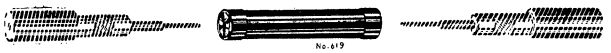
Space Saver . . . Rivets and grounds to chassis.

Cat. No.	Std. Pkg.
598	50

Provides a never-ending banana plug receptacle to interconnect an unlimited amount of multiple circuits. The cross hole is designed for positive contact of all standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronze nickel plated spring. Red or Black assemblies. Specify color. Std. pkg. 10.

		Pkg.
Cat. No. 653-8	8" Wire Length	12
Cat. No. 653-12	12" Wire Length	12
Cat. No. 653-24	24" Wire Length	12
Cat. No. 653-36	36" Wire Length	12

PHONE TIP PLUG SPLICE



Takes all standard phone tip plugs excellent for quick connections or test, lead extensions.

Colors: Red, Black, Yellow, Green.

Cat. No. 619 — Insulated Banana Plug Splice ..... **Std. pkg.** 25

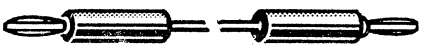
IN-LINE PHONE TIP JACK

Takes all standard phone tip plugs. Can be used as lead extension.

Colors: Red, Black, Yellow, Green.

Cat. No. 621 — Insulated-In-Line Tip Jack ..... **Std. pkg.** 25

BIRNBACH PATCH CORDS



Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

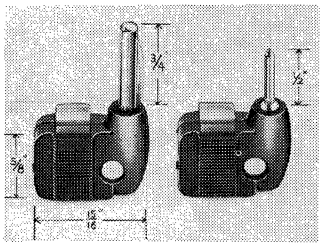
Cat. No.	Wire Length	Std. Pkg.
607	12"	25
608	24"	25
609	36"	25
610	48"	25

SHIELDED EXTENSION JACK

Cadmium plated brass shell with black bakelite insert. Length is 2-7/16". Insulates for solder grip contact. Mates with No. 248 Phono Plug.

Cat. No.	Std. Pkg.
246—Inline Extension Jack	100

PUSH BUTTON PHONE TIP PLUGS AND BANANA PLUGS



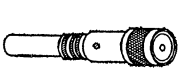
122 # 121

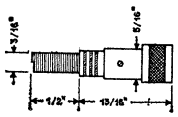
Description: Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No.		Std. Pkg.
121	Push Button Phone Tip Plug, Red and Black	100
122	Push Button Banana Plug, Red, Black, Yellow, Green, White	100

No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks. No. 122 Banana Plug will fit all Standard Banana Jacks.

MINIATURE MICROPHONE CONNECTOR



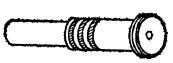


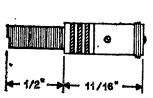
Single contact female.

No. 134 Miniature Female Conn. — Std. pkg. 50

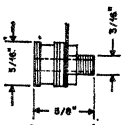
Single Contact Male

No. 135 Miniature Male Conn. — 50





MINIATURE CHASSIS CONNECTOR



Single Contact Male

Complete with insulating washer and lug. Mounts in ¼" hole. Mates with **No. 134.**

No. 136 Miniature Chassis Conn. — Std. pkg. 50

BIRNBACH THREADED RODS

These brass nickel plated threaded rods are standard parts of of our insulator assemblies.

Cat. No.	Length	Thread	Std. Pkg.
16	4"	¼-20	1000
17	5½"	¼-20	1000
18	10"	¼-20	1000
113	15"	¼-20	1000
114	1⅜"	10-32	1000
115	1⅝"	10-32	1000
116	2¼"	10-32	1000
117	8"	10-32	1000
118	8"	8-32	1000
119	8"	6-32	1000
15	2"	6-32	1000

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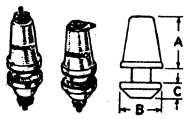
See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

FEEDTHRU • STEATITE PILLARS • CORRUGATED CERAMIC • STANDOFF INSULATORS

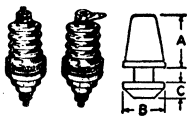
BIRNBACH FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel plated hardware.

Cat. No.	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
458	5/8"	50	11/16"	1/4"	5/16"	6-32
478	1"	25	13/16"	5/16"	7/16"	10-32
478J	1"	25	13/16"	5/16"	7/16"	No. 403 Jack
4125	1 1/4"	25	7/8"	3/8"	7/16"	10-32
4125J	1 1/4"	25	7/8"	3/8"	7/16"	No. 403 Jack
4234	2 3/4"	10	2"	1"	1 1/4"	1/4-20
4175	2 3/4"	10	1 1/4"	3/4"	5/8"	1/4-20
4175J	2 3/4"	10	1 1/4"	3/4"	5/8"	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel plated hardware and cork mounting washers supplied.

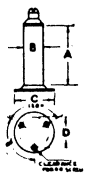
Cat. No	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
479	1 3/8"	25	1 1/4"	11/16"	9/16"	10-32
479J	1 3/8"	25	1 1/4"	11/16"	9/16"	No. 403 Jack
4276	2 3/4"	10	1 5/8"	1"	3/4"	1/4-20
4276J	2 3/4"	10	1 5/8"	1"	3/4"	No. 394 Jack
4452	4 1/2"	5	2 1/8"	1 1/2"	1"	1/4-20
4452J	4 1/2"	5	2 1/8"	1 1/2"	1"	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1-3/16" where the electric stress is greatest.

Cat. No.	Height	Std. Pkg.	Base Dia.	Mounting Hole	Hardware
4233	1 5/8"	10	2"	1 1/4"	1/4-20

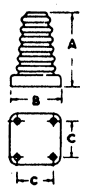
STEATITE PILLARS

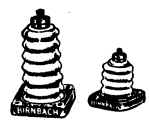


Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

Cat. No.	Height A	Std. Pkg.	Dimen. B	Base Dia. C	D	Hardware
450	1"	10	1/2"	1 1/8"	7/8"	6-32
450J	1"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
451	1 1/2"	10	1/2"	1 1/8"	7/8"	6-32
451J	1 1/2"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
452	2 1/2"	10	1/2"	1 1/8"	7/8"	6-32
452J	2 1/2"	10	1/2"	1 1/8"	7/8"	No. 403 Jack
453	2 1/2"	5	3/4"	1-9/16"	1-3/16"	1/4-20
453J	2 1/2"	5	3/4"	1-9/16"	1-3/16"	No. 395 Jack
454	4"	5	3/4"	1-9/16"	1-3/16"	1/4-20
454J	4"	5	3/4"	1-9/16"	1-3/16"	No. 395 Jack

BIRNBACH METAL BASE INSULATORS

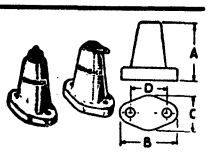




Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel plated brass screws and nuts, cadmium plated drawn steel bases.

Cat. No.	Height A	Std. Pkg.	Base Dimension B	C	Mtg. Screw D	Hardware
867	1 3/8"	25	1 7/8" x 1 5/8"	1 1/2"	2 No. 8	10-32
867J	1 3/8"	25	1 7/8" x 1 5/8"	1 1/2"	2 No. 8	403 Jack
4176	2 3/4"	10	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	1/4-20
4176J	2 3/4"	10	1 3/4" x 1 3/4"	1 3/8"	4 No. 10	395 Jack
4451	4 1/2"	5	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	1/4-20
4451J	4 1/2"	5	2 1/4" x 2 1/4"	1 3/4"	4 No. 10	395 Jack

BIRNBACH STANDOFF INSULATORS

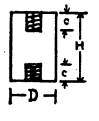


Made of highly vitrified low absorption glazed porcelain. No washers necessary — mounting surface is ground flat for No. 404. No. 966 it is advisable to use cork washers which are available. All brass nickel plated hardware supplied.

Cat. No.	Height A	Std. Pkg.	Base Dimension B	C	D	Mounting Holes	Hardware
405	5/8"	100	1"	17/32"	11/16"	13/64"	6-32
965	1"	50	1 1/4"	3/4"	13/16"	17/64"	8-32
966	1"	50	1 3/4"	7/8"	1"	17/64"	8-32
966J	1"	50	1 3/4"	7/8"	1"	17/64"	No. 403 Jack
866	1 1/2"	25	1 3/4"	1 1/8"	1 1/4"	17/64"	10-32
866J	1 1/2"	25	1 3/4"	1 1/8"	1 1/4"	17/64"	No. 403 Jack
866SJ	1 1/2"	10	1 3/4"	1 1/8"	1 1/4"	17/64"	No. 395 Jack
4275	2 3/4"	10	2 3/4"	2"	2 1/8"	1/4"	1/4-20
4275J	2 3/4"	10	2 3/4"	2"	2 1/8"	1/4"	No. 399 Jack
4450	4 1/2"	5	3 5/8"	2 1/2"	2 5/8"	5/16"	1/4-20
4450J	4 1/2"	5	3 5/8"	2 1/2"	2 5/8"	5/16"	No. 399 Jack

BIRNBACH STEATITE PILLARS JAN-I-8 and JAN-I-10 SPECS.

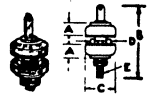
(Less Hardware)



In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.	Conforms to Type	Height H	Diam. D	Threaded Hole Length of Thread	Thread	Std. Pkg.
441		1/4"	1/4"	All	6-32	100
441B		3/8"	1/4"	5/32"	6-32	100
441A		1/2"	1/4"	5/32"	6-32	100
444A		3/4"	1/4"	1/4"	6-32	100
445A		1"	1/4"	1/4"	6-32	100
442		3/8"	3/4"	5/32"	6-32	100
442A	NS5W0104	1/2"	3/8"	5/32"	6-32	100
443A	NS5W0105	5/8"	3/4"	1/4"	6-32	100
444B	NS5W0106	3/4"	3/8"	1/4"	6-32	100
445B	NS5W0108	1"	3/8"	3/8"	6-32	100
446B	NS5W0110	1 1/4"	3/8"	3/8"	6-32	100
446A	NS5W0112	1 1/2"	3/8"	3/8"	6-32	100
446C	NS5W0116	2"	3/8"	3/8"	6-32	100
443		1/2"	1/2"	3/4"	6-32	100
444		3/4"	1/2"	1/4"	6-32	100
445		1"	1/2"	3/8"	6-32	100
446		1 1/2"	1/2"	3/8"	6-32	100
447		2 1/2"	1/2"	3/4"	6-32	100
440	NS5W0205	5/8"	1/2"	3/16"	8-32	100
440A	NS5W0206	3/4"	1/2"	1/4"	8-32	100
440B	NS5W0208	1"	1/2"	3/8"	8-32	100
440C	NS5W0210	1 1/4"	1/2"	3/8"	8-32	100
440D	NS5W0212	1 1/2"	1/2"	3/8"	8-32	100
440E	NS5W0216	2"	1/2"	3/8"	8-32	100
440F	NS5W0220	2 1/2"	1/2"	3/8"	8-32	100
444C		3/4"	3/4"	1/4"	10-32	100
445C	NS5W0308	1"	3/4"	3/8"	10-32	100
445D	NS5W0310	1 1/4"	3/4"	3/8"	10-32	100
445E	NS5W0312	1 1/2"	3/4"	3/8"	10-32	100
445F	NS5W0316	2"	3/4"	3/8"	10-32	100
445G	NS5W0320	2 1/2"	3/4"	3/8"	10-32	100
448		2 1/2"	3/4"	3/4"	1/4-20	50
449		4"	3/4"	3/4"	1/4-20	50
447B	NS5W0412	1 1/2"	1"	1/2"	1/4-20	50
447D	NS5W0420	2 1/2"	1"	5/8"	1/4-20	50
447E	NS5W0424	3"	1"	5/8"	1/4-20	50

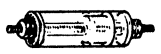
STEATITE BUTTONS



This specially designed Steatite button is intended for use to simplify wiring and to be used as a binding post or a binding post insulator. Attention is called to the uniqueness of the design which prevents either section of the insulator from turning in respect to the special screw. The specially designed screw locks both sections.

Cat No.		Std. Pkg.
457—Button Dimensions		25
	A 5/16" B 1 3/8" C 3/4" D 1/2" E 6-32	

"LUCITE" FEEDTHRU INSULATORS



These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The 1/2" dia. insulators have brass nickel plated 6-32 hardware and the 3/4" dia. insulators, 10-32 hardware.

Cat. No	Height Above Panel	Insulator Dia.	Mounting Hole	Bottom Height	Std. Pkg.
377	1/4"	1/2"	5/16"	1/4"	25
378	1/2"	1/2"	5/16"	1/4"	25
379	1"	1/2"	5/16"	1/4"	25
475	1 1/2"	3/4"	7/16"	1/2"	25
476	2"	3/4"	7/16"	1/2"	25

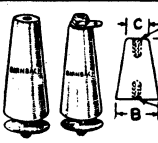
BIRNBACH LEADIN INSULATORS

Each cone is 2 3/4" high and made of low absorption, highly vitrified glazed porcelain. The Nos. 4237 and 4238 Leadin Insulators have sufficient insulating bushings to insulate the rod that goes through the wall. In addition, 2 bushings are included, 1/4" and 1/2" long, allowing complete insulation of the threaded rod of any length in multiples of 1/4". They come complete with brass nickel plated hardware and lead and cork washers to permit a water-tight seal.

Cat. No.	Description	Std. Pkg
4235	10" Rod	10
4236	15" Rod	10
4237	10" Rod with bushings	10
4238	15" Rod with bushings	10

BIRNBACH CONE STANDOFF INSULATORS

(Steatite)



Made of low absorption high tensile strength Steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal and cork washers.

Cat. No	Height A	Std. Pkg.	Base Dimensions B	C	Threaded Holes D	E	Mtg. Hole
430	5/8"	100	5/8"	15/16"	6-32	6-32	13/64"
431	1"	50	13/16"	1/2"	8-32	8-32	17/64"
431J	1"	50	13/16"	1/2"	8-32	No. 403 Jack	17/64"
432	1 1/2"	50	7/8"	5/8"	10-32	10-32	17/64"
432J	1 1/2"	50	7/8"	5/8"	10-32	No. 403 Jack	17/64"
433	2 3/4"	25	1 1/4"	3/4"	1/4-20	1/4-20	17/64"
433J	2 3/4"	25	1 1/4"	3/4"	1/4-20	No. 395 Jack	17/64"

See Pages 1553-1558 for Birnbach Prices for Above Items

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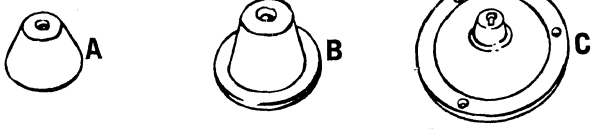
Birnbach GLAS-LINE CABLE | INSULATORS ANTENNA • FEED-THRU STAND-OFF

STEATITE FEEDTHRU INSULATOR

Useful in many constructions. Has high dielectric and mechanical strength. They are made of L-5 Glazed Steatite. No hardware is included.



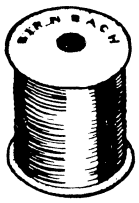
Cat. No.	Figure	Height	Base Diam.	Max. Screw Size	Std. Pkg.
4200	A	7/8″	1¼″	10-32	25
4201	A	1⅛″	1¾″	¼-20	25
4202	B	1⅝″	2½″	⅜-16	25
4203	C	1″	3⅛″	8-32	12

STEATITE FEEDTHRU PANEL BUSHING INSULATORS

Made of L-5 Glazed Steatite. These Feedthrus have male and female (tops and bottoms) for feeding thru chassis, panels, shields, racks or panels. No hardware included. (100 to Std. Package)

Cat. No.	Top Height	Max. Dia.	Panel Hole	Panel Thickness	Max. Screw Sz.
4204	⅛″	½″	5/16″	To ⅛″	6-32
4205	7/32″	5/8″	7/16″	To ⅛″	8-32
4206	⅜″	½″	¼″	To 5/16″	6-32
4207	⅜″	5/8″	⅜″	To ⅜″	8-32
4208	¾″	1⅛″	¾″	To ⅜″	10-32
4209	1⅝″	1¼″	½″	To 2″	10-32

NEW FROM BIRNBACH INSULATED *GLAS-LINE* CABLE



Provides complete isolation of any antenna system where support must be obtained from metallic objects such as towers, windmills, etc.

NON-INDUCTIVE • NON-CONDUCTING • NON-ABSORBING • NO SAG • NO ROT • NO SHRINK • FLEXIBLE • USE FOR DIRECTIONAL ARRAYS, BEAMS, RHOMBIC SYSTEMS, ETC.

This Birnbach non-metallic guy wire is not to be handled as regular wire. Do not twist around itself for solid joint; it must be knotted firmly in place (use bow line knot) — use coupling devices such as our Nos. 472, 473 or 474 insulators. Must not be abraided by constant friction — will wear and break line; avoid tight turns. An open thimble should be used to couple the Birnbach "Glas-Line" cable to an eye-bolt at mast or tree. Glass fibers conform to Mil 1140 Spec. and plastic jacket conforms to Mil-I-631C Spec.

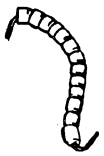
*The breaking strength indicated is applicable when "Glas-Line" cable is properly used.

DESCRIPTION: Fiberglass insulation with PVC insulation overall. Color coded per indicated tensile strength.

Cat. No.	Put-Up	*Tensile Strength	Color	Nom. O.D.
GL 1	100′, 500′, 1000′ 2500′	500 lbs.	Green	.125″
GL 2	100′, 500′, 1000′ 2500′	1000 lbs.	Gray	.2187″
GL 3	100′, 500′, 1000′ 2500′	2500 lbs.	White	.3125″

For greater strength — doubling or tripling the cable will double or triple the tensile strength.

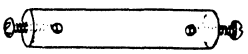
FISH SPINE BEADS



Made of L-5 Glazed Steatite. Useful for insulating Buss or Heavy Lines. Ball and Socket style interlocks permitting beads to follow bends and curves. Four Beads cover approx. 1″-Package of 100 covers 25″ of wire. Dimensions: 5/16″ O.D. ⅛″ I.D. Beads are treated with special Dow Corning treatment to prevent accumulation of surface moisture.

Cat. No.		Std. Pkg.
4215	FISH SPINE BEADS	100

LUCITE SPREADERS



They are made of Dupont Lucite rod which has a very low loss at radio frequencies. It is water clear and has very low water absorption. The holes are drilled to take a No. 12 wire. A screw at the end of the spreader locks the wire in position.

Cat. No.	Wire-Spacing	Std. Pkg.
436	2″	25
437	4″	25
438	6″	25

BIRNBACH FEEDER SPREADERS

They have a cross section of ⅜″ x ½″. Made of highly vitrified, low absorption, high tensile strength porcelain with a smooth white glaze overall.

Cat. No.	Std. Pkg.
462—Spreader, 2″ long	25
464—Spreader, 4″ long	25
469—Spreader, 6″ long	25

BIRNBACH STEATITE AIRPLANE INSULATORS

A very small compression type Steatite insulator with small wind resistance: Fully glazed. It is 1½″ in length; 17/32″ in diameter; ¾″ line spacing.

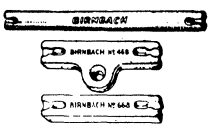
Cat. No.	Std. Pkg.
463—Steatite Airplane Insulators	25

BIRNBACH AIRPLANE INSULATORS

They are used on mobile and aircraft and also with guy wire on TV installations. They are shaped for the least air resistance and have very high tensile strength, and low loss. Nos. 473 and 474 are made of white glazed low absorption porcelain. No. 472 is made of wet process glazed brown.

Cat. No.	Std. Pkg.
472—2¼″ (brown)	25
473—2″ (white)	100
474—1½″ (white)	100

BIRNBACH ANTENNA INSULATORS



These antenna insulators have exceptionally low moisture absorption. The leakage path is long and the cross section is small and is consistent with the strength required. Smooth white glaze overall prevents the accumulation of dirt or ice.

Cat. No.	Std. Pkg.
468—4½″ long Center Insulator	10
668—4¼″ long	25
470—7″ long	10
471—12″ long	5

BEEHIVE STANDOFF

Base measures 2-3/16″ diam. with 3 holes on 1-15/16″ circle for No. 6 screws. Height of base 1½″. Complete with 10-32 brass screw and nuts. No. 766J has a No. 403 Jack. Available in white glaze.

Cat. No.	Std. Pkg.
766 —Standoff Insulator, 10-32 Screws	10
766J—Jack Type with No. 403 Jack	10

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

SUB-MINIATURE TEFLON TERMINALS

NEW SUB-MINIATURE TELFLON* terminals provide instant mounting without any extra hardware of any kind because of the exceptional properties of Virgin Teflon*.

Low dielectric constant, low power factor (60 cps to 30,000 mc), low capacitance, high volume, high surface resistivity, high dielectric strength (1500-2000 v/mil, s.t.), continuous service—450°F to plus 500°F, unaffected by soldering, chemically inert, damage resistant, water repellant, voltage rating, sea level 750v r.m.s., flash-over, sea level 3000v r.m.s., flash-over, 50,000 ft. 1300 v r.m.s.

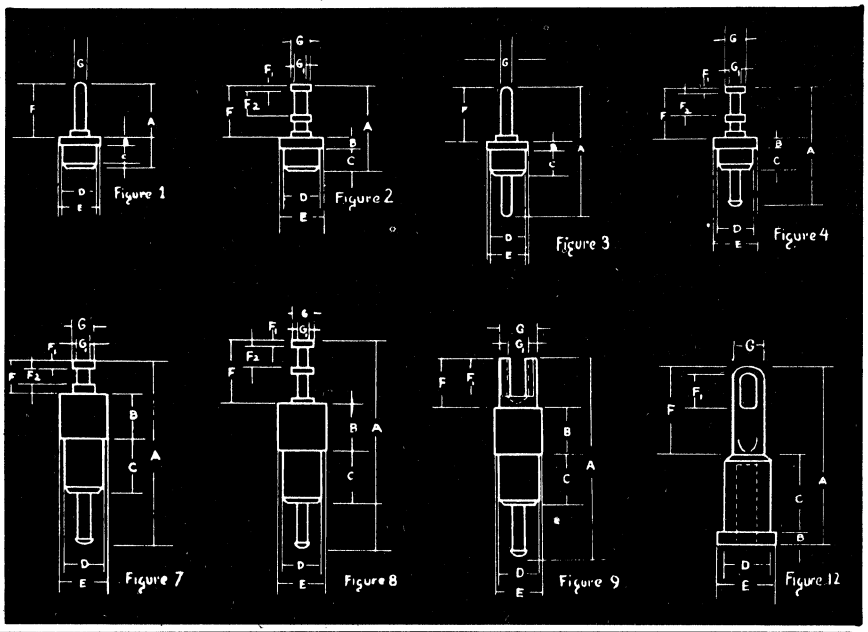
Installed permanently in seconds, in metallic or non-metallic chassis in one, simple, corking motion into punched or drilled holes. Mounting Hole Data: 1. Punch or drill the hole to a diameter that is .012″ less than the diameter of the Teflon insulator which passes thru the chassis. 2. Where the thickness of the chassis permits, the entrance edge of the mounting hole should be countersunk 30° to the diameter of the insulator. Where chassis thickness will not permit (.040″ or smaller), countersink 45° to the diameter of the insulator.

Speeds up assembly—cut production costs, no nuts, washers, staking or soldering necessary especially adapted in crowded assemblies.

As for HF, VHF, UHF, microwave, radar, telemetering, guided missile instrumentation and circuitry. circuitry.

Variations of specifications listed below are available. Your inquiries invited.

** DuPont TM*



SUB-MINIATURE STAND-OFFS

Std. Pkg. 100, 1000

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
506	1	0.5	.350	.040	.100	.148	.172	.210			.040	
507	1	0.5	.406	.040	.156	.148	.172	.210			.040	
508	1	0.5	.500	.040	.250	.148	.172	.210			.040	

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
510	2	0.55	.350	.040	.100	.148	.172	.210	.020	.100	.040	.080
511	2	0.55	.375	.040	.125	.148	.172	.210	.020	.100	.040	.080
512	2	0.40	.350	.040	.100	.179	.200	.210	.020	.100	.040	.080

SUB-MINIATURE FEED-THRUS

Std. Pkg. 100, 1000

Cat. No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	G DIA.
514	3	0.60	.515	.040	.100	.148	.172	.210	.040
515	3	0.55	.443	.040	.100	.148	.172	.210	.040
516	3	0.75	.725	.040	.100	.148	.172	.210	.040

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
518	4	0.65	.500	.040	.100	.148	.172	.210	.020	.100	.040	.080
519	4	0.65	.500	.040	.165	.148	.172	.210	.020	.100	.040	.080

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	RMS, 60 CPS Flashover 50,000 Ft.	A	B	C	+.022 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
520	7	2000	1.00	6000	1400	.540	.063	.171	.171	.187	.133	.020	.093	.046	.093
521	8	2000	1.00	6000	2500	.836	.187	.165	.148	.172	.125	.020	.093	.040	.093

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	RMS, 60 CPS Flashover 50,000 Ft.	A	B	C	+.022 —.000 D DIA	E DIA.	F	F_1	G DIA.	G_1 DIA.
522	9	2000	1.10	6000	1400	.821	.187	.212	.171	.187	.203	.156	.148	.078

CONNECTORS & TEST JACKS

Std. Pkg. 100, 1000

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	RMS, 60 CPS Flashover 50,000 Ft.	A	B	C	D DIA.	E DIA.	F	F_1	F_2	G DIA	G_1 DIA.
523	12	1250	0.40	4500	1500	.687	.046	.287	.185	.218	.354	.140	.070	.115	.060

See Pages 1553-1558 for Birnbach Prices for Above Items

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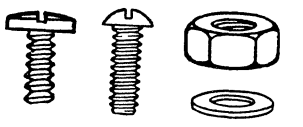
Birnbach

SCREWS & NUTS • WASHERS • STANDOFFS ALL-NYLON FASTENINGS

Non-Corrosive, Non-Conducting



Used in variety of applications, such as; appliances, computers and business machines, chemical and food processing equipment, electronic equipment and instruments, airborn equipment, etc.

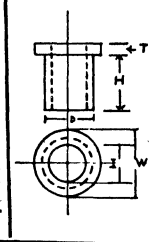
*Reg. T.M. of DuPont

ALL-NYLON FASTENINGS

Zytel 101 per Mil P 20693 Spec, Mil S 7742 Spec

Birnbach All-Nylon Fastenings are made of Zytel 101*, a Polymide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength thru a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors available to order. Zytel 101 per MIL-P-17019B.

BIRNBACH NYLON BUSHINGS AND SPACERS



Designed with wide flanges to completely isolate screw from mounting surface, useful where hi tensile and torque requirements require high strength non-insulating screws. Natural color.

Cat. No.	Used U with Screw Size	Dimensions I	W	T	H	D
6549	#4(.115")	.235"	3/64"	1/4"		.146"
6549A	#6(.140")	.290"	3/64"	1/4"		.170"
6549B	#8(.173")	.344"	1/16"	3/8"		.205"
6549C	#10(.200")	.399"	1/16"	5/8"		.260"
6549D	1/4"(.260")	.513"	1/16"	5/8"		.312"

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Type
6640	2-56 x 1/4"	Round Head
6640A	2-56 x 1/4"	Fillister Head
6640B	2-56 x 1/4"	Binding Head
6641	2-56 x 3/8"	Round Head
6641A	2-56 x 3/8"	Fillister Head
6641B	2-56 x 3/8"	Binding Head
6550	2-56 x 1/2"	Round Head
6551	2-56 x 1/2"	Fillister Head
6551A	2-56 x 1/2"	Binding Head
6643	4-40 x 1/4"	Round Head
6643A	4-40 x 1/4"	Fillister Head
6643B	4-40 x 1/4"	Binding Head
6644	4-40 x 3/8"	Round Head
6644A	4-40 x 3/8"	Fillister Head
6644B	4-40 x 3/8"	Binding Head
6552	4-40 x 1/2"	Round Head
6552A	4-40 x 1/2"	Fillister Head
6552B	4-40 x 1/2"	Binding Head
6646	6-32 x 1/4"	Round Head
6646A	6-32 x 1/4"	Fillister Head
6646B	6-32 x 1/4"	Binding Head
6553	6-32 x 3/8"	Round Head
6554	6-32 x 3/8"	Binding Head
6555	6-32 x 3/8"	Fillister Head
6556	6-32 x 3/8"	Flat Head
6557	6-32 x 1/2"	Round Head
6558	6-32 x 1/2"	Binding Head
6559	6-32 x 1/2"	Fillister Head
6560	6-32 x 1/2"	Flat Head
6648	6-32 x 3/4"	Round Head
6648A	6-32 x 3/4"	Fillister Head
6648B	6-32 x 3/4"	Binding Head
6561	6-32 x 1"	Round Head
6561C	6-32 x 1"	Flat Head
6650	8-32 x 1/4"	Round Head
6650A	8-32 x 1/4"	Fillister Head
6650B	8-32 x 1/4"	Binding Head
6562	8-32 x 3/8"	Round Head
6563	8-32 x 3/8"	Binding Head
6564	8-32 x 3/8"	Flat Head
6565	8-32 x 3/8"	Fillister Head
6566	8-32 x 1/2"	Round Head
6567	8-32 x 1/2"	Binding Head
6568	8-32 x 1/2"	Flat Head
6569	8-32 x 1/2"	Fillister Head
6570	8-32 x 5/8"	Round Head
6571	8-32 x 5/8"	Fillister Head
6572	8-32 x 3/4"	Round Head
6572A	8-32 x 3/4"	Fillister Head
6572B	8-32 x 3/4"	Binding Head
6573	8-32 x 1"	Flat Head
6573A	8-32 x 1"	Fillister Head
6574	10-32 x 3/8"	Round Head
6575	10-32 x 1/2"	Round Head
6576	10-32 x 1/2"	Flat Head
6577	10-32 x 5/8"	Round Head
6578	10-32 x 1"	Round Head
6579	10-32 x 1"	Flat Head

ROUND HEAD MACHINE SCREWS

Standard Package 1000

STEEL NICKEL PLATED

Cat. No.	Size
6300	2-56 x 1/8
6301	2-56 x 3/8
6302	2-56 x 1/2
6303	3-48 x 3/4
6304	4-36 x 1/4
6305	4-36 x 1/2
6306	4-36 x 3/4
6307	4-40 x 1/4
6308	4-40 x 1/2
6309	4-40 x 3/4
6420	6-32 x 1/4
6421	6-32 x 3/8
6422	6-32 x 1/2
6423	6-32 x 5/8
6424	6-32 x 3/4
6425	6-32 x 1
6426	8-32 x 1/4
6427	8-32 x 3/8
6428	8-32 x 1/2
6429	8-32 x 5/8
6430	8-32 x 3/4
6431	8-32 x 1
6432	8-32 x 1 1/2
6433	10-32 x 1/4
6434	10-32 x 3/8
6435	10-32 x 1/2
6436	10-32 x 5/8
6437	10-32 x 3/4
6438	10-32 x 1
6439	1/4-20 x 1/2
6310	1/4-20 x 1 1/4
6311	1/4-20 x 2 1/2
6400	4-36 x 1/4
6401	4-36 x 3/8

BRASS NICKEL PLATED

Cat. No.	Size
6402	4-36 x 1/2
6403	4-36 x 3/4
6404	4-36 x 1
6312	4-40 x 1/4
6313	4-40 x 3/8
6314	4-40 x 1/2
6315	4-40 x 3/4
6405	6-32 x 1/4
6406	6-32 x 3/8
6407	6-32 x 1/2
6408	6-32 x 5/8
6409	6-32 x 3/4
6410	6-32 x 1
6410A	6-32 x 1 1/8
6411	6-32 x 1 1/4
6412	6-32 x 1 1/2
6413	8-32 x 1/4
6414	8-32 x 3/8
6415	8-32 x 1/2
6416	8-32 x 5/8
6417	8-32 x 3/4
6418	8-32 x 1
6316	10-32 x 1/4
6317	10-32 x 3/8
6318	10-32 x 1/2
6318A	10-32 x 5/8
6319	10-32 x 3/4
6319A	12-24 x 1
6320	10-32 x 1
6320A	1/4-20 x 7/8
6320B	1/4-20 x 1 1/4
6320C	1/4-20 x 1 1/2

BINDING HEAD MACHINE SCREWS

Steel Nickel Plated

Cat. No.	Size	Std. Pkg.
6321	6-32 x 1/4"	1000
6322	6-32 x 3/8"	1000
6323	6-32 x 1/2"	1000
6324	8-32 x 1/4"	1000
6325	8-32 x 3/8"	1000
6326	8-32 x 1/2"	1000

OVAL HEAD RACK SCREWS

Steel Nickel Plated

Widely used for mounting panels on racks and cabinets. Screws are nickel-plated brass.

Cat. No.	Size	Std. Pkg.
6600	6-32 x 1/4"	1000
6601	6-32 x 1/2"	1000
6602	6-32 x 3/4"	1000
6603	6-32 x 1"	1000
6604	8-32 x 1/4"	1000
6605	8-32 x 1/2"	1000
6606	8-32 x 3/4"	1000
6607	8-32 x 1"	1000
6608	10-32 x 1/4"	1000
6609	10-32 x 1/2"	1000
6610	10-32 x 5/8"	1000
6611	10-32 x 3/4"	1000
6611-A	10-32 x 1"	1000

FINISHING RACK WASHERS

Brass Nickel Plated

Cat. No.	Size	Std. Pkg.
6612	6-32 Cup Washer	1000
6613	8-32 Cup Washer	1000
6614	10-32 Cup Washer	1000

SHEET METAL SELF TAPPING SCREWS

Steel Cadmium Plated

TYPE A — SHARP POINT

Cat. No.	Size	Std. Pkg.
6500	#4 x 1/2	144
6501	#6 x 1/4	144
6502	#6 x 3/8	144
6503	#6 x 1/2	144
6504	#6 x 3/4	144
6540	#8 x 3/8	144
6541	#8 x 1/2	144
6505	#8 x 1	144
6542	#10 x 3/8	144
6543	#10 x 1/2	144
6506	#10 x 3/4	144
6507	#10 x 1	144

HEX HEAD SELF TAPPING SCREWS

TYPE B — BLUNT POINT SLOTTED

Steel Cadmium Plated

Cat. No.	Size	Std. Pkg.	Cat. No.	Size	Std. Pkg.
6510	#6 x 3/8	144	6515	#8 x 1/2	144
6511	#6 x 1/2	144	6516	#8 x 3/4	144
6512	#6 x 3/4	144	6517	#8 x 1	144
6513	#8 x 1/4	144	6518	#10 x 1/2	144
6514	#8 x 3/8	144	6519	#10 x 1	144

VOLUME CONTROL AND TOGGLE NUTS

STEEL - BRASS - NICKEL PLATED

No.	Type	Size	Std. Pkg
6337	Vol. Control Brass	3/8-32x1/2x3/8	1000
6337A	Vol. Control Steel	3/8-32x1/2x3/8	1000
6338	Toggle Switch Brass	15-32x9/16x5/64	1000
6339	Toggle Ring Nut	15-32x5/8x1/16	1000

All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), B 1.1 (thread specs.)

BIRNBACH ALL NYLON HEX NUTS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	1/4-20

BIRNBACH ALL-NYLON WASHERS

STANDARD PKG.: 100, 1000

Cat. No.	Fits Screw No.	O.D.	I.D.	Thickness
6592	2	1/4"	3/32"	.016"
6593	4	1/4"	1/8"	.016"
6594	6	5/16"	5/32"	.031"
6595	8	3/8"	.170"	.031"
6596	10	3/8"	.195"	.031"
6597	1/4"	5/8"	9/32"	.063"

BIRNBACH HEXAGON STEEL MACHINE SCREW NUTS

Nickel Plated

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg
6330	2-56	3/16"	1/16"	1000
6331	3-48	3/16"	1/16"	1000
6332	4-36	1/4"	3/32"	1000
6333	4-40	1/4"	3/32"	1000
6448	6-32	1/4"	3/32"	1000
6449	6-32	5/16"	7/64"	1000
6334	8-32	1/4"	3/32"	1000
6450	8-32	5/16"	7/64"	1000
6335	10-32	3/8"	1/8"	1000
6336	1/4-20	7/16"	3/16"	1000

BIRNBACH HEXAGON MACHINE SCREW NUTS

BRASS—NICKEL PLATED

Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg.
6440	4-36	1/4"	3/32"	1000
6442	4-40	1/4"	3/32"	1000
6441	6-32	1/4"	5/64"	1000
6443	6-32	5/16"	7/64"	1000
6444	8-32	11/32"	1/8"	1000
6445	10-32	5/16"	7/64"	1000
6446	10-32	3/8"	1/8"	1000
6447	1/4-20	7/16"	1/8"	1000

BIRNBACH BRASS NICKEL PLATED FLAT WASHERS

Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness	Std. Pkg.
6479	4	.118"	9/32"	.025"	1000
6480A	6	.145"	5/16"	.025"	1000
6480	6	.145"	3/8"	.025"	1000
6481	8	.172"	3/8"	.032"	1000
6482	10	.203"	7/16"	.036"	1000
6483	1/4-20	.265"	9/16"	.040"	1000

BIRNBACH STEEL KANKLINK LOCKWASHERS

Cat. No.	Screw Size	O.D.	Thickness	Std. Pkg
6484	4	3/16"	1/32"	1000
6485	6	15/64"	1/32"	1000
6486	8	15/64"	.025"	1000
6487	10	5/16"	.050"	1000
6488	1/4	7/16"	5/64"	1000

BIRNBACH SHAKEPROOF LOCKWASHERS

EXTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg
6358	4	1000
6359	6	1000
6360	8	1000
6361	10	1000
6362	1/4	1000
6363	5/16	1000

BIRNBACH SHAKEPROOF LOCKWASHERS

INTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg.
6355	2	1000
6356	3	1000
6357	4	1000
6490	6	1000
6491	8	1000
6492	10	1000
6493	1/4	1000
6494	5/16	1000

6494 1 Narrow Rim Control Shaft Lockwasher 3/8" 1000

6494 2 Narrow Rim Toggle Switch Lockwasher 15/32" 1000

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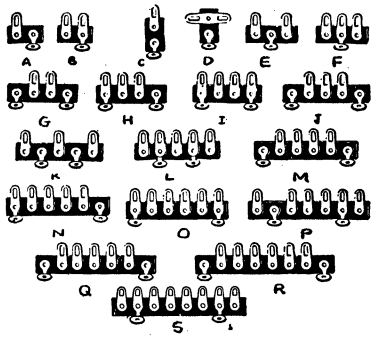
See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

TERMINAL STRIPS • LUGS • BUSHINGS SHAFT COUPLINGS • PANEL BEARINGS SPACERS • TUBE CLAMPS

BIRNBACH

TIE DOWN LUG TERMINAL STRIPS



STANDARD TYPE

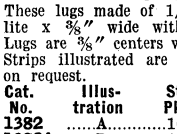
These lugs made of 1/16" (.062" thick) XP bakelite x 3/8" wide with cadmium plated brass lugs. Lugs are 3/8" centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1382	A	100	1385B	L	100
1382A	B	100	1386	M	100
1382B	C	100	1386A	N	100
1382C	D	100	1386B	O	100
1383	E	100	1387	P	100
1383A	F	100	1388	Q	100
1384	G	100		5 Ter., 2 grds.	
1384A	H	100	1389	R	100
1384B	I	100		6 Ter., 2 grds.	
1385	J	100	1390	S	100
1385A	K	100			

MINIATURE TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 5/16" wide. Brass, cadmium plated lugs are 1/4" centers; .096 diam. mounting hole. Clearance for 3/32" rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1352	A	100	1355A	K	100
1352A	B	100	1355B	L	100
1352B	C	100	1356	M	100
1352C	D	100	1356A	N	100
1353	E	100	1356B	O	100
1353A	F	100	1357	P	100
1354	G	100	1358	Q	100
1354A	H	100	1359	R	100
1354B	I	100	1360	S	100
1355	J	100			



BIRNBACH BRASS BUSHINGS & SPACERS

An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.

For No. 6 Cat. No.	Std. Pkg.	1/4" O.D. Length	For No. 8 Cat. No.	Std. Pkg.
1125	100	1/4"	1130	100
1126	100	3/8"	1131	100
1127	100	1/2"	1132	100
1128	100	3/4"	1133	100
1129	100	1"	1134	100
		3/8" O.D.		
1135	100	1/4"	1140	100
1136	100	3/8"	1141	100
1137	100	1/2"	1142	100
1138	100	3/4"	1143	100
1139	100	1"	1144	100

THREADED BRASS SPACERS

1/4" O.D.

For No. 6-32 Cat. No.	Std. Pkg.	Length	For No. 8-32 Cat. No.	Std. Pkg.
1125T	100	1/4"	1130T	100
1126T	100	3/8"	1131T	100
1127T	100	1/2"	1132T	100
1128T	100	3/4"	1133T	100
1129T	100	1"	1134T	100

BIRNBACH INSULATED BUSHINGS AND SPACERS

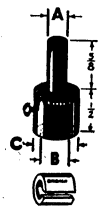
For No. 6 Cat. No.	Std. Pkg.	1/4" O.D. Length	For No. 8 Cat. No.	Std. Pkg.
1145	100	1/4"	1149	100
1146	100	3/8"	1150	100
1147	100	1/2"	1151	100
1148	100	3/4"	1152	100

BIRNBACH CABLE CLAMPS

Cat. No.	To Fit Cable Up to	Lth.	Wth.	Mtg. Hole	Std. Pkg.
1153	3/32"	7/16"	3/8"	4	100
1154	5/32"	5/8"	3/8"	6	100
1155	1/4"	11/16"	3/8"	6	100
1156	1/2"	15/16"	3/8"	8	100
1157	3/4"	1 1/16"	3/8"	10	100

SHAFT COUPLING REDUCERS AND EXTENDERS

By the use of these units all 1/4" and 3/8" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.

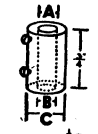


SHAFT COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
534	634	1/4"	1/4"	1/2"	50
535	635	1/4"	3/8"	9/16"	50
536	636	3/8"	1/4"	1/2"	50
537		Reducer for 3/8" Dia. to 1/4" Dia. Hole		3/8"	50

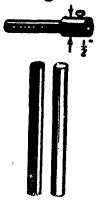
COUPLINGS

531	631	1/4"	1/4"	1/2"	50
532	632	1/4"	3/8"	9/16"	50
533	633	3/8"	1/4"	9/16"	50



EXTENDERS

Cat. No.	Overall Lgth.	Shaft Lgth.	Hole I.D.	Shaft O.D.	Std. Pkg.
538 Brass	1 3/4"	1 1/4"	1/4"	1/4"	50
539 Insulated	1 3/4"	1 1/4"	1/4"	1/4"	50



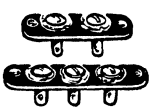
BRASS SHAFTING

Cat. No.		Std. Pkg.
540	1/4" Dia. 6" Long	12
541	1/4" Dia. 12" Long	12
542	3/8" Dia. 8" Long	12

FIBRE SHAFTING

543	1/4" Dia. 6" Long	12
544	1/4" Dia. 12" Long	12
545	3/8" Dia. 8" Long	12

BAKELITE TERMINAL STRIPS



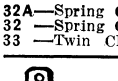
Terminals are made of brass and cadmium plated. Terminals are mounted on 1/16" bakelite. 7, 8, 9 and 10 terminals are mounted on 3/32" bakelite. All terminals are space 7/16" center to center.

PLAIN

Cat. No.	Terminals	Mtg. Center
1372	2	1-5/16"
1373	3	1-3/4"
1374	4	2-3/16"
1375	5	2-5/8"
1376	6	3-1/16"
1377	7	3-1/2"
1378	8	3-15/16"
1379	9	4-3/8"
1380	10	4-13/16"

MARKED

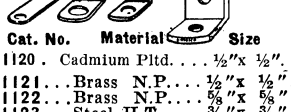
Cat. No.	Terminals Marked
1260	2; A-G
1261	2; Output
1262	2; Input
1263	3; 1-2-3
1264	4; 1-2-3-4
1265	5; 1-2-3-4-5
1266	6; 1-2-3-4-5-6



SPRING WIRE CLIPS

They will hold a wire up to No. 10 B&S Gauge in a secure contact. All clips are brass nickel plated.

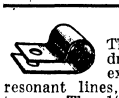
Cat. No.	Length	Width	Mtg. Hole	Std. Pkg.
32A—Spring Clip	3/4"	5/8"	6	100
32 —Spring Clip	1"	3/4"	10	100
33 —Twin Clip	1 3/4"	3/8"	10	100



BRASS AND STEEL ANGLES

CAT. NO. 1120 HAS ONE PLAIN .166 HOLE AND ONE 8/32 TAPPED HOLE

Cat. No.	Material	Size	Mtg. Holes	Std. Pkg.
1120	Cadmium Pltd.	1/2" x 1/2"	165	100
1121	Brass N.P.	1/2" x 1/2"	169	100
1122	Brass N.P.	5/8" x 5/8"	169	100
1123	Steel H.T.	3/4" x 3/4"	144	100
1124	Steel H.T.	5/8" x 1 1/8"	169	100

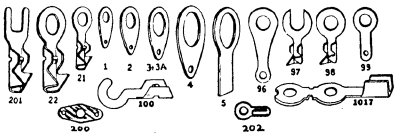


BIRNBACH TUBE CLAMPS

These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The 1/8" thru 5/8" clamps have a clearance for No. 10 Screw. The 3/4" to the 1 1/4" clamps have a clearance for 1/4" bolts.

Cat. No.	To Fit Tube	Wdth.	Lgth.	Thickness	Std. Pkg.
51A	1/8"	1/2"	13/16"	.050"	100
51	1/4"	1/2"	7/8"	.050"	100
52	5/16"	1/2"	15/16"	.050"	100
53	3/8"	1/2"	1"	.050"	100
54	1/2"	1/2"	1 1/4"	.050"	100
54A	5/8"	1/2"	1 1/4"	.050"	50
55	3/4"	3/4"	1 5/16"	.090"	50
57	7/8"	3/4"	1 5/8"	.090"	50
56	1"	3/4"	1 3/4"	.090"	50
56A	1 1/8"	3/4"	1 7/8"	.090"	50
56B	1 1/4"	3/4"	2"	.090"	50

BIRNBACH TINNED TERMINAL LUGS

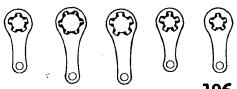


Cat. No.	Hole for Screw	Material	Thickness	Lgth.
1	6	Tinned Copper	.015"	17/32"
2	10	Tinned Copper	.016"	5/8"
3	.252	Tinned Copper	.015"	17/32"
3A	1/4	Tinned Copper	.015"	13/16"
4	3/8	Tinned Copper	.016"	7/8"
5	1/2	Hot Tin. Cop.	.024"	1 3/16"
21	10	Hot Tin. Cop.	.020"	3/4"
22	1/4	Hot Tin. Cop.	.025"	1 1/8"
200	8	Brass Hot Tin.	.015"	7/8"
201	8	Brass Hot Tin.	.020"	13/16"
202	6	Brass Hot Tin.	.020"	5/8"
96	6-8-10	Brass Hot Tin.	.020"	7/8"
97	8	Tinned Copper	.016"	5/8"
98	6-8-10	Brass Hot Tin.	.020"	11/16"
99	4-6-8	Brass Hot Tin.	.020"	11/16"
100	10	Brass Hot Tin.	.020"	7/8"
1017	10	N. Pl. Cop.	.023"	13/16"

Standard Package — 1000

BIRNBACH LOCKING TYPE TERMINAL LUGS

Brass Electro Plated

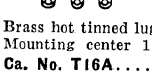


Cat. No.	Hole for Screw	Thickness	Length In.	Std. Pkg.
193	4	.020"	3/4"	1000
194	6	.020"	3/4"	1000
195	8	.020"	7/8"	1000
197	10	.020"	7/8"	1000
196	1/4"	.020"	13/16"	1000

TERMINAL STRIPS 2 POST

Excellent mounting for twin lead transmission lines. Brass hot tinned lugs spaced 7/16" center to center. 1/16" bakelite. 1 15/16" mounting center.

Cat. No. T16 ..... St. Pkge. 50



BIRNBACH 3 POST

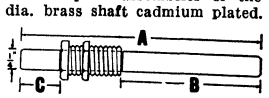
A synchronizing lock strip for RCA type television receivers.

Brass hot tinned lugs. Spaced 7/16" center to center. Mounting center 1 3/4". 1/16" bakelite.

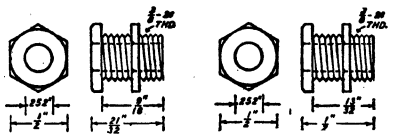
Ca. No. T16A ..... Std. Pkg. 50

BIRNBACH FRONT PANEL BEARINGS

Cadmium plated brass for panels up to 3/8" in thickness and for 1/4" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and 1/4" dia. brass shaft cadmium plated.



Cat. No.	A	B	C	Std. Pkg.
551	3"	1 3/4"	1/2"	50
552	6"	4 3/4"	1/2"	25



(Same as used on No. 551 and No. 552)

Cat. No.		Std. Pkg.
550	—Front Panel Bearing, threaded length 9/16"	50
550A	—Front Panel Bearing, threaded length 13/32"	50
550-B	—Front Panel Bearing, 3/8-32 threaded length 3/16"-11/16" O.L.	
550-C	—Front Panel Bearing— Miniature 1/4-32 thd length 5/16, 3/8" O.L. .125 opening 11/32 hex.	

See Pages 1553-1558 for Birnbach Prices for Above Items

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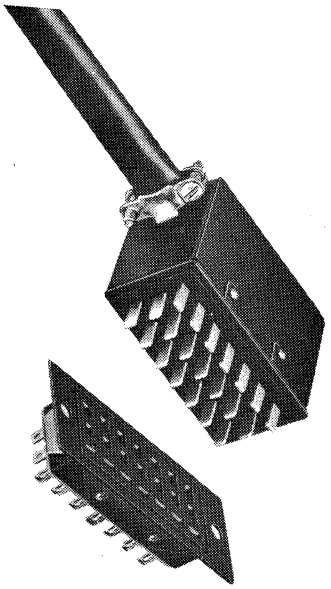
Birnbach "BEAUPLUG" PLUG AND SOCKET LINE

NEW Quality BIRNBACH *"BEAUPLUGS"* PLUGS and SOCKETS

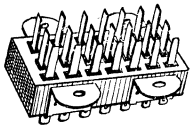
Our 1300 Series, now available in 15, 18, 21, 24, 27, 30 and 33 contact configurations have cadmium plated brass knife contacts; socket has double spring design phosphor bronze contacts; male contact is 3/64" thick by 5/32" wide brass. Bodies compression molded bakelite; back plates, XXXP laminated phenolic to NEMA standards; and are adhered to the body by epoxy resin which eliminates vertical drive pins (they are dimensionally interchangeable with the C-J 300 Series.) For greater economy, protection and utility the new molded high density polyethylene backshell is outstanding; this "Beauplug" series is attractive in appearance; highly impact resistant; non rusting, highly resistant to most acids and alkalis and is of one-piece molded construction thereby eliminating the use of additional insulating materials since it has excellent dielectric properties.



Connectors are rated at 750 V RMS and 10 amperes contact resistance is .003 ohms maximum. (Note — the third and fourth digit in the Part Number indicates the number of contacts.)

All Plugs are polarized to assist in correct insertion and removal. Plug numbering is opposite. Heavy duty locating or ground pin replaces contacts in position 14 on 1324, 1327, 1330; it is in position 17 on 1333. The ground pin and its socket are machined brass, heavily plated, with a 20 Amps current capacity.

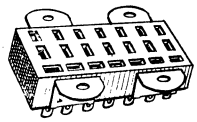
PLUG WITH ANGLE BRACKETS



Cat. No.	Contacts	List Price Each
P-1315-AB	15	1.35
P-1318-AB	18	1.69
P-1321-AB	21	2.10
P-1324-AB	24	2.60
P-1327-AB	27	3.06
P-1330-AB	30	3.50
P-1333-AB	33	3.96

Standard pkge. 5

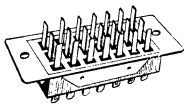
SOCKET WITH ANGLE BRACKETS



Cat. No.	Contacts	List Price Each
S-1315-AB	15	1.56
S-1318-AB	18	1.88
S-1321-AB	21	2.34
S-1324-AB	24	2.79
S-1327-AB	27	3.25
S-1330-AB	30	3.77
S-1333-AB	33	4.16

Standard pkge. 5

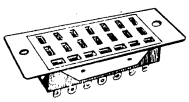
PLUG WITH SHALLOW OR SURFACE BRACKETS



Cat. No.	Contacts	List Price Each
P-1315-SB	15	2.01
P-1318-SB	18	2.61
P-1321-SB	21	2.95
P-1324-SB	24	3.51
P-1327-SB	27	3.90
P-1330-SB	30	4.50
P-1333-SB	33	4.94

Standard pkge. 5

SOCKETS WITH SHALLOW OR SURFACE BRACKETS



Cat. No.	Contacts	List Price Each
S-1315-SB	15	2.28
S-1318-SB	18	2.73
S-1321-SB	21	3.18
S-1324-SB	24	3.73
S-1327-SB	27	4.18
S-1330-SB	30	4.75
S-1333-SB	33	5.20

Standard pkge. 5

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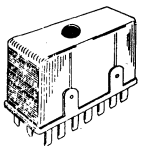
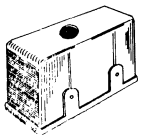
Birnbach "BEAUPLUG" 300 SERIES • ACCESSORIES



PLUG WITH FLARED HOLE IN TOP OF CAP

Cat. No.	Contacts	List Price Each
P-1315-FHT	15	1.69
P-1318-FHT	18	2.05
P-1321-FHT	21	2.44
P-1324-FHT	24	2.96
P-1327-FHT	27	3.40
P-1330-FHT	30	4.03
P-1333-FHT	33	4.55

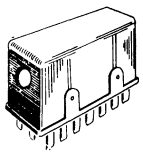
Standard pkge. 5



SOCKET, FLARED HOLE IN TOP OF CAP

Cat. No.	Contacts	List Price Each
S-1315-FHT	15	1.90
S-1318-FHT	18	2.25
S-1321-FHT	21	2.63
S-1324-FHT	24	3.17
S-1327-FHT	27	3.72
S-1330-FHT	30	4.29
S-1333-FHT	33	4.68

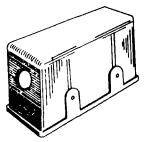
Standard pkge. 5



PLUG WITH FLARED HOLE IN END OF CAP

Cat. No.	Contacts	List Price Each
P-1315-FHE	15	1.69
P-1318-FHE	18	2.04
P-1321-FHE	21	2.44
P-1324-FHE	24	2.96
P-1327-FHE	27	3.40
P-1330-FHE	30	4.03
P-1333-FHE	33	4.55

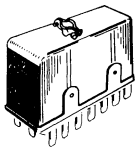
Standard pkge. 5



SOCKET, FLARED HOLE IN END OF CAP

Cat. No.	Contacts	List Price Each
S-1315-FHE	15	1.90
S-1318-FHE	18	2.25
S-1321-FHE	21	2.63
S-1324-FHE	24	3.17
S-1327-FHE	27	3.72
S-1330-FHE	30	4.29
S-1333-FHE	33	4.68

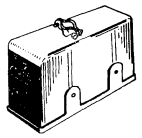
Standard pkge. 5



PLUG, CABLE CLAMP IN TOP OF CAP

Cat. No.	Contacts	List Price Each
P-1315-CCT	15	2.02
P-1318-CCT	18	2.38
P-1321-CCT	21	2.86
P-1324-CCT	24	3.33
P-1327-CCT	27	3.80
P-1330-CCT	30	4.37
P-1333-CCT	33	4.76

Standard pkge. 5

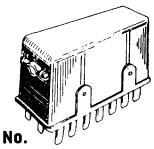


SOCKET, CABLE CLAMP IN TOP OF CAP

S-1315-CCT

Cat. No.	Contacts	List Price Each
S-1315-CCT	15	2.24
S-1318-CCT	18	2.60
S-1321-CCT	21	2.99
S-1324-CCT	24	3.54
S-1327-CCT	27	3.98
S-1330-CCT	30	4.63
S-1333-CCT	33	4.98

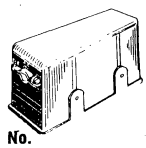
Standard pkge. 5



PLUG, CABLE CLAMP IN END OF CAP

Cat. No.	Contacts	List Price Each
P-1315-CCE	15	2.02
P-1318-CCE	18	2.38
P-1321-CCE	21	2.86
P-1324-CCE	24	3.33
P-1327-CCE	27	3.80
P-1330-CCE	30	4.37
P-1333-CCE	33	4.76

Standard pkge. 5

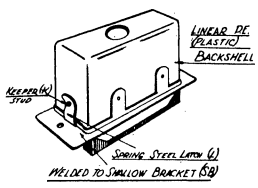


SOCKET, CABLE CLAMP IN END OF CAP

Cat. No.	Contacts	List Price Each
S-1315-CCE	15	2.24
S-1318-CCE	18	2.60
S-1321-CCE	21	2.99
S-1324-CCE	24	3.54
S-1327-CCE	27	3.98
S-1330-CCE	30	4.63
S-1333-CCE	33	4.98

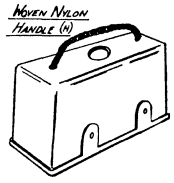
Standard pkge. 5

ACCESSORIES FOR THE BIRNBACH "BEAUPLUG" 1300 SERIES



LATCH (-L) and KEEPER (-K)

LATCHES (-L) are installed on Shallow Brackets where a constant engagement of Plug and Socket must be insured, such as in Mobile Radio equipment. Usual installations call for a latch on each end of the Shallow Bracket as shown. Example: this is an S-1321-SB-L (21 contact Socket, Surface Bracket & Latch) KEEPERS (-K) are the studs on the Backshells which engage latches. Mating part here is S-1321-FHT-K



HANDLE

HANDLE (H) is generally used with the larger plugs or sockets using backshells. It is a simple device, made of woven Nylon cord, and can be almost entirely retracted inside the backshell. No metal parts are used, preventing any chance of shorts. Example: adding the handle to the Socket above, would be S-1321-FHT-H

HANDLES FOR BACKSHELL, designated -H (Example: P-1324-CCT-H) -H Handle only add $.65 List Each
LATCHES FOR SURFACE BRACKET, -L (Example: S-1315-SB-L) -L Latches only add $.65 List Each
KEEPER STUDS FOR BACKSHELL, (Mates with Latches on Surface Brackets) Designated -K (Example: P-1315-CCT-K) -K Keeper Studs add $.26 List Each

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Birnbach "BEAUCAP" SERIES OCTAL PLUGS

NEW OUTSTANDING BIRNBACH "BEAUCAP" SERIES OCTAL PLUG—

Molded of Rugged Linear Polyethylene, this Single Piece C-1001 Series "BEAUCAP" replaces the usual metal cap with rubber grommet and fishpaper insulation.

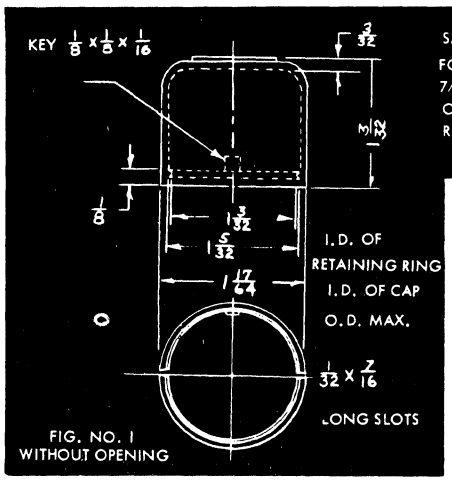


FIG. NO. 1
WITHOUT OPENING

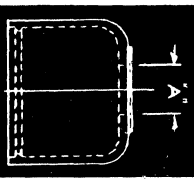


FIG. NO. 2
SAME AS FIGURE NO. 1 EXCEPT FOR HOLE IN END. 5/16 AND 7/16 HOLES ARE STANDARD. OTHER SIZES AVAILABLE UPON REQUEST.

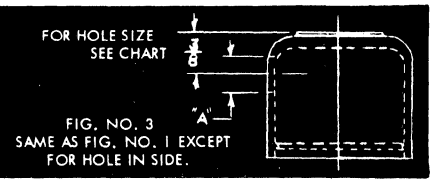


FIG. NO. 3
SAME AS FIG. NO. 1 EXCEPT FOR HOLE IN SIDE.

Has excellent impact and dielectric strength, time saving — eliminates shorts — saves money superior to anything else available.

Cat. No.	Figure No.	List Price Each	Std. Pkge.
C-1001-1	1 No Cable Opening	.195	50
C-1001-2	2 Specify Hole, Top	.21	50
C-1001-3	3 Specify Hole, Side	.21	50
C-1001-4	4 Cable Clamp 7/16" Hole Only	.35	50

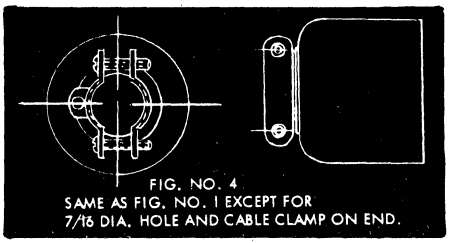
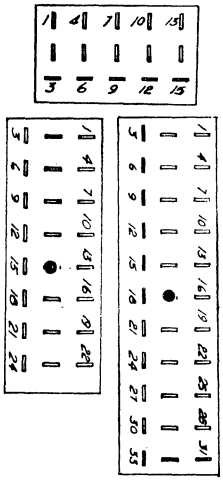


FIG. NO. 4
SAME AS FIG. NO. 1 EXCEPT FOR 7/16 DIA. HOLE AND CABLE CLAMP ON END.

Stock Colors: B—Black, R—Red, G—Green, Bl—Blue specify hole size by adding suffix — 5 5/16" diam. hole, — 7 7/16" diam. hole.

"BEAUPLUG" DESIGN INFORMATION



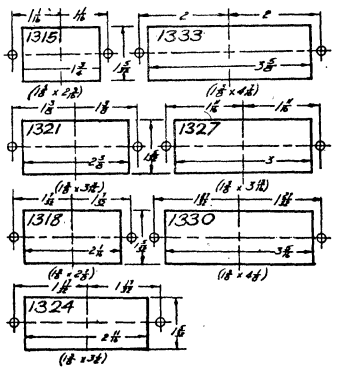
Backplate Numbering and Contact Information

The drawing illustrates the polarizing arrangement of **Sockets:** Plug numbering is opposite. Unless otherwise specified, a heavy duty locating or ground pin replaces the contacts in Position 14 on the 1324, 1327, 1330. However, it is in Position 17 on 1333. The ground pin and its socket are machined brass, heavily plated, and have a current capacity of 20 amps.

Other contacts have a Rated Voltage of 730 RMS and a current capacity of 10 Amperes. Contact resistance is .003 Ohms maximum. All contacts, which normally are .0002" cadmium plated, may be silver plated at slight extra cost.

Backplates, on which the numbers appear, are XXXP laminated phenolic NEMA Standard, and are adhered to the body by Epoxy resin, which eliminates vertical drive pins. Alignment of contacts is maintained by an ingenious locating system.

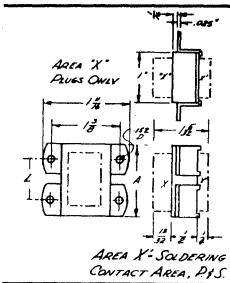
1315 to 1333 Backshell (or Cap) Dimensions and Details



Made of High Density Polyethylene, the new "BEAUPLUG" Backshell is highly impact resistant, non-rusting, highly resistant to most acids and alkalis, and is of one-piece molded construction. Has excellent dielectric properties. The basic dimensions remain constant, and configurations are as follows:

- -FHE (Flared Hole, End)
- -FHT (Flared Hole, Top)
- -CCE (Cable Clamp, End)
- -CCT (Cable Clamp, Top)

Note: We strongly recommend using the Braided Nylon Handle, (-H), when using 1324 to 1333 Plug and Socket combinations, because of the tight fit of the ground pins and their sockets, requiring greater force for disengagement.

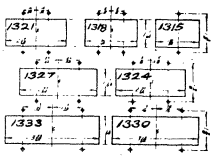


"AB" (Angle Bracket) Type Plugs and Sockets, 15 to 33 Contact

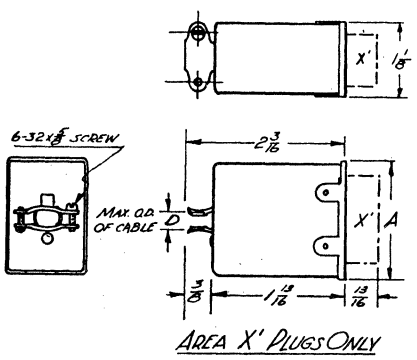
Part No.	A	L
P/S-1315-AB	1 5/8"	.....
P/S-1318-AB	1 15/16"	1 1/4"
P/S-1321-AB	2 1/4"	1 5/16"
P/S-1324-AB	2 9/16"	1 1/4"
P/S-1327-AB	2 7/8"	1 9/16"
P/S-1330-AB	3 3/16"	1 7/8"
P/S-1333-AB	3 1/2"	2 3/16"

1315 to 1333-AB (Angle Bracket) Panel Mounting Dimensions

Panel cutout dimensions 1/64" clearance for Plug or Socket block. All Angle Bracket holes .152" diameter, for 6-32 screws.



1315 to 1333-SB and -SB-L Mounting Dimensions



Use Panel Cutout dimensions in the drawing below for both the **Shallow Bracket** (-SB) and the **Shallow Bracket** with **Latch** (-SB-L), for either Plug or Socket mounting. All mounting holes are .187" diameter, and are located at the end of the opening rather than the sides (as with the Angle Bracket -AB Series.) Note: Outside dimensions of the Shallow Brackets are shown in parenthesis below each drawing.

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See Pages 1553-1558 for Birnbach Prices for Above Items

CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

TERMINALS

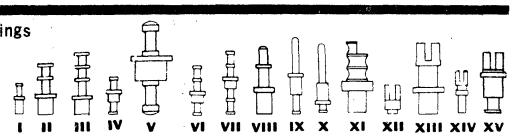
SOLDER TERMINALS

Material: Brass. **Finish:** Silver plate unless otherwise noted. Other platings available on special order.

TURRET TYPE TERMINALS

Cambion No.	Fig.	Shank x Turret x Shoulder (All In Dia., In.)	Hole Dia. Hollow Type	Height, Above Board x Below Board	Board Thickness	Net Pkg. of 100 *
1011	VIII	.090 x 3/32 x 1/8	.....	19/64" x —	Chart I	$1.76
1013	VIII	.090 x 1/64 x 5/32	.....	11/32" x —	Chart I	2.15
1014	VIII	.090 x 1/64 x 3/32	.....	13/32" x —	Chart I	2.38
1030	IX	.072 x 3/64 x 3/32	.....	1/4" x 1/8"	Chart I	3.14
1031	X	.072 x 3/64 x 3/32	.....	5/64" x 1/4"	Chart I	2.32
1032	X	.062 x 3/64 x 5/64	.....	5/64" x 9/64"	Chart I; a	1.43
1081	VII	.201 x .144 x 1/4	.....	11/32" x 5/16"	b	4.07
1143	V	.181 x 3/32 x 1/4	.....	1/4" x 7/32"	Chart II	2.95
1245	I	.112 x .145 x 3/16	.....	15/64" x —	Chart II; c	1.50
1457	I	.078 x .075 x 1/8	.....	3/16" x —	Chart II; d	.96
1463	V	.116 x .070 x 5/32	.....	5/32" x 1/8"	Chart II; e	1.39
1548	II	.112 x .149 x 3/16	3/64"	5/16" x —	Chart II	1.29
1558	II	.090 x 3/32 x 1/8	.....	7/32" x —	Chart II	.93
1579	VII	.202 x 9/64 x 1/4	.....	11/32" x 7/64"	Chart II; f	2.96
1604	I	.062 x 1/16 x 3/32	.....	3/32" x —	Chart II; g	1.19
1724	II	.112 x .145 x 3/16	.....	23/64" x —	Chart II; c	1.49
1797	I	.110 x 9/64 x 3/16	.067"	3/16" x —	Chart II h	1.54
1798	II	.135 x .110 x 3/16	.043"	5/16" x —	i	2.22
1979	XI	.112 x .130 x 3/16	.060"	5/16" x —	Chart II	2.35
2000	VI	.090 x 1/16 x 1/8	.....	7/32" x 7/64"	Chart II; h	1.53
2004	VII	.090 x 1/16 x 1/8	.....	7/32" x 3/16"	Chart ; h	1.53
2027	I	.071 x .096 x 1/8	.043"	3/16" x —	Chart II; h	1.39
2034	II	.090 x 7/64 x 5/32	.....	9/32" x —	Chart II	1.67
2040	VII	.072 x .050 x 3/32	.....	3/16" x 11/64"	Chart II	1.70
2041	I	.072 x .050 x 3/32	.....	7/64" x —	Chart II	.99
2042	IV	.072 x .050 x 3/32	.....	7/64" x 5/64"	Chart II	1.08
2043	II	.072 x .050 x 3/32	.....	3/16" x —	Chart II	1.03
2044	VI	.072 x .050 x 3/32	.....	3/16" x 5/64"	Chart II	1.16
2080	III	.090 x 3/32 x 1/8	.....	19/64" x —	Chart II; f	1.42
2084	III	.112 x .145 x 3/16	.....	31/64" x —	Chart II;c	2.89
2085	I	.047 x .040 x 1/16	.....	3/32" x —	Chart II; g	.89
2100	I	.062 x 1/16 x 3/32	.023"	3/32" x —	Chart II; j	1.33
2114	II	.145 x .149 x 3/16	.062"	5/16" x —	Chart II; k	3.62
2115	IV	.145 x .118 x 3/16	max.	1/4" x 1/4"	Chart II; l	4.72
2132	II	.145 x .149 x 3/16	.054"	33/64" x —	Chart II; l	5.54
2186	I	.112 x .118 x 5/32	min.	15/64" x —	Chart II; m	3.68

Tooling: Special tooling is required for all **Cambion** terminals. This tooling, necessary for proper swaging of terminals, is available at **$6.00** per set, including a punch and anvil.



SPADE TYPE TERMINALS

Cambion No.	Fig.	Shank Dia. x Spade W. x Slot W., In.	Hole Dia. Hollow Type	Height Above Board	Board Thickness	Net Pkg. of 100
1010	XIII	.112 x .146 x .040	.078"	5/16"	Chart I; n	$4.82
1025	XIV	.112 x .145 x 1/16	.....	25/64"	Chart I; c	5.16
1089	XIV	.047 x .072 x .025	.026"	5/32"	0	1.46
1578	XIV	.150 x .142 x 1/16	.081"	3/8"	Chart II; p	2.78
1782	XIV	.185 x 1/4 x .090	.120	11/16"	Chart II; q	6.51
1783	XIV	.135 x 3/32 x 1/16	.102"	1/2"	Chart II; t	4.17
1784	XIV	.112 x 5/32 x 1/32	.070	11/32"	Chart II; r	2.50
1785	XII	.062 x 3/32 x 1/32	.043"	5/32"	Chart II; s	1.39
1969	XII	.112 x 3/16 x .053	.079"	21/64"	Chart II; t	1.87
2086	XV	.122 x 1/8 x 1/32	.047"	5/32"	Chart II; u	2.54

Notes: **a.** Except -5, -6. **b.** -AA, 1/16; -B, 3/32; -C, 3/16; -D, 1/4. **c.** Chamfer on upper edge of shoulder. **d.** Except -E, -F. Chamfer on upper edge of turret and shoulder. **e.** Except -E, -F. Like V except no turret bases. **f.** Except -F. **g.** Except -E, -F, plus -AA, 1/64. **h.** Except -E, -F. **i.** -A, 1/16; -B, 3/32; -C, 1/8; -D, 3/16. **j.** Except -D, -E, -F, plus -AA, 1/64. **k.** For use with .061/in taper pins. Takes pin from top of board. Finish copper plate and electro-tin. **l.** For use with .061/in taper pins. Takes pin from top or bottom of board, or both. Finish copper plate and electro-tin. **m.** For use with .061/in taper pins. Takes pin from top of board; taper not a through hole. Finish copper plate and electro-tin. **n.** Two slots at right angles. **o.** -1, 1/64; -2, 1/32; -3, 1/16; -4, 3/32; -5, 1/8; -6, 3/16; -7, 1/4. **p.** Except -A, -F. Straight knurl on shank. **q.** Except -A, -B. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **r.** Except -A, -E, -F. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **s.** Plus -AA, 1/64. **t.** Radial knurl on lower edge of shoulder. **u.** Except -F. Diameter turret below board 3/32.

CHART I

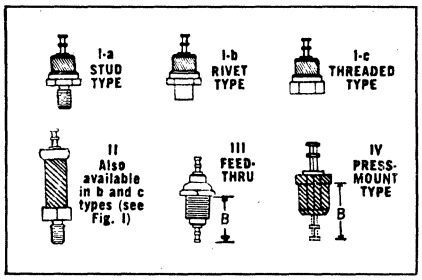
Dash No.	Board Thckns.
-1	1/32"
-2	1/16"
-3	3/32"
-4	1/8"
-5	3/16"
-6	1/4"

CHART II

Dash No.	Board Thckns.
-A	1/32"
-B	1/16"
-C	3/32"
-D	1/8"
-E	3/16"
-F	1/4"

INSULATED TERMINALS AND FEED-THRUS

Cambion Number and Material §	Fig.	Height Above Board	Turret Dia. or Spade Width	No. of Turrets or Slot Width	Base Dia. In.	Rivet Dia. or Thread Size	Stud L., Rivet L., or Tap Depth	Voltage Breakdown at 60 cy. AC	Net Ea. 1-9 *
1580*	I-b	5/16"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	20c
1581*	I-a	5/16"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	18c
1581-3*	I-a	9/16"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	18c
1719*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	26c
1719-3*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	26c
1795-A*	III	3/8"	.052"	2 ea. end	3/8 hex	1/4-28	1/4"; a	2,800 rms	32c
1795-B*	III	5/16"	.052"	2 ea. end	3/8 hex	1/4-28	1/4"; b	2,800 rms	32c
1942-F4†	I-c	19/32"	3/32"	2	5/16 hex	4-40	1/8"	4,000 rms	20c
1942-F6†	I-c	19/32"	3/32"	2	5/16 hex	6-32	1/8"	4,000 rms	20c
1942-X†	I-a	17/32"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	20c
1942-X3†	I-a	17/32"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	20c
1942-Y†	I-b	17/32"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	20c
1945‡	I-a	37/64"	3/32"	2	5/16 hex	6-32	Chart IV; c	.....	29c
1946‡	I-b	37/64"	3/32"	2	5/16 hex	.187	Chart V; c	.....	29c
1980-XA†	I-a	3/8"	3/32"	1	3/16 hex	3-48	Chart II	2,500 rms	20c
1980-XB†	I-a	7/16"	3/32"	1	3/16 hex	3-48	Chart II	4,000 rms	20c
1980-XC†	I-a	1/2"	3/32"	1	3/16 hex	3-48	Chart II	5,000 rms	20c
1980-YA†	I-b	3/8"	3/32"	1	3/16 hex	.141	Chart I	2,500 rms	20c
1980-YB†	I-b	7/16"	3/32"	1	3/16 hex	.141	Chart I	4,000 rms	20c
1980-YC†	I-b	1/2"	3/32"	1	3/16 hex	.141	Chart I	5,000 rms	20c
1990†	III	3/8"	1/16"	2 ea. end	3/8 hex	1/4-28	1/4"; d	2,500 rms	43c
1995-A†	I-a	35/64"	.145"	1	5/16 hex	6-32	1/4"; e	4,000 rms	20c
1995-B†	I-a	35/64"	.145"	1	5/16 hex	6-32	3/8"	4,000 rms	20c
1995-C†	I-a	43/64"	.145"	2	5/16 hex	6-32	1/4"	4,000 rms	20c
1995-D†	I-a	43/64"	.145"	2	5/16 hex	6-32	3/8"	4,000 rms	20c
2045-F4†	I-c	39/64"	3/32"	2	1/4 hex	4-40	1/8"	2,500 rms	20c
2045-F6†	I-c	39/64"	3/32"	2	1/4 hex	6-32	1/8"	2,500 rms	20c
2045-X†	I-a	17/32"	3/32"	2	1/4 hex	4-40	1/4"	2,500 rms	20c
2045-X3†	I-a	17/32"	3/32"	2	1/4 hex	4-40	3/8"	2,500 rms	20c
2045-Y†	I-b	17/32"	3/32"	2	1/4 hex	.141	Chart I	2,500 rms	20c
2128-F3†	II-c	35/64"	3/32"	1	3/16 hex	3-48	1/8"; f	3,300 rms	20c
2128-X†	II-a	29/64"	3/32"	1	3/16 hex	3-48	1/4"; f	3,300 rms	20c
2128-Y†	II-b	29/64"	3/32"	1	.211	.141	Chart I; g	3,300 rms	20c
2220-F4†	II-c	1 1/32"	3/32"	2	5/16 hex	4-40	1/8"	11,000 rms	26c
2220-F6†	II-c	1 1/32"	3/32"	2	5/16 hex	6-32	1/8"	11,000 rms	26c
2220-X†	II-a	31/32"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	26c
2220-X3†	II-a	31/32"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	26c
2220-Y†	II-b	31/32"	3/32"	2	.355	.187	Chart I	11,000 rms	26c
2255†	II-a	13/32"	5/64"	1	1/8 hex	2-56	Chart III; g	2,000 rms	20c
4115-1-0519‡	IV	19/64"	3/32"	2	1/4	.205	7/32"; c	.....	17c
4114-2-0519‡	IV	19/64"	.096"	2	1/4	.205	7/32"; h	.....	17c
4113-1-0519‡	IV	13/64"	.096"	1	1/4	.205	7/32"; h	.....	17c
4263-1-0519‡	IV	19/64"	3/32"	2 ea. end	1/4	.205	7/32"; i	.....	21c
4025-1-0519‡	IV	1/4"	5/64"	2	11/64	.136	7/64"	.....	12c
4026-1-0519‡	IV	19/64"	5/64"	2	11/64	.136	7/64"	.....	13c
4025-2-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/8"	.....	12c
4026-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8"	.....	13c
4025-3-0519‡	IV	1/4"	5/64"	2	11/64	.136	11/64"	.....	12c
4026-3-0519‡	IV	19/64"	5/64"	2	11/64	.136	11/64"	.....	13c
4025-4-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/4"	.....	12c
4026-4-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/4"	.....	13c
4027-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8"	.....	13c
4028-2-0519‡	IV	11/32"	5/64"	2	11/64	.136	1/8"	.....	13c



§Material: Mounting stud, brass with cadmium plate unless otherwise noted. Terminal, brass with silver plate unless otherwise noted. Insulator (see Number column): *Phenolic; †Ceramic; ‡Teflon.

Notes: **a.** Mounting hardware supplied. B height, 5/8". Stud nickel-plated. **b.** Mounting hardware supplied. B height, 9/16". Stud nickel-plated. **c.** Terminal tin-lead solder plate. **d.** Mounting hardware supplied. B height, 3/4". Stud nickel-plated. **e.** Stud nickel-plated. **f.** Terminal silver plate and gold flash; Stud nickel-plate. **g.** Terminal silver plate and gold flash. Stud nickel-plate. **h.** Terminal tin-lead solder plate; .043" through-hole. **i.** Terminal tin-lead solder plate; .070" turret dia. below. B height, 13/32".

CHART I	CHART III		CHART V	
Rivet Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.	Rivet Lgth.
.062	-1	.125"	-1	.062"
.094	-2	.188"	-2	.094"
.105	-3	.250"	-3	.105"
.125	.....	.....	-4	.125"
.156	.....	.....	-5	.156"

CHART II	CHART IV		CHART VI	
Stud Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.	Thrd. Size
.094	-1	1/4"	-1	4-40
.125	-2	3/8"	-2	6-32
.156	.....	.....	.....	.....
.250	.....	.....	.....	.....

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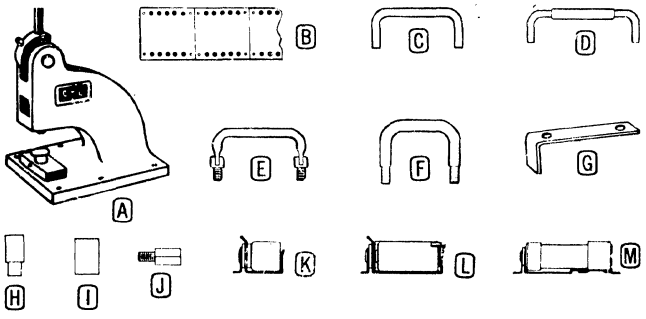

ARBOR SWAGERS (FIG. A)

Specially designed by Cambion for mounting Cambion terminals on terminal boards. These Arbor Swagers are sturdy, precision-built, hand operated, cam action rolling tools; designed for quick, solid uniform swaging of solder terminals. Adjustable to a wide range of terminal board thicknesses by setting the anvil at the proper height. Terminals may be swaged, in place, as far as 1⅞" from the board edge. Pressure is adjustable and uniform, assuring good, even peening. Furnished complete with one set of tooling. When ordering, specify terminal to be staked. PSA (anvil) and PSP (punch) toolings are used with the Arbor Swager. Net Each **$46.00**

ALL-PURPOSE HANDLES

BRASS TYPE

Available in polished nickel plate or black oxide finish.

Cambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Each, 1-9* Nickel Plate -1*	Net Each, 1-9* Black Oxide -2*
1075	C	1½"	4¹³⁄₁₆"	⅜" x 10-32	⅝"	$1.10	$0.92
1220	C	1"	1¼"	⅜" x 4-40	⁵⁄₃₂"	1.04	.91
1221	C	1"	2"	⅜" x 4-40	⁵⁄₃₂"	1.10	.97
1222	C	1"	3"	⅜" x 4-40	⁵⁄₃₂"	1.15	1.02
1250	C	1⅝"	2"	⁷⁄₁₆" x 8-32	⅝"	.94	.81
1252	C	1⅝"	3"	⁷⁄₁₆" x 8-32	⅝"	.97	.87
1260	F	1¾"	2"	²⁹⁄₆₄" x 12-28	⅝"	1.10	.97
1261	F	1¾"	3"	²⁹⁄₆₄" x 12-28	⅝"	1.18	1.05
1262	F	1½"	4"	²⁹⁄₆₄" x 12-28	⅝"	1.30	1.15
1263	F	1¾"	6"	²⁹⁄₆₄" x 12-28	⅝"	1.44	1.31
1280	C	1½"	2"	⁹⁄₁₆" x 8-32	¼"	1.02	.89
1281	C	1½"	3"	⁹⁄₁₆" x 8-32	¼"	1.07	.94
1282	C	1½"	4"	⁹⁄₁₆" x 8-32	¼"	1.15	1.02
1283	C	1½"	6"	⁹⁄₁₆" x 8-32	¼"	1.25	1.10
1900†	E	1²⁷⁄₃₂"	4"	⅝" x ⅜-24	⅜"	2.69	2.49
1965	C	1¾"	6¹⁷⁄₁₆"	⅝" x 10-32	⅝"	1.13	1.07
2062‡	E	1¹³⁄₁₆"	4"	⅝" x ⅜-24	⅜"	2.59	2.40
2066	D	1¹³⁄₃₂"	§	⅝" x 10-32	⅝"	2.95	2.51
2111A	C	1½"	4¹³⁄₁₆"	½" x 10-32	#	1.73	1.62
2111B	C	1¾"	6¹⁷⁄₁₆"	½" x 10-32	#	1.96	1.83
2111C	C	1¾"	9"	½" x 10-32	#	2.17	2.06
2111D	C	1¾"	3"	⁹⁄₃₂" x 10-32	#	1.54	1.43
2721•	E	1¾"	4"	⅝" x ⅜-24	#	3.48	2.72
2722▲	E	1¾"	4"	⅝" x ⅜-24	#	3.56	2.82

*Add suffix to Cambion number when ordering (example, 1075-1). †90° folding; ⅝" dia. base. ‡180° folding; ⅝" dia. base. §Adjustable 4½" to 6⅝". #Oval: ⁹⁄₃₂" x ⅝". •180° folding. ▲90° folding.

ALUMINUM TYPE

Specify black or semi-frost finish when ordering.

Cambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Ea., 1-9*
1230	C	1"	1¼"	⅜" x 4-40	⁵⁄₃₂"	$0.66
1231	C	1"	2"	⅜" x 4-40	⁵⁄₃₂"	.73
1232	C	1"	3"	⅜" x 4-40	⁵⁄₃₂"	.78
1290	C	1½"	2"	⁹⁄₁₆" x 8-32	¼"	.68
1291	C	1½"	3"	⁹⁄₁₆" x 8-32	¼"	.73
1292	C	1½"	4"	⁹⁄₁₆" x 8-32	¼"	.84
1293	C	1½"	6"	⁹⁄₁₆" x 8-32	¼"	.96
1884-1	C	1⅞"	4"	⁹⁄₁₆" x 10-32	⅜"	1.13
1884-2	C	1⅞"	4"	⁹⁄₁₆" x 12-24	⅜"	1.13
2385-1	C	1³⁄₃₂"	3"	⁹⁄₃₂" x 10-24	#	1.17
2385-2	C	1½"	4¹³⁄₁₆"	⁹⁄₃₂" x 10-24	#	1.25
2385-3	C	1¾"	6¹⁷⁄₁₆"	⁹⁄₃₂" x 10-24	#	1.36
2385-4	C	1¾"	9"	⁹⁄₃₂" x 10-24	#	1.49

#Oval, ⁹⁄₃₂" x ⅝".

MERCURY BATTERY HOLDERS

Phosphor-bronze body with nylon insulator. Rivets (No. 2099) available for assembly of holders. **Specify Finish:** Add suffix to number to indicate finish desired (example 2233-1); **-1**, silver plate; **-2**, nickel plate; **-3**, gold flash over nickel plate.

Cambion Number	Fig.	Max. Size, Inches H. x W. x L.	Battery Size, Inches Dia. x Lgth.	Net Each, 1-9* Suffix -1 or -2	Net Each, 1-9* Suffix -3
2233	K	⁴⁹⁄₆₄ x ½ x 1³⁄₃₂	⅝ x ²¹⁄₃₂	$0.35	$0.43
2234	L	⁴⁹⁄₆₄ x ¾ x 1¾	²¹⁄₃₂ x 1⁵⁄₁₆	.44	.52
2324	M	⁵⁷⁄₆₄ x ²⁵⁄₃₂ x 4⁵⁄₃₂	²¹⁄₃₂ x 3¼	.92	1.05
2475	M	⁵⁷⁄₆₄ x ²⁵⁄₃₂ x 2²⁷⁄₃₂	²¹⁄₃₂ x 2	.74	.85
2477	M	⁵⁷⁄₆₄ x ²⁵⁄₃₂ x 3½	²¹⁄₃₂ x 2⁵⁄₈	.83	.93
2570	*	1½ x 1 x 3¼	1³⁄₁₆ x 2⅜	1.01	1.26

*Mercury "D" cell, not illustrated.

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ALL-SET TERMINAL BOARDS (FIG. B)

Board is scored into 2⅝" sections to facilitate wiring divisions; 5-section length, 13⅛". Terminal spacing, ⅜" Standard boards, below, have 5 sections per board. For use with 1724 terminal unless otherwise noted.

PHENOLIC TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Cotton Fabric Cambion No. 1401-	Cotton Fabric Net Ea. 1-9*	Nylon Fabric Cambion No. 1401-	Nylon Fabric Net Ea. 1-9*
½"	§	.....	A-5-*	$0.86	NA-5-*	$0.99
2"	1½"	1998-B	B-5-*	1.95	NB-5-*	2.45
2½"	2"	1998-C	C-5-*	2.04	NC-5-*	2.63
3"	2½"	1998-D	D-5-*	2.11	ND-5-*	2.82
1¹⁄₁₆"	¾"	1998-E	E-5-†‡	1.79	NE-5-†‡	1.95
1½"	1³⁄₁₆"	1998-F	F-5-*	1.91	NF-5-*	2.25

Specify Board thickness: *³⁄₃₂" or ⅛". †¹⁄₁₆" or ³⁄₃₂". ‡Used with 1558 terminal. §Single row of terminals.

GLASS EPOXY TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Thin Board Cambion No. 1401-	Thin Board Net Ea. 1-9*	Heavy Board Cambion No. 1401-	Heavy Board Net Ea. 1-9*
½"	§	.....	GA-5-³⁄₃₂	$1.47	GA-5-⅛	$1.67
2"	1½"	1998-B	GB-5-³⁄₃₂	3.30	GB-5-⅛	4.03
2½"	2"	1998-C	GC-5-³⁄₃₂	3.60	GC-5-⅛	4.32
3"	2½"	1998-D	GD-5-³⁄₃₂	4.05	GD-5-⅛	5.05
1¹⁄₁₆"	¾"	1998-E	GE-5-¹⁄₁₆‡	2.38	GE-5-³⁄₃₂‡	2.90
1½"	1³⁄₁₆"	1998-F	GF-5-³⁄₃₂	3.07	GF-5-⅛	3.51

‡Used with 1558 terminal. §Single row of terminals.

MOUNTING BRACKETS (FIG. G)

Cadmium plated cold rolled steel construction.

Cambion Number	Width In.	Long Leg Size, In. Lgth.	Long Leg Size, In. Hole Dis.*	Long Leg Size, In. Hole Ctrs.	Long Leg Size, In. Hole Dia.	Short Leg, In. Lgth.	Short Leg, In. Hole Dia.	Net Each 1-9*
1301#	⅜	⁷⁄₁₆	³⁄₃₂	.....	.144	⁷⁄₁₆	.144	11c
1302†	⅝	²³⁄₃₂	⁹⁄₁₆	.....	.144	½	.144	10c
1303‡	⅝	²⁷⁄₃₂	¹¹⁄₁₆	.....	.144	½	.155	10c
1963#	⅜	¹⁵⁄₃₂	⁹⁄₃₂	.....	⁵⁄₃₂	⁷⁄₃₂	⁵⁄₃₂	11c
1981	⅞	2½	⁹⁄₁₆	1¾	⁵⁄₃₂	½	⁵⁄₃₂§	10c
1998-B	⅜	2⅛	⅜	1½	⁵⁄₃₂	½	⁵⁄₃₂§	10c
1998-C	⅜	2⅝	⅜	2	⁵⁄₃₂	½	⁵⁄₃₂§	10c
1998-D	⅜	3⅛	⅜	2½	⁵⁄₃₂	½	⁵⁄₃₂§	10c
1998-E	⅜	1¾	⁹⁄₃₂	¾	⁵⁄₃₂	½	⁵⁄₃₂§	10c
1998-F	⅜	1⅝	⁹⁄₃₂	1³⁄₁₆	⁵⁄₃₂	½	⁵⁄₃₂§	10c

*Distance from surface to center of hole. †⅛" sq. tab on center of longer leg, ²⁵⁄₆₄" from end . ‡¹⁄₁₆" sq. tab on center of longer leg, ³³⁄₆₄" from end. §Slot. #Curved end on short leg.

STANDOFFS

Cadmium plated brass construction.

Cambion Number	Fig.	O.D., In.	I.D.	Shank Dia. or Stud	Above Panel Ht., In.	Use With Tool‡	Net Each 1-9*
1246	H	¼	6-32	.187"	*	PSA-10 PSP-10	11c
1300	H	¼	4-40	.138"	*	PSA-10 PSP-7	11c
2188	H	⅝	2-56	.125"	*	PSA-39 PSP-38	11c
1801-A	I	³⁄₁₆	4-40	.....	¼	.....	12c
1801-B thru -F	I	¼	6-32	.....	†	.....	12c
1801-G thru -J	I	⅜	8-32	.....	†	.....	12c
1915	I	¼	.129"	.....	†	.....	5c
1916	I	⁵⁄₁₆	.154"	.....	†	.....	7c
1917	I	⅜	.180"	.....	†	.....	8c
1299-1	J	¼	6-32	6-32§	⅜"	.....	9c
1299-2	J	¼	6-32	6-32§	½"	.....	9c

§¼" stud length.

*CHART I

Specify above-panel height desired and board thickness by adding suffix to number (example: 1246-1, 1300-11, etc.).

Suffix for Panel Thickness of ¹⁄₃₂"	¹⁄₁₆"	³⁄₃₂"	⅛"	³⁄₁₆"	¼"	Above-Panel Height
-1	-9	-17	-25	-33	-41	⅛"
-2	-10	-18	-26	-34	-42	³⁄₁₆"
-3	-11	-19	-27	-35	-43	¼"
-4	-12	-20	-28	-36	-44	³⁄₈"
-5	-13	-21	-29	-37	-45	½"
-6	-14	-22	-30	-38	-46	⅝"
-7	-15	-23	-31	-39	-47	¾"
-8	-16	-24	-32	-40	-48	1"

†CHART II

Specify above-panel height desired by adding suffix to number.

Suffix for Standoff Nos. 1801	Suffix for Standoff Nos. 1915-1917	Above-Panel Height
-A, -B	-1	¼"
-C, -G	-2	³⁄₈"
-D, -H	-3	½"
-E, -I	-4	⅝"
-F, -J	-5	¾"

‡CHART III

Specify tooling by proper suffix onto tool type listed for specific stand-off (examples: PSA-10-1 and PSP-10f or ⅛" or 1" h 1246 standoff).

Suffix	Above-Panel Height
-1	⅛", ³⁄₁₆"
-2	¼", ³⁄₈"
-3	½", ⅝"
-4	¾", 1"

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES.

CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

STAND-OFF TERMINALS

No. 16L

Insulated terminals for television and other high voltage electronic equipment. Provides excellent insulation for passing high voltage wires through chassis. Molded from mica-filled low loss bakelite. Available in two lengths: 9/32" or 13/32". Diameter of cylinder is .110. Mounts in 5/32" dia. hole.

No.	Length	Net Price Ea.
16S	9/32"	$ .39
16L	13/32"	.39

SCREW TYPE TERMINAL STRIPS

Ideal for chassis or breadboard layouts. Solder coated brass terminals. .136 diameter mounting holes. Strips with 1 to 6 lugs are of 1/16" bakelite; 7 to 10 terminals mounted on 3/32" bakelite. Ends of screws are captivated to prevent removal. Terminals are spaced on 7/16" centers.

No.	Lugs	Mounting Centers	Net Price
17- 1	1	7/8"	Each $ .04
17- 2	2	1 5/16"	Each .06
17- 3	3	1 3/4"	Each .09
17- 4	4	2 3/16"	Each .12
17- 5	5	2 5/8"	Each .14
17- 6	6	3 1/16"	Each .17
17- 7	7	3 1/2"	Each .21
17- 8	8	3 15/16"	Each .23
17- 9	9	4 3/8"	Each .27
17-10	10	4 13/16"	Each .29

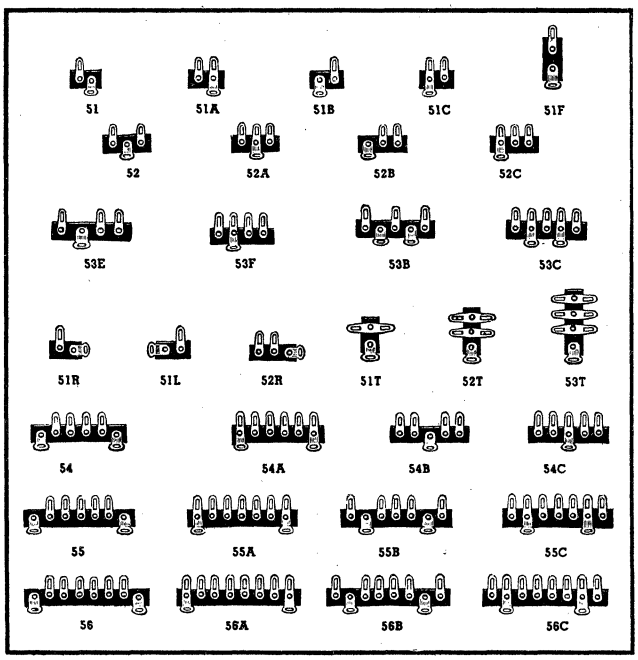
SCREEN TYPE PLUG BUTTON

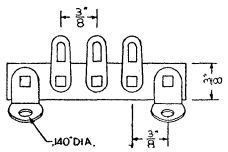
For portable radios, transmitters, amplifiers, etc. Provides ventilation wherever required in radio, television and electronic equipment. Bright zinc plated steel button snaps in 1" diam. hole. Half size illustration.

No.	Description	Net Price
41V	for 1" Hole	Ea. $ .11

LUG TYPE TERMINAL STRIPS

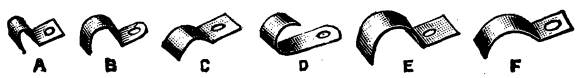
These bakelite strips are handy for neatly supporting resistors, condensers, etc., in circuit wiring. Solder coated steel lugs are spaced on 3/8" centers with .140 diameter mounting holes. Chocolate bakelite strips are 1/16" thick and 3/8" wide.





No.	Mtg. Centers	Net Price Each
51		$ .02
51A		.02
51B		.02
51C		.02
51R		.02
51L		.02
51F		.02
51T		.03
52		.02
52A		.02
52B		.02
52C		.02
52R		.04
52T		.04
53B	3/4"	.04
53C	3/4"	.04
53E		.02
53F		.02
53T		.06
54	1 7/8"	.04
54A	1 7/8"	.04
54B		.04
54C		.04
55	2 1/4"	.05
55A	2 1/4"	.05
55B	1 1/2"	.05
55C	1 1/2"	.05
56	2 5/8"	.10
56A	2 5/8"	.11
56B	1 7/8"	.10
56C	1 7/8"	.11

CABLE CLAMPS



Cadmium plated sturdy steel cable clamps designed for securing cables ranging from 1/16" diameter to 5/8" diameter. Illustrations are half size.

No.	Dia. of arc	Hole Dia.	Over-all Width	Over-all Length	Hole cent. to arc cent.	Net Price Ea.
85A	1/8"	.149	11/32"	15/32"	1/4"	$ .02
85B	5/16"	.140	5/16"	23/32"	3/8"	.02
85C	5/16"	.144	3/8"	21/32"	3/8"	.02
85D	5/16"	.136	5/16"	27/32"	1/2"	.02
85E	1/2"	.147	1/2"	15/16"	5/16"	.02
85F	5/8"	.171	3/8"	1"	1/2"	.02

PLUG BUTTONS

Used to cover punched or drilled holes in metal, wood, fibre, tubes, plastic, cardboard, etc. Nickel plated steel plug buttons for eight popular size holes. Other sizes available, let us know your requirements. Spring tension prongs hold plug bottom firmly in position. Illustrations are 1/3 actual size.

No.	For hole Diameter	Cap Diameter	Net Price Ea.
41A	1/4"	13/32"	$ .02
41B	3/8"	1/2"	.02
41C	1/2"	21/32"	.02
41D	5/8"	51/64"	.02
41E	3/4"	15/16"	.02
41F	7/8"	1 1/16"	.03
41G	1"	1 5/32"	.05
41H	1 1/4"	1 7/16"	.05

MINIMUM BILLING $25.00

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CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

BARRIER TYPE TERMINAL STRIPS

Increased insulation is provided by having Barriers placed between each Terminal. These barriers follow around the edge of the Strips and terminate at the zase. They not only make a long leakage path but prevent direct shorts from frayed wires at the terminals. Mounting holes are at the ends as illustrated. The base is molded Bakelite. The Eyelets and Binder Screws are of brass, nickel plated. The ¾W or Y terminals are of brass, hot tin finish.

No. 140 TERMINAL STRIPS

5-40 x 3/16 Binder Head Screws, Metal to Metal Spacing over Bakelite ¼"

No. 2-140

No. 140

Code	Net Price Each
1-140	$0.09
2-140	.14
3-140	.20
4-140	.25
5-140	.31
6-140	.35
7-140	.41
8-140	.46
9-140	.52
10-140	.57
11-140	.62
12-140	.67
13-140	.73
14-140	.79
15-140	.84
16-140	.89
17-140	.94
18-140	1.00
19-140	1.05
20-140	1.10
21-140	1.16

No. 2-140-¾ W

No. 140-¾ W

Code	Net Price Each
1-140-¾ W	$0.11
2-140-¾ W	.19
3-140-¾ W	.26
4-140-¾ W	.34
5-140-¾ W	.41
6-140-¾ W	.50
7-140-¾ W	.57
8-140-¾ W	.65
9-140-¾ W	.73
10-140-¾ W	.80
11-140-¾ W	.87
12-140-¾ W	.95
13-140-¾ W	1.03
14-140-¾ W	1.10
15-140-¾ W	1.18
16-140-¾ W	1.25
17-140-¾ W	1.33
18-140-¾ W	1.40
19-140-¾ W	1.48
20-140-¾ W	1.56
21-140-¾ W	1.63

No. 2-140-Y

No. 140-Y

Code	Net Price Each
1-140-Y	$0.11
2-140-Y	.19
3-140-Y	.26
4-140-Y	.34
5-140-Y	.41
6-140-Y	.50
7-140-Y	.57
8-140-Y	.65
9-140-Y	.73
10-140-Y	.80
11-140-Y	.87
12-140-Y	.95
13-140-Y	1.03
14-140-Y	1.10
15-140-Y	1.18
16-140-Y	1.25
17-140-Y	1.33
18-140-Y	1.40
19-140-Y	1.48
20-140-Y	1.56
21-140-Y	1.63

No. 164 TERMINAL STRIPS

6-32 x ¼ Binder Head Screws.M etal to Metal Spacing over Bakelite ¼"

No. 2-164

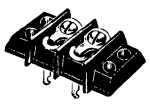
No. 164

Code	Net Price Each
1-164	$0.10
2-164	.16
3-164	.22
4-164	.28
5-164	.34
6-164	.39
7-164	.45
8-164	.51
9-164	.57
10-164	.63
11-164	.68
12-164	.74
13-164	.80
14-164	.87
15-164	.93
16-164	.99
17-164	1.04
18-164	1.10
19-164	1.16
20-164	1.22
21-164	1.28

No. 2-164-¾-W

No. 164-¾ W

Code	Net Price Each
1-164-¾ W	$0.12
2-164-¾ W	.20
3-164-¾ W	.28
4-164-¾ W	.37
5-164-¾ W	.44
6-164-¾ W	.53
7-164-¾ W	.61
8-164-¾ W	.70
9-164-¾ W	.78
10-164-¾ W	.86
11-164-¾ W	.94
12-164-¾ W	1.02
13-164-¾ W	1.10
14-164-¾ W	1.19
15-164-¾ W	1.27
16-164-¾ W	1.35
17-164-¾ W	1.43
18-164-¾ W	1.51
19-164-¾ W	1.59
20-164-¾ W	1.68
21-164-¾ W	1.76



No. 2-164-Y

No. 164-Y

Code	Net Price Each
1-164-Y	$0.12
2-164-Y	.20
3-164-Y	.28
4-164-Y	.37
5-164-Y	.44
6-164-Y	.53
7-164-Y	.61
8-164-Y	.70
9-164-Y	.78
10-164-Y	.86
11-164-Y	.94
12-164-Y	1.02
13-164-Y	1.10
14-164-Y	1.19
15-164-Y	1.27
16-164-Y	1.35
17-164-Y	1.43
18-164-Y	1.51
19-164-Y	1.59
20-164-Y	1.68
21-164-Y	1.76

No. 141 TERMINAL STRIPS

6-32 x ¼ Binder Head Screws. Metal to Metal Spacing over Bakelite ⅜"

No. 2-141

No. 141

Code	Net Price Each
1-141	$0.12
2-141	.19
3-141	.25
4-141	.32
5-141	.39
6-141	.45
7-141	.53
8-141	.59
9-141	.66
10-141	.73
11-141	.80
12-141	.86
13-141	.94
14-141	1.00
15-141	1.07
16-141	1.14
17-141	1.21
18-141	1.27
19-141	1.34
20-141	1.41

No. 2-141-¾-W

No. 141-¾ W

Code	Net Price Each
1-141-¾ W	$0.14
2-141-¾ W	.25
3-141-¾ W	.34
4-141-¾ W	.44
5-141-¾ W	.54
6-141-¾ W	.64
7-141-¾ W	.74
8-141-¾ W	.84
9-141-¾ W	.94
10-141-¾ W	1.04
11-141-¾ W	1.13
12-141-¾ W	1.24
13-141-¾ W	1.33
14-141-¾ W	1.43
15-141-¾ W	1.53
16-141-¾ W	1.63
17-141-¾ W	1.73
18-141-¾ W	1.83
19-141-¾ W	1.93
20-141-¾ W	2.03

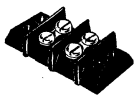
No. 2-141-Y

No. 141-Y

Code	Net Price Each
1-141-Y	$0.14
2-141-Y	.25
3-141-Y	.34
4-141-Y	.44
5-141-Y	.54
6-141-Y	.64
7-141-Y	.74
8-141-Y	.84
9-141-Y	.94
10-141-Y	1.04
11-141-Y	1.13
12-141-Y	1.24
13-141-Y	1.33
14-141-Y	1.43
15-141-Y	1.53
16-141-Y	1.63
17-141-Y	1.73
18-141-Y	1.83
19-141-Y	1.93
20-141-Y	2.03

No. 142 TERMINAL STRIPS

8-32 x 5/16" Binder Head Screws. Metal to Metal Spacing over Bakelite 9/16"



No. 2-142

No. 142

Code	Net Price Each
1-142	$0.14
2-142	.22
3-142	.31
4-142	.39
5-142	.47
6-142	.55
7-142	.64
8-142	.72
9-142	.80
10-142	.89
11-142	.97
12-142	1.06
13-142	1.14
14-142	1.22
15-142	1.31
16-142	1.39
17-142	1.47

No. 2-142-¾ W

No. 142-¾ W

Code	Net Price Each
1-142-¾ W	$0.18
2-142-¾ W	.30
3-142-¾ W	.42
4-142-¾ W	.54
5-142-¾ W	.67
6-142-¾ W	.79
7-142-¾ W	.91
8-142-¾ W	1.03
9-142-¾ W	1.16
10-142-¾ W	1.27
11-142-¾ W	1.40
12-142-¾ W	1.52
13-142-¾ W	1.64
14-142-¾ W	1.76
15-142-¾ W	1.89
16-142-¾ W	2.00
17-142-¾ W	2.12

No. 2-142-Y

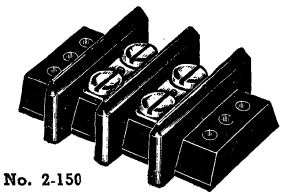
No. 142-Y

Code	Net Price Each
1-142-Y	$0.18
2-142-Y	.30
3-142-Y	.42
4-142-Y	.54
5-142-Y	.67
6-142-Y	.79
7-142-Y	.91
8-142-Y	1.03
9-142-Y	1.16
10-142-Y	1.27
11-142-Y	1.40
12-142-Y	1.52
13-142-Y	1.64
14-142-Y	1.76
15-142-Y	1.89
16-142-Y	2.00
17-142-Y	2.12

MINIMUM BILLING $25.00

BARRIER TYPE TERMINAL STRIPS

No. 150 TERMINAL STRIPS

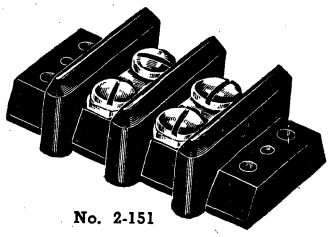


No. 2-150

1-13/16" wide by 25/32" high. Terminals are mounted on 11/16" centers. Screws: 10-32 x 5/16" brass, burnished nickel plate. Fits standard 50 Amp. solder lug for 6 Ga. stranded wire. Metal to metal spacing over bakelite 5/8".

Code	Net Price Each	Code	Net Price Each
1-150	$0.33	6-150	$1.49
2-150	.56	7-150	1.72
3-150	.79	8-150	1.95
4-150	1.03	9-150	2.18
5-150	1.25	10-150	2.41

No. 151 TERMINAL STRIPS

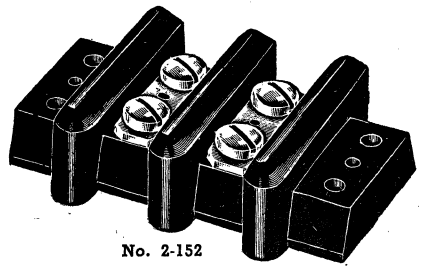


No. 2-151

2" wide by 15/16" high. Terminals are mounted on 7/8" centers. Screws: 12-32 x 3/8" brass, burnished nickel plate. Fits standard 70 Amp. solder lug for 4 Ga stranded wire. Metal to metal spacing over bakelite 3/4".

Code	Net Price Each	Code	Net Price Each
1-151	$0.56	5-151	2.41
2-151	1.03	6-151	2.87
3-151	1.49	7-151	3.34
4-151	1.95	8-151	3.80

No. 152 TERMINAL STRIPS

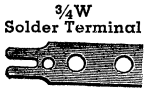


No. 2-152

2½" wide by 1⅛" high. Terminals are mounted on 1⅛" centers. Screws: ¼"-28 x ½" brass, burnished nickel plate. Fits standard 90 Amp. solder lug for 2 Ga. stranded wire. Metal to metal spacing over bakelite 1".

Code	Net Price Each	Code	Net Price Each
1-152	$0.76	4-152	2.84
2-152	1.45	5-152	3.53
3-152	2.15	6-152	4.22

¾W Solder Terminal



"Y" Solder Terminal

Code	Code	For Barrier Strip	Net Price Each
¾W-140	Y-140	140	$.03
¾W-141	Y-141	141	.04
¾W-142	Y-142	142	.04

Code	For Barrier Strip	Net Price Each
¾W-150	150	$.06
¾W-151	151	.11
¾W-152	152	.16

Jumpers

141-J

Code	For Barrier Strip	Net Price Each
141-J	140	$.03
141-J	141	.03
95-B	142	.08

No. 170 TERMINAL STRIPS

Terminal .032" Brass, Tin Plated

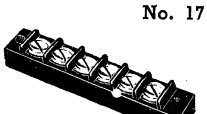
No. 2-170

A heavy solder Terminal.

Insulation: Black molded Bakelite, 5/16" wide, ¼" thick. Terminals mounted on 3/8" centers. Mounting holes are 3/8" from center of ends Terminals.

Code	Net Price Each	Code	Net Price Each
No. 1-170	$0.16	No. 6-170	$0.35
No. 2-170	.20	No. 7-170	.38
No. 3-170	.23	No. 8-170	.42
No. 4-170	.27	No. 9-170	.47
No. 5-170	.32	No. 10-170	.50

No. 171 TERMINAL STRIPS

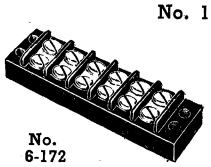


No. 6-171

A Miniature Barrier Terminal Strip with Single Screw Terminals. 13/32" wide by 5/16" overall height. Terminals are mounted on ¼" centers. 2-56 x ¼" Binder Head Screws. ⅛" Dia. Mtg. Holes.

Code	Contacts	Net Price Each	Code	Contacts	Net Price Each
2-171	2	$0.14	5-171	5	$0.31
3-171	3	.20	6-171	6	.36
4-171	4	.25	7-171	7	.41
			8-171	8	.47

No. 172 TERMINAL STRIPS

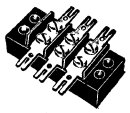


No. 6-172

Double Screw Terminals. 5/8" wide by 5/16" overall height. Terminals mounted on ¼" centers. 2-56 x 3/16". Binder Head Screws. ⅛" Dia. Mtg. Holes.

Code	Contacts	Net Price Each	Code	Contacts	Net Price Each
1-172	1	$0.25	8-172	8	$0.91
2-172	2	.34	9-172	9	1.01
3-172	3	.44	10-172	10	1.10
4-172	4	.53	11-172	11	1.21
5-172	5	.63	12-172	12	1.30
6-172	6	.72	13-172	13	1.39
7-172	7	.82	14-172	14	1.49

No. 172-W and 172-¾W TERMINAL STRIPS

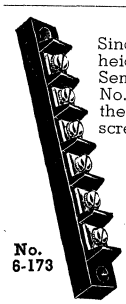


No. 3-172¾W

172-Y also available same price as 172-W.

			Net Price Each
1-172-W	1-172-¾W	1	$0.27
2-172-W	2-172-¾W	2	.38
3-172-W	3-172-¾W	3	.50
4-172-W	4-172-¾W	4	.62
5-172-W	5-172-¾W	5	.74
6-172-W	6-172-¾W	6	.86
7-172-W	7-172-¾W	7	.98
8-172-W	8-172-¾W	8	1.10
9-172-W	9-172-¾W	9	1.22
10-172-W	10-172-¾W	10	1.34
11-172-W	11-172-¾W	11	1.46
12-172-W	12-172-¾W	12	1.58
13-172-W	13-172-¾W	13	1.70
14-172-W	14-172-¾W	14	1.82

No. 173 and 174 TERMINAL STRIPS



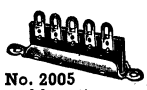
No. 6-173

Single Screw Terminals, 3/8" wide by ½" overall height. Terminals mounted on 3/8" centers. 4-40 x 5/16" Sems Type Binder Head Screws. 9/32" Dia. Mtg. Holts. No. 174 series is identical with No. 173 series except they are equipped with plain 4-40 x 5/16" binder head screws.

Code	Net Price Each	Code	Net Price Each
2.173	$0.18	2-174	$0.14
3-173	.25	3-174	.20
4-173	.32	4-174	.25
5-173	.40	5-174	.31
6-173	.47	6-174	.36
7-173	.54	7-174	.41
8-173	.61	8-174	.47
9-173	.68	9-174	.52
10-473	.76	10-174	.58

No. 2000 TERMINAL STRIPS

Terminal .019" Brass, Tin Plated



No. 2005

Mounting hole—9/64"

Compact and sturdy junction terminal strip. Useful in assembling radio chassis, wiring, etc.

Insulation: Bakelite, Brackets: Steel, cadmium plated. Terminals spaced on 5/16" centers.

Code	Mounting Hole Centers	Net Price Each	Code	Mounting Hole Centers	Net Price Each
No. 2002	1"	$0.07	No. 2008	2 7/8"	$0.12
No. 2003	1 5/16"	.07	No. 2009	3 3/16"	.13
No. 2004	1 5/8"	.08	No. 2010	3½"	.14
No. 2005	1 15/16"	.09	No. 2011	3 13/16"	.15
No. 2006	2¼"	.10	No. 2012	4⅛"	.16
No. 2007	2 5/16"	.11	No. 2013	4 7/16"	.17

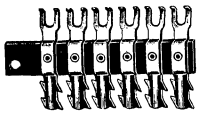
MINIMUM BILLING $25.00

© U.C.P., Inc.

CINCH-JONES SALES • DIVISION OF CINCH MANUFACTURING COMPANY

FANNING STRIPS FOR CONNECTING TO BARRIER TERMINAL STRIPS

Jones Fanning Strip Terminals are of .032" Brass, Cadmium Plated. The Bakelite strips are furnished with a hole in either the right or left end for fastening the cable with a cable clamp or lacing twine. Simplifies cable or harness wiring, assuring positive connections. Makes replacement of units an easy matter and assures correct connections after servicing.



6-160-L

THE 160 SERIES

The following Fanning Strips fit the 140 Series Barrier Strips. Terminals are mounted on 3/32" Bakelite, ½" wide and on ⅜" centers.
The B type fits the 140 and 164 series. If desired add suffix B to Code No.

		Net Price Each
2-160-L	2-160-R	$0.08
3-160-L	3-160-R	.13
4-160-L	4-160-R	.17
5-160-L	5-160-R	.21
6-160-L	6-160-R	.26
7-160-L	7-160-R	.30
8-160-L	8-160-R	.34
9-160-L	9-160-R	.38
10-160-L	10-160-R	.42
11-160-L	11-160-R	.46
12-160-L	12-160-R	.50
13-160-L	13-160-R	.55
14-160-L	14-160-R	.59
15-160-L	15-160-R	.64
16-160-L	16-160-R	.67
17-160-L	17-160-R	.71
18-160-L	18-160-R	.77
19-160-L	19-160-R	.80
20-160-L	20-160-R	.85
21-160-L	21-160-R	.88

6-161-L (Cable Clamp on Left)

THE 161 SERIES

The following Fanning Strips fit the 141 Series Barrier Strips. Terminals are mounted on 3/32" Bakelite, ⅝" wide and on 7/16" centers.

		Net Price Each
2-161-L	2-161-R	$0.09
3-161-L	3-161-R	.14
4-161-L	4-161-R	.17
5-161-L	5-161-R	.22
6-161-L	6-161-R	.26
7-161-L	7-161-R	.31
8-161-L	8-161-R	.34
9-161-L	9-161-R	.38
10-161-L	10-161-R	.43
11-161-L	11-161-R	.47
12-161-L	12-161-R	.51
13-161-L	13-161-R	.55
14-161-L	14-161-R	.60
15-161-L	15-161-R	.64
16-161-L	16-161-R	.68
17-161-L	17-161-R	.72
18-161-L	18-161-R	.77
19-161-L	19-161-R	.80
20-161-L	20-161-R	.85

6-162-R (Cable Clamp on Right)

THE 162 SERIES

The following Fanning Strips fit the 142 Series Barrier Strips. Terminals are mounted on 3/32" Bakelite, ⅝" wide and on 9/16" centers.

		Net Price Each
2-162-L	2-162-R	$0.11
3-162-L	3-162-R	.15
4-162-L	4-162-R	.19
5-162-L	5-162-R	.23
6-162-L	6-162-R	.28
7-162-L	7-162-R	.32
8-162-L	8-162-R	.37
9-162-L	9-162-R	.40
10-162-L	10-162-R	.45
11-162-L	11-162-R	.49
12-162-L	12-162-R	.53
13-162-L	13-162-R	.57
14-162-L	14-162-R	.62
15-162-L	15-162-R	.65
16-162-L	16-162-R	.70
17-162-L	17-162-R	.73

CABLE CLAMPS

Cable Clamps are available for the Fanning Strips listed at the left and are furnished in 6 different sizes as listed below. Cable Clamp is of Brass Nickel Plated, with 6-32 round head Nickel Plated Brass Screws. For convenience the Cable Clamps are furnished unassembled.

CABLE CLAMP SIZES AVAILABLE

No.	I.D.	Net Price Ea.
CC-161- 4	¼"	$0.12
CC-161- 6	⅜"	.13
CC-161- 8	½"	.13
CC-161-10	⅝"	.14
CC-161-12	¾"	.14
CC-161-14	⅞"	.15

Be sure to give code number when ordering.

CINCH BATTERY PLUGS

5AB1

6K4

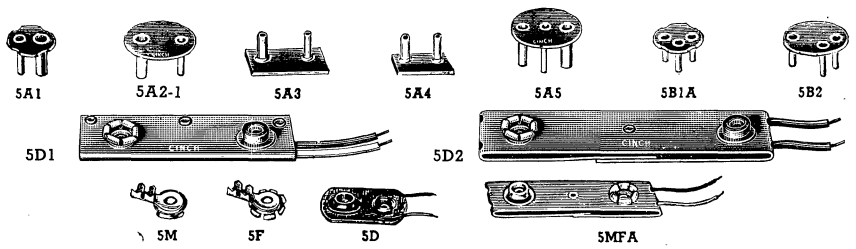
5AB4

5AB5

5AB6

5AB7

5AB8



Part Number	Voltage	For Burgess No.	For Eveready No.	For R.C.A. No.	For Philco No.	For Ray-O-Vac No.	Net Price
5A1	1½ "A"	4F, 4FL, 6F, 8F, 8FL, TE	741, 742 743, 1052P	VS004, VS005, VS007, VS008	P94, P96, P8F1	P94A, P94L, PX, P96A, P98A, P98L	Ea. $ .03
5A2-1	3 "A"	20F2	X125	VS025	P8024	P9403	Ea. .05
5A3	4½ "A"	G-3	746	VS002	P100	P-83A	Ea. .03
5A4	6 "A"	2F4, 2F4L, F4PI, T5	A509, 718, 744, 747	VS009, VS010 VS011	P4F4R	P694A, P696L, P698A, P698L	Ea. .04
5A5	7½ "A"	G-5	687	VS003		P85A	Ea. .06
5B1A	45 "B" Small	M30, Z30 A30, B30	482, 738, 762	VS012, VS013 VS014, VS015	PR10 P305	430P, P7830 P5303	Ea. .03
5B2-1	45 "B" Large	M30, Z30 A30, B30	482, 738, 762	VS012, VS013 VS014, VS015	P210, P305	430P, P7830, P5303	Ea. .05
5M	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .03
5F	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .04
5MFA	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .23
5D	45 "B"	U30	415	VS086			Ea. .38
5D1	67½ "B"	P45	477	VS218	P149	946	Ea. .17
5D2	90 "B"	N60	490	VS090	P132	4390	Ea. .23
5AB1-1	1½ "A"-90 "B"	17GD60, 5DA60, 6TA60	758	VS022, VS043	P60011L	AB82, 10793	Ea. .07
6K4	9 "A"-90 "B"	G6B60	752	VS047			Ea. .06
5AB2	1½ "A"-63-90 "B"	6FA60, 4GA41, 4GA42		VS037	P60A-4L P41A4G	AB419	Ea. .05
5AB5	6 "A"-90 "B"	D4A60, 2FB60, F4A41		VS046	P41AFL	10896, AB648	Ea. .07
5AB6	7½"A"-90 "B"	G5A42, F5A60		VS038	P87, P841	AB794	Ea. .05
5AB7	9 "A"-90 "B"	F6A60, G6M60	753, 754	VS018, VS019	P841A	AB878, AG994	Ea. .06
5AB8	9 "A"-90 "B"	4FA60					Ea. .05

MINIMUM BILLING $25.00

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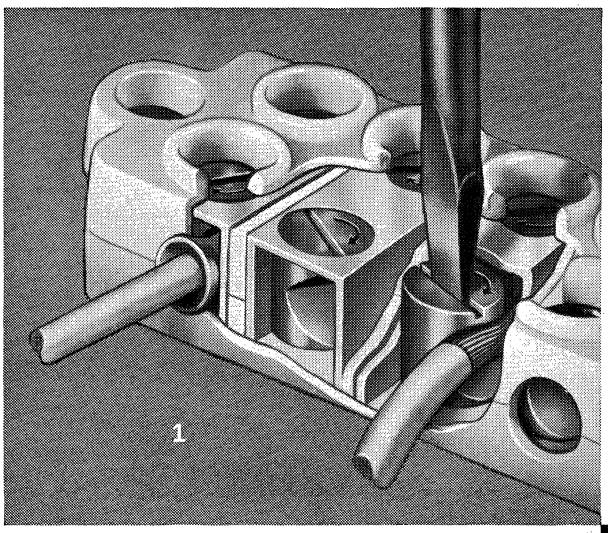
NEW concept for electrical connections



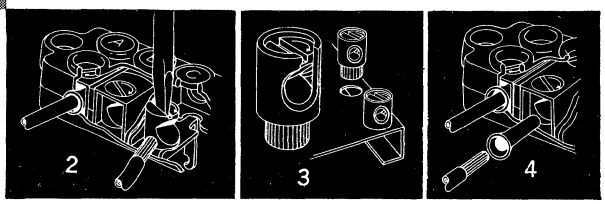
CAMBLOCK

1 TERMINAL BLOCK CONNECTORS

2 PULL-THRU CONNECTORS

3 SUPERIOR BINDING CAMPOSTS

4 WIREGUARDS



CAMBLOCK has solved the problem of obtaining a better and more positive electrical connection through use of a basic new principle — Cam Action! Wedging action of a reverse rotary tapered V-cam assures positive locking, eliminates the use of screws, lugs, solder and special tools.

With either CAMBLOCK Terminal Block or CAMBLOCK Pull Through Connectors, (for thru-chassis applications) average wiring time is cut 75% . . . a turn with a screwdriver connects or disconnects. Field service and maintenance are simplified because there are no special tools or parts to handle. Terminal Block Connectors take wires from #12 to #30 gauge, and will accept multiple wires in each socket without any special preparation. CAMBLOCK's Pull-Thru Connectors all thru-chassis applications of from 2 to 20 wires. Identification points permit easy marking of connector terminals. By making every strand a conductor, both block and pull-thru types assure better connections, electrically and mechanically.

Versatile CAMBLOCKS find application in virtually all types of electronic and electrical equipment, including aircraft, automotive, marine, and military products, appliances and lighting equipment.

CAMPOSTS are superior binding posts. They are screwless, solderless and positive locking. CAMPOSTS eliminate cold solder joints and lugs, no need for soldering irons and crimping tools! Like all CAMBLOCK products, CAMPOSTS make every strand a conductor.

WIREGUARDS by CAMBLOCK feature self-crimping copper sleeves . . . CAMBLOCK's cam action simply crimps wireguards with a turn of a screwdriver. WIREGUARDS' one step operation protects the wire indefinitely, reduces costs by eliminating special tools.

Want to make a better connection . . .? Take action — "cam" action. Write for details and price lists on all CAMBLOCK products.

Available with any number of stations from 2 thru 20, in 15, 20, and 30 amp capacities in both straight and feed-thru designs.

Dielectric strength up to 4000 V between terminals, 5000 V between terminals and base . . . withstand at least 11 G's vibration (60 cps double amplitude) and up to 450 lbs. of high impact shock.

CAMBLOCK CORPORATION • Natick, Mass.

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ELCO SALES COMPANY
Philadelphia, Pa.

All stock Barriers are supplied in black bakelite for commercial use. Other materials such as Black "CF", Mica "MF", Melamine "CM", Mineral Melamine "MM" and Acme Resin "MD" are also available upon request. The latter materials will meet the latest military specifications Mil P-14C.

ELCO-EXCELLEX BARRIER STRIPS

PART DESIGNATION—The Elco-Excellex part number is a complete description of Barrier Strip Material and Hardware.

Following is a sample of part No. 9GP14-L5B

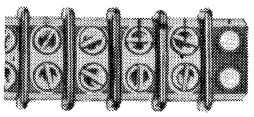
9	GP	14 width	—	L	5-Thread	B
No. of terminals	cellulose-filled phenolic (see table of mat'l specs)	14/16" wide (width of strip in 16ths of an inch)	dash separates strip material designation from hdwe designation	L type of lug (see dwgs. of lugs. OMIT THIS LETTER WHERE LUG IS NOT REQUIRED)	std. size of screw	brass nickel-plated screw (S-if steel cad-plated is desired)

MATERIAL SPECIFICATIONS

Code Suffix	MIL-P-14C	JAN P-14	Description
GP	—	—	CELLULOSE-FILLED phenolic. Excellent mechanical and electrical properties.
CF	CFG	MTSE-1 Phenolic	CELLULOSE-FILLED phenolic. Excellent mechanical and electrical properties, suitable for general military requirements.
MF	MFE	MTSE-4 Mica	MINERAL-FILLED phenolic. Outstanding for low loss and high dielectric strength. Used when best electrical properties are sought.
CM	CMG	MTSG-2 Melamine	CELLULOSE-FILLED melamine. Particularly specified for high arc resistance.
MM	MME	Melamine	MINERAL-FILLED melamine. Used where electrical properties combined with high arc and flame resistance are required.
MD	MDG	Acme Resin	MINERAL-FILLED diallyl phthalate-good electrical properties.

SERIES 14

Height 13/32" — Width 14/16" — Thickness ¼" — Terminals 3/8" — Centers 5/16" —Binding Head Screws 5/40 x ¼" Long.

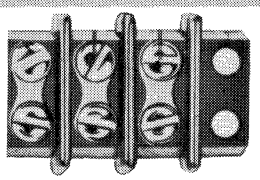


L=L Type Lugs. U and UU Type Lugs Also Available at Same Prices as Below

	1-24 Ea.	25-49 Ea.	50-99 Ea.		1-24 Ea.	25-49 Ea.	50-99 Ea.
1GP14-5B	.11	.09	.07	1GP14-L5B	.14	.11	.10
2GP14-5B	.19	.15	.12	2GP14-L5B	.24	.19	.16
3GP14-5B	.25	.20	.16	3GP14-L5B	.33	.26	.22
4GP14-5B	.32	.25	.21	4GP14-L5B	.43	.34	.29
5GP14-5B	.38	.31	.25	5GP14-L5B	.52	.41	.35
6GP14-5B	.44	.35	.30	6GP14-L5B	.63	.50	.42
7GP14-5B	.51	.41	.34	7GP14-L5B	.71	.57	.48
8GP14-5B	.58	.46	.39	8GP14-L5B	.81	.65	.54
9GP14-5B	.65	.52	.43	9GP14-L5B	.91	.73	.61
10GP14-5B	.71	.57	.48	10GP14-L5B	1.00	.80	.67
11GP14-5B	.77	.62	.52	11GP14-L5B	1.09	.87	.73
12GP14-5B	.84	.67	.56	12GP14-L5B	1.19	.95	.79
13GP14-5B	.91	.73	.61	13GP14-L5B	1.28	1.03	.86
14GP14-5B	.98	.79	.66	14GP14-L5B	1.38	1.10	.92
15GP14-5B	1.05	.84	.70	15GP14-L5B	1.47	1.18	.98
16GP14-5B	1.12	.89	.75	16GP14-L5B	1.57	1.25	1.05
17GP14-5B	1.18	.94	.79	17GP14-L5B	1.66	1.33	1.11
18GP14-5B	1.25	1.00	.83	18GP14-L5B	1.76	1.40	1.17
19GP14-5B	1.31	1.05	.88	19GP14-L5B	1.85	1.48	1.23
20GP14-5B	1.38	1.10	.92	20GP14-L5B	1.95	1.56	1.30

SERIES 21

Height 5/8" —Width 1-15/16" — Thickness 3/8" — Terminals 9/16"— Center ½" — Binding Head Screws 8/32" x 5/16" Long.

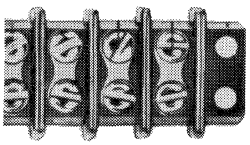


L=L Type Lugs. U and UU Type Lugs Also Available at Same Prices as Below

	1-24 Ea.	25-49 Ea.	50-99 Ea.		1-24 Ea.	25-49 Ea.	50-99 Ea.
1GP21-8B	.17	.14	.12	1GP21-L8B	.23	.18	.15
2GP21-8B	.27	.22	.18	2GP21-L8B	.38	.30	.25
3GP21-8B	.38	.31	.26	3GP21-L8B	.53	.42	.35
4GP21-8B	.49	.39	.33	4GP21-L8B	.68	.54	.45
5GP21-8B	.59	.47	.39	5GP21-L8B	.83	.66	.55
6GP21-8B	.69	.55	.46	6GP21-L8B	.98	.79	.66
7GP21-8B	.80	.64	.54	7GP21-L8B	1.14	.91	.76
8GP21-8B	.90	.72	.60	8GP21-L8B	1.29	1.03	.86
9GP21-8B	1.00	.80	.67	9GP21-L8B	1.45	1.16	.97
10GP21-8B	1.12	.89	.75	10GP21-L8B	1.59	1.27	1.06
11GP21-8B	1.22	.97	.81	11GP21-L8B	1.75	1.40	1.17
12GP21-8B	1.32	1.06	.88	12GP21-L8B	1.90	1.52	1.27
13GP21-8B	1.43	1.14	.95	13GP21-L8B	2.06	1.64	1.37
14GP21-8B	1.53	1.22	1.02	14GP21-L8B	2.21	1.76	1.47
15GP21-8B	1.64	1.31	1.09	15GP21-L8B	2.36	1.89	1.58
16GP21-8B	1.74	1.39	1.16	16GP21-L8B	2.51	2.00	1.67
17GP21-8B	1.84	1.47	1.23	17GP21-L8B	2.66	2.12	1.77
18GP21-8B	1.94	1.55	1.29	18GP21-L8B	2.81	2.24	1.87
19GP21-8B	2.07	1.66	1.38	19GP21-L8B	2.99	2.39	2.00
20GP21-8B	2.18	1.74	1.45	20GP21-L8B	3.15	2.52	2.10
21GP21-8B	2.28	1.82	1.52	21GP21-L8B	3.31	2.65	2.21
22GP21-8B	2.39	1.91	1.60	22GP21-L8B	3.47	2.77	2.31
23GP21-8B	2.50	2.00	1.67	23GP21-L8B	3.62	2.90	2.42
24GP21-8B	2.61	2.09	1.74	24GP21-L8B	3.75	3.02	2.52
25GP21-8B	2.72	2.17	1.81	25GP21-L8B	3.94	3.15	2.63

SERIES 18

Height ½" — Width 1-1/8" — Thickness 5/16" — Terminals 7/16" Centers 27/64" — Binding Head Screws 6/32 x ¼" Long.

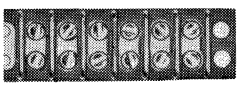


L=L Type Lugs. U and UU Type Lugs Also Available at Same Prices as Below

	1-24 Ea.	25-49 Ea.	50-99 Ea.		1-24 Ea.	25-49 Ea.	50-99 Ea.
1GP18-6B	.15	.12	.10	1GP18-L6B	.18	.14	.12
2GP18-6B	.23	.19	.16	2GP18-L6B	.31	.25	.21
3GP18-6B	.32	.25	.21	3GP18-L6B	.43	.34	.29
4GP18-6B	.41	.32	.27	4GP18-L6B	.56	.44	.37
5GP18-6B	.48	.38	.32	5GP18-L6B	.68	.54	.45
6GP18-6B	.56	.45	.38	6GP18-L6B	.80	.64	.54
7GP18-6B	.66	.53	.44	7GP18-I6B	.92	.74	.62
8GP18-6B	.74	.60	.50	8GP18-I6B	1.05	.84	.70
9GP18-6B	.83	.66	.55	9GP18-L6B	1.17	.94	.73
10GP18-6B	.92	.73	.61	10GP18-L6B	1.30	1.04	.87
11GP18-6B	1.00	.80	.67	11GP18-L6B	1.41	1.13	.95
12GP18-6B	1.08	.86	.72	12GP18-L6B	1.55	1.24	1.03
13GP18-6B	1.17	.94	.78	13GP18-L6B	1.67	1.33	1.11
14GP18-6B	1.25	1.00	.84	14GP18-L6B	1.79	1.43	1.20
15GP18-6B	1.34	1.07	.89	15GP18-L6B	1.91	1.54	1.28
16GP18-6B	1.43	1.14	.95	16GP18-L6B	2.04	1.63	1.36
17GP18-6B	1.51	1.21	1.01	17GP18-L6B	2.16	1.73	1.44
18GP18-6B	1.59	1.27	1.06	18GP18-L6B	2.29	1.83	1.53
19GP18-6B	1.68	1.34	1.12	19GP18-L6B	2.41	1.93	1.61
20GP18-6B	1.76	1.41	1.18	20GP18-L6B	2.54	2.03	1.69
21GP18-6B	1.85	1.48	1.24	21GP18-L6B	2.66	2.13	1.78
22GP18-6B	1.94	1.55	1.30	22GP18-L6B	2.79	2.23	1.86
23GP18-6B	2.03	1.63	1.34	23GP18-L6B	2.92	2.33	1.95
24GP18-6B	2.12	1.70	1.42	24GP18-L6B	3.05	2.44	2.03
25GP18-6B	2.25	1.80	1.50	25GP18-L6B	3.17	2.54	2.11

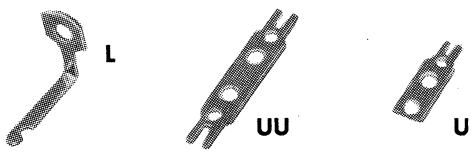
SERIES 10

Height 5/16" — Width 5/8" — Binding Head Screws 2/56 x 3/16" Long.



	1-24 Ea.	25-49 Ea.	50-99 Ea.		1-24 Ea.	25-49 Ea.	50-99 Ea.
1CF10-L2B	.33	.26	.22	12CF10-L2B	1.97	1.57	1.31
2CF10-L2B	.47	.38	.32	13CF10-L2B	2.12	1.69	1.41
3CF10-L2B	.63	.50	.42	14CF10-L2B	2.26	1.81	1.52
4CF10-L2B	.77	.62	.52	15CF10-L2B	2.40	1.92	1.60
5CF10-L2B	.92	.73	.61	16CF10-L2B	2.55	2.04	1.70
6CF10-L2B	1.08	.86	.72	17CF10-I2B	2.70	2.16	1.80
7CF10-L2B	1.22	.98	.82	18CF10-L2B	2.85	2.28	1.90
8CF10-L2B	1.37	1.10	.92	19CF10-L2B	3.00	2.40	2.00
9CF10-L2B	1.52	1.22	1.02	20CF10-L2B	3.15	2.52	2.10
10CF10-L2B	1.67	1.33	1.11	21CF10-L2B	3.30	2.64	2.20
11CF10-L2B	1.82	1.45	1.21	22CF10-L2B	3.45	2.76	2.30

TYPE OF LUGS



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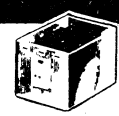
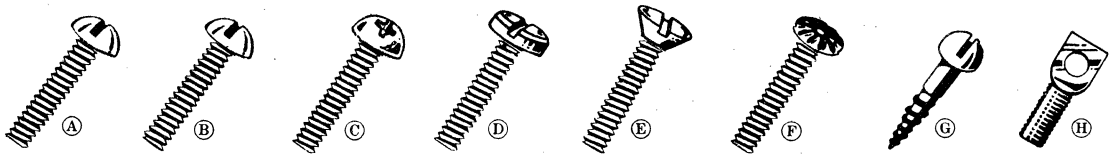
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dir. Net Price. 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000



(A) G-C ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted Screws	H1000-F	35				
Assorted Screws & Nuts	H1001-F	40				
Assorted No. 2 & 4 Screws & Nuts	H1002-F	35				
Assorted 4-36 Screws	H1010-F	40				
Assorted 6-32 Screws	H1012-F	40				
Assorted 8-32 Screws	H1016-F	40				
Assorted 10-32 Screws	H1018-F	25				
2-56 x 1/4"	H1022-F	40	7130-C$	.45	7130-M	$3.53
2-56 x 1/2"	H1024-F	40	7131-C	.48	7131-M	3.85
2-56 x 3/4"	H1026-F	40	7132-C	.55	7132-M	4.43
3-48 x 3/4"	H1028-F	40	7124-C	.58	7124-M	4.65
4-36 x 1/4"	H1032-F	40	6005-IC	.48	6005-M	3.87
4-36 x 3/8"	H1033-F	35	7138-C	.50	7138-M	3.97
4-36 x 1/2"	H1034-F	35	6006-C	.52	6006-M	4.18
4-36 x 5/8"			5651-C	.57	5651-M	4.53
4-36 x 3/4"	H1036-F	35	6007-C	.60	6007-M	4.87
4-40 x 1/4"	H1042-F	40	6005-AC	.48	6005-AM	3.87
4-40 x 1/2"	H1044-F	35	6005-BC	.53	6005-BM	4.22
4-40 x 5/8"			5652-C	.57	5652-M	4.53
4-40 x 3/4"	H1046-F	35	6005-CC	.60	6005-CM	4.87
6-32 x 1/4"	H1062-F	40	6008-C	.53	6008-M	4.25
6-32 x 1/2"	H1064-F	30	6009-C	.62	6009-M	4.93
6-32 x 5/8"			5653-C	.68	5653-M	5.40
6-32 x 3/4"	H1066-F	30	6010-C	.73	6010-M	5.80
6-32 x 1"	H1068-F	30	6011-C	.83	6011-M	6.67
6-32 x 1 1/4"	H1070-F	30	7141-C	1.00	7141-M	8.00
6-32 x 2"	H1076-F	20	7148-C	1.50	7148-M	12.07
8-32 x 1/4"	H1082-F	30	6013-C	.70	6013-M	5.55
8-32 x 3/8"	H1083-F	25	6014-C	.75	6014-M	5.98
8-32 x 1/2"	H1084-F	25	6015-C	.82	6015-M	6.48
8-32 x 5/8"			5654-C	.87	5654-M	6.95
8-32 x 3/4"	H1086-F	25	6016-C	.93	6016-M	7.42
8-32 x 1"	H1088-F	20	6017-C	1.07	6017-M	8.50
8-32 x 1 1/4"	H1090-F	20	7142-C	1.25	7142-M	9.87
10-32 x 1/2"	H1104-F	20	6020-C	.95	6020-M	7.63
10-32 x 5/8"			5655-C	1.03	5655-M	8.32
10-32 x 3/4"	H1106-F	20	6021-C	1.12	6021-M	8.93
10-32 x 1"	H1108-F	17	6022-C	1.25	6022-M	10.05
10-32 x 1 1/2"	H1112-F	15	7143-C	1.65	7143-M	13.22

(B) G-C ROUND HEAD MACHINE SCREWS BRASS — NOT PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1210-F	30				
2-56 x 1/4"			5657-C	.67	5657-M	$ 5.32
2-56 x 1/2"			5658-C	.80	5658-M	6.42
2-56 x 5/8"			5659-C	.87	5659-M	6.97
2-56 x 3/4"			5660-C	.93	5660-M	7.50
3-48 x 3/4"			5661-C	1.05	5661-M	8.33
4-36 x 1/4"			5662-C	.80	5662-M	6.45
4-36 x 1/2"			5663-C	1.02	5663-M	8.10
4-36 x 5/8"			5664-C	1.10	5664-M	8.82
4-36 x 3/4"			5665-C	1.20	5665-M	9.53
4-40 x 1/4"			5666-C	.80	5666-M	6.45
4-40 x 1/2"			5667-C	1.02	5667-M	8.10
4-40 x 5/8"			5668-C	1.10	5668-M	8.82
4-40 x 3/4"			5669-C	1.20	5669-M	9.53
6-32 x 1/4"			8501-C	1.08	8501-M	8.63
6-32 x 3/8"			5670-C	1.15	5670-M	9.22
6-32 x 1/2"			8502-C	1.30	8502-M	10.38
6-32 x 5/8"			5671-C	1.43	5671-M	11.47
6-32 x 3/4"			8503-C	1.58	8503-M	12.67
6-32 x 1"			8504-C	1.88	8504-M	15.00
6-32 x 1 1/4"			5672-C	2.18	5672-M	17.82
6-32 x 2"			5673-C	3.68	5673-M	29.40
8-32 x 1/4"			8505-C	1.60	8505-M	12.78
8-32 x 3/8"			5674-C	1.68	5674-M	13.43
8-32 x 1/2"			8506-C	1.92	8506-M	15.37
8-32 x 5/8"			5675-C	2.12	5675-M	16.92
8-32 x 3/4"			8507-C	2.35	8507-M	18.75
8-32 x 1"			8508-C	2.80	8508-M	22.35
8-32 x 1 1/4"			5676-C	3.28	5676-M	26.25
10-32 x 1/2"			5677-C	2.43	5677-M	19.50
10-32 x 5/8"			5678-C	2.70	5678-M	21.67
10-32 x 3/4"			5679-C	2.95	5679-M	23.55
10-32 x 1"			5680-C	3.52	5680-M	28.08
10-32 x 1 1/2"			5681-C	4.80	5681-M	38.40

(C) G-C PHILLIPS TYPE ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1180-F	25				
6-32 x 1/4"			8511-C	1.18	8511-M	$ 9.47
6-32 x 1/2"			8512-C	1.07	8512-M	8.53
6-32 x 5/8"			5689-C	1.15	5689-M	9.18
6-32 x 3/4"			8513-C	1.22	8513-M	9.75
6-32 x 1"			8514-C	1.37	8514-M	10.87
8-32 x 5/16"			8515-C	1.03	8515-M	8.32
8-32 x 1/2"			8516-C	1.15	8516-M	9.18
8-32 x 5/8"			5690-C	1.23	5690-M	9.90
8-32 x 3/4"			8517-C	1.33	8517-M	10.65
8-32 x 1"			8518-C	1.53	8518-M	12.23

(D) G-C BINDING HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1168-F	35				
5-36 x 1/4"	H1170-F	35	7154-C	.53	7154-M	$4.20
6-32 x 3/16"			7151-C	.53	7151-M	4.20
6-32 x 1/4"	H1172-F	35	7152-C	.53	7152-M	4.23
6-32 x 3/8"			7153-C	.53	7153-M	4.50
7-32 x 3/8"	H1174-F	30	7155-C	.57	7155-M	4.50
8-32 x 3/16"			7158-C	.72	7158-M	5.73

(E) G-C OVAL HEAD RACK AND CABINET SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted Screws and Washers	H1005-F	15				
6-32 x 1/2"			6540-C	.62	6540-M	$4.93
6-32 x 5/8"			5691-C	.68	5691-M	5.40
6-32 x 3/4"			6541-C	.73	6541-M	5.80
8-32 x 5/8"			5692-C	.87	5692-M	6.95
8-32 x 3/4"			6542-C	.95	6542-M	7.42
10-32 x 1/2"			8848-C	.95	8848-M	7.60
10-32 x 5/8"			5693-C	1.03	5693-M	8.32
10-32 x 3/4"			6543-C	1.12	6543-M	8.93

(F) G-C ORNAMENTAL HEAD SCREWS STEEL — BRONZE PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1250-F	20				
6-32 x 3/4"	H1252-F	25	1097-C	1.28	1097-M	$10.27
6-32 x 1"	H1253-F	20	1098-C	1.40	1098-M	11.28
8-32 x 1 1/4"	H1255-F	12	1099-C	1.92	1099-M	15.30

(G) G-C WOOD SCREWS ROUND HEAD — STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1502-F	25				
No. 4 x 1/2"			6114-C	.70	6114-M	$ 6.23
No. 4 x 5/8"			5694-C	.85	5694-M	6.75
No. 4 x 3/4"			6115-C	.90	6115-M	7.20
No. 6 x 3/4"			6116-C	.97	6116-M	7.73
No. 6 x 1"			6117-C	1.20	6117-M	9.57
No. 8 x 3/4"			6118-C	1.15	6118-M	9.15
No. 8 x 1 1/4"			8071-C	1.58	8071-M	12.68
No. 10 x 1 1/2"			8073-C	2.12	8073-M	16.95
No. 12 x 1 1/2"			8075-C	2.70	8075-M	21.60
No. 14 x 1 3/4"			8076-C	3.80	8076-M	30.45

(H) G-C SPADE BOLTS OR MOUNTING SCREWS STEEL — NICKEL PLATED

A	B	C	D	E	Assorted	Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
	No.					H1570-F	15				
6-32	6	3/32"	11/16"	9/16"				6081-C	1.15	6081-M	$ 9.15
6-32	6	13/32"	7/8"	11/16"				6082-C	1.55	6082-M	12.45
8-32	8	7/16"	1 5/32"	1 5/16"				6084-C	2.93	6084-M	23.40

Net

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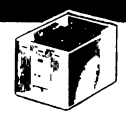
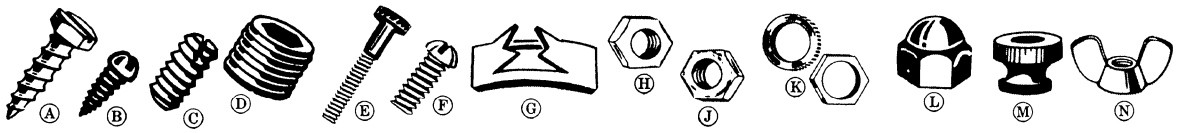
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net Price 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000



(A) G-C SHEET METAL SCREWS
HEX HEAD — SLOTTED — SELF-TAPPING — NICKEL PLATED POINTED TYPE "A"

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H1300-F	25				
Asstd. No. 4 & 6						
Asstd. No. 8 & 10						
No. 4 x ½"	H1350-F	35	6090-C	$ .75	6090-M	$ 6.00
No. 6 x ¼"	H1362-F	30	6091-C	.85	6091-M	6.83
No. 6 x 3/8"	H1363-F	25	6092-C	.87	6092-M	6.97
No. 6 x ½"	H1364-F	25	6093-C	.92	6093-M	7.32
No. 6 x 5/8"			5695-C	.95	5695-M	7.57
No. 6 x ¾"	H1366-F	20	6094-C	1.00	6094-M	7.95
No. 8 x ¼"	H1382-F	20	8102-C	1.00	8102-M	8.03
No. 8 x 3/8"	H1383-F	20	6095-C	1.05	6095-M	8.33
No. 8 x ½"	H1384-F	20	6096-C	1.08	6096-M	8.63
No. 8 x 5/8"			5696-C	1.10	5696-M	8.78
No. 8 x 1"	H1388-F	15	6097-C	1.38	6097-M	11.03
No. 10 x 3/8"	H1403-F	15	6098-C	1.18	6098-M	9.52
No. 10 x ½"	H1404-F	15	6099-C	1.27	6099-M	10.13
No. 10 x ¾"	H1406-F	12	6100-C	1.40	6100-M	11.17

(B) G-C ESCUTCHEON PLATE SCREWS
ROUND HEAD — SLOTTED — BRONZE PLATED

Asstd.	H1500-F	25				
No. 2 x ¼"			1091-C	$ .72	1091-M	$5.70
No. 2 x 3/8"			1093-C	.72	1093-M	5.70

(C) G-C RADIO KNOB SET SCREWS
SLOTTED — HEADLESS — CUP POINT Standard

Asst. 6-32, 8-32, 10-32	H1605-F	15				
6-32 x 3/16"	H1623-F	15	6072-C	$1.80	6072-M	$14.40
8-32 x 3/16"	H1633-F	15	6075-C	1.80	6075-M	14.40
8-32 x ¼"	H1634-F	15	6076-C	1.80	6076-M	14.40
10-32 x ¼"			6079-C	1.80	6079-M	14.40

(D) G-C ALLEN HEX SET SCREWS
STEEL — HEADLESS

Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x 1/8"			7201-C	$4.93	7201-M	$39.45
8-32 x 3/16"			7202-C	4.93	7202-M	39.45

(E) G-C PHONOGRAPH NEEDLE AND STYLUS SET SCREWS
STEEL — BRONZE PLATED

No. 1052 Ass't., 15 in Box. .... Dlr. Net **$ .36**						
Assorted	H1550-F	12				
No. 1053 Asst., 100 in Box ..... Dlr. Net **$7.35**	H1551-F	12				
2-56 x 3/16"	H1553-F	12		$ .67	P1-M	$ 5.28
1-72 x 29/32"	H1555-F	5		1.67	P6-M	13.32

(F) PHONO CARTRIDGE MOUNTING SCREWS
STEEL — NICKEL PLATED

Assorted	H1560-F	60				
4-36 x ¼"	H1562-F	40	6005-1C	.48	6005-M	$3.87
4-40 x ¼"	H1564-F	40	6005-AC	.48	6005-AM	3.87

(G) G-C TINNERMAN SPEED NUTS

Assorted	H1960-F	30				
No. 4			6051-C	$ .93	6051-M	$ 5.70
No. 6			6052-C	.78	6052-M	6.23
No. 8			6053-C	.78	6053-M	6.23

(H) G-C HEXAGON NUTS
STEEL — NICKEL PLATED

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted			H1800-F	30				
Thread	Width	Thick-ness						
2-56	3/16"	1/16"	H1802-F	30	7225-C	$ .68	7225-M	$ 5.52
3-48	3/16"	1/16"	H1803-F	30	7226-C	.68	7226-M	5.52
4-36	¼"	3/32"	H1805-F	30	6041-C	.67	6041-M	5.28
4-40	¼"	3/32"	H1804-F	30	6041-AC	.67	6041-AM	5.28
5-40	5/16"	7/64"			6045-BC	.73	6045-BM	5.82
6-32	¼"	3/32"	H1806-F	30	6042-C	.68	6042-M	5.52
6-32	5/16"	7/64"	H1807-F	30	7230-C	.73	7230-M	5.82
8-32	¼"	3/32"	H1808-F	30	6043-C	.73	6043-M	5.85
8-32	11/32"	1/8"	H1809-F	30	7233-C	.73	7233-M	5.85
10-32	3/8"	5/64"	H1810-F	30	6044-C	.97	6044-M	7.68
10-32	3/8"	1/8"			6049-C	.87	6049-M	6.98
1/4-20	7/16"	3/16"	H1820-F	25	7235-C	1.33	7235-M	10.62
11/32-32	7/16"	1/16"			7236-C	1.95	7236-M	15.60
3/8-32	5/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27	9/16"	1/8"	H1924-F	10	7238-C	3.30	7238-M	26.40
15/32-32	9/16"	5/64"			6050-BC	1.80	6050-BM	14.40

(J) G-C BRASS HEXAGON NUTS
NOT PLATED

Thread	Width	Thick-ness						
2-56	3/16"	1/16"			7241-C	$ .98	7241-M	$ 7.83
3-48	3/16"	1/16"			7242-C	.90	7242-M	7.13
4-36	¼"	3/32"	H1842-F	35	7243-C	1.18	7243-M	9.42
4-40	¼"	3/32"	H1844-F	25	7244-C	1.17	7244-M	9.33
6-32	¼"	3/32"	H1846-F	25	7245-C	1.17	7245-M	9.30
6-32	5/16"	7/64"			5697-C	1.40	5697-M	11.18
8-32	¼"	3/32"			5698-C	1.17	5698-M	9.30
8-32	5/16"	7/64"	H1848-F	15	7248-C	1.40	7248-M	11.18
10-32	3/8"	1/8"	H1850-F	15	7249-C	1.53	7249-M	12.27
1/4-20	7/16"	3/16"			5699-C	3.13	5699-M	25.02

(K) G-C MOUNTING NUTS
STEEL — NICKEL PLATED

Assorted			H1920-F	12				
Thread	Width	Thick-ness						
11/32-32 (Rotary Switch Size)	7/16"	1/16"			7236-C	$1.95	7236-M	$15.60
3/8-32 (Volume Control Size)	5/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27 (Pilot Light Size)	9/16"	1/8"			7238-C	3.30	7238-M	26.40
15/32-32 (Toggle Switch Size)	9/16"	5/64"	H1924-F	10	6050-BC	1.80	6050-BM	14.40
15/32-32 Round Ring Nut (Toggle Switch Size)		1/16"	H1926-F	8	6050-CC	3.47	6050-CM	27.78

(L) G-C ACORN NUTS
SOLID BRASS — NICKEL PLATED

Assorted	H1950-F	10				
6-32			6031-C	$2.82	6031-M	$22.50
8-32			6032-C	3.00	6032-M	24.00
10-32			6033-C	3.63	6033-M	29.10

(M) G-C KNURLED THUMB NUTS
BRASS — NICKEL PLATED

Assorted	H1941-F	10				
6-32	H1943-F	8	6655-C	$2.27	6655-M	$18.15
8-32	H1944-F	8	6656-C	2.27	6656-M	18.15
10-32	H1945-F	5	6657-C	4.98	6657-M	39.90

(N) G-C WING NUTS
NICKEL PLATED

Assorted	H1931-F	10				
6-32	H1933-F	10	6658-C	$3.32	6658-M	$26.52
8-32	H1934-F	10	6659-C	2.45	6659-M	19.65
10-32	H1935-F	8	6660-C	2.73	6660-M	21.90

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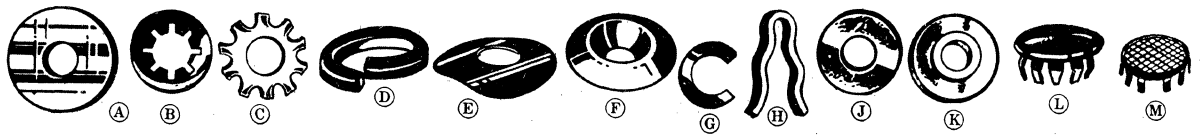
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100

BULK HARDWARE Box of 1000



(A) G-C METAL WASHERS NICKEL PLATED

Screw Size No.	Hole Size	O.D.	Thick-ness	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H870-F	80				
4	1/8"	9/32"	1/32"	H874-F	80	6154-C	$ .30	6154-M	$ 2.25
6	5/32"	3/8"	1/32"	H876-F	80	6155-C	.28	6155-M	2.25
8	3/16"	7/16"	1/32"	H878-F	80	6156-C	.30	6156-M	2.37
10	13/64"	3/8"	1/32"	H880-F	70	7306-C	.32	7306-M	2.55
10	13/64"	7/16"	1/32"			7307-C	.30	7307-M	2.37
10	13/64"	1/2"	.049			6157-C	.40	6157-M	3.18
12	.228	7/16"	.021			7308-C	.35	7308-M	2.78
1/4"	9/32"	5/8"	1/16"	H882-F	50	6158-C	.47	6158-M	3.69
1/4"	17/64"	1/2"	1/16"			7311-C	.63	7311-M	5.07
5/16"	5/16"	11/16"	1/16"			7312-C	.58	7312-M	4.68

(B) G-C LOCK WASHERS INTERNAL LOCK WASHERS CADMIUM PLATED

Screw Size	O.D.							
Asstd. All Types		H918-F	45					
Asstd. Internal Screw		H920-F	50					
2		H922-F	35	7322-C	$ .72	7322-M	$ 5.78
3				7323-C	.63	7323-M	5.03
4		H924-F	50	7324-C	.45	7324-M	3.63
6	9/32"	H926-F	50	7326-C	.45	7326-M	3.63
8	21/64"	H928-F	50	7328-C	.50	7328-M	3.98
10	3/8"	H930-F	45	7330-C	.50	7330-M	3.98
1/4"	9/16"			7332-C	.65	7332-M	5.25
5/16"	19/32"			7333-C	.82	7333-M	6.53
3/8"	11/16"			7334-C	1.10	7334-M	8.78
3/8"	9/16"	H938-F	25	7335-C	1.25	7335-M	9.98
15/32"	19/32"			7338-C	1.58	7338-M	12.63

(C) EXTERNAL LOCK WASHERS CAD PLATED

Screw Size	O.D.	Thick.						
Asstd.			H950-F	60				
No. 4	3/16"	1/32"			6503-C	$ .57	6503-M	$ 4.50
No. 6	15/64"	1/32"			6504-C	.48	6504-M	3.90
No. 8	11/32"	.025			6505-C	.47	6505-M	3.70
No. 10	3/16"	.050			6506-C	.53	6506-M	4.32
No. 1/4"	7/16"	5/64"			6507-C	.80	6507-M	6.38

(D) SPLIT TYPE LOCK WASHERS CAD PLATED

Screw Size	O.D.	Thick.						
Asstd.			H960-F	60				
No. 4	3/16"	1/32"			6503-C	$ .57	6503-M	$ 4.50
No. 6	15/64"	1/32"			6504-C	.48	6504-M	3.90
No. 8	11/32"	.025			6505-C	.47	6505-M	3.70
No. 10	3/16"	.050			6506-C	.53	6506-M	4.32
No. 1/4"	7/16"	5/64"			6507-C	.80	6507-M	6.38

(E) G-C SPRING FRICTION WASHERS

A	B	C	Thick.					
Asstd.				H750-F	12			
5/64"	5/16"	1/32"	.012			7385-C	$1.95	7385-M	$15.60
3/16"	3/8"	1/32"	.008			7386-C	1.65	7386-M	13.27
3/16"	1/16"	1/16"	.008			7387-C	1.62	7387-M	12.93
1/4"	3/16"	1/16"	.012			7389-C	1.87	7389-M	14.77

(F) G-C CUP FINISHING WASHERS NICKEL PLATED

Asstd. Screws & Washers	H1005-F	15					
Asstd. Washers	H805-F	40					
No. 6	H806-F	45	6161-C	$ .40	6161-M	$ 3.18
No. 8	H808-F	45	6162-C	.42	6162-M	3.38
No. 10	H810-F	35	6163-C	.55	6163-M	4.47

(G) G-C C-WASHERS AND RETAINING RINGS STEEL-CAD PLATED

Shaft Diam.	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst'd. C-Washers					H770-F	25				
3/16"	.171	.125	.062	.031	H772-F	15	6182-C	$ .95	6182-M	$ 7.53
1/4"	.234	.156	.046	.031	H774-F	15	6183-C	1.07	6183-M	8.58
1/4"	.260	.187	.062	.031			6184-C	1.10	6184-M	8.73
1/4"	9/32" O.D. Wire Ring			.029	H778-F	50	6185-C	.42	6185-M	3.30

(H) G-C HAIR PIN COTTERS

A	B	C					
Asstd.			H380-F	50			
5/32"	1/16"	.026			7375-C	$ .48	7375-M	$ 3.90
3/8"	1/16"	.026			7376-C	.42	7376-M	3.30
13/32"	3/32"	.026			7377-C	.47	7377-M	3.78
1/2"	5/32"	.026			7378-C	.42	7378-M	3.30
21/32"	3/16"	.032			7379-C	.50	7379-M	3.93

(J) G-C FLAT FIBRE WASHERS

Screw Size	I.D.	O.D.	Thick.						
Asstd.				H820-F	35				
6	.140	1/4"	1/32"	H824-F	30	6513-C	$ .42	6513-M	$ 3.30
8	11/64"	3/8"	1/32"	H825-F	30	6514-C	.42	6514-M	3.30
10	.196	3/8"	1/32"	H826-F	30	6515-C	.42	6515-M	3.30
1/4"	1/4"	1/2"	3/64"	H827-F	24	6516-C	.47	6516-M	3.68
3/8"	.390	25/64"	3/64"	H828-F	20	6517-C	.77	6517-M	6.12
15/32"	15/32"	1/4"	1/32"			6518-C	.77	6518-M	6.12

(K) G-C EXTRUDED FIBRE WASHERS

Screw Size	A	B	C	D					
Asstd. Extruded & Flat					H854-F	30			
Asstd. Extruded					H855-F	30			
6	5/16"	.187	.140	.039			6525-C	$ .87	6525-M	$ 6.90
8	3/8"	.250	.169	.031			6526-C	.87	6526-M	6.90
10	7/16"	.255	.196	.032			6527-C	.95	6527-M	7.53
1/4"	1/2"	.375	.250	.032			6528-C	.95	6528-M	7.53
3/8"	5/8"	.437	.380	.031	H864-F	20	6529-C	.98	6529-M	7.92

(L) G-C SNAP BUTTON HOLE PLUGS NICKEL PLATED

Asstd. H300-F 8

No. 1710 Asst. 50 Plugs in Box Dlr. Net $3.05

1/4"	13/32"	1/4"	17/64"	5/64"	H306-F	8	1711-AC	$ 2.25	1711-AM	18.00
5/16"	7/16"	1/4"	21/64"	1/16"			1711-BC	2.40	1711-BM	19.20
3/8"	17/32"	3/8"	25/64"	5/64"	H308-F	8	1711-C	3.08	1711-M	24.60
1/2"	21/32"	17/64"	17/32"	5/64"	H310-F	6	1712-C	3.08	1712-M	24.60
5/8"	51/64"	9/32"	41/64"	5/64"	H312-F	6	1713-C	3.30	1713-M	26.40
3/4"	15/16"	19/64"	49/64"	3/32"	H314-F	5	1714-C	3.60	1714-M	28.00
7/8"	Fits Switch Box Knockout Hole						1714-AC	4.62	1714-AM	36.90
1	"	13/32"	19/64"	1 1/32"	5/64"	H316-F	5	1715-AC	4.95	1715-AM	39.60
1 1/8"	1 5/16"		1 1/32"	1 9/64"	3/32"			1715-BC	5.93	1715-BM	59.40
1 1/4"	1 7/16"		5/16"	1 17/64"	3/32"			1715-C	6.45	1715-M	51.60
1 3/8"	1 9/16"		13/32"	1 13/32"	3/32"			5700-C	7.13	5700-M	57.00
1 7/16"	1 33/64"		27/64"	1 15/32"	7/64"			5701-C	7.28	5701-M	58.20
1 1/2"	1 41/64"		13/32"	1 17/32"	3/32"			5702-C	9.38	5702-M	75.00

(M) G-C SNAP-IN VENTILATING PLUGS NICKEL PLATED

1" Punched Holes	H334-F	4	1709-C	$ 8.10	1709-M	$65.16
1" Screen Vent			1708-C	21.38	1708-M	170.99

Net

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GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

BOXES OF 100 Standard Carton 10 Boxes of 100

BULK HARDWARE Box of 1000

G-C SNAP-IN TRIMOUNTS

Description & Specs.	A	B	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
No. 1720 Asst. 100 Trimounts Net Price ..... $ .82 Assorted			H370-F	20				
To Fit Hole								
1/8"	9/32"	3/16"			1721-C	$1.13	1721-M	$ 9.60
1/8"	9/32"	13/64"	H373-F	25	1722-C	1.20	1722-M	9.90
.136	11/32"	17/64"			1723-C	1.38	1723-M	11.10
.136	23/64"	9/32"	H375-F	20	1724-C	1.45	1724-M	11.63
5/32"	3/16x11/32"	25/64"	H378-F	17	1726-C	1.77	1726-M	14.10
5/32"	3/16x11/32"	21/32"	H379-F	15	1727-C	1.77	1727-M	14.10

G-C DIAL CORD CLIPS NICKEL PLATED

Description & Specs. Used on Cord No.	A	B	C	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
75-75A	1/8"	7/64"	3/32"	H745-F	30				
74-74L	1/4"	5/32"	5/32"	H746-F	40	6221-C	$ .68	6221-M	$ 5.43
73-73X	3/16"	9/64"	3/16"			6222-C	.77	6222-M	6.08
						6223-C	.78	6223-M	6.30

G-C FUSE CLIPS

For 1/4" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 ($ .25) Net)	H600-F	12	6311-C	$1.85	6311-M $14.82

G-C SOLDERING LUGS TINNED

No. 1020, 100 Asst. Dlr. Net ..... $ .67 Assorted						
No. 6, 5/8" Length (A)	H100-F	30	8466-C	$1.58	8466-M	$12.63
No. 6, 23/32" Length (B)			8467-C	2.82	8467-M	22.50
No. 8, 23/32" Length (B)			8468-C	2.65	8468-M	21.15
No. 6, 23/32" Length (C)	H104-F	25	1021-BC	1.05	1021-BM	8.40
No. 8, 23/32" Length (C)	H106-F	25	7445-C	1.20	7445-M	9.57
No. 10, 23/32" Length (C)			8473-C	1.17	8473-M	9.30
No. 6, 1/2" Length (D)			5708-C	.90	2708-M	7.50
No. 8, 13/16" Length (D)			5704-C	1.68	5704-M	13.50
No. 10, 13/16" Length (D)			5705-C	1.68	5705-M	13.50
No. 6, 11/16" Length (D)	H108-F	30	1021-CC	.93	1021-CM	8.08
No. 6, 9/16" Length (E)	H112-F	30	1021-FC	.92	1021-FM	7.38
No. 8, 9/16" Length (E)	H113-F	30	7451-C	.87	7451-M	6.98
No. 6, 1" Length (F)	H114-F	25	7454-C	$ .67	7454-M	$ 5.33
No. 8, 1" Length (F)	H117-F	25	7455-C	1.85	7455-M	14.85
No. 10, 1" Length (F)	H118-F	25	7456-C	1.85	7456-M	14.85
No. 4, 13/16" Length (G)			7458-C	1.85	7458-M	14.85
No. 8, 13/16" Length (G)			7460-C	1.87	7460-M	14.88
No. 10, 13/16" Length (G)			7461-C	1.87	7461-M	14.88
No. 6, 5/8" Length (H)	H122-F	20	7462-C	1.07	7462-M	8.52
No. 8, 5/8" Length (H)			7463-C	1.07	7463-M	8.52
No. 4, 7/8" Length (E)			5706-C	1.68	5706-M	13.50
No. 8, 7/8" Length (E)			5707-C	1.68	5707-M	13.50
No. 6, 7/8" Length (E)			5708-C	1.68	5708-M	13.50
No. 6, 11/16" Length (J)	H124-F	25	7441-C	1.18	7441-M	9.45
No. 8, 11/16" Length (J)	H134-F	25	7442-C	1.13	7442-M	9.12
No. 10, 11/16" Length (J)	H102-F	25	1021-AC	1.13	1021-AM	9.12
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.65	8633-M	13.13

G-C FAHNESTOCK CLIPS NICKEL PLATED

	L	W	Hole	Wire					
Assorted					H590-F	12			
(A)	1/2"	7/32"	4	16	H592-F	15	6391-C	1.50	6301-M $13.05
(B)	3/4"	5/16"	6	14	H594-F	14	6302-C	1.73	6302-M 13.98
(C)	1 1/16"	3/8"	8	10			6303-C	2.97	6303-M 23.85
(D)	1 1/2"	5/16"	6	10			6304-C	11.02	6304-M 77.33
(E)	3/4"	5/16"	6	14			6306-C	4.03	6306-M 32.28

G-C CABLE HOLDER CLAMPS NICKEL PLATED

To Fit Cable	Mounting Hole						
Assorted		H500-F	20				
1/8" to 3/16"	No. 6	H502-F	25	6251-C	$ .98	6251-M	$ 7.83
3/16" to 1/4"	No. 6	H503-F	20	6252-C	1.12	6252-M	8.88
1/4" to 5/16"	No. 6			7503-C	1.73	7503-M	13.80
5/16" to 1/2"	No. 6	H506-F	15	6253-C	1.27	6253-M	10.13
Baseboard Clips Blk.		H509-F	20	8345-C	2.07	8345-M	16.17

G-C TERMINAL STRIP ASSORTMENT 1/16" INSULATION — 3/8" SPACING

Assorted	H250-F	4	
1 Lug		1781-C	$ 2.70
2 Lugs		1782-C	2.70
3 Lugs		1783-C	2.82
4 Lugs		1784-C	3.90
5 Lugs		1785-C	4.50
6 Lugs		1786-C	4.80
7 Lugs		1787-C	8.70
8 Lugs		1788-C	9.60

G-C COMPRESSION SPRINGS

Asst. Small	H440-F	20
Asst. Large	H441-F	15

G-C DIAL DRIVE TENSION PHONO SPRINGS STEEL CAD. PLATED

Asst. Reg. Dial Drive		
Asst. Small Dial Drive		
No. 1055 Kit of 25 Asst. Net $1.23	H401-F	8
Net $3.57		
No. 1056 Kit of 100 Asst.	H400-F	10
Asst. Lge. Tension Spgs.	H421-F	10
Asst. Sm. Tension Spgs.	H420-F	10

A	B	C	Wire Size	Old No	Part No.	Quan In Bx	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1/8"	1/2"	1/4"	.019	T1	H403-F	10	6450-C	$ 5.03	6450-M	$40.33
1/8"	1"	3/4"	.019	T2	H406-F	8	6451-C	3.78	6451-M	30.30
3/16"	1"	5/8"	.020	T3	H408-F	8	6452-C	4.23	6452-M	33.82
3/16"	1 3/8"	1"	.020	T4	H410-F	8	6453-C	4.33	6453-M	34.72
1/4"	1 1/2"	1"	.026	T5	H412-F	6	6454-C	5.60	6454-M	44.85
1/4"	2"	1 1/2"	.026	T6			6455-C	6.92	6455-M	55.35

G-C PHONO TURNTABLE MOUNTING SPRINGS

O.D.	Lgth.	Wire Size	No. of Coils				
1"x11/16"	13/16"	.079	4	7497-C	$ 3.17	7497-M	$25.35

G-C DIAL PULLEYS BRASS

A	B	C	(Groove D Wd.)				
Assorted				H1966-F			
3/8"	.120	1/8"	3/32"	6057-AC	4.62	6057-AM	36.97
7/16"	.067	13/64"	1/8"	6057-BC	6.85	6057-BM	54.88
1/2"	1/8"	3/16"	3/32"	6057-GC	8.48	6057-GM	67.93
.620	.128	.165	1/16"	6057-CC	9.35	6057-CM	74.76
.860	.128	5/32"	.050	6057-FC	16.05	6057-FM	128.34

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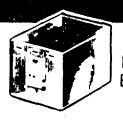
GC ELECTRONICS RADIO AND TV HARDWARE

HINGED COVER PLASTIC BOXES — 50 LINE — Dlr. Net 36c Per Box

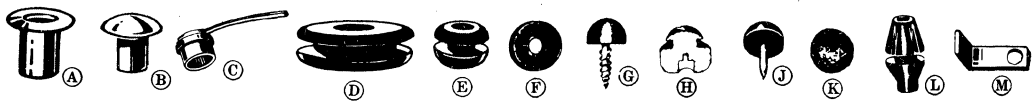
BOXES OF 100 Standard Carton 10 Boxes of 100



BULK HARDWARE Box of 1000

G-C RADIO KNOB SPRINGS

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.			H480-F	18				
TV Spring Asst.			H460-F	12				
No. 1050 Kit of 35 Springs								
No. 1051 Kit of 100 Springs								
Width	**Length**	**For Knob Shaft Dia.**						
(A) 9/32" Light	7/16"	1/4"	H482-F	20	6460-C	1.05	6460-M	$ 8.38
(B) 9/32" Heavy	7/16"	1/4"	H484-F	20	6461-C	1.10	6461-M	8.78
(C) 9/32"	5/16"	1/4"	H487-F	20	6462-C	.88	6462-M	7.10
(D) 3/8"	5/32"	1/4"	H489-F	10	6463-C	$1.18	6463-M	$ 9.40
(E) 7/32"	13/32"	1/4"			6464-C	1.85	6464-M	14.78
(F) 9/32"	3/8"	1/4"	H492-F	8	6465-C	2.35	6465-M	18.83
(G) 9/32"	1/4"	1/4"			6466-C	2.80	6466-M	22.43
(H) 9/32"	1/2"	1/4"			6467-C	1.27	6467-M	10.10
(J) 9/32"	3/8"	1/4"	H494-F	10	6468-C	1.50	6468-M	11.93
(K) 11/32"	1/4"	1/4"			6469-C	2.35	6469-M	18.83
(L) 3/8"	3/8"	1/4"	H497-F	10	6470-C	1.50	6470-M	12.02
(M) 3/8"	7/16"	1/4"	H498-F	10	6471-C	2.55	6471-M	20.40
(N) 3/8"	7/16"	3/16"	H499-F	10	6472-C	2.33	6472-M	18.68
TV Knob Spring	.202" Shaft		H462-F	10	8541-C	1.27	8451-M	10.10
TV Knob Spring 3/8" Flat Shaft			H464-F	10	8542-C	1.52	8542-M	12.08



(A) G-C BRASS EYELETS

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets			H526-F	55				
Asst. Eyelets and Clamps			H744-F	60				
Eyelet Asst.			H510-F	50				
Shank Dia.	**Length Under Head**	**Head Dia.**						
.087	1/8"	.145			7251-C	$ .28	7251-M	$ 2.27
.087	5/32"	.145			7252-C	.35	7252-M	2.85
.087	7/32"	.145			7253-C	.47	7253-M	3.20
.087	11/32"	.180			7254-C	1.08	7254-M	8.70
.123	5/32"	.197	H515-F	50	7257-C	.50	7257-M	3.98
.123	7/32"	.195			7259-C	.40	7259-M	3.20
.123	1/4"	.195			7260-C	.52	7260-M	4.15
.123	9/32"	.195			7261-C	.53	7261-M	4.25
.125	5/16"	.289			7264-C	.92	7264-M	7.30
.127	15/32"	.222			7265-C	1.12	7265-M	8.93
.182	3/16"	.315			7269-C	.32	7269-M	2.53
1/2"	3/16"	1/4"	1/16"	5/16"	5710-C	$3.80	5710-M	$30.42
1/2"	1/4"	5/16"	1/8"	3/8"	7566-C	2.45	7566-M	19.53
7/8"	9/16"	15/64"	1/16"	3/4"	5711-C	3.53	5711-M	28.27
3/4"	7/16"	1/4"	1/16"	9/16"	5712-C	5.15	5712-M	41.22
13/16"	1/2"	9/32"	1/16"	5/8"	H038-F	8 1043-IC	2.88	1043-IM 26.40
1"	3/8"	1/4"	1/16"	7/8"	7569-C	5.75	7569-M	45.93
3/4"	5/16"	11/32"	3/32"	15/32"	5715-C	6.80	5715-M	54.36
1 1/8"	5/8"	5/16"	1/16"	7/8"	5716-C	5.73	5716-M	45.90
1 3/16"	1 1/16"	3/8"	1/16"	1"	5717-C	11.55	5717-M	92.33

(B) G-C RIVETS NICKEL PLATED

Asst. Rivets and Eyelets			H526-F	55				
Rivet Assortment			H525-F	50				
TV Interlock Receptacle Rivets			H527-F	Asst.				
Shank Dia.	**Length Under Head**							
.059	5/32"				7276-C	$ .88	7276-M	$6.98
.059	3/16"				7277-C	.88	7277-M	6.98
.059	1/4"				7278-C	.58	7278-M	4.72
.088	3/16"				7280-C	.95	7280-M	7.53
.098	3/16"				7283-C	.98	7283-M	7.92
.121	1/8"				7286-C	.77	7286-M	6.20
.121	3/16"				7288-C	.60	7288-M	4.75
.121	1/4"				7290-C	.62	7290-M	4.95
.121	1/2"				7293-C	.65	7293-M	5.13
.146	5/16"				7296-C	.73	7296-M	5.82

(C) G-C GRID CAPS NICKEL PLATED

Asstd.			H609-F	8				
Glass					6291-C	$1.33	6291-M	$10.73
Metal					6292-C	1.35	6292-M	10.77
TV Spring Type, Asstd.			H610-F					
1/4" High-Voltage					8838-IRC	3.80	8838-IRM	30.35
3/8" High-Voltage					8838-2RC	3.97	8838-2RM	31.75
1/4" Insulated High-Voltage			H612-F	1	8834-C	25.13	8834-M	228.96
3/8" Insulated High-Voltage			H614-F	1	8835-C	25.13	8835-M	228.96

(D) G-C RUBBER GROMMETS

Asstd. Soft Grommets			H025-F	15				
No. 1040 Kit of 50 Asstd. Grommets Net **$.75**								
A	**B**	**C**	**D**	**E**				
11/32"	1/8"	3/16"	1/16"	1/4"	H030-F	16 1041-2C	$1.12	1041-2M $8.93
7/16"	3/16"	7/32"	1/16"	5/16"	H032-F	14 1041-C	1.27	1041-M 10.08
9/16"	1/4"	1/4"	1/16"	3/8"	H034-F	12 1042-C	1.68	1042-M 13.50
5/8"	3/8"	1/4"	1/16"	1/2"	H036-F	10 1043-C	1.90	1043-M 15.15

(E) G-C PURE GUM GROMMETS SOFT RUBBER GROMMETS FOR SHOCK DAMPENING. FOR MOUNTING TUNING CONDENSERS, SOCKETS, PHONO MOTORS, ETC.

Asst.					H040-F	12			
No. 7581 Kit of 100 Asst. Grommets. List $2.45									
A	**B**	**C**	**D**	**E**					
7/16"	3/16"	7/32"	1/16"	5/16"	H042-F	12	7582-C	1.62	7582-M 12.90
9/16"	1/4"	1/4"	1/16"	3/8"	H043-F	10	7584-C	2.30	7584-M 18.38

(F) G-C RADIO KNOB FELTS

3/4" O.D. x 1/4" Hole, Brown					H760-F	40	1065-C	.38	1065-M 3.22

(G) G-C RUBBER FEET — Screw Type

					H050-F	8			
O.D.	**High**								
3/8"	3/16"				H052-F	8	1075-BC	.92	1075-BM 7.30
1/2"	1/4"				H054-F	8	1075-CC	1.47	1075-CM 11.70
5/8"	5/16"				H056-F	8	1075-FC	2.22	1075-FM 17.75

(H) G-C RUBBER BUTTON BUMPERS

A O.D.	**B Height**	**C Hole**	**E Height**					
3/8"	3/8"	3/16"	3/16"			7596-C	1.43	7596-M 11.50
1/2"	7/16"	1/4"	1/4"	H058-F	8	7597-C	2.10	7597-M 16.85
5/8"	9/16"	3/8"	5/16"			7598-C	3.38	7598-M 27.10

(J) G-C RUBBER TACK BUMPERS

3/8" O.D.					H071-F	10	1075-C	1.85	1075-M 14.78

(K) G-C FELT PADS

Asstd. Felt Pads					H074-F	40			
1/2" O.D. x 1/4" Thick Felt Pads							1071-C	.30	1071-M 2.38

(L) G-C CORD STRAIN RELIEFS

Will Fit P.O.S.J. Cord					H048-F	5	6675-C	5.27	6675-M 42.11

(M) G-C ANGLES AND BRACKETS

Asstd.					H570-F	12			
A	**B**	**C**	**Hole Size**					
1/4"	3/16"	9/32"	6				6261-C	1.12	6261-M 8.97
3/8"	1/4"	9/32"	6				6262-C	1.40	6262-M 11.12
1/2"	7/16"	3/8"	6				6263-C	1.58	6263-M 12.68

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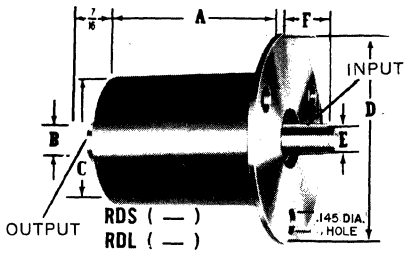
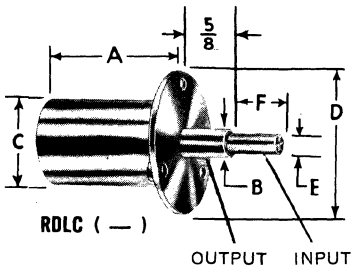
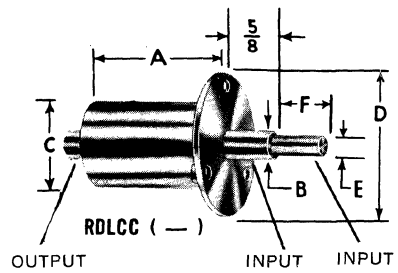
RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS







RATIO DRIVES—Ball Bearing Type

Compact, durable, exceptionally smooth action

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with **concentric** shafts whereby the output envelopes the input shaft. An added feature of type RDLCC is the output shaft in the rear. The front concentric can be used as a coarse tuning (1:1 ratio to the output in the rear) and the small diameter shaft in the front can be used for fine tuning.

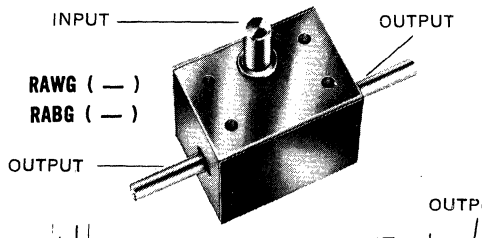
CAT. No.	RATIO	A	B O.D.	B I.D.	C	D	Input Shaft E	F	Bolt-Mtg. Dia.
RDS-1	2.70-1	3/4	—		5/8	1 5/16	1/8	—	31/32
RDS-2	7.28-1	31/32	—		5/8	1 5/16	1/8	—	31/32
RDS-3	19.65-1	1 7/32	—		5/8	1 5/16	1/8	—	31/32
RDL-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDL-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDL-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLC-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	1 1/2	1 15/32
RDLC-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLC-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLCC-1	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLCC-2	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32

RIGHT ANGLE RATIO DRIVES

Versatile, miniaturized, right angle rotary controls.

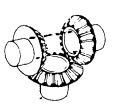
Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

JAN'S WORM GEAR RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.



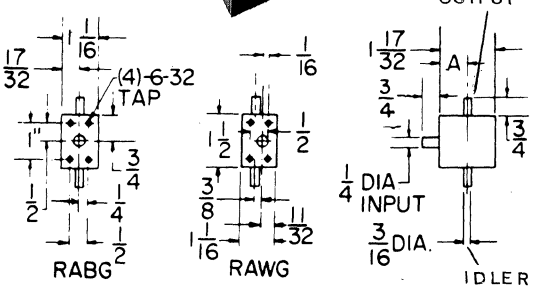
BEVEL GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RABG-1	1:1	7/8
RABG-2	2:1	7/8
RABG-3	3:1	7/8



WORM GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RAWG-1	5:1	3/4
RAWG-2	10:1	3/4
RAWG-22	12:1	3/4
RAWG-3	20:1	3/4



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JAN HARDWARE MANUFACTURING CO., INC.

LONG ISLAND CITY, NEW YORK

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JAN HARDWARE MANUFACTURING CO., INC.

LONG ISLAND CITY, NEW YORK

JACK COVERS (TRIMMER COVERS)

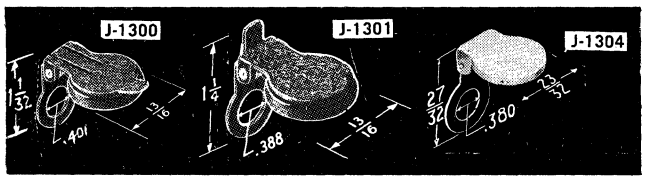
These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

NOTE: No. J-1300 (SNAP-JACK) is made with toggle action. It snaps to open or shut position and will remain open until snapped shut. No. J-1304 is a miniaturized Jack Cover similar to a No. J-1301 but without thumb lift.

J-1300 ( ) SNAP-JACK COVER (toggle type)

J-1301 ( ) STANDARD JACK COVER

J-1304 ( ) MINI-JACK COVER



To Order Colors: Specify:
(-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive;
(-4) Smooth Black. Other colors on request.
Example: Jack cover, color black wrinkle, order as J-1300(-1).

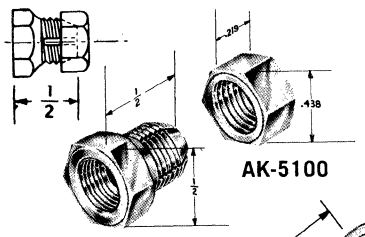
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

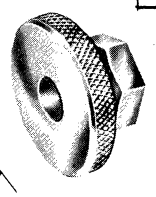
Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

SPLIT BUSHING TYPE For ¼" shafts, except AK 5103

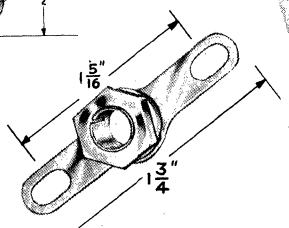
AK-5100 Standard Lock Nut
AK-5101 Panel Mount Type
AK-5102 Knurled Lock Nut (⅝" O.D. Knurl)
AK-5103 Miniature for ⅛" shafts (Not shown).
AK-5106 Knurled Shaft Lock (1" O.D. Knurl)
AK-5107 Lock Nut (Round Head)



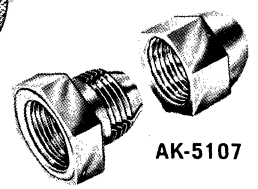
AK-5100



AK5102
AK5106

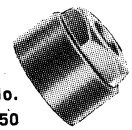


AK5101



AK-5107

NYLON SHAFT LOCK



Cat. No. AK-1050

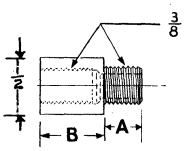
One-piece, black nylon; fits standard ⅜"-32 thread of shaft bushing. Friction grip holds ¼" shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

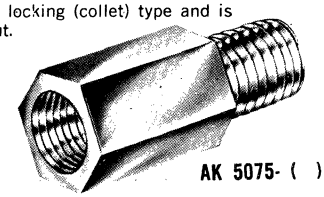
BUSHING EXTENDERS

Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having ¼" shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.





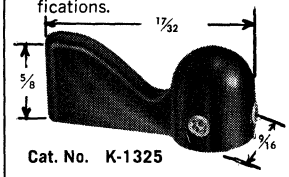
AK 5075- ( )

Cat. No.	"B"	"A"
AK5075-1	5/8"	3/8"
AK5075-2	5/8"	1/4"
AK5075-3	5/8"	3/16"
AK5075-4	3/4"	1/4"
AK5075-5	2 1/4"	1/4"
AK5075-6	1 5/8"	1/4"
AK5075-7	1 7/16"	3/16"
AK5075-8	1 1/16"	1/4"
AK5075-9	1 1/16"	1/2"
AK5075-10	1 21/64"	7/16"
AK5075-11	55/64"	7/16"

BAR-KNOB

Cat. No. AK-1325

Precision cast aluminum for ½" shafts. Furnished with twin set screws for shaft attachment. Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.



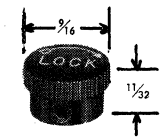
Cat. No. K-1325

KNOB LOCK

Cat. No. AK-1326

Black anodized aluminum with serrated edges for easy locking. Has twin set screws for firm attachment to ¼" shafts.

Height 5/16" x 9/16" diameter.

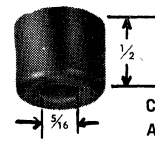


Cat. No. K-1326

CHASSIS & CABINET BUMPER Cat. No. AK574 ( )

Durable, low-friction polyethylene Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.

To Order Colors:
Black, specify (4); Brown, specify (7)
Other colors on request.

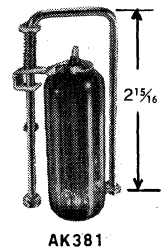


Cat. No. AK574

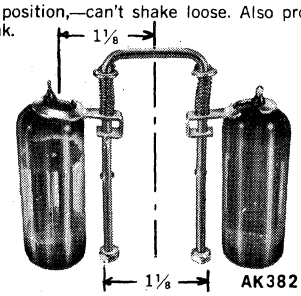
TUBE BAIL ASSEMBLIES

Positive protection against vibration and shock.
Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

Holds securely in any position,—can't shake loose. Also provides excellent heat sink.



AK381

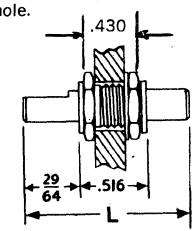


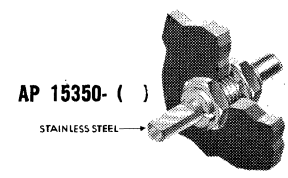
AK382

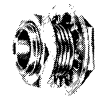
PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

Used for rotary control of components. Passivated stainless steel shaft is ¼" dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits all panels up to 3/16" thick; mounts in 13/32" dia. hole.







AP 15350

Cat. No.	Item	"L" Shaft Length
AP 15350	Panel Bearing	—
AP 15350-1	Panel Bearing & Shaft Assembly	1 3/16"
AP 15350-2		3"
AP 15350-3		6"

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HI-VOLTAGE INSULATED COUPLINGS

U.S. PATENT NO. 2,681,378

MEETS MIL SPECS: TEMPERATURE - HUMIDITY - SHOCK - VIBRATION - FUNGUS

HI-VOLTAGE INSULATED COUPLINGS

15 KV Breakdown 10 inch pounds torque

Series No. AK-5079 & No. AK-5164

Engineered with stainless steel shaft and precision, screw-driver tip molded-integrally with Mineral-Filled-Melamine in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of —75 to +175° C. Supplied complete with nickel plated mounting hardware.

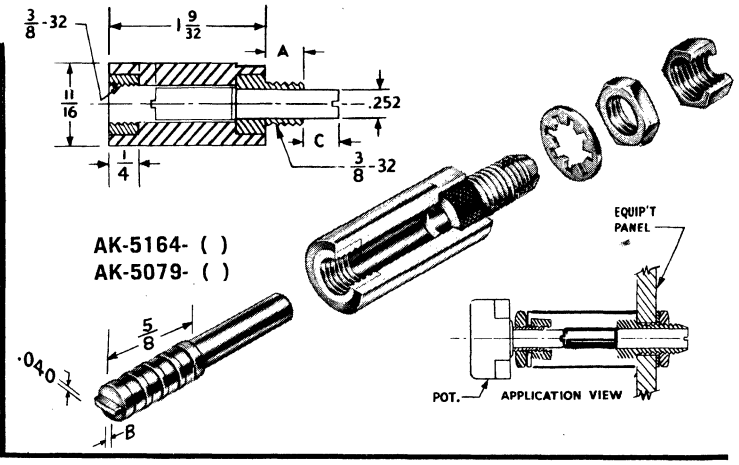
Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-5144-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5144-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5144-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5144-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5164-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5164-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5164-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-3	3/8"	3/16"	No Slot	15/16"
	AK-5164-B-3	3/8"	1/16"	No Slot	15/16"
	AK-5164-X-4	3/8"	3/16"	No Slot	1 7/16"
	AK-5164-B-4	3/8"	1/16"	No Slot	1 7/16"
	AK-5169-X-5	3/8"	3/16"	Slotted	Minus 1/16"
	AK-5164-B-5	3/8"	1/16"	Slotted	Minus 1/16"
WITH LOCKING TYPE BUSHING	AK-5079-X-1	9/16"	3/16"	Slotted	1/8"
	AK-5079-B-1	9/16"	1/16"	Slotted	1/8"
	AK-5079-X-2	9/16"	3/16"	Slotted	9/32"
	AK-5079-B-2	9/16"	1/16"	Slotted	9/32"

NOTE: Specify "X" type for use with "pots" having 1/8" long shafts and type "B" where "pot" shaft is 1/4" long.

Cat. No. 5144
10 KV Breakdown
15 inch pounds torque

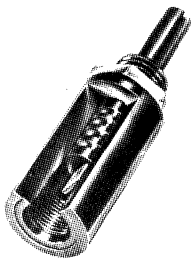
This coupling is the same dimensionally as AK-5079, AK-5164 except that the body and insulated portion of shaft is molded in reinforced fiberglass (CYMEL) per MIL Spec. MIL-M-14E to withstand a minimum of 15 inch pounds torque. Can be used for switches, where greater torque is needed.

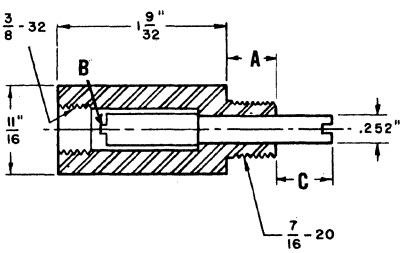


COMMERCIAL INSULATED COUPLINGS

30 KV Breakdown
10 inch pounds torque
Series No. AK-4160
For TV and Industrial Applications

These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware suppiled.



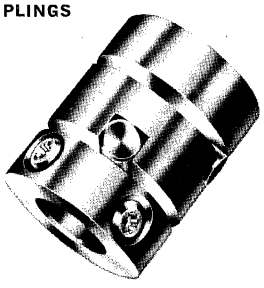


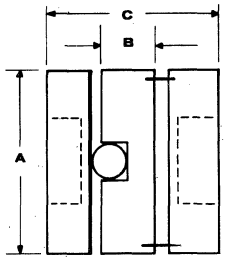
	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-4160-X-1	3/8"	3/16"	Slotted	5/16"
	AK-4160-B-1	3/8"	1/16"	Slotted	5/16"
	AK-4160-X-2	3/8"	3/16"	Slotted	7/16"
	AK-4160-B-2	3/8"	1/16"	Slotted	7/16"

AUTOLINEAR (INSULATED) SHAFT COUPLINGS

2.5 - 5KV BREAKDOWN
Universal, miniature, self-aligning
Cat. No. AP-1530 & AP-1538

A unique series of shaft couplers that accommodate either similar or dissimilar 1/8", 3/16" or 1/4" shafts. Permits offset misalignment to 1/16" and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Alodine finish.





PART NO.	DIA. HOLE	"A"	"B"	"C"
AP-1530 -2	1/8"	1/2"	15/64"	27/32"
AP-1530 -3	3/16"			
AP-1530 -4	1/4"			
AP-1538 -2	1/8"	1/2"	27/64"	1 1/64"
AP-1538 -3	3/16"			
AP-1538 -4	1/4"			

TYPICAL PART NUMBERS: **AP-1530-34**
AP-1538-22

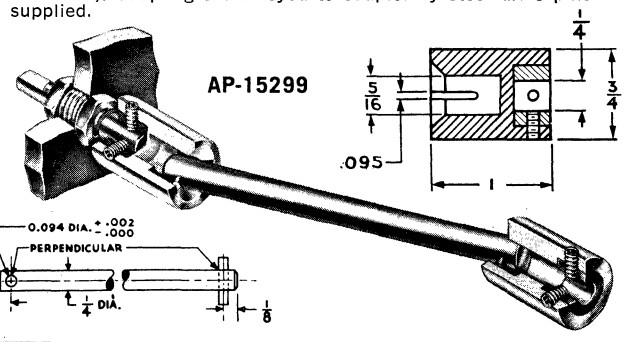
VOLTAGE RATING: **AP-1530 — 2500 VOLTS**
AP-1538 — 5000 VOLTS

OFFSET-SHAFT (INSULATED) COUPLINGS

10 KV Breakdown—±30°Offset
Cat. No. AP-15299

Highly versatile, durable insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30 degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

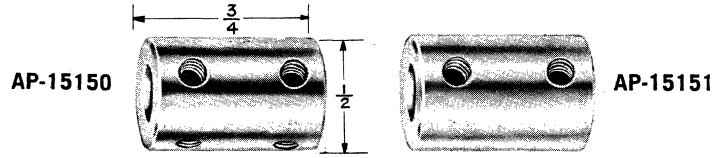
Note: Coupling is accomplished with a 1/4" shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.



SHAFT COUPLING Cat. No. AP-15150

A rugged, nickel plated brass coupling for joining two 1/4" shafts. Supplied with 4 set screws for firm attachment to shafts.

Cat. No. AP-15151 Same as above, except with 2 set screws.



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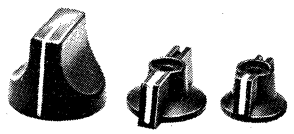
JAN HARDWARE MANUFACTURING CO., INC.

LONG ISLAND CITY, NEW YORK

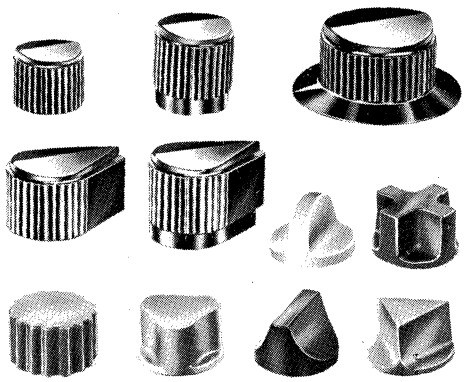


Die cast aluminum and zinc alloy knobs manufactured in accordance with applicable military specifications.

DELUXE CONTROL KNOBS

GUARANTEED TO MEET ALL PERFORMANCE CHARACTERISTICS OF MIL STANDARD 91528

A popular series of high-styled non-combustible knobs, molded from our specially formulated plastic (KR-23). Withstands thermal shocks from —75° to +85° C. Anodized aluminum insert with 2 set screws at 90° insures firm attachment to control shaft. Available with dial skirt, with plain skirt or without skirt. Finishes: Dull matte or glossy. Special colors on request.



SLIP-CLUTCH, SAFETY KNOBS

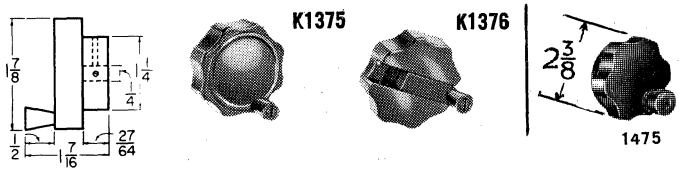
With Fixed or Retractable Spinners

Cat. No. K-1375 (For ¼" shafts)

Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch", automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

Cat. No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.

Cat. No. K-1475 Slip-Clutch knobs are designed similar to No. K-1375 except for larger dimensions and utilize cast aluminum in place of Bakelite.



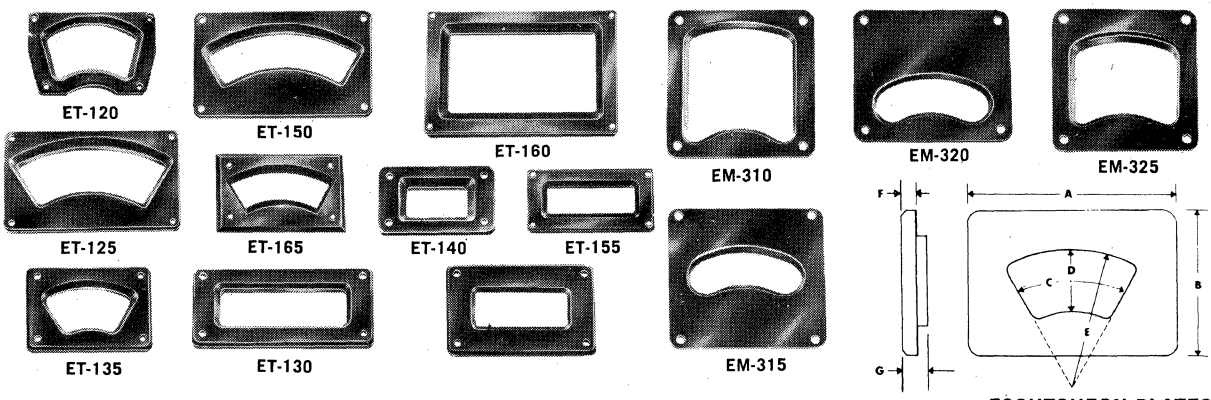
SPINNER KNOBS

With Fixed or Retractable Spinners

Cat. Nos. K-1275 & K-1276 (For ¼" shafts)

In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

ALL KNOBS CAN BE FURNISHED TO FIT ⅛" - 3/16" or ¼" SHAFTS



SPECIFICATIONS — JAN ESCUTCHEONS

Escutcheon Cat. No.	A Overall Width	B Overall Height	C Window Width	D Window Height	E Effective Outer Dial Radius	Thickness F=Face Only	Thickness G=Incl. Flange	Panel Opening Width	Panel Opening Height	Mounting Holes Width	Mounting Holes Height	Type of Dial	Material
ET-120	2 27/32	1⅞	1¾	1"	1 27/32	3/16	3/16	2 11/32	1⅜	2¾ top 2¼ bottom	1⅜		Injection
ET-125	3⅛	2 15/16	2⅞	1"	3¼	3/16	5/16	3 1/2	1½	3½	1 15/16		Molded
ET-135	2¾	1⅞	1½	⅞	1⅞	3/16	¼	1 31/32	1 7/32	2¼	1⅜	Circular	Tenite II,
ET-150	3⅛	2 5/16	2⅞	¾	3⅛	3/16	5/16	3 5/32	1 7/32	3½	1 15/16		Black Matte
ET-165	2⅝	1⅜	1 43/64	5/16	2 5/32	1/16		3 5/32	1 13/32	2 1/16	1 1/16		Finish
ET-130	4	1 13/16	2¼	1 3/16	—	3/16	¼	2 13/32	1 11/32	3½	1 5/16	Flexible Tape,	Injection
ET-140	2½	1½	1¼	⅝	—	⅛	5/16	1 17/32	1 7/32	2	1	Digital	Molded
ET-145	3¼	2 1/16	1 15/16	¾	—	5/32	5/32	2 13/32	1 7/32	2¾	1 5/16	Counter,	Tenite II,
ET-155	2½	1 3/16	1 1/16	½	—	5/32		2 5/32	2 5/32	2¼	1 5/16	Cylinder	Black Matte
ET-160	3⅞	2½	2 15/16	1 5/8	—	⅛	⅛	2 21/64	2 1/32	3 5/8	2¼	or Drum	Finish
EM-310	3	3	2 1/16	1 13/16	2 9/16	1/32	¼	3 11/32	2½	2½	2½	Helical	Soft Aluminum
EM-315	3¼	3	2¼	⅝	2 1/16	1/32	⅛	2 13/32	1 15/64	2¾	2⅝	Circular	with Black
EM-320	3¼	2¾	2¼	⅝	2 1/16	1/32	⅛	2 29/64	1¾	2¾	2¼	Circular	Matte Enamel
EM-325	3	3	2 1/16	1½	2 5/16	1/32	¼	2 11/32	1 61/64	2½	2½	Helical	Finish

* **To Order** specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

ESCUTCHEON PLATES

For Elegant Framing of Panel Openings

NON INFLAMMABLE

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.

Plastic escutcheons are available in the following ways: frame only; frame with clear window; frame with clear window scribed with a center line.

For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy.

Withstands temperature shock —65° to +85°C.

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WHERE INTEGRITY COSTS NO MORE

JAN HARDWARE MANUFACTURING CO., INC.

LONG ISLAND CITY, NEW YORK

JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA — Bench Model No. 1001 — Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range-30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA — Bench Model No. M-500 — Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range —200 to 1000 G at 1.0 millisecs. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 50 to 5000 G at .2 to 11.0 millisecs. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisecs to 5000 G.

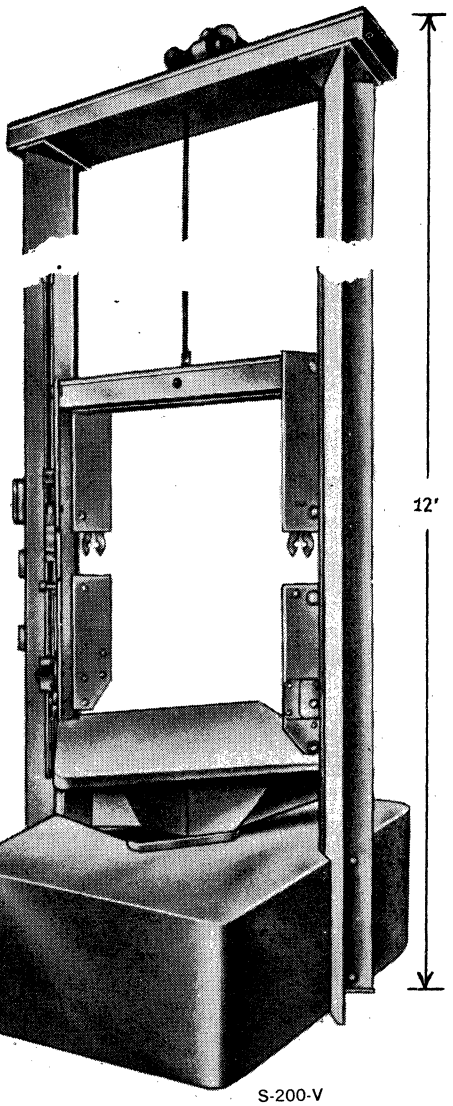
Note: New design allows for quick changeovers of accessories.

FEATURES

- **Economical**
- **Simple to operate**
- **Rugged**
- **Uniformly accurate**

JOLTA UNIVERSAL SHOCK TESTERS
No. S-200-V

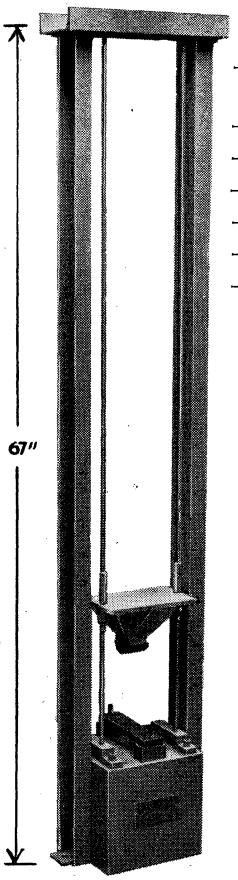
A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisecs.



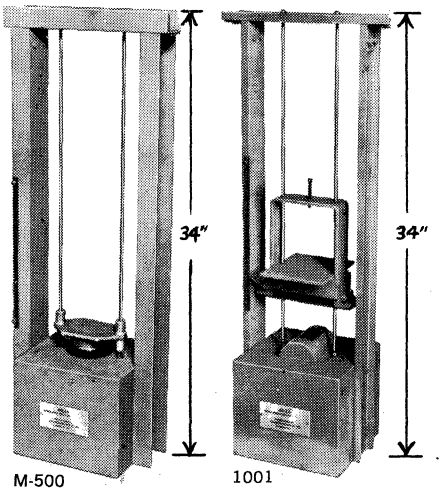
S-200-V

SPECIFICATIONS — JOLTA SHOCK TESTERS

Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	5" x 5" x 7"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250



F-3003-C



M-500 1001

Free engineering services available to customers where adaptation or conversion of standard machines are needed to meet Mil. Spec. changes or other special needs.

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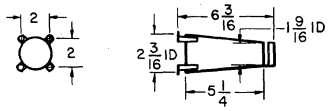
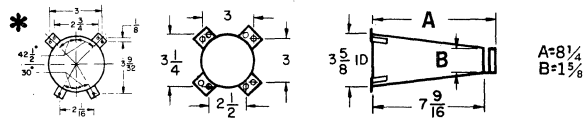
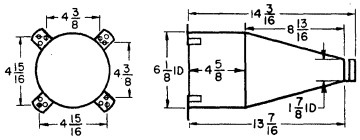
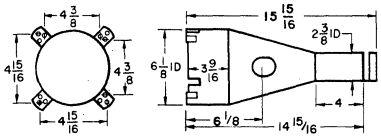
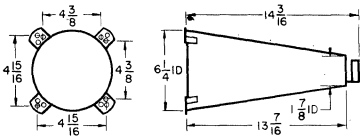
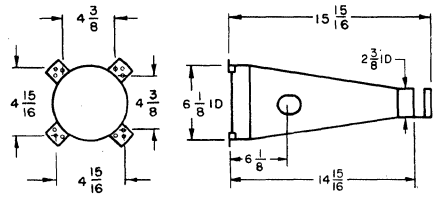
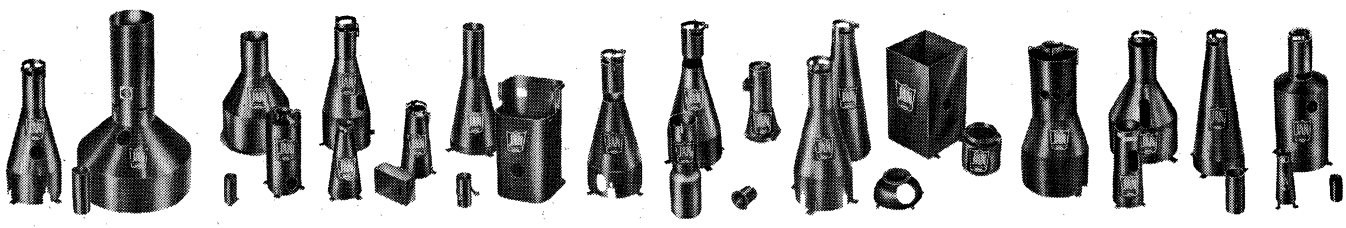
JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields.

In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S2001 **S2001-1**	902 2AP 2BP	CP1110 P2	
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428✱	3RP 3RPA	CP1328-P-1 CP1427-1 CP1429-1 CP1328-P2 CP1427-2 CP1429-2	 A=8¼ B=1⅝
S3002	3MP	Same as S3003	Same as S-3001 except A=7¾₆ B=1⅝
S3003 **S3003-1**	3KP 908A 3AP	CP1328-P1 CP1427-1 CP1429-1	Same as S-3001 except A=10⅛ B=2
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428✱	3BP 3JP 3ACP	Same as S3003 Same as S3005	Same as S-3001 except A=8⅝ B=2⅜
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428✱	3WP	CP1328-P2 CP1427-2 CP1429-2	Same as S-3001 except A=10⅝ B=1⅞
S5001	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1	
S5002 adaptable for edge-lighting	5BP 5CP 5ABP 5ADP	Same as S5001 Same as S5006	
S5003	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1	
S5005 adaptable for edge-lighting	5AQP 5ABP 5ADP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	



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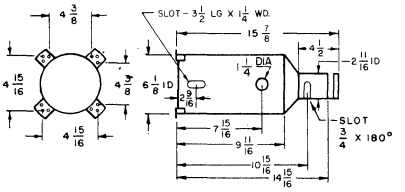
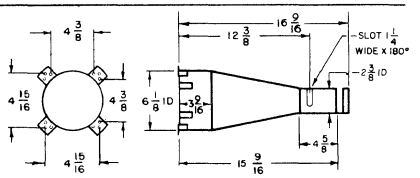
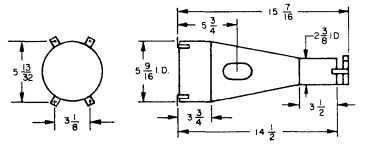
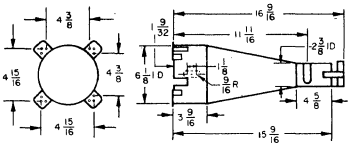
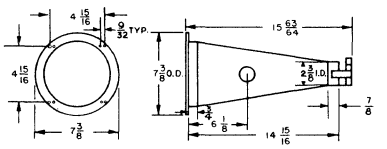
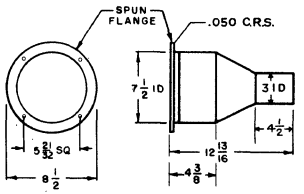
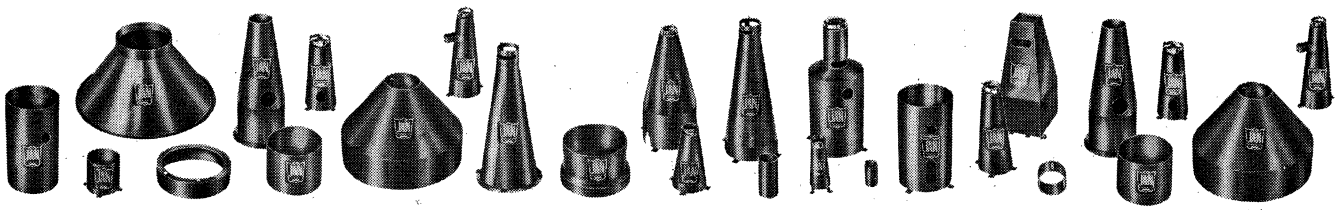
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S5006 adaptable for edge-lighting	5RPA 5 AWP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2 CP19636-2	
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2 CP19636-2	
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2	
S5019	5BGP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	
S5021	5AQP 5ABP 5ADP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	
S7001	7GP 7JP 7VP	CP7330 CP7375 CP7331 CP7550 CP7420	
S7002	7CP 7BP	Same as S7001	Same as S 7001, except anode opening provided

All 5" Shields have mounting provisions for edge lighting, except #5021

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. JAN will design and manufacture special Shields & Bezels to customers' specifications. Complete facilities for prototype work.



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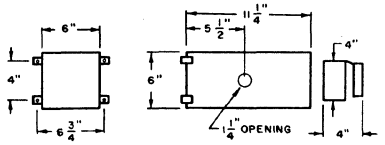
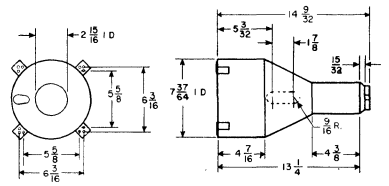
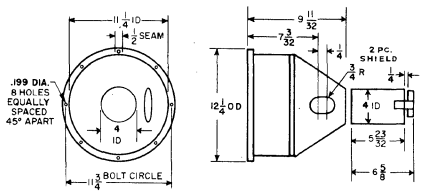
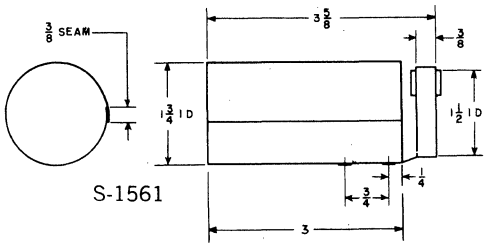
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S7003 (Shield supplied as two separate sections)	7YP3	CP-7550	
S7006	7AEP	CP7330 CP7375 CP7331 CP7550 CP7420	
S10001	10WP	CP10860	

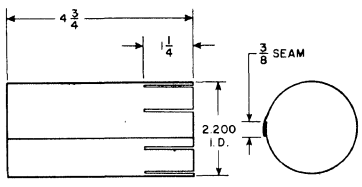
When ordering, be sure to specify CRT type number. Anode openings provided, where required.

MAGNETIC SHIELDS FOR PHOTO-MULTIPLIER & SPECIAL PURPOSE TUBES

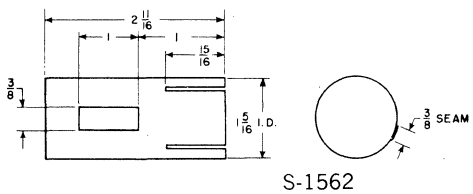
SHIELD	TUBE
S-2003	6903
S-2004	5819 6217 6292 6342 6571 6655
S-2005	6372
S-3015	1197 6363
S-5013	1112
S-5018	1198 6364
S-7009	1238 1287
S-1091	ICP1
S-1181	929 930 5581 5653 IP39 IP40
S-1500	6291
S-1561	6199 7102
S-1562	931 6323 6328 IP21 IP22 IP28
S-1563	1EP1
S-2002	6810 7264



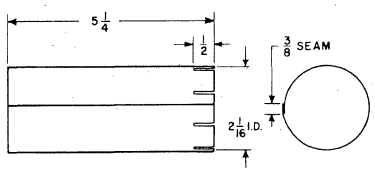
S-1561



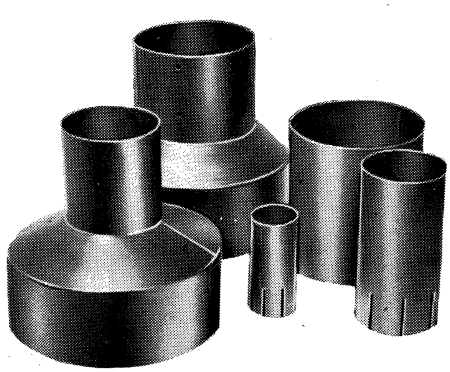
S-2004



S-1562



S-2002



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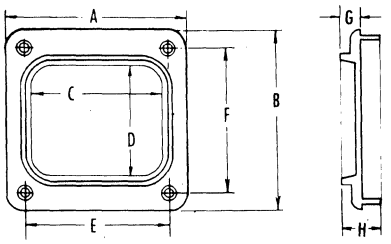
JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a bezel, calibrated graticule, (where applicable) light filter and CRT cushion. Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

Edge-lit Bezels (E.L.B.A.)** These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.

Camera Mount Bezel These units provide an integral cast mounting flange that fits all standard 3", 5" and 7" CRT cameras.

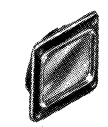


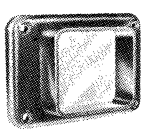
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C D Visible Area (Bezel) Width	Height	E F Mounting Holes Width	Height	G- H- Thickness (Face Only)	(Incl. Flange)	Visible Area (Cushion) Height	Width
BEZELS FOR 2" C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 3/16"	2 5/8"	2 5/8"	1 3/4"	1 3/4"	2"	2"	5/16"	7/16"	1 3/4"	1 3/4"
BEZELS FOR 3" C.R.T.														
CP-1220-P‡	Curved or Flat	Plastic*	Camera Mount	—	4 7/8"	3 1/4"	2 3/4"	2 1/4"	4"	2 1/2"	5/16"	1 1/16"	—	
CP-1328-P-1 CP-1328-P-2	Curved Flat	Plastic*	Standard	3 33/64"	3 3/4"	3 3/4"	2 5/8"	2 3/16"	3"	3"	3/8"	4 5/64"	2 1/2"	2 1/16"
CP-1427-1 CP-1427-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	27/32"	—	2 25/32" Dia.	
CP-1428-1** CP-1428-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	27/32"	—	2 25/32" Dia.	
CP-1429-1 CP-1429-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	27/32"	—	2 25/32" Dia.	
BEZELS FOR 4" C.R.T.														
CP-1533-P‡		Plastic*	Camera Mount	3 1/32"	4 3/8"	3 63/64"	3"	.3"	4"		1 3/32"	1 3/32"	No Cushion	
BEZELS FOR 5" C.R.T.														
CP-13549-1 CP-13549-2	Curved Flat	Aluminum	Standard	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	1 3/32"	4 1/4"	3 3/16"
CP-13584-1 CP-13584-2	Curved Flat	Aluminum	Camera Mount	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	1 3/32"	1 23/32"	4 1/4"	3 3/16"
CP-13595-1** CP-13595-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	—	4 3/4" Dia.	
CP-1465 CP-1465-2	Curved or Flat Flat	Steel	Camera Mount	5 9/16" 5 17/32"	6 3/8" Dia.		5 35/64" Dia.		6"	6"	7/8"	7/8"	No Cushion 4 1/2" Dia.	
CP-19495-1** CP-19495-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	5 1/4" Dia.		4 15/16"	4 15/16"	1 3/32"	—	4 3/4" Dia.	
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 5/16"	5 7/8"	5 7/8"	4 1/2" Dia.	3"	4 7/8"	4 7/8"	1 1/4"	—	4 1/2" Dia.	

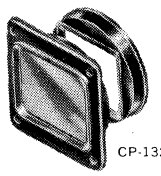
* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

‡ Rectangular C.R.T.


CP-1110-P-2


CP-1220-P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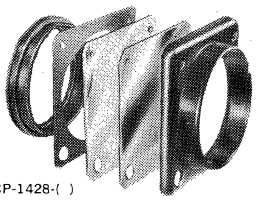
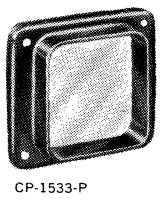
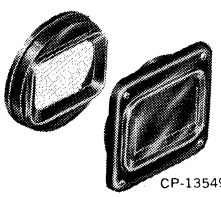

CP-1428-( )


CP-1533-P

CP-1427 } Same as 1428, except for mounting holes
CP-1429 }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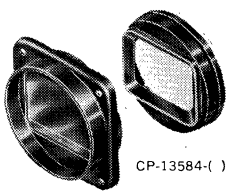
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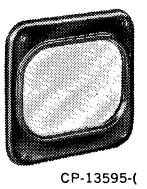
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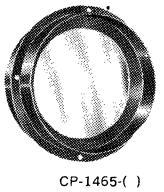
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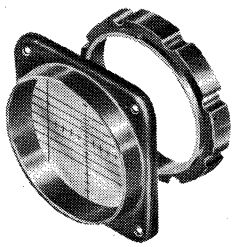
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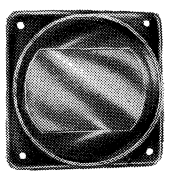
CP-19636-(2)

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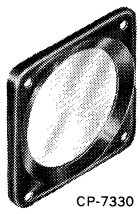
WHERE INTEGRITY COSTS NO MORE

JAN HARDWARE MANUFACTURING CO., INC.

LONG ISLAND CITY, NEW YORK

Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C D Visible Area (Bezel) Width	C D Visible Area (Bezel) Height	E F Mounting Holes Width	E F Mounting Holes Height	G- H- Thickness (Face Only)	G- H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 7″ C.R.T.														
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 13/32″	7 13/16″	7 13/16″	6 5/16″ Dia.		6 3/16″	6 3/16″	3/4″	3/4″	6 3/8″ Dia.	
CP-7375-1** -2**	Curved Flat	Aluminum	E.L.B.A.**	7 13/32″	8″	8″	4 1/2″	4 1/2″	6 3/16″	6 3/16″	1 17/32″	2 29/32″	4 1/2″	4 1/2″
CP-7420-1** -2**	Curved Flat	Aluminum	Camera Mount	7 13/32″	7 13/16″	7 13/16″	6 15/16″ Dia.		6 3/16″	6 3/16″	3/4″	1 3/8″	6 3/8″ Dia.	
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 25/32″	7 3/8″	6 1/4″	4 3/4″	4 3/4″	6 1/4″	5 1/8″	1 3/16″	1 3/16″	No Cushion	
BEZEL FOR 10″ C.R.T.														
CP-10860	Curved or Flat	Aluminum	Standard	11 1/32″	10 3/4″ Dia.		8 1/16″	6 1/4″	11 1/2″	11 1/2″	1 3/16″	1 3/16″	No Cushion	

** Edge Lit Bezel Assemblies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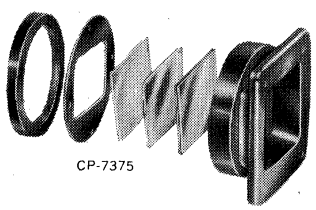
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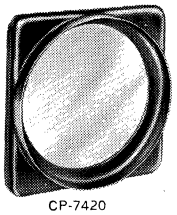
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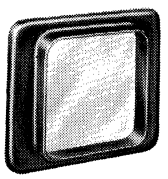
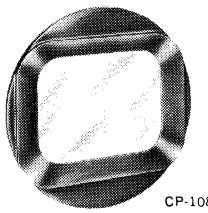
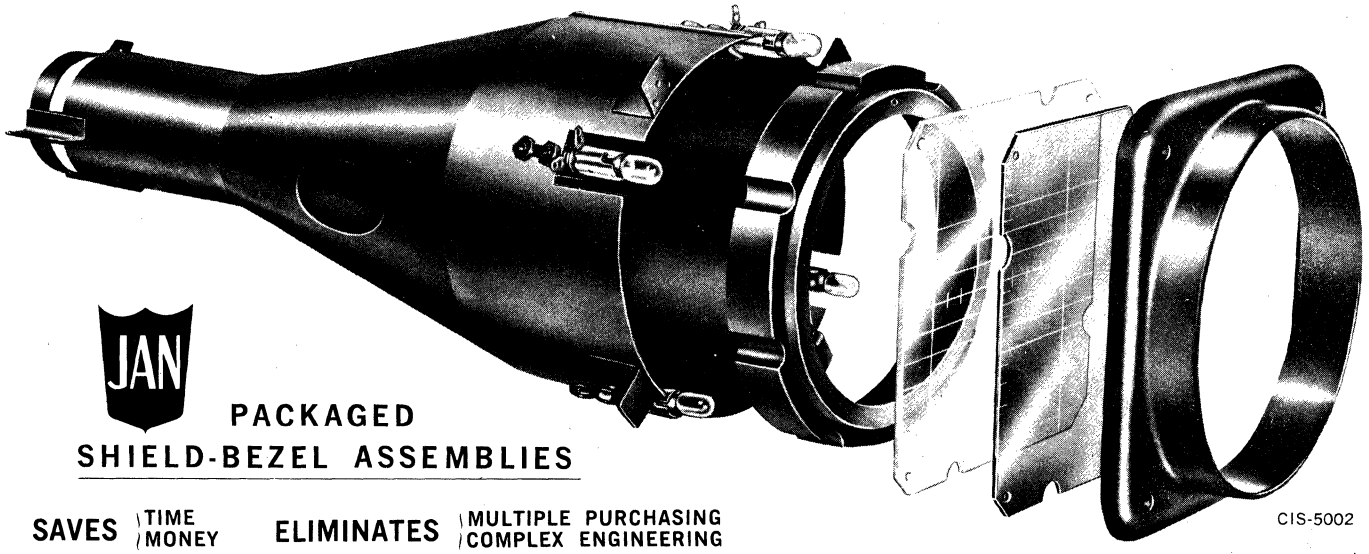

CP-7550


CP-10860

DISTINCTIVE FEATURES

- Engineered for 2″, 3″, 4″, 5″, 7″, 8″ and 10″ CRT
- Maximum display area
- Precision engraved, scale-calibrated graticules; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT


CIS-5002

JAN PACKAGED SHIELD-BEZEL ASSEMBLIES

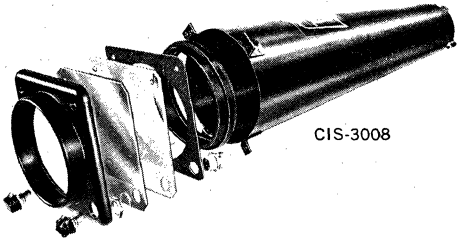
SAVES TIME / MONEY **ELIMINATES** MULTIPLE PURCHASING / COMPLEX ENGINEERING

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS } Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.

When ordering specify:

"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.


CIS-3008

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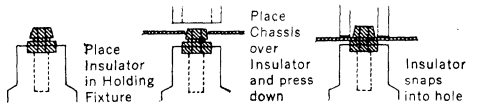
LERCO DIVISION OF MICRODOT INC.

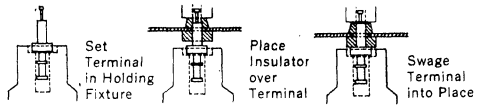
INSULATED TERMINALS

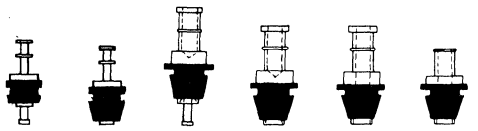
TEFLON INSULATED SNAP-LOCK TERMINALS

1 SNAP

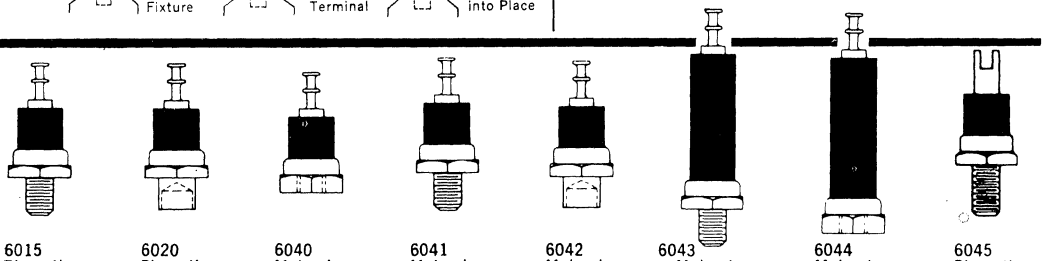


2 LOCK



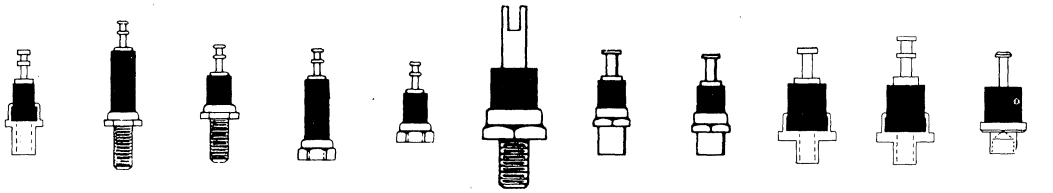


4071	4073	4075	4076	4077	4078
.095	.09	.16	.14	.11	.105

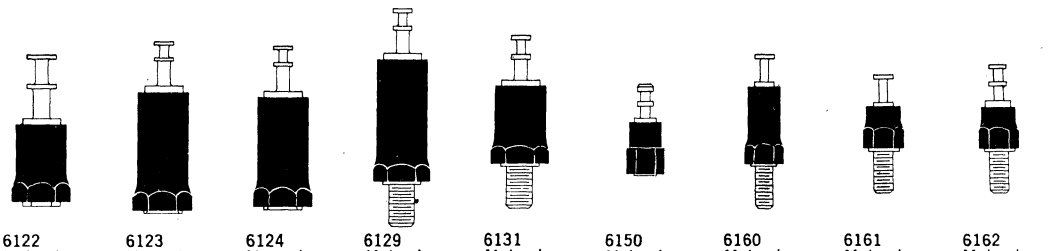


6015 Phenolic .12	6020 Phenolic .12	6040 Melamine .19	6041 Melamine .19	6042 Melamine .19	6043 Melamine .22	6044 Melamine .22	6045 Phenolic .13

MOLDED STAND-OFF TERMINALS

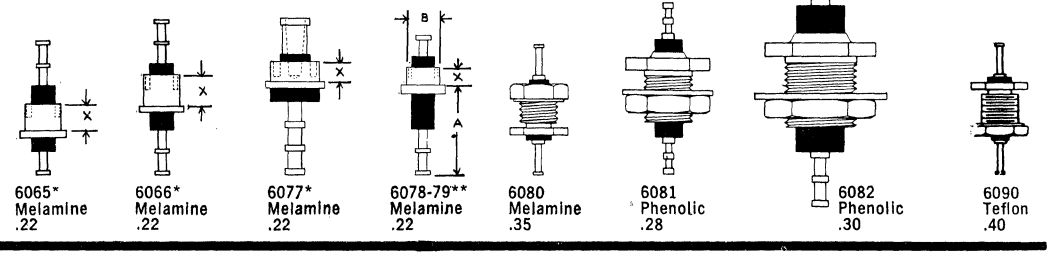


6049 Melamine .22	6050 Melamine .22	6051 Melamine .20	6052 Melamine .22	6053 Melamine .20	6054 Melamine .19	6055 Alkyd .18	6057 Melamine .17	6062 Melamine .19	6063 Melamine .21	6064 Melamine .12



6122 Melamine .18	6123 Melamine .18	6124 Melamine .18	6129 Melamine .17	6131 Melamine .17	6150 Melamine .17	6160 Melamine .16	6161 Melamine .16	6162 Melamine .16

MOLDED FEED-THRU TERMINALS



6065* Melamine .22	6066* Melamine .22	6077* Melamine .22	6078-79** Melamine .22	6080 Melamine .35	6081 Phenolic .28	6082 Phenolic .30	6090 Teflon .40

*Alternate sizes for items asterisked

Part No.	Dim. X	Thickness
-A	.075	1/32
-AB	.095	.050
-B	.105	1/16
-C	.135	3/32
-D	.165	1/8

**6078-79 Available in sizes

Part No.	Dim. A	Dim. B 6078	Dim. B 6079	Dim. X	Board Thickness
-A	.420	.173	.195	.075	1/32
-AB	.420	.173	.195	.095	.050
-B	.405	.173	.195	.105	1/16
-C	.375	.173	.195	.135	3/32
-D	.345	.173	.195	.165	1/8

ALL ITEMS SHOWN FULL SIZE

Net price shown under part number. Specify shaft length and board thickness (see next page for ordering information.

SPECIFICATIONS

Terminal material is half-hard brass with .0003" minimum silver plating unless otherwise specified. Other platings available on special order. Bases are cadmium plated brass. Tolerances: ±.005" unless otherwise specified.

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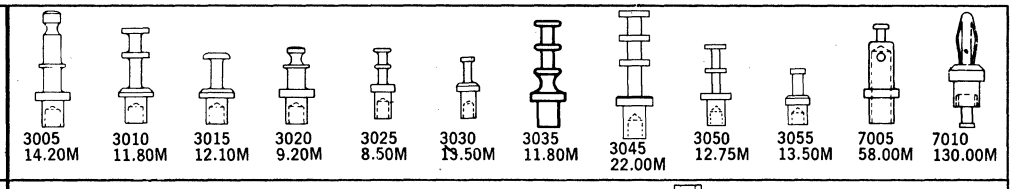
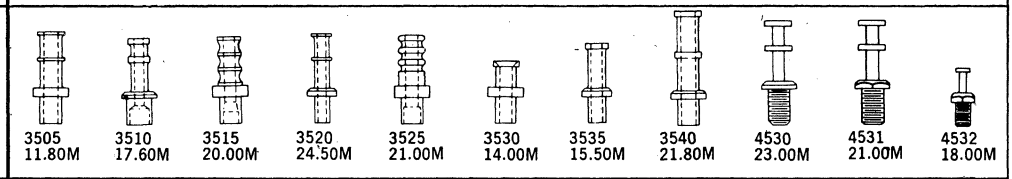
LERCO DIVISION OF MICRODOT INC.

STANDARD TERMINALS

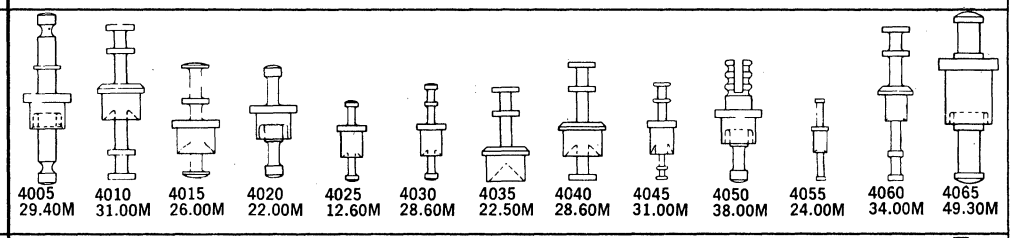
SINGLE END TERMINALS PLUG AND JACK



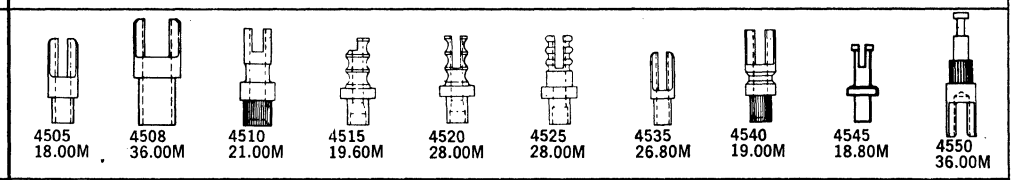
HOLLOW AND THREADED TERMINALS



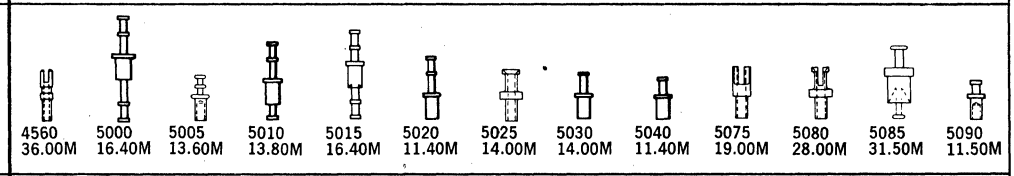
DOUBLE END TERMINALS



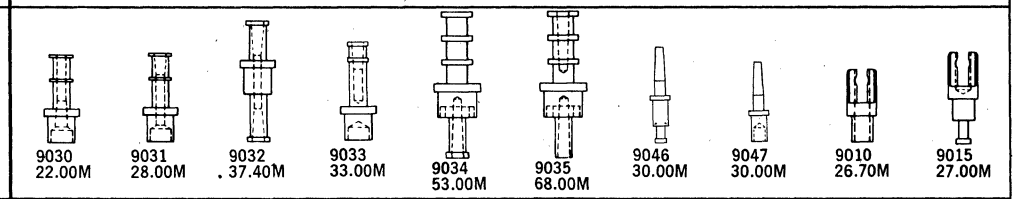
MILLED TERMINALS



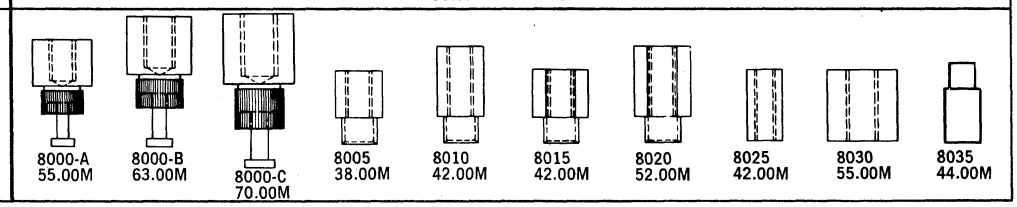
SUBMINIATURE TERMINALS



TAPER PINS (mate with AMP pins) DIODE CLIPS



MOUNTING STANDOFFS



ORDERING INFORMATION

Specify shaft length and desired board thickness by adding code letter to item number. For example, item No. 3005-B has shaft length of .105" and accommodates board thickness of 1/16"; No. 3005-C dimensions are .135" and 3/32", etc.

All items shown full size.
Net price is indicated under model number

	3000, 4000, 7000, 8000, & 9000 SERIES		5000 SERIES		6000 SERIES
	shaft length	thickness	shaft length	thickness	
A	.075	1/32	.053	1/32	Specify desired material thickness
B	.105	1/16	.084	1/16	
C	.135	3/32	.115	3/32	
D	.165	1/8	.147	3/32	

LERCO DIVISION OF MICRODOT INC.
BURBANK, CALIFORNIA

Net

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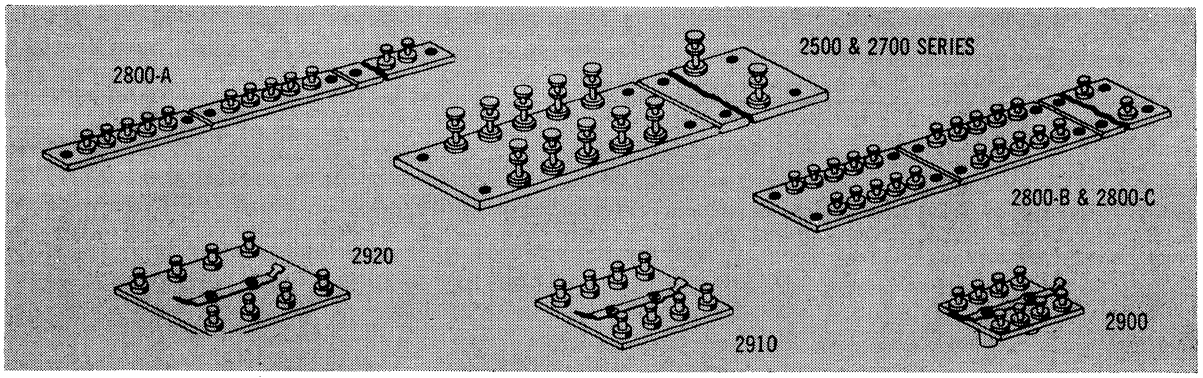
LERCO DIVISION OF MICRODOT INC.

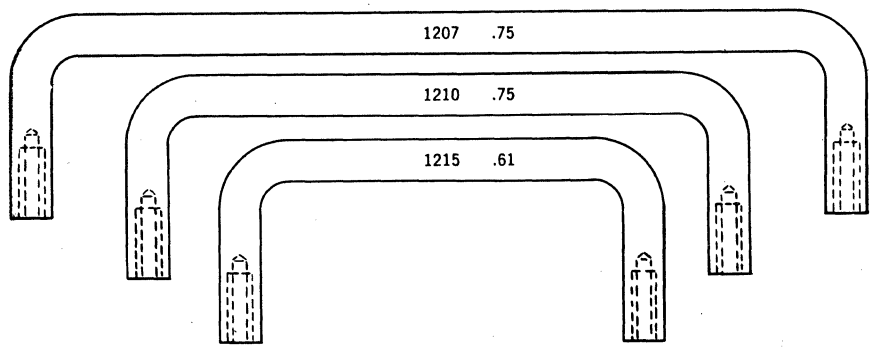
TERMINAL BOARDS, HARDWARE, HANDLES

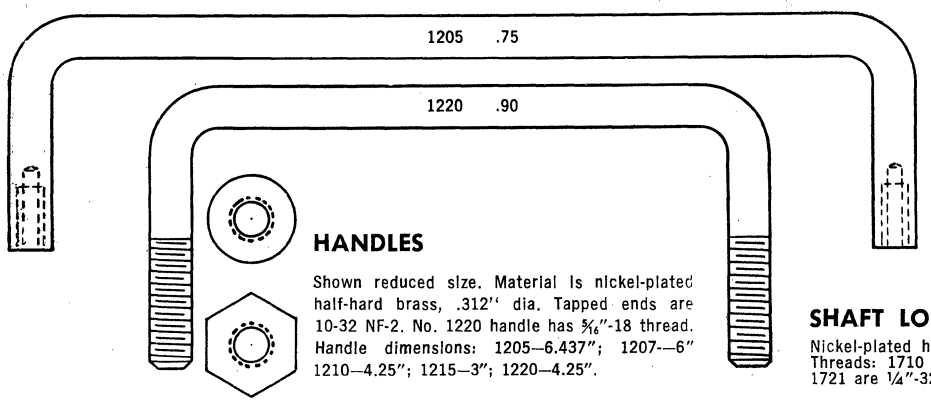


TERMINAL BOARD SPECIFICATIONS

PART NO.	2500-B	2500-C	2500-D	2600	2700-A	2700-B	2800-A	2800-B	2800-C	2900	2910	2920
LENGTH	13⅛"	13⅛"	13⅛"	13⅛"	13⅛"	13⅛"	7 13/16"	7 13/16"	7 13/16"	.875"	1.22"	1½"
WIDTH	2"	2½"	3"	½"	1/16"	1½"	.312"	¾"	1"	.719"	1.03"	1.16"
BOARD MATERIAL	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	paper base phenolic	glass melamine	glass melamine	glass melamine
NO. OF SECTIONS	5	5	5	5	5	5	5	5	5	1	1	1
NO. OF TERMINALS	50	50	50	25	50	50	25	50	50	8	8	8
TERMINAL	3010	3010	3010	3010	3025	3025	5025	5025	5025	5025	3530	3530
ALTERNATE TERMINAL	3015-3505	3015-3505	3015-3505	3015-3505	—	—	5090	5090	5090	—	—	—
PRICE EA.	2.20	2.30	2.40	1.10	1.72	1.78	1.05	2.10	2.10	.60	.65	.70

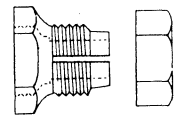
ORDERING INFORMATION—All terminal boards supplied with 3/32" material unless otherwise specified. Lerco will supply boards of any type made to customer's designs. Send blueprints for immediate quotation.



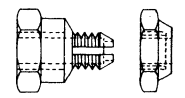


HANDLES

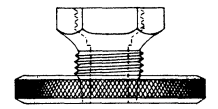
Shown reduced size. Material is nickel-plated half-hard brass, .312" dia. Tapped ends are 10-32 NF-2. No. 1220 handle has 5/16"-18 thread. Handle dimensions: 1205—6.437"; 1207—6" 1210—4.25"; 1215—3"; 1220—4.25".



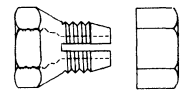
1710 Shaft Lock .17



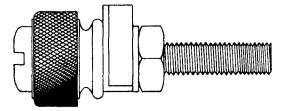
1721-1722 Shaft Lock Nut Ass'y. .17



1720 Hand-Type Shaft Lock .39



1712 Miniature Shaft Lock .17



1750 Dial Lock .30

SHAFT LOCKS

Nickel-plated half-hard brass, shown actual size. Threads: 1710 and 1720 are 3⅜"-32; 1712 and 1721 are ¼"-32; 1722 is ¼"-28.

LERCO DIVISION OF MICRODOT INC.
BURBANK, CALIFORNIA

Write for complete catalog or quotation on special orders

KEYSTONE DESIGNERS & MANUFACTURERS NEW YORK 12, N. Y.

ELECTRONIC COMPONENTS

• TERMINAL BOARDS • BATTERY HOLDERS • ELECTRONIC HARDWARE • SHAFTLOCKS • TEST LEADS

KEYSTONE BATTERY HOLDERS

These holders are designed for use in transistor assemblies, radios, Geiger counters, meters, model airplanes, etc. They feature engineered snap clips, moisture-proof fibre washers, spring-temper aluminum alloy, nickel-plated eyelets. Terminals are coated for easy soldering. Mounting holes on all holders.

STANDARD BATTERY HOLDERS

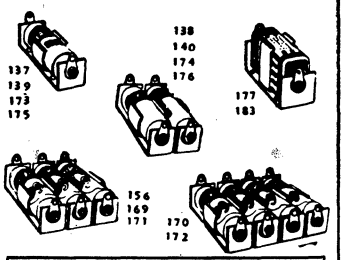
Keystone No.	Holds	Battery *	Keystone No.	Holds	Battery *	Keystone No.	Holds	Battery †
137	1 min. cell	912	185	2 "C" cells, end to end	935	167	2 15-v. cells	U10
138	2 min. cells	912				225	1 15-v. cell	Y10
169	3 min. cells	912	175	1 "D" cell	D-99	226	2 15-v. cells	Y10
170	4 min. cells	912	176	2 "D" cells	A-100	164	1 22½-v. cell	K15
139	1 pen cell	E9	186	2 "D" cells, end to end	724, 950	139	1 22½-v. cell	Y15
140	2 pen cells	E12				140	2 22½-v. cells	Y15
171	3 pen cells	E133	154	1 1½-v. cell	W468	177	1 22½-v. cell	U15
182	4 pen cells	E502	155	2 1½-v. cells	W468	178	2 22½-v. cells	U15
189	2 pen cells, end to end	915, 1015E	156	3 1½-v. cells	W468	165	1 30-v. cell	K20
			160	1 1½-v. cell	964	183	1 30-v. cell	U20
173	1 "C" cell	E233	163	1 15-v. cell	417	184	2 30-v. cells	U20
174	2 "C" cells	635	166	1 15-v. cell	411	157	1 30-v. cell	Y20
						134	1 30-v. cell	Y20S

*Eveready type that fits (will take Burgess equal) †Burgess type that fits (will take Eveready equal).

MERCURY BATTERY HOLDERS

Keystone No.	Mallory Battery ‡	Keystone No.	Mallory Battery ‡
101	RM-1R	132	TR-163R
103	RM-3R	109	TR-164R
104	RM-4R	110	TR-165R
139	ZM-9	173	TR-233R
139	RM-12R	111	TR-400R
175	RM-42R	154	RM-401R
113	TR-113R	112	RM-450R
114	TR-114R	139	RM-502R
132	TR-115R	116	RM-601R
132	TR-132R	117	RM-625R
139	TR-133R	118	RM-640R
134	TR-134R	119	302351M
135	TR-135R	120	302478M
189	TR-136R	121	302642M
154	TR-152R	122	302435M
106	TR-153R	139	302437M
113	TR-162R	173	302599M

‡Will fit other manufacturers' equivalent models

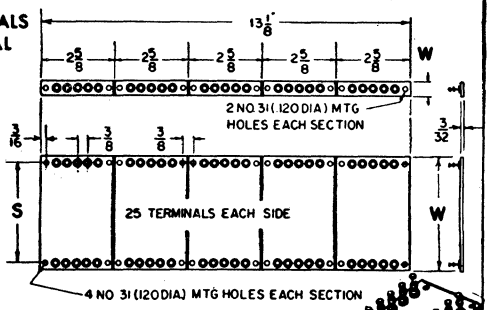


SPECIAL BATTERY HOLDERS CAN BE BUILT TO YOUR SPECIFICATIONS. WRITE FOR INFORMATION.

STANDARDIZED TURRET TERMINAL BOARDS

Cut your production cost by eliminating the tooling and setup charge usually applied to nonstandardized boards. Terminals are securely riveted and hot tinned for easy soldering. Material 3/32" thick natural bakelite to Gov't Spec MIL-P-3115B-TYPE PBE. Five 2-5/8" sections scored for easy separation. Specify #1503, 1507 or 1509 Terminal when ordering.

TERMINALS ACTUAL SIZE

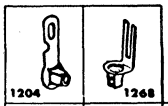


CHOICE OF TERMINALS

1503 ▼ 1507 ▼ 1509 ▼

CAT NO	CAT NO	CAT NO	W width	S ins. dim.	Total No. terminals
15031	15071	15091	½	single	25
15032	15072	15092	1 ½	1	50
15033	15073	15093	2	1 ½	50
15034	15074	15094	2 ½	2	50
15035	15075	15095	3	2 ½	50
15036	15076	15096	1 ½	1 3/16	50

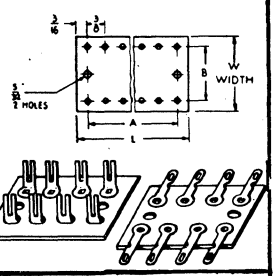
CHOICE OF TERMINALS



READI-MADE TERMINAL BOARDS

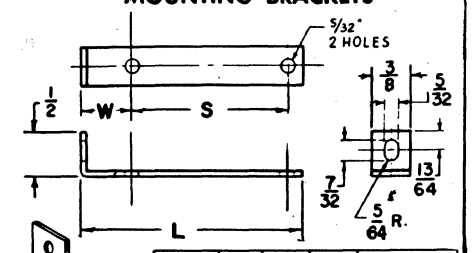
An inexpensive line of terminal boards for general use; terminals are hot tinned for easy soldering and provide a rigid mounting for resistors, condensers, etc. Material 1/16" thick bakelite

Mounting Holes Provided on all Boards



CAT NO	CAT NO	W width	L length	A mtg ctr	B dim	terminal ea side
1204-12	1268-12	1	2 1/4	1 7/8	11/16	6
1204-28	1268-28	1	5 1/4	4 7/8	11/16	14
1204-20	1268-20	1 3/4	3 3/4	3 3/8	1 7/16	10
1204-22	1268-22	1 3/4	4 1/8	3 3/4	1 7/16	11
1204-38	1268-38	1 3/4	7 1/8	6 3/4	1 7/16	19

MOUNTING BRACKETS

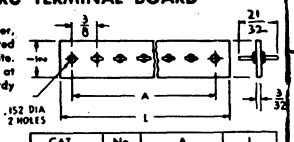


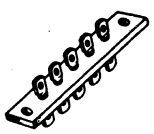
16 GA STEEL NICKEL PLATED

CAT. NO.	W	L	Y	FOR READY MADE BOARD
1567	3/8	2 1/8	1 1/2	NO. 15033
1568	3/8	2 5/8	2	NO. 15034
1569	3/8	3 1/8	2 1/2	NO. 15035
1570	9/32	1 3/16	3/4	NO. 15022
1571	9/32	1 5/8	1 3/16	NO. 15036

FEED THRU TERMINAL BOARD

Terminals made of copper, hot tinned and force fitted into 3/32" thick bakelite. Holes pierced in Terminal at each end to provide a sturdy feed thru terminal.



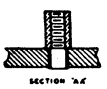


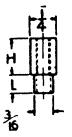
CAT No	No LUGS	A MTG CENTER	L LENGTH
1220-1	1	¾	1 ⅛
1220-2	2	1 ⅛	1 ½
1220-3	3	1 ½	1 ⅞
1220-4	4	1 ⅞	2 ¼
1220-5	5	2 ¼	2 ⅝
1220-6	6	2 ⅝	3
1220-7	7	3	3 ⅜
1220-8	8	3 ⅜	3 ¾
1220-9	9	3 ¾	4 ⅛
1220-10	10	4 ⅛	4 ½

No. 1701 SHAFTLOCK *Wrench Type*

THREADED BUSHINGS Rivet Type

BRASS NICKEL PLATED





(H) = 1/8" ABOVE PANEL

CAT. NO.	PANEL THICKNESS	L SHANK LENGTH	C THREAD
1560-A	1/16	7/64	4-40
1560-B	1/16	7/64	6-32
1560-C	3/32	9/64	6-32
1560-D	1/8	11/64	6-32

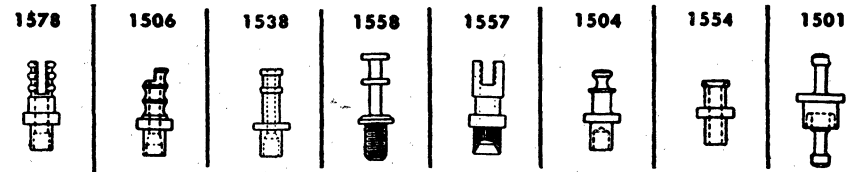
(H) = 1/4" ABOVE PANEL

CAT.NO	PANEL THICKNESS	L SHANK LENGTH	C THREAD
1546	1/16	7/64	6-32
1546-B	3/32	9/64	6-32
1546-D	1/8	11/64	6-32

(H) = 3/8" ABOVE PANEL

CAT.NO	PANEL THICKNESS	L SHANK LENGTH	C THREAD
1561-B	1/16	7/64	6-32
1561-C	3/32	9/64	6-32
1561-D	1/8	11/64	6-32

TERMINAL ILLUSTRATIONS FULL SIZE. MADE OF BRASS. AVAILABLE IN HOT TIN OR SILVER PLATE



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KEYSTONE DESIGNERS & MANUFACTURERS NEW YORK 12, N. Y.

ELECTRONIC COMPONENTS

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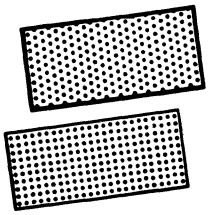
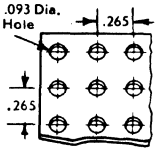
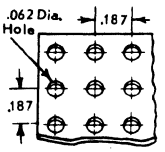
STANDARDIZED PERFORATED BAKELITE BOARDS

Time saving, economical, and permits flexibility of circuit design. Available in six popular patterns to suit most needs. Other grades of material supplied upon request. Prompt quotations assured.

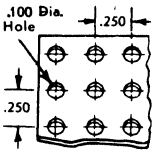




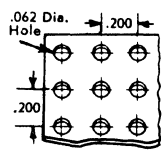
"A" PATTERN



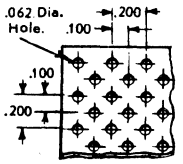
"B" PATTERN



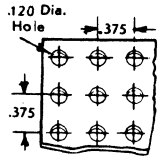
"E" PATTERN



"F" PATTERN



"G" PATTERN



"H" PATTERN

"A" PATTERN .093 Dia. holes spaced. **.265 x .265** center to center in length and width. These items available from stock in the grade xxxp Natural Color Bakelite **(Mil Spec 3115B)** 1/16" and 3/32" thick also in paper base epoxy 3/32" thick.

Catalog No.	1/16 Thick xxxp Bakelite Width	Length	No. Of Holes W x L	NET COST EACH 1-19	20-99
1731	13/16	8½	3 x 32	.30	.27
1737	1 7/8	8½	7 x 32	.46	.41
1738	2 7/16	8½	9 x 32	.48	.46
1739	4 7/8	17	18 x 64	1.25	1.13
1732	8 1/2	8½	32 x 32	1.30	1.17
1733	8 1/2	17	32 x 64	2.13	1.92
	3/32" Thick XXXP Bakelite				
1749	1 3/8	8½	4 x 32	.48	.43
1740	1 7/8	8½	7 x 32	.54	.49
1741	2 7/16	8½	9 x 32	.61	.55
1756	4 13/16	8½	18 x 32	.84	.76
1742	4 7/8	17	18 x 64	1.60	1.44
1757	8 1/2	17	32 x 64	2.70	2.43
	3/32" Thick P.B. Epoxy				
1758EP	1 3/8	1 29/32	4 x 7	.18	.16
1760EP	1 3/8	4	4 x 15	.30	.27
1759EP	1 29/32	1 15/16	7 x 7	.33	.30
1740EP	1 29/32	8 1/2	7 x 32	.75	.68
1756EP	4 7/8	8 1/2	18 x 32	1.40	1.26
1742EP	4 7/8	17	18 x 64	2.73	2.46
1757EP	8 1/2	17	32 x 64	4.90	4.50

"B" PATTERN: .062 Dia. Holes spaced **.187 x .187** center to center in length and width. Available from stock in 1/16 thick Natural bakelite **(Mil. Spec. 3115B)**

Catalog No.	1/16 Thick xxxp Bakelite Width	Length	No. Of Holes W & L	NET COST EACH 1-19	20-99
1761	1 3/8	8½	6 x 45	.39	.35
1734	1 7/8	8½	8 x 45	.46	.41
1735	2 27/32	8½	15 x 45	.53	.48
1762	5 11/16	8½	30 x 45	.84	.76
1736	5 11/16	17	30 x 90	1.62	1.46
1763	8 1/2	17	45 x 90	2.13	1.92

"E" PATTERN: .100 Dia. Holes spaced **.250 x .250** center to center in length and width. Available from stock in 1/16" and 3/32" thick xxxp grade natural bakelite **(Mil. Spec. 3115B)**

Catalog No.	1/16" Thick xxxp Bakelite Width	Length	No. Of Holes W & L	NET COST EACH 1-19	20-99
1765	2 1/8	8½	8 x 34	.46	.41
1766	3 5/8	8½	14 x 34	.62	.56
1767	8 1/2	8½	34 x 34	1.30	1.17
1768	8 1/2	17	34 x 69	2.13	1.92
	3/32" Thick XXXP				
1770	2 1/8	8½	8 x 34	.57	.51
1771	8 1/2	8½	34 x 34	1.75	1.57
1772	8 1/2	17	34 x 69	2.70	2.43

"F" PATTERN: .062 Dia. Holes spaced **.200 x .200** center to center in length and width. Available from stock in 1/16" thick xxxp natural bakelite **(Mil. Spec. 3115B)** or 1/16" thick paper base Epoxy.

Catalog No.	1/16 Thick xxxp Bakelite Width	Length	No. Of Holes W & L	NET COST EACH 1-19	20-99
1773	3 5/8	8½	18 x 42	.62	.56
1775	3 5/8	17	18 x 85	.72	.65
1774	4 7/8	8½	24 x 42	1.05	.94
1776	4 7/8	17	24 x 85	1.25	1.13
1777	8 1/2	8½	42 x 42	1.15	1.03
1778	8 1/2	17	42 x 85	2.18	1.96
	1/16" Thick PB Epoxy				
1776EP	4 7/8	17	24 x 85	2.06	1.85
1778EP	8 1/2	17	42 x 85	3.54	3.20

"G" PATTERN: .062 Dia. Holes staggered at alternate spacings of a standard **.100** grid. Mounting of "top hat" type transistors to this board is possible because transistor leads are in alignment with these holes. Available from stock in 1/16" thick xxxp natural bakelite **(Mil. Spec. 3115B)** or 1/16" thick paper base Epoxy.

Catalog No.	1/16" Thick xxxp Bakelite Width	Length	No. Of Holes W & L	NET COST EACH 1-19	20-99
1779	4 7/8	17	23 x 85	1.25	1.13
1780	8 1/2	8½	42 x 42	1.25	1.13
1781	8 1/2	17	42 x 85	2.13	1.92
	1/16 Thick PB Epoxy				
1779EP	4 7/8	17	23 x 85	2.06	1.85
1781EP	8 1/2	17	42 x 85	3.54	3.20

"H" PATTERN: .120 Dia. Holes Spaced **3/8" x 3/8"** center to center in length and width. Available from stock either 1/16" or 3/32" thick xxxp natural bakelite. **(Mil. Spec. 3115B)**

Catalog No.	1/16" Thick xxxp Bakelite Width	Length	No. Of Holes W & L	NET COST EACH 1-19	20-99
1743	1 7/8	8¼	5 x 22	.43	.39
1744	2 1/4	8¼	6 x 22	.47	.42
1782	4 1/8	8¼	11 x 22	.68	.62
1745	4 1/8	16½	11 x 44	1.20	1.08
	3/32" Thick XXXP				
1746	1 7/8	8¼	5 x 22	.55	.50
1747	2 1/4	8¼	6 x 22	.59	.53
1783	4 1/8	8¼	11 x 22	.82	.74
1748	4 1/8	16½	11 x 44	1.50	1.35

KEYSTONE ELECTRONICS CORP. NEW YORK, N. Y.

CAPTIVE NUTS AND STUDS

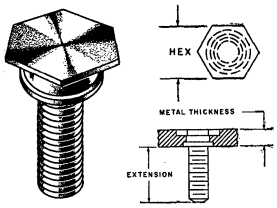
NATIONAL RADIO COMPANY, INC.
MELROSE 76, MASS.
A WHOLLY OWNED SUBSIDIARY OF NATIONAL COMPANY, INC.

CAPTIVE HARDWARE

This captive hardware is designed by National Radio Company to provide wear-resistant steel threaded inserts for use in aluminum or brass. The ease with which these inserts are applied and their reliable grip in the parent metal make them ideal for the variety of purposes which they are designed to serve. The complete line includes six basic types of captive nuts and a variety of studs, all made to conform with the following specifications:

Material — Stainless steel type 303 per MIL-S-853A (except as otherwise noted)
Finish — Passivated per MIL-P-12011 (except as otherwise noted)
Threads — 2, 4, 6, 8, 10, ¼, 5/16

Captive hardware is also available for a wide variety of metal thicknesses and an almost infinite number of extension lengths.



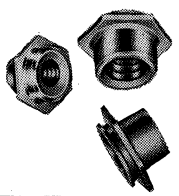
NATIONAL CAPTIVE STUDS

Provide a permanent stainless steel stud with a flush head when inserted into aluminum or brass sheet. These captive studs may be specified according to the following part numbers.

NCS	4	2	6
NATIONAL CAPTIVE STUDS	SCREW SIZE 4-40	METAL THICKNESS 1/16	LENGTH OF EXTENDED THREADS 3/16

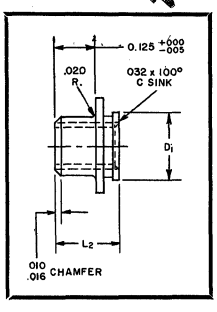
Captive studs are available in screw sizes 2, 4, 6, 8, 10, ¼/20; metal thicknesses ranging in size from .040 to ¼" with extended thread lengths of 3/16" to over 1".

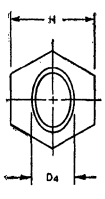
CAPTIVE NUTS—SELF-LOCKING



Captive hardware is designed by National Radio Company to provide self-locking, threaded inserts for use in aluminum or brass. The complete line includes one basic type in four sizes. Each of the four sizes may be obtained for insertion into any of five metal thicknesses. All National Radio self-locking captive nuts are made to conform with the following specifications.

Material—Stainless steel Class 303 per FED QQ-S-763b (except as otherwise noted).
Finish—Passivated per MIL-P-12011 (except as otherwise noted).
Threads—Size 4, 6, and 8—NC-2B
Size 10—NF-2B





MATERIAL THICKNESS

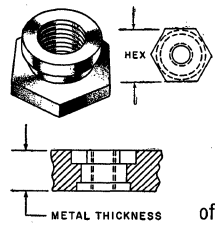
Dash No.	Material Thickness	L_2 Ref.
2	1/16	0.183
3	3/32	0.210
4	1/8	0.242
6	3/16	0.302
8	1/4	0.361

THREAD SIZE

Code	Thread Size	Hex "H"	Mtg. Hole ±.002	D_1 +.000 −.004	D_4 ±.001
4	4-40 NC-2B	1/4	0.203	0.201	0.142
6	6-32 NC-2B	1/4	0.203	0.201	0.171
8	8-32 NC-2B	5/16	0.265	0.263	0.199
10	10-32 NF-2B	5/16	0.265	0.263	0.228

WRITE FOR COMPLETE CATALOG

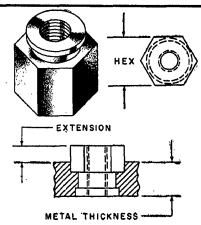
TYPE 1



For #4-40 Screws (¼" hex)
Mounting hole: .203" ±.002 Dia.

Part Number	Metal Thickness
NCN-4-1-2	1/16
NCN-4-1-3	3/32
NCN-4-1-4	1/8
NCN-4-1-6	3/16
NCN-4-1-8	1/4

This type of captive nut fits flush on both sides of aluminum or brass sheet to provide strong permanent tapped holes.



TYPE 2

The following standard Type 2 nuts have found wide use where additional threads are desired in 1/16 inch metal thickness to meet MIL-E-5400, MIL-E-164000, and MIL-P-11268.

Part Number	Screw Size	Metal Thickness	Extension Length	Mounting Hole
NCN-4-2-2-1	4-40	1/16	1/32	.203 ±.002
NCN-6-2-2-1	6-32	1/16	1/32	.203 ±.002
NCN-8-2-2-1	8-32	1/16	1/32	.265 ±.002
NCN-10-2-2-1	10-32	1/16	1/32	.265 ±.002

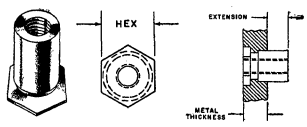
In addition, the National Radio Company supplies a wide variety of Type 2 nuts in various lengths which provide additional thread length or a hexagonal stand-off for compressive loads. These nuts may be specified according to the following part numbers.

NCN — 4 — 2 — 2 — 1

NATCO	Screw Size No.	Screw	Hex	Mtg. Hole (±.002)	Type	Metal Thickness For Insertion No.	Metal Thickness For Insertion Dim.	Extension Length No.	Extension Length Dim.
CAPTIVE NUT	4S	4-40	3/16	.161		2	1/16	1	1/32
	4	4-40	1/4	.203		3	3/32	2	1/16
	6	6-32	1/4	.203	2	4	1/8	3	3/32
	8	8-32	5/16	.265		6	3/16	4	1/8
	10	10-32	5/16	.265		8	1/4	5	....
								6	....
								..	....

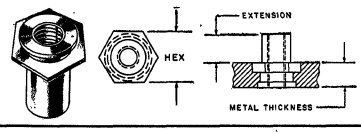
These nuts may also be provided with counterbore, to customer specification.

TYPE 3



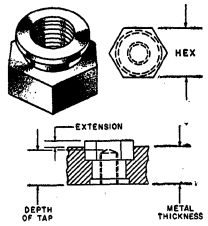
This captive nut has extra thread length for use in thin aluminum or brass panels. It may also be used as an orientation or guide device, or to provide a round stand-off pillar for tensile loads. Note that Type 3 captive nuts may also be used in metal thicknesses greater than those specified. The extended length then will be reduced by the thickness of the additional metal. For strongest insert always use the proper size.

TYPE 4



This captive nut is primarily intended for applications where extra thread length is desired, or for use as a round shank stand-off for compressive loads. These nuts may also be provided with counterbore to customer specifications.

TYPE 5



This captive nut provides a waterproof, blind hole for applications where through tap is not required. This type of captive nut is generally made to customer specification. Customer specification should include the following information:

1. Screw size
2. Hex size
3. Extension length
4. Depth and type of tap
5. Metal thickness
6. Counterbore if required

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DRIVES MECHANISMS PLUGS - GRID CAPS

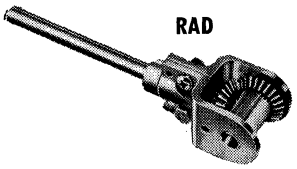
NATIONAL RADIO COMPANY, INC.

MELROSE 76, MASS.

A WHOLLY OWNED SUBSIDIARY OF NATIONAL COMPANY, INC.

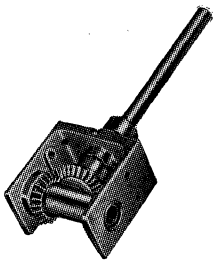
The National Radio Company offers a broad and time-proved assortment of planetary drives and vernier mechanisms, all available in regular stock. In addition, National will supply variations of these items made to customers' specifications.

RAD



The Model RAD (Right Angle Drive) is a direct-ratio unit designed for intermittent light duty. Its gears are of die-cast zinc. The housing is die-cast aluminum. Over-all length is 4½ inches. The housing is 2$\frac{1}{32}$ x 1⅛ x ⅞ inches.

PRAD



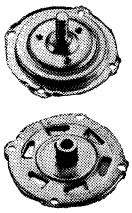
The Model PRAD (Precision Right Angle Drive) has brass gears, stainless steel shafts and bushings, bronze bearings and a die-cast zinc housing. The gears are protected by an easily removed housing cover.

PRAD capacity: Up to 50 inch-ounces at continuous low speeds, up to 100 inch-ounces at intermittent high speeds (up to 500 rpm). Backlash: less than 1½ degrees. Unloaded running torque: less than 2½ inch-ounces.

Dimensions: Over-all length: 4$\frac{9}{16}$ inches. Housing is 1⅞ x 1½ x 6$\frac{1}{64}$ inches.

NATIONAL RADIO COMPANY MECHANISMS

National Radio Company's vernier mechanisms operate on a 5-to-1 ratio and provide an output torque of one to three inch-pounds. Those listed below are stock items. Others may be supplied to meet special torque or shaft requirements.



AN and AVD

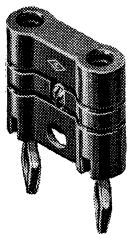
The Model AN and AVD planetary mechanisms are similar in design and construction, except that the output hub of Model AN is insulated and that of the AVD is not.

SNMK

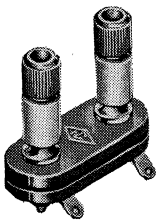
The Model SNMK is designed for rear-panel mounting. It has a brass body and steel shaft.

PLUGS AND TERMINALS

TYPE FWT PLUG



FWT plug is designed for stacking. It has a molded mica-filled case and two banana plugs on ¾-inch centers. Banana plugs are floating type for easy insertion into the FWH and FWJ terminals described below. The banana plugs are of nickel-plated spring brass and the locking screw is of nickel-plated brass. The screw may be removed to disassemble the unit. A ¼-inch hole for cable entrance is centered in the case between the wire holes at the base of the banana plugs. The wire holes accommodate up to No. 10 gage. The FWT case is 1$\frac{11}{32}$ inches wide and $\frac{19}{32}$ inch thick. Over-all length is 1$\frac{59}{64}$ inches; that of the banana plugs alone is $\frac{45}{64}$ inches.



TYPE FWH Terminal Assembly

FWH terminal assembly is composed of the FWC insulator and a pair of FWA binding posts. The posts will accept the FWT plug at the top and grip wires at the bottom. Shipped unassembled.

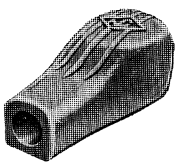


PLATE AND GRID CAPS

Types SPP-3 and SPP-9

PP plate caps are of grade L-4 steatite (spec. JAN-1-10), are available with grips of silver or tin-plated beryllium copper. Dimensions in inches.

	Length	Width	Height	Grip	Fits Wire	Tube Cap
SPP-3	1⅛	⅝	$\frac{17}{32}$	0.355	0.079	0.360 ± 0.005
SPP-9	1$\frac{15}{32}$	$\frac{13}{16}$	$\frac{25}{32}$	0.559	0.100	0.566 ± 0.007

TYPES GG-8, GG-12 and GG-24

Grid grips are manufactured in two types, three sizes and a variety of materials. GG-8 has a clip grip; GG-12 and GG-24 have a loop grip providing secure contact and easy release. Other specifications are as follows:

Grip	Cap Size	Material	Length	Height
GG-8-1	0.250±0.005	Cadmium-plated brass	$\frac{11}{16}$	¼
GG-8-2	0.250±0.005	Cadmium-plated berylco	$\frac{11}{16}$	¼
GG-8-3	0.250±0.005	Cadmium-plated brass (solder-dipped tips)	$\frac{11}{16}$	¼
GG-8-4	0.250±0.005	Cadmium-plated berylco (solder-dipped tips)	$\frac{11}{16}$	¼
GG-12-1	0.566±0.007	0.025 unplated brass	1⅜	½
GG-12-2	0.566±0.007	0.025 cadmium-plated brass	1⅜	½
GG-12-3	0.566±0.007	0.025 cadmium-plated brass (tin-dipped)	1⅜	½
GG-12-4	0.566±0.007	0.025 beryllium-copper (cadmium-plated)	1⅜	½
GG-24-1	0.360±0.005	0.018 unplated brass	$\frac{29}{32}$	⅜
GG-24-2	0.360±0.005	0.018 cadmium-plated brass	$\frac{29}{32}$	⅜
GG-24-3	0.360±0.005	0.020 unplated berylco	$\frac{29}{32}$	⅜
GG-24-4	0.360±0.005	0.020 cadmium-plated berylco	$\frac{29}{32}$	⅜
GG-24-5	0.360±0.005	0.020 silver-plated berylco (water-dipped lacquered)	$\frac{29}{32}$	⅜
GG-24-6	0.360±0.005	0.020 cadmium-plated berylco (solder-dipped)	$\frac{29}{32}$	⅜

WRITE FOR COMPLETE CATALOG

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Sealectro PRESS-FIT® TEFLON† TERMINALS

INSURED PERFORMANCE — OUTSTANDING LABORATORY SERVICE — PRECISION PARTS

SUBMINIATURE STAND-OFFS

The ultimate in space-saving terminals for subminiaturization programs. Teflon bushing diameters of the order of .148" to .218". Choice of lugs, including turrets.

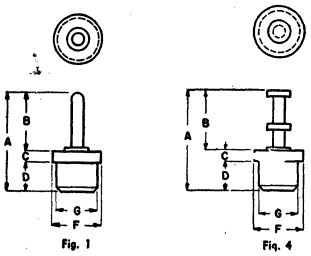
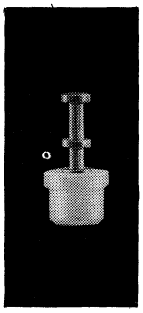


Fig. 1 Fig. 4

PART NO.	FIG.	A	B	C	D	F	G
ST-SM-1	1	.350	.210	.040	.100	.172	.148
ST-SM-1L2	1	.265	.125	.040	.100	.172	.148
ST-SM-1L4	1	.250	.110	.040	.100	.172	.148
ST-SM-1L6	1	.285	.145	.040	.100	.172	.148
ST-SM-1L10	1	.594	.450	.040	.100	.172	.148
ST-SM-2C4	1	.375	.210	.050	.110	.172	.148
ST-SM-19	1	.365	.193	.040	.132	.172	.148
ST-SM-1 TUR	4	.350	.210	.040	.100	.172	.148
ST-SM-4 TUR	4	.350	.210	.040	.100	.200	.179
ST-SM-20 TUR	4	.350	.210	.040	.100	.218	.185
ST-SM-22 TUR	4	.428	.210	.093	.125	.172	.148
ST-SM-23 TUR	4	.350	.210	.040	.100	.250	.204
ST-SM-29 TUR-C2	4	.540	.250	.040	.250	.172	.148



SUBMINIATURE FEED-THRUS

For facilitating connections through chassis or casing, in subminiaturized components and assemblies. Choice of lug designs and finishes, including hollow-tube lugs. Generous safety factor at rated voltages.

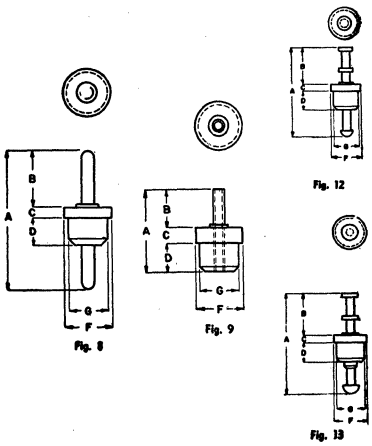
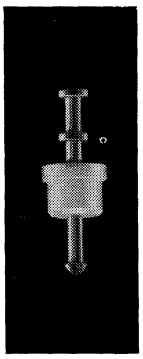


Fig. 8 Fig. 9 Fig. 12 Fig. 13

PART NO.	FIG.	A	B	C	D	F	G
FT-SM-1	8	.515	.210	.040	.100	.172	.148
FT-SM-2C4	8	.535	.210	.050	.110	.172	.148
FT-SM-2C6	8	.410	.147	.050	.110	.172	.148
FT-SM-9L2	8	.407	.125	.040	.132	.172	.148
FT-SM-52	9	.225	.125	.040	.060	.150	.125
FT-SM-55	9	.296	.136	.060	.100	.172	.148
FT-SM-60	9	.367	.207	.050	.110	.218	.171
FT-SM-1 TUR	12	.500	.210	.040	.100	.172	.148
FT-SM-16 TUR	12	.500	.210	.040	.100	.125	.093
FT-SM-21 TUR	13	.531	.210	.040	.125	.218	.185



JACKS AND PLUGS

Breakaway connectors (male and female) miniature test point jacks (female) that will accept test instrument probes or companion plugs and patch cord jumpers

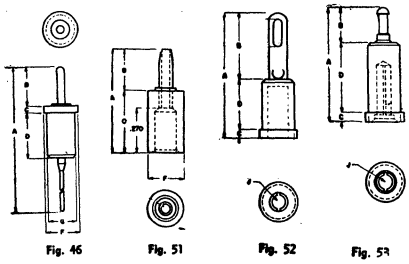
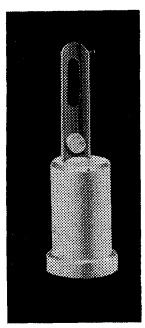


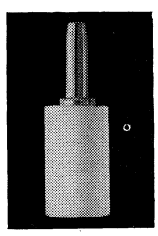
Fig. 46 Fig. 51 Fig. 52 Fig. 53

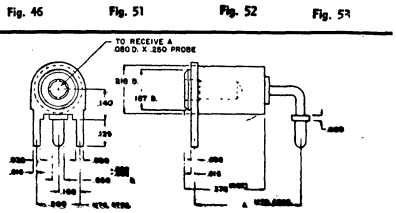
PART NO.	FIG.	A	B	C	D	J
SKT 1	52	11/16	.354	.046	.287	.050
SKT-4	52	11/16	.354	.046	.287	.041
SKT-8	52	11/16	.330	.046	.287	.080
SKT-2BC	53	7/16	.120	.046	.281	.090
SKT-5BC	53	7/16	.120	.046	.281	.080
SKT-10	53	.637	.187	.050	.400	.080
SKT-12	53	.375	.060	.046	.269	.090
SKT-13	53	.203	.060	—	.143	.040
SKT-14	53	.345	.120	.046	.179	.040
SKT-15	53	.732	.188	.157	.387	.050

Specifically designed as companion units (male) for connectors and test jacks. Used as test instrument probes, jumper plugs and multiple pin plugs.

PART NO.	FIG.	A	B	C	D	F	G
FT-M-2	46	2.083	¼	.046	.287	.218	.185
FT-M-4	46	.739	9/32	.046	.287	.218	.185
PR-300	51	.645	.270	.375	—	.218	—







PRINTED WIRING JACKS

Miniature jacks. Mount flat on printed-wiring board. Double-prong steel strap in front, connection lug at rear, fit into three holes of grid coordinate layout.

Part No. SKT-102 PC (.500" overall centers)
Part No. SKT-103 PC (.400" overall centers)

AVAILABLE IN COLORS — DESIGNED FOR COLOR CODING.

SEALECTRO CORPORATION — MAMARONECK, N. Y.

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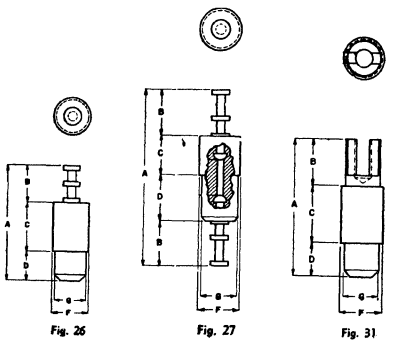
Sealectro PRESS-FIT® TEFLON† TERMINALS

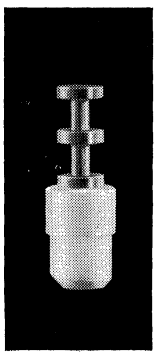
SIMPLE INSTALLATION — WIDEST STOCK SELECTION — ASSORTED LUGS AND PLATING

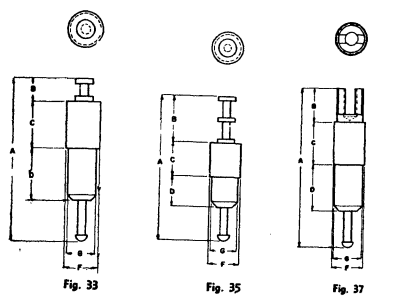


MINIATURE STAND-OFFS

Wide selection of types in voltage ratings to 4000. Choice of lugs and finishes, as well as bushings. For components and assemblies stressing higher operating voltages rather than space-saving.

PART NO.	FIG.	A	B	C	D	F	G
ST-210	26	.346	.156	.103	.087	.125	.104
ST-250	26	.431	5/32	.125	.150	3/16	.165
ST-1000	26	.493	5/32	.187	.150	3/16	.165
ST-1500	26	.556	5/32	.250	.150	3/16	.165
ST-2000	26	.831	9/32	.400	.150	3/16	.165
ST-2500	26	.968	9/32	.500	.187	1/4	.215
ST-4000	26	1.268	9/32	.800	.187	1/4	.215
DST-1000	27	.819	.210	.187	.212	3/16	.171
DST-1550	27	1.187	9/32	.250	.375	1/4	.218
DST-2550	27	1.687	9/32	.500	.625	1/4	.218
ST-250 SL	31	.478	13/64	.125	.150	3/16	.171
ST-1000 SL	31	.540	13/64	.187	.150	3/16	.171
ST-1500 SL	31	.603	13/64	.250	.150	3/16	.171
ST-2500 SL	31	.890	13/64	.500	.187	1/4	.217
ST-4000 SL	31	1.190	13/64	.800	.187	1/4	.217

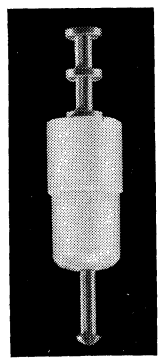




MINIATURE FEED-THRUS

Handy Feed-thru terminals with choice of lugs. Handling voltage ratings up to 4000. Wide selection of bushing diameters and lengths. Ideal for making connections through chassis or casings, with generous safety factor at rated voltages.

PART NO.	FIG.	A	B	C	D	F	G
FT-310	33	.540	.133	.063	.171	.187	.171
FT-1000	33	.740	1/8	.187	.212	3/16	.171
FT-1500	33	.865	1/8	.250	.275	3/16	.171
FT-2500	33	1.365	1/8	.500	.525	1/4	.217
FT-4000	33	1.965	1/8	.800	.825	1/4	.217
FT-1000 DTUR	35	.836	1/4	.187	.212	3/16	.171
FT-1000 SL	37	.821	13/64	.187	.212	3/16	.171
FT-1500 SL	37	.947	13/64	.250	.275	3/16	.171
FT-2000 SL	37	1.197	13/64	.375	.400	3/16	.171

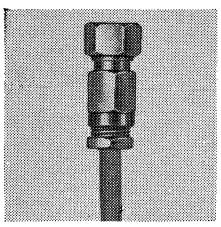


Sealectro CONHEX®

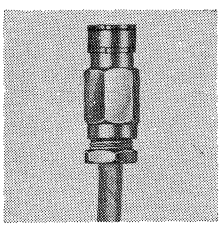
Sealectro ConheX connectors are specified and used by more and more users everyday. Their superior design and quality add up to greater dependability and performance.

Featuring . . .

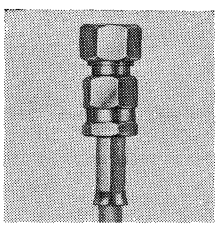
- **Extra-high pull-out strength. Stronger than the cable itself!**
- **Captivated contacts insure proper engagement of mating parts. Particularly important with short lengths of cable.**
- **Available in Cable Clamp or Cable Crimp designs. Choose the one best suited to your specific needs.**
- **Contacts soldered to center conductor of cable to insure proper electrical connection.**
- **Design prevents any distortion of cable insulation which might affect electrical characteristics.**
- **50-ohm and 75-ohm types available in Screw-on or Snap-on series, as either Cable Clamp or Cable Crimp types. 75-ohm ConheX connectors may be used with 90-ohm or 95-ohm cable with no serious impedance mismatch.**



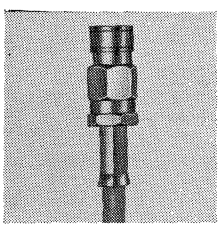
Cable Clamp type with Screw-on Connection



Cable Clamp type with Snap-on Connection

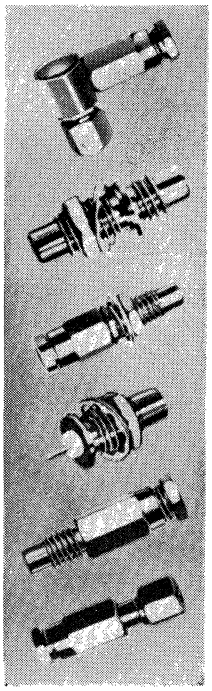


Cable Crimp type with Screw-on Connection



Cable Crimp type with Snap-on Connection

ConheX also offers a complete line of adaptors, printed-wiring fittings, bulkhead adaptors, and virtually all other type connectors required. Be sure to get your free copy of the ConheX catalog—write today. ConheX connectors are available from local stocks carried by Sealectro distributors from coast-to-coast.



SEALECTRO CORPORATION **MAMARONECK, N. Y.**

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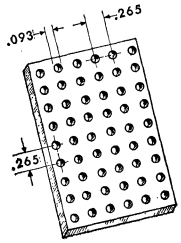
Vector Electronic Company

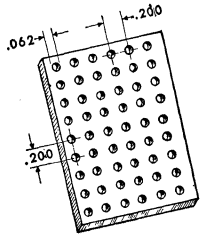
INCORPORATED

GLENDALE, CALIFORNIA

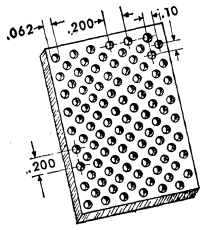
VECTORBORD



Pattern A



Pattern F



Pattern G

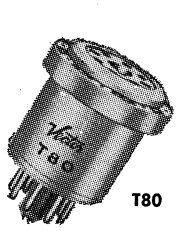
Pattern H - .10 x .10 Spacing

VECTORBORD (Pre-Punched Terminal Board) provides .093" or .062" holes at spacings on tan XXXP Phenolic (MIL-P-3115B), ivory Epoxy-Paper (MIL-P-22324), or G-10 Epoxy-Glass (MIL-P-18177). Ideal for breadboards, prototypes and some production uses. Copper-clad (2 oz.) punched boards also listed, facilitate making of etched card prototypes. May be sawed, drilled or punched.

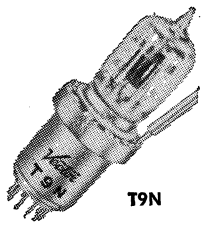
VECTORBORD TABLE OF SIZES

Cat. No.	Copper Clad	Pattern	Dimensions	No. of Holes	Price 1-19
XXXP Phenolic					
32A9	No	A	8.51 x 2.41 x 1/16	32 x 9	$ .45
32AA9	No	A	8.51 x 2.41 x 1/16	32 x 9	.60
♦ 32AA18	No	A	8.51 x 4.80 x 3/32	32 x 18	.84
42F22C1	1 Side	F	8.5 x 4.5 x 1/16	42 x 22	1.05
42F22C2	2 Side	F	8.5 x 4.5 x 1/16	42 x 22	1.32
64A18	No	A	4.8 x 16.99 x 1/16	64 x 18	1.25
♦ 64AA18	No	A	4.8 x 16.99 x 3/32	64 x 18	1.60
64AA32	No	A	16.99 x 8.51 x 3/32	64 x 32	2.45
Epoxy-Paper					
32AA18EP	No	A	8.51 x 4.80 x 3/32	32 x 18	1.40
♦ 64AA18EP	No	A	16.99 x 4.80 x 3/32	64 x 18	2.73
64AA32EP	No	A	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	No	F	16.99 x 4.80 x 1/16	85 x 23	2.06
♦ 85G24EP	No	G	16.99 x 4.80 x 1/16	2(85 x 23)	2.06
850EP-1	1 Side	F	6.5 x 4.5 x 1/16	32 x 22	1.25
850EP-2	2 Side	F	6.5 x 4.5 x 1/16	32 x 22	1.50
Epoxy-Glass					
32A18-WE	No	A	8.51 x 4.80 x 1/16	32 x 18	1.89
42G22WEC1	1 Side	G	8.5 x 4.5 x 1/16	2(42 x 22)	2.55
42G22WEC2	2 Side	G	8.5 x 4.5 x 1/16	2(42 x 22)	2.60
♦ 64A18WE	No	A	16.99 x 4.80 x 1/16	64 x 18	3.72
♦ 85G24WE	No	G	16.99 x 4.80 x 1/16	2(85 x 23)	3.81
85F42WEC1	1 Side	F	16.99 x 8.51 x 1/16	2(85 x 42)	9.33
85F42WEC2	2 Side	F	16.99 x 8.51 x 1/16	2(85 x 42)	10.25
170H48WE	No	H	17.00 x 4.80 x 1/16	170 x 47	4.07
849-1	1 Side	F	4.5 x 3 x 1/16	22 x 15	1.01
849-2	2 Side	F	4.5 x 3 x 1/16	22 x 15	1.10
850-1	1 Side	F	6.5 x 4.5 x 1/16	32 x 22	2.03
850-2	2 Side	F	6.5 x 4.5 x 1/16	32 x 22	2.21

♦ Indicates most popular sizes.



T80

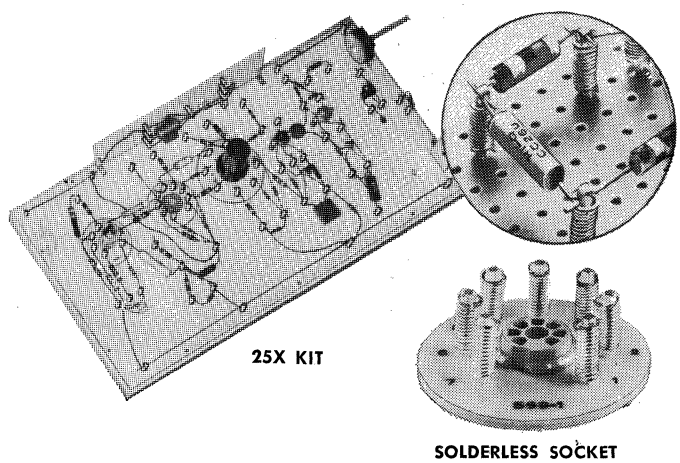


T9N

TUBE SOCKET TEST ADAPTERS are inserted between the socket and the tube and provide test tab elements for checking. Connections are wired straight thru from plug to socket. Beryllium copper socket contacts for long-life — molded tan phenolic bodies.

Catalog Number	Socket Type	Net Price 1-19
T-8-0	Octal	1.60
T-7-M	Miniature	1.65
T-9-N	Noval	1.85
T-789	Set of above three in kit	5.90
P-1	Probe for above	.39

EXPERIMENTER'S CHASSIS KITS



25X KIT

SOLDERLESS SOCKET

All kits provide epoxy-paper Vectorbord having 3/32" holes on 0.265 centers with T30 SOLDERLESS and T9.4 serrated Push-In Terminals.

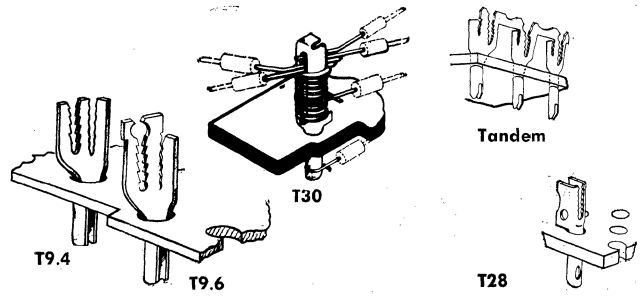
Solderless Kit 25X has 8½" x 17" Vectorbord on wood frame with 100 of each type terminal, solderless tube and transistor sockets and accessories.

KIT 21X has 4¾" x 17" Vectorbord on aluminum chassis, fifty T-30 and one-hundred T9.4 Terminals, solder lug tube and transistor sockets and accessories. Kits 20X and 22X have 4¾" x 8½" board on aluminum chassis. Twenty T-30 and seventy-five T9.4 Terminals and accessories. #20X has tube sockets and #22X has transistor solder lug sockets.

TABLE FOR EXPERIMENTER KITS

Cat. No.	Description	Net Price 1-19
20X	4¾" x 8½" Deck, Tube Skts.	$ 6.25
21X	4¾" x 17" Deck, Tube & Trans. Skts.	15.25
22X	4¾" x 8½" Deck, Trans. Skts.	10.50
25X	8½" x 17" Deck, Solderless Tube & Trans.	19.50
567-1C	Solderless Octal Sockets	1.50
568-1C	Solderless Noval (9 P.) Sockets	1.65
569-1C	Solderless Min. (7 P.) Sockets	1.35
570-B	Solderless Transistor (Univ.) Socket	1.20

VECTOR PUSH-IN TERMINALS



VECTOR PUSH-IN TERMINALS simplify "breadboarding" and production. Push them into .062 or .093 holes in 1/16" or 3/32" Vectorbord panels and they hold without staking. (May be staked if desired for maximum holding.) Each terminal has serrated slots to grip inserted wires. Large slot accommodates most resistor and capacitor wires, small slot holds transistor leads. The T9.6 also has special slot to accommodate diodes. All types have thru-hole construction enabling riser wires to be inesrted down through center of terminal, and slot or hole in shank end for additional connections.

SOLDERLESS SPRINGCLIP TERMINALS—Reliable, truly solderless terminal for experimental circuitry. Holds up to six leads without soldering. May be used over and over—permits reusing expensive components. Packaged in bags of 10 and 100.

Cat. No.	Fits Holes	Description	Quantity Per Bag	Net Price 1-19 Bags
T9.4	.093"	Brass, Fused Tin Pltg.	100	$1.25
T9.6	.093"	Beryllium Copper, Fused Tin Pltg.	100	2.10
T28	.062"	Beryllium Copper, Fused Tin Pltg.	100	1.55
P91		Inserting Tool for T28 Terminal	1	.50
T30	.093"	Solderless Springclip, Silver Pltg.	10	1.20
T30N	.093"	Solderless Springclip, Nickel Pltg.	10	1.15
P92A		Inserting Tool for T30 & T30N	1	.50
P92B		Spring Depressing Tool for T30 & T30N	1	.25
T9.62	.093"	Two T9.6 in Tandem	25	1.22
T9.63	.093"	Three T9.6 in Tandem	25	1.75
T9.64	.093"	Four T9.6 in Tandem	25	2.27

Net

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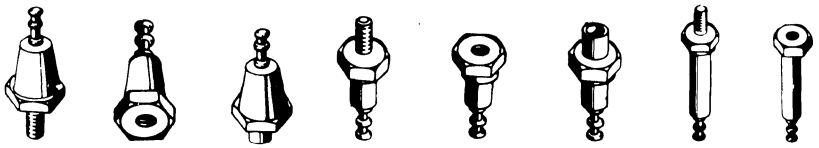
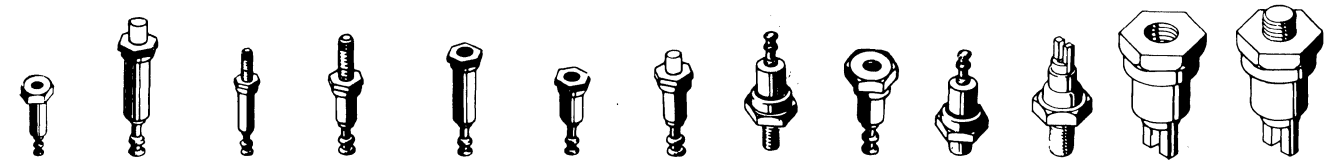
STANDARDIZED
ELECTRONIC HARDWARE

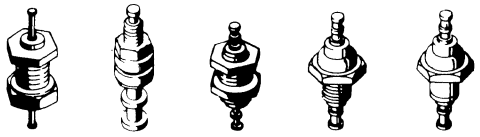
INSULATED TERMINALS



1400 1418 | 1401 1417 | 1409 | 1410 1419 | 1411 | 1413 | 1421 | 1422



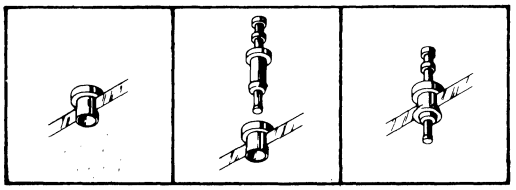
1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1450, 60,70, 80,90 | 1451, 61,71 81,91 | 1452, 62,72, 82,92 | 1455 65,75, 85,95 | 1456, 66,76, 86,96 | 1457, 67,77, 87,97



1432 | 1433, 34,35 36 | 1483 | 1484

Feed-Thru

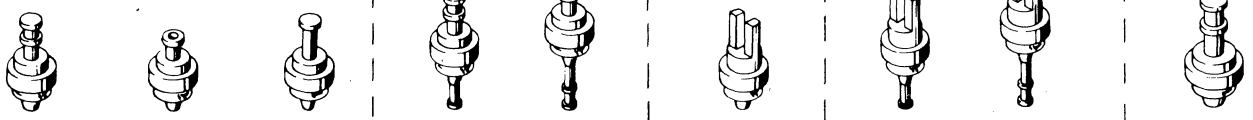
LOC-FIT TEFLON INSULATED TERMINALS



1. Push Teflon Grommet into hole.
2. Insert LOC-FIT terminal.
3. Snap LOC-FIT into place.

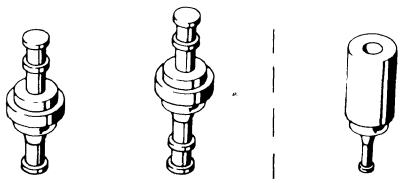
4430 | 4435

Insulated Terminals



4440 | 4446 | 4460 | 4441 | 4442 | 4443 | 4444 | 4445 | 4447

Insulated Feed-Thru | **Bifurcated Terminals** | **Insulated Bifurcated Feed-Thru** | **Taper Pin Receptacle**



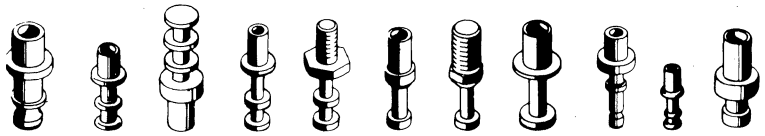
4448 | 4449

Taper Pin Receptacle Feed-Thru

4450

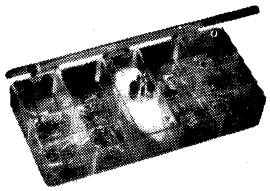
Insulated Test Point

STANDARD TERMINALS



1210 | 1280 | 1299 2035 | 1300 | 1300T | 1340 | 1340T | 1350 | 1370 | 2030 | 2060

Turret



ENGINEERING DESIGN KIT

Complete engineering design kits for Loc-Fit, plastic and Hi-Alumina insulated series K-44 and K-14. Also kits for printed circuit terminals, series K-70, and standard terminals, series K-12.

K-44	LOC FIT
K-14-1	HI ALUMINA
K-14-2	TEFLON
K-14-3	PLASTIC
K-70	PRINTED CIRCUIT
K-12	SOLDER TERMINALS

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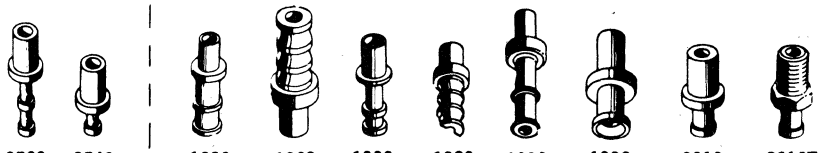
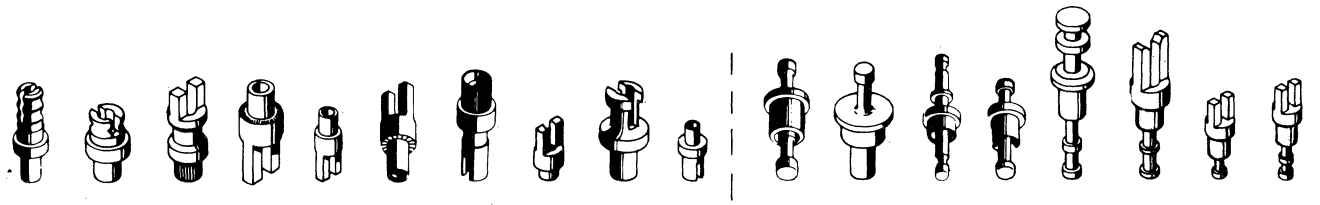
STANDARD TERMINALS



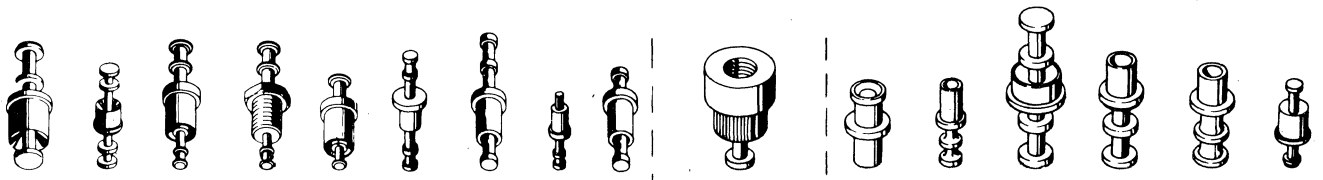
2520 2540 — Turret

1200 1260 1330 1380 1390 1392 2010 2010T — Hollow Lug



1250 1240 1255 1305 1306 1307 1308 1309 1310 1391 2000 2001 2005 2020 2022 2021 — Bifurcated

1220 1221 1230 1290 1301 1311 1315 1316 — Feed-Thru

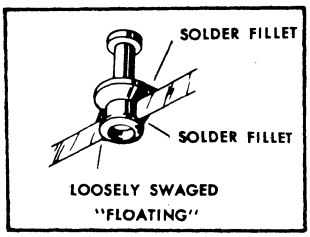


1320 1360 2040 2040T 2050 2500 2510 2511 2530

1203 — Combination Terminal

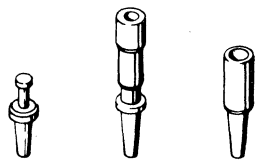
704 705 706 707 708 709 — NAS Terminals

FLOATING PRINTED CIRCUIT TERMINALS



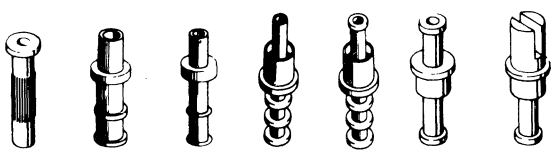
7000 7001 7010 7011 7020 7030 7040

TAPER PINS



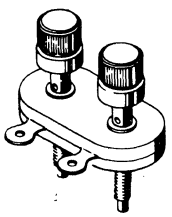
2770 2775 2776

TAPERED RECEPTACLE



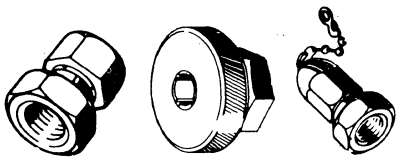
2710 2720 2730 2740 2760 2761 2762 2763

BINDING POST



3500

SHAFT LOCKS



1510 1511 1512 1513 1520 1515 1514 (CAP ONLY)

How To Order

Tool number is the same as the number of the terminal of "Loc-Fit" assembly number. Check catalog for proper number.

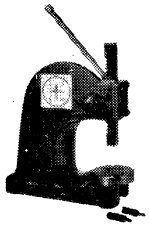
Example:
1. Terminal 1300 A-2, Order 1300 tool
2. "Loc-Fit" 4440 B-2, Order 4440 tool

Always list tool after basic part number.

TOLERANCES

TOLERANCES UNLESS OTHERWISE SPECIFIED.	
DECIMALS	±.005
FRACTIONS	±1/64

USECO Model A SWAGING MACHINE and TOOLS



In ordering USECO tools, please order by the part number of the terminal for which the tool is to be used; i.e., one set of #1300 tools will swage all of the letter deviation such as A-B-C, etc., of the #1300 terminal lug. Shipping weight of the swaging machine—18 lbs. tools—4 oz. For your convenience, a large stock of machines and tools are in stock for immediate delivery.

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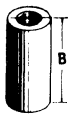
STANDARDIZED ELECTRONIC HARDWARE

STAND-OFFS

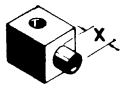
1530
1540

1531
1541



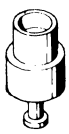
1550

1551



1590
Chassis
Fastener

PLUGS & SOCKETS

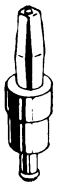


1571

1700
1785

1705
1782

1710
1786



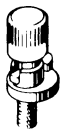
1715
1716

1780

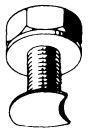
1781

ACCESSORY HARDWARE

1500 series
1561 series
Chassis
Bushing



1800
Dial
Lock



1815
Dial
Indicator

3100-6
8,10
Thumb
Screw

3200-6
8,10,25
Captive
Panel Screw

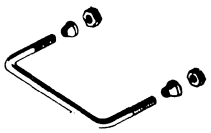
3316A, B
Shaft
Coupling

HANDLES & FERRULE

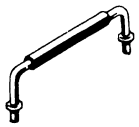
FINISH: NICKEL PLATE
CHROME PLATE AVAILABLE UPON REQUEST

900

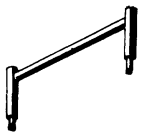
1004
thru
1019



1020



1025



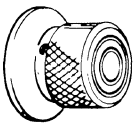
1030

1032

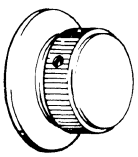
1053 1050

*Available in Aluminum, Plain or Anodized

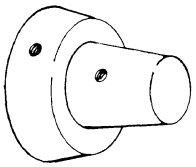
KNOBS



300 series
305 series
310 series

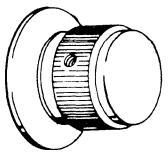


400 series
410 series



450 series

500 series
501 series
502 series



550 series
555 series
560 series

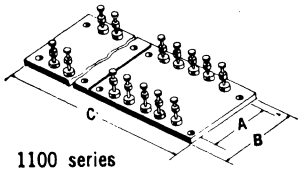
625 series
626 series
627 series

1000 series
1038 series
1040 series

FOR ANODIZED COLORS ORDER BY DASH NO.

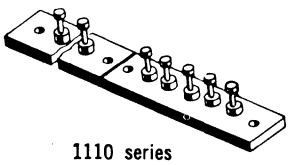
-20 PLAIN	-26 BLUE
-21 BROWN	-27 VIOLET
-22 RED	-28 GREY
-23 ORANGE	-30 BLACK
-24 YELLOW	
-25 GREEN	

TERMINAL BOARDS & BRACKETS



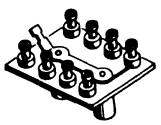
1100 series
1102 series
2200 series
2202 series

8001 series
8003 series

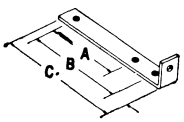


1110 series
1112 series
2210 series
2212 series

8002 series
8004 series



1180 1186
1181 1187
1182 1188



NO.	A	B	C	D	USE ON
11-2	1.50	—	2-1/8	.35	1100B
11-3	1.50	2.00	2-5/8	.35	1100B 1100C
11-4	2.00	2.50	3-5/16	.56	1100C 1100D
11-5	1.50	2.00	2-13/16	.56	1100B 1100C

To Order

STANDARD CATALOG ITEMS – Standard USECO Electronic Hardware is stocked at your nearby AUTHORIZED USECO DISTRIBUTOR, who offers prompt delivery F.O.B. his warehouse. As a further convenience these items are stocked at:

Van Nuys USECO factory

SPECIAL ITEMS — For special USECO items manufactured to your requirements, write or call factory,

Shipments F.O.B. Van Nuys

TERMS: Unless otherwise arranged, net 30 days.

Refer to Next Page For SPECIFICATIONS

for complete information write for Engineering Standards Manual

LITTON INDUSTRIES
U. S. ENGINEERING CO. DIV.
Van Nuys, California

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USECO®

UNLESS OTHERWISE INDICATED:
X - Shank Length: T - Thread or Shank Dia. A,B,C,D dimensions on drawings:
BD. THICK - Thickness of Board:

INSULATED STAND-OFF TERMINALS

No.	X	T	Bd. Thick	Price Each
1400A	.187	6-32		.21
1400B	.250	6-32		.21
1400C	.312	6-32		.21
1400D	.375	6-32		.21
1400E	.187	4-40		.21
1400F	.250	4-40		.21
1400G	.312	4-40		.21
1400H	.375	4-40		.21
1401		6-32		.21
1401A		4-40		.21
1410A	.054	.188	.031	.21
1410B	.094	.188	.062	.21
1410C	.125	.188	.094	.21
1410D	.156	.188	.125	.21
1417		6-32		.25
1417A		4-40		.25
1418A	.187	6-32		.25
1418B	.250	6-32		.25
1418C	.312	6-32		.25
1418D	.375	6-32		.25
1418E	.187	4-40		.25
1418F	.250	4-40		.25
1418G	.312	4-40		.25
1418H	.375	4-40		.25
1419A	.054	.188	.031	.25
1419B	.094	.188	.062	.25
1419C	.125	.188	.094	.25
1419D	.156	.188	.125	.25
1421	.250	6-32		.30
1422		6-32		.30
1423		6-32		.30
1450A	.187	6-32		.28
1450B	.250	6-32		.28
1450C	.312	6-32		.28
1450D	.375	6-32		.28
1450E	.187	4-40		.28
1450F	.250	4-40		.28
1450G	.312	4-40		.28
1450H	.375	4-40		.28
1451		6-32		.28
1451A		4-40		.28
1452A	.054	.188	.031	.28
1452B	.094	.188	.062	.28
1452C	.125	.188	.094	.28
1452D	.156	.188	.125	.28
1455A	.187	6-32		.29
1455B	.250	6-32		.29
1455C	.312	6-32		.29
1455D	.375	6-32		.29
1455E	.187	4-40		.29
1455F	.250	4-40		.29
1455G	.312	4-40		.29
1455H	.375	4-40		.29
1456		6-32		.29
1456A		4-40		.29
1457A	.050		.031	.29
1457B	.094		.062	.29
1457C	.125		.094	.29
1457D	.156		.125	.29
1460A	.187	6-32		.28
1460B	.250	6-32		.28
1460C	.312	6-32		.28
1460D	.375	6-32		.28
1460E	.187	4-40		.28
1460F	.250	4-40		.28
1460G	.312	4-40		.28
1460H	.375	4-40		.28
1461		6-32		.28
1461A		4-40		.28
1462A	.054	.188	.031	.28
1462B	.094	.188	.094	.28
1462C	.125	.188	.125	.28
1262D	.156	.188	.156	.28
1465A	.187	6-32		.29
1465B	.250	6-32		.29
1465C	.312	6-32		.29
1465D	.375	6-32		.29
1465E	.187	4-40		.29
1465F	.250	4-40		.29
1465G	.312	4-40		.29
1465H	.375	4-40		.29
1466		6-32		.29
1466A		4-40		.29
1467A	.054	.188	.031	.29
1467B	.094	.188	.062	.29
1467C	.125	.188	.094	.29
1467D	.156	.188	.125	.29

MINIATURE INSULATED STAND-OFF TERMINALS

No.	X	T	Bd. Thick	Price Each
1409	.250	6-32		.25
1411		6-32		.25
1413A	.075	.113		.25
1413B	.105	.113		.25
1413C	.135	.113		.25
1413D	.165	.113		.25
1424B	.105	.115	.062	.30
1424C	.135	.115	.125	.30
1424D	.165	.115	.094	.30
1425	.218	2-56		.30
1427		2-56		.30
1470A	.188	6-32		.305
1470B	.250	6-32		.305
1470C	.312	6-32		.305
1470D	.375	6-32		.305
1470E	.188	4-40		.305
1470F	.250	4-40		.305
1470G	.312	4-40		.305
1470H	.375	4-40		.305
1471A		2-56		.305
1471B		4-40		.305
1472A	.075	.115	.031	.305
1472B	.105	.115	.062	.305
1472C	.135	.115	.094	.305
1472D	.165	.115	.125	.305
1475A	.188	6-32		.32
1475B	.250	6-32		.32
1475C	.312	6-32		.32
1475D	.375	6-32		.32
1475E	.188	4-40		.32
1475F	.250	4-40		.32
1475G	.312	4-40		.32
1475H	.375	4-40		.32
1476A		2-56		.32
1476B		4-40		.32
1477A	.075		.031	.32
1477B	.105		.062	.32
1477C	.135		.094	.32
1477D	.165		.125	.32

SUBMINIATURE INSULATED STAND-OFF TERMINALS

No.	X	T	Bd. Thick	Price Each
1426	.218	.256		.28
1428		.256		.28
1429B	.105	.113	.062	.28
1429C	.135	.113	.093	.28
1429D	.165	.113	.125	.28
1480A	.125	.256		.315
1480B	.218	.256		.315
1480C	.125	4-40		.315
1480D	.218	4-40		.315
1481A		4-40		.315
1481B		2-56		.315
1482A	.054	.115	.031	.315
1482B	.094	.115	.062	.315
1482C	.125	.115	.094	.315
1482D	.156	.115	.125	.315
1485A	.125	2-56		.33
1485B	.218	2-56		.33
1485C	.125	4-40		.33
1485D	.218	4-40		.33
1486A		4-40		.33
1486B		2-56		.33
1487A	.054		.031	.33
1487B	.094		.062	.33
1487C	.125		.094	.33
1487D	.156		.125	.33
1490A	.125	2-56		.315
1490B	.218	2-56		.315
1490C	.125	4-40		.315
1490D	.218	4-40		.315
1491A		2-56		.315
1492A	.054	.115	.031	.315
1492B	.094	.115	.062	.315
1492C	.125	.115	.094	.315
1492D	.156	.115	.125	.315
1495A	.125	2-56		.33
1495B	.218	2-56		.33
1495C	.125	4-40		.33
1495D	.218	4-40		.33
1496A		2-56		.33
1497A	.054		.031	.33
1497B	.094		.062	.33
1497C	.125		.094	.33
1497D	.156		.125	.33

INSULATED FEED-THRU TERMINALS

No.	Overall Length	T	Bd. Thick	Price Each
1430	.687	10-32		.40
1431		10-32		.47
1432	.796	5-40		.385
1433	.875	¼-28		.385
1434		¼-28		.49
1435	1.312	⅜-32		.455
1436		⅜-32		.52
1483		¼-28		.70
1484B	.105	.188		.59

INSULATION:
1400, 1401, 1410 — phenolic
1450, 1451, 1452 — teflon
1460, 1461, 1462 — alumina
ALL OTHERS — alkyd

LOC-FIT TEFLON INSULATED TERMINALS

No.	X	T	Bd. Thick	Price Each
4430A	.031	.062	.094	.105
4430B	.031	.062	.094	.105
4430C	.031	.062	.094	.105
4435A	.031	.062	.094	.095
4435B	.031	.062	.094	.095
4435C	.031	.062	.094	.095
4440A	.031	.062	.094	.105
4440B	.031	.062	.094	.105
4440C	.031	.062	.094	.105
4443A	.031	.062	.094	.12
4443B	.031	.062	.094	.12
4443C	.031	.062	.094	.12
4446A	.031	.062	.094	.10
4446B	.031	.062	.094	.10
4446C	.031	.062	.094	.10
4460A	.031	.062	.094	.105
4460B	.031	.062	.094	.105
4460C	.031	.062	.094	.105

LOC-FIT TEFLON INSULATED FEED-THRUS

No.	X	T	Bd. Thick	Price Each
4441A	.031	.062	.094	.125
4441B	.031	.062	.094	.125
4441C	.031	.062	.094	.125
4442A	.031	.062	.094	.125
4442B	.031	.062	.094	.125
4444A	.031	.062	.094	.13
4444B	.031	.062	.094	.13
4444C	.031	.062	.094	.13

No.	Overall Length	T	Bd. Thick	Price Each
4445A	.031	.062	.094	.13
4445B	.031	.062	.094	.13
4445C	.031	.062	.094	.13

LOC-FIT TAPER PIN RECEPTACLE

No.	X	T	Bd. Thick	Price Each
4447A	.031	.062	.094	.145
4447B	.031	.062	.094	.145
4447C	.031	.062	.094	.145

LOC-FIT TAPER PIN RECEPTACLE FEED-THRU

No.	X	T	Bd. Thick	Price Each
4448A	.031	.062	.094	.185
4448B	.031	.062	.094	.185
4448C	.031	.062	.094	.185
4449A	.031	.062	.094	.17
4449B	.031	.062	.094	.17
4449C	.031	.062	.094	.17

LOC-FIT INSULATED TEST POINTS

No.	X	T	Bd. Thick	Price Each
4450A			.031	.21
4450B			.062	.21
4450C			.094	.21
4450D			.125	.21

TURRET TERMINALS

No.	X	T or Dia.	Bd. Thick	Price Per M
1210A	.075	.114		15.41
1210B	.105	.114		15.41
1210C	.135	.114		15.41
1210D	.165	.114		15.41
1280A	.075	.091		10.08
1280B	.105	.091		10.08
1280C	.135	.091		10.08
1280D	.165	.091		10.08
1299A	.075	.114	.031	32.93
1299B	.105	.114	.062	32.93
1299C	.135	.114	.094	32.93
1299D	.165	.114	.125	32.93
1299E	.195	.114	.156	32.93
1299F	.230	.114	.188	32.93
1300A	.075	.114	.031	15.41
1300B	.105	.114	.062	15.41
1300C	.135	.114	.094	15.41
1300D	.165	.114	.125	15.41
1300E	.195	.114	.156	15.41
1300F	.230	.114	.188	15.41
1300G	.293	.114	.250	15.41
1300T	.188	4-40		32.75
1340A	.075	.079	.031	14.11
1340B	.105	.079	.062	14.11
1340C	.135	.079	.094	14.11
1340D	.165	.079	.125	14.11
1340T	.125	2-56		20.01
1350B	.105	.114	.062	21.96
1350C	.135	.114	.094	21.96
1350D	.165	.114	.125	21.96
1350E	.195	.114	.156	21.96
1350F	.230	.114	.188	21.96
1370B	.105	.114	.062	20.70
1370C	.135	.114	.094	20.70
1370D	.165	.114	.125	20.70
1370G	.293	.114	.250	20.70
2030	.037	.062	.016	16.22
2030A	.053	.062	.031	16.22
2030B	.084	.062	.062	16.22
2030C	.115	.062	.094	16.22
2030D	.147	.062	.125	16.22
2035A	.075	.089	.031	17.07
2035B	.105	.089	.062	17.07
2035C	.135	.089	.094	17.07
2035D	.165	.089	.125	17.07
2060	.037	.063	.016	14.56
2060A	.054	.063	.031	14.56
2060B	.084	.063	.062	14.56
2060C	.115	.063	.094	14.56
2060D	.147	.063	.125	14.56
2520A	.054	.073	.031	17.84
2520B	.084	.073	.062	17.84
2520C	.115	.073	.094	17.84
2520D	.147	.073	.125	17.84
2540A	.054	.073	.031	15.77
2540B	.084	.073	.062	15.77
2540C	.115	.073	.094	15.77
2540D	.147	.073	.125	15.77

HOLLOW TERMINALS

No.	X	T or Dia.	Bd. Thick	Price Per M
1200A	.075	.114	.031	14.08
1200B	.115	.114	.062	14.08
1200C	.135	.114	.093	14.08
1200D	.165	.114	.125	14.08
1200E	.195	.114	.156	14.08
1200F	.230	.114	.187	14.08
1260B	.105	.114	.062	23.04
1260C	.135	.114	.093	23.04
1260D	.165	.114	.125	23.04
1330B	.105	.135	.062	24.13
1330C	.135	.135	.093	24.13
1330D	.165	.135	.125	24.13
1380B	.105	.114	.062	23.56
1380C	.135	.114	.093	23.56
1380D	.165	.114	.125	23.56
1380E	.195	.114	.156	23.56
1390A	.075	.079	.031	23.45
1390B	.105	.079	.062	23.45
1390C	.135	.079	.093	23.45
1390D	.165	.079	.125	23.45
1390E	.195	.114	.156	23.45
1390F	.230	.114	.187	23.45
1392A	.075	.111	.031	17.37
1392B	.105	.111	.062	17.37
1392C	.135	.111	.093	17.37
1392D	.165	.111	.125	17.37
2010	.037	.063	.015	14.91
2010A	.053	.063	.031	14.91
2010B	.084	.063	.062	14.91
2010C	.115	.063	.093	14.91
2010D	.147	.063	.125	14.91
2010T	.125	.063		17.32

BIFURCATED TERMINALS

No.	X	T or Dia.	Bd. Thick	Price Per M
1240B	.105	.183	.062	31.20
1240C	.135	.183	.094	31.20
1240D	.165	.183	.125	31.20
1240E	.195	.183	.156	31.20
1240F	.230	.183	.188	31.20
1250A	.075	.114	.031	25.88
1250B	.105	.114	.062	25.88
1250C	.135	.114	.094	25.88
1250D	.165	.114	.125	25.88
1255A	.075	.114	.031	21.22
1255B	.105	.114	.062	21.22
1255C	.135	.114	.094	21.22
1255D	.165	.114	.125	21.22
1305B	.105	.114	.062	27.14
1305C	.135	.114	.094	27.14
1305D	.165	.114	.125	27.14
1306B	.105	.135	.062	45.28
1306C	.135	.135	.094	45.28
1306D	.165	.135	.125	45.28
1307C	.135	.186	.094	54.33
1307D	.165	.186	.125	54.33
1307E	.195	.186	.156	54.33
1307F	.230	.186	.188	54.33
1308A	.054	.114	.031	20.42
1308B	.084	.114	.062	20.42
1308C	.115	.114	.094	20.42
1308D	.147	.114	.125	20.42
1309A	.075	.091	.031	21.78
1309B	.105	.091	.062	21.78
1309C	.135	.091	.094	21.78
1309D	.165	.091	.125	21.78
1310A	.075	.114	.031	18.03
1310B	.105	.114	.062	18.03
1310C	.135	.114	.094	18.03
1310D	.165	.114	.125	18.03
1391A	.075	.151	.031	29.47
1391B	.105	.151	.062	29.47
1391C	.135	.151	.094	29.47
1391D	.165	.151	.125	29.47
1391E	.195	.151	.156	29.47
1391F	.230	.151	.188	29.47
2000	.037	.063	.016	15.67
2000A	.053	.063	.031	15.67
2000B	.084	.062	.062	15.67
2000C	.115	.062	.094	15.67
2000D	.147	.062	.125	15.67
2000E	.179	.062	.156	15.67
2001	.037	.062	.016	22.36
2001A	.053	.062	.031	22.36
2001B	.084	.062	.062	22.36
2001C	.115	.062	.094	22.36
2001D	.147	.062	.125	22.36

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No.	X	T or Dia.	Bd. Thick	Price Per M
2005	.037	.062	.016	20.80
2005A	.053	.062	.031	20.80
2005B	.084	.062	.062	20.80
2005C	.115	.062	.094	20.80
2005D	.147	.062	.125	20.80
2020	.037	.063	.016	19.19
2020A	.053	.063	.031	19.19
2020B	.084	.063	.062	19.19
2020C	.115	.063	.094	19.19
2020D	.147	.063	.125	19.19
2021	.037	.063	.016	22.53
2021A	.053	.063	.031	22.53
2021B	.084	.063	.062	22.53
2021C	.115	.063	.094	22.53
2021D	.147	.063	.125	22.53
2022	.037	.063	.016	23.40
2022A	.053	.063	.031	23.40
2022B	.084	.063	.062	23.40
2022C	.115	.063	.094	23.40
2022D	.147	.063	.125	23.40

FEED-THRU TERMINALS

1220B	.105	.183	.062	32.02
1220C	.135	.183	.094	32.02
1220D	.165	.183	.125	32.02
1220E	.195	.183	.156	32.02
1220F	.230	.183	.188	32.02
1221B	.105	.183	.062	38.83
1221C	.135	.183	.094	38.83
1221D	.165	.183	.125	38.83
1221E	.195	.183	.156	38.83
1221F	.230	.183	.188	38.83
1230B	.105	.183	.062	49.65
1230C	.135	.183	.094	49.65
1230D	.165	.183	.125	49.65
1230E	.195	.183	.156	49.65
1230F	.230	.183	.188	49.65
1290A	.075	.114	.031	15.08
1290B	.105	.114	.062	15.08
1290C	.135	.114	.094	15.08
1290D	.165	.114	.125	15.08
1301C	.135	.114	.094	37.40
1301D	.165	.114	.125	37.40
1301E	.195	.114	.156	37.40
1301F	.230	.114	.188	37.40
1311A	.105	.114	.062	44.20
1311B	.135	.114	.094	44.20
1311C	.165	.114	.125	44.20
1315B	.094	.094	.062	38.13
1315C	.125	.094	.094	38.13
1315D	.156	.094	.125	38.13
1316B	.094	.094	.062	56.33
1316C	.125	.094	.094	56.33
1316D	.156	.094	.125	56.33
1320B	.105	.204	.062	32.15
1320C	.135	.204	.094	32.15
1320D	.165	.204	.125	32.15
1320E	.195	.204	.156	32.15
1320F	.230	.204	.188	32.15
1360C	.135	.204	.094	39.82
1360D	.165	.204	.125	39.82
1360E	.195	.204	.156	39.82
1360F	.230	.204	.188	39.82
2040A	.075	.126	.031	18.98
2040B	.105	.126	.062	18.98
2040C	.135	.126	.094	18.98
2040D	.165	.126	.125	18.98
2040T	.125	5-40		24.09
2050A	.075	.126	.031	20.97
2050B	.105	.126	.062	20.97
2050C	.135	.126	.094	20.97
2050D	.165	.126	.125	20.97
2500A	.053	.091	.031	18.11
2500B	.084	.091	.062	18.11
2500C	.115	.091	.094	18.11
2500D	.147	.091	.125	18.11
2510A	.053	.073	.031	18.03
2510B	.084	.073	.062	18.03
2510C	.115	.073	.094	18.03
2510D	.147	.073	.125	18.03
2511A	.053	.073	.031	20.22
2511B	.084	.073	.062	20.22
2511C	.115	.073	.094	20.22
2511D	.147	.073	.125	20.22

No.	X	T or Dia.	Bd. Thick	Price Per M
2530A	.053	.073	.031	15.77
2530B	.084	.073	.031	15.77
2530C	.115	.073	.094	15.77
2530D	.147	.073	.125	15.77

COMBINATION TERMINALS

1203C	.141	.221	.094	78.78
1203D	.172	.251	.125	78.78
1203E	.234	.258	.188	78.78

NAS TERMINALS

No.	Shank Length	Bd. Thick	Dia.	Price Per M
704-1	.078	.031	.110	20.80
704-2	.109	.062	.110	20.80
704-3	.141	.093	.110	20.80
704-4	.172	.125	.110	20.80
705-1	.075	.031	.092	11.80
705-2	.105	.062	.092	11.80
705-3	.135	.093	.092	11.80
705-4	.165	.125	.092	11.80
706-2	.094	.062	.201	43.25
706-3	.125	.093	.201	43.25
706-4	.156	.125	.201	43.25
707-2	.109	.062	.112	17.85
707-3	.141	.093	.112	17.85
707-4	.172	.125	.112	17.85
708-2	.109	.062	.112	15.81
708-3	.141	.093	.112	15.81
708-4	.172	.125	.112	15.81
709-1	.062	.031	.116	16.81
709-2	.094	.062	.116	16.81
709-3	.125	.093	.116	16.81
709-4	.156	.125	.116	16.81

FLOATING PRINTED CIRCUIT TERMINALS

No.	X	T or Dia.	Bd. Thick	Price Per M
7000A	.062	.062	.031	20.19
7000B	.094	.062	.062	20.19
7000C	.125	.062	.094	20.19
7000D	.156	.062	.125	20.19
7001A	.062	.062	.031	20.19
7001B	.094	.062	.062	20.19
7001C	.125	.062	.094	20.19
7001D	.156	.062	.125	20.19
7010A, B, C, D	(same as 7001 series)			18.20
7020A, B, C, D	(same as 7001 series)			18.20
7030A, B, C, D	(same as 7001 series)			19.07
7040A, B, C, D	(same as 7001 series)			23.57

TAPER PINS

2770	.205	Taper .061 in. per in. on dia.	14.73
2775	.281	Taper .061 in. per in. on dia.	24.74
2776	.281	Taper .061 in. per in. on dia.	15.90

ENGINEERING DESIGN KIT

No.	Price Each
K-14	28.50
K-44	28.50
K-12	28.50
K-70	28.50

TAPERED RECEPTACLE TERMINALS

No.	X	T or Dia.	Bd. Thick	Price Per M
2710	.531	.094	.500	69.94
2720A	.075	.114	.031	27.87
2720B	.105	.114	.062	27.87
2720C	.135	.114	.094	27.87
2720D	.165	.114	.125	27.87
2720E	.195	.114	.156	27.87
2720F	.230	.114	.188	27.87
2730A	.075	.114	.031	36.40
2730B	.105	.114	.062	36.40
2730C	.135	.114	.094	36.40
2730D	.165	.114	.125	36.40
2730E	.195	.114	.156	36.40
2730F	.230	.114	.188	36.40
2740A	.075	.079	.031	39.40
2740B	.105	.079	.062	39.40
2740C	.135	.079	.094	39.40
2740D	.165	.079	.125	39.40
2740E	.195	.079	.156	39.40
2740F	.230	.079	.188	39.40
2750A	.075	.079	.031	32.60
2750B	.105	.079	.062	32.60
2750C	.135	.079	.094	32.60
2750D	.165	.079	.125	32.60
2750E	.195	.079	.156	32.60
2750F	.230	.079	.188	32.60
2760B	.105	.204	.062	69.93
2760C	.135	.204	.094	69.93
2760D	.165	.204	.125	69.93
2761B	.105	.204	.062	43.33
2761C	.135	.204	.094	43.33
2761D	.165	.204	.125	43.33
2762A	.062	.145	.031	51.31
2762B	.094	.145	.062	51.31
2762C	.124	.145	.094	51.31
2762D	.156	.145	.125	51.31
2762E	.188	.145	.156	51.31
2762F	.219	.145	.188	51.31
2762G	.281	.145	.250	51.31
2763A	.062	.145	.031	88.35
2763B	.094	.145	.062	88.35
2763C	.124	.145	.094	88.35
2763D	.156	.145	.125	88.35
2763E	.188	.145	.156	88.35
2763F	.219	.145	.188	88.35
2763G	.281	.145	.250	88.35

BINDING POST

No.	Mtg. Hole Dia.	Bd. Thick	Price Each
3500	.500	.437	1.21

PLUGS AND SOCKETS

No.	X	T	Bd. Thick	Price Each
1700C	.135	.135	.094	.21
1700D	.165	.135	.125	.21
1705B	.105		.062	.30
1705C	.135		.094	.30
1705D	.165		.125	.30
1710C	.135		.094	.10
1710D	.13		.165	.10
1715		2-56		.28
1716		4-40		.28
1780E	.195	.190	.156	.30
1780F	.230	.190	.188	.30
1780G	.255	.190	.218	.30
1781B	.094	.094	.062	.345
1781C	.125	.094	.094	.345
1781D	.156	.094	.125	.345
1782E	.195	.190	.156	.345
1782F	.230	.190	.188	.345
1782G	.255	.190	.218	.345
1785E	.195	.203	.156	.345
1785F	.230	.203	.188	.345
1785G	.255	.203	.218	.345
1786E	.195	.205	.156	.345
1786F	.230	.205	.188	.345
1786G	.255	.205	.218	.25

ACCESSORY HARDWARE

No.	B	Thd.	D or Dia.	Price Each
1560	.562		.250	.16
1560-1	.438		.250	.16
1560-2	.375		.250	.16
1561	.562		.125	.16
1561-1	.438		.125	.16
1561-2	.375		.125	.16
1800		10-32		1.16
1815		4-40		.365
3100-6		6-32		.25
3100-8		8-32		.25
3100-10		10-32		.25
3200-6		6-32	.094	.28
3200-8		8-32	.120	.28
3200-10		10-32	.140	.28
3200-25		¼-20	.200	.28
3316A		6-32	.251	.435
3316B		6-32	.126	.435

SHAFT LOCKS

No.	Shaft Dia.	Int. Thd.	Price Each
1510	.250	⅜-32	.23
1511	.250	⅜-32	.385
1512	.125	¼-32	.21
1513	.125	¼-32	.23
1514	Cap Only		.335
1515	.250	⅜-32	.47

STAND-OFFS

No.	Lgth. B	X	T	Price Each
1530A	.250	.075	.031	.07
1530B	.250	.105	.062	.07
1530C	.250	.135	.093	.07
1530D	.250	.165	.125	.07
1531A	.375	.075	.031	.07
1531B	.375	.105	.062	.07
1531C	.375	.135	.093	.07
1531D	.375	.165	.125	.07
1540A	.375	.075	.031	.07
1540B	.375	.105	.062	.07
1540C	.375	.135	.093	.07
1540D	.375	.165	.125	.07
1541A	.375	.075	.031	.07
1541B	.375	.105	.062	.07
1541C	.375	.135	.093	.07
1541D	.375	.165	.125	.07
1550A	.250	.187	4-40	.085
1550B	.375	.187	4-40	.085
1550C	.250	.250	6-32	.105
1550D	.375	.250	6-32	.105
1550E	.500	.250	6-32	.105
1550F	.625	.250	6-32	.105
1550G	.750	.250	6-32	.105
1550H	.250	.375	8-32	.125
1550I	.375	.375	8-32	.125
1550J	.500	.375	8-32	.125
1550K	.625	.375	8-32	.125
1550M	.750	.375	8-32	.125
1551A	.250	.187	4-40	.125
1551B	.375	.187	4-40	.125
1551C	.250	.250	6-32	.13
1551D	.375	.250	6-32	.13
1551E	.500	.250	6-32	.13
1551F	.625	.250	6-32	.13
1551G	.750	.250	6-32	.13
1551H	.250	.375	6-32	.15
1551I	.375	.375	8-32	.15
1551J	.500	.375	8-32	.15
1551K	.625	.375	8-32	.15
1551M	.750	.375	8-32	.15

Shank Dia., .188

CHASSIS FASTENER

No.	X	T	
1590B	.105	.062	.175
1590C	.135	.093	.175
1590D	.165	.125	.175
1591B	.105	.062	.175
1591C	.135	.094	.175
1591D	.165	.125	.175

Shank Dia., .187

HANDLES — FERRULE

900 (Fits 1005 through 1017)

No.	A	B	Price Each
1004	6.44	1.50	1.08
1005	6.44	1.75	1.08
1007	6.00	1.50	1.06
1010	4.25	1.50	.99
1012	4.00	1.50	.99
1013	4.56	1.50	1.01
1015	3.00	1.50	.975
1017	2.00	1.50	.955

No.	A	B	Price Each
1018	8.00	1.50	1.395
1019	10.00	1.50	1.735
1020	4.25	1.50	1.185
1025A	4-5	1.50	1.98
1025B	5-6	1.50	1.98
1030	3-6	1.50	2.81
1032	4.00	2.435	3.07
1050	3.00	1.28	1.375
1053	9.00	1.75	1.755

A—Bolt Centers

B—Hgt. Off Panel

ROUND KNURLED ALUMINUM KNOBS

No.	Hole Dia.	Max. Shaft O.D.	Price Each
300	.250	.250	.955
301	.188	.188	.955
302	.125	.125	.955
305	.250	.250	.99
306	.188	.188	.99
307	.125	.125	.99
310	.250	.250	1.03
311	.188	.188	1.03
312	.125	.125	1.03
400	.250	.250	1.655
401	.188	.188	
402	.125	.125	
410	.250	.250	5.20
411	.188	.188	
412	.125	.125	
450	.250	.250	3.475
500	.250	.250	.715
501	.188	.188	.715
502	.125	.125	.715
550	.250	.250	1.01
551	.188	.188	1.01
552	.125	.125	1.01
555	.250	.250	1.04
556	.188	.188	1.04
557	.125	.125	1.04
560	.250	.250	1.08
561	.188	.188	1.08
562	.125	.125	1.08
625	.250	.250	.73
626	.188	.188	.73
627	.125	.125	.73
1000	.250	.250	.885
1001	.188	.188	.885
1002	.125	.125	.885
1038	.250	.250	1.01
1039	.188	.188	1.01
1040	.125	.125	1.01

STANDARD TERMINAL BOARDS & BRACKETS

No.	A	B	C	Price Each
1100A	1.000	1.50	13.12	2.57
1100B	1.500	2.00	13.12	2.655
1100C	2.000	2.50	13.12	2.76
1100D	2.500	3.00	13.12	2.86
1102A	1.000	1.50	13.12	4.78
1102B	1.500	2.00	13.12	4.94
1102C	2.000	2.50	13.12	5.585
1102D	2.500	3.00	13.12	6.21
1110		.500	13.12	1.165
1112		.500	13.12	2.015
1180	.500	.719	.875	.78
1181	.750	1.031	1.218	.78
1182	.875	1.156	1.500	.855
1186	.500	.718	.875	.95
1187	.750	1.031	1.218	.95
1188	.875	1.156	1.500	1.03
2200B	.500	.75	7.812	2.62
2200C	.750	1.00	7.812	2.965
2202B	.500	.75	7.812	3.265
2202C	.750	1.00	7.812	4.215
2210		.312	7.812	1.475
2212		.312	7.812	2.34
8001A	1.00	1.50	13.12	ON REQUEST
8001B	1.50	2.00	13.12	
8001C	2.00	2.50	13.12	
8001D	2.50	3.00	13.12	
8002		.500	13.12	
8003B	.500	.750	7.812	
8003C	.750	1.00	7.812	
8004		.937	7.812	

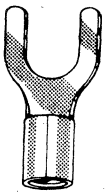
1100, 2200 series—5 sect.
1180 series—1 sect.

11-2 (See	.105
11-3 Bracket	.105
11-4 Chart)	.125
11-5	.125

WALDOM

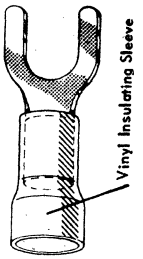
SOLDERLESS TERMINALS AND CONNECTORS

COMPLETE LINE . . . 21 TYPES, 5 CONSTRUCTION STYLES



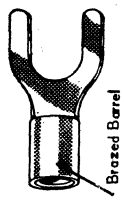
KRIMPTITE ®

Basic non-insulated electro-tin plated copper terminal. One-piece construction for maximum strength and conductivity.



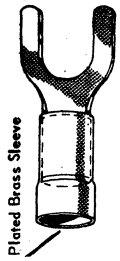
INSULKRIMP ®

All advanced features of KRIMPTITE, plus permantly attached rigid vinyl plastic insulating sleeve for increased vibration resistance.



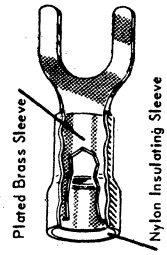
VERSAKRIMP ®

Advantageous features of KRIMPTITE plus the higher tensile strength afforded by BRAZED BARREL construction.



VIBRAKRIMP ®

Particularly suitable where high vibration is a factor. KRIMPTITE construction plus seamless annealed electro-tin plated brass sleeve.



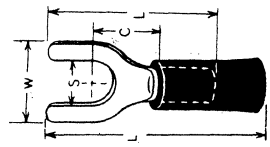
AVIKRIMP ®

All VIBRAKRIMP features, tin-plated brass sleeve plus permanently attached overlapping nylon insulating sleeve.

Insulated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow

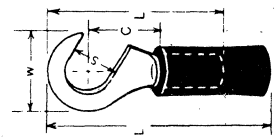
BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location. Wire Ranges 22-18, .032 stock. Wire Ranges 12-10, .040 stock. Listed by Underwriter Laboratories, Inc.



SPADE TONGUE TERMINALS

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stud Size S	Width W	Clearance C		Length L	.125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L		Length L	.145 Max. Insulation Diameter		Length L	.145 Max. Insulation Diameter		Length L
				Cat. No.		Cat. No.	Cat. No.		Cat. No.		Cat. No.	Cat. No.		Cat. No.	Cat. No.	
22–18	3-4	1/4	7/32	S-1116	5/8	T-2116	T-2116X	13/16	B-3116	5/8	D-4116		25/32	N-5116		13/16
	3-4	19/64	7/32	S-1117	5/8	T-2117	T-2117X	13/16	B-3117	5/8	D-4117		25/32	N-5117		13/16
	5-6	1/4	7/32	S-1118	5/8	T-2118	T-2118X	13/16	B-3118	5/8	D-4118		25/32	N-5118		13/16
	5-6	19/64	7/32	S-1014	5/8	T-2014	T-2014X	13/16	B-3014	5/8	D-4014		25/32	N-5014		13/16
	5-6	5/16	5/16	S-1029	3/4	T-2029	T-2029X	15/16	B-3029	3/4	D-4029		29/32	N-5029		15/16
	8	1/4	7/32	S-1119	5/8	T-2119	T-2119X	13/16	B-3119	5/8	D-4119		25/32	N-5119		13/16
	8	19/64	7/32	S-1030	5/8	T-2030	T-2030X	13/16	B-3030	5/8	D-4030		25/32	N-5030		13/16
	8	5/16	5/16	S-1031	3/4	T-2031	T-2031X	15/16	B-3031	3/4	D-4031		29/32	N-5031		15/16
	10	19/64	7/32	S-1120	5/8	T-2120	T-2120X	13/16	B-3120	5/8	D-4120		25/32	N-5120		13/16
	10	5/16	5/16	S-1032	3/4	T-2032	T-2032X	15/16	B-3032	3/4	D-4032		29/32	N-5032		15/16
16–14						.155 Max.	.175 Max.				.175 Max.			.175 Max		
	3-4	1/4	7/32	S-1121	5/8	T-2121	T-2121X	13/16	B-3121	5/8	D-4121		25/32	N-5121		13/16
	3-4	19/64	7/32	S-1122	5/8	T-2122	T-2122X	13/16	B-3122	5/8	D-4122		25/32	N-5122		13/16
	5-6	1/4	7/32	S-1123	5/8	T-2123	T-2123X	13/16	B-3123	5/8	D-4123		25/32	N-5123		13/16
	5-6	19/64	7/32	S-1015	5/8	T-2015	T-2015X	13/16	B-3015	5/8	D-4015		25/32	N-5015		13/16
	5-6	23/64	9/32	S-1051	3/4	T-2051	T-2051X	15/16	B-3051	3/4	D-4051		29/32	N-5051		15/16
	8	1/4	7/32	S-1124	5/8	T-2124	T-2124X	13/16	B-3124	5/8	D-4124		25/32	N-5124		13/16
	8	19/64	7/32	S-1033	5/8	T-2033	T-2033X	13/16	B-3033	5/8	D-4033		25/32	N-5033		13/16
	8	23/64	9/32	S-1052	3/4	T-2052	T-2052X	15/16	B-3052	3/4	D-4052		29/32	N-5052		15/16
	10	19/64	7/32	S-1104	5/8	T-2104	T-2104X	13/16	B-3104	5/8	D-4104		25/32	N-5104		13/16
	10	23/64	9/32	S-1016	3/4	T-2016	T-2016X	15/16	B-3016	3/4	D-4016		29/32	N-5016		15/16
12–10						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
	5-6	3/8	5/16	S-1053	25/32	T-2053	T-2053X	1-3/32	B-3053	25/32	D-4053	D-4053X	1-1/32	N-5053	N-5053X	1-5/64
	8	3/8	5/16	S-1054	25/32	T-2054	T-2054X	1-3/32	B-3054	25/32	D-4054	D-4054X	1-1/32	N-5054	N-5054X	1-5/64
	10	3/8	5/16	S-1017	25/32	T-2017	T-2017X	1-3/32	B-3017	25/32	D-4017	D-4017X	1-1/32	N-5017	N-5017X	1-5/64



HOOK TONGUE TERMINALS

22–18						.125 Max.	.145 Max.				.145 Max.			.145 Max.		
	5-6	5/16	5/16	S-1018	23/32	T-2018	T-2018X	29/32	B-3018	23/32	D-4018		7/8	N-5018		29/32
	8	5/16	5/16	S-1036	23/32	T-2036	T-2036X	29/32	B-3036	23/32	D-4036		7/8	N-5036		29/32
	10	5/16	5/16	S-1037	23/32	T-2037	T-2037X	29/32	B-3037	23/32	D-4036		7/8	N-5037		29/32
16–14						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
	5-6	11/32	9/32	S-1038	23/32	T-2038	T-2038X	29/32	B-3038	23/32	D-4038		7/8	N-5038		29/32
	8	11/32	9/32	S-1039	23/32	T-2039	T-2039X	29/32	B-3039	23/32	D-4039		7/8	N-5039		29/32
	10	11/32	9/32	S-1040	23/32	T-2040	T-2040X	29/32	B-3040	23/32	D-4040		7/8	N-5040		29/32
12–10						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
	5-6	3/8	5/16	S-1057	3/4	T-2057	T-2057X	1-1/16	B-3057	3/4	D-4057	D-4057X	1	N-5057	N-5057X	1-3/64
	8	3/8	5/16	S-1058	3/4	T-2058	T-2058X	1-1/16	B-3058	3/4	D-4058	D-4058X	1	N-5058	N-5058X	1-3/64
	10	3/8	5/16	S-1045	3/4	T-2045	T-2045X	1-1/16	B-3045	3/4	D-4045	D-4045X	1	N-5045	N-5045X	1-3/64

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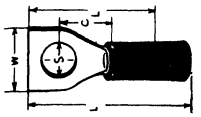
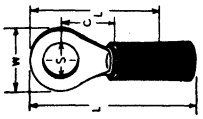
WALDOM SOLDERLESS TERMINALS AND CONNECTORS

Rectangular Tongue





Ring Tongue

RECTANGULAR TONGUE TERMINALS

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stud Size S	Width W	Clearance C	Cat. No.	Length L	.125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L
22-18	3-4	1/4	7/32	S-1127	5/8	T-2127	T-2127X	13/16	B-3127	5/8	D-4127		25/32	N-5127		13/16
	3-4	19/64	7/32	S-1128	5/8	T-2128	T-2128X	13/16	B-3128	5/8	D-4128		25/32	N-5128		13/16
	5-6	1/4	7/32	S-1129	5/8	T-2129	T-2129X	13/16	B-3129	5/8	D-4129		25/32	N-5129		13/16
	5-6	19/64	7/32	S-1071	5/8	T-2071	T-2071X	13/16	B-3071	5/8	D-4071		25/32	N-5071		13/16
	5-6	5/16	5/16	S-1130	3/4	T-2130	T-2130X	15/16	B-3130	3/4	D-4130		29/32	N-5130		15/16
	8	1/4	7/32	S-1131	5/8	T-2131	T-2131X	13/16	B-3131	5/8	D-4131		25/32	N-5131		13/16
	8	19/64	7/32	S-1072	5/8	T-2072	T-2072X	13/16	B-3072	5/8	D-4072		25/32	N-5072		13/16
	8	5/16	5/16	S-1132	3/4	T-2132	T-2132X	15/16	B-3132	3/4	D-4132		29/32	N-5132		15/16
	10	19/64	7/32	S-1073	5/8	T-2073	T-2073X	13/16	B-3073	5/8	D-4073		25/32	N-5073		13/16
	10	5/16	5/16	S-1133	3/4	T-2133	T-2133X	15/16	B-3133	3/4	D-4133		29/32	N-5133		15/16
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	3-4	1/4	7/32	S-1134	5/8	T-2134	T-2134X	13/16	B-3134	5/8	D-4134		25/32	N-5134		13/16
	3-4	19/64	7/32	S-1135	5/8	T-2135	T-2135X	13/16	B-3135	5/8	D-4135		25/32	N-5135		13/16
	5-6	1/4	7/32	S-1136	5/8	T-2136	T-2136X	13/16	B-3136	5/8	D-4136		25/32	N-5136		13/16
	5-6	19/64	7/32	S-1074	5/8	T-2074	T-2074X	13/16	B-3074	5/8	D-4074		25/32	N-5074		13/16
	5-6	23/64	9/32	S-1137	3/4	T-2137	T-2137X	15/16	B-3137	3/4	D-4137		29/32	N-5137		15/16
	8	1/4	7/32	S-1138	5/8	T-2138	T-2138X	13/16	B-3138	5/8	D-4138		25/32	N-5138		13/16
	8	19/64	7/32	S-1075	5/8	T-2075	T-2075X	13/16	B-3075	5/8	D-4075		25/32	N-5075		13/16
	8	23/64	9/32	S-1139	3/4	T-2139	T-2139X	15/16	B-3139	3/4	D-4139		29/32	N-5139		15/16
	10	19/64	7/32	S-1076	5/8	T-2076	T-2076X	13/16	B-3076	5/8	D-4076		25/32	N-5076		13/16
	10	23/64	9/32	S-1140	3/4	T-2140	T-2140X	15/16	B-3140	3/4	D-4140		29/32	N-5140		15/16
						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
12-10	5-6	3/8	5/16	S-1077	25/32	T-2077	T-2077X	1-3/32	B-3077	25/32	D-4077	D-4077X	1-1/32	N-5077	N-5077X	1-5/64
	8	3/8	5/16	S-1078	25/32	T-2078	T-2078X	1-3/32	B-3078	25/32	D-4078	D-4078X	1-1/32	N-5078	N-5078X	1-5/64
	10	3/8	5/16	S-1079	25/32	T-2079	T-2079X	1-3/32	B-3079	25/32	D-4079	D-4079X	1-1/32	N-5079	N-5079X	1-5/64

RING TONGUE TERMINALS

						.125 Max.	.145 Max.				.145 Max.			.145 Max.		
22-18	2	7/32	5/32	S-1099	33/64	T-2099	T-2099X	45/64	B-3099	33/64	D-4099		43/64	N-5099		45/64
	3-4	7/32	5/32	S-1047	33/64	T-2047	T-2047X	45/64	B 3047	33/64	D-4047		43/64	N-5047		45/64
	3-4	9/32	1/4	S-1096	41/64	T-2096	T-2096X	53/64	B-3096	41/64	D-4096		51/64	N-5096		53/64
	5-6	7/32	5/32	S-1001	33/64	T-2001	T-2001X	45/64	B-3001	33/64	D-4001		43/64	N-5001		45/64
	5-6	9/32	1/4	S-1002	41/64	T-2002	T-2002X	53/64	B-3002	41/64	D-4002		51/64	N-5002		53/64
	5-6	5/16	5/16	S-1103	23/32	T-2103	T-2103X	29/32	B-3103	23/32	D-4103		7/8	N-5103		29/32
	8	9/32	1/4	S-1097	41/64	T-2097	T-2097X	53/64	B-3097	41/64	D-4097		51/64	N-5097		53/64
	8	5/16	5/16	S-1021	23/32	T-2021	T-2021X	29/32	B-3021	23/32	D-4021		7/8	N-5021		29/32
	10	9/32	1/4	S-1098	41/64	T-2098	T-2098X	53/64	B-3098	41/64	D-4098		51/64	N-5098		53/64
	10	5/16	5/16	S-1003	23/32	T-2003	T-2003X	29/32	B-3003	23/32	D-4003		7/8	N-5003		29/32
	10	15/32	.400	S-1111	57/64	T-2111	T-2111X	1-5/64	B-3111	57/64	D-4111		1-3/64	N-5111		1-5/64
	10	9/16	9/16	S-1141	1-7/64	T-2141	T-2141X	1-19/64	B-3141	1-7/64	D-4141		1-17/64	N-5141		1-19/64
	1/4	15/32	.400	S-1004	57/64	T-2004	T-2004X	1-5/64	B-3004	57/64	D-4004		1-3/64	N-5004		1-5/64
	1/4	9/16	9/16	S-1179	1-7/64	T-2179	T-2179X	1-19/64	B-3179	1-7/64	D-4179		1-17/64	N-5179		1-19/64
	5/16	15/32	.400	S-1005	57/64	T-2005	T-2005X	1-5/64	B-3005	57/64	D-4005		1-3/64	N-5005		1-5/64
	5/16	9/16	9/16	S-1142	1-7/64	T-2142	T-2142X	1-19/64	B-3142	1-7/64	D-4142		1-17/64	N-5142		1-19/64
	3/8	9/16	9/16	S-1143	1-7/64	T-2143	T-2143X	1-19/64	B-3143	1-7/64	D-4143		1-17/64	N-5143		1-19/64
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	2	1/4	7/32	S-1102	19/32	T-2102	T-2102X	25/32	B-3102	19/32	D-4102		3/4	N-5102		25/32
	3-4	1/4	7/32	S-1048	19/32	T-2048	T-2048X	25/32	B-3048	19/32	D-4048		3/4	N-5048		25/32
	3-4	5/16	9/32	S-1112	45/64	T-2112	T-2112X	57/64	B-3112	45/64	D-4112		55/64	N-5112		57/64
	3-4	11/32	5/16	S-1095	47/64	T-2095	T-2095X	59/64	B-3095	47/64	D-4095		57/64	N-5095		59/64
	5-6	1/4	7/32	S-1006	19/32	T-2006	T-2006X	25/32	B-3006	19/32	D-4006		3/4	N-5006		25/32
	5-6	5/16	9/32	S-1007	45/64	T-2007	T-2007X	57/64	B-3007	45/64	D-4007		55/64	N-5007		57/64
	5-6	11/32	5/16	S-1092	47/64	T-2092	T-2092X	59/64	B-3092	47/64	D-4092		57/64	N-5092		59/64
	8	1/4	7/32	S-1113	19/32	T-2113	T-2113X	25/32	B-3113	19/32	D-4113		3/4	N-5113		25/32
	8	5/16	9/32	S-1024	45/64	T-2024	T-2024X	57/64	B-3024	45/64	D-4024		55/64	N-5024		57/64
	8	11/32	5/16	S-1093	47/64	T-2093	T-2093X	59/64	B-3093	47/64	D-4093		57/64	N-5093		59/64
	10	5/16	9/32	S-1008	45/64	T-2008	T-2008X	57/64	B-3008	45/64	D-4008		55/64	N-5008		57/64
	10	11/32	5/16	S-1094	47/64	T-2094	T-2094X	59/64	B-3094	47/64	D-4094		57/64	N-5094		59/64
	10	15/32	.400	S-1106	57/64	T-2106	T-2106X	1-5/64	B-3106	57/64	D-4106		1-3/64	N-5106		1-5/64
	10	9/16	9/16	S-1144	1-7/64	T-2144	T-2144X	1-19/64	B-3144	1-7/64	D-4144		1-17/64	N-5144		1-19/64
	1/4	15/32	.400	S-1009	57/64	T-2009	T-2009X	1-5/64	B-3009	57/64	D-4009		1-3/64	N-5009		1-5/64
	1/4	9/16	9/16	S-1145	1-7/64	T-2145	T-2145X	1-19/64	B-3145	1-7/64	D-4145		1-17/64	N-5145		1-19/64
	5/16	15/32	.400	S-1041	57/64	T-2041	T-2041X	1-5/64	B-3041	57/64	D-4041		1-3/64	N-5041		1-5/64
	5/16	9/16	9/16	S-1146	1-7/64	T-2146	T-2146X	1-19/64	B-3146	1-7/64	D-4146		1-17/64	N-5146		1-19/64
	3/8	9/16	9/16	S-1147	1-7/64	T-2147	T-2147X	1-19/64	B-3147	1-7/64	D-4147		1-17/64	N-5147		1-19/64
						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
12-10	3/4	9/32	5/16	S-1148	45/64	T-2148	T-2148X	1-1/64	B-3148	45/64	D-4148	D-4148X	61/64	N-5148	N-5148X	1
	3/4	3/8	5/16	S-1114	3/4	T-2114	T-2114X	1-1/16	B-3114	3/4	D-4114	D-4114X	1	N-5114	N-5114X	1-3/64
	5-6	9/32	5/16	S-1149	45/64	T-2149	T-2149X	1-1/64	B-3149	45/64	D-4149	D-4149X	61/64	N-5149	N-5149X	1
	5-6	3/8	5/16	S-1049	3/4	T-2049	T-2049X	1-1/16	B-3049	3/4	D-4049	D-4049X	1	N-5049	N-5049X	1-3/64
	8	9/32	5/16	S-1150	45/64	T-2150	T-2150X	1-1/64	B-3150	45/64	D-4150	D-4150X	61/64	N-5150	N-5150X	1
	8	3/8	5/16	S-1050	3/4	T-2050	T-2050X	1-1/16	B-3050	3/4	D-4050	D-4050X	1	N-5050	N-5050X	1-3/64
	10	3/8	5/16	S-1011	3/4	T-2011	T-2011X	1-1/16	B-3011	3/4	D-4011	D-4011X	1	N-5011	N-5011X	1-3/64
	10	17/32	13/32	S-1115	59/64	T-2115	T-2115X	1-15/64	B-3115	59/64	D-4115	D-4115X	1-7/64	N-5115	N-5115X	1-7/32
	10	19/32	31/64	S-1107	1-1/32	T-2107	T-2107X	1-11/32	B-3107	1-1/32	D-4107	D-4107X	1-9/32	N-5107	N-5107X	1-21/64
	1/4	17/32	13/32	S-1100	59/64	T-2100	T-2100X	1-15/64	B-3100	59/64	D-4100	D-4100X	1-7/64	N-5100	N-5100X	1-7/32
	1/4	19/32	31/64	S-1012	1-1/32	T-2012	T-2012X	1-11/32	B-3012	1-1/32	D-4012	D-4012X	1-9/32	N-5012	N-5012X	1-21/64
	1/4	3/4	5/8	S-1151	1-17/64	T-2151	T-2151X	1-37/64	B-3151	1-17/64	D-4151	D-4151X	1-33/64	N-5151	N-5151X	1-9/16
	5/16	17/32	13/32	S-1101	59/64	T-2101	T-2101X	1-15/64	B-3101	59/64	D-4101	D-4101X	1-7/64	N-5101	N-5101X	1-7/32
	5/16	19/32	31/64	S-1042	1-1/32	T-2042	T-2042X	1-11/32	B-3042	1-1/32	D-4042	D-4042X	1-9/32	N-5042	N-5042X	1-21/64
	5/16	3/4	5/8	S-1152	1-17/64	T-2152	T-2152X	1-37/64	B-3152	1-17/64	D-4152	D-4152X	1-33/64	N-5152	N-5152X	1-9/16
	3/8	19/32	31/64	S-1013	1-1/32	T-2013	T-2013X	1-11/32	B-3013	1-1/32	D-4013	D-4013X	1-9/32	N-5013	N-5013X	1-21/64
	3/8	3/4	5/8	S-1153	1-17/64	T-2153	T-2153X	1-37/64	B-3153	1-17/64	D-4153	D-4153X	1-33/64	N-5153	N-5153X	1-9/16
	7/16	3/4	5/8	S-1154	1-17/64	T-2154	T-2154X	1-37/64	B-3154	1-17/64	D-4154	D-4154X	1-33/64	N-5154	N-5154X	1-9/16
	1/2	3/4	5/8	S-1155	1-17/64	T-2155	T-2155X	1-37/64	B-3155	1-17/64	D-4155	D-4155X	1-33/64	N-5155	N-5155X	1-9/16

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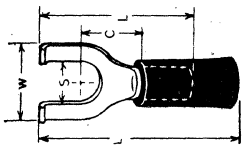
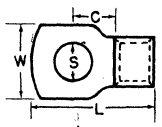
SOLDERLESS TERMINALS AND CONNECTORS

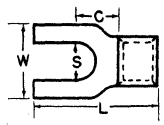
FLANGED SPADE TERMINALS



Wire Range	Basic Dimensions: Stud Size S	Width W	Clearance C	KRIMPTITE: Cat. No.	Length L	INSULKRIMP: .125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L	VERSAKRIMP: Cat. No.	Length L	VIBRAKRIMP: .145 Max. Insulation Diameter	Cat. No.	Length L	AVIKRIMP: .145 Max. Insulation Diameter	Cat. No.	Length L
22-18	3-4	19/64	7/32	S-1125	5/8	T-2125	T-2125X	13/16	B-3125	5/8	D-4125		25/32	N-5125		13/16
	5-6	19/64	7/32	S-1080	5/8	T-2080	T-2080X	13/16	B-3080	5/8	D-4080		25/32	N-5080		13/16
	8	19/64	7/32	S-1081	5/8	T-2081	T-2081X	13/16	B-3081	5/8	D-4081		25/32	N-5081		13/16
	10	19/64	7/32	S-1082	5/8	T-2082	T-2082X	13/16	B-3082	5/8	D-4082		25/32	N-5082		13/16
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	3-4	19/64	7/32	S-1126	5/8	T-2126	T-2126X	13/16	B-3126	5/8	D-4126		25/32	N-5126		13/16
	5-6	19/64	7/32	S-1083	5/8	T-2083	T-2083X	13/16	B-3083	5/8	D-4083		25/32	N-5083		13/16
	8	19/64	7/32	S-1084	5/8	T-2084	T-2084X	13/16	B-3084	5/8	D-4084		25/32	N-5084		13/16
	10	19/64	7/32	S-1085	5/8	T-2085	T-2085X	13/16	B-3085	5/8	D-4085		25/32	N-5085		13/16
						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
12-10	5-6	3/8	5/16	S-1086	3/4	T-2086	T-2086X	1-1/16	B-3086	3/4	D-4086	D-4086X	1	N-5086	N-5086X	1-3/64
	8	3/8	5/16	S-1087	3/4	T-2087	T-2087X	1-1/16	B-3087	3/4	D-4087	D-4087X	1	N-5087	N-5087X	1-3/64
	10	3/8	5/16	S-1088	3/4	T-2088	T-2088X	1-1/16	B-3088	3/4	D-4088	D-4088X	1	N-5088	N-5088X	1-3/64

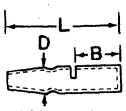
FLAG TYPE TERMINALS-CLOSED AND OPEN





Wire Range	Basic Dimensions: Stud Size S	Maximum Width W	Clearance C	Stock	KRIMPTITE: Catalog Number	Length L	VERSAKRIMP: Catalog Number	Length L	KRIMPTITE: Catalog Number	Length L	VERSAKRIMP: Catalog Number	Length L
22-18	5-6	3/8	5/16	.032	S-1059	5/8	B-3059	5/8	S-1156	5/8	B-3156	5/8
	8	3/8	5/16	.032	S-1060	5/8	B-3060	5/8	S-1157	5/8	B-3157	5/8
	10	3/8	5/16	.032	S-1043	5/8	B-3043	5/8	S-1158	5/8	B-3158	5/8
16-14	5-6	3/8	5/16	.032	S-1061	21/32	B-3061	21/32	S-1159	21/32	B-3159	21/32
	8	3/8	5/16	.032	S-1062	21/32	B-3062	21/32	S-1160	21/32	B-3160	21/32
	10	3/8	5/16	.032	S-1044	21/32	B-3044	21/32	S-1161	21/32	B-3161	21/32
12-10	5-6	3/8	5/16	.040	S-1108	23/32	B-3108	23/32	S-1162	23/32	B-3162	23/32
	8	3/8	5/16	.040	S-1109	23/32	B-3109	23/32	S-1163	23/32	B-3163	23/32
	10	3/8	5/16	.040	S-1110	23/32	B-3110	23/32	S-1164	23/32	B-3164	23/32

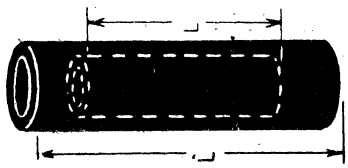
SNAP PLUGS



.032 Stock

Wire Range	Basic Dimensions: Length L	Barrel Length B	Diameter D	KRIMPTITE: Catalog Number	Length L	INSULKRIMP: .155 Max. Insulation Diameter	.175 Max. Insulation Diameter	Length L	VIBRAKRIMP: .175 Max. Insulation Diameter	Length L	AVIKRIMP: .175 Max. Insulation Diameter	Length L
16-14	35/64	3/16	.176	S-1056	35/64	T-2056	T-2056X	51/64	D-4056	49/64	N-5056	51/64
16-14	19/32	3/16	.157	S-1055	19/32	T-2055	T-2055X	27/32	D-4055	13/16	N-5055	27/32

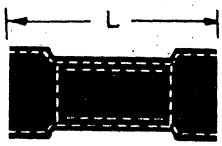
BUTT CONNECTORS



Straight

Flared (X)

PARALLEL CONNECTORS



Flared (x)

Straight

Wire ranges represent cumulative totals of wires used.

Wire Range	KRIMPTITE: Catalog No.	Overall Length L	INSULKRIMP: Catalog No.	Catalog No.	Overall Length L	VERSAKRIMP: Catalog No.	Overall Length
22-18	S-1019	9/16	T-2019 (.125 I.D)	T-2019X (.145 I.D.)	15/16	B-3019	9/16
16-14	S-1020	9/16	T-2020 (.155 I. D.)	T-2020X (.175 I. D.)	15/16	B-3020	9/16
12-10	S-1046	9/16	T-2046 (.215 I.D.)	T-2046X (.255 I.D)	1-1/16	B-3046	9/16

Wire Range	KRIMPTITE: Catalog No.	Overall Length L	INSULKRIMP: Catalog No.	Catalog No.	Overall Length L	VERSAKRIMP: Catalog No.	Overall Length
22-18	S-1105	5/16	T-2105 (.125 I.D.)	T-2105X (.145 I.D.)	11/16	B-3105	5/16
16-14	S-1063	5/16	T-2063 (.155 I.D.)	T-2063X (.175 I. D.)	11/16	B-3063	5/16
12-10	S-1064	5/16	T-2064 (.215 I.D.)	T-2064X (.255 I.D)	25/32	B-3064	5/16

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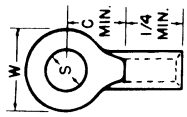
WALDOM

SOLDERLESS TERMINALS AND CONNECTORS

HEAVY DUTY TERMINALS

(USE 12-10 TOOLING)

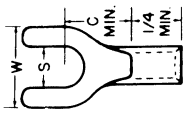
RING TONGUE .050 STOCK



These terminals are formed from heavier stock (full .050") to resist heavy vibration that fractures standard terminals.

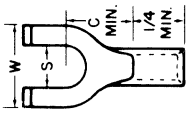
Wire Range	Basic Dimensions			KRIMPTITE		INSULKRIMP			VIBRAKRIMP			AVIKRIMP		
	Stud Size S	Width W	Clearance C	Catalog Number	Length L	.215 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L	.235 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L	.235 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L
16–14	3-4	9/32	5/16	S-1401H	45/64	T-2401H	T-2401HX	1-1/64	D-4401H	D-4401HX	61/64	N-5401H	N-5401HX	1
		3/8	5/16	S-1402H	3/4	T-2402H	T-2402HX	1-1/16	D-4402H	D-4402HX	1	N-5402H	N-5402HX	1-3/64
	5-6	9/32	5/16	S-1403H	45/64	T-2403H	T-2403HX	1-1/64	D-4403H	D-4403HX	61/64	N-5403H	N-5403HX	1
		3/8	5/16	S-1404H	3/4	T-2404H	T-2404HX	1-1/16	D-4404H	D-4404HX	1	N-5404H	N-5404HX	1-3/64
	8	9/32	5/16	S-1405H	45/64	T-2405H	T-2405HX	1-1/64	D-4405H	D-4405HX	61/64	N-5405H	N-5405HX	1
		3/8	5/16	S-1406H	3/4	T-2406H	T-2406HX	1-1/16	D-4406H	D-4406HX	1	N-5406H	N-5406HX	1-3/64
	10	3/8	5/16	S-1407H	3/4	T-2407H	T-2407HX	1-1/16	D-4407H	D-4407HX	1	N-5407H	N-5407HX	1-3/64
		17/32	13/32	S-1408H	59/64	T-2408H	T-2408HX	1-15/64	D-4408H	D-4408HX	1-11/64	N-5408H	N-5408HX	1-7/32
		19/32	31/64	S-1409H	1-1/32	T-2409H	T-2409HX	1-11/32	D-4409H	D-4409HX	1-9/32	N-5409H	N-5409HX	1-21/64
	1/4	17/32	13/32	S-1410H	59/64	T-2410H	T-2410HX	1-15/64	D-4410H	D-4410HX	1-11/64	N-5410H	N-5410HX	1-7/32
		19/32	31/64	S-1411H	1-1/32	T-2411H	T-2411HX	1-11/32	D-4411H	D-4411HX	1-9/32	N-5411H	N-5411HX	1-21/64
		3/4	5/8	S-1412H	1-17/64	T-2412H	T-2412HX	1-37/64	D-4412H	D-4412HX	1-33/64	N-5412H	N-5412HX	1-9/16
	5/16	17/32	13/32	S-1413H	59/64	T-2413H	T-2413HX	1-15/64	D-4413H	D-4413HX	1-11/64	N-5413H	N-5413HX	1-7/32
		19/32	31/64	S-1414H	1-1/32	T-2414H	T-2414HX	1-11/32	D-4414H	D-4414HX	1-9/32	N-5414H	N-5414HX	1-21/64
		3/4	5/8	S-1415H	1-17/64	T-2415H	T-2415HX	1-37/64	D-4415H	D-4415HX	1-33/64	N-5415H	N-5415HX	1-9/16
	3/8	19/32	31/64	S-1416H	1-1/32	T-2416H	T-2416HX	1-11/32	D-4416H	D-4416HX	1-9/32	N-5416H	N-5416HX	1-21/64
		3/4	5/8	S-1417H	1-17/64	T-2417H	T-2417HX	1-37/64	D-4417H	D-4417HX	1-33/64	N-5417H	N-5417HX	1-9/16
	7/16	3/4	5/8	S-1418H	1-17/64	T-2418H	T-2418HX	1-37/64	D-4418H	D-4418HX	1-33/64	N-5418H	N-5418HX	1-9/16
	1/2	3/4	5/8	S-1419H	1-17/64	T-2419H	T-2419HX	1-37/64	D-4419H	D-4419HX	1-33/64	N-5419H	N-5419HX	1-9/16

SPADE TONGUE .050 STOCK



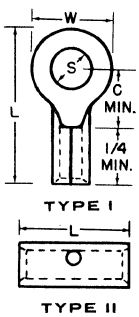
16-14	5-6	3/8	5/16	S-1420H	25/32	T-2420H	T-2420HX	1-3/32	D-4420H	D-4420HX	1-1/32	N-5420H	N-5420HX	1-5/64
	8	3/8	5/16	S-1421H	25/32	T-2421H	T-2421HX	1-3/32	D-4421H	D-4421HX	1-1/32	N-5421H	N-5421HX	1-5/64
	10	3/8	5/16	S-1422H	25/32	T-2422H	T-2422HX	1-3/32	D-4422H	D-4422HX	1-1/32	N-5422H	N-5422HX	1-5/64

FLANGED SPADE .050 STOCK



16-14	5-6	3/8	5/16	S-1423H	3/4	T-2423H	T-2423HX	1-1/16	D-4423H	D-4423HX	1	N-5423H	N-5423HX	1-3/64
	8	3/8	5/16	S-1424H	3/4	T-2424H	T-2424HX	1-1/16	D-4424H	D-4424HX	1	N-5424H	N-5424HX	1-3/64
	10	3/8	5/16	S-1425H	3/4	T-2425H	T-2425HX	1-1/16	D-4425H	D-4425HX	1	N-5425H	N-5425HX	1-3/64

HIGH TEMPERATURE TERMINALS



Engineered specifically for high temperature applications, rugged TEMP-TERMS are conservatively rated for continuous duty at 650°F. Terminals and connectors in this series are fabricated from a heat-resisting alloy and are specially nickle-plated for corrosion-resistance at elevated temperatures.

Wire Range	Catalog Number	Type	Stud Size S	Maximum Width W	Overall Length L	Stud Clearance C
22-18	S-1165	I	5-6	7/32	33/64	5/32
	S-1166	I	5-6	9/32	41/64	1/4
	S-1167	I	8	9/32	41/64	1/4
	S-1168	I	10	9/32	41/64	1/4
	S-1169	II	—	—	9/16	–
16-14	S-1170	I	5-6	1/4	19/32	7/32
	S-1171	I	5-6	5/16	45/64	9/32
	S-1172	I	8	5/16	45/64	9/32
	S-1173	I	10	5/16	45/64	9/32
	S-1174	II	—	—	9/16	—
12-10	S-1175	I	5-6	3/8	3/4	5/16
	S-1176	I	8	3/8	3/4	5/16
	S-1177	I	10	3/8	3/4	5/16
	S-1178	II	—	—	9/16	—

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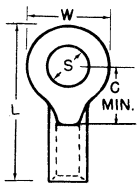
SOLDERLESS TERMINALS AND CONNECTORS

LARGE WIRE RANGES

RING TONGUE TERMINALS



NO. 8 WIRE RANGE .050 Stock A. B.

BASIC DIMENSIONS				VERSAKRIMP	
STUD SIZE S	WIDTH W	CLEARANCE C	LENGTH L	CATALOG NUMBER	CATALOG NUMBER
6	15/32 3/8	11/32 11/32	61/64 29/32	B-3200	B-3224
8	15/32 3/8	11/32 11/32	61/64 29/32	B-3201	B-3225
10	15/32 19/32 13/16 3/8	11/32 13/32 19/32 11/32	61/64 1-5/64 1-3/8 29/32	B-3202 B-3205 B-3210	B-3226
1/4	15/32 19/32 13/16 1-1/8 3/8	11/32 13/32 19/32 31/32 11/32	61/64 1-5/64 1-3/8 1-29/32 29/32	B-3203 B-3206 B-3211 B-3217	B-3279
5/16	15/32 19/32 13/16 1-1/8	11/32 13/32 19/32 31/32	61/64 1-5/64 1-3/8 1-29/32	B-3204 B-3207 B-3212 B-3218	
3/8	19/32 13/16 1-1/8	13/32 19/32 31/32	1-5/64 1-3/8 1-29/32	B-3208 B-3213 B-3219	
7/16	19/32 13/16 1-1/8	13/32 19/32 31/32	1-5/64 1-3/8 1-29/32	B-3209 B-3214 B-3220	
1/2	13/16 1-1/8	19/32 31/32	1-3/8 1-29/32	B-3215 B-3221	
5/8	13/16 1-1/8	19/32 31/32	1-3/8 1-29/32	B-3216 B-3222	
3/4	1-1/8	31/32	1-29/32	B-3223	

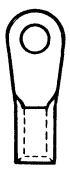
A.

NO. 6 WIRE RANGE .057 Stock A. B.

BASIC DIMENSIONS				VERSAKRIMP	
STUD SIZE S	WIDTH W	CLEARANCE C	LENGTH L	CATALOG NUMBER	CATALOG NUMBER
8	5/8 15/32	1/2 1/2	1-1/4 1-11/64	B-3227	B-3247
10	5/8 13/16 15/32	1/2 19/32 1/2	1-1/4 1-7/16 1-11/64	B-3228 B-3233	B-3248
1/4	5/8 13/16 1-1/8 15/32	1/2 19/32 31/32 1/2	1-1/4 1-7/16 1-31/32 1-11/64	B-3229 B-3234 B-3240	B-3249
5/16	5/8 13/16 1-1/8 15/32	1/2 19/32 31/32 1/2	1-1/4 1-7/16 1-31/32 1-11/64	B-3230 B-3235 B-3241	B-3250
3/8	5/8 13/16 1-1/8	1/2 19/32 31/32	1-1/4 1-7/16 1-31/32	B-3231 B-3236 B-3242	
7/16	5/8 13/16 1-1/8	1/2 19/32 31/32	1-1/4 1-7/16 1-31/32	B-3232 B-3237 B-3243	
1/2	13/16 1-1/8	19/32 31/32	1-7/16 1-31/32	B-3238 B-3244	
5/8	13/16 1-1/8	19/32 31/32	1-7/16 1-31/32	B-3239 B-3245	
3/4	1-1/8	31/32	1-31/32	B-3246	

NO. 4 WIRE RANGE .075 Stock A. B.

BASIC DIMENSIONS				VERSAKRIMP	
STUD SIZE S	WIDTH W	CLEARANCE C	LENGTH L	CATALOG NUMBER	CATALOG NUMBER
10	21/32 15/32	1/2 1/2	1-5/16 1-7/32	B-3251	B-3257
1/4	21/32 15/32 7/8 1-1/4	1/2 1/2 31/32 31/32	1-5/16 1-7/32 1-29/32 2-3/32	B-3252 B-3266 B-3272	B-3258
5/16	21/32 15/32 7/8 1-1/4	1/2 1/2 31/32 31/32	1-5/16 1-7/32 1-29/32 2-3/32	B-3253 B-3267 B-3273	B-3259
3/8	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3254 B-3268 B-3274	
7/16	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3255 B-3269 B-3275	
1/2	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3256 B-3270 B-3276	
5/8	7/8 1-1/4	31/32 31/32	1-29/32 2-3/32	B-3271 B-3277	
3/4	1-1/4	31/32	2-3/32	B-3278	



B.

NO. 2 WIRE RANGE .075 Stock A. B.

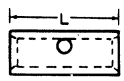
BASIC DIMENSIONS				VERSAKRIMP	
STUD SIZE S	WIDTH W	CLEARANCE C	LENGTH L	CATALOG NUMBER	CATALOG NUMBER
10	5/8	43/64	1-17/32		B-3280
1/4	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3284 B-3290 B-3296	B-3281
5/16	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3285 B-3291 B-3297	B-3282
3/8	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3286 B-3292 B-3298	B-3283
7/16	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3287 B-3293 B-3299	
1/2	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3288 B-3294 B-3300	
5/8	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3289 B-3295 B-3301	
3/4	1-1/4	31/32	2-5/32	B-3302	

PARALLEL AND BUTT CONNECTORS

VERSAKRIMP ONLY

PARALLEL CONNECTORS

WIRE RANGE	STOCK	CATALOG NO.	LENGTH L
#8	.050	B-3260	3/8
#6	.057	B-3261	7/16
#4	.075	B-3262	17/32
#2	.075	B-3303	41/64



BUTT CONNECTORS

WIRE RANGE	STOCK	CATALOG NO.	LENGTH L
#8	.050	B-3263	53/64
#6	.057	B-3264	1-1/64
#4	.075	B-3265	1-1/8
#2	.075	B-3304	1-1/4

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

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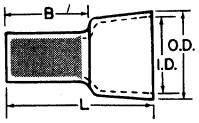
SOLDERLESS TERMINALS AND CONNECTORS

WALDOM

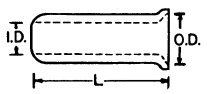
NYLON INSULATED CLOSED-END CONNECTORS



Wire Range	Catalog Number	Outside Diameter O.D.	Overall Length L	Barrel Length B	Inside Diameter I.D.	Circular Mil Area
22-14	CE-2214	5/16	39/64	11/32	1/4	600- 5,180
16-10	CE-1610	7/16	23/32	3/8	3/8	2,400-13,100

Connectors are annealed, tin-plated seamless brass. Insulation is natural-color translucent Du-Pont Nylon Molded of the finest compound obtainable. A variety of colors is available on quantity orders. Temperature rating of 105°C maximum. 600 Volts maximum in building wire and 1,000 Volts inside a sign or fixture.

CONNECTOR INSERTS

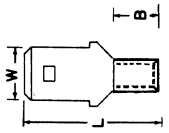


Wire Range	Catalog Number	Outside Diameter O.D.	Overall Length L	Inside Diameter I.D.	Circular Mil Area
22-14	IC-2214	1/8	21/64	5/64	600- 5,180
16-10	IC-1610	13/64	11/32	5/32	2,400-13,100

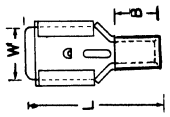
Inserts are the same annealed, tin-plated seamless brass pieces as used in the Nylon-insulated Closed-End Connectors described above. Inserts are used in applications where insulation is not essential.

QUICK-DISCONNECT PUSH-ON TYPE TERMINALS

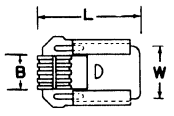
.020 Stock



Male



Female



Female Flag

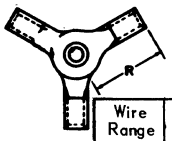
KRIMPTITE

Length L	15/32
Barrel Length B	5/32
Width W	1/4
Catalog No.	S-1091
Wire range	.18-14

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VIBRAKRIMP		AVIKRIMP	
	Wire Range	Length L	Barrel Length B	D Width W	Catalog Number	Length L	.155 Max. Insulation Diameter	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L
MALE	18-14	21/32	1/4	1/4	S-1089	21/32	T-2089	T-2089X	27/32	D-4089	13/16	N-5089	27/32
FEMALE		43/64	7/32	1/4	S-1090	43/64	T-2090	T-2090X	55/64	D-4090	53/64	N-5090	55/64

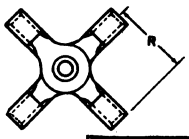
These terminals are designed to give high pressure spring-loaded connections. They incorporate a locking action caused by mating a depression on the male tongue with a raised pip in the female slot when the parts are engaged. Insulation is not available on the flag design.

3 WAY "Y" CONNECTORS



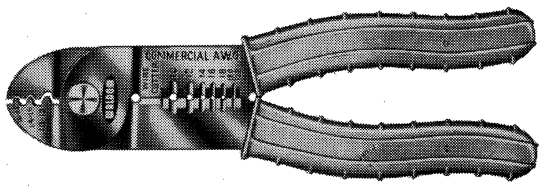
		KRIMPTITE		INSULKRIMP					VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stock	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R
22-18	.032	S-1065	33/64	T-2065	.125	T-2065X	.145	45/64	B-3065	33/64	D-4065	.145	43/64	N-5065	.145	45/64
16-14	.032	S-1066	35/64	T-2066	.155	T-2066X	.175	47/64	B-3066	35/64	D-4066	.175	45/64	N-5066	.175	47/64
12-10	.040	S-1067	37/64	T-2067	.215	T-2067X	.255	57/64	B-3067	37/64	D-4067	.235	53/64	N-5067	.235	7/8

4 WAY "X" CONNECTORS



		KRIMPTITE		INSULKRIMP					VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stock	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R
22-18	.032	S-1068	33/64	T-2068	.125	T-2068X	.145	45/64	B-3068	33/64	D-4068	.145	43/64	N-5068	.145	45/64
16-14	.032	S-1069	35/64	T-2069	.155	T-2069X	.175	47/64	B-3069	35/64	D-4069	.175	45/64	N-5069	.175	47/64
12-10	.040	S-1070	37/64	T-2070	.215	T-2070X	.255	57/64	B-3070	37/64	D-4070	.235	53/64	N-5070	.235	7/8

Both the "Y" and the "X" Connectors are made up of ring tongue terminals which have been joined to form a 3-way or 4-way splice. The wire ranges apply to each terminal. The material is tin-plated copper with a plated steel rivet. Other combinations of standard terminals can usually be supplied on special order.



UNIVERSAL CRIMPING TOOL

CT-4050. Crimps both insulated and non-insulated terminals. Wire ranges 22 through 12. Also cuts wire and strips wire.

$3.95

© U.C.P., Inc.

WALDOM

SOLDERLESS TERMINALS PRICE LIST

	KRIMPTITE			INSULKRIMP *			VERSAKRIMP			VIBRAKRIMP			AVIKRIMP		
	100-999 Per C	1000-4999 Per M	5000-Over Per M	100-999 Per C	1000-4999 Per M	5000-Over Per M	100-999 Per C	1000-4999 Per M	5000-Over Per M	100-999 Per C	1000-4999 Per M	5000-Over Per M	100-999 Per C	1000-4999 Per M	5000-Over Per M
SPADE, FLANGED SPADE, RECTANGULAR, HOOK TONGUE TERMINALS, HIGH TEMPERATURE TERMINALS															
Wire Ranges 22-18 + 16-14	1.80	14.99	11.39	3.94	33.03	24.94	2.76	23.03	17.39	4.56	38.04	28.91	6.40	53.30	40.40
Wire Range 12-10	2.52	21.00	15.96	5.14	43.02	32.49	4.29	35.77	27.01	5.81	48.41	36.79	7.90	65.82	50.03
HEAVY DUTY TYPE															
Wire Range 16-14	3.02	25.16	19.07	5.79	48.51	36.63				7.83	65.56	49.51	10.57	88.49	66.82
RING TONGUE TERMINALS															
Wire Ranges 22-18 + 16-14															
Stud Sizes 2, 3-4, 5-6 + 8	1.80	14.99	11.39	3.94	33.03	24.94	2.76	23.03	17.39	4.56	38.04	28.91	6.40	53.30	40.40
Series S-1098 S-1003 S-1008 S-1094	1.80	14.99	11.39	3.94	33.03	24.94	2.76	23.03	17.39	4.56	38.04	28.91	6.40	53.30	40.40
Series S-1111 S-1004 S-1005 S-1106 S-1009 S-1041	2.52	21.00	15.96	5.14	43.02	32.49	4.29	35.77	27.01	5.81	48.41	36.79	7.90	65.82	50.03
Series S-1141 S-1179 S-1142 S-1143 S-1144 S-1145 S-1146 S-1147	3.34	27.82	21.09	6.18	51.74	39.07	5.09	42.43	32.04	6.66	55.76	42.11	8.67	72.62	54.83
Wire Range 12-10 Stud Sizes 3-4, 5-6, 8 and Series S-1011	2.52	21.00	15.96	5.14	43.02	32.49	4.29	35.77	27.01	5.81	48.41	36.79	7.90	65.82	50.03
Series S-1115 S-1100 S-1101	3.27	27.24	20.70	5.44	45.57	34.41	5.23	43.61	32.93	6.44	53.90	40.70	8.04	67.33	50.84
Series S-1107 S-1012 S-1042 S-1013	3.60	29.97	22.77	6.04	50.57	38.18	5.76	48.02	36.26	6.84	57.33	43.29	8.72	73.01	55.13
Series S-1151 S-1152 S-1153 S-1154 S-1155	5.70	47.48	36.00	8.28	69.38	52.39	7.33	61.15	46.18	9.11	76.34	57.65	10.99	92.02	69.49
Wire Ranges 8,6,4 + 2	SEE BELOW														
HEAVY DUTY TYPE															
Series S-1401H thru S-1407H	3.02	25.16	19.07	5.79	48.51	36.63				7.83	65.56	49.51	10.57	88.49	66.82
Series S-1408H, S-1410H, S-1413H	3.91	32.57	24.70	6.39	53.51	40.40				8.25	69.09	52.17	11.52	96.53	72.89
Series S-1409H, S-1411H, S-1414H, S-1416H	4.30	35.87	27.20	7.94	66.54	50.25				9.06	75.85	57.28	12.20	102.21	77.18
Series S-1412H, S-1415H, S-1417H, S-1418H, S-1419H	6.84	57.00	43.22	9.98	83.59	63.12				11.08	92.81	70.08	13.12	109.86	82.95
FLAG TYPE TERMINALS															
Wire Ranges 22-18 + 16-14	2.52	21.00	15.96				4.29	35.77	27.01						
Wire Range 12-10	3.64	29.97	22.77				5.73	48.02	36.26						
SNAP PLUGS															
All	1.80	14.99	11.39	3.94	33.03	24.94				4.56	38.04	28.91	6.40	53.30	40.40
QUICK DISCONNECTS															
Female & Male	1.96	16.34	12.42	4.34	36.46	27.53				4.56	38.04	28.91	6.40	53.30	40.40
Female Flag	2.09	17.43	13.25												
BUTT CONNECTORS, REGULAR & HIGH TEMPERATURE															
Wire Ranges 22-18 + 16-14	2.00	16.68	12.67	4.72	39.49	29.82	3.78	31.44	26.14						
Wire Range 12-10	3.43	28.61	21.74	6.39	53.51	40.40	5.26	43.84	36.44						
Wire Ranges 8,6,4 + 2	See below														
PARALLEL CONNECTORS															
Wire Ranges 22-18 + 16-14	1.62	13.47	10.23	3.63	30.38	22.94	2.99	24.91	20.71						
Wire Range 12-10	2.19	18.24	13.86	4.72	39.49	29.82	3.49	29.06	24.15						
Wire Ranges 8,6,4 + 2	See below														

ALL TERMINALS & CONNECTORS LARGE WIRE RANGES
Versakrimp Style Only

WIRE RANGE NO. 8

	Pkg. of 25	100-999 Per C	1000-4999 Per M	5000-Over Per M
B-3200 thru B-3204, B-3224 thru B-3226 and B-3279	2.43	8.09	60.68	48.72
B-3205 thru B-3209	3.39	11.31	84.87	68.13
B-3210 thru B-3216	4.25	14.15	106.04	85.14
B-3217 thru B-3223	4.97	16.58	124.29	99.79
B-3260	1.65	5.50	41.17	33.03
B-3263	3.27	10.90	81.66	65.53

WIRE RANGE NO. 6

	Pkg. of 25	100-999 Per C	1000-4999 Per M	5000-Over Per M
B-3227 thru B-3232, B-3247 thru B-3250	3.87	12.90	96.75	77.69
B-3233 thru B-3239	4.64	15.45	115.92	93.07
B-3240 thru B-3246	5.40	17.99	134.84	108.26
B-3261	2.80	9.33	69.89	56.08
B-3264	5.66	18.88	141.37	113.43

WIRE RANGE NO. 4
Pkg of 20

B-3251 thru B-3256	4.51	18.79	140.70	112.90
B-3257 thru B-3259	4.43	18.45	138.19	110.89
B-3266 thru B-3271	5.58	23.23	173.93	139.56
B-3272 thru B-3278	5.91	24.61	184.28	147.87
B-3262	3.06	12.77	95.61	76.72
B-3265	4.66	19.42	145.46	116.71

WIRE RANGE NO. 2
Pkg of 20

B-3280 thru B-3283	6.51	27.14	188.46	151.22
B-3284 thru B-3289	6.04	25.17	203.24	163.08
B-3290 thru B-3295	8.33	34.70	259.85	208.50
B-3296 thru B-3302	9.06	37.77	282.81	226.93
B-3303	3.74	15.58	116.65	93.60
B-3304	6.54	27.24	203.99	163.68

	KRIMPTITE				INSULKRIMP			
	Pkg. of 25	100-499 Per C	500-999 Per M	1000-Over Per M	Pkg. of 25	100-499 Per C	500-999 Per M	1000-Over Per M
3-Way Connectors								
Wire Ranges 22-18 + 16-14	2.03	6.78	56.48	42.92	3.90	13.00	108.88	82.21
Wire Range 12-10	2.60	8.67	72.26	54.92	4.97	16.58	138.87	104.86
4-Way Connectors								
Wire Ranges 22-18 + 16-14	2.60	8.67	72.26	54.93	5.08	16.94	141.90	107.15
Wire Ranges 12-10	3.35	11.18	93.15	70.80	6.52	21.72	181.89	137.74

	VERSAKRIMP			VIBRAKRIMP		
3-Way Connectors						
Wire Ranges 22-18 + 16-14	3.18	10.59	88.69	66.97	4.45	14.82	124.17	
Wire Range 12-10	4.55	15.15	126.91	95.83	5.56	18.54	155.33	
4-Way Connectors								
Wire Ranges 22-18 + 16-14	4.14	13.81	115.64	87.32	5.81	19.38	162.29	122.54
Wire Range 12-10	6.07	20.24	169.54	128.02	7.30	24.34	203.84	153.92

	AVIKRIMP			
3-Way Connectors				
Wire Ranges 22-18 + 16-14	6.09	20.30	170.03	128.39
Wire Range 12-10	7.44	24.79	207.66	156.81
4-Way Connectors				
Wire Ranges 22-18 + 16-14	8.00	26.68	223.44	168.72
Wire Range 12-10	9.80	32.67	273.62	206.61

NYLON INSULATED CLOSED END CONNECTORS	100-999 Per C	1000-4999 Per M	5000-Over Per M
CE-2214	3.11	25.88	19.67
CE-1610	4.25	35.78	27.19
CONNECTOR INSERTS			
IC-2214	1.35	11.25	8.55
IC-1610	1.80	14.99	11.39

***EXTRA CHARGE FOR FLARING INSULKRIMP TERMINALS ("X" Suffix)**

All Standard Terminals	2.50/M	Parallel Connectors	4.00/M
All Heavy Duty Terminals	No Extra Charge	3-Way Connectors	7.50/M
Butt Connectors	4.00/M	4-Way Connectors	10.00/M

Standard Package includes 100 terminals unless smaller package is shown

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

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WALDOM Electronic Hardware

Note: Brass hardware is nickel-plated; steel hardware is cadmium plated unless otherwise noted. Specify suffix C for 100 quantity; suffix M for 1,000 and up quantity (F-461M).

ROUND HEAD MACHINE SCREWS STEEL TYPE

Wald. No.	Size	Pkg. of 100	1000-4999 Per M	5000 & Up Per M
F-461	2-56 x 1/4"	$0.41	$ 3.38	$ 2.26
F-462	2-56 x 1/2"	.46	3.69	2.46
F-463	2-56 x 3/4"	.53	4.25	2.83
F-464	3-48 x 3/4"	.54	4.45	2.98
F-465	4-36 x 1/4"	.46	3.69	2.47
F-466	4-36 x 3/8"	.46	3.77	2.54
F-467	4-36 x 1/2"	.49	4.00	2.68
F-468	4-36 x 3/4"	.58	4.68	3.11
F-469	4-40 x 1/4"	.46	3.69	2.47
F-470	4-40 x 1/2"	.49	4.05	2.69
F-471	4-40 x 3/4"	.58	4.68	3.11
F-472	6-32 x 1/4"	.49	4.06	2.71
F-473	6-32 x 1/2"	.58	4.73	3.16
F-474	6-32 x 3/4"	.68	5.58	3.71
F-475	6-32 x 1"	.78	6.39	4.26
F-476	6-32 x 1 1/4"	.94	7.68	5.12
F-477	6-32 x 2"	1.41	11.58	7.72
F-478	8-32 x 1/4"	.65	5.32	3.55
F-479	8-32 x 3/8"	.70	5.73	3.83
F-480	8-32 x 1/2"	.77	6.22	4.15
F-481	8-32 x 3/4"	.87	7.12	4.74
F-482	8-32 x 1"	1.00	8.16	5.44
F-483	8-32 x 1 1/4"	1.16	9.47	6.31
F-484	10-32 x 1/2"	.90	7.33	4.88
F-485	10-32 x 3/4"	1.05	8.57	5.71
F-486	10-32 x 1"	1.17	9.64	6.43
F-487	10-32 x 1 1/2"	1.55	12.68	8.46
F-488	1/4-20 x 1/2"	1.51	12.39	8.27
F-489	1/4-20 x 3/4"	1.72	14.04	9.36
F-490	1/4-20 x 1"	1.96	15.98	10.64
F-491	1/4-20 x 1 1/4"	2.24	18.31	12.20
F-492	1/4-20 x 1 3/4"	2.70	22.17	14.78
F-493	1/4-20 x 2 1/2"	3.40	27.83	18.55

BRASS TYPE

F-461B	2-56 x 1/4"	$0.74	$ 5.90	$ 4.03
F-462B	2-56 x 1/2"	.86	6.91	4.73
F-463B	2-56 x 3/4"	1.06	8.46	5.80
F-464B	3-48 x 3/4"	1.19	9.54	6.52
F-465B	4-36 x 1/4"	.89	7.16	4.91
F-466B	4-36 x 3/8"	1.07	8.64	5.90
F-467B	4-36 x 1/2"	1.11	8.89	6.08
F-468B	4-36 x 3/4"	1.38	11.05	7.56
F-469B	4-40 x 1/4"	.89	7.16	4.91
F-470B	4-40 x 1/2"	1.11	8.89	6.08
F-471B	4-40 x 3/4"	1.38	11.05	7.56
F-472B	6-32 x 1/4"	1.16	9.32	6.37
F-473B	6-32 x 1/2"	1.52	12.13	8.30
F-474B	6-32 x 3/4"	1.83	14.62	10.00
F-475B	6-32 x 1"	2.18	17.46	11.95
F-476B	6-32 x 1 1/4"	2.64	21.10	14.44
F-477B	6-32 x 2"	4.01	32.08	21.95
F-478B	8-32 x 1/4"	1.67	13.36	9.13
F-479B	8-32 x 3/8"	1.90	15.19	10.39
F-480B	8-32 x 1/2"	2.13	17.03	11.65
F-481B	8-32 x 3/4"	2.64	21.10	14.44
F-482B	8-32 x 1"	3.14	25.09	17.17
F-483B	8-32 x 1 1/4"	3.70	29.59	20.24
F-484B	10-32 x 1/2"	2.77	22.10	15.12
F-485B	10-32 x 3/4"	3.39	27.11	18.54
F-486B	10-32 x 1"	4.07	32.58	22.28
F-487B	10-32 x 1 1/2"	5.57	44.53	30.46

BINDER HEAD STEEL MACHINE SCREWS

F-020	4-40 x 1/4"	$0.46	$ 3.72	$ 2.48
F-021	4-40 x 1/2"	.49	4.05	2.69
F-022	4-40 x 3/4"	.58	4.68	3.11
F-502	6-32 x 3/16"	.49	4.03	2.69
F-503	6-32 x 1/4"	.49	4.06	2.70
F-504	6-32 x 3/8"	.53	4.32	2.88
F-014	6-32 x 1/2"	.58	4.73	3.16
F-015	6-32 x 3/4"	.68	5.58	3.71
F-023	8-32 x 1/4"	.65	5.32	3.55
F-505	8-32 x 5/16"	.66	5.49	3.66
F-024	8-32 x 3/8"	.70	5.75	3.83
F-025	8-32 x 1/2"	.87	7.14	4.76
F-026	8-32 x 3/4"	.87	7.12	4.74
F-577	10-32 x 1/2"	.90	7.34	4.64
F-578	10-32 x 3/4"	1.05	8.57	5.42

SLOTTED INDENTED HEX WASHER HEAD SHEET METAL SCREWS—TYPE A

Wald. No.	Size	Pkg. of 100	1000-4999 Per M	5000 & Up Per M
F-056	6 x 1/4"	$0.87	$7.13	$4.60
F-057	6 x 3/8"	.88	7.26	4.68
F-050	6 x 1/2"	.94	7.68	4.94
F-054	6 x 3/4"	1.14	9.32	6.06
F-051	8 x 1/4"	1.02	8.35	5.39
F-052	8 x 3/8"	1.07	8.78	5.66
F-053	8 x 1/2"	1.09	8.92	5.75
F-055	8 x 5/8"	1.09	8.92	5.75

SLOTTED HEX HEAD SHEET METAL SCREWS—TYPE A

Wald. No.	Size	Pkg. of 100	1000-4999 Per M	5000 & Up Per M
F-016	4 x 3/8"	$0.70	$ 5.75	$ 3.83
F-523	4 x 1/2"	.78	6.39	4.26
F-524	6 x 1/4"	.80	6.56	4.38
F-525	6 x 3/8"	.82	6.68	4.45
F-526	6 x 1/2"	.87	7.07	4.72
F-527	6 x 3/4"	1.05	8.62	5.75
F-528	8 x 1/4"	.94	7.68	5.12
F-529	8 x 3/8"	.99	8.04	5.35
F-530	8 x 1/2"	1.00	8.21	5.50
F-017	8 x 5/8"	1.00	8.21	5.47
F-531	8 x 1"	1.29	10.51	7.01
F-532	10 x 3/8"	1.16	9.44	6.29
F-533	10 x 1/2"	1.41	11.53	7.68
F-534	10 x 3/4"	1.82	14.94	9.96

PHILLIPS HEAD ROUND STEEL MACHINE SCREWS

F-494	6-32 x 1/4"	$1.11	$ 9.03	$ 6.02
F-018	6-32 x 5/16"	1.12	9.18	6.12
F-495	6-32 x 1/2"	1.00	8.19	5.46
F-496	6-32 x 3/4"	1.14	9.35	6.23
F-497	6-32 x 1"	1.28	10.42	6.95
F-019	8-32 x 1/4"	.97	7.89	5.26
F-498	8-32 x 5/16"	.97	7.97	5.32
F-499	8-32 x 1/2"	1.07	8.81	5.88
F-500	8-32 x 3/4"	1.24	10.22	6.82
F-501	8-32 x 1"	1.43	11.73	7.82

PAN HEAD SHEET METAL SCREWS TYPE A

F-033	6 x 1/4"	$0.80	$ 6.56	$ 4.38
F-034	6 x 1/2"	.87	7.07	4.72
F-035	6 x 3/4"	1.05	8.62	5.75
F-036	8 x 1/4"	.94	7.68	5.12
F-037	8 x 1/2"	1.00	8.25	5.50
F-038	8 x 1"	1.29	10.51	7.01

ROUND HEAD STEEL WOOD SCREWS

F-514	4 x 1/2"	$1.12	$ 9.25	$ 6.16
F-515	4 x 3/4"	1.16	9.44	6.29
F-516	6 x 3/4"	1.19	9.79	6.53
F-517	6 x 1"	1.41	11.54	7.69
F-518	8 x 3/4"	1.36	11.15	7.44
F-047	8 x 1"	1.55	12.63	8.41
F-519	8 x 1 1/4"	1.72	14.08	9.38
F-520	10 x 1 1/2"	2.23	18.28	12.18
F-521	12 x 1 1/2"	2.67	21.88	14.59
F-522	14 x 1 3/4"	3.81	31.16	20.77

FLAT HEAD WOOD SCREWS

F-027	4 x 1/2"	$1.12	$ 8.91	$ 6.16
F-028	4 x 3/4"	1.16	9.44	6.29
F-029	6 x 3/4"	1.19	9.79	6.53
F-030	6 x 1"	1.41	11.54	7.69
F-031	8 x 3/4"	1.36	11.15	7.44
F-048	8 x 1"	1.55	12.63	8.41
F-032	8 x 1 1/4"	1.72	14.08	9.38
F-044	10 x 1 1/2"	2.23	18.28	12.18
F-045	12 x 1 1/2"	2.67	21.88	14.59
F-046	14 x 1 3/4"	3.81	31.16	20.77

OVAL HEAD STEEL MACHINE SCREWS

F-506	6-32 x 1/2"	$0.58	$4.73	$3.16
F-507	6-32 x 3/4"	.68	5.58	3.71
F-508	8-32 x 3/4"	.87	7.12	4.74
F-509	10-32 x 1/2"	.88	7.29	4.86
F-510	10-32 x 3/4"	1.05	8.57	5.71

STEEL ACORN NUTS*

F-574	6-32	$2.40	$19.62	$12.42
F-575	8-32	2.40	19.62	12.42
F-576	10-32	3.15	25.74	16.30

STEEL WING NUTS*

F-571	6-32	$3.15	$25.74	$16.30
F-572	8-32	2.72	22.19	14.05
F-573	10-32	2.72	22.19	14.05

HEX STEEL NUTS

F-554	2-56x3/16x1/16"	$0.63	$ 5.10	$ 3.40
F-555	3-48x3/16x1/16"	.63	5.10	3.40
F-556	4-36x1/4x3/32"	.61	4.98	3.31
F-557	4-40x1/4x3/32"	.61	4.98	3.31
F-559	6-32x1/4x3/32"	.61	4.98	3.31
F-560	6-32x5/16x1/64"	.65	5.34	3.56
F-561	8-32x1/4x3/32"	.61	4.98	3.31
F-562	8-32x5/16x1/8"	.66	5.36	3.58
F-563	10-32x3/8x3/8"	.80	6.51	4.33
F-564	1/4-20x1/16x3/16"	1.14	9.27	6.17
F-565	5/8-32x9/16x3/32"	1.80	14.69	9.79

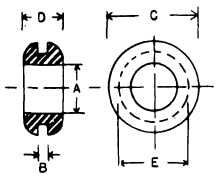
BRASS HEX NUTS

F-554B	2-56x3/16"x1/16"	$0.98	$ 7.84	$ 5.38
F-555B	3-48x3/16"x1/16"	.89	7.13	4.88
F-556B	4-36x1/4"x3/32"	1.18	9.41	6.44
F-557B	4-40x1/4"x3/32"	1.17	9.34	6.36
F-559B	6-32x1/4"x3/32"	1.16	9.30	6.36
F-560B	6-32x5/16"x1/64"	1.40	11.18	7.64
F-561B	8-32x1/4"x3/32"	1.16	9.30	6.36
F-562B	8-32x5/16"x1/8"	1.40	11.18	7.64
F-563B	10-32x3/8"x1/8"	1.54	12.26	8.39

*Nickel-plated.

VINYL GROMMETS

Tested by U/L in circulating air oven at 212° F for 7 days with no visible change.



DIMENSIONS

Wald. No.	Size I.D.	GW*	O.D.	Thk.	GID†
G-401	1/4"	1/16"	7/16"	1/16"	1/4"
G-402	5/16"	1/16"	7/16"	1/16"	5/16"
G-403	1/4"	1/16"	9/16"	1/16"	1/4"
G-404	5/16"	1/16"	5/8"	1/16"	5/16"
G-405	3/8"	1/16"	3/4"	1/16"	3/8"
G-406	1/2"	1/16"	1 1/16"	1/16"	1/2"
G-407	5/8"	1/16"	1 1/8"	1/16"	5/8"

*Groove width. †Groove I.D.

NET PRICES

Wald. No.	Package of 100	1000-4999 Per M	5000 & Up Per M
G-401	$0.88	$ 7.58	$ 5.34
G-402	.99	8.89	5.96
G-403	1.16	10.56	7.08
G-404	1.24	11.32	7.58
G-405	1.24	11.32	7.58
G-406	2.16	19.64	13.16
G-407	3.71	33.66	22.57

INSULATING FIBER WASHERS FLAT TYPE DIMENSIONS

Wald. No.	Screw Size	I.D.	O.D.	Thickness
FW-374	#4	.020"	1/4"	1/64"
FW-375	#6	.145"	3/8"	1/64"
FW-376	#8	3/16"	3/8"	1/64"
FW-377	#10	.192"	3/8"	1/64"
FW-378	1/4"	.255"	1/2"	1/64"
FW-379	3/8"	3/8"	5/8"	1/64"
FW-380	7/16"	.440"	3/4"	1/64"

EXTRUDED TYPE DIMENSIONS

Wald. No.	Screw Size	Size O.D.	*	I.D.	*	Thk.
FW-384	#4	9/32"	11/64"	1/8"	1/32"	3/64"
FW-385	#6	5/16"	7/64"	1/8"	1/32"	3/64"
FW-386	#8	3/8"	1/64"	1/4"	1/32"	3/64"
FW-387	#10	7/16"	13/64"	1/4"	1/32"	3/64"
FW-388	1/4"	1/2"	.375"	.256"	1/32"	3/64"
FW-389	3/8"	3/4"	.437"	.375"	1/32"	3/64"

*Inset Dia. †Inset height.

NET PRICES

Wald. No.	Package of 100	1000-4999 Per M	5000 & Up Per M
FW-374	$0.40	$2.97	$2.26
FW-375	.40	2.97	2.26
FW-376	.40	2.97	2.26
FW-377	.40	2.97	2.26
FW-378	.46	3.68	2.52
FW-379	.71	5.78	3.88
FW-380	.71	5.78	3.88
FW-384	.82	6.66	4.21
FW-385	.82	6.66	4.21
FW-386	.82	6.66	4.21
FW-387	.88	7.28	4.60
FW-388	.88	7.28	4.60
FW-389	.94	7.63	4.84

FLAT METAL WASHERS DIMENSIONS

Wald. No.	Screw Size	I.D.	O.D.	Thickness
MW-401	#4	1/8"	9/32"	1/64"
MW-402	#6	5/32"	3/8"	1/64"
MW-403	#8	3/16"	7/16"	1/64"
MW-404	#10	13/64"	9/16"	1/64"
MW-405	#10	13/64"	7/16"	1/32"
MW-406	#10	13/64"	5/8"	.049"
MW-408	1/4"	9/32"	5/8"	1/16"
MW-409	1/4"	17/64"	1/2"	1/16"
MW-410	5/16"	5/16"	11/16"	1/16"

NET PRICES

Wald. No.	Package of 100	1000-4999 Per M	5000 & Up Per M
MW-401	$0.27	$2.03	$1.54
MW-402	.28	2.25	1.54
MW-403	.29	2.36	1.62
MW-404	.32	2.55	1.74
MW-405	.29	2.36	1.62
MW-406	.40	3.19	2.17
MW-408	.46	3.68	2.52
MW-409	.64	5.06	3.47
MW-410	.59	4.69	3.20

CADMIUM PLATED LOCK WASHERS INTERNAL TYPE

Wald. No.	Screw Size	Pkg. of 100	1000-4999 Per M	5000 & Up Per M
MW-416	#4	$0.44	$3.67	$2.34
MW-417	#6	.44	3.67	2.34
MW-418	#8	.48	3.84	2.42
MW-419	#10	.48	3.84	2.42
MW-420	1/4"	.61	5.07	3.20
MW-421	3/8"	1.04	8.47	5.35

THE COMPLETE WALDOM CATALOG, AVAILABLE FROM US, LISTS MANY OTHER HARDWARE ITEMS, ALONG WITH A GREAT NUMBER OF HIGH QUALITY ELECTRONIC COMPONENTS.

WALDOM ELECTRONICS INC. Chicago 32, Illinois

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Walsco ELECTRONIC HARDWARE

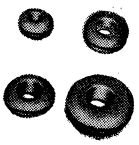
ELECTRONICS

WALSCO CABLE CLAMPS

For all cable or wire groups from 1/8" to 5/16" in diameter.

Description	Mtg. Hole Size
1/8" to 3/16" cable diameter	#6
3/16" to 1/4" cable diameter	#8
1/4" to 5/16" cable diameter	#8
	Assorted

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
7502-F	25	7502-C	100	$ .98	7502-M	1000	$ 7.83
7503-F	20	7503-C	100	1.12	7503-M	1000	8.88
7505-F	16	7505-C	100	2.08	7505-M	1000	16.65
7500-F	20						



VINYL GROMMETS

Protects insulated wires from sharp edges of chassis holes. Easily installed. Extremely useful for damping vibration in mounting parts.

DIMENSIONS A	B	C	D	E
11/32	1/8	3/16	1/16	1/4
7/16	3/16	7/32	1/16	5/16
9/16	1/4	1/4	1/16	3/8
5/8	3/8	1/4	1/16	1/2
13/16	1/2	9/32	1/16	5/8
			Assorted	

Cat. No.	Qty. Pkg.	Cat. No.	Qty. Pkg.	Dealer Net	Cat. No.	Std. Pack	Dealer Net Per 1000
7030-F	14	7030-C	100	$1.00	7030-M	1000	$ 8.16
7032-F	12	7032-C	100	1.25	7032-M	1000	10.00
7034-F	12	7034-C	100	1.37	7034-M	1000	10.88
7036-F	10	7036-C	100	1.47	7036-M	1000	11.73
7038-F	8	7038-C	100	2.27	7038-M	1000	18.22
7025-F	12						

CABINET FEET — SCREW TYPE

Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.

Diameter	Height
3/8	3/16
1/2	1/4
5/8	5/16
3/4	3/8
	Assorted

TACK TYPE

Same as above, but with handy tacks molded in feet.

Diameter
3/8
1/2
Assorted

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
7052-F	8**	7052-C	100**	$ .92	7052-M*	1000	$ 7.30
7054-F	8**	7054-C	100**	1.47	7054-M*	1000	11.70
7056-F	8**	7056-C	100**	2.22	7056-M*	1000	17.70
		7058-C	100**	2.82	7058-M*	1000	22.50
7050-F	8**						
		7071-C	100	$1.25	7071-M	1000	$14.70
		7072-C	100	1.95	7072-M	1000	15.57
7070-F	8						

* No screws included ** Wood screws included

WALSCO INSULATING WASHERS

(Flat and Extruded)

Precision made from vulcanized phenolic fiber. Assures the proper and safe insulation between components and controls from each other or the chassis and other metal parts.

Fits Screw Size	DIMENSIONS A	B	C	D	
#6	5/16	3/16	.140	.039	Extruded
	5/16		.140		Flat
					Fl & Ex.
#8	3/8	1/4	.169	1/32	Extruded
	3/8		.166		Flat
					Fl. & Ex.
#10	3/8	.308	.195	1/32	Extruded
	3/8		.195		Flat
					Fl. & Ex.
1/4"	1/2	11/32	.250	1/32	Extruded
	1/2		.250		Flat
					Fl. & Ex.
3/8"	5/8	1/2	.380	1/32	Extruded
	5/8		.380		Flat
					Fl. & Ex.

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
		7856-C	100	$ .87	7856-M	1000	$6.90
		7836-C	100	.42	7836-M	1000	3.30
7824-F	30						
		7858-C	100	.87	7858-M	1000	6.90
		7838-C	100	.42	7838-M	1000	3.30
7825-F	30						
		7860-C	100	.95	7860-M	1000	7.53
		7840-C	100	.42	7840-M	1000	3.30
7826-F	30						
		7862-C	100	.95	7862-M	1000	7.53
		7842-C	100	.47	7842-M	1000	3.68
7827-F	24						
		7864-C	100	.98	7864-M	1000	7.92
		7844-C	100	.77	7844-M	1000	6.12
7828-F	20						

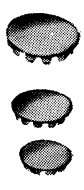
WALSCO SPADE BOLTS

Ideal for fastening condsensers, coils, shields, etc. The type 8572 is straight and has 9/32" long thread. Thread on type 8573 is 5/16" long. Both types are 3/4" long overall, have 6-32 thread and hole for 6-32 screw or 1/8" rivet.

Hole Dia., .141.

Size	A	B	C	D (Assorted)
6-32 Straight	3/4"	5/16"	9/32"	1/4"
6-32 Offset	3/4"	5/16"	5/16"	15/64"

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
8570-F	15						
		8572-C	100	$1.22	8572-M	1000	$12.23
		8573-C	100	2.55	8573-M	1000	20.33



WALSCO SNAP-HOLE PLUGS

The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.

Fits Hole Diameter
1/8"
3/16"
1/4"
3/8"
1/2"
5/8"
3/4"
7/8"
1"
1 1/8"
1 1/4"
Assorted

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
7306-F	8	7306-C	100	$2.25	7302-M	1000	$25.65
7308-F	8	7308-C	100	2.85	7304-M	1000	24.38
7310-F	6	7310-C	100	3.08	7306-M	1000	18.00
7312-F	6	7312-C	100	3.30	7308-M	1000	22.87
7314-F	5	7314-C	100	3.60	7310-M	1000	24.60
		7315-C	100	4.62	7312-M	1000	26.40
7316-F	4	7316-C	100	4.95	7314-M	1000	28.80
					7315-M	1000	36.90
7300-F	6						
					7316-M	1000	39.60
					7318-M	1000	59.40
					7320-M	1000	51.60

VENTILATING HOLE PLUGS

Assorted

Snap these protective screen coverings into ventilating holes on chassis, portable equipment cases, amplifiers; amateur rigs, etc. Spring flange holds plug in place.

Fig. No.	Type	Hole Size	Finish
1	Screened	1"	Steel
2	Eyelet	19/32"	Brass—Not Plated
2	Eyelet	3/4"	Brass

50 LINE Dlr. Net .33/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 100
					7331-C	100	$21.38
					7332-C	100	4.50
					7333-C	100	6.37

Net

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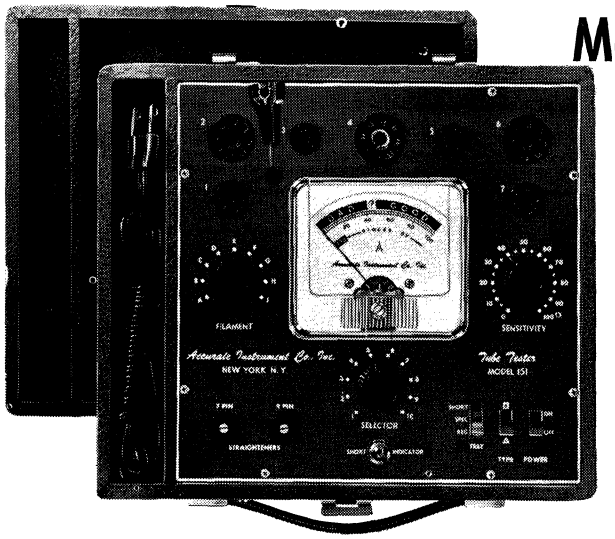
THE FIRST TWO MODELS IN THE *NEW "ACCURATE" LINE — MORE TO COME!*



Model 151 *a Modern, Streamlined*

TUBE TESTER

only $21.95 COMPLETE!

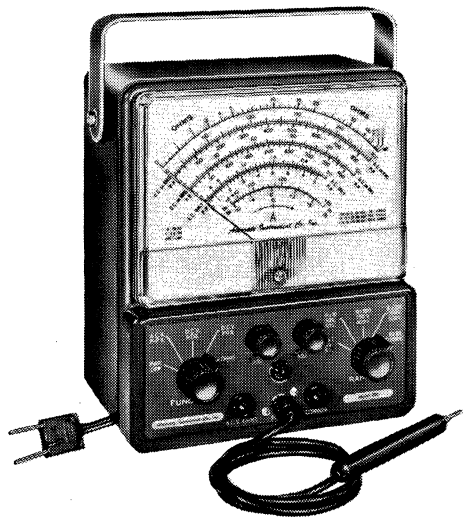
Not a kit ... The 151 is a completely Wired and Calibrated Tester ... *Ready to use!*

Model 151 Features and Specifications:

- Tests over 1,000 Tube Types.
- Makes **all** necessary tests. Checks for shorts and leakages between **all** elements; tests for filament continuity; indicates the quality (emission) of all tubes.
- Checks all modern tubes including 7-pin miniatures, octals; lock-in's; 9-pin noval miniatures and new T-9 types.
- Five (5) Year Free Tube Data.
- **Speedy** Operation assured by use of a new improved circuit which enables us to use a single **rotary** switch in place of the one-at-a-time slide switches previously used.
- 7 and 9 pin tube straighteners permanently mounted on front panel.
- Employs a rugged, accurate, highly damped meter movement with **sealed** air-damping chamber.
- Comes housed in a beautiful portable carrying case with slip-on cover.

Model 151 comes complete — absolutely no extras. Only **$21.95**

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 151. ONLY $3.85



Model 152 *a Modern, Streamlined*

SENIOR V.T.V.M.

FEATURES GIANT 6½" METER

only $29.95 COMPLETE!

Not a kit ... The 152 is a completely Wired and Calibrated Tester ... *Ready to use!*

Model 152 Features and Specifications:

- **D.C. VOLTMETER**
  Ranges: 0 to 3, 30, 150, 300, 1500 volts.
  Accuracy: ±3% of full scale.
  Input resistance: 11 megohms.
- **ZERO CENTER VOLTMETER (for discriminator alignment):**
  Ranges: 0 to 1.5, 15, 75, 150, 750 volts.
  Accuracy: ±3% of full scale.
  Input resistance: 11 megohms.
- **A.C. VOLTMETER**
  R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts.
  Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts.
  Accuracy: ±3% of full scale.
- **OHMMETER:**
  Ranges: 0 to 1000 megohms (5 overlapping ranges).
  Center scale values: 10, 100, 1000, 100,000 ohms, 10 megohms.
- **DECIBEL METER (for all audio measurements):**
  Ranges: −10 to +5, +6 to +25, +26 to +45 decibels. All bases on zero Db. at 1.73 volts on 500 ohm line.
- Pilot light indicates when unit is "on."
- Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Only... **$29.95**

ACCURATE INSTRUMENT CO., INC., NEW YORK, N. Y.

© U.C.P., Inc.

Net

AERO Instrument Company

NORTH HOLLYWOOD, CALIFORNIA

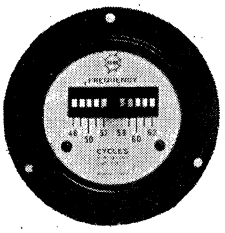
VIBRATING REED FREQUENCY & TIMING INSTRUMENTS

GENERAL DESCRIPTION

Vibrating Reed Instruments are direct reading frequency indicators for use where the efficient operation of A.C. equipment depends upon the maintenance of known or constant frequency. They are self contained, their accuracy is not affected by wide voltage variations or wave form distortions and require no auxiliary apparatus. They consist of a number of steel reeds, of high Q, each of which is tuned to a single frequency within the band covered by the instrument. Indication is by visual pattern formed by the vibration of the reed in resonance with the line frequency. Excitation is electromagnetic, and the reeds are the only moving elements. **Running Time Meters** are synchronous motor operated instruments to automatically measure service periods or service requirements.

APPLICATIONS

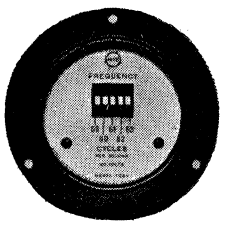
A large demand exists for VIBRATING REED FREQUENCY METERS for use with engine driven A.C. generator units as this is the most simple speed and frequency indicator yet devised for A.C. generator sets. These meters are also generally used in laboratory and portable test equipment, electronics, telephony, aircraft, industrial plants and numerous applications where electrical frequency indication is desired. Engineering services are available for those desiring assistance on their application problems. **Running Time Meters** are often used in conjunction with reed type frequency meters.



SERIES 7002

Range: 48-52 and 58-62 cycles for reading in either 50 or 60 cycles. **Voltage:** 125 volts ±20 volts. **Accuracy:** ±0.3% of designated frequency. **Power Consumption:** 1 watt. **Resistance:** Approximately 100 ohms per volt. Flush panel mounting.

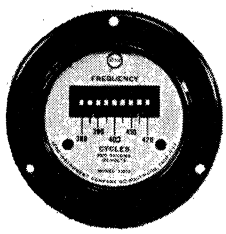
2810-134—48-52 and 58-62 cy. in 3½" flange MIL-M-6A molded bakelite case.....$25.00
2810-133—48-52 and 58-62 cy. in 3½" flange metal case..... 25.00
2810-153—48-52 and 58-62 cy. in 3¼" flange metal case..... 25.00
2810-123—48-52 and 58-62 cy. in 2½" flange metal case..... 25.00



SERIES 7004

Range: 59-63 cycles. Used extensively on standby power supplies for measuring generator frequency and engine speeds. **Electrical characteristics:** Same as the Series 7002.

6915-134—59-63 cy. in 3½" flange MIL-M-6A molded bakelite case. $21.50
6915-133—59-63 cy. in 3½" flange metal case $21.50
6915-153—59-63 cy. in 3¼" flange metal case $21.50
6915-123—59-63 cy. in 2½" flange metal case $21.50



SERIES 4009

Range: 380-420 cycles. For use on 400 cycle commercial power supplies and aircraft inverters. **Accuracy:** ±0.2% at 70° F. **Power consumption:** Approximately 1.25 watts. **Resistance:** Approximately 70 ohms per volt. Flush panel mounting.

4059-134—380-420 cy. in 3½" flange MIL-M-6A molded bakelite case. $31.00
4059-133—380-420 cy. in 3½" flange metal case $31.00
4059-153—380-420 cy. in 3¼" flange metal case $31.00
4059-123—380-420 cy. in 2½" flange metal case $31.00

VOLTAGES—All frequency meters can be supplied for voltages from 10 to 440 volts.

DISCOUNTS—Quantity prices quoted upon request.

SPECIAL INSTRUMENTS—Prices on special ranges will be furnished upon request.

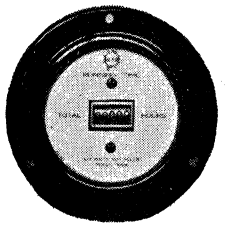
RUNNING TIME METERS—Special ranges, frequencies and voltages available.

Write for catalog describing complete line of Aero stock instruments.

SERIES 1001

Direct reading indicators to automatically and cumulatively register total operating or idle time of any equipment, machine, circuit or system to which they are connected. **Range:** 0 to 10,000 hours in hours and tenths of hours—automatically resets. **Voltage:** 125 ±20 volts. **Power consumption:** 2.5 watts. **Frequency:** 50, 60 and 400 cycles.

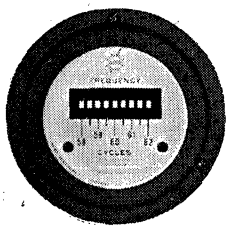
61134—60 cy. in 3½" flange MIL-M-6A molded bakelite case.....$19.00
41134—400 cy.....Price upon request



3½" SEALED METER

Meets all applicable requirements of MIL-M-6A Specification. All 3½" meters can be supplied in hermetically sealed cases. **Electrical characteristics:** Same as unsealed instruments.

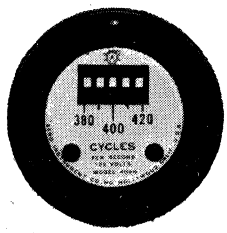
Prices on all models available upon request.



1½" SEALED METER

Range: 380-420 cycles. For use in air borne or ground equipment where size and weight are important factors. **Voltage:** 125 ±20 volts. **Resistance:** Approximately 70 ohms per volt. **Accuracy:** ±0.2% at 70° F. or 1.5% over range of —65° to +165° F. **Breakdown voltage:** 1500 volts. **Power consumption:** Approximately 1.25 watts.

4005-115—380-420 cy. in 1½" hermeticaly sealed case.....$23.85



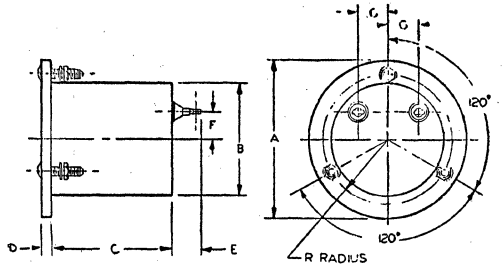


TABLE I

CASE SIZE CHART												MOUNTING SCREWS
CASE STYLE	A MAX	B MAX	C MAX	D MAX	E MAX	F MAX	F MIN	G MAX	G MIN	R MAX	R MIN	
A	2.10	1.51	1.56	0.14	0.40	.41	.35	.41	.35	.877	.873	4-36NS-2A

Series 4005
Range 380 to 420 C.P.S. Hermetically Sealed.

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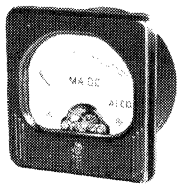
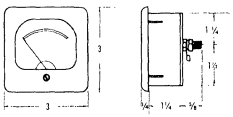
3″ RECTANGULAR ALCO PANEL METERS



D'Arsonval type; 2.5% ACCURACY. 90° scale arc. Fits 2¾″ mounting hole. Black bakelite case.

MODEL S-35 (specify range)

	Net		Net
0-50 μA DC	$8.95	0-10 MA DC	5.95
0-100 μA DC	7.95	0-50 MA DC	5.95
0-200 μA DC	7.75	0-100 MA DC	5.95
0-500 μA DC	6.95	0-300 MA DC	5.95
50-0-50 μA DC	7.95	0-30 VDC 1000 Ω	5.95
100-0-100 μA DC	7.75	0-300 VDC per volt	5.95
500-0-500 μA DC	6.95	0-150 VAC	6.45
0-1 MA DC	5.95	-20 +3 VU	6.95
0-5 MA DC	5.95		



20,000 OHMS PER VOLT TS-60H MULTITESTER

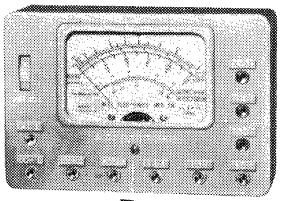
New design; wide scale arc. Compares with 4½″ meters; has 4″ meter face. Measures 3¼″ W x 4½″ H. Includes leather case and test leads.

DC Volt Ranges—5-25-250-500-2500 @ 20,000Ω per volt
AC Volt Ranges—10-50-100-500-1000 @ 10,000Ω per volt
Capacity—.001 mfd-.1 mfd (w/10 VAC supply)
.00001 mfd-.001 mfd (w/100 VAC supply)
DC Current—50 μa, 2.5 ma, 250 ma.
Resistance—0-60,000 ohms, 0-6 megs.
Decibel—−20db to +22db.

$15.95 Net

VOLT-OHM-MILLIAMETER TS-55A MULTITESTER

● PORTABLE



D.C. VOLTAGE RANGES: 0-10, 50, 250, 500 & 1000
A.C. VOLTAGE RANGES: 0-10, 50, 250, 500 & 1000
D.C. CURRENT RANGES: 0-1 & 0-500ma
DECIBEL: 20 0 +36db (2 ranges)
RESISTANCE: 0 −100KΩ

● 5″ wide, 3⅛″ high, 1⅜″ deep

$8.95 Net

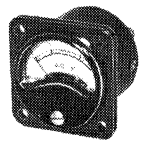
BATTERY-OPERATED PORTABLE VTVM

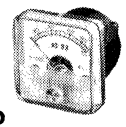
Net **$49.95**

DC voltage: 0-3, 6, 30, 120, 600V
AC voltage: 0-3, 6, 30, 120, 600V
(P-P): 0-9, 18, 90, 360, 1.8KV
Resistance: Rx1, Rx100, Rx1K, Rx10K, Rx1 Meg.
Input imp: 11 Meg (DCV range)
Sensitivity: 20 UA
Dimensions: 8¾ x 5½ x 4⅜″
Weight: 4¼ lbs.

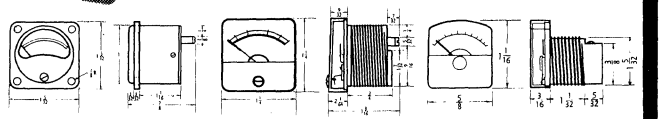
MINIATURE PANEL METERS

S-10





B-100 P-1000

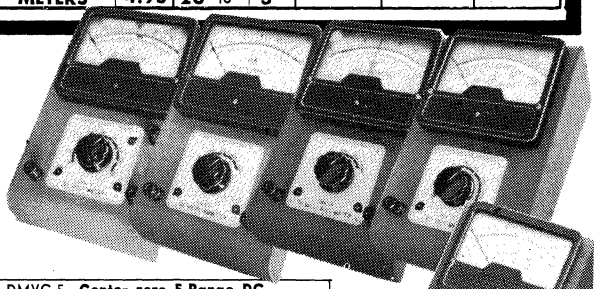


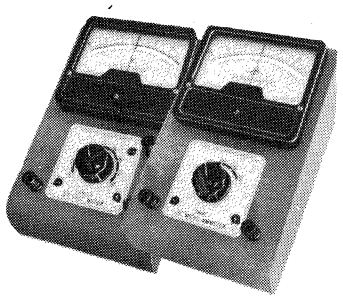
PRICES APPLY TO 3 METER STYLES			B-100 1″ Bakelite	P-1000 1″ Clear Plastic	S-10 ½″ Clear Plastic
STOCK RANGES	User Net	RANGE			
D.C. MICROAMMETERS	$6.95	0-100			
	6.45	0-150			
	5.95	0-200			
	5.95	0-300			
	5.75	0-500			
	6.95	50-0-50			
	5.95	100-0-100			
	5.75	200-0-200			
	5.65	500-0-500			
D.C. MILLIAMMETERS	4.95	0-1			
	4.95	0-5			
	4.95	0-10			
	4.95	0-20			
	4.95	0-30			
	4.95	0-50			
	4.95	0-100			
	4.95	0-150			
	4.95	0-200			
	4.95	0-300			
	4.95	0-500			
D.C. VOLTMETERS (1000 o.p.v.)	4.95	0-3			
	4.95	0-10			
	4.95	0-15			
	4.95	0-20			
	4.95	0-30			
	4.95	0-50			
	4.95	0-100			
	4.95	0-150			
	4.95	0-300			
	4.95	0-500			
	4.95	0-1000			
A.C. VOLTMETERS (Rectifier Type)	5.25	0-15			
	5.25	0-150			
	5.25	0-300			
S METERS	4.95	0-1 MA Basic			
VU METERS	4.95	20 to +3			

MULTI-RANGE SINGLE FUNCTION PRECISION LABORATORY INSTRUMENTS

ALCO introduces a brand new series of **MULTI-RANGE** meters of particular interest to schools and labs! The instruments in the ALCO line are standard meters but ingeniously built for rugged use and as a standard of reliability. The adaptation of **ONE KNOB CONTROL**, wide mirrored scales, and the 5 to 10 different multi-ranges provide further versatility, simplicity, and and effectiveness in their applications.

- **ZERO CENTER TYPES**
- **ALL MIRROR SCALES**





☐ DMM-5, **5-Range DC Microammeter:** 0-30μ, 60μ, 120μ, 300μ, 600μA DC. **26.95**	☐ DMVC-5, **Center zero 5-Range DC Millivoltmeter:** ±15m, 30m, 60m, 150m, 300mV DC. **24.95**
☐ DMMC-5, **Center zero 5-Range DC Microammeter:** ±15μ, 30μ, 60μ, 150μ, 300μA DC. **26.95**	☐ DVM-10, **10 Range DC voltmeter:** 0-1.2, 3, 6, 12, 30, 60, 120, 300, 600, 1200V DC. **24.95**
☐ DMA-11, **11-Range DC Ammeter:** 0-600μ 1.2m, 3m, 6m, 12m, 30m, 60m, 120m, 300m, 600m, 3A DC. **24.95**	☐ DVMC-10, **Center zero 10-Range DC voltmeter:** ±0.6, 1.5, 3, 6, 15, 30, 60, 150, 300, 600V DC. **24.95**
☐ DMAC-11, **Center zero 11-Range DC Ammeter:** ±300, μ 0.6m, 1.5m, 3m, 6m, 15m, 30m, 60m, 150m, 300m, 1.5A DC. **24.95**	☐ DAV-9, **9-Range AC Millivoltmeter:** 0-1.2, 3, 6, 12, 30, 60, 120, 300, 600V AC. **24.95**
☐ DAM-8, **8-Range DC AC Ammeter:** 0-1.2, 3, 6, 12A AC, 0-1.2, 3, 6, 12A DC. **26.95**	☐ DRM-5 B, **5-Range Ohmmeter:** 0-50, 5K, 50K, 500K, 50M from 0.02Ω 50 MegΩ on Scale line. **28.95**

Net Prices

ALCO **ELECTRONIC PRODUCTS INC.**

LAWRENCE, MASS.

PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

PYRAMID INSTRUMENT CORPORATION

AMPROBE INSTRUMENTS

AMPROBE CABLE TRACER

LOCATE UP TO 10 CABLES SIMULTANEOUSLY

Now you can trace conductors in cables and conduit 10 times faster than ever before — and leave your helper free to finish other jobs quickly and profitably. A tracing system in itself, revolutionary new CABLE TRACER lets you search — and unmistakably identify—up to 10 separate circuits simultaneously. What's more, with CABLE TRACER there's no needless handling of wires to locate a conductor. Every time the Indicator Button is pressed, you identify a circuit. And you do it without extra trips between conductor ends. **PRICE $39.50 ***

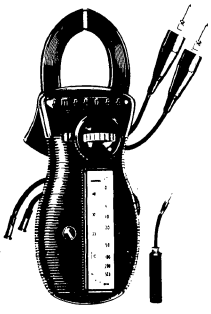
AMPROBE JUNIOR

The only voltage testers in their price class that also measures amperage. They are precision instruments that measure instantly and accurately on a calibrated scale ±3% full scale (not just an indication).

MODEL	RANGES	PRICE*
Y10	0-10 Amps A.C. 0-125/250 Volts A.C.	$19.85
Y25	0-25 Amps A.C. 0-125/250 Volts A.C.	19.85
Y50	0-50 Amps A.C. 0-125/250 Volts A.C.	19.85
Y100	0-100 Amps A.C. 0-125/250 Volts A.C.	19.85
Y525	0-25 Amps A.C. 0-150/600 Volts A.C.	19.85
Y550	0-50 Amps A.C. 0-150/600 Volts A.C.	19.85
Y500	0-100 Amps A.C. 0-150/600 Volts A.C.	19.85

Price includes Model VL-55. Safety Type Voltage Leads.
P-1 Leather Punch Optional at $2.85. Order Separately.

ROTARY SCALE MODELS



Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within ±3% full scale reading. • One hand operation.

MODEL	RANGES	PRICE*
RS-1	0-5/15/40/100 Amps A.C. 0-150/600 Volts A.C.	$39.85
RS-2	0-5/15/40/100 Amps A.C. 0-150/300 Volts A.C.	39.85
RS-3	0-5/15/40/300 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	52.50
RS-300	0-5/15/40/300 Amps A.C. 0-150/300/600 Volts A.C.	47.50

Factory Packed with Model 'E' Top-Grain Cowhide. Leather Carrying Case and Model VL-22 Voltage Test Leads.

*Prices slightly higher outside the United States.

AMPROBE JR. TEST MASTER KITS

The AMPROBE JR. TEST-MASTER KIT consists of specially designed leather case that contains one of the all new YO AMPROBE JR. voltage testers, and an AMPROBE A-40 ENERGIZER.

The new YO models are the only voltage testers in their price class that measure voltage, amperage and resistance. They are precision instruments that measure instantly and accurately on a calibrated scale (not just an indication).

The AMPROBE ENERGIZER increases the versatility of the instrument by increasing the instruments sensitivity for precise readings on fractional horse-power motors and appliances.

MODEL	2 AMMETER RANGES (full scale) A-40	BASIC INST.	2 VOLTAGE RANGES
TM-YO "525"	0-2.5	0-25	0-150/600
TM-YO "550"	0-5	0-50	0-150/600
TM-YO "500"	0-10	0-100	0-150/600
TM-YO "25"	0-2.5	0-25	0-125/250
TM-YO "50"	0-5	0-50	0-125/250
TM-YO "100"	0-10	0-100	0-125/250

OHMMETER RANGE (All models): 25 ohms Mid Scale. **PRICE: $29.85 ***

AMPROBE TEST MASTER KITS

The TEST-MASTER KIT designed to hold any one of the famous AMPROBE RS models, the AMPROBE DECA-TRAN, the AMPROBE ENERGIZER. The TEST-MASTER has a separate covered section to hold your small hand tools easily, within reach.

MODEL TM-33 contains the world-famous AMPROBE RS-3 snap-around volt-ammeter-ohmmeter: 5 current ranges, 3 voltage ranges; AMPROBE DECA-TRAN: Extends amperage reading 10x, as high as 1200 amps; AMPROBE ENERGIZER: Multiplies sensitivity of any AMPROBE 10x for readings on small appliances and fractional h. p. motors. **PRICE: $84.50 ***

MODEL TM-11 contains the AMPROBE RS-1, economy snap-around volt-ammeter; AMPROBE DECA-TRAN and AMPROBE ENERGIZER. **PRICE: $71.75***

MODEL HK contains AMPROBE DECA-TRAN and AMPROBE ENERGIZER (to be used with instrument already in possession). **PRICE: $39.75 ***

HIGH CURRENT AMPROBES

Designed to fill the need of the individual consistently working in current and voltage ranges higher than scale reading available on the rotary scale models.

MODEL	RANGE	PRICE*
600	0-15/30/60/150/300/600 Amps A.C. 0-150/300/600 Volts A.C.	$59.50
1200	0-15/30/60/150/300/1200 Amps A.C. 0-150/300/600 Volts A.C.	67.50

Factory Packed with Model "E" Top-Grain Cowhide. Leather Carrying Case and Model VL-22 Voltage Test Leads.

PYRAMID INSTRUMENT CORPORATION, LYNBROOK, N. Y.
EXPORT CABLE ADDRESS — AMPROBE LYNBROOK
CANADIAN SALES DIVISION: ATLAS RADIO CORP. LTD., TORONTO
BRITISH SALES DIVISION: H. J. BALWIN CO. LTD., LONDON

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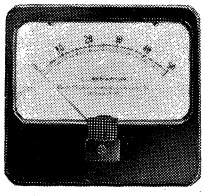
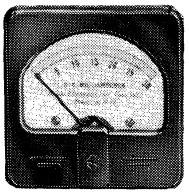
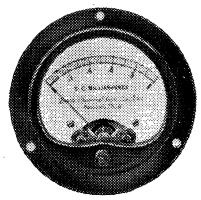
BEEDE METERS



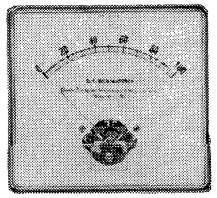
MODEL 16



MODEL 15



MODELS 310 501



MODELS 23 - 14 - 2 - 5

Model D.C.	Case Mat. & Mounting	Case Size	Barrel Diameter & Depth	Scale Length
5	Styrene - Flush	1 19/32" x 1 19/32"	1 15/32" Dia. x 1"	1 5/16"
411	Metal - Flush	2 9/32" Dia.	2 1/16" Dia. x 1 5/16"	1 25/32"
412	Metal - Flush	2 37/64" Dia.	2 1/16" Dia. x 1 5/16"	1 25/32"
501	Bakelite - Flush	2 3/4" Dia.	2 5/32" Dia. x 1 5/16"	1 25/32"
733	Metal - Surface	3 1/16" Dia.	———	2"
2	Styrene - Flush	2 3/8" x 2 3/8"	2 3/16" Dia. x 1 1/32"	2 3/16"
701	Metal - Flush	3 7/32" Dia.	2 17/32" Dia. x 1 5/16"	2 11/64"
15	Bakelite - Flush	3 "x 3"	2 3/4" Dia. x 1 7/16"	2 3/8"
310	Bakelite - Flush	3 1/2" Dia.	2 3/4" Dia. x 1 11/32"	2 3/8"
140	Styrene - Flush	3 3/8" x 2 5/8"	2 3/16" Dia. x 1 9/64"	2 11/16"
811	Metal - Flush	3 3/4" Dia.	3" Dia. x 1 11/32"	2 9/16"
815	Metal - Surface	3 1/2" Dia.	———	2 9/16"
14	Styrene - Flush	3 13/32" x 3"	2 3/4" Dia. x 1 1/32"	3 3/64"
1	Bakelite - Flush	4 5/8" x 4"	2 3/4" Dia. x 1 1/16"	3 13/32"
16	Bakelite - Flush	4 21/32" x 4 3/16"	2 3/4" Dia. x 1"	4 1/4"
23	Styrene - Flush	4 21/32" x 4 3/16"	2 3/4" Dia. x 1 1/32"	4 1/4"
45	Bakelite - Flush	4 5/8" x 4"	2 3/4" Dia. x 1 1/16"	3 13/32"
425	Metal - Surface	4 1/4" Dia.	———	3 13/32"
450	Metal - Flush	4 9/16" Dia.	3 3/4" Dia. x 1 11/32"	3 13/32"
458	Bakelite - Flush	4 21/32" x 4 3/16"	2 3/4" Dia. x 1"	4 1/4"
541	Bakelite - Flush	4 1/2" x 3 3/8"	2 3/4" Dia. x 1 1/16"	3 13/32"
230	Styrene - Flush	4 5/8" x 3 5/8"	2 3/4" Dia. x 1 9/64"	3 59/64"
6	Metal - Flush	6 1/16" Dia.	3" Dia. x 1 1/8"	4 23/32"
70	Styrene - Flush	7" x 5 1/4"	2 3/4" Dia. x 1 9/64"	6 5/32"
7	Bakelite - Flush	7 1/4" x 7 1/4"	3" Dia. x 1 1/8"	5 29/32"

D.C. MICROAMMETERS

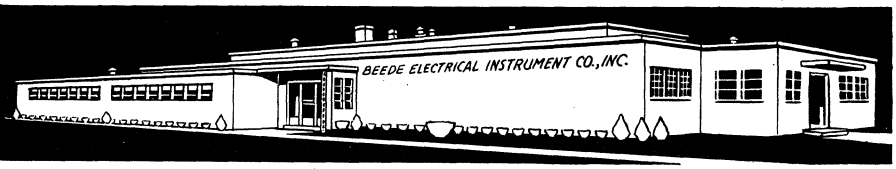
Range	Approx. Res.	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-20	3000 ohms	$24.90	$25.55	$28.75	$34.87
0-50	2000 ohms	14.23	14.60	16.43	19.94
0-100	1000 ohms	13.50	14.15	14.75	18.38
0-200	500 ohms	13.18	13.48	14.00	17.50
0-500	150 ohms	10.73	10.98	12.55	16.05

D.C. MILLIAMMETERS

Range	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-1	$10.10	$10.38	$10.73	$15.63
0-5	9.38	9.63	10.10	13.60
0-10	9.38	9.63	10.10	13.60
0-15	9.38	9.63	10.10	13.60
0-25	9.38	9.63	10.10	13.60
0-50	9.38	9.63	10.10	13.60
0-100	9.38	9.63	10.10	13.60

Range	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-150	$9.38	$9.63	$10.10	$13.60
0-200	9.38	9.63	10.10	13.60
0-250	9.38	9.63	10.10	13.60
0-300	9.38	9.63	10.10	13.60
0-400	9.38	9.63	10.10	13.60
0-500	9.38	9.63	10.10	13.60
0-1000	9.38	9.63	10.10	13.60

BEEDE ELECTRICAL INSTRUMENT CO., INC. PENACOOK, N. H.



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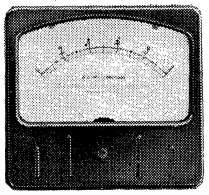
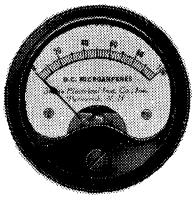
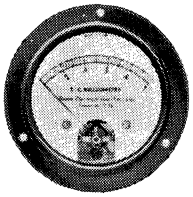
BEEDE METERS



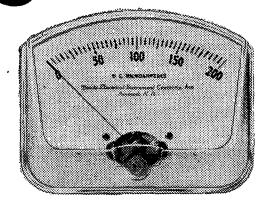
MODEL 458



MODEL 411



MODELS 701 - 412 - 811



MODELS 70 - 140 - 230

D.C. AMMETERS

Range	Models 411-412-501 2-701-733	Models 310-15-14 140-811-815	Models 1-45-16 458-23-230	Model 70
0-1	$9.38	$9.63	$10.10	$13.60
0-5	9.38	9.63	10.10	13.60
0-10	9.38	9.63	10.10	13.60

Range	Models 411-412-501 2-701-733	Models 310-15-14 140-811-815	Models 1-45-16 458-23-230	Model 70
0-15	$9.38	$9.63	$10.10	$13.60
0-25	9.38	9.63	10.10	13.60
0-50	9.38	9.63	10.10	13.60

D.C. VOLTMETERS

Intermediate sensitivities available in all models

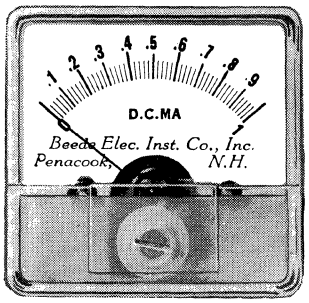
Magcentric® self shielding movements available in all models

Range		Models 411-412-501 2-701-733	Models 310-15-14 140-811-815	Models 1-45-16 458-23-230	Model 70
0-1	200 ohms per volt	$ 9.38	$ 9.63	$10.10	$13.60
0-5	"	9.38	9.63	10.10	13.60
0-10	"	9.38	9.63	10.10	13.60
0-15	"	9.38	9.63	10.10	13.60
0-25	"	9.38	9.63	10.10	13.60
0-50	"	9.38	9.63	10.10	13.60
0-100	"	9.38	9.63	10.10	13.60
0-150	"	9.38	9.63	10.10	13.60
0-200	1000 ohms per volt	11.60	11.88	13.45	17.05
0-250	"	11.60	11.88	13.45	17.05
0-300	"	11.60	11.88	13.45	17.05
0-500	"	11.60	11.88	13.45	17.05

Repulsion Type AC available in all models

MODEL 5

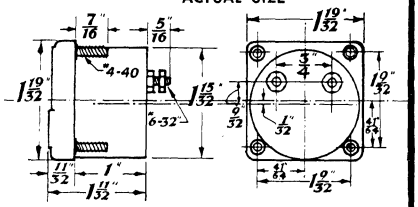
1½ inch Panel Instrument



ACTUAL SIZE

Clear Plastic Flush Type

Accuracy within 3%
Pointer Style Optional
Alnico Magnet



CONSTRUCTION D'Arsonval moving coil design, precision polished jewels and pivots, fatigue tested springs, and stress-released assembled units. Superior workmanship and individual operation inspected production provides accurate, on the dot instruments. The Magcentric mechanism provides an inherent magnetic shield with no loss in sensitivity.

D.C. MILLIAMPERES

Range	
0-1	$10.10
0-5	9.38

D.C. AMPERES

Range	
0-1	$9.38
0-5	9.38
0.50	9.38

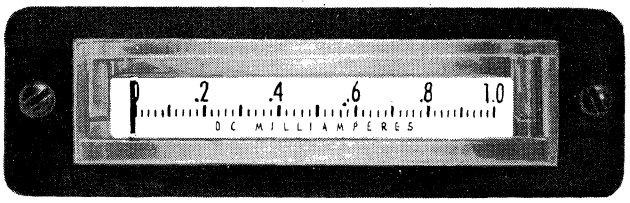
D.C. MICROAMPERES

Range	
0-50	$14.23
0-100	13.50
0-200	13.18
0-500	10.73

D.C. VOLTS

200 ohms per volt	$ 9.38
1000 ohms per volt	11.60

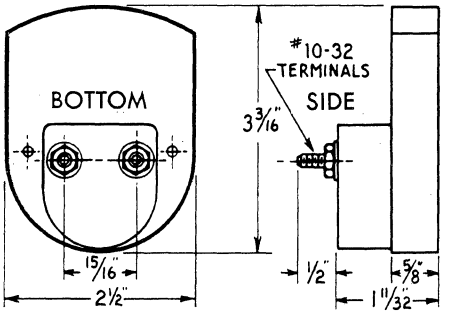
MODEL E-25 EDGEWISE

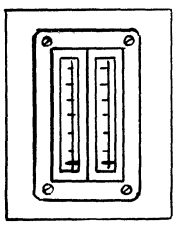


ACTUAL SIZE

Clear Plastic Horizontal or Vertical

CONSTRUCTION D'Arsonval moving coil design, precision polished jewels and pivots, fatigue tested springs, and stress-released assembled units. Superior workmanship and individual operation inspected production provides accurate, on the dot instruments. The Magcentric mechanism provides an inherent magnetic shield with no loss in sensitivity.





•may be paired for comparative reading.

D.C. MICROAMPERES

Range	
0-50	$16.43
0-100	14.75
0-200	14.00
0-500	12.55

D.C. MILLIAMPERES

Range	
0-1	$11.95
0-5	10.10

Accuracy within 2%
Pointer Style Optional
Alnico Magnet

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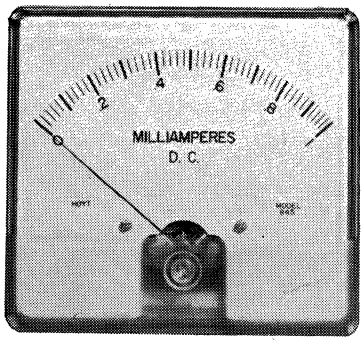
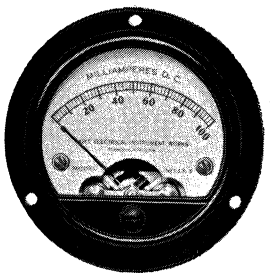
Hoyt SINCE 1904

HOYT ELECTRICAL INSTRUMENTS

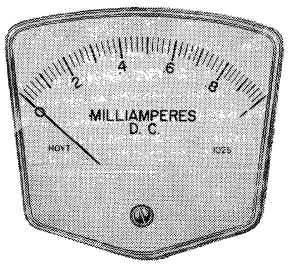
For Original Equipment and Replacement Applications



MODEL Nos. 641, 645, 653 and 649, D.C.
MODEL Nos. 642, 646, 654 and 650, A.C.
Clear Plastic Styrene Cases



MODEL Nos. 582 & 17/3, D.C.
MODEL Nos. 584 and 552, A.C.



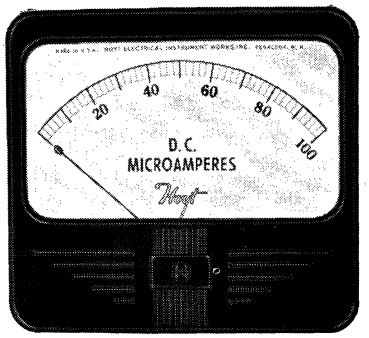
Model No. 1025

NOTE: If "in-between" ranges are required, add $2.00 to price of next higher range listed. If "zero-center" ranges are required, add $2.00 to price of that range. For in-between ranges on moving-coil type Voltmeter 150 volts and up, add $3.00 to next higher range.

NOTE: Please specify type of case on order from chart above. Unless specified, all meters are calibrated on non-magnetic panels. If steel panels are used, give thickness of steel and size of panel hole (No extra charge). All prices are net — subject to change or withdrawal without notice.

*These ranges carried IN STOCK . . . Models #582, 597, and 647 only. (Calibrated for non-magnetic panels) •No. 661 not available in these ranges.

HOYT moving-coil Meters are built on the D'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models.



MODEL 647, D.C., and 648, A.C.

METER SIZE	MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIAM. AC - DC	BODY DEPTH AC - DC
1½"	661	—	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
2½"	17/3	552	Bakelite Rd.	2.015"	2.690"	2.200"	1.375"
2½"	17/3	552	Metal Rd.	2.015"	2.547"	2.063"	1.297"
2½"	1025	1026	Styrene	2.500"	2.87" x 2.59"	2.16"	1.12"
2½"	635	636	Bakelite Sq.	2.015"	2.375"	2.200"	1.400"
2½"	649	650	Styrene Sq.	2.480"	2.625" x 2.375"	2.200"	1.125"
3½"	17/L	560	Metal Rd.	2.480"	3.219"	2.500"	1.500"
3½"	17/L	560	Metal Surf.	2.480"	3.063"	2.500"	—
3½"	582	584	Bakelite Rd.	2.720"	3.500"	2.750"	1.375"
3½"	1037	1038	Styrene	3.812"	3.500"	2.750"	1.125"
3½"	597	598	Bakelite Sq.	2.720"	3.000"	2.750"	1.375"
3½"	653	654	Styrene Sq.	3.435"	3.375" x 3.125"	2.750"	1.125"
3¾"	570	580	Metal Rd.	2.850"	3.750"	3.000"	1.688"
3¾"	570	580	Metal Surf.	2.850"	3.625"	3.000"	—
3¾"	607	610	Bakelite Sq.	2.850"	3.625" x 3.313"	2.250"	1.063"
4¼"	641	642	Styrene	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	574	617	Metal Rd.	3.875"	4.500"	3.750"	1.594"
4½"	574	617	Metal Surf.	3.875"	4.500"	3.750"	—
4½"	600	601	Bakelite Sq.	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"	645	646	Styrene Sq.	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"	647	648	Bakelite Sq.	4.470"	4.500" x 4.188"	2.750"	1.125"
6"	1060	1061	Styrene	5.375"	6.000" x 4.500"	2.750"	1.100"

	Size:	1½"	2½"	3½"	3¾"	4½"	6"	6¾"—8½"	3" x 4"	5" x 4"
				#1037		#574				PORTABLE
			#1025	#17L		#641				
			# 17/3	#653		#645				
			# 635	#582		#600		# 583		
Range	*Approx. Resist.*	#661	# 649	#597	# 570	#647	#1060	# 602	# 578	# 515
D.C. MILLIAMMETERS										
0/1*	*60*	$10.35	$ 9.75	$10.35	$10.85	$11.45	$13.70		$12.55	$14.80
Above prices also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.										
0/25	*1.7*	10.60	10.00	10.60	11.10	11.70	14.10		12.80	14.95
Above prices also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA Standard ranges.										
D.C. MICROAMMETERS								Prices on request —quantity only		
0/20	*3000*	18.05•	$17.45	$18.05*	$18.55	$19.15	—		—	—
0/50	*2000*	15.25•	14.75	15.25*	15.75	16.35	—		—	—
0/100	*2000*	13.35	12.85	13.35	13.85	14.45*	16.70		15.65	17.90
0/200	*1000*	11.55	10.95	11.55	12.05	12.65	14.90		13.75	16.05
0/500	*200*	10.95	10.45	10.95	11.45	12.05	14.30		13.20	15.45
Zero center microammeters available for most models in 25/0/25, 50/0/50, 100/0/100, 500/0/500 UA. Prices on request.										
D.C. MILLIVOLTMETERS										
0/50	*3*	10.35	9.75	10.35	10.85	11.45	13.70		12.55	14.80
D.C. AMMETERS										
0/1	*0.005*	10.35	9.75	10.35	10.85	11.45	13.70		12.55	14.80
0/5	*0.004*	10.65	10.15	10.65	11.20	11.80	14.40		12.75	15.10
Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30*, 0/50* amps. on all models. No. 661 uses external shunt over 5 amps. See Shunt Table below for High Current Ammeter Ranges.										
D.C. VOLTMETERS										
0/1	*1000Ω/V.*	11.05	10.55	11.05	11.55	12.15	14.40		13.30	15.60
Above prices also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*,0/50*, 0/100, 0/150*, 0/300* volts on all models.										
0/500•	*2000Ω/V.*	11.65	11.05	11.65	12.15	12.75	15.00		13.90	16.10
Above prices also apply to standard ranges at 0/600•, 0/750• volts on all models.										

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. *Stock shunts on types 17/3, 582, 647 only. Others listed are special ranges at slight extra cost.

0/25—$8.20	0/30—$8.20	0/50—$7.20*	0/75—$7.20*	0/100—$7.20*	0/150—$7.20*
0/200—$7.20*	0/300—$8.40*	0/500—$12.60*	0/600—$15.15*	0/800—$19.20*	0/1000—$27.85*

Net

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Hoyt SINCE 1904

HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

HOYT A.C. Meters for indicating 60 cycle Voltage and Current are of the repulsion type with pneumatic damping. Furnished in the same case styles and sizes as HOYT D.C. Meters, they match the D.C. meter where both types are used on the same panel. See DC-AC Specification Chart on opposite page.
Accuracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

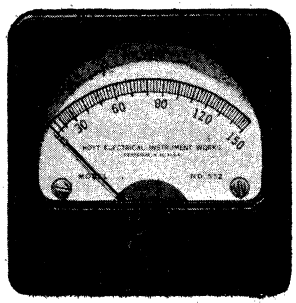
VU METERS, with "A" scale, available in #649, #653, #645, and #647 case styles.
Prices on request.

NOTE: A.C. Meters calibrated at any special frequency. Prices on request.

PRICE LIST:

		PANEL MOUNTING					PORTABLE	
	Size:	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
			#560		#617			
		#1026	#1038		#601			
		#552	#654		#648			
	Approx.	#636	#584	#580	#642		#562	#517
Range	*Resist.*	#650	#598	#610	#646	#1061		
A.C. MILLIAMMETERS								
0/6	*6000*	$10.45	$11.20	$11.70	$12.45	—	—	—
0/10	*2700*	9.45	10.20	10.70	11.45	$13.70	$12.55	$14.80
Prices for ranges: 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. for all models—same as 0/10 MA. range above.								
A.C. AMMETERS								
0/1	*0.271*	9.45	10.20	10.70	11.45	13.70	12.55	14.80
Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5*, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained to 50 amps. For High Current Ranges—See Transformer Section below.								
A.C. VOLTMETERS (Repulsion Type)								
0/5	*77*	9.45	10.20	10.70	11.45	13.70	12.55	14.80
Above prices also apply to all models in standard ranges of 0/10 and 0/15 volts.								
0/25	*1476*	9.75	10.20	10.85	11.45	13.70	12.55	14.80
Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.								
0/150*	*25,000*	10.65	11.25	11.75	12.45	14.60	13.60	16.85
0/300*	*50,000*	10.65	11.25	11.75	12.45	15.70	13.60	16.85
0/500	*83,300*	—	16.20	16.65	17.25	19.50	18.55	21.90
0/600*	*99,960*	—	16.20	16.65	17.25	19.50	18.55	21.90

*These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels).
NOTE: If "in-between" ranges are required, add $2.00 to next higher price as shown above (add $3.00, if above 150 volts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies thickness of steel and size of panel hole. Please specify type of meter case.
DIAL COSTS: Standard range dials only—$1.00 each; special hand drawn single range dials only $3.00 each; other custom dials on special order.



MODEL Nos. 635 and 597, D.C.
MODEL Nos. 636 and 598, A.C.

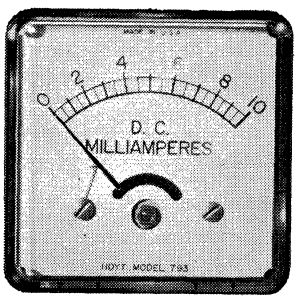
5% RECTIFIER TYPE

Range	#584-R #598-R #654-R	#642-R #646-R #648-R
0/5	$15.45	$17.10
0/10	15.45	17.10
0/15	15.45	17.10
0/25	15.45	17.10
0/30	15.45	17.10
0/50	15.45	17.10
0/100	15.45	17.10
0/150	15.45	17.10
0/300	15.45	17.10

HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

For prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus an additional $3.00 except on models #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other ranges available on request.

50/5	$8.70	100/5	$8.70	200/5	$8.70	500/5	$15.70
75/5	8.70	150/5	8.70	300/5	8.70	600/5	15.70



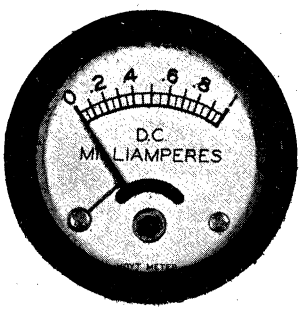
MODEL No. 793, D.C.
2½" Plastic Case

MOVING MAGNET INDICATORS

HOYT Moving Magnet Indicators have been used for many years by the leading manufacturers of electrical devices. Feature long scales and accuracy within 5%.

Attractive appearance is combined with a sturdy movement. Furnished in round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.
NOTE: If in-between ranges are required — add $1.00 to next higher range price; for "zero-center" ranges, add $1.00 to same range price.
NOTE: DC Ammeters up to 100 amps. have internal shunts.



MODEL No. 640, D.C.
2¼" Metal Case

MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIA. DC	BODY DEPTH DC
640	531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
640	531AC	Metal Surface	1.400"	2.375"	2.000"	—
693	594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
793	794AC	Plastic Sq.	1.715"	2.375"	2.000"	0.500"

D.C. MILLIAMMETERS

Range	*Approx. Resist.*	#640	#693	#793
0/1	*1000*	$3.85	$3.90	$4.20
0/3	*700*	2.85	2.95	3.20
0/5	*480*	2.60	2.65	2.95
0/10	*180*	2.45	2.50	2.75
0/15	*130*	2.10	2.15	2.45
Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:		2.05	2.10	2.40

D.C. AMMETERS

Range	#640	#693	#793
0/1	$2.05	$2.10	$2.40
Above prices also apply to 1/0/1, 3/0/3, 0/5, 5/0/5, 0/10, 10/0/10, 0/15 amp. ranges.			
20/0/20	2.55	2.60	2.85
Above prices also apply to 0/25, 0/30, 30/0/30 amp. ranges.			
0/50	2.75	2.80	3.10
50/0/50	2.75	2.80	3.10
0/75	3.20	3.30	3.60
0/100	3.70	3.80	4.10

D.C. VOLTMETERS

Range	*Approx. Resist.*	#640	#693	#793
0/1	—	$2.05	$2.10	$2.40
Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.				
0/25	*1375*	2.40	2.45	2.70
0/30	*1650*	2.40	2.45	2.70
0/50	*2200*	2.55	2.60	2.85
0/100	*20,000*	2.55	2.60	2.85
0/150	*30,000*	2.60	2.65	2.95
0/300	*60,000*	3.50	3.60	3.90

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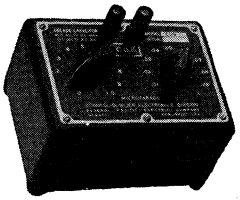
Net

CDE CORNELL-DUBILIER

DECADE CAPACITORS

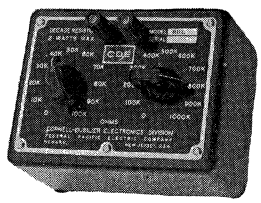


Provide an accurate source of measured capacitances for electronic and electrical substitution purposes. Units of capacitance selected from direct reading switch scales. Models CDA, CDB, and CDC can be grouped in parallel to provide capacitances from 0 to 11.111 Mfd. in steps of .0001 Mfd.

RATED VOLTAGE — 600 D.C.-220 A.C.

Model	Capacity	+ or − Tol.	Dielectric	Net Price
CDA-2	.011 mfd. in .0001 mfd. steps	2%	Mica	**$17.50**
CDA-5	.011 mfd. in .0001 mfd. steps	5%	Mica	**14.20**
CDB-5	1.1 mfd. in .01 mfd. steps	5%	Oil-Paper	**14.20**
CDB-3	1.1 mfd. in .01 mfd. steps	3%	Oil-Paper	**16.35**
CDC-5	10.0 mfd. in 1.0 mfd. steps	5%	Oil-Paper	**24.65**
CDC-3	10.0 mfd. in 1.0 mfd. steps	3%	Oil-Paper	**27.25**

DECADE RESISTORS



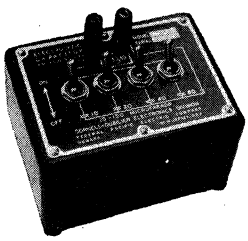
Provide a reliable source of resistance for substitution purposes in a wide variety of electronic and electrical applications. Each instrument permits a possible selection of 110 resistance values, and the use of all three decades provides resistances from 1 Ohm to 1,111,110 Ohms in steps of 1 Ohm.

USER NET PRICES:

Model RDA — 1 to 110 Ohms.....$15.35

Model RDB — 100 to 11,000 Ohms.....$15.65

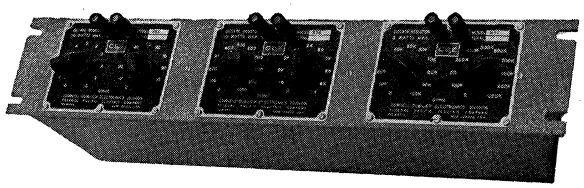
Model RDC — 10,000 to 1,100,000 Ohms.....$15.65



ELECTROLYTIC CAPACITOR

SUBSTITUTION BOX

Provides 15 combinations of capacitance, from 10 Mfd. to 150 Mfd. in steps of 10 Mfd. Units can be connected in parallel to provide unlimited capacitance range. Rated at 450 WVDC. User's Net $14.20



C-D CAPACITANCE-RESISTANCE ANALYZER Model BF-70

For the technician who demands the best in service laboratory equipment. Besides measuring capacity and resistance, the BF-70 performs many other important analyzing services. Measures any type capacitor including motor start. User's Net $86.60

C-D "HANDICHECK" FOR CAPACITORS Model BF-90

Determines the condition of open, shorted or intermittent capacitors WITHOUT REMOVING THEM FROM THE CIRCUIT. A handy dependable time saver. User's Net $41.75

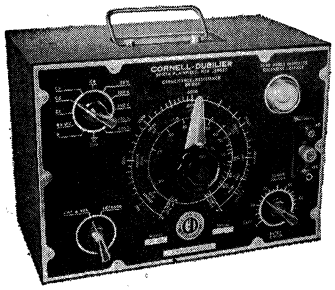
RACK-PANEL MOUNTED

CAPACITOR AND RESISTOR DECADES

Three CAPACITOR or RESISTOR DECADES mounted on a standard 19-inch rack panel.

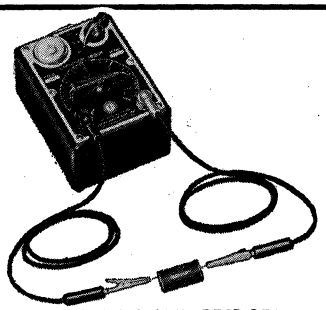
Model CDRM-3 consists of Capacitor Decades CDA-2, CDB-3 and CDC-3. User's Net $58.85

Model RDRM consists of Resistor Decades RDA, RDB and RDC. User's Net $55.00



C-D CAPACITOR-RESISTOR BRIDGE Model BF-60

Developed to measure rapidly and accurately, the important characteristics of substantially all types of Capacitors and Resistors. Range to 1000 Mfd. and 5 Megohms. User's Net $51.85



C-D CAPACITOR BRIDGE Model BN

This midget Capacitor (Wien) Bridge quickly and accurately measures the capacity of all capacitors from .00001 to 50 Mfd. A handy reliable economy priced unit. User's Net $30.20

C-D FLYBACK TRANSFORMER & YOKE CHECKER Model BF-80

Sensitive to even a single shorted winding turn. Reveals opens and shorts and checks continuity. A rapid and dependable instrument for locating defects in TV flybacks and yokes. Detects opens in coils generally and in switches, tubes, etc. User's Net $56.20

Net

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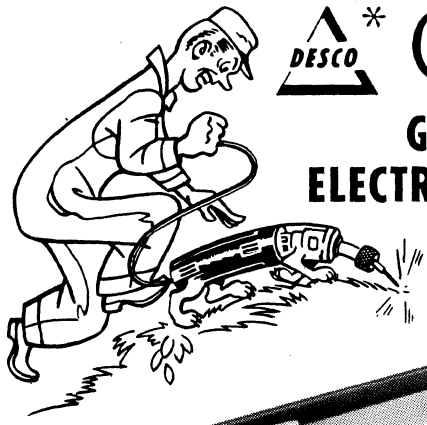
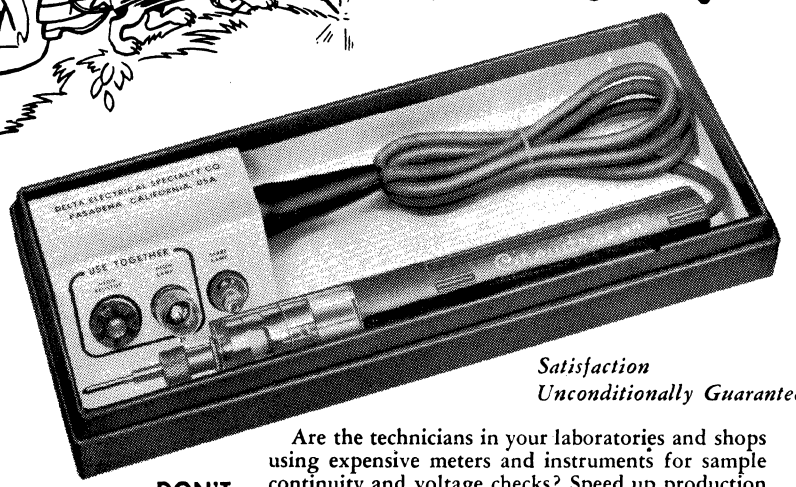
Tracks 'em Down Dead or Alive

ONLY THE VERSATILE DESCO Circuitracer*

GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

Pocket Size!





Satisfaction Unconditionally Guaranteed

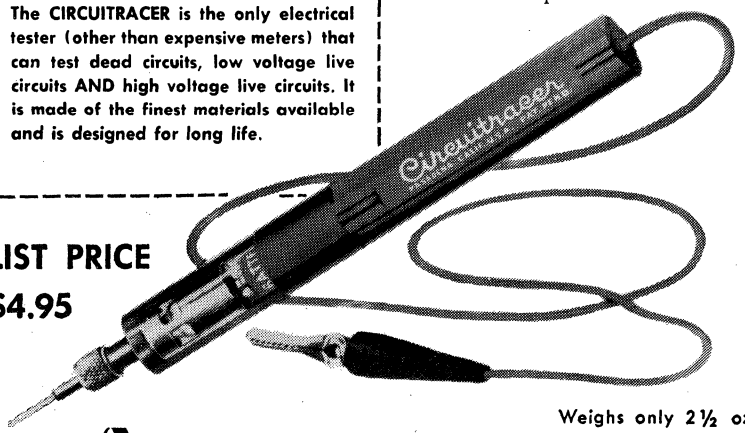
DON'T SEND A MAN TO DO A BOY'S JOB!

Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

The CIRCUITRACER is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits AND high voltage live circuits. It is made of the finest materials available and is designed for long life.



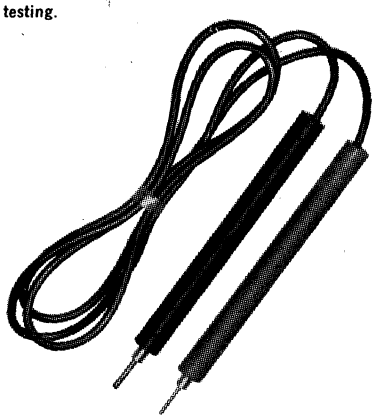
LIST PRICE $4.95

Weighs only 2½ ozs.

RELIABILITY PROBLEMS?

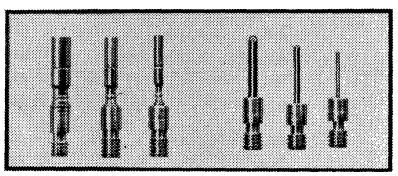
MAINTAIN CONNECTOR RELIABILITY WITH TEST LEAD ADAPTERS FOR MIL CONNECTORS

Military requirements for reliability of electrical components in missiles and aircraft are becoming more stringent each year. The quality built into these components can be rendered useless through improper probing of the connectors while circuit testing.

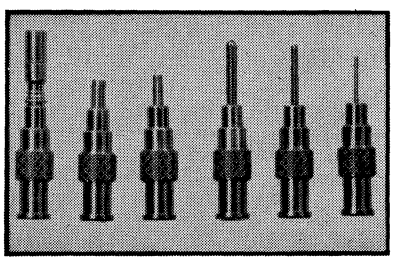


The Desco test lead adapters are made to MIL Specifications to fit both pins and sockets of connectors using #20, #16 and #12 wires. The sockets are gold plated copper with a brass sheath which retains a beryllium copper spring. The pins are polished stainless steel to assure long life.

When testing individual circuits in electrical connectors use of the proper Desco test lead adapter will assure correct mechanical and electrical contact without possibility of damage to the pin or socket under test.



WS12 WS16 WS20 WP12 WP16 WP20
ADAPTERS TO FIT TEST LEADS. AS SHOWN ABOVE



PS12 PS16 PS20 PP12 PP16 PP20
ADAPTERS TO FIT CIRCUITRACER

WRITE FOR CATALOG

DESCO Circuitracer* | DESCO MFG. CO.
GLENDALE CALIF.

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ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA

EMICO

PRECISION-PLUS

PRECISION

the Recognized Leader . . .

APPLICATIONS — Emico panel and test meters ideal for radio rigs, battery testers, line indicators, and other amperage and voltage applications. Both AC and DC meters combine accuracy with ruggedness.

CHARACTERISTICS

ELECTRICAL — A complete selection of ranges with 5% accuracy. DC meters have the new HI-TORK magnetic movement. AC meters of the moving iron type. Exact calibration performed at factory.

MECHANICAL — Ruggedized construction made to withstand severe conditions. Plastic or metal faces both available. Steel cases protect accuracy of meter from being affected by magnetic properties of mounting panels.

These characteristics **GUARANTEED** by the Electro-Mechanical Instrument Co.: Instruments guaranteed against defective material and workmanship for one year after date of purchase. Instruments will be repaired or replaced if sent to the factory with a $1.00 handling charge.

PRICE LIST

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price
0-1	.15	2101	$1.90	2201	$2.00	2301	$2.30
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30
0-5	.016	2102	1.90	2202	2.00	2302	2.30
0-10	.00115	2103	1.90	2203	2.00	2303	2.30
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	2.30
0-20	.00115	2104	1.90	2204	2.00	2304	2.30
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30
0-30	.00115	2105	1.90	2205	2.00	2305	2.30
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35

DC MILLIAMMETERS

0-1	850	2120	$3.70	2220	$3.75	2320	$4.05
0-3	425	2121	2.60	2221	2.65	2321	2.95
0-5	925	2125	2.35	2225	2.40		
0-5	1300					2325	2.70
0-10	300	2126	2.20	2226	2.25		
0-10	350					2326	2.55
0-20	95	2127	1.90	2227	2.00		
0-20	105					2327	2.30
0-25	65	2127-A	1.90	2227-A	2.00	2327-A	2.30
0-30	37	2128	1.90	2228	2.00		
0-30	45					2328	2.30
0-50	14.5	2129	1.90	2229	2.00		
0-50	18					2329	2.30
0-100	7.0	2130	1.90	2230	2.00		
0-100	8.3					2330	2.30
0-150	1.8	2130-A	1.90	2230-A	2.00		
0-150	2.15					2330-A	2.30
0-200	1.5	2130-B	1.90	2230-B	2.00		
0-200	1.7					2330-B	2.30
0-300	.61	2131	1.90	2231	2.00		
0-300	.8					2331	2.30
0-500	.21	2132	1.90	2232	2.00		
0-500	.27					2332	2.30

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

0-10	1050	2140	$2.75	2240	$2.85	2340	$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.50
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price
0-1	33	2134	$1.90	2234	$2.00	2334	$2.30
0-3	100	2135	1.90	2235	2.00	2335	2.30
3-0-3	30	2136	1.90	2236	2.00	2336	2.30
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30
0-10	280	2137	1.90	2237	2.00	2337	2.30
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30
0-50	1400	2138	1.90	2238	2.00	2338	2.30

AC AMMETERS

0-1	.365	6101	$3.05	6201	$3.15	6301	$3.45
0-3	.078	6102	3.05	6202	3.15	6302	3.45
0-5	.023	6103	3.05	6203	3.15	6303	3.45
0-10	.013	6104	3.05	6204	3.15	6304	3.45

AC MILLIAMMETERS

0-25	750	6125	$3.05	6225	$3.15	6325	$3.45
0-50	175	6126	3.05	6226	3.15	6326	3.45
0-100	58	6127	3.05	6227	3.15	6327	3.45
0-250	12	6128	3.05	6228	3.15	6328	3.45
0-500	1.75	6129	3.05	6229	3.15	6329	3.45

AC VOLTMETERS

0-5	50	6135	$3.05	6235	$3.15	6335	$3.45
0-10	175	6136	3.05	6236	3.15	6336	3.45
0-15	300	6137	3.05	6237	3.15	6337	3.45
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45
0-50	1800	6138	3.05	6238	3.15	6338	3.45
0-150	9530	6139	3.60	6239	3.70	6339	4.00
0-300	32000	6140	4.20	6240	4.25	6340	4.55

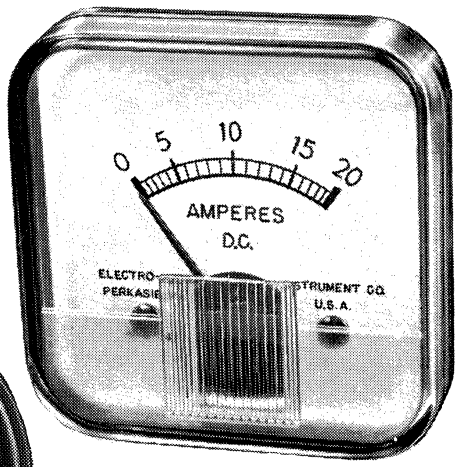
PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

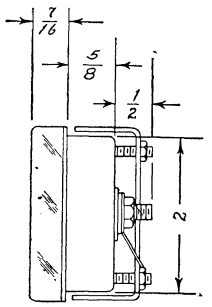
© U.C.P., Inc.

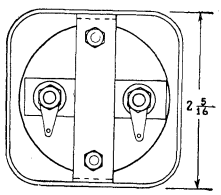
INSTRUMENTS
in Precision Products

EMICO
PRECISION-PLUS

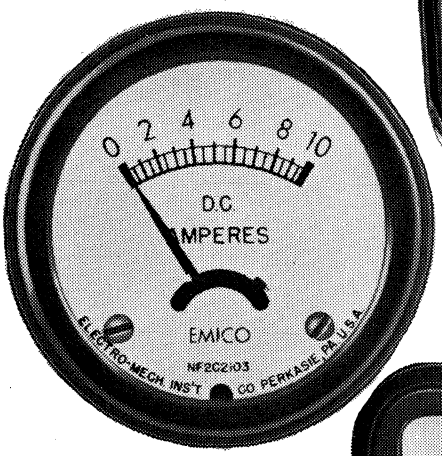
ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA



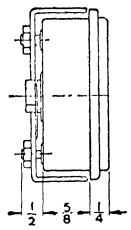


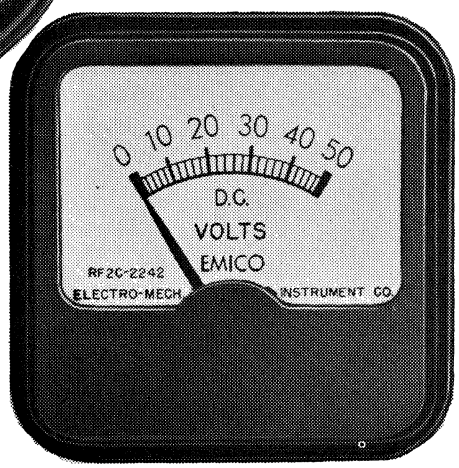


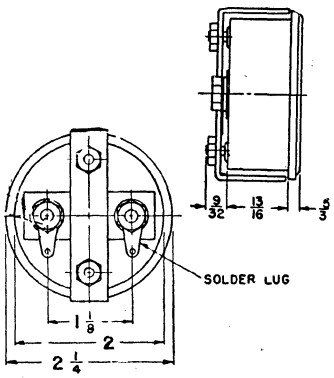
MODEL **RF2¼C**



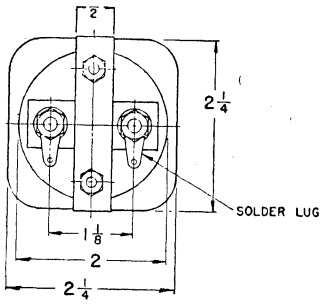
MODEL **NF2C**







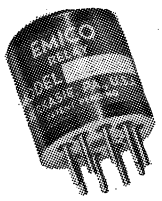
MODEL **RF2C**



Precision instruments engineered for

- **accuracy**
- **long life**
- **economy**

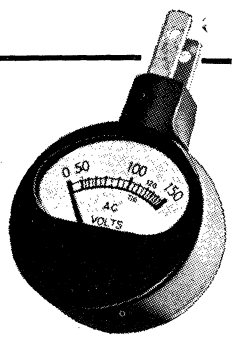
Also, a new series of 2% accuracy meters and modern edge reading meters. Detailed specs available.



EMICO Sensitive Sub-Miniature Plug-in Relay
Single pole, double throw, rotating magnet instrument type Relay. Hermetically sealed unit. 1400 Ohm coil operates at 1 MW. Plugs in a standard 9-pin miniature tube base.
Dealers' Net **$18.75**

EMICO Circuit Indicato.
Sub-miniature power indicator* with sensitivity to 1 MW. Maximum resistance to 1400 Ohms. Voltage to 25 volts D.C. Front panel mounting.
Dealers' Net **$7.50**
*Variation Available in Quantity

EMICO A.C. Voltage Tester
Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.
Dealers' Net **$3.45**

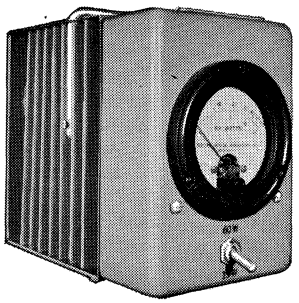


Average Reading R. F. POWER METERS

EMPHASIZING MAINTAINABILITY

1. Calibrate these Power Meters in your plant or laboratory against low frequency power standards at power line frequencies. No need to ship to manufacturer for repair and recalibration.
2. No correction curves necessary.
3. Simple operation.

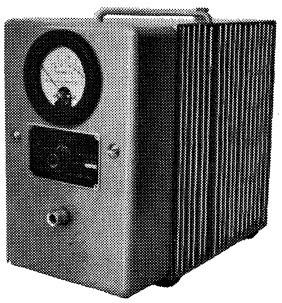
200 KC TO 500 MC — GREATLY IMPROVED



Model PM-10

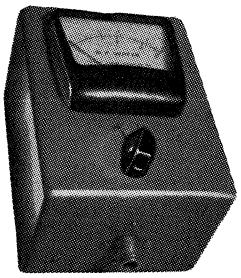
- **Portable, Continuous Duty.**
- **Can be recalibrated anywhere with DC or Alternating Current Power against a low frequency standard.**

These broad band R.F. Power Meters are of the absorption-type consisting of an oil filled, air cooled, coaxial load resistor and a voltmeter calibrated to read watts. The power meter is suitable for use as a field or laboratory test instrument, is completely shielded and non-radiating, permitting transmitter testing and adjustment without interference. The meter box is easily detached, permitting location of the load resistor at a remote point. In cases where power measurements are not required the load resistor may be used as a dummy load. No correction curve is necessary to cover the frequency range. The spurious response usually associated with directional couplers and capacitative voltage dividers is absent in this purely resistive voltage divider. Since this is a resistive voltage divider which has the same voltage division at DC, 60 cycle AC, and at high radio frequencies, this instrument can be calibrated and its calibration can be checked frequently on 60 cycle supply voltages.



Models PM-7, 14

Model	Power Ranges In Watts	Dielectric	Max. Power Dissipation	Price
PM-3	60, 150	Oil	150 watts	$220.00
PM-4	.15, .6	Air	1 watt	95.00
PM-5	.6, 1.5	Air	1.5 watts	95.00
PM-6	1.5, 6	Air	10 watts	95.00
PM-7	150, 600	Oil	600 watts	285.00
PM-8	1.5, 6, 15, 60	Oil	100 watts	225.00
PM-9	2.5, 10	Air	10 watts	105.00
PM-10	15, 60	Oil	90 watts	145.00
PM-14	25, 100, 500	Oil	500 watts	325.00
PM-16	150, 600, 1500	Oil	1500 watts	375.00
PM-18	1.5, 6, 15, 60, 150, 600	Oil	600 watts	485.00
PM-19	1.5, 6, 15, 60, 120	Oil	100 watts	250.00



100 KC TO 200 MC

- **Intermittent Duty.**
- **Portable.**
- **Can be recalibrated anywhere with DC or Alternating Current Power against a low frequency standard.**

These broad band R.F. Power Meters are of the absorption-type consisting of an oil or air filled, air cooled, coaxial load resistor and a voltmeter calibrated to read watts. The power meter is suitable for use as a field or laboratory test instrument, is completely shielded and non-radiating, permitting transmitter testing and adjustment without interference. It is designed to operate in the frequency range of 100 KC to 200 MC with an accuracy of plus or minus 5%. In this Power Meter a resistive voltage divider is used. This voltage divider has the same voltage divisions at DC, 60 cycle AC and throughout the frequency range up to 200 MC. Because of this feature it is possible to calibrate this Power Meter and its calibration can be checked frequently with DC power or with 60 cycle power. Since this is a resistive voltage divider, the spurious response usually associated with directional couplers in capacitative voltage dividers is eliminated.

Model	Power Ranges In Watts	Dielectric	Max. Power Dissipation (Intermittent Duty)	Price
AM-3	60, 150	Oil	150 watts	$95.00
AM-6	1.5, 6	Air	10 watts	60.00
AM-7	150, 6	Oil	600 watts	150.00
AM-8	1.5, 6, 16, 60	Oil	100 watts	95.00
AM-9	2.5, 10	Air	10 watts	60.00
AM-10	15, 60	Oil	90 watts	75.00
AM-14	25, 100, 500	Oil	500 watts	175.00
AM-16	150, 600, 1500	Oil	1500 watts	200.00
AM-18	1.5, 6, 15, 60, 150, 600	Oil	600 watts	250.00
AM-19	1.5, 6, 15, 60, 120	Oil	100 watts	125.00

MODEL PM-6K

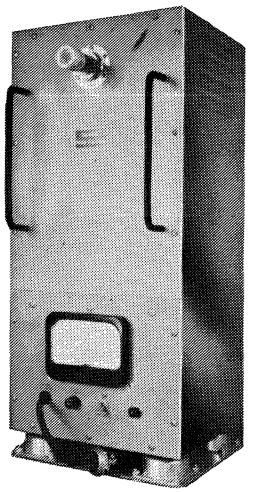
POWER MEASURING RANGE:

6000 watts Max.

100 watts Min.

MAXIMUM CONTINUOUS POWER DISSIPATION:

6000 watts



Frequency Range	100 KC – 30 MC
Impedance	50 ohms
V.S.W.R.	1.2 Maximum
Power Requirements	115 V 60 cps, 1 amp.
Accuracy	±5% of full scale
Electron Tube complement	1 ea IN21 + 1 spare

Electro IMPULSE Laboratory

• RED BANK, N. J. •

Net

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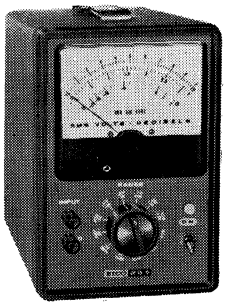
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR

250, 260



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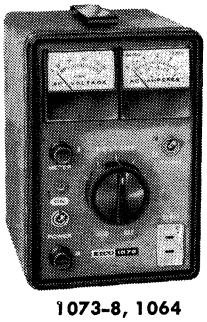
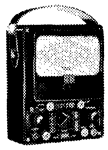
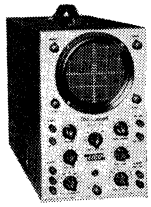


1073-8, 1064

536
526



565, 555
566, 556



460, 425

AC VTVM & AMPLIFIER #250

Kit $49.95 **Wired $79.95**

A valuable addition to any service shop or laboratory, the 250 combines a high sensitivity, completely accurate and reliable AC VTVM and a wideband amplifier, in a compact new case.

As a VTVM it measures 100 micro-volts to 300 volts in twelve ranges. The amplifier has a gain of 60 db on the 1mv range, and a maximum output of 5 V RMS.

Outstanding design features include: Frame-grid triode cathode follower input circuit; frequency compensated input attenuator, and cathode circuit attenuator; two-stage R-C coupled amplifier, and full-bridge meter circuit in one overall feedback loop; single sensitivity adjust; no response adjustment required in amplifier circuit; stabilized power supply incorporating voltage regulator. **VOLTMETER: Ranges:** 1, 3, 10, 30, 100, 300 RMS millivolts. 1, 3, 10, 30, 100, 300 RMS volts. **Decibel Range:** −80 to +52db, in 12 ranges. **Frequency Response:** ±0db 10c to 600kc. **Input Impedance:** 10 megohms shunted by 15mmf. **Accuracy:** ±3% of full scale. **Maximum Hum & Noise:** 30 microvolts (on any range). **AMPLIFIER: Max. Amplifier Output Voltage:** 5 RMS volts **Max. Gain (1mv Range):** 60db. **Frequency Response:** +0, −3db 8c to 800kc. **Maximum Hum & Noise:** 30 microvolts at output. **Input Impedance:** 10 megohms shunted by 15mmf. **Output Impedance:** 5K ohms. **TUBE COMPLEMENT:** 2-6EJ7/EF184 frame-grid pentodes, 1-6FY5/EC97 frame-grid triode. 1-6X4 full-wave rectifier. 1-0A2 voltage regulator. **Power Requirements:** 105-125 VAC, 60/50c; 15 watts drain. **Size (HWD):** 8½″ x 5¾″ x 7″. **Weight:** 7 lbs.

AC VTVM #255

Kit $44.95 **Wired $72.95**

Identical to #250 above, but less the amplifier.

AC VOLT-WATT METER #260

Kit $49.95 **Wired $79.95**

AC voltmeter and load-compensated audio-wattmeter of unique quality and accuracy. Measures AC voltage from 1 millivolt to 1000 volts in 11 ranges, and power from .015 milliwatt to 150 watts, in 7 ranges, across standard loads from 4 to 600 ohms.

The instrument incorporates a tapped power resistor load (4, 8, 16, and 600 ohms) to handle up to 80 watts of power on 8 ohms, and 40 watts on other taps. It may be switched to external load up to 150 watts. The meter is automatically compensated for any load selected, internal or external, to provide a single watt scale for all loads and ranges.

The instrument is an average reading device calibrated in RMS voltage or power of a pure sine wave. The 0-1, 0-3 voltage scales are linear and the single 0-1.5 power scale is quadratic. In wattmeter use, the decibel scale reads directly in dbm with any of the four standard loads. In voltmeter use, the decibel scale reads directly in dbm with a 600 ohm load; corrections must be applied for any other load. (0 dbm = 0.775 V across 600 ohms). The interval between successive wattmeter or voltmeter ranges is 10 dbm. **VOLTMETER Ranges:** .01, .03, .1, .3, 1, 3, 10, 30, 100, 300, 1000 RMS volts. **Frequency Response:** ±0db 10c to 150kc, −3db at 500kc. **Input Impedance:** 2 megohm shunted by 15mmf. **Accuracy:** ±4%. **WATTMETER Ranges:** .15mw, 1.5mw, 15mw, 150mw, 1.5W, 15W, 150W. **Frequency Response:** ±0db 10c to 100kc. **Accuracy:** ±5%. **Internal Loads:** 4Ω (40W), 8Ω (80W), 16Ω (40W), 600Ω (40W). **External Loads:** 4Ω, 8Ω, 16Ω, 600Ω (all to 150W). **Tube Complement:** 6-BL8/ECF80 pentode-triode, 12AT7 dual triode, 0B2 voltage regulator. **Power Requirements:** 105-125 VAC, 60/50c; 15 watts drain. **Weight:** 6 lbs. **Size (HWD):** 8½″ x 5¾″ x 7″.

NEW METERED VARIABLE AUTOTRANSFORMER AC BENCH SUPPLIES

No. 1073—3-amp current rating

Kit $35.95 **Wired $47.95**

No. 1078—7½-amp current rating

Kit $42.95 **Wired $54.95**

Invaluable for quality control service work, and production line testing, these new bench supplies are further examples of EICO's uncompromising quality engineering. The two models differ only in current rating and ammeter range.

Features include: 0-140 VAC adjustable output voltage from 120 VAC power line output; highly efficient variable auto-transformer of toroidol core design; smooth rotary brush-tap controlled by dial on panel; linear variation of output voltage, 0-140V separate output ammeter and output voltmeter; dual range ammeter. **Frequency:** Model 1073—60 cycles; Model 1078—50/60 cycles. **Input Voltage:** 120 VAC. **Output Voltage:** 0-140 VAC (30-140 VAC voltmeter). **Output Current:** 1073 — Two ranges: 0-1, 0-3 amperes; 1078—Two ranges: 0-2½, 0-7½ amperes. **Switching:** POWER switch, 2 pole type, disconnects unit from both sides of power line at OFF position. RANGE switch selects lower or higher current range for ammeter. Range may be switched under load. **Meter accuracies:** ±3% of full scale. **Line Connection:** 2-wire cord and plug. **Load Connection:** 2-wire output receptacle. **Fusing:** Auto-transformer—Model 1073: 3 ampere slo-blo; Model 1078: 7½ ampere slo-blo. Ammeter—1-ampere fuse protects ammeter on both current ranges for Model 1073. 2½-ampere fuse protects ammeter on both current ranges for Model 1078. **Size (HWD):** 8½″ x 5¾″ x 7″.

NEW EXTRA-LOW-RIPPLE 6- & 12-VOLT BATTERY ELIMINATOR & CHARGER #1064

Kit $43.95 **Wired $52.95**

A powerful, heavy duty 2-range battery eliminator for operating any auto radio, mobile and marine radio and transceiver, including transistor or "hybrid" types. A variable transformer provides continuous output voltage adjustment on both ranges, and two meters permit simultaneous observation of output voltage and current. A pi-type L-C filter in the output includes a heavy-duty choke designed to handle the full rated continuous and higher intermittent current output on either range. The 1064 may also be used as a charger for either 6 or 12 volt storage batteries. Full instructions for this use are provided.

The circuit includes heavy-duty selenium rectifiers, a primary fuse in an extractor post mounting, and an automatic reset overload relay in the secondary. The housing is outstandingly compact, and finish and construction are on a par with laboratory equipment. **Current ratings:** 0-8V range—10 amps continuous, 20 amps intermittent; 0-16V range—6 amps continuous, 10 amps intermittent. **AC Ripple:** 0-16V range—0.3% @ 2 amps, 1% @ 6 amps, 1.5% @ 10 amps. **Size (HWD):** 8½″ x 5¾″ x 7½″.

DECADE RESISTANCE BOX #1171

Kit $19.95 **Wired $24.95**

Exceptionally accurate, wide-range, versatile instrument. 0-99,999 ohms in 1-ohm steps with 5 decades and ½% precision.

DECADE CONDENSER BOX #1180

Kit $14.95 **Wired $19.95**

Precision silver-mica capacitors (±1% accuracy, 500 VDC rated) arranged in 3 decades for extremely wide range of 100 mmf to 0.111 mf in steps of 100 mmf. Positive detent ceramic wafer switches, silverplated contacts.

MODEL 232 PEAK-TO-PEAK VTVM with DUAL-PURPOSE AC/DC UNI-PROBE*

Kit $29.95 **Wired $49.95**

Measure directly p-p voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 v. with HVP probe, and 250 mc with PRF probe). Ohms: 0.2 ohms to 1000 megs. 7 **non-skip** ranges on every function. Calibration without removing from cabinet. 4½″ meter, can't-burnout circuit. Zero center, 1% multipliers. Exceptional stability and accuracy.

*US Pat. No. 2,790,051.

DELUXE PEAK-TO-PEAK VTVM #249 with 7½″ METER and EXCLUSIVE UNI-PROBE

All the outstanding and exclusive features of Model 232 — PLUS the convenience and readability of its big 7½″ meter. An ideal bench instrument.

Kit $39.95 **Wired $59.95**

VACUUM TUBE VOLTMETER #221

Kit $25.95 **Wired $39.95**

The popular, reliable, performance-proven VTVM — over 100,000 in use! Large 4½″ meter in can't-burnout circuit. Zero center for TV/FM discriminator alignment. AC/DC Volts: 0-5, 10, 100, 500, 1000 (up to 30,000 v. with HVP probe, up to 250 mc with PRF probe, and peak-to-peak with PTP probe). Ohms: 0.2 ohms to 1000 megs. DB: −20 to +55. Input R: 25 megs. 1% precision multipliers. Stable, accurate double-triode bridge circuit. Satin aluminum etched panel; steel case.

Leatherette Carrying Case For No. 221 — $3.95

DELUXE VTVM #214

Kit $34.95 **Wired $54.95**

All the versatility and performance-proven features of Model 221—PLUS the extra convenience and legibility of its big 7½″ meter.

6 EICO VOLT-OHM MILLIAMMETERS

#565 — 20,000 OHMS/VOLT V-O-M

Kit $24.95 **Wired $29.95**

31 Full Scale Ranges - DC/AC/Output Volts: 0-2.5, 10, 50, 250, 1000, 5,000 - DC Current: 0-100 ua; 10, 100, 500 ma; 1 Amp. - Ohms: 0-2000, 200K, 20 meg. - 5 DB Ranges: −12 to +55. - Large 4½″ 50 ua Meter Movement. - High-Impact Bakelite case. 6¾″ x 5¼″ x 3″. Ship. wt. 2¾ lbs.

#555 — 20,000 OHMS/VOLTS V-O-M

Kit $29.95 **Wired $34.95**

As above, with 1% precision resistors.

#566 — 1000 OHMS/VOLT V-O-M

Kit $14.95 **Wired $20.95**

Ranges: Same as Model 536 (see below), plus 7 output voltage ranges. Large 4½″ 400 ua meter movement. 6¾″ x 5¼″ x 3″. Ship. wt. 3 lbs.

#556 — 1000 OHMS/VOLT V-O-M

Kit $16.90 **Wired $23.50**

Same as Model 566, with 1% precision resistors.

#536 — 1000 OHMS/VOLT V-O-M

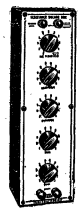
Kit $12.90 **Wired $16.90**

31 1000 Full-Scale Ranges Ohms/Volt. - DC/AC Volts: Zero to 1, 5, 10, 50, 100, 500, 5000. - DC/AC Current: 0-1, 10 ma.; 0.1, 1 Amp. - Ohms: 0-5000, 100K, 1 meg. - 6 DB Ranges: −20 to +69 - Large 3″ 400 UA Meter Movement - High-Impact Bakelite case. 6¼″ x 3¾″ x 2″. Ship wt. 2 lbs.

#526 — 1000 OHMS/VOLT V-O-M

Kit $13.90 **Wired $18.90**

As above, with 1% precision resistors.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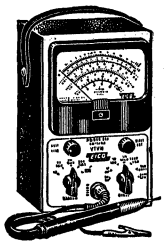
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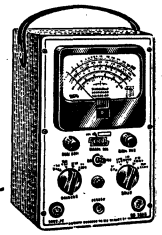
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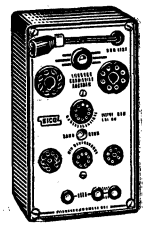
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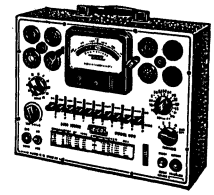
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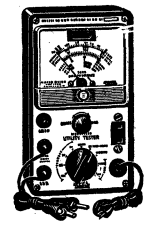
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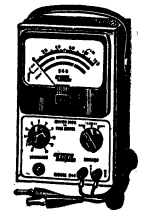
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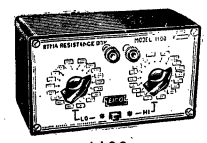
1100

VTVM PROBES
DUAL-PURPOSE AC/DC UNI-PROBE*

Performs all functions — half-turn of probe-tip selects DC or AC-OHMS!
Kit $4.95 **Wired $6.95**

PEAK-TO-PEAK VTVM PROBES PTP 11 & 25

Kit $4.95 **Wired $6.95**
Read p-p voltages directly on DC scales of your VTVM. Use with any 11 or 25 megohm VTVM.

RF VTVM PROBES PRF-11 & 25

Kit $3.75 **Wired $4.95**
For RF voltage measurements up to 250 mc. Accuracy ±10%. Use with any 11 or 25 megohm VTVM.
*US Pat. No. 2,790,051.

HIGH VOLTAGE PROBES

HVP-1 **Wired $6.95** HVP-2 **Wired $4.95**
For safe measurement up to 30,000 volts dc with any VTVM or 20,000 ohms/volt VOM. HVP-1 supplied with matching resistor for your instrument; HVP-2 supplied with choice of high quality multiplier resistors to match most popular instruments.

DC WIDE BAND 5" OSCILLOSCOPE #460

Kit $79.95 **Wired $129.50**
Flat from DC to 4.5 mc. usable to 10 mc., featuring DC amplifiers. Vert. Sens.: 25 mv/in., push-pull thruout. Sweep freqs.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amplifier eliminates sync voltage adjustment. On front panel: int. mod., saw-tooth output, 60 cps, ext. sync, ext. capacitor jacks! 60 cps variable phase sine sweep. Pre-set TV V&H sweep positions. Edge-lit plexiglass filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input.

5" PUSH-PULL OSCILLOSCOPE #425

Kit $44.95 **Wired $79.95**
Push-pull Vert. and Hor. amplifiers. High V&H sens.: 0.05-0.1 rms v/in. V&H resp., 5 cps-500 kc. Useful to 2.5 mc. Sweep: 15 cps-75 kc. Z-axis intensity mod. Direct connections to CRT plates. 2-6J5, 3-6SN7, 2-5Y3, 5" CRT.

SCOPE PROBES
MODEL PSD DEMODULATOR PROBE

Kit $3.75 **Wired $5.75**
Demodulates amplitude-modulated carriers between 150 kc and 250 mc.

MODEL PD DIRECT PROBE

Kit $2.75 **Wired $3.95**
Eliminates stray pickup and signal re-radiation.

MODEL PLC LOW CAPACITY PROBE

Kit $3.75 **Wired $5.75**

OSCILLOSCOPE VOLTAGE CALIBRATOR #495

Kit $12.95 **Wired $17.95**
Enables p-p voltage measurement of complex TV sweep waveforms displayed on scope, calibration of vert. and hor. scope amplifiers, etc. Output variable from zero on every range with full-scale readings of 0.1, 1, 10, and 100 volts p-p. Accuracy ±5% of full scale on each range. VR tube regulated power supply.

ELECTRONIC SWITCH #488

Kit $23.95 **Wired $39.95**
Simultaneously observe 2 patterns on 1 scope: compare voltage and current amplitudes, waveforms, freqs. and phase relationships. Continuously variable switching rates from less than 10 cps to over 2000 cps. Very useful as square wave generator over same range.

TUBE TESTER #625

Kit $34.95 **Wired $49.95**
Tests new 600 ma filament series string tubes and ALL conventional and TV tubes. 10 individual lever-type element switches. 4½" meter, 3-color scale. Illuminated anti-backlash "SPEEDROLL" roll-chart. Protective overload bulb. Line-adjust control. 2 grid caps. Blank socket for future tube types. Pilot light test socket.

Tube Tester Kit with Counter Display Case
Model 625-CK, Kit **$44.95**
Model 625-C, factory wired **$59.95**
Lid for your EICO Tube Tester **$3.98**

PICTURE TUBE TEST ADAPTER CRA

(For EICO Models 625, 625-K, 666 and 666-K)
Check all sizes TV Picture Tubes as fast and easily as ordinary tubes.
Wired $4.50

PICTURE TUBE TEST ADAPTER CRA-110

For 110° deflection tubes.
Wired $3.95

FAST TUBE & CRT FILAMENT TESTER #612

Kit $3.95 **Wired $5.95**
Includes batteries
Fast filament check of series string & all other TV & radio tubes (9-pin, octal, loctal, 7-pin); 14-pin, 12-pin, 8-pin CRT's; bayonet & screw-type pilot lamps; cartridge fuses. Just plug tube into tester socket, observe indicator lamp — no fiddling with controls or switches. Self-powered for convenience & safety. 7-pin & 9-pin miniature tube pin straighteners provided. Compact: 6¼" h, 3¾" w, 2" d.

CATHODE RAY TUBE CHECKER #630

Kit $13.95 **Factory Wired $18.95**
Tests all TV picture and oscilloscope type C-R tubes — in set or carton. Measures peak beam current (proportional to screen brightness). Balance control calibrated directly in terms of tube condition. Detects open and shorted elements. Size: 9½" x 6½" x 3". Ship. wt. 5 lbs.

DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER #666

Complete with rugged steel carrying case, matching steel cover, and carrying handle for easy portability.
Kit $69.95 **Wired $109.95**
Checks transistor collector current and Beta using internal dc power supply. Tests all receiving tubes including subminiatures (and tv pic tubes with accessory adapter). Composite indication of mutual conductance, plate conductance, and peak emission. Simultaneous sel. of any 1 of 4 combinations of 3 plate, 3 screen, and 3 ranges of control grid voltage. Grid voltage variable over 3 ranges with 5% accuracy pot. New series-string voltages for 600, 450 and 300 ma types. 5 ranges meter sens. with 1% precision shunts and 5% accurate pot. 10 six-position lever switches for free-point connection of every tube pin or cap. 10 push-buttons for rapid insert of any tube element in leakage circuit and speedy sel. of individual tube sections. Direct reading of inter-element leakage in ohms. New gear-driven rollchart. 200 μa meter.

BATTERY TESTER #584

Kit $9.95 **Wired $12.95**
For accurate, true DYNAMIC test of all A and B portable radio batteries, lantern batteries, and other types — in or out of equipment. Test Positions (Volts): 1.5, 4.5, 6.0, 7.5, 9.0, 22.5, 45, 67.5, 75, 90 plus Spare Position. Test leads provided. High-impact Bakelite case and satin aluminum panel. 6¼" h x 3¾" w x 2" d.

READI-TESTER #540

Kit $12.95 **Wired $15.95**
For electrical and electronic servicing; for home and automotive repairs; an all-in-one multi-range ac/dc voltmeter, ammeter, ohmmeter, wattmeter and leakage checker. Instruction book, contains an introduction to electricity, complete operating method, and procedures for common repair jobs.

FLYBACK XFMR & YOKE TESTER #944

Kit $23.95 **Wired $34.95**
Positive check of all flybacks and yokes, in or out of set, **in just seconds!** Uses sensitive grid-dip principle — shows up even 1 shorted turn! **Exclusive** separate calibration for air- and iron-core flybacks. Checks any inductance of not too low impedance; also usable for general continuity testing. Large 4½" 50 μa meter, 3 separate colored scales.

R-C BRIDGE & R-C-L COMPARATOR #950B

Kit $19.95 **Wired $29.95**
A versatile and truly useful service instrument for direct measurement of capacity **or** resistance over a wide range of values. For leakage testing of electrolytics, a continuously variable polarizing test voltage from 0 to 500 VDC (±10%) is provided. Bridge balance and leakage are both indicated by a sensitive electron-ray tube indicator. The bridge provides 4 capacitance ranges from 10 mmf to 5000 mf and 4 resistance ranges from 0.5 ohms to 500 megohms. A comparator range permits comparison measurement of capacitance, resistance, or induction against a standard. Transformer-operated power supply. **Size (HWD):** 8" x 10" x 4¾".

RESISTANCE SUBST. BOX #1100

Kit $5.95 **Wired $9.95**
Enables rapid substitution of wide range of EIA resistance values from 15 ohms to 10 megohms in decade multiples of 15, 22, 33, 47, 68, 100 ohms. Uses standard 1 watt, ±10% EIA resistors.

CAPACITANCE SUBST. BOX #1120

Kit $5.95 **Wired $9.95**
Enables rapid substitution of a wide range of EIA capacitance values from 0.0001 to 0.22 mfd in an operating circuit. Minimum accuracy ±10%. Uses silver mica and molded plastic capacitors, most conservatively rated at 600 volts. Convenient 5-way jack-top binding posts.

SERIES/PARALLEL R-C COMBINATION BOX #1140

Kit $13.95 **Wired $19.95**
Only EICO has it!
A combination of Models 1100 and 1120 (above), with switching facilities permitting selection of any R alone, any C alone, or 1350 combinations of same in series or parallel. Open and short circuit positions provided. Standard E.I.A. values, 10% accuracy. Convenient jack-top binding posts.

EICO ELECTRONIC INSTRUMENT CO., Inc. • Long Island City, N. Y.

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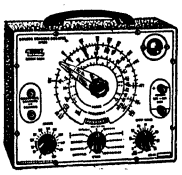
EICO® KITS and WIRED...TEST INSTRUMENTS • HI-FI • HAM GEAR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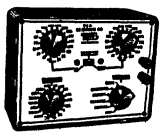
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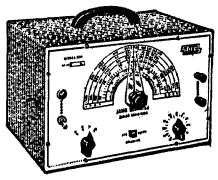
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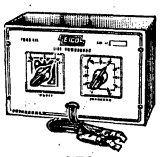
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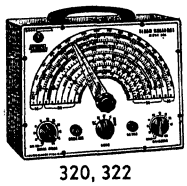
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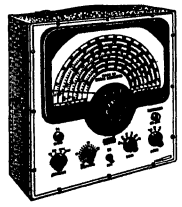
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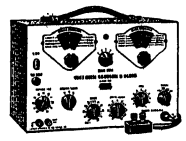
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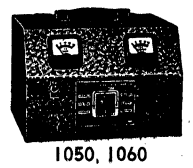
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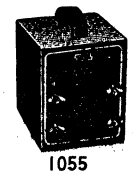
1055

RF SIGNAL GENERATOR #324

Kit $26.95 **Wired $39.95**

Extended frequency range: 150 kc to 145 mc on fundamentals in 6 bands; 111-435 mc on calibrated harmonics. ±1.5% frequency accuracy; 6:1 vernier tuning knob and excellent spread at most important alignment frequencies. Etched tuning dial, plexiglass windows, edgelit hairlines. Colpitts RF oscillator, directly plate-modulated by cathode follower for improved modulation. Variable depth of internal modulation 0-50% by 400 cps Colpitts oscillator. Variable gain external modulation amplifier: only 3.0 volts needed for 30% modulation. Turret-mounted slug-tuned coils. Fine and Coarse (3-step) attenuators, 50-ohm output Z. RF and AF outputs respectively 100,000 uv and up to 10 v. Tubes: 12AU7, 12AV7, selenium rectifier, xfmr-operated. 5-way jack-top binding posts for AF in/out; coaxial connector and shielded cable for RF out. Satin aluminum panel and grey wrinkle steel case. 8″ H x 10″ W x 4¾″ D. Ship. wt. 10 lbs.

TV-FM SWEEP GENERATOR AND MARKER #368

Kit $69.95 **Wired $119.95**

Entirely electronic sweep circuit with accurately biased increductor: superb linearity on both sides of selected center freq. Newly-designed AGC circuit automatically adjusts osc. for max. output on each band with min. amplitude variations. Sweep gen. range 3-216 mc in 5 OVERLAPPING FUND. BANDS. Sweep width continuously variable from 0-3 mc lowest max. deviation to 0-30 mc highest max. deviation. Variable marker gen. range from 2-75 mc in 3 FUND. BANDS plus a calibrated harmonic band 60-225 mc. Variable marker calibrated with int. crystal marker gen. 4.5 mc crystal included. Ext. marker provision. Double pi line filter. Edge-lit hair-lines eliminate parallax.

RF SIGNAL GENERATOR #320

Kit $19.95 **Wired $29.95**

Low-cost, high quality signal generator providing modulated or unmodulated RF. Separate 400 cps output with level control. For AM/FM alignment, and TV marker frequencies. Stable Hartley RF oscillator, vernier tuning capacitor, Colpitts audio oscillator. Five fundamental RF ranges from 150 cps to 34 mc. Two ranges of calibrated harmonics to 102 mc. **Size (HWD):** 8″ x 10″ x 4¾″.

RF SIGNAL GENERATOR #322

Kit $23.95 **Wired $34.95**

Identical to Model 320 but provided with 5 trimmers, one for each fundamental band, for increased frequency accuracy.

DELUXE RF SIGNAL GENERATOR #315

Kit $39.95 **Wired $59.95**

Laboratory-precision generator EICO Service-Engineered with 1% accuracy. Frequency range: 75 kc-150 mc in 7 calibrated ranges. Extremely stable. illuminated hairline VERNIER TUNING. VR stabilized line supply. 400-cycle pure sine wave with less than 5% distortion. Tube complement: 6X5, 6SL7, 6C4, VR-150. Satin aluminum etched panel; rugged steel case. 115 v., 60 cycles AC. Size: 12″ x 13″ x 7″. Ship wt. 21 lbs.

TV-FM SWEEP GENERATOR #360

Kit $34.95 **Wired $49.95**

Covers all TV-FM alignment frequencies, 500 kc 228 mc. Vernier-driven dial. Center of each of 13 TV channels marked on front panel. Sweepwidth variable 0-30 mc with mechanical inductive sweep — permits gain comparison of adjacent TV channels. Crystal marker oscillator, variable amplitude. Provides for injection of external marker. Phasing control. Complete with HF tubes. Less Crystal. Size: 10″ x 8″ x 6¾″. Ship wt. 12 lbs.

EICO 5 MC and 4.5 MC Crystals — $3.95 ea.

SINE & SQUARE WAVE AUDIO OSCILLATOR #377

Kit $31.95 **Wired $49.95**

RC (Wein Bridge) oscillator incorporating 1% resistors and a 2-gang tuning capacitor providing sine wave frequencies from 20 cps to 200 kc in 4 bands. Sine wave distortion is less than 1%. Output amplitude is flat ±1.5 db from 60 cps to 150 kc. Square wave output is obtained from an overdriven clipper and the waveform is free of excessive tilt or rounding between 200 cps and 20 kc. A high degree of frequency stability is obtained after a very short warm-up, and calibration accuracy is the greater of ±3% or 1 cps. The output stage is a split-load cathode follower providing 10 V rms into a 1000-ohm load. The power supply employs full-wave rectifiers and a pi-type LC filter. Hum is less than 0.4% of rated output. **Size (HWD):** 8¾″ x 13½″ x 7¼″.

BAR GENERATOR #352

Kit $14.95 **Wired $19.95**

Produces 16 to 23 V bars and 13 to 22 H bars, adjustable in number to accommodate all screen sizes. Incorporates VHF osc., RF osc., and LF multivibrator. Adjustable from Channel 2 to 6. Deluxe 3-way antenna terminal clip fits any type antenna terminal including plug-in type. Output voltage: 100,000 microvolts. Tubes: 1-12AU7, 1-6C4; selenium rectifier. Size 5″ x 7½″ x 4½″. Ship. wt. 6 lbs.

DELUXE MULTI-SIGNAL TRACER #147

Kit $24.95 **Wired $39.95**

Entirely new 5-tube instrument provides high gain RF and low gain audio channels with both visual and aural monitors (electron-ray tube and 5″ speaker). Permits RF, IF and audio signal tracing in TV, FM and AM sets. Highly useful noise localizer circuit that applies DC test voltage thru probe to suspected component and simultaneously picks up and amplifies effect. Wattmeter circuit detects abnormal power consumption in TV and radio receivers. May be connected as test speaker, amplifier or output transformer, and has output for VTVM or scope. Excellent for gain-per-stage estimation, null detector, scope preamplifier, utility amplifier, small P.A. system. New satin finish etched panel: grey wrinkle steel case. 105-125 VAC, 50/60 cps. Size: 8″ x 10″ x 4¾″. Ship. wt. 10 lbs.

LOW-COST MULTI SIGNAL TRACER #145A

Kit $19.95 **Wired $28.95**

More than enough RF gain to trace up to receiver input; signal heard through built-in 5″ PM speaker. Shielded RF crystal demodulator and direct probes supplied. Noise localizer circuit applies DC test voltage through probe to suspected component and simultaneously picks up and amplifies effect. **Size (HWD):** 7-13/16″ x 5-9/16″ x 5-1/16″. Ship. wt. 7 lbs.

POWER & BIAS SUPPLY FOR TRANSISTORIZED EQUIPMENT #1020

Kit $19.95 **Wired $27.95**

Extremely low ripple DC power supply for hum-free operation of transistor radios, hearing aids, "walkie-talkie" transistor transceivers, transistor preamps and tuners, language lab transistor amplifiers, transistor test equipment, etc. May also be used in TV and radio service work as a bias supply to offset AVC and AGC voltages during alignment, and to cut off the color burst amplifier in color TV adjustments. May also be used as a variable bias supply in the development of transistor and tube circuits, including the supply of the DC bias for filaments or as a filament DC power supply within the current ratings. **Output Voltage Range:** 0-30 V DC, continuously variable. **Max. Output Current Capacity** (continuous): 150 ma from 0-12 V, 200 ma from 12-24 V, 300 ma from 24-30 V. **Ripple:** (120 cps); 0.005% at full load. **Power Requirements:** 117 V, 60 cps. **Size (HWD):** 5″ x 4″ x 5½″. **Weight:** 4½ lbs.

6- & 12V BATTERY ELIMINATOR AND CHARGER #1050

Kit $29.95 **Wired $38.95**

All the power you need for 6-volt and 12-volt battery charging and auto radio servicing. Two DC ranges: 0-8 v (10 amps continuous, 20 amps intermittent), 0-16- volts (6 amps continuous, 12 amps intermittent). Continuous voltage adjustment with variable-type transformer. Separate voltmeter and ammeter. Heavy duty selenium rectifiers. Fused primary; automatic reset circuit-breaker opens secondary circuit upon overload. Rugged, well-ventilated steel cabinet. Size: 8¾″ x 10½″ x 7¾″. Wt. 15 lbs.

B.E. ACCESSORY FILTER #1055

Kit $11.95 **Wired $15.95**

L-C filter provides additional filtering of output of EICO #1050 or similar unit, for powering transistor and "hybrid" car radios. Functions on either 6V or 12V ranges. 10 amps max current; can remain in use for ALL functions of the Battery Eliminator. **Weight:** 7 lbs.

EXTRA-FILTERED 6- & 12V BATTERY ELIMINATOR AND CHARGER #1060

Kit $38.95 **Wired $47.95**

Combines Model 1050K Battery Eliminator and Model 1055 Filter in a single unit. Powers both transistor and conventional equipment. **Size (HWD):** 8¾″ x 10½″ x 7¾″. **Weight:** 19 lbs.

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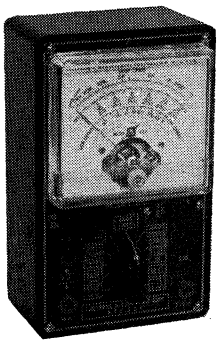

MODEL 102 VOM . . .

Resistance to 1 meg. AC and DC Volts to 3000V. 3 AC and DC Current Ranges.

Wired **$14.90**
Kit **12.50**

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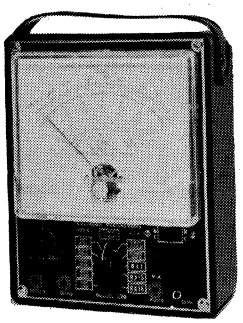
MODEL 102F . . .
(With Fused Meter)

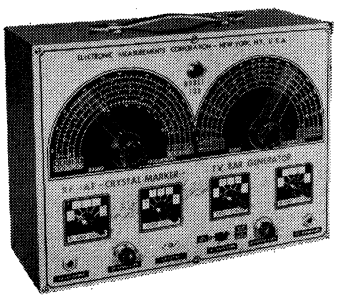
Wired **$15.55**
Kit **13.10**



MODEL 109 VOM . . .

20,000 ohms per Volt DC. 10,000 ohms per Volt AC. 4½" 40 Microampere Meter 5 AC and DC Volt Ranges to 3000V. 3 Resistance Ranges to 20 megs. 3 AC & DC Current Ranges.

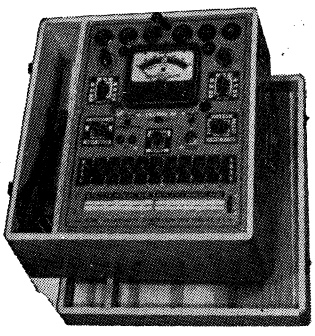
Wired **$26.95**
Kit **19.25**



MODEL 700 AUDIO AND RF GENERATOR . . .

Complete coverage from 18 cycles to 108 MC on fundamentals. Bar Generator. Square Wave Generator.

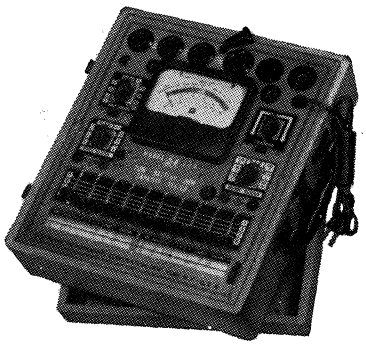
Wired **$55.90**



MODEL 206P DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER . . .

Checks micromho value. Gas Content Flexible switching. Lowest Priced Mutual Conductance Tester on Market.

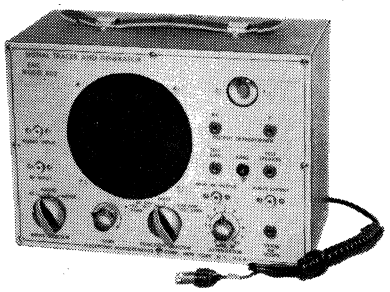
Wired **$83.50**
(Oak Portable Case)



MODEL 204P TUBE-BATTERY OHM-CAPACITY TESTER . . .

Checks Tubes, Batteries, Condensers and Resistors. Flexible Switching.

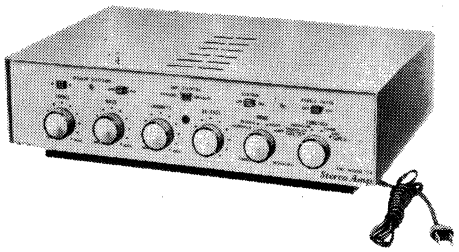
Wired **$55.90**
(Oak Carrying Case)



MODEL 802 SIGNAL TRACER AND GENERATOR . . .

Generates its own Audio and RF signals for tracing. Complete with RF and 2 Audio leads. Uses Magic Eye and Speaker. Checks noisy components.

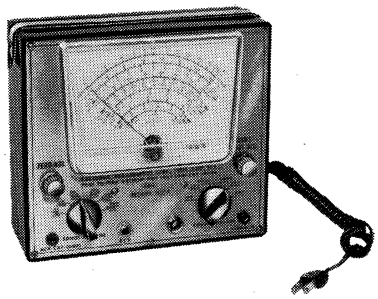
Wired **$38.95**
Kit **24.95**



MODEL 214 STEREO AMPLIFIER . . .

56 Watts Peak Power. Has contour switch and rumble filter. Etched 2 color panel.

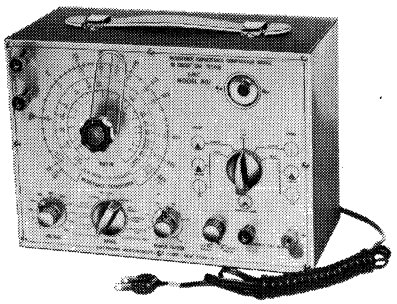
Wired **$106.90**
Kit . . **68.90**



MODEL 107A PEAK-TO-PEAK VACUUM TUBE VOLT-OHM-CAPACITY TESTER . . .

Uses 6" meter. Bakelite Case. 6 AC & DC volt ranges to 2800 V. 6 capacity ranges from 50 MMFD to 5000 MFD. 6 resistance ranges from .2 ohm to 1000 megs.

Wired **$51.40**
Kit **36.50**



MODEL 801 RC BRIDGE AND IN-CIRCUIT CHECKER . . .

Checks condensers completely in and out of circuit. Checks resistance. Checks condensers for value, leakage and power factor.

Wired . . . **$38.95**
Kit **24.95**

EMC ***ELECTRONIC MEASUREMENTS CORPORATION***
New York, New York

Net

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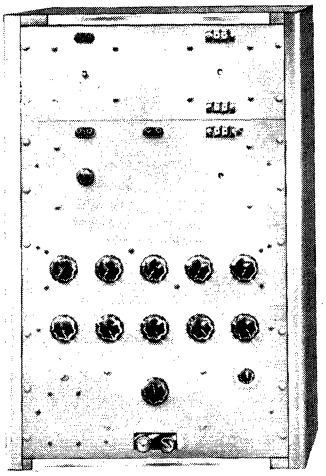


Type 1185

INCREMENTAL INDUCTANCE BRIDGE
TYPE 1110-C

MAXIMUM SUPERIMPOSED DC UP TO 2 AMPERES

The Freed Type 1110-C Incremental Inductance Bridge is designed to replace the Type 1110-AB Inductance Bridge and has additional features not available in the older model. Direct in-line readings of inductance and conductance of iron core component at audio frequencies with or without superimposed direct current. The bridge uses the Owens circuit with provisions for measuring the series or parallel inductance and conductance of the unknown inductor; five precision resistance and capacitance decades are provided to indicate these values. "Q" or storage factor can be measured as the product of the inductive reactance and the conductance.

SPECIFICATIONS

Inductance Range: Five decade resistors are used for the inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Range: 5 decades 1111.1 H max. — 1 Mh min.
3 decades 11.1 H max. — 100 Microhenry min.
2 decades 1.1 H max. — 1 Microhenry min.

Frequency Range: 20 cycles to 10kc.

Accuracy: ±1% up to 5kc, ±2% to 10kc.

Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.015 micromho to 1000 mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials @ 100 cycles.

Superimposed DC: 2 amperes 1 Mh — 100 Mh.
1 ampere 0.1 H — 10 H.
0.32 ampere 10 H — 100 H.
0.1 ampere 100 H — 1000 H.

Dimensions: 21¾ x 17½ x 15¼ inches. **Weight:** 50 lbs.

INCREMENTAL INDUCTANCE BRIDGE

TYPE 1185

MAXIMUM DC TO 30 AMPERES

Designed for 30 Ampere incremental inductance measurements, same operational controls as supplied on type 1110-C and 1115 bridges.

SPECIFICATIONS

Inductance Balance: Five decade resistors are used for inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Inductance Range: 5 decades 111.1 H max. — 100 μh min.
3 decades 1.1 H max. — 1 μh min.
2 decades 0.11 H max. — 0.1 μh min.

Frequency Range: 20 cycles to 10kc.

Accuracy: ±1% up to 5kc — ±3% to 10kc.

Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.15 micromho — 1000 Mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials. @ 100 cycles.

Superimposed DC Range: 30 amperes 0.1 Mh — 100 Mh.
8 amperes 0.1 H — 1 H.
4 amperes 1 H — 10 H.
1 ampere 10 H — 100 H.

Dimensions: 21¾ x 33¼ x 15¼ inches. **Weight:** 100 lbs.

TYPE 1115

MAXIMUM DC TO 15 AMPERES

Offers all features of the Type 1110-C Inductance Bridge with increased superimposed DC rating.

SPECIFICATIONS

Inductance Balance: Five decade resistors are used for inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Inductance Range: 5 decades 111.1 H max. — 100 μh min.
3 decades 1.1 H max. — 1 μh min.
2 decades 0.11 H max. — 0.1 μh min.

Frequency Range: 20 cycles to 10kc.

Accuracy: ±1% up to 5kc ±3% to 10kc.

Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.15 micromho — 1000 Mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials. @ 100 cycles.

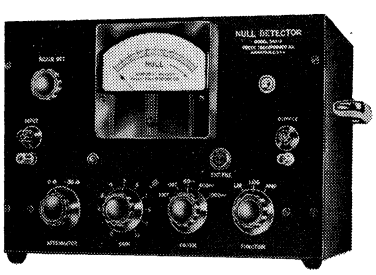
Superimposed DC Range: 15 amperes 0.1 Mh — 100 Mh.
4 amperes 0.1 H — 1 H.
1 ampere 1 H — 10 H.
0.4 ampere 10 H — 100 H.

Dimensions: 21¾ x 28 x 15¼ inches. **Weight:** 80 lbs.

NULL DETECTOR AMPLIFIER TYPE 1140-A

USES

A sensitive null indicator for bridge measurements, providing visual null indications or aural when used in conjunction with headphones. The unit may also be used as a high gain amplifier for general laboratory work.



DESCRIPTION

Functionally the instrument consists of a high gain linear amplifier with a 30 db. input attenuator in addition to the variable gain control. A four-inch panel meter provides visual null indications, the response of the meter circuit is approximately logarithmic over a 40 db. voltage range. Resonant circuits tuned to 60, 400 and 1000 cycles limit the amplifier transmission characteristics to the three audio frequencies commonly used for bridge measurements or it may be used as a non-selective amplifier with filter "off." Other selective frequency can be obtained by use of a Type 1940 Filter Unit.

SPECIFICATIONS

Input Impedance: 1 megohm in parallel with 25 mmf. GAIN: 98 db. with 1 megohm load (6 mmf. shunt capacity).

Null Detector Sensitivity: At 1 kc. 100 microvolts will give a 15% meter deflection.

Selective Amplifier: 26 db. second harmonic attenuation at 60, 400 and 1000 cycles.

Power Supply: 105-125 volts, 50-60 cycles, 35 watts consumption.

Dimensions: 12" x 8½" x 10". **Weight:** 24 lbs.

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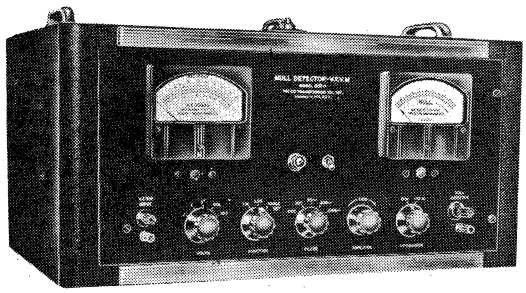
NULL DETECTOR AND VACUUM TUBE VOLTMETER TYPE 1210-A



USES

The Type 1210-A Null Detector and Vacuum Tube Voltmeter is primarily designed for bridge measurements. The Null Detector indicates the balance of the bridge, and the Vacuum Tube Voltmeter indicates the voltage across the unknown two terminal or four terminal network.

SPECIFICATIONS

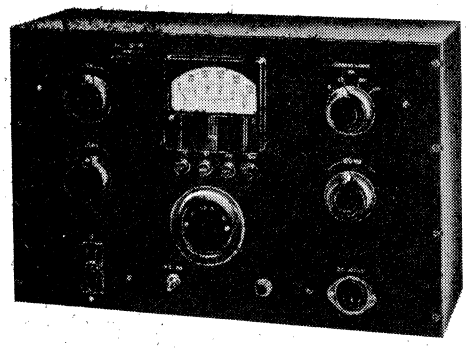
NULL DETECTOR

Input Impedance: 1 megohm in parallel with 25 mmf.
Frequency Response: 2 db from 20 to 20,000 cycles.
Null Detector Sensitivity: At 1000 cycles, 100 microvolts will give a 15% meter deflection.
Selective Amplifier: 26 db second harmonic attenuation at 60,400 and 1000 cycles. Selectivity at any other frequency between 20 cycles and 20 kc. may be obtained by connecting Freed Model 1940 to the external filter jack.

VACUUM TUBE VOLTMETER

Voltage Range: .01 volts to 150 volts in four ranges — (.15 — 1.5 — 15 — 150 volts at full scale.)
Accuracy: 2% of full scale on all four ranges.
Waveform Error: The instrument is a full wave average meter and is free of turnover effects. For small amounts of distortion the accuracy of the instrument is independent of the waveform.
Frequency Range: 20 cycles to 20,000 cycles (1 db.)
Input Impedance: Equivalent to 50 megohms resistance in parallel with a 25 mmf condenser.
Power Supply: 105-125 volts AC. 50-60 cycles. **Dimensions:** 21" x 15" x 13". **Weight:** 37 lbs.

D.C. SUPPLY TYPE 1170



USES

Intended as a dependable source of direct current for the Incremental Inductance Bridge Type No. 1110-AB. Can also be used as a general laboratory supply.

DESCRIPTION

Consists of an electronically regulated high voltage supply. Four independent control circuits provide four current ranges, namely 5 milliamperes, 25 milliamperes, 100 milliamperes and 500 milliamperes. The output current is indicated by a multirange 4" meter.

SPECIFICATIONS

Current Ranges: Four current ranges: 5, 25, 100 and 500 milliamperes.
Voltage Ranges: The maximum no load voltages corresponding to the four current ranges are the following: 500 MA — 270 volts, 100 MA — 270 volts, 25 MA — 55 volts, 5 MA — 25 volts. On both 500 MA and 100 MA range with the control set to zero, the output voltage is independent of the load.
Voltage Regulation: The unit operates from a 115 volts, 50-60 cycle line. For a line variation of plus or minus 10%, the output voltage shall not vary more than $\pm 1\frac{1}{2}\%$.
Dimensions: 21" x 15" x 14". **Weight:** 89 lbs.

D. C. SUPPLY TYPE 2070

The Type 2070 DC Supply is a compact and dependable source of metered current for use with the Freed Type 1110-AB Incremental Inductance Bridge. This unit is not electronically regulated and is therefore not intended for measurements requiring the close regulation supplied by the Freed Type 1170, however, this supply will be found suitable for all but the most critical production testing.

DESCRIPTION

The instrument consists of a variable voltage primary, a full wave silicon diode bridge and a multisection filter. Output current is indicated on a 4" multi-scale meter.

SPECIFICATIONS

Current Range: 0-500 Milliampere in 4 ranges: 5-25-100-500 Milliamperes.
Voltage Output: 200 volts @ 500 Ma., 170 volts @ 100 Ma., 110 volts @ 25 Ma., 70 volts @ 5 Ma.
Full Load Ripple: Average ripple and noise less than 20 miilivolts.
Input Power: 115 volts AC. **Size:** 19 x 7 x 12 inches. **Weight:** 30 lbs.

INTERSTAGE FILTER TYPE 1940

USES

This filter may be used with the Freed Type 1140-A Null Detector and Type 1210-A Null Detector V.T.V.M. or similar amplifiers. It can be set to any one of 7 fixed frequencies to reduce noise and harmonics when making bridge measurements.

DESCRIPTION

The filters are parallel resonant circuits, and are designed to be used in the plate circuit of the amplifier. D.C. current through the inductor is limited to 3 ma. Terminals are provided for connecting an external capacitor to tune to any frequency between 50 cps and 20 kc.

FEATURES

- Each of 7 tuned frequencies is quickly available.
- Any resonant frequency between 50 cps and 20 kc can be obtained with external capacitors.
- Sharp anti-resonant tuning.
- Can be used directly in plate circuit.

SPECIFICATIONS

Frequencies: 100 cps, 200 cps, 500 cps, 800 cps, 1200 cps, 2000 cps and 10 kc. adjusted to any accuracy of $\pm 2\%$. Discrimination vs 2nd harmonic approximately 23 db.
Terminals: Shielded cord and plug for connection to null detector. Binding posts for connecting external capacitors.
Dimensions: 6" x 6" x 6". **Weights:** 7 lbs.

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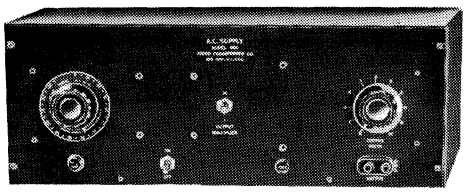


A.C. SUPPLY TYPE 1180

USES

The type 1180 A.C. Supply is designed for both laboratory and production applications where a power line isolated source of A.C. test voltage is required. It will have particular application to bridge measurements where a source of voltage in small increments is needed.

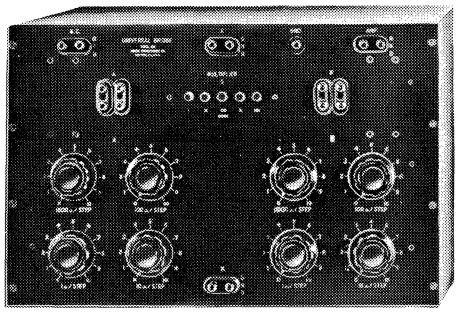
SPECIFICATIONS

Voltage Range: .01 — 130 volts AC — 50-60 cycles.
Dimensions: Width 19"; Depth 5"; Height 7".
Weight: 13½ lbs.

UNIVERSAL BRIDGE TYPE 1150

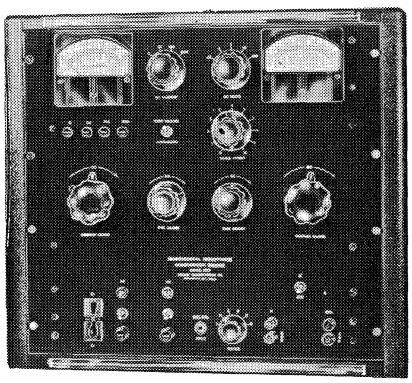
FEATURES

The Universal Bridge offers a variety of five possible bridge circuits. A wide range of capacitance, inductance, impedance, and phase angle measurement can be made throughout the frequency spectrum from 20 cycles to 20,000 cycles.
Decade resistors in the variable arms allow the unknown to be measured to four significant figures. Operation is simple and both terminals and controls are arranged for convenience and ease of measurements.



SPECIFICATIONS

Frequency Range: The bridge can be used at frequencies from 20 cycles to 20,000 cycles.
Accuracy: All resistors of the bridge arms are adjusted to 0.1%. The absolute accuracy of measurement will depend upon the accuracy of standards used.
Inductance Range: The bridge will measure inductance of coils from 0.1 mh to 1000 henries with an accuracy of 0.5% at 1000 cycles.
Capacitance Range: Condensers from .001 mf to 1 mf can be measured to within 0.5% at 1000 cycles. Condensers below .001 mf should be measured by the substitution method.
Mounting: The bridge supplied in walnut cabinet or on special order for standard rack mounting.
Dimensions: Rack 19"x8"x14" **Weight:** 32 lb.; Cabinet 21"x8"x16⅝" **Weight:** 43 lbs.



INCREMENTAL INDUCTANCE COMPARISON BRIDGE TYPE 1870

DESCRIPTION

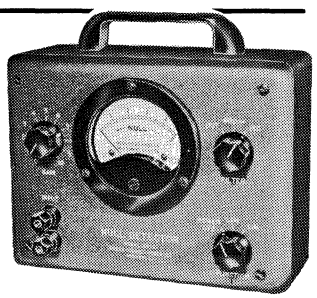
The unit is completely self-contained, consisting of a metered 500 ma D.C. supply, a metered 135 volt, 60 cycle supply and a direct reading % deviation indicator. An external oscillator jack is provided so that test frequencies from 60 cycles to 10 kc may be used.

SPECIFICATIONS

Inductance Range: 25 mh to 100 h.
Deviation Range: ±20% with an accuracy of 1%. ±30% with an accuracy of 5%.
Frequency: 60 cycles to 10,000 cycles.
Voltage Applied to Unknown: Variable from 0 to 135 volts.
D.C. Current Range: 0 to 500 ma in four overlapping ranges, 0-5 ma, 0-25 ma, 0-100 ma, 0-500 ma.
Vacuum Tube Voltmeter: .01, .1, 10, and 100 volts full scale.
Power Supply: Instrument is entirely self-contained, operates on 100-125 volts, 50-60 cycles.
Dimensions: 19½" high x 22" wide x 15" deep. **Weight:** 150 lbs.

NULL DETECTOR TYPE 2050 (ALL TRANSISTOR)

The Freed Type 2050 Null Detector, when used in conjunction with other battery operated equipment, allows complete isolation from the power lines. This feature, plus battery operation, provide a lower noise level which makes it useful in all types of AC Bridge measurements. Readily portable and independent of power lines this instrument is particularly suited for bridge measurements in any location.



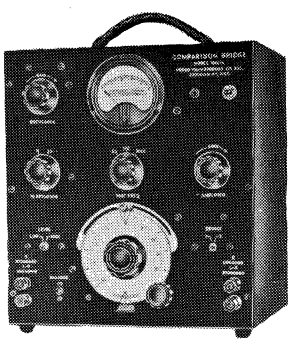
FEATURES

- Complete isolation from power lines.
- Portable — lightweight.
- Economical operation.
- High sensitivity throughout battery life.
- Maintenance — free service.
- Simplified operations — no warm-up, no zero setting.
- Built-in harmonic filters.

SPECIFICATIONS

Sensitivity: (with 400 cycle or 1000 cycle filter)
A — 200μV for full-scale
80μV for 30% deflection
} in "Linear" position
B — 2000μV for full-scale
100μV for 30% deflection
} in "Null" position

Input Impedance: Approximately 1 Megohm (resistive) at 1000 cycles.
Frequency Range: 40 cycles to 20 kc ±1 db.
In "Direct" position: 20 cycles to 50kc ±5 db.
Filters: 400 cycles and 1000 cycles, greater than 22 db rejection of 2nd Harmonics.
Power Supply: 5.2 volts (4 mercury cells).
Battery Life: At least 1800 hours.
Size: 6 x 8 x 3½ inches. **Weight:** 3½ lbs. with batteries



COMPARISON LIMIT BRIDGE TYPE 1010-A

USES

For laboratory and production testing of resistors, condensers and inductors. Instrument is completely self contained and A.C. operated.

DESCRIPTION

The instrument is composed of an oscillator, a bridge and a selective amplifier.

SPECIFICATIONS

Frequency: 50 or 60 cycles, 1000 cycles and 10,000 cycles.
Range: Two comparison ranges, 5% and 20%.
Accuracy: ±0.1% in the 5% position.
Resistor Measurements: 1 ohm to 20 Megohms.
Condenser Measurements: 10Mmfd. to 100 Mfd.
Inductor Measurements: 10 Microhenries to 1000 Henries.
Voltage applied to the Unknown: Two controls are provided to vary the voltage across the unknown. A special low impedance winding is used when measuring small impedances and the voltage across these may be varied from .1 to 1 volts. For higher values of impedance the voltage may be varied from .5 to 15 volts.
Power Supply: 105-125 volts; 50-60 cycles. **Dimensions:** 10½" x 12" x 12". **Net Weight:** 17 lbs.

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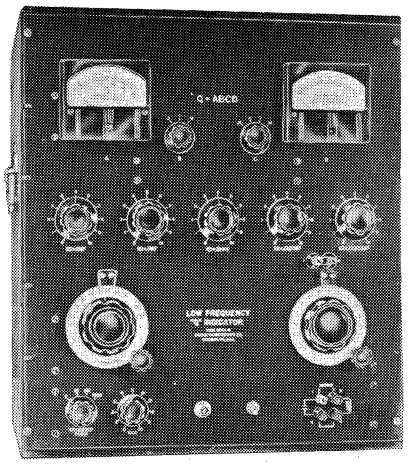
LOW FREQUENCY "Q" INDICATOR TYPE 1030-A



USES

Measures the "Q" factor of coils directly and the inductance of coils, distributed capacity, impedance and dielectric losses. The "Q" Indicator can be used to study the magnetic properties of iron, such as stability of iron cores in function of applied voltages, and, iron losses as a function of the frequency.

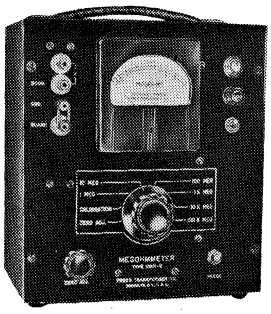
FEATURES

- Direct reading
- Unaffected by line voltage variations.
- Self contained — A.C. operated.

SPECIFICATIONS

Range of "Q" Measurements: The range of "Q" factors is from 0.1 to 1000 over the frequency range from 20 to 50,000 cycles with an accuracy of 5%; from 50,000 to 200,000 cycles the accuracy of "Q" measurements is limited by the residual capacity of the measuring circuit (for iron core components, measurements in this frequency range will approach 5%).
Oscillator Frequency Range: Continuously variable from 20 to 200,000 cycles in four ranges.
Power Supply: The instrument is entirely self-contained and operates on 105-125 volts, 50-60 cycles. Total power consumption 200 watts. **Dimensions:** 19½" x 14½" x 23". **Weight:** 120 lbs.

MEGOHMMETER TYPE 1020-B



USES

A self-contained and A.C. operated instrument for laboratory or production testing of leakage resistance of insulation materials, condensers, cables, motors and transformer windings.

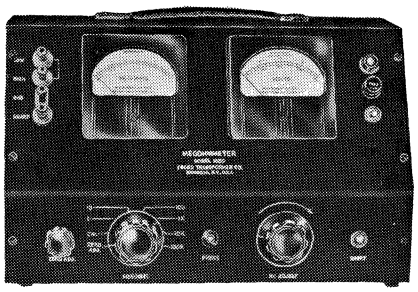
FEATURES

Resistance values indicated directly on a four-inch meter protected against over-load. Rapid and safe to use, test voltage removed from terminals, and capacitive component discharged to ground in all positions of multiplier switch. Maximum short circuit-current limited to 6 milliamperes for optimum safety of operating personnel. Low resistance in series with component under test provides very short charging time for even the very largest capacitors. Calibration position provided to check accuracy of 500 volts D.C. potential.

SPECIFICATIONS

Range: 1 megohm to 2,000,000 megohms in six overlapping ranges selected by a multiplier switch.
Accuracy: Plus or minus 3% on resistance values up to 100,000 megohms: plus or minus 5% from 100,000 to 2,000,000 megohms.
Voltages on Unknown: The voltage applied to the unknown terminals is 500 volts D.C. and is independent (less than 1%) of the value of the unknown.
Power Supply: 105-125 volts A.C. 50-60 cycles 30 watts.
Dimensions: 9½" x 10½" x 8". **Weight:** 18 lbs.

VARIABLE TEST VOLTAGE MEGOHMMETER TYPE 1620



The Freed Type 1620 Megohmmeter is a versatile insulation resistance measurement instrument with a continuously variable DC test potential from 50 to 1000 volts.
Components such as transformers, condensers, motors, printed circuits; cables and insulation material can be tested at their rated voltage and above, for safety factor.

- **Resistance** — 0.1 megohms to 4,000,000 megohms.
- **Voltage** — variable, 50 - 1000 volts.
- **Accurate** — plus or minus 5% on all ranges.
- **Simple** — for use by unskilled operators.

Power Supply: 105-125 volts AC — 50-60 cycles.
Dimensions: 15" x 9" x 7½". **Weight:** 24 lbs.

TYPE 1620-C MEGOHMMETER

All features same as type 1620 with additional circuitry for measuring capacitor leakage with test voltages from 50-1000 volts D.C.

BATTERY OPERATED PORTABLE MEGOHMMETER TYPE 2030

USES

The Freed Type 2030 Megohmmeter is a battery operated instrument especially suited for measuring leakage of transformers, motors, cables, condensers and insulating materials wherever the power line is inaccessible or where battery operation is more desirable.

FEATURES

Resistance values are indicated on a 3" expanded scale meter protected against overload. Low resistance in series with component under test provides very short charging time for even the largest condensers. Calibration position provided to check accuracy of 500 volt test potential. The 500 volt D.C. test potential is obtained from a regulated transistor power supply.

SPECIFICATIONS

Range: 5 megohms to 5 million megohms indications to 10 million megohms in 5 overlapping ranges.
Accuracy: Plus or minus 3% on resistance values up to 100,000 megohms: plus or minus 5% from 100,000 megohms to 5,000,000 megohms.
Voltages on Unknown: The voltage applied to the Unknown terminals is 500 volts D.C. and is independent (less than 1%) of the value of the Unknown.
Terminals: Four terminals are provided, two for connecting the Unknown, one guard and one ground.
Dimensions: 6" x 8" x 4". **Weight:** 8 lbs.

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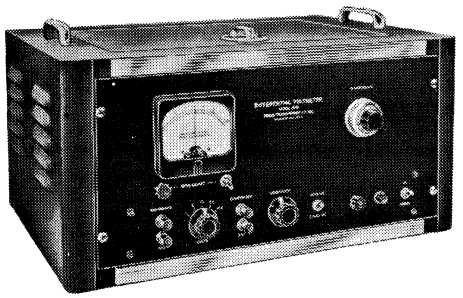
A. C. DIFFERENTIAL VOLTMETER TYPE 1560



USES

Measures differences in voltage levels as low as 0.01% regardless of their phase relation. It is extremely useful when checking response and attenuation of filters, transformers, amplifiers and other applications where a small difference in two voltages is to be measured. Because of its excellent stability and high sensitivity the differential voltmeter may also be used to observe drift in amplifiers, meters and filters.

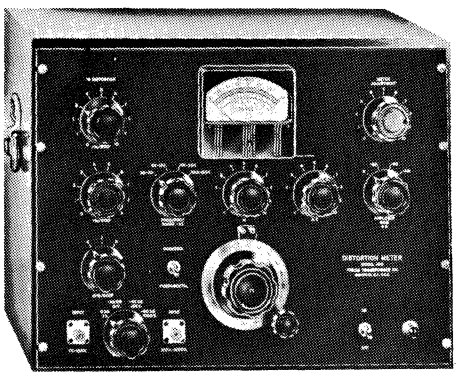
DESCRIPTION

This instrument consists of a balanced dual-channel AC Amplifier with separate rectifiers; a D.C. comparison circuit which indicates percent difference on a calibrated multiturn potentiometer; a chopper modulated D.C. Amplifier operating at 60 cps; a synchronous detector which is polarity-sensitive; and a 4" center-zero null meter.

SPECIFICATIONS

Percent Difference: −10% to +5% in .01% increments on multiturn potentiometer dial.
Input Voltage (each channel): .3 volt to 100 volts rms in 5 ranges.
Input Impedance: 470 K ohms shunted by approximately 20 mmf capacitance on 1 volt range; 400 K ohms shunted by 40 mmf.
Frequency Range: 20 to 20,000 cps (MODEL 1560); 20 to 200,000 cps (MODEL 1560E).
Calibration Linearity: ±.25% difference, 20 to 20kc; ±.5% difference, 20 to 200kc.
Power Supply: Electronically regulated; 115 volts, 60 cps input.
Dimensions: 21" x 15" x 10½". **Weight:** 37 lbs.

WIDE BAND AND CARRIER FREQUENCY DISTORTION METER TYPE 1410



USES

The Type 1410 Distortion Meter may be used in the laboratory or for production testing of Wide Band Amplifiers, Carrier Frequency, Telemetering and Ultra-Sonic equipment.

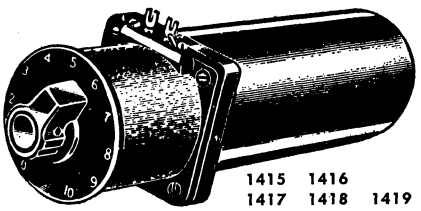
DESCRIPTION

The high sensitivity of the instrument permits measurements to be made on signals as low as 0.2 volts to an accuracy of 0.1%. Signals as high as 1000 volts may be applied to the input terminals directly. The frequency range of the instrument is 20 kc to 1 mc. in 10 overlapping ranges. Frequencies up to 3 mc. are passed without attenuation by the amplifier circuits, so that distortion measurements can be made on fundamental frequencies up to 1 mc.
An isolation transformer and line filter provided with the instrument prevent any feedback through the power line.

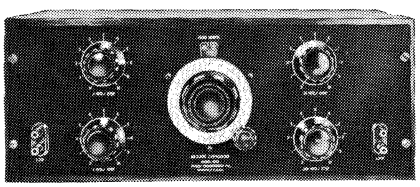
SPECIFICATIONS

Frequency Range: 20 kc to 1 mc.
Input Impedance: 500,000 ohms shunted by 70 mmfd. (plus capacity of input cable) in all ranges but the 0.1 volt range. The shunt capacity on this range is 800 mmfd.
Accuracy: Harmonic Distortion can be measured accurately to 0.1%.
Sensitivity: Distortion levels of 0.1% can be read accurately for a signal input as low as 0.2 volts. Maximum input signal is 1000 volts rms.
Elimination Characteristics: Eliminates fundamental completely while attenuating second harmonic approximately 3%. **Power Supply:** 105-125 volts, 50-60 cycles. **Dimensions:** 19¾" x 16¾" x 15¾". **Net Weight:** 60 pounds.

DECADE CAPACITORS



1415 1416
1417 1418 1419



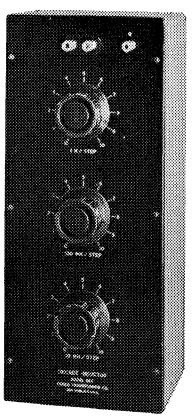
1350 Decade Capacitor

The Freed series of Decade Capacitors covers a wide range of values and can be supplied as individual decades from 0.0001 mfd. per step to 1 mfd. per step or in various combinations of assembled decade boxes.
Single decade units can be assembled in different capacitor values for use in experimental and permanent equipment. The decade boxes are useful for laboratory work in bridge measurements and as components of filters and tuned circuits.
Polystyrene dielectric is used in the manufacture of the capacitor assemblies with the exception of the 1 mfd. per step unit which uses Mylar as a dielectric. All capacitors are non-inductively wound and heat treated for stability, low dielectric absorption and low losses.
Each decade is variable from 0 to 10 by use of 11 position selector switch. The losses in the switches and mountings are kept low by the use of special low loss, impregnated switch wafers. A positive detent mechanism allows the switch to be set accurately.

SPECIFICATIONS

Accuracy: Individual capacitors are adjusted to an accuracy of ±1% when measured at 1kc. The capacitance at the terminals, less the zero capacitance, is within ±1% of indicated dial setting. The zero capacitance of the decade boxes is supplied with each unit. Single decade units have a zero terminal capacity of approximately 8 mmfd. except Type 1419, which is compensated for true terminal capacity.
Dissipation Factor: The dissipation factor of the polystyrene units when measured at 1kc is less than 0.0002, the 1 mfd. per step decade (Mylar) is less than 0.005.
Maximum Voltage: The maximum voltage that may be applied to these decades is 500 DC working volts.
Note: Individual capacitors can be supplied to better than ±1% Tolerance. Write for complete information.

Type	Step	Total Capacity	Size	Wgt.
1415	1. mfd.	10. mfd.	3" x 3" x 7"	2 lbs.
1416	0.1 mfd.	1. mfd.	3" x 3" x 7"	2 lbs.
1417	0.01 mfd.	0.1 mfd.	3" x 3" x 7".	2 lbs.
1418	0.001 mfd.	0.01 mfd.	3" x 3" x 7"	2 lbs.
1419	0.0001 mfd.	0.001 mfd.	3" x 3" x 7"	2 lbs.
1250*	0.001 mfd.	1.110 mfd.	13¾" x 6" x 4½"	8 lbs.
1350†	0.001 mfd.	11.111 mfd.	19" x 7¾" x 8"	20 lbs.
1351‡	0.0001 mfd.	11.1111 mfd.	19" x 10¾" x 8"	25 lbs.



1250

*3 decade unit
†4 decade unit plus 1000 mfd. air variable
‡5 decade unit plus 100 mfd. air variable

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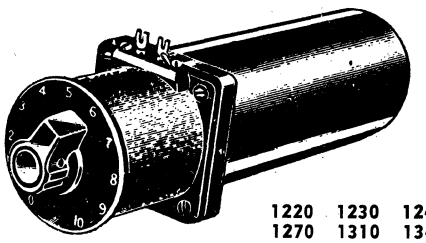
FREED TRANSFORMER COMPANY, INC.

DECADE INDUCTORS

DESCRIPTION

Each unit is an assembly of four Toroids wound on a stabilized Molybdenum permalloy dust core protected against moisture. Four coils (nominal inductance valves 1, 2, 3, 4) are connected in series, the inductance is varied from 0-10 by use of an 11 position low loss switch. A positive detent mechanism allows the switch to be set accurately.



1220 1230 1240
1270 1310 1341

USES

The Freed Toroidal Decade Inductors are available in single units from 1 Millihenry per step to 10 henries per step or in various combinations of assembled decade. They are especially useful in the design of filters and equalizers at audio and supersonic frequencies where the variable feature allows adjustments for optimum circuit performance.

SPECIAL FEATURES

- High stability of inductance valve.
- Small variation of inductance with frequency (high self resonant frequency).
- Small variation of inductance with AC and DC currents.
- High Q in the operating frequency range.
- Low temperature coefficient.
- True astatic construction.

MAXIMUM Q VALUES ABOVE 200

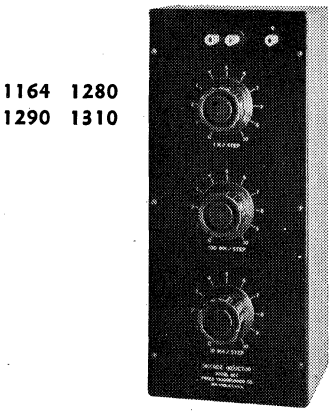
Type	Frequency Range cps.	Maximum Q*	Inductance Per Step	Total Inductance	Size	Wgt. Lbs.
1164†	30- 2,000	60 @ 300	.1 Hy	111. Hy	15" x 7" x 5½"	28
1220	500-20,000	230 @ 4kc	0.001 Hy	0.01 Hy	3" x 3" x 9"	4½
1230	500-20,000	280 @ 3kc	0.01 Hy	0.1 Hy	3" x 3" x 9"	4½
1240	500-20,000	260 @ 3kc	0.1 Hy	1. Hy	3" x 3" x 9"	4½
1270	500-20,000	190 @ 2kc	1. Hy	10. Hy	3" x 3" x 9"	4½
1280	500-20,000	280 @ 3kc	0.001 Hy	1.11 Hy	13¾" x 6⅛" x 5½"	16
1290	500-20,000	280 @ 3kc	0.001 Hy	11.11 Hy	15" x 7" x 5½"	20
1310	500-20,000	280 @ 3kc	0.01 Hy	11.1 Hy	13¾" x 6⅛" x 5½"	16
1341	100- 2,000	100 @ 1kc	10. Hy	100. Hy	3" x 3" x 9"	4½

ACCURACY OF TOROIDAL INDUCTANCE

Inductance per Step:	1 mh	10 mh	100 mh	1 h
Nominal Accuracy:	±2%	±1%	±0.5%	±0.25%

*Maximum Q depending on inductance value and AC voltage across the coil.

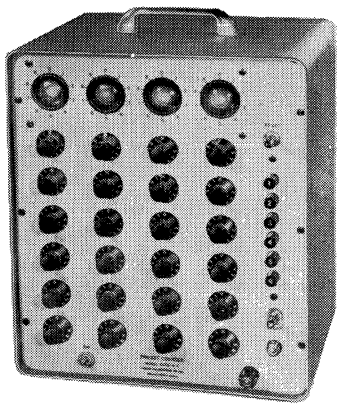
†Type 1164 Decade Inductance is wound on a special nickel-alloy laminated core, nominal inductance ±1%.



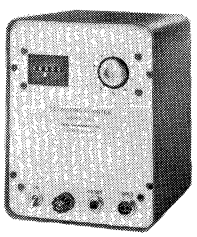
1164 1280
1290 1310

ELECTRONIC COUNTING AND CONTROL EQUIPMENT

Freed offers a wide range of Industrial counters including TOTALIZING COUNTERS, PRESET COUNTERS, PRESET INTERVAL GENERATORS AND MODULAR COUNTERS. Special counters custom designed to your requirements are a Freed specialty — we invite your inquiries.



SERIES 2020



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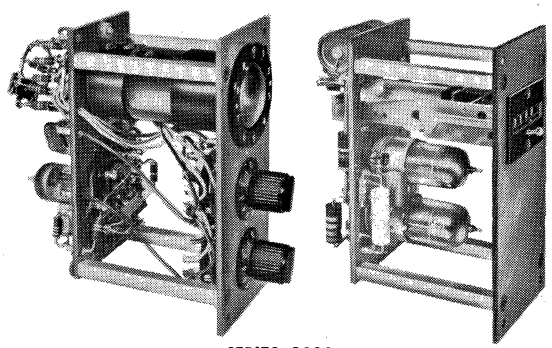
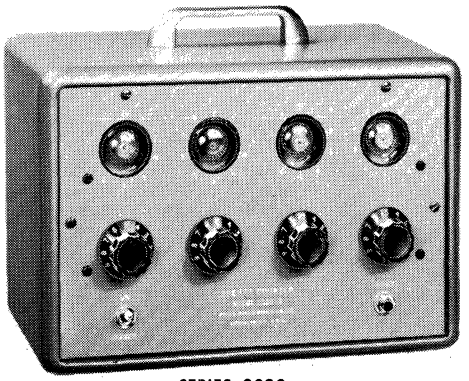


SERIES 3000



SERIES 2020

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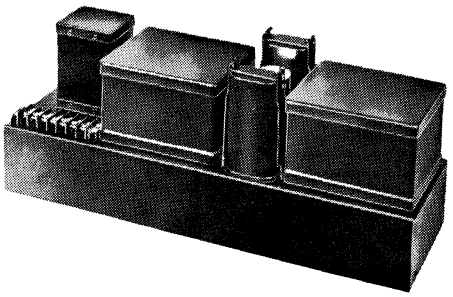
FREED TRANSFORMER COMPANY, INC.

CONSTANT VOLTAGE REGULATED POWER SUPPLY TYPE NO. 3125



Input Voltage	Frequency	Output		Size
		1	2	
95-130 volts	60 cycles	155 volts DC @ 150 Ma	6.3 volts 60~ 3a	17 x 5 x 7"H

Output No. 1 is regulated so that change in load from one-third to full, with full line voltage variation (95-130 volts) will hold the output voltage fixed at 155 volts ± 2%. The ripple content is less than 10 Mv.

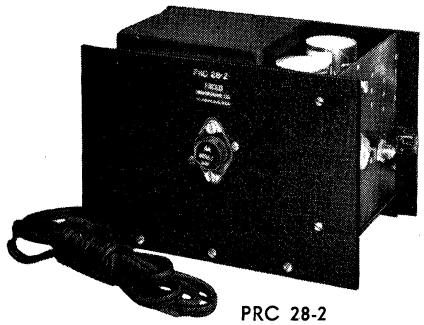
Featured in Output No. 1 is a Time Delay Relay, adjustable from 30 seconds to 3 minutes to allow for warm up.

TRANSISTOR REGULATED POWER SUPPLIES FIXED OUTPUT TYPE

This unit has a nominal output voltage adjustable over a ±1 volt range. It is unmetered and is supplied in an open type chassis for bench use or mounting on other equipment. Two types, as shown below, are available from stock for immediate delivery — units for other nominal voltages can be made to your requirements in comparable size chassis.

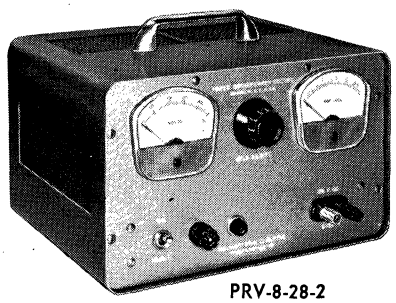
Type No.	Input	V Out	I Out	Line Reg.	Load Reg.	Size
PRC 28-2	105-125	28 ± 1V	0-2A	.1%	.15%	5" x 7½" x 5" H
PRC 5-2	105-125	5 ± 1V	0-2.5A	.1%	.15%	4" x 6½" x 4½" H

Ripple less than 5 MV



PRC 28-2

TRANSISTOR REGULATED POWER SUPPLIES VARIABLE OUTPUT TYPE



PRV-8-28-2

Cabinet models with metered output voltage and current are also available. These units are variable over a wider voltage range with 105V-125V, 55-65 cycles input.

Type No.	V Out	I Out	Line Reg.	Load Reg.	Ripple	Size
PRV-8-28-2	8-28V	0-2A	.1%	.15%	< 1MV	10" x 8" x 6" H
PRV-8-32-8	8-32V	0-8A	.1%	.15%	< 1MV	19" x 13½" x 7" H

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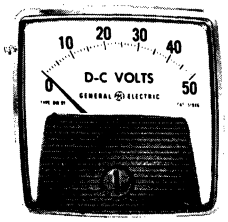
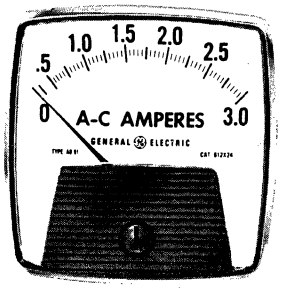
PANEL METERS

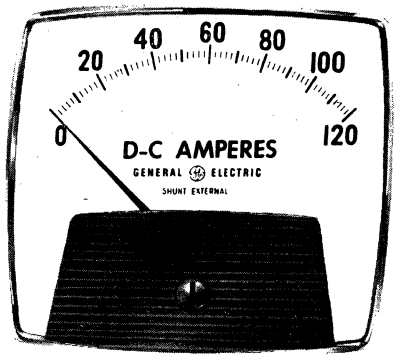
THE BIG LOOK IN SMALL PANEL METERS



2½-inch design
Type DW-91 Voltmeter



3½-inch design
Type AO-91 Ammeter



4½-inch design
Type DO-92 Ammeter

General Electric's BIG LOOK panel meters offer such added values as distinctive appearance, excellent readability, completely sealed cases and self-shielded d-c core-magnet mechanisms.

Distinctive Appearance

BIG LOOK panel meters are designed specifically to meet industry's increasing demands for panel components that contribute to end-product eye appeal. BIG LOOK panel meters—with their distinctive and modern, but not radical design—offer an important added value by complementing the appearance of the finest equipment.

Excellent Readability

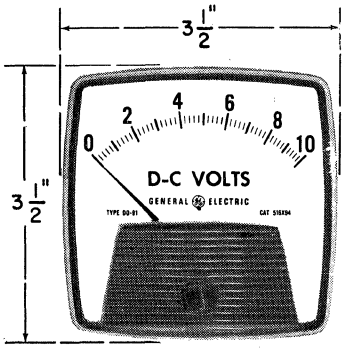
Big, clear, easy-to-read numerals are positioned above the scale divisions so that they cannot be obscured by the pointer. The absence of arc-lines and use of a slim, tapered pointer facilitates quick accurate readings. Functional cover design eliminates confusing shadows by admitting natural light from all sides.

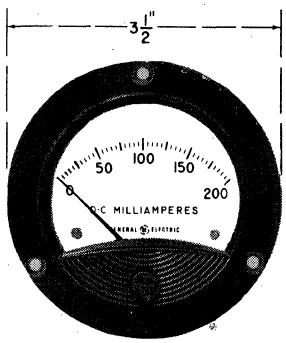
Completely Sealed Cases on 2½- and 3½-inch Designs

General Electric quality is built in to stay. Gasketed construction on 2½- and 3½-in. models protect internal parts from dirt, dust, and water and helps assure extra-long, reliable life.

Snap-on, Snap-off Covers on 4½-inch Designs

Snap-on, snap-off covers are supplied on all 4½-in. BIG LOOK panel meters. The covers can be easily removed and replaced while the meter remains in its normal mounted position.





As this size comparison shows, the new design appears to look much bigger, but will actually fit into the same usable panel space as older style meter.

GENERAL SPECIFICATIONS

	D-C TYPES			A-C Types		
	DW-91	DO-91	DO-92	AW-91	AO-91	AO-92
Accuracy (percent of full scale)	2%	2%	2%	2%	2%	2%
Scale length	2.1"	2.9"	3.93"	2.0"	2.9"	3.93"
Damping (nominal overshoot)						
(a) All ratings except those listed below:	3%	3%	10%	40%	40%	45%
(b) 20 microamps	25%	25%	—	—	—	—
(c) 30 microamps	25%	25%	—	—	—	—
(d) 50 microamps	25%	25%	33%	—	—	—
Maximum weight – Net	7 oz	7 oz	9 oz	7 oz	702	9 oz
Shipping	12 oz	12 oz	13 oz	12 oz	1202	13 oz

Insulation level—All types meet requirements of ASA specifications C39.1 (5000 volts rms live parts to panel)

A-C Burden: AO-91, AW-91 and AO-92 rated 5A; 0.5 VA at 0.5 pf lag.
AO-91, AW-91 and AO-92 voltmeters have approximately unity power factor at 60 cycles.

Overload Capacity: All Big Look panel meters meet requirements of ASA specifiations C39.1.

Voltmeters (a-c and d-c types)
Momentary and sustained: 20% greater than rated capacity.

Ammeters (a-c and d-c types)
Momentary: 10 times rated current applied for 10 consecutive intervals of ½ second with a one-minute interval successive applications.
Sustained: 20% greater than rated capacity for 8 hours.

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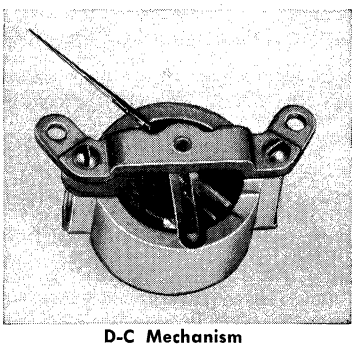
GENERAL ELECTRIC

D-C PANEL METERS

Shelf-shielded D-C Mechanism

Core-magnet mechanisms with inherent self-shielding are used for all d-c ratings. This permits mounting on magnetic or non-magnetic panels without special calibration and cluster-mounting bezel-to-bezel without interaction.

Self-shielding also minimizes effects of stray magnetic fields. Weight is reduced, too. Because of these important added values, the core-magnetic mechanism has gained industry-wide acceptance. (General Electric pioneered in the development of the core-magnet mechanism.) The superior operating characteristics of BIG LOOK meters—excellent damping, a high torque-to-weight ratio and minimum burden—are the result of continuous progress in development and use of high-quality, modern materials.



D-C Mechanism

Scale and Rating	Approx. Terminal Resistance (Ohms)	DW-91 2½-inch Cat. No.	DW-91 2½-inch Net Price*	DO-91 3½-inch Cat. No.	DO-91 3½-inch Net Price*	DO-92 4½-inch Cat. No.	DO-92 4½-inch Net Price*
D-C VOLTMETERS (Self-contained)							
0-1.5V		517X84	$12.80	516X84	$13.60	50-171011 LCLC	$16.00
0-3V		517X88	12.80	516X88	13.60	50-171011 LJLJ	16.00
0-5V		517X90	12.80	516X90	13.60	50-171011 LSLS	16.00
0-8V		517X92	12.80	516X92	13.60	50-171011 MJMJ	16.00
0-10V		517X94	12.80	516X94	13.60	50-171011 MTMT	16.00
0-15V		517X96	12.80	516X96	13.60	50-171001 NDND	16.00
0-30V	1000 ohms	519X4	12.80	518X4	13.60	50-171011 NLNL	16.00
0-50V		519X6	12.80	518X6	13.60	50-171011 NTNT	16.00
0-80V	per volt	519X8	12.80	518X8	13.60	50-171011 PDPD	16.00
0-100V		519X10	13.60	518X10	14.40	50-171011 PKPK	16.80
0-150V		519X12	13.60	518X12	14.40	50-171011 PZPZ	16.80
0-200V		519X14	13.60	518X14	14.40	50-171011 RLRL	16.80
0-250V		519X16	13.60	518X16	14.40	50-171011 RSRS	16.80
0-300V		519X18	14.40	518X18	15.20	50-171011 RXRX	17.60
0-500V		-------	-----	518X20	16.00	50-171011 SFSF	18.40
0-600V		-------	-----	518X22	16.00	50-171011 SJSJ	18.40
D-C VOLTMETERS (For use with external resistors—prices do not include resistors)							
0-500V 0-600V 0-750V	Rated 0-1 MA	125 ohms	519X20 519X22 519X24	$12.00 12.00 12.00	------- ------- 518X24	$----- ----- 12.80	50-171111 FASM	$16.80
D-C AMMETERS (Self-contained)							
0-1A		0.0500	513X58	$12.00	512X58	$12.80	50-171111 LALA	$15.20
0-1.5A		0.0333	513X60	12.00	512X60	12.80	50-171111 LCLC	15.20
0-2A		0.0250	513X62	12.00	512X62	12.80	50-171111 LELE	15.20
0-3A		0.0167	513X64	12.00	512X64	12.80	50-171111 LJLJ	15.20
0-5A		0.0100	513X66	12.00	512X66	12.80	50-171111 LSLS	15.20
0-10A		0.0050	513X70	12.00	512X70	12.80	50-171111 MTMT	15.20
0-15A		0.0033	513X72	12.00	512X72	12.80	50-171111 NDND	15.20
0-20A		0.0025	513X74	12.00	512X74	12.80	50-171111 NGNG	15.20
0-30A		0.00167	513X76	12.00	512X76	12.80	50-171111 NLNL	15.20
0-50A		0.00100	-------	-----	512X80	12.80	50-171111 NTNT	15.20
D-C AMMETERS (For use with 50 millivolt external shunts—prices do not include shunt or shunt leads)							
0-50A			515X6	$12.00	514X6	$12.80	50-171121 ECNT	$15.20
0-75A			515X10	12.00	514X10	12.80	50-171121 ECPB	15.20
0-100A			515X14	12.00	514X14	12.80	50-171121 ECPK	15.20
0-150A			515X16	12.00	514X16	12.80	50-171121 ECPZ	15.20
0-200A			515X18	12.00	514X18	12.80	50-171121 ECRL	15.20
0-250A		12.5 ohms	515X20	12.00	514X20	12.80	50-171121 ECRS	15.20
0-300A	Rated	(Calibrated for	515X22	12.00	514X22	12.80	50-171121 ECRX	15.20
0-400A	0-50	use with 2-way	515X24	12.00	514X24	12.80	50-171121 ECSC	15.20
0-500A	MV	lead	515X26	12.00	514X26	12.80	50-171121 ECSF	15.20
0-600A		resistance	515X28	12.00	514X28	12.80	50-171121 ECSJ	15.20
0-800A		of 0.063 ohms)	515X30	12.00	514X30	12.80	50-171121 ECSN	15.20
0-1KA			515X32	12.00	514X32	12.80	50-171121 ECVA	15.20
0-1.2KA			515X34	12.00	514X34	12.80	----------	-----
0-1.5KA			515X36	12.00	514X36	12.80	------ -----	-----
0-2KA			515X38	12.00	514X38	12.80	----------	-----
D-C AMMETERS (For use with 100-mv external shunts—prices do not include shunt or shunt leads)							
0-20A			515X68	$12.00	514X68	$12.80	----------	$----
0-40A			515X72	12.00	514X72	12.80	----------	----
0-50A			515X74	12.00	514X74	12.80	50-171121 GBNT	15.20
0-75A			515X78	12.00	514X78	12.80	50-171121 GBPP	15.20
0-100A			515X82	12.00	514X82	12.80	50-171121 GBPK	15.20
0-150A		25 ohms.	515X84	12.00	514X84	12.80	50-171121 GBPZ	15.20
0-200A	Rated	(Calibrated	515X86	12.00	514X86	12.80	50-171121 GBRL	15.20
0-250A	0-100	for use with	515X88	12.00	514X88	12.80	50-171121 GBRS	15.20
0-300A	MV	2-way lead	515X90	12.00	514X90	12.80	50-171121 GBRX	15.20
0-400A		resistance of	515X92	12.00	514X92	12.80	50-171121 GBSC	15.20
0-500A		0.063 ohms)	515X94	12.00	514X94	12.80	50-171121 GBSF	15.20
0-600A			515X96	12.00	514X96	12.80	50-171121 GBSJ	15.20
0-800A			515X98	12.00	514X98	12.80	50-171121 GBSM	15.20
0-1KA			517X2	12.00	516X2	12.80	50-171121 GBVA	15.20
0-2KA			517X8	12.00	516X8	12.80	50-171121 GBVB	15.20
D-C MICROAMMETERS							
0-20UA	3400	513X2	$24.00	512X2	$24.80	----------	$----
0-50UA	1600	513X6	18.40	512X6	19.20	50-171111 CYCY	21.60
0-100UA	1525	513X10	15.20	512X10	16.00	50-171111 DRDR	18.40
0-2000UA	690	513X14	13.60	512X14	14.40	50-171111 EAEA	16.80
0-500UA	220	513X18	12.00	512X18	12.80	50-171111 EMEM	15.20
D-C MILLIAMMETERS							
0-1MA	64	513X22	$12.00	512X22	$12.80	50-171111 FAFA	$15.20
0-1.5MA	64	513X24	12.00	512X24	12.80	50-171111 FDFD	15.20
0-3MA	2.5	513X28	12.00	512X28	12.80	50-171111 FNFN	15.20
0-5MA	2.5	513X30	12.00	512X30	12.80	50-171111 FXFX	15.20
0-10MA	1.8	513X32	12.00	512X32	12.80	50-171111 GZGZ	15.20
0-20MA	1.5	513X34	12.00	512X34	12.80	50-171111 HFHF	15.20
0-25MA	2.0	513X36	12.00	512X36	12.80	50-171111 HJHJ	15.20
0-30MA	1.67	513X38	12.00	512X38	12.80	50-171111 HMHM	15.20
0-50MA	1.00	513X40	12.00	512X40	12.80	50-171111 HYHY	15.20
0-80MA	0.62	513X42	12.00	512X42	12.80	50-171111 JJJJ	15.20
0-100MA	0.50	513X44	12.00	512X44	12.80	50-171111 JRJR	15.20
0-150MA	0.33	513X46	12.00	512X46	12.80	50-171111 JXJX	15.20
0-200MA	0.25	513X48	12.00	512X48	12.80	50-171111 KAKA	15.20
0-250MA	0.20	513X50	12.00	512X50	12.80	50-171111 KDKD	15.20
0-300MA	0.167	513X52	12.00	512X52	12.80	50-171111 KGKG	15.20
0-500MA	0.100	513X54	12.00	512X54	12.80	50-171111 KMKM	15.20
0-800MA	0.062	513X56	12.00	512X56	12.80	50-171111 KWKW	15.20

* Manufacturer's suggested resale prices.

Mirror-backed, rectifier-type, and zero-center panel meters are available also. Refer to your General Electric Supplier.

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GENERAL ELECTRIC

A-C PANEL METERS

A-C Mechanism

Uniform Scale obtained from use of an iron-vane repulsion-type mechanism.

Magnetic Damping is utilized to bring the pointer quickly to rest. The damping factor meets or exceeds ASA Spec. C39.1.

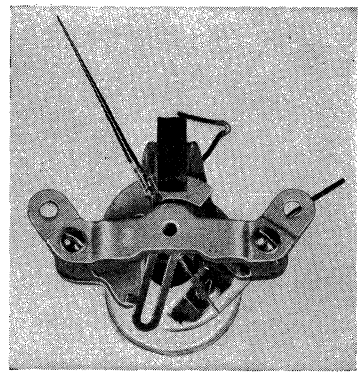
Shielding—No iron-vane a-c mechanism is inherently self-shielded. Although no problem for most applications, the following is offered as a guide.

Steel Panel Effect—A magnetic panel has only a slight effect on the particular design of a-c mechanisms used. A nominal change in indication of only ¼ of 1% is caused by a 1/16-inch steel panel. *For such applications, no special calibration is required and we recommend these use of standard stock a-c meters.*

External Magnetic Field – Consideration should be given to effects of external magnetic fields. The degree of effect varies both with the strength of the field and the rating of the meter. Voltmeters are least affected, followed by milliammeters, and low-rated ammeters in that order. For most applications of those ratings, an external shield is not required. However, high-rated self-contained ammeters are particularly affected, and meters in self-contained ratings of 0-20 a-c amp and above, are *furnished with external shields as standard equipment.*

Frequency—60 cycles, unless otherwise noted.

Ammeters—Frequency variations have a negligible effect. The 5-amp rating has an additional error in the order of ¾ of 1% at 400 cycles. *We recommend the use of standard stock ammeters for 400-cycle service.*



A-C Mechanism

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch Cat. No.	AW-91, 2½-inch Net Price*	AO-91, 3½-inch Cat. No.	AO-91, 3½-inch Net Price*	AO-92, 4½-inch Cat. No.	AO-92, 4½-inch Net Price*
A-C VOLTMETERS (Self-contained)							
0-3V	11.1	613X68	$12.00	612X68	$12.80	50-171031 LJLJ	$15.20
0-5V	29	613X69	12.00	612X69	12.80	50-171031 LSLS	15.20
0-10V	110	613X72	12.00	612X72	12.80	50-171031 MTMT	15.20
0-15V	251	613X73	12.00	612X73	12.80	50-171031 NDND	15.20
0-30V	779	613X76	12.00	612X76	12.80	50-171031 NLNL	15.20
0-50V	2500	613X77	12.80	612X77	13.60	50-171031 NTNT	16.00
0-150V	15000	613X81	13.60	612X81	14.40	50-171031 PZPZ	16.80
0-300V	54000	613X85	14.40	612X85	16.00	50-171031 RXRX	18.40
0-500V	118000	------	----	612X87	20.80	50-171031 SFSF	23.20
0-600V	141000	------	----	612X88	20.80	50-171031 SJSJ	23.20
A-C VOLTMETERS (Transformer rated—prices do not include transformers)							
0-600V Rated	15000	613X90	$13.60	612X90	$14.40	50-171031 PZRX	$16.80
0-750V 0-150	15000	613X91	13.60	612X91	14.40	50-171031 PZSJ	16.80
0-3KV Volts	15000	613X92	13.60	612X92	14.40	50-171031 PZSM	16.80
400-CYCLE A-C VOLTMETERS (Self-contained—for use at 400 cycles)							
0-150V	15000	817X1	$13.60	816X1	$14.40	50-171061 PZPZ	$16.80
0-300V	54000	817X2	14.40	816X2	16.00	50-171061 RXRX	18.40
A-C AMMETERS (Self-contained)							
0-1A	0.16	613X20	$12.80	612X20	$13.60	50-171141 LALA	$16.00
0-3A	0.015	613X24	12.80	612X24	13.60	50-171141 LJLJ	16.00
0-5A	0.007	613X25	12.80	612X25	13.60	50-171141 LSLS	16.00
0-8A	0.003	613X28	12.80	612X28	13.60	50-171141 MJMJ	16.00
0-10A	0.0024	613X29	12.80	612X29	13.60	50-171141 MTMT	16.00
0-15A	0.0016	613X31	12.80	612X31	13.60	50-171141 NDND	16.00
0-20A	0.001	613X32**	13.60	612X32**	14.40	50-172141 NGNG**	16.80
0-30A	0.0006	613X34**	13.60	612X34**	14.40	50-172141 NLNL**	16.80
0-50A	0.0004	------	----	612X35**	16.00	50-172141 NTNT**	18.40
A-C AMMETERS (Transformer rated—prices do not include transformers)							
0-10A		613X36	$12.80	612X36	$13.60	50-171141 LSMT	$16.00
0-15A		613X37	12.80	612X37	13.60	50-171141 LSND	16.00
0-20A		613X38	12.80	612X38	13.60	50-171141 LSNG	16.00
0-30A		613X40	12.80	612X40	13.60	50-171141 LSNL	16.00
0-40A		613X41	12.80	612X41	13.60	50-171141 LSNP	16.00
0-50A		613X42	12.80	612X42	13.60	50-171141 LSNT	16.00
0-75A		613X44	12.80	612X44	13.60	50-171141 LSPB	16.00
0-80A		613X45	12.80	612X45	13.60	50-171141 LSPD	16.00
0-100A		613X46	12.80	612X46	13.60	50-171141 LSPK	16.00
0-150A Rated		613X49	12.80	612X49	13.60	50-171141 LSPZ	16.00
0-200A 0-5	0.007	613X50	12.80	612X50	13.60	50-171141 LSRL	16.00
0-300A Amperes		613X52	12.80	612X52	13.60	50-171141 LSRX	16.00
0-400A		613X53	12.80	612X53	13.60	50-171141 LSSC	16.00
0-500A		613X54	12.80	612X54	13.60	50-171141 LSSF	16.00
0-600A		613X55	12.80	612X55	13.60	50-171141 LSSJ	16.00
0-800A		613X56	12.80	612X56	13.60	50-171141 LSSN	16.00
0-1KA		613X57	12.80	612X57	13.60	50-171141 LSVA	16.00
0-1.2KA		613X58	12.80	612X58	13.60	50-171141 LSVB	16.00
0-1.5KA		613X59	12.80	612X59	13.60	50-171141 LSVC	16.00
0-2KA		613X60	12.80	612X60	13.60	50-171141 LSVE	16.00
0-3KA		613X62	12.80	612X62	13.60	50-171141 LSVJ	16.00
A-C LOAD INDICATORS—Rated 0-5A. Can be applied to any 60-cycle a-c motor when used with the variable-ratio Type JCH-0 current transformer							
Scale legend: PERCENT MOTOR LOAD CURRENT Scale markings: 0-150; (red band 100-150)		------	----	612X98	$15.20	50-171141 LSPZ1-AAA	$17.60
0-150; (green band 0-100) (yellow band 100-125) (red band 125-150)		------	----	612X99	17.60	50-171141 LSPZ1-AAB	20.00
A-C MILLIAMMETERS							
0-10MA	2158	613X4	$12.80	612X4	$13.60	50-171141 GZGZ	$16.00
0-25MA	341	613X7	12.80	612X7	13.60	50-171141 HJHJ	16.00
0-50MA	84	613X9	12.80	612X9	13.60	50-171141 HYHY	16.00
0-100MA	21	613X12	12.80	612X12	13.60	50-171141 JRJR	16.00
0-200MA	4.1	613X14	12.80	612X14	13.60	50-171141 KAKA	16.00
0-500MA	0.7	613X17	12.80	612X17	13.60	50-171141 KMKM	16.00

*Manufacturer's suggested resale prices.

**Furnished with external magnetic shield assembled to meter base.

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TIME METERS

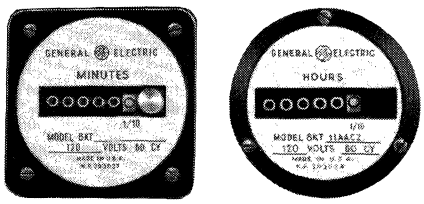
Time meters provide for proper servicing and preventive maintenance, or to indicate component life.General Electric time meters are the ideal indicators for these purposes:

Electronic Component Testing and Operation Life
- Radio Transmitters
- Power Supplies and Converters
- Radar, Sonar, Doppler and other Military Equipment
- Engine-Generator Test Stands
- Data Handling Systems
- Industrial and Nuclear Control Systems
- Test Equipment

Electrical Machinery Operating Time
- Conveyors
- Molding and Extrusion Machines
- Drill and Punch Presses
- Machine Tools
- Welding Machines
- Industrial Ovens

Preventive Maintenance
- Operating Time
- Shut-down Time
- Total Operating Life
- Correct Intervals for Inspecting and Servicing Machines

TYPE KT TIME METERS



The Type KT time meter, with 6-digit counter as standard and the last digit in contrasting color to indicate tenths, can be supplied for minutes or hours in ratings of 120, 208, 240, and 480 volts; 60 or 50 cycles.

Complete line for every time-measuring application. Includes 2½- and 3½-inch sizes in either round or square case for panel mounting, and 3½-inch size for conduit-type case or portable stand.

Reset device available for front-of-meter mounting on all but the sealed model.

Mechanism is completely enclosed in die-cast zinc bezel and plastic case, providing a dust-resistant enclosure.

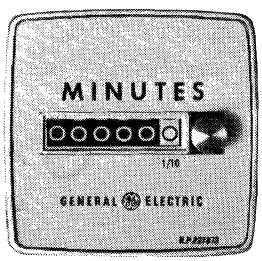
Increased operating temperature range from 67°F to 150°F means more flexible application, longer meter life, and less maintenance.

A special model is available for military applications.

STANDARD RATINGS—60 Cycles

Volts	Non-Reset Type Register Minutes Model No.	Non-Reset Type Register Hours Model No.	Net Price*	With Reset Knob Register Minutes Model No.	With Reset Knob Register Hours Model No.	Net Price*
TYPE KT-11—2½-INCH ROUND CASE						
120	8KT11AAA1	8KT11AAA2	$11.00	8KT11AAB1	8KT11AAB2	$15.00
240	8KT11ABA1	8KT11ABA2	11.50	8KT11ABB1	8KT11ABB2	15.50
480	8KT11ALA1	8KT11ALA2	12.00	8KT11ALB1	8KT11ALB2	16.00
TYPE KT-11—2½-INCH SQUARE CASE						
120	8KT11BAA1	8KT11BAA2	$11.00	8KT11BAB1	8KT11BAB2	$15.00
240	8KT11BBA1	8KT11BBA2	11.50	8KT11BBB1	8KT11BBB2	15.50
480	8KT11BLA1	8KT11BLA2	12.00	8KT11BLB1	8KT11BLB2	16.00
TYPE KT-11—3½-INCH ROUND CASE						
120	8KT11CAA1	8KT11CAA2	$11.00	8KT11CAB1	8KT11CAB2	$15.00
240	8KT11CBA1	8KT11CBA2	11.50	8KT11CBB1	8KT11CBB2	15.50
480	8KT11CLA1	8KT11CLA2	12.00	8KT11CLC1	8KT11CLB2	16.00
TYPE KT-11—3½-INCH SQUARE CASE						
120	8KT11DAA1	8KT11DAA2	$11.00	8KT11DAB1	8KT11DAB2	$15.00
240	8KT11DBA2	8KT11DBA2	11.50	8KT11DBB1	8KT11DBB2	15.50
480	8KT12DLA1	8KT11DLA2	12.00	8KT11DLB1	8KT11DLB2	16.00
TYPE KT-12—3½-INCH SQUARE CASE						
120	8KT12DAA1	8KT12DAA2	$13.00	8KT12DAB1	8KT12DAB2	$17.00
240	8KT12DBA1	8KT12DBA2	13.50	8KT12DBB1	8KT12DBB2	17.50
480	8KT12DLA2	8KT12DLA2	14.00	8KT12DLB1	8KT12DLB2	18.00
TYPE KT-13—3½-INCH SQUARE CASE						
120	8KT13DAA3	8KT13DAA4	$14.00	8KT13DAB3	8KT13DAB4	$18.00
240	8KT13DBA3	8KT13DBA4	14.50	8KT13DBB3	8KT13DBB4	18.50
480	8KT13DLA3	8KT13DLA4	15.00	8KT13DLB3	8KT13DLB4	19.00

NEW TYPE 236 TIME METERS



New Type 236 elapsed-time indicators, latest addition to G-E's BIG LOOK line of panel components, meet industry's need for instruments that enhance end-product eye appeal through compatible design. They now offer the same distinctive appearance and excellent readability found in G-E's BIG LOOK ammeters and voltmeters, plus outstanding operating accuracy and reliability.

FEATURES

Reset device available.
Military sealed model available.
Extra-large counter numbers.
Water and dust-resistant case.
ASA panel-mounting dimensions.

STANDARD RATINGS—60 Cycles

Volts	Non-reset Type Register Minutes Cat. No.	Non-reset Type Register Hours Cat. No.	Net Price*	Reset Type Register Minutes Cat. No.	Reset Type Register Hours Cat. No.	Net Price*
2½-INCH COMMERCIAL CASE						
120	50-236401AAAA1	50-236402AAAA1	$11.00	50-236411AAAA1	50-236412AAAA1	$15.00
240	50-236401ABAA1	50-236402ABAA1	11.50	50-236411ABAA1	50-236412ABAA1	15.50
480	50-236401ACAA1	50-236402ACAA1	12.00	50-236411ACAA1	50-236412ACAA1	16.00
3½-INCH COMMERCIAL CASE						
120	50-236301AAAA1	50-236302AAAA1	$11.00	50-236311AAAA1	50-236312AAAA1	$15.00
240	50-236301ABAA1	50-236302ABAA1	11.50	50-236311ABAA1	50-236312ABAA1	15.50
480	50-236301ACAA1	50-236302ACAA1	12.00	50-236311ACAA1	50-236312ACAA1	16.00
2½-INCH SEALED CASE						
120	50-236421AAAA1	50-236422AAAA1	$12.50			
240	50-236421ABAA1	50-236422ABAA1	13.00			
480	50-236421ACAA1	50-236422ACAA1	13.50			
3½-INCH SEALED CASE						
120	50-236321AAAA1	50-236322AAAA1	$12.50			
240	50-236321ABAA1	50-236322ABAA1	13.00			
480	50-236321ACAA1	50-236322ACAA1	13.50			
2½-INCH CONDUIT CASE						
120	50-236431AAAD1	50-236432AAAD1	$13.00	50-236441AAAD1	50-236442AAAD1	$17.00
240	50-236431ABAD1	50-236432ABAD1	13.50	50-236441ABAD1	50-236442ABAD1	17.50
480	50-236431ACAD1	50-236432ACAD1	14.00	50-236441ACAD1	50-236442ACAD1	18.00
2½-INCH PORTABLE CASE						
120	50-236461AAAE1	50-236452AAAE1	$14.00	50-236461ACAE1	50-236452ACAE1	$18.00
240	50-236462ABAE1	50-236452ABAE1	14.50	50-236451AAAE1	50-236451ACAE1	18.50
480	50-236461ABAE1	50-236462AAAE1	15.00	50-236462ACAE1	50-236451ABAE1	19.00

*Manufacturer's suggested resale prices.

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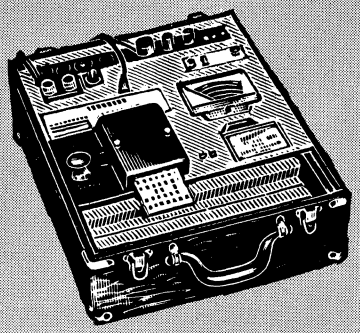
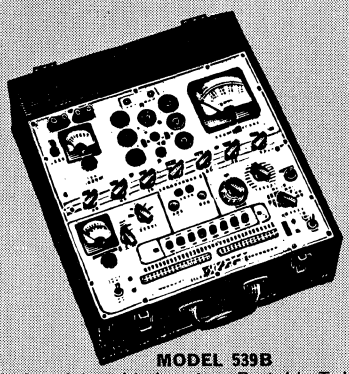
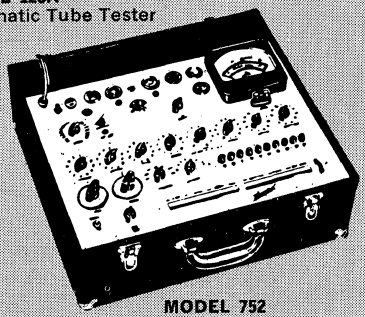
HICKOK TEST EQUIPMENT



MODEL 123A
Cardmatic Automatic Tube Tester



MODEL 539B
Industrial and Laboratory Portable Tube Tester



MODEL 752
Industrial and Communications Portable Tube Tester

MODEL 6000
Service Technician's Deluxe Portable Tube and Transistor Tester

MODEL 123A
Cardmatic Automatic Tube Tester

Ideal for industrial and laboratory applications. A genuinely complete tube tester—card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic Gm measurement. Gm Ranges: 500-26,000 μmhos; Current Ranges: 100μa to 510MA. Will test Nuvistors using SA-3 Nuvistor Adapter. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123A Cardmatic Automatic Tube Tester—Net Each.....$569.00

MODEL 121
Cardmatic Automatic Tube Tester

A low priced version of the Model 123A. Will test Nuvistors using SA-3 Nuvistor Adapter. Complete with 342 selected cards covering diodes, transistors and popular entertainment tube types. 105-125v—60 cycles, 50 watts. In red leatherette portable case 19¾" x 13¼" x 8". Shipping weight, 39 lbs.

Model 121 Cardmatic Automatic Tube Tester—Net Each.....$329.50

MODEL 752
Industrial and Communications Portable Tube Tester

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regulator test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors using SA-3 adapter. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 μmhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18⅜" x 16¾" x 7½". 105-125v 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752 Industrial and Communications Portable Tube Tester—Net Each.....$298.00

Model 752 with CRT Adapter.....$313.75

MODEL 539B
Industrial and Laboratory Portable Tube Tester

Tests VR tubes, low power thyratrons, "4-digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors using SA-3 Adapter. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Metered line voltage, metered grid voltage. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¾" x 18⅜" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539B Industrial and Laboratory Portable Tube Tester—Net Each.....$439.00

Model 539B Tube Tester Complete with CRT Adapter—Net Each.....$454.75

MODEL 6000
Service Technician's Deluxe Portable Tube and Transistor Tester

Has replaceable socket plate for obsolescence protection. Sensitive, instantaneous inter-element leakage and shorts test (Sensitivity—in excess of 3 megohms) filament continuity test. Covers 3,000 to 15,000 μmhos in 3 ranges. Tests Compactrons, 10-pin "headers", Nuvistors, 9-pin jumbo tubes with Model CA-4 adapter listed below. Uses SA-3 adapter for testing Nuvistors, only. Also tests transistors and diodes. In red leatherette portable case, 16¾" x 11¾" x 7½". 105-125v, 50-70 cycles, 40 watts. Shipping weight, 21 lbs.

Model 6000 Deluxe Portable Tube and Transistor Tester—Net Each.....$197.50

Hickok Electrical Instrument Co. **Cleveland Ohio**

Net

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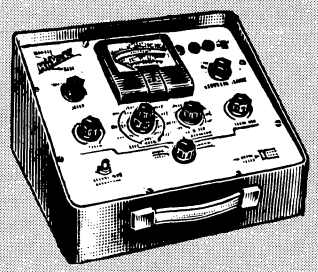
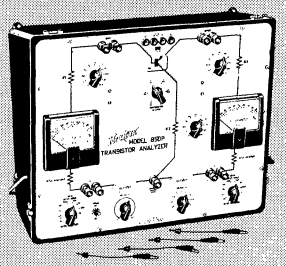
HICKOK TEST EQUIPMENT

MODEL 800
Service Technician's
Portable Tube and Transistor Tester

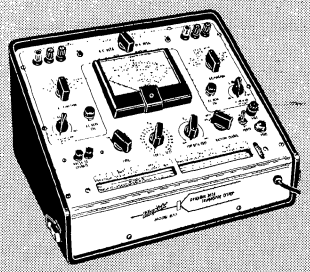
NEW!



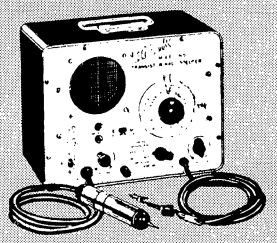
MODEL 890
Dynamic Beta In-Circuit Transistor Tester



MODEL 850P
Engineer's Portable Transistor Analyzer



MODEL 870
Dynamic Beta Transistor Tester



MODEL 810
Transistor Radio Analyzer

MODEL 800
Service Technician's Portable Tube and Transistor Tester

Lowest priced tester with the Hickok Gm circuit. Provides direct meter reading of inter-element leakage and shorts. Tests transistors and diodes. New filament continuity test speeds test of series-string tubes. Tests Compactrons, 10-pin headers, Nuvistors, 9-pin jumbo tubes with Model CA-4 adapter listed below. Uses SA-3 adapter for testing Nuvistors only. 105-125v, 500 cycles—40 watts. In red leatherette portable case, 16¾" x 11¾" x 7 ½". Shipping weight, 21 lbs.

Model 800 Service Technician's Portable Tube and Transistor Tester—Net Each.....$169.50

Model 800 Tube Tester with CRT Adapter, Replaceable Socket Savers and SA-2 Subminiature Socket Adapter—Net Each...$203.70

SA-3 Nuvistor Adapter (For Models 123A, 121, 539B, 752, 800, 6000 and older manual testers) Order by code number 1050-127—Net Each $8.95

CA-4 Universal Adapter for testing Compactrons, 10-pin "headers" 9-pin jumbo tubes and Nuvistors. For use with all current Hickok manual tube testers—Net Each.....$49.50

MODEL 870
DYNAMIC BETA Transistor Tester

Measures AC and DC Beta. Collector test current variable up to 2 amperes, permitting Beta measurement on power transistors rated 5 amperes or more. Variable collector voltage and current permit tests according to manufacturer's specifications—Tests switching transistors. Measures large signal DC Beta on power transistors—small signal AC Beta on low and medium power transistors. Icbo Ranges: 100 μa, 1 ma, 10 ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll chart and test leads in black leatherette portable case 14$\frac{9}{16}$" x 11¾" x 7⅞". 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

Model 870 Dynamic Beta Transistor Tester—Net Each.....$355.00

MODEL 890
DYNAMIC BETA In-Circuit Transistor Tester

Utilizes unique new test circuit to measure AC Beta in OR OUT of circuit with 5% accuracy. Measures these in-circuit parameters: AC Beta, Ic, Rin (transistor input impedance), Z Ohms (base-emitter circuit impedance). Measures AC Beta, Ic, Rin and Icbo out of circuit. Portable, completely self-contained, fully transistorized—battery operated. 10¾" x 9" x 6½". Shipping weight, 8 lbs.

Model 890 Dynamic Beta In-Circuit Transistor Tester—Net Each $129.50

MODEL 850P
Engineer's Portable Transistor Analyzer

Ideal for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100μa to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16½"x 8" x 13½". Shipping weight, 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net Each $169.50

MODEL 810
Transistor Radio Analyzer

Uses signal tracing method to quickly check stage gain and circuit performance, swiftly locates trouble. Ultra-sensitive tuned signal tracer with cathode follower probe covers RF, IF and Audio. Signal Generator with cathode follower output covers RF, IF and Audio. 105-125v, 50-70 cycles, 20 watts. Furnished in attractive steel case, complete with probe and leads. 11¼" x 9" x 7". Shipping weight, 16 lbs.

Model 810 Transistor Radio Analyzer—Net Each.....$138.00

Hickok Electrical Instrument Co. Cleveland Ohio

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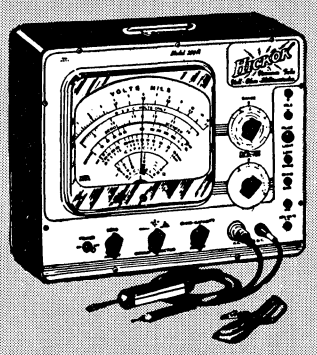
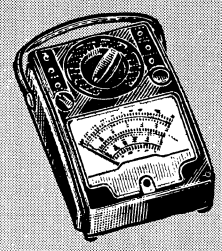
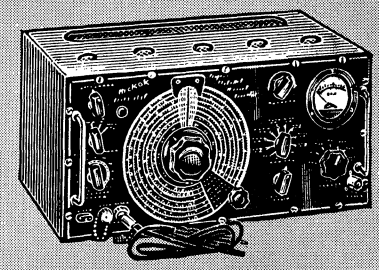
HICKOK TEST EQUIPMENT



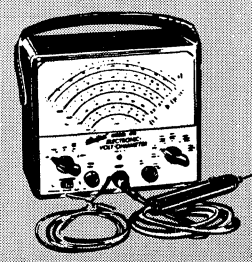
MODEL 209A
True Vacuum Tube Volt-Ohm-Milliammeter and Capacitance Meter



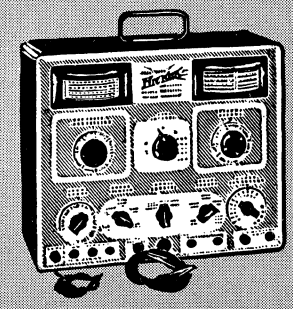
MODEL 455A
Burn-out Proof Volt-Ohm-Milliammeter



MODEL 295X
Microvolt and Crystal Controlled Generator.



MODEL 470
Electronic Volt-Ohmmeter



MODEL 288X
Crystal Controlled AM-FM Sweep and Marker Generator

MODEL 209A
True Vacuum Tube Volt-Ohm-Milliammeter and Capacitance Meter

Has large 9-inch meter. Low capacity probe measures peak-to-peak or RMS AC Voltage to 200MC. Special Lo-ohms range. Ranges: AC/DC Volts; 0 to 3, 12, 30, 120, 300, 1200; MA DC; 0 to 3, 12, 30, 120, 300, 1200. Measures capacitance as low as 1 $\mu\mu f$ and up to 1,000 μf. Inductance: 50 mh to 100 henries (with conversion chart). Furnished in portable steel case 16¼″x7″x 13¼″ complete with AC and DC probe assemblies, test leads, low capacity-high frequency probe. 105-125v, 50-70 cycles, 20 watts at 115 volts. Shipping weight, 26 lbs.

Model 209A True Vacuum Tube Volt-Ohm-Milliammeter and Capacitance Meter—Net Each.....$157.00

MODEL 470
Electronic Volt-Ohmmeter

Lightweight portable VOM with high impact, phenolic case—Large, easy to read, 7″ meter. Unique, high sensitivity range (0.5 volt DC) is specially suited for measuring transistor bias and similar potentials in the millivolt range. Ranges: AC RMS 1.5 to 1500 volts in seven ranges. New AC-DC-Ohms single unit probe eliminates need for multiple leads. Ohmmeter: Center Scale, 10 ohms; Ohms x1, x100, x100K, x1 megohm. Readability: 0.2 ohms to 100 megohms. 105-125v, 50-400 cycles, 10 watts, 7″x 6¼″ x 4″. Complete with single-unit probe, and test leads. Shipping weight, 10 lbs.

Model 470 Electronic Volt-Ohmmeter—Net Each.....$94.75

MODEL 820 CADDY PAL VTVM-OHMMETER, GRID LEAKAGE AND TRANSISTOR CHECKER

A true bridge type VTVM-Ohmmeter with high (10 megohm) resistance. VTVM and Ohmmeter ranges chosen to fit voltages most often encountered in radio and TV service. Makes quick grid leakage tests of those tubes used in circuits where gas, grid emission and leakage are most critical. Reads grid current in two ranges: 0-1 and 0-5 μa. 115v, 50-60 cycles, 15 watts, 8½″ x 6″ x 3½″.

Model 820 Caddy Pal, VTVM-Ohmmeter, Grid Leakage and Transistor Checker—Net Each.....$99.55

MODEL 455A
Burn-Out Proof Volt - Ohm - Milliammeter

Has Hickok's exclusive overload cut-out and protection system providing complete safety against burn-outs for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v; Resistance, 0-100 megohms in 4 ranges: Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50 μa, 1, 10, 100, 1000 MA, 10 amperes. Attractive, streamlined case, large, easy to read meter. Battery operated. 8½″L x 5⅞″W x 3″H tapering to 1¾″H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each $79.50

MODEL 295X
Microvolt and Crystal Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175MC. Calibrated, metered output from 0.1 to 100,000 microvolts. 1% Dial calibration accuracy. Built-in 1MC crystal standard. Precision step attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles, 90 watts in steel case 19″ x 12½″ x 9″. Complete with 1MC crystal, 48-inch output cable with 2 connectors. Shipping weight, 47 lbs.

Model 295X Microvolt and Crystal Controlled Generator—Net Each.....$635.00

MODEL 288X
Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter, crystal controlled frequency standard, 7 bands from 100KC to 160 MC, FM, 110 KC to 110 MC, AM. Provides for internal or external amplitude or frequency modulation of RF output. 110v-50-70 cycles. Furnished in steel carrying case, 16″ x 7″ x 13″, complete with 100KC/1000KC crystals, cable assembly and meter leads. Shipping weight, 33 lbs.

Model 288X Crystal Controlled AM-FM Sweep and Marker Generator—Net Each.....$307.00

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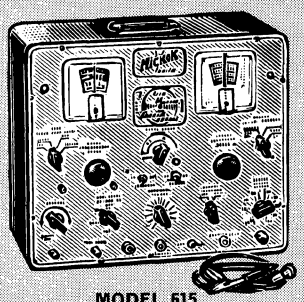
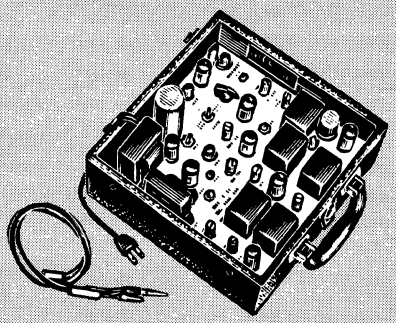
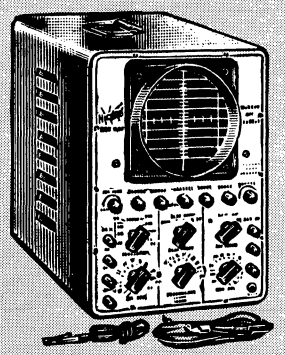
HICKOK TEST EQUIPMENT



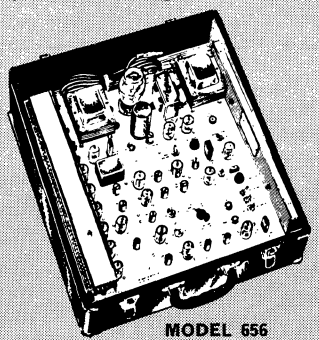
MODEL 615
Sweep and Marker Alignment Generator



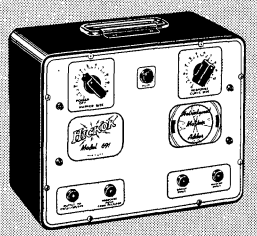
MODEL 660
Crystal Controlled White Dot-Bar Color Display TV Generator



MODEL 675A
Wide Band, High Sensitivity Oscilloscope



MODEL 656
Color Bar-White Dot-Bar TV Generator



MODEL 691
Heterodyne Marker-Adder

MODEL 615
Sweep and Marker Alignment Generator

For complete TV, IF and RF alignment, including color TV alignment. Also provides harmonic output on UHF. All electronic sweep with no moving parts. Amplitude modulation less than 0.1db/MC. 110-120v, 60 cycles, 40 watts. Furnished in steel carrying case, 16¼" x 8" x 13½" complete with leads. Shipping weight, 39 lbs.

Model 615 Sweep and Marker Alignment Generator—Net Each $349.95

MODEL 656
Color Bar-White Dot-Bar TV Generator

Produces 100% fully-saturated NTSC standard pattern. Provides complete range of signals for chroma alignment, including I, Q, R-Y, G-Y, -G-Y demodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black leatherette portable case, 16¾" x 18⅜" x 7¼", complete with cable. Shipping weight, 48 lbs.

Model 656 Color Bar-White Dot-Bar TV Generator—Net Each . . $525.00

MODEL 660
Crystal Controlled White Dot-Bar Color Display TV Generator

All frequencies crystal controlled and locked together providing stable dots of correct size. Provides rainbow color display. Circuitry completely compatible with new design receivers. Lightweight portable for installation, convergence and in-the-home servicing, 105-125v, 50-60 cycles, 40 watts. Furnished in black leatherette portable carrying case, 10½" x 10½" x 5¼" complete with two crystals and output cable. Shipping weight, 21 lbs.

Model 660 Crystal Controlled White Dot-Bar Color Display TV Generator—Net Each $243.00

MODEL 691
Heterodyne Marker-Adder

Provides a continuously visible marker, (including trap points) that will not alter or distort the receiver's response curve. Functions with any associated marker and sweep equipment that has an output capability of 0.05 volts, or more. 105-125v, 50-60 cycles, 25 watts. Furnished in steel case, 11¼" x 7" x 8¼", complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each $109.00

Model 760 Video Scanner. Generates and scans at the 525 line, 60 field, 30 frame system. Produces slide pictures for closed circuit television systems. Uses high definition, flying spot scanning method, providing 450 line resolution (5 MC bandwidth). 105-125v 60 cycles, 40 watts. In black leatherette case, 16¾" x 18⅜" x 7½". Shipping weight 51 lbs.

Net Each $445.00

MODEL 675A
Wide Band, High Sensitivity Oscilloscope

5" scope with an illuminated, calibrated screen. Vertical amplifier response within 3 db, DC through 4.5MC, flat through 3.58MC color burst frequency. Astigmatic control provides a new standard of undistorted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case, 10" x 16"x 13", complete with low capacity probe and ground lead. Shipping weight, 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—Net Each $299.90

Model 770 Industrial and Laboratory 5" Oscilloscope: Response, DC to 5MC, within 3 db (Rise time 0.07 μsec)—Net Each $470.00

Hickok Electrical Instrument Co. **Cleveland Ohio**

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Industrial Instruments

ELECTRICAL

RESISTANCE DECADES

• Available in a wide variety of standard models. Accuracy at 1.0 and 0.1 ohm steps is ±0.25%. Accuracy of all other resistors is ±0.1% of indicated value. Self-cleaning, molded nylon and silver plated brass switch mounted below panel. Zero resistance is less than .003 ohms per dial. Hardwood case. Models DR-1D to DR-4D, 8″ x 5½″ x 4½″. Weight 4 lbs. net, 6 lbs. shipping. Models DR-50D to DR-52D, 9″ x 6″ x 4½″ h. Weight 5 lbs. net, 7 lbs. shipping. Models DR-70D and DR-71D, 17¼″ x 5″ x 4½″ h. Weight 6 lbs. net, 8 lbs. shipping.

ELECTRICAL SPECIFICATIONS AND PRICES

Model No.	Total Resistance Ohms	Decade Steps	Accuracy	Price
DR-1D	1,110,000	10x(1,000+10,000 +100,000)	±0.1%	$ 92.50
DR-2D	111,000	10x(100+1,000 +10,000)	±0.1%	75.00
DR-3D	11,100	10x(10+100+1,000)	±0.1%	71.50
DR-4D	1,110	10x(1.+10+100)	±0.25 & ±0.1%	66.25
DR-50D	11,111	10x(.1+1+10+100 +1,000)	±0.25 & ±0.1%	108.25
DR-51D	111,110	10x(1+10+100 +1,000+10,000)	±0.25 & ±0.1%	115.50
DR-52D	1,111,100	10x(10+100+1,000 +10,000+100,000)	±0.1%	137.50
DR-70D	1,111,111	10x(.1+1+10+100 +1,000+10,000 +100,000)	±0.25 & ±0.1%	165.50
DR-71D	11,111,110	10x(1+10+100 +1,000+10,000 +100,000 +1,000,000	±0.25 & ±0.1%	215.25

CAPACITANCE DECADES

• These are 3-dial units with the sum of the dial settings indicating total capacity in microfarads. Mylar and silver-mica capacitors are used for high stability, low-loss characteristics. Polished hardwood case, engraved dial graduations.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	Decade Steps MF	Accuracy	Dielectric	P.F.	Peak Volts	Price
DK-2A	10x(.001+.01 +0.1)	±1%	Silver Mica	0.2%	700 (.001) (.01) 500 (.1)	$218.50
DK-4	10x(.001+.01 +0.1)	±1% (.001) (.01)	Silver Mica	0.2%	700	97.50
		±3% (0.1)	Mylar	1%	400	
DK-5A	10x(.01+0.1 +1.0)	±1% (.01)	Silver Mica	0.2%	700	
		±3% (0.1) (1.0)	Mylar	1%	400	115.50
DK-11A	10x(.01+0.1 +1.0)	±0.5% (.01) (0.1)	Silver Mica	0.2%	700 (.01) 500 (0.1)	225.75
		±2% (1.0)	Mylar	1%	400 (1.0)	
DK-10	10x(.0001 +0.001 +.01)	±0.5% or 10 mmf	Silver Mica	0.2% 2% (.0001)	700	131.00

PHYSICAL SPECIFICATIONS

	Overall Dimensions	Weight (Lbs.) Net	Shipping
DK-2A, DK-4, DK-10	8 x 5½ x 7½	8	10
DK-5A, DK-11A	10¾ x 7¾ x 7½	10	12

Net

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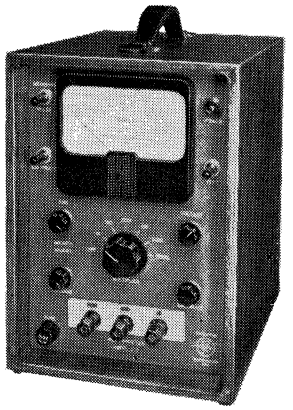
TEST EQUIPMENT



TYPE L MEGOHMMETERS

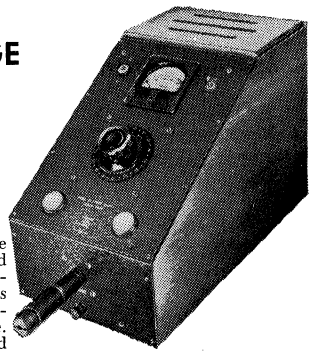
Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. These instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	RANGE High in meg.	POWER Consumption	WEIGHT Net	WEIGHT Ship.	Size	Price
L-2A	200 fixed	1	100,000	40 Watts	12	15	15"x8"x10"	$175.
L-4A	200 and	1	100,000	52 Watts	14	17	15"x8"x10"	240.
	500 fixed	2.5	250,000					
L-6B	100 to 600*	1	100,000	82 Watts	15	18	15"x8"x10"	310.
L-7	100 to 600*	1	$5x10^{13}$	75 Watts	20	24	8"x10½" x11½"	383.

*Continuously variable, built-in voltmeter for accurate setting.

TYPE P—VOLTAGE BREAKDOWN TESTERS



The Type P Series Voltage Breakdown Testers are designed for safe, accurate and fast testing of materials, components and circuits both in the laboratory and on the production line. All types have self-contained metered high-voltage power supply with safety features including interlock switches and pilot warning lights. Load current is limited to values shown in table below. Output voltage continuously variable over range listed for each model.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	VOLTAGE RANGE AC volts RMS	VOLTAGE RANGE DC volts	CURRENT RANGE AC	CURRENT RANGE DC	Price
P1	-	0-4000		5 ma (max)*	$208.00
P2	0-3000	0-4000	7 ma (max)	5 ma (max)*	252.00
P3A	0-8000	0-10,000	60 ma (max)	50 ma (max)*	488.00

*Models P1, P2, and P3A incorporate a variable series resistance which limits short circuit current independently of voltage.

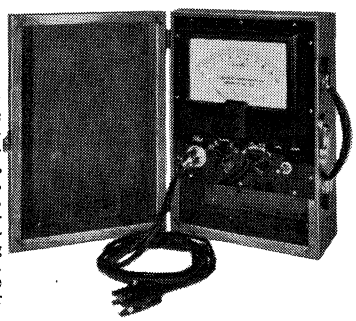
Other power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

WHEATSTONE BRIDGES TYPE RN

Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000	.....	9"x8"x6½"	$176.50
RN-2	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 1000, M10, M100, M1000	Murray & Varley	9"x8"x6½"	193.25
RN-3	10x(1+10 +100) +9(1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/1, 10/1, 100/1, M10, M100, M1000	Murray & Varley	9½"x8"x6½"	226.00

TYPE LRO-1 LOW RESISTANCE OHMMETER



The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.

Price $148.85

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms. 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

• Other electrical test equipment manufactured by Industrial Instruments can be found in current editions of ELECTRONIC ENGINEERS MASTER. For complete technical details and specifications on test equipments listed here and many others request a copy of Catalog 21.

Industrial Instruments

Industrial Instruments Inc.

CEDAR GROVE, N. J.

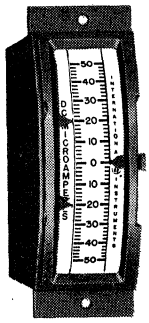
SPECIALISTS in Sub-Miniature Panel Meters

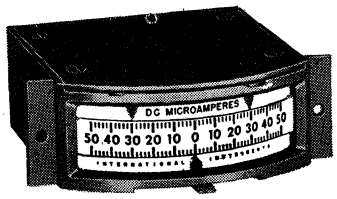
FIRST in U.S. to manufacture 1"-diameter meter
FIRST to produce 1" and 1½" illuminated meters
FIRST to produce 1½" self-contained DB and VU meters
FIRST to produce miniature side indicators

RUGGEDIZED METERS

1½" Square

Meets MIL-M-10304 (SIG.C.) Accurate within ±3% of full scale deflection. Basic d-c ranges 0-100 d-c ua, 0-1 d-c ma, and 0-10 d-c mv. VU meters and other ranges also available.





Model 2547

Horizontal Scale

Vertical Scale

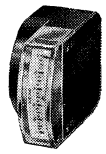
NEW! *CONTACTLESS* ELECTRONIC CONTROL METERS

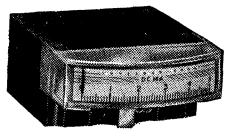
Provide continuous output signal past selected control setting, with uninterrupted, accurate, full-scale indication at all times. No electrical contacts at control point, so no control-point problems. Models with single or double independent control-arm circuits, and with scales for horizontal or vertical mounting, with zero at center, left or right. Accuracy held to ±2% of full scale for dc, ±5% for ac.

Patent Nos. 2, 871, 450 and 2, 967, 278

Model 1120

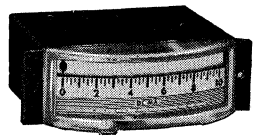
Vertical Mounting





Model 1135*

Horizontal Mounting



Model 1145*

Horizontal Mounting

*Patented

SIDE INDICATORS

- GREATER READABILITY
- REDUCES PANEL AREA TO ⅓ OF CONVENTIONAL METER INSTALLATIONS OF SAME SCALE LENGTH
- HORIZONTAL OR VERTICAL MOUNTING

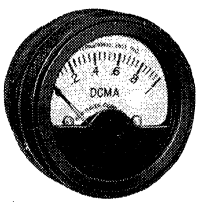
THREE SIZES AVAILABLE:

MODEL 1120—Scale length 1.2".

MODEL 1135—Scale length 2.1". Front external zero adjuster.

MODEL 1145—Scale length 2.75". Front external zero adjuster.

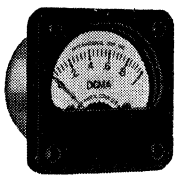
International Instruments' components lead the way for miniaturization through practical engineering design.



Model 150

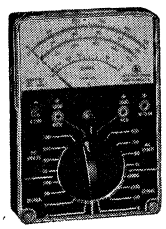
1½" ROUND and SQUARE

1½" barrel diameter. Full 90° scale arc, scale length 1.322". Model 153 meets MIL-M-3823 requirements. Also available: self-contained VU and DB meters—illuminated meters with lamp housing attached.



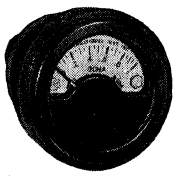
Model 153

VOM-20 Multi-Tester



Sensitivity: 20,000 ohms per volt for dc, 15,500 ohms per volt for ac. Three big scales with ranges: (1) to 1500 acv, dcv (2) to 500 dcma (3) to 2 megohms. Moderately priced.

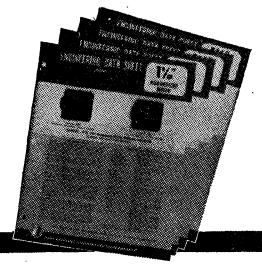
1" ROUND



Model 100

1" barrel diameter. Full 90° scale arc, scale length .770". VU, DB and illuminated meters also available with external accessory attached.

ENGINEERING DATA SHEETS COMPLETELY DESCRIBING THESE INSTRUMENTS ARE AVAILABLE. WRITE FOR YOUR COPIES TODAY.



international instruments

INCORPORATED

ORANGE, CONNECTICUT, CABLE "INTERINST"

© U.C.P., Inc.

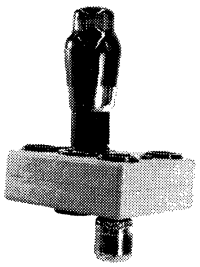
Jackson

"SERVICE ENGINEERED" *Dynamic® Tube Testers*

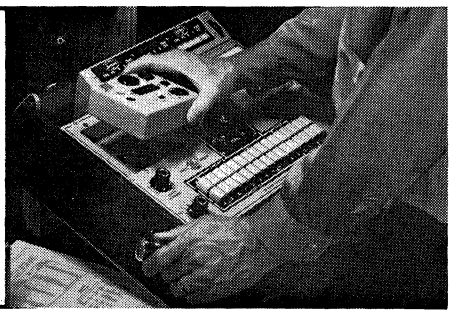
New Models Test ALL New Tube Types

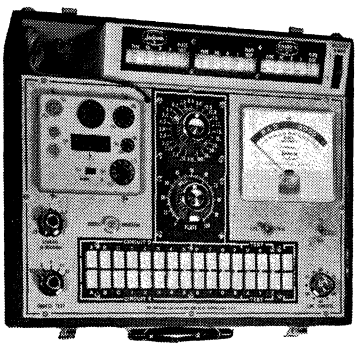
- Nuvistors—5 and 7 pin versions • Compactrons • Novars • New 10 pin • Sub-miniature
- New, Small Diameter 12 pin • New, Large Diameter 12 pin • Low Power Special Purpose Tubes

Plus all TV and Radio Tubes • 12 volt Hybrid Tubes • Eye Tubes • Rectifier Tubes • VR Tubes



Compact, Double-Face Socket Assembly – 7 sockets for popular and newer tubes on Side 1 and 7 sockets for regular old tubes on Side 2. Fits into receptacle with interlocked safety switch. Simply lift out and reverse socket assembly to accommodate type of tube being checked.

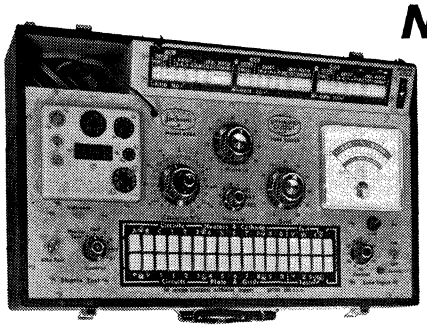




648S Dynamic® Tube Tester

- Best for servicemen . . . faster, more accurate and completely versatile for all new tubes.
- Double face Socket assembly with 14 sockets
- Push-button sequence switching makes set-up time less than tube warm-up time
- Angled view zig-zag roll chart
- Semi-conductor rectifier for instant warm-up
- 23 Separate Heater Voltages from .75 to line voltage
- Variable Sensitivity Shorts Test – up to 2 Megohms
- Automatic Line voltage indicator

$154.95 net **SHIPPING WEIGHT 22 LBS.**



New 658A Dynamic® Output Tube Tester

Faster, more versatile, designed for industrial, laboratory, engineering and service applications, the new Jackson 658A makes all these tests on new and old tube types.

Heater Continuity—Heater Current
Rectifier Tests—Dynamic "Eye"
Tube Tests-Grid Leakage

Features:

- Double Face Socket Assembly with 14 Sockets
- Push-Button Sequence Switching
- Silicon Rectifier Balanced Double Bridge Circuit
- 231 Heater Voltage Combinations from 0.6 to 120 volts
- Panel Mounted Fused Line for Overload Protection
- Compact, Portable Case, 21″ x 13¾″ x 7″

$214.95 net

SHIPPING WEIGHT 26 LBS.

FASTER, MORE ACCURATE, MORE VERSATILE, MORE PROFITABLE!

JACKSON ELECTRICAL INSTRUMENT CO., Dayton, Ohio

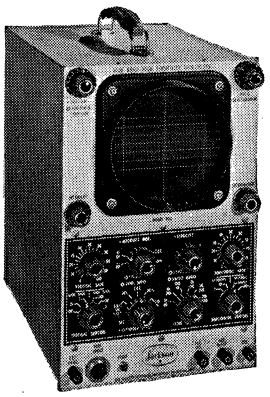
IN CANADA: TRI-TEL ASSOCIATES, LTD., WILLOWDALE, ONTARIO

NEW DATA FOR JACKSON TUBE TESTERS APPEARS MONTHLY IN "PF REPORTER" and PHOTO-FACT FOLDER

© U.C.P., Inc.

Jackson

"SERVICE ENGINEERED" TEST EQUIPMENT
THE JACKSON ELECTRICAL INSTRUMENT COMPANY, DAYTON, OHIO



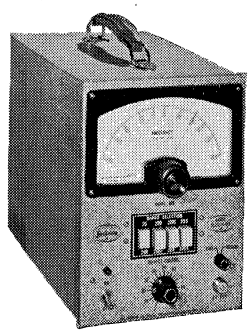
MODEL 600 LABORATORY OSCILLOSCOPE

A new, compact, laboratory oscilloscope, equally suited to service, industrial and scientific applications. Features choice of wide-band or high sensitivity operation, originated by Jackson. Power supply regulated for stable operation.

- Wide band vertical amplifier, flat within 1db from less than 20 cycles to 4.9 MC, usable to 10 MC.
- Two-range vertical sensitivity from 20 mv/inch.
- Horizontal amplifier response uniform within 2 db from 20 cycles to 200 KC.
- Linear Sawtooth Sweep, 10 cycles to 100 KC.
- Sync Sources: Internal Signal, Internal 60 or 120 cycle, External Source.
- Input Calibration Voltage, 10 V, P-P.
- Provision for direct connection to CRT deflection plates.
- Lighted graticule with variable illumination.
- Camera studs for any standard scope camera.
- Variable sweep expansion.
- Return Trace Blanking.
- Intensity modulation, external, or internal 60 cycles.
- Flat face CRT for improved linearity.
- Sweep frequency pulse on panel terminal for transformer ringing test.

Size: 15" H x 9⅛" W x 13" D, overall.
Power Requirements: 105-125 VAC, 50-60 cycle, 75 watts.
Accessory Probes: Uses same probes as Model CRO-2.

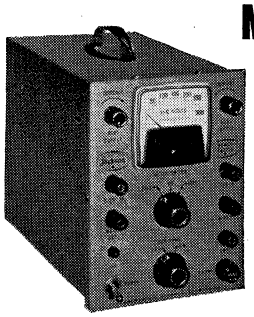
$335.00 net SHIPPING WEIGHT 29 LBS.



MODEL 605 AUDIO SINE-SQUARE WAVE OSCILLATOR

A new, precision audio generator with a choice of either sine wave or true square wave output. Square wave is NOT a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.
Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges.
Accuracy: 3% or 1 cycle, whichever is greater.
Output: High Impedance, continuously variable. Sine wave 0 to 5.0 RMS Volts, Square Wave 20 mv to 7.0 P-P.
Sine Waveform: Less than 1% distortion.
Output Level Characteristic: ±1 db over full range.
Hum Level: Down more than 50 db at all output levels.
Square Wave Rise Time: Less than 0.2 μsec.
Square Wave Tilt: 5% at 60 cycles. Less than 1% above 200 cycles.
Dimensions: 11" H x 7⅝" W x 13" D.
Power Requirements: 110-120 VAC, 50-60 cycles, 50 watts.

$129.95 net SHIPPING WEIGHT 21 LBS.

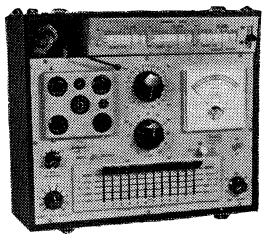


MODEL 607 VARIABLE REGULATED POWER SUPPLY

A complete laboratory power supply which provides heater, bias and regulated variable B+ voltages in one compact package.

- AC Heater Output: 6.3 VAC at 3 A max.
- DC Bias Output: 30 to 275 VDC, no load. 15 to 150 VDC at 20 ma.
- DC Regulated Output: Low Position 150 to 225 VDC, 0 to 100 ma. max. High Position 225 to 300 VDC, 0 to 100 ma. Regulation: Within 1.5%. no load to 100 ma. at 300 volts.
- Ripple Content: Bias Supply: Less than 0.003% at 20 ma. Regulated Supply: Less than 0.005% at 100 ma.
- Metered Output: For Bias and Regulated B+ Supply.
- Dimensions: 8¼" H x 5⅜" W x 10¼" D.

$79.95 net
SHIPPING WEIGHT 12 LBS.



MODEL 598 LOW-COST DYNAMIC® TUBE TESTER

An economical tube tester featuring the famous Jackson Dynamic principle, already proved by service men everywhere. Checks practically all receiving tubes under load conditions. Completely flexible for future tubes, without having to buy extra cards or sockets.

- 23 Separate Heater Voltages for any receiving tube.
- Variable Plate Voltage and Load.
- Grouped Tube Socket Sub-Assembly.
- Good/Bad, plus "percentage" meter indications.
- Zig-Zag Roll Chart in Quick-Change Housing.
- Variable Shorts Sensitivity Test.
- Line Voltage Indicating Control.
- Convenient Lever Switching.
- Portable case for shop or on-the-job use.

Dimensions: 16½" L x 14½" W x 6¾" D.
POWER CHART AVAILABLE

$89.95 net
SHIPPING WEIGHT 21 LBS.

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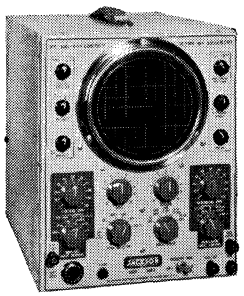
Jackson

"SERVICE ENGINEERED" Test Equipment

THE JACKSON ELECTRICAL INSTRUMENT CO., DAYTON, OHIO

MODEL CRO-2 5-INCH WIDE-BAND, HIGH SENSITIVITY OSCILLOSCOPE



Laboratory quality scope with highly stable circuitry and every feature for accurate TV work, color and black & white. Widely used, too, in many laboratory and industrial applications.

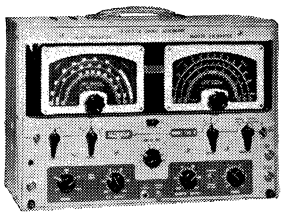
- Wide Band Amplifier, flat within 1 db 20 cycles to 4.5 mc.
- Two-range vertical deflection sensitivity from 0.018 rms volts-per-inch
- Highly stable amplifier circuits. No balancing required.
- Positive or negative internal horizontal sync.
- Linear sawtooth oscillator, 20 cycles through 50 kc.
- Input calibrating voltage, 10 volts peak-to-peak
- Vertical polarity reversal
- Variable sweep expansion
- Return trace blanking
- Z-axis modulation — internal, external or 60-cycle
- Direct connection to deflection plates when required

ACCESSORY PROBES

LC2-1P Low Capacity Probe. Cathode follower type. 2:1 attenuation. Not more than 8 *uuf* effective impedance .....$19.95 net.
LC10-P High Voltage Low Capacity Probe. 10:1 attenuation ratio. For circuits where up to 1,000-volts is present .....$7.95 net
DEM-P Demodulation Probe. For RF or IF signal tracing .....$9.95 net

$225.00 net SHIPPING WEIGHT 32 IBS.

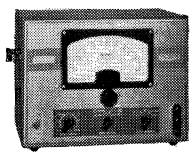
MODEL TVG-2 SWEEP MARKER GENERATOR AND CRYSTAL CALIBRATOR



The TVG-2 is a complete alignment generator for any TV set or FM broadcast receiver—in fact, any receiver within its tuning range. Has ample output for even the most badly de-tuned receiver. Valuable for working with FM broadcast receivers, low band police FM receivers and others in the VHF ranges covered.

- Wide range sweep oscillator covers three bands all on fundamentals: 2 to 38 mc, 38 to 108 mc, and 174 to 216 mc.
- Variable sweep width 0 to 18 mc in 8 steps
- Video Sweep (30 kc) for color circuit adjustments
- Accurate Marker Generator (¼%) from 4 to 216 mc.
- Crystal oscillator for any crystal 3 mc to 20 mc with beat detector
- 400 cycle modulation for marker or crystal oscillators
- Provision for video signal modulation
- Variable output impedance on 10K range
- Provides oscilloscope timing axis with phase and blanking controls

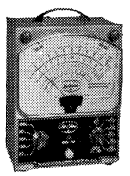
$259.95 net. SHIPPING WEIGHT 35 LBS.



MODEL 655 WIDE RANGE AUDIO OSCILLATOR

- Exceptionally stable RC tuned sine wave generator
- Frequency range 20 cycles to 200,000 cycles in 4 steps
- Up to 500 milliwatt output
- Output impedances of 10,250, 500, or 5,000 ohms plus resistive output
- Frequency characteristic within 1 db 30 to 15,000 cycles on transformer output
- Accuracy, 3% or 1 cycle whichever is greater
- Sinusoidal Waveform
- Hum Level down 60 db at maximum output
- Logarithmic Calibration Curve
- Continuously variable output
- Factory-calibrated for guaranteed accuracy

$135.00 NET
SHIPPING WEIGHT 32 LBS.

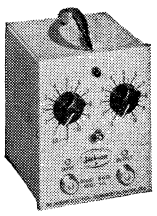


MODEL 590 ALL-NEW 7" VTVM

- Large 7" meter and hairline pointer for greatest accuracy
- Fast warm-up time—complete accuracy in less than 5 minutes
- Single Probe for all measurements
- Accurate a-c voltage readings from 20 cycles to 2 mc.
- All-new silicon diode circuitry
- Factory calibrated for guaranteed accuracy

$69.95 NET. SHIPPING WEIGHT 8 LBS.

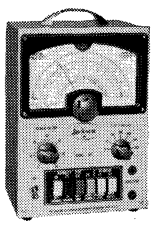
RANGES: DC volts, plus or minus, and AC volts: 1, 5, 10, 50, 100, 500, 1000 volts full scale. Separate 1 volt rms scale, separate peak-to-peak and Zero-center d-c scales. Ohms Rx1, 10, 100, 1k, 10k, 100k and 1 meg. Center of Rx1 scale, 10 ohms. Accuracy d-c and ohms, 3% of full scale; a-c volts 5% full scale.
MODEL 59 H.P. HIGH VOLTAGE PROBE FOR 590.....$9.95 NET



MODEL 606 SQUARE WAVER

Now you can get true square waves from your present sine wave generator. The Model 606 square wave characteristics are the same as Model 605 Generator. Provides true square waves over the frequency range provided by the driving source generator. Input and output continuously variable. Negligible rise time and tilt. Square wave shape is independent of the driving source wave shape. Ideal for producing a square wave output from the Model 655.

$34.95 NET
SHIPPING WT. 5 LBS.



MODEL 591 WIDE-RANGE CAPACITANCE CHECKER

- Tests capacity from 10 *uuf* to 1000 *uf* in 4 ranges
- Color-coded range push-buttons match scale colors for easy selection
- Graduated leakage tests for both polarized and unpolarized capacitors
- Low-voltage leakage tests for transistor-circuit capacitors
- Graduated power factor test for electrolytics, 0 to 60%
- Electron-ray indicator tube for all tests
- Complete with test leads
- Factory-wired and calibrated for guaranteed accuracy

$64.95 NET
SHIPPING WEIGHT 11 LBS.

Instruments J-B-T Testers

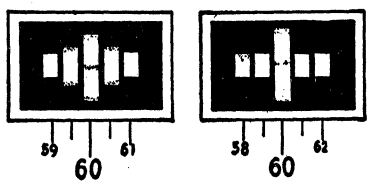
J-B-T INSTRUMENTS, INC.

VIBRATING REED FREQUENCY METERS (PATENTED)

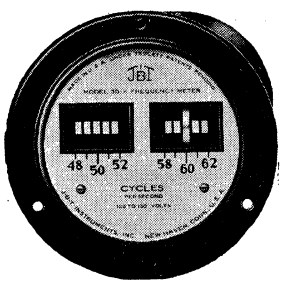
I-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups — wherever constant or known frequency is important to efficient operation of equipment. More than 20 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

The response patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right.



CAUTION: If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are accurately calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.



(Meter operating at 60 cycles)

10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading either range. Often specified for export. 100-130 volts; 130 ohms per volt; 1 watt power consumption. Accuracy ±0.3% at reference temperature. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

30-F, (illustrated). **48-52 and 58-62 cy.,** 3¼" Metal Case. **$30.50**

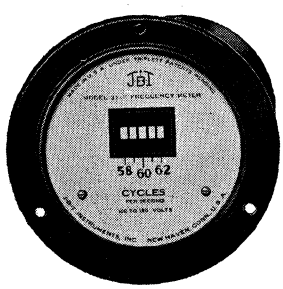
30-FX, 48-52 and 58-62 cy., 3½" Molded Case, MIL-M-6B mtg. **$27.50**

5 REEDS

Used on standby power equipment. Handy for accurately measuring frequency of power source. Five reeds, 58-62 cycles, 100-130 volts. Other characteristics same as Model 30-F. See Table of Dimensions, lines 4 and 5. (This meter also is made with 7 reeds).

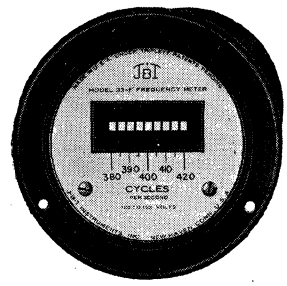
31-F, (illustrated). 58-62 cy., 3¼" Metal Case..... **$26.65**

31-FX, 58-62 cy., 3½" Molded Case, MIL-M-6B mtg..... **$23.65**



ADVANTAGES: Guaranteed accuracy at reference temperature of 77°F is ±0.3% or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatigue safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external magnetic fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

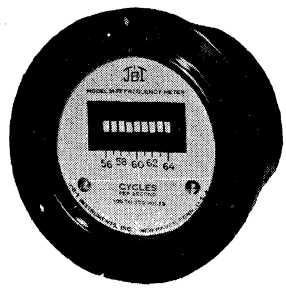


9 REEDS — 400 CY.

Used for measuring frequency of high-cycle power sources, particularly aircraft. Accuracy ±0.3% at reference temperature. Nine reeds, 380-420 cycle range. 100-130 volts; 90 ohms per volt; 1.5 watts power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F, (illustrated). 380-420 cy., 3¼" Metal Case..... **$37.10**

33-FX, 380-420 cy., 3½" Molded Case, MIL-M-6B mtg..... **$34.10**



9 REEDS — 60 CY.

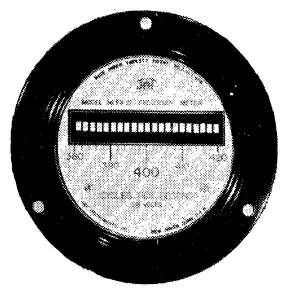
Covers a broad frequency band. Nine reeds, 56-64 cycles, or in half-cycle steps (accuracy ±0.2%) 58-62 cycles. 100-130 volts; 110 ohms per volt; 1 watt power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F, 56-64 cy., 3¼" Metal Case, 1-cycle steps..... **$30.25**

34-FX, (illustrated). 56-64 cy., 3½" Molded Case, MIL-M-6A mtg. **$27.25**

34-F-Z, 58-62 cy., 3¼" Metal Case, ½-cycle steps... **$31.90**

34-FX-Z, 58-62 cy., 3½" Molded Case, MIL-M-6B mtg..... **$28.90**



18 OR 21 REEDS

Advanced design offers 21 reeds as an interchangeable 3½" panel meter with 2-cycle intervals for close reading over the band of 380 to 420 cycles per second. Accuracy ±0.3% at reference temperature. The reed flag size is necessarily smaller than the 9-reed 400-cycle meter, such as the model 33-FX, but the 21 reeds are located in an enlarged window 2" wide with flags 3/32" high x 1/16" wide to give maximum readability. A revised internal construction for mounting the reeds in one clamp assures ruggedness. This instrument and its variations are particularly useful where unusually close indication of frequency throughout the band has not been available heretofore. These meters are not regularly stocked. See Table of Dimensions, line 5.

36-FX-21, (as illustrated). 380-420 cycles, 21 reeds, 28 volts operation, 3½" Molded Case; 18 ohms per volt; 1.6 watts power consumption **$43.75**

36-FX-21-115, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption..... **$45.00**

30-FX-18, (not illustrated). 46-54 and 56-64 cycles, 18 reeds in one window with two groupings, 100-130 volts; 210 ohms per volt; 0.7 watts power consumption. **$36.30**

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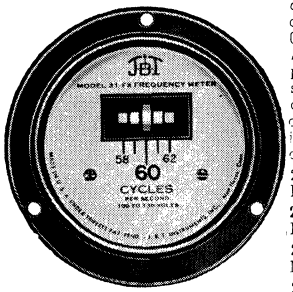
Instruments J-B-T Testers

J-B-T INSTRUMENTS, INC.

2½" METERS — 5 REEDS

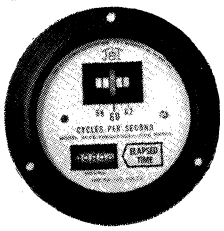
MODEL 21-FX, 23-FX. Matches other 2½" panel instruments. Meets ASA C39.1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4½ ozs.; 5 reeds; 500 ohms per volt; 0.25 watt power consumption. Also 116 to 124 cy.; 250 ohms per volt; 0.5 watt power consumption. 380 to 420 cy.; 170 ohms per volt; 0.7 watts power consumption. Flush panel mounting, see Print MD-20, also Table of Dimensions, Line 2.



(Operating at 60 cycles)

21-FX, 58-62 cy., 2-11/16" Molded Case, 1 cy. steps.....**$22.55**
21-FX, 116-124 cy., 2-11/16" Molded Case, 2 cy. steps.....**$25.30**
23-FX-54, 390-410 cy., 2-11/16" Molded Case, 5 cy. steps.....**$27.50**
23-FX, 380-420 cy., 2-11/16" Molded Case, 10 cy. steps..**$27.50**

ELAPSED TIME — FREQUENCY METERS



31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines the elapsed time or running time meter with frequency reeds. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours, and 58-62 cycles with 5 reeds, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with mounting per Table of Dimensions, line 6. Power consumption is 4.7 watts. For variations having 7, 9, or 11 reeds, not regularly stocked, such as Model 34-FE, see revised print SK-45.

31-FE, 3¼" metal case.....**$33.00**

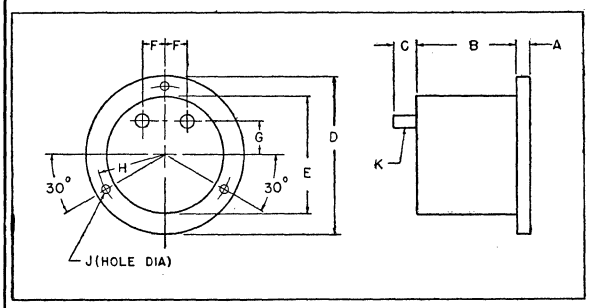
31-FEX-1, (per print SK-44—not regularly stocked) like Model 31-FE, except with 3½" metal flange permanently attached for MIL-M-6A front mounting per line 7, Table of Dimensions.....**$34.10**

RUGGEDIZED METERS

Models with "RUG"—Sealed vibrating reed frequency meters and sealed elapsed time meters can be supplied, on special order, to the intent of MIL-M-10304B which covers ruggedization of other kinds of meters. This feature usually is specified only for extra severe shock and vibration.

400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

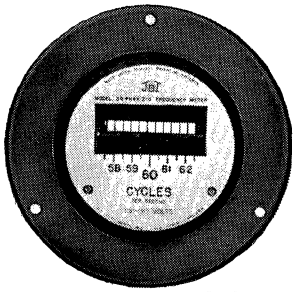
Among the non-catalog variations which J-B-T manufactures on special order, are 21-reed, 390-410 cycles in 3½" case; and 11-reed 780-820 cycles. Quotations on request.



NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made only for the purpose of reading two or more voltages, not additional phases.

3½" SEALED METERS



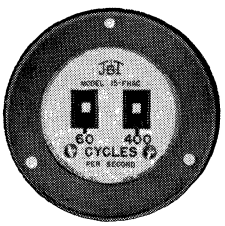
FHXX TYPE sealed meters, glass-to-metal construction, with solder terminals and detachable flange, supersede the former FHX sealed meters (Print SK-24). While JAN-I-6 and MIL-M-6B (Type MR36) do not refer to frequency indicators, the FHXX series uses the front mounting dimensions, and meets or exceeds the sealing and electrical requirements including the 3000 volt breakdown. Mounting dimensions are shown below. Standard voltage is 100-130. Electrical characteristics and accuracy are the same as for corresponding models without the HXX designation. Every meter tested in water where the absolute pressure of the air above the water is reduced to 2.5 inches of mercury (approx. 57,000 ft. altitude) and is maintained for one minute. While not regularly stocked, these meters are in production. For dimensions, see Table, line 8.

30-FHXX, 10 reeds, 48-52 cy. and 58-62 cy.....**$34.30**
31-FHXX, 5 reeds, 58-62 cy.....**30.45**
33-FHXX, 9 reeds, 380-420 cy.....**40.90**
34-FHXX, 9 reeds, 56-64 cy.....**34.05**
34-FHXX-11, 11 reeds, 55-65 cy.....**36.25**
34-FHXX-Z-11, illustrated, 11 reeds, 57.5-62.5 cy.....**37.90**

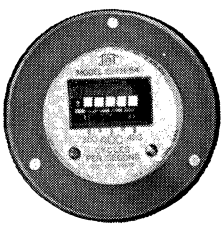
2½" SEALED METERS

On special order, J-B-T supplies 2½" sealed frequency meters. MIL-M-6B mounting. See Table of Dimension, line 3.
21-FHXX, 5 reeds, 58-62 cy. 100-130 volts **$34.85**
23-FHXX, 5 reeds, 380-420 cy. 100-130 volts **39.80**

1½" SEALED METERS



MODEL 15-FHAC. Widely used as the frequency standard on audio-oscillators, the model illustrated operates 2 reeds, 60 and 400 cycles, at approximately 8-10 volts on 0.04 watts for a cathode follower circuit. Accuracy ±0.5% at 77°F. Steel case has telephone black finish, solder terminals. Barrel is 1½" diameter; 2-3/32" detachable flange FL-4 covers glass-to-metal seal. See Table of Dimensions, line 1.
15-FHAC **$20.30**



15-FH-5 METERS (lower photo) also use the 1½" black metal case with 2-3/32" detachable flange and glass-to-metal seal. The 15-FH-5 series features 5 reeds in a row for 100-130 volt operation. Specified where size and weight are important. Same 100% inspection for approx. 57,000 ft. altitude as FHXX types. Standard meter, but not regularly stocked. See Table of Dimensions, line 1.
15-FH-54, 5 reeds, 390-410 cycles, 1.25 watts power consumption.....**$25.85**
15-FH-56, 5 reeds. 58-62 cycles, 0.25 watts power consumption.....**$21.45**
15-FH-400, 5 reeds, 380-420 cy., 1.25 watts power consumption.....**$25.85**

FREQUENCY METERS, TABLE OF DIMENSIONS, INCHES

	MODEL	MIL-M-6A* MOUNTING	A	B	C	D	E	F	G	H	J	K	TERMINAL DESCRIPTION
Line 1	15-FH Series	—	1/8	1-9/16	3/8	2-3/32	1-1/2	3/8	3/8	0.875	0.125		Solder, 1/16" dia. hole
Line 2	21-FX and 23-FX Series	MR 24, MR 25	13/64	1-3/8	23/32	2-11/16	2-5/32	7/16	9/16	1.220	0.116		10-32 NF-2 studs
Line 3	21-FHXX, 23-FHXX	MR 26	3/32	1-27/32	11/16	2-11/16	2-1/8	1/2	1/2	1.220	0.125		Solder, 3/32 hole
Line 4	30-F to 34-F Series	—	7/64	2-3/32	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 5	30-FX to 36-FX Series	MR 34, MR 35	19/64	2	23/32	3-1/2	2-11/16	7/16	7/8	1.580	0.150		10-32 NF-2 studs
Line 6	31-FE Series	—	7/64	3-7/8	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 7	31-FEX-1 Series	MR 34, MR 35	5/32	3-7/8	23/32	3-1/2	2-9/16	7/16	7/8	1.453	0.150		10-32 NF-2 studs
Line 8	30-FHXX to 34-FHXX Series	MR 36	3/32	2-1/4	5/8	3-1/2	2-11/16	1/2	3/4	1.580	0.150		Solder, 3/32 hole

* Also JAN-I-6 and ASA C39.1-1951 Mounting

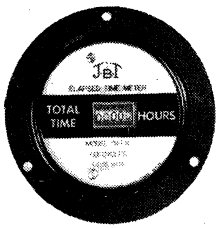
Net Effective Aug. 28, 1961

Instruments J-B-T Testers

J-B-T INSTRUMENTS, INC.

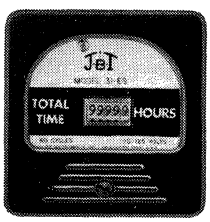
ELAPSED TIME METERS; 4" AND PORTABLE FREQUENCY METERS

ELAPSED (OR RUNNING) TIME METERS — 60 Cycles



MODEL 31-EX. To record operating time of AC electrical and electronic equipment, this self-starting synchronous instrument registers in 1/10th hour steps to 9,999.9 hours, then automatically re-sets. Shows tenths in red numerals on white, all others in white on black. Black molded case matches FX, 3½" frequency meters, and fully encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6A, also JAN-I-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2½", stud height above center (G) is zero, and all other measurements are as shown. J-B-T engineers recommend AC elapsed time meters for superior accuracy, especially where voltage or ambient temperatures vary widely. Popular for tube life, TV equipment, punch presses, conveyors, oil burners, maintenance schedules, etc. Types for 99,999 hours, or 50 cycles, or special voltages are available on special order.

31-EX, 60 cy., 110-125 volts **$15.95**
31-EX-200, 60 cy., 230 volts (not regularly stocked)..... **17.05**

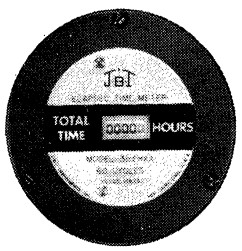


MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. D showing standard rear mounting 2¼" bet. centers of molded-in studs, new rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.
31-ES, 60 cy., 110-125 volts.
0-9,999.9 hours **$17.05**

ELAPSED TIME METERS — Tenths of Minutes

MODEL 31-EXM, 60 cycles, 110-125 volts, reading 0-9,999.9 **minutes;** for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white numerals on black, otherwise identical with 31-EX.... **$16.25**

3½" SEALED ELAPSED METERS — 60 Cycles



MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction, with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearance match the FHXX series sealed frequency meters. Maximum voltage between terminals and case, 1000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically re-sets. Tenths indicator is in red on white, all others in white on black. Mount according to Print SK-85.
31-EHXX, 60 cy., 110-125 volts **$19.75**

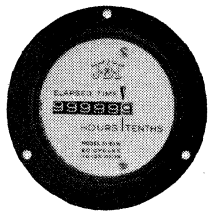
2½" SEALED ELAPSED TIME METERS

MODEL 21-EHXX. This new 2½" sealed meter, with front mounting dimensions the same as Type MR-26 electrical indicating instruments in MIL-M-6A, nevertheless offers a full-size counter reading 0-9,999.9 hours in 1/10th hour steps and a rugged self-starting synchronous motor. Glass-to-metal seal makes the instrument completely tamper-proof. Ask for Print SK-68. A 2½" 400 cycle-meter, **Model 23-EHXX,** also is made on special order.
21-EHXX, 60 cy., 110-125 volts **$24.75**

SEALED ELAPSED TIME METER — 400 Cycles

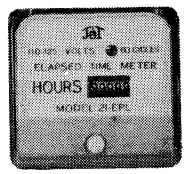
MODEL 33-EHXX. Meeting a long-felt need for a stable 400-cycle elapsed time meter compact enough to fit in a 3½" flanged case, with all parts enclosed, is this new 400-cycle elapsed time meter. The instrument now is being produced only in sealed construction, glass-to-metal, with separable flange, heavy-duty solder terminals and flat glass front. External appearance matches FHXX series and Model 31-EHXX sealed, 60-cycle, elapsed time meter. A slightly larger case is used per SK-61.
33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hours steps, 110-125 volts **$58.00**

New WIDE-NUMERAL ELAPSED TIME METER



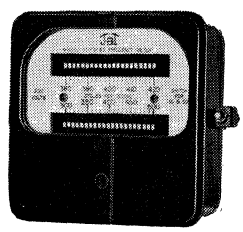
MODEL 31-EXW. The latest J-B-T elapsed time meter is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals reigster to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3½" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.
31-EXW, 6-digits, 0-99,999.9 hours. 60 cy., 110-125 volts **$16.95**

CLEAR-PLASTIC ELAPSED TIME METERS



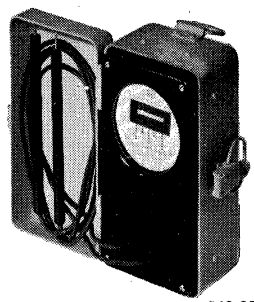
EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with all modern instruments. A sturdy metal case with solder terminals is used behind the panel. The 2½" size is 2-19/32" wide x 2⅜" high with 2⅛" diam. meter barrel, per print SK-102, Rev. A. The 3½" is per print SK-108, Rev. A.
21-EPL, 2½" size (illus.), 60 cy., 110-125 v., 0-999.9 hrs. **$25.75**
31-EPL, 3½" size (not illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$23.75**

400 CYCLE BROAD AND VERNIER INDICATORS



MODEL 41-FX-42 (supersedes Model 41-FX). Widely used in commercial and military testing, this model provides two windows: for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4-5/16" wide x 4-3/16" high x 2-29/32" deep behind panel over studs. 100-130 volts is standard; also made with 4 studs for 200-240, 115, and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts.
41-FX-42, 100-130 volts **$125.00**
41-FX-42, 3 voltages, without switch **$140.00**

PORTABLE FREQUENCY TESTERS



FP SERIES, METAL OR MOLDED CASE. Accuracy of ±0.3% meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6⅜" long x 4" wide x 3-9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as TS-328 A/U.

L-Types, sturdy molded case within top grain leather carrying case 6-3/32" x 4¼" x 2¾"; 4' leads with 5" test picks and banana plugs.

33-FP-9M, 380-420 cy., 9 reeds 100-130 volts, 70 ohms per volt, 1.50 watts power consumption; com. quality and packing.. **$49.25**
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, com. quality and packing..... **$42.35**
33-FP-9L, 380-420 cy., 9 reeds, 100-130 volts..... **$47.60**
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts..... **$40.70**

OTHER REED PRODUCTS

Inquiries are invited on these new J-B-T products:

1. **Reed Tachometers**—Read rpm by resonance alone—no electrical or mechanical connections. Indicator is mounted or held against housing of turbines, electric shavers, vacuum cleaners, sewing machines, etc. Ask for Bulletin MT-458.

2. **Reed Relays**—Made in plug-in cans for selective frequency calling, or single-reed types for response to a transmittal signal, such as 100 to 500 cycles. One patented J-B-T type has no vibrating contacts and makes an indicating reed meter into a frequency limit control. Request Bulletins 260-L and 160-R.

3. **Oscillator Controls**—Plug-in reed-type match transmitted frequencies to vibrating reed relays for mobile or other communications equipment. Ask for Bulletin 160-R.

Net Effective Aug. 28, 1961

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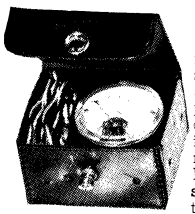
Instruments J-B-T Testers

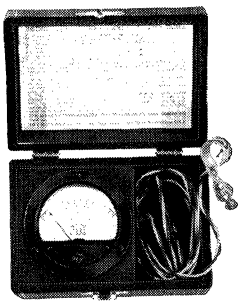
J-B-T INSTRUMENTS, INC.

APPLIANCE TEMPERATURE TESTERS

OVEN TESTERS



MODEL 23-JP-1. This popular model indicating portable pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F., with 2⅜" scale arc reading, is used but covered by clear-plastic instrument front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4½" x 2⅞" x 4¼" over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compensated for ambient temperature. Thus the tester eliminates calculations, avoids likelihood of serious error as temperature change inside the instrument itself, and gives foolproof direct readings. Supplied with attached SA-116 5½' calibrated thermocouple clip, and convection shield **$26.00**

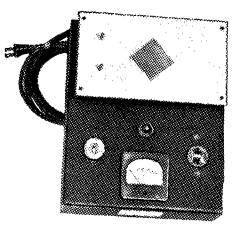


MODEL 32-JP-3. This time-tested model uses a rigid outer carrying case 6" x 3⅞" x 3¾", covered in black leatherette. The glass-covered indicator shows 0-650°F. range in 10° divisions readable to 2½° on a 2⅜" scale arc. Exceptionally fast, continuous response. Automatic compensation for ambient temperature is a valuable feature whether the tester is used for service work, sales demonstrations, or inspection. Attached SA-116 5½' thermocouple, clip for attaching to grill and convection shield included..**$28.00**

NEW

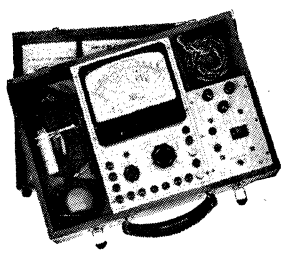
MODEL 32-JP-7. Most versatile and easiest to read of the oven temperature testers, Model 32-JP-7 offers a 0-650°F scale more than 4" long. Automatic compensation for ambient temperature change is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T thermocouples placed in one or more of the heat zones to be checked. An SA-116 5½' thermocouple with attachment clip and convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., appropriate extra thermocouples are suggested. Tester price includes stitched Ever-ready case, 5" wide x 5½" high x 2¾" deep, of sturdy, scuff-resistant black vinyl **$29.50**

IRON TESTER



MODEL 32-JIT. Self contained bench-type tester; checks all makes of irons; measures thermostat temperatures; shows open or short circuits. Automatically compensated for room temperature. Also indicates operating temperature of the sole plate (working surface) on non-electric or cordless irons. Black metal base; overall size 10" x 12" x 5½", scale 0-650°F, 15 amp fuse, 6' cord, 110-volt, 50-60 cycles **$34.50**

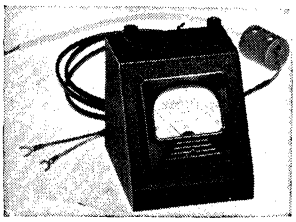
ALL-PURPOSE TESTER



MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, etc. Rapidly reads four cold zones —100°F, + 80°F. up to 14' distant; two heat zones 0-600°F. up to 5½' distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0-30 and 0-60 amps, AC. Sturdy, polished walnut case, 15½" x 10-3/16" x 4¾". Two-color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flash-light cell, replaceable in the field. Temperature accuracy ±2% of full scale; rectified AC readings ±5%. Accessories as listed may be added for testing appliances. Includes two SA-162 resistance bulbs, two SA-116 thermocouples, electrical leads, and AS-TR-2 built-in transformer **$124.00**

MODEL 61-JRT (LESS TRANSFORMER)
Same unit, same scales except no reading in amperes; AS-TR-2 transformer omitted **$110.00**

HEAT INDICATORS



MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4¼" high x 4⅜" deep x 4⅛" wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2⅜" scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length, — coil it — to maintain calibration. A protection tube usually is not required. For convenience keep an extra thermocouple and lead on hand.

MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)
0° — 650°F — 350°C, includes SA91 thermocouple, SA-84 lead, and CB-1 connector block **$33.50**
0° — 1200°F — 650°C, includes SA-87, SA-82, and CB-1..... **33.50**
0° — 2000°F — 1100°C, includes SA-87, SA-82, and CB-1..... **33.50**

MODEL 32-J IN SN-8 STAND (not illustrated). With 3 binding posts to accommodate flexible extra lead and thermocouple for hard-to-reach locations. (Stand Supersedes SN-5).
0° — 650°F with SA-91 thermocouple, SA-84 lead, CB-1 connector block, and SA-86 flexible leads and thermocouple **$37.50**

TEMPERATURE AND TESTER ACCESSORIES

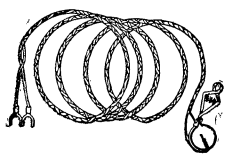
Condensed listing; full line in Catalog 558-G.

THERMOCOUPLES. For J-B-T pyrometers and leads, thermocouples are carefully selected, standardized, and tested.

SA-87. 12" #14 Ga. chromed-alumel, 2-hole ceramic beads, fits 5/16" hole; welded tip **$3.40**

SA-91. 12" #14 Ga. iron-constantan, 1938 calibration; 2-hole ceramic beads, fits 5/16" hole; welded tip **$2.90**

Flexible Thermocouple, 7' length, see SA-86 lead wire.



SA-116 with SHIELD and CLIP. Flexible No. 22 gauge iron constantan, asbestos insulated, 5½', with attachment clip and convection shield for use with 23-JP-1, 32-JP-1, 32-JP-2, 32-JP-3, 32-JP-4, 32-JP-7, 60-JRT and 61-JRT Testers. (See SA-199 for extra quality, glass insulated type).
SA-116 ..... **$2.00**

SA-175 (PLAIN TIP). For roasters, waffle irons, etc., 5½' #22 Ga. with small ball tip; use where clip and shield unsuitable..... **$1.60**

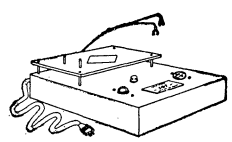
SA-176 (for TOASTERS, etc.). Same as SA-175 except tip has special disc to collect heat..... **$3.00**

SA-188 (for AUTOMATIC WASHER TEMPERATURES, etc.). 3/16" dia. copper tube, 4" long, encloses couple; for use in pipe or sample of water..... **$4.50**

SA-199 (with SHIELD and CLIP). Same as SA-116 except duplex, non-fraying glass braid construction; dia. .115"; for frequent use above 400°F. **$2.65**

SA-300 (for SURFACE READINGS). Spring-type I-C in Transite tip with handle and 5' #22 Ga. lead for rapid reading; not regularly stocked **$8.00**

ACCESSORY IRON TESTER, MODEL IT-1. This attachment is identical with 32-JIT except there is no meter....**$18.00**



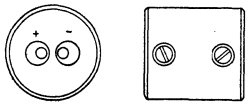
LEAD WIRES SA-82. 6' compensating lead for chromel-alumel couples; duplex stranded; asbestos-insulated, outside, moisture-proof and flame-proof, used on 650°F scales (not interchangeable with SA-84) **$1.70**

TRANSFORMERS. AS-TR-2. Attachment for 61-JRT, reads 30 and 60 AC amp scales on tester; includes jumper lead and panel **$18.00**
AS-TR-3. For 60-JRT tester. Reads 30 and 60 AC amp by dividing volt scale by 10 or 5. Complete with attachments..... **$20.00**

RESISTANCE BULBS (for cold testing). SA-142. Bulb with 14' polyethylene ribbon lead, for 60-JRT only..... **$6.50**

SA-162. Bulb, with 14' polyethylene ribbon lead, for 50-50 and 61-JRT testers **$6.50**

CONNECTOR BLOCK MODEL CB-1. Lava connector block, withstands high temperatures, accommodates all thermocouples. Heavy brass connectors keep contact resistance low. Usable with or without connector head **$1.85**

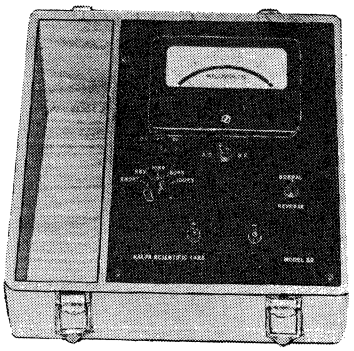


LEAD WIRES
SA-82, 6' for C-A couples **$1.70**
SA-84, 6' for I-C couples **$1.70**
SA-86, 7' I-C thermocouple and lead combined; #20 Ga., twisted pair asbestos insulated **$2.05**

Net Effective Aug. 28, 1961

KALPA SCIENTIFIC LABORATORIES

Manufacturers of High Voltage Components



HIGH RANGE KILOVOLTMETER

RANGES

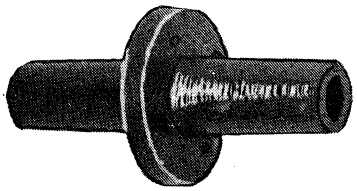
0 to 5,000/10,000/50,000/
100,000
Volts DC. or 60 cycles AC.

Model 50-AC or DC $400.00
Model 60-DC only $300.00

Measures extra high voltages as easy as standard low voltage tests. Special highly insulated probes are used for both AC and DC readings. Panel mounted trimpots allow for instant recalibration, should this ever be required. Large 6 inch mirror scale meter for maximum accuracy.

HIGH VOLTAGE CONNECTOR

Sturdily constructed of plastic high voltage barrier material. Designed for service up to 25,000 Volts DC. Use standard banana jack for connection. Mounts on either front panels, or H. V. tanks.



Model C-1 $10.00 each

HIGH VOLTAGE RELAYS

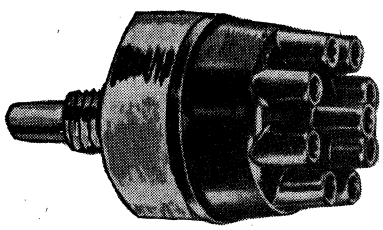
For polarity change-over and other H. V. circuit applications. Will carry up to 5,000 Volts DC or AC (RMS). 50 Milliamperes, resistive load switching. 5 amperes steady state current rating, (when crcuit is not being switched). Standard coil rated for 115 volts 60 cycles AC. Models available for 10,000 volt applications.

5 KV RATING		10 KV RATING	
Model RHV-DPDT-A	$60.00	Model TEN-DPDT-A	$80.00
RHV-SPDT-B	$40.00	TEN-SPDT-B	$60.00

HIGH VOLTAGE SWITCH

For use in High Voltage low current circuits. DPDT types and Single Pole six position types available. Nominal rating 5,000 Volts DC or AC (RMS at 60 cycles). May be used in lower duty circuits at up to 10,000 Volts.

Model SW-1 DPDT $20.00
SW-2 SP6T $20.00



See Your Local Distributor or Contact Us For His Address

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PACE
THE METER OF PRECISION

PANEL INSTRUMENTS FOR EQUIPMENT MANUFACTURERS

PACE Electrical Instruments Co., Inc. is the meter manufacturing affiliate of *PRECISION* Apparatus Co., Inc.

Behind the carefully integrated design and high quality performance of Pace Meters is over a quarter-of-a-century of experience in the manufacturing of fine electronic instruments.

SPECIAL PACE FEATURES

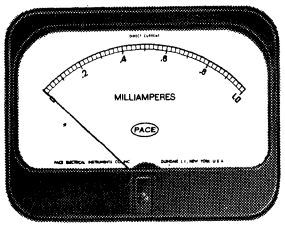
Apply to both standard external magnet and core-magnet meters.

- Full Double-Bridge D'Arsonval Movement
- Precision Die-Cast Movement Frame
- High Density Sintered Iron Pole Pieces
- Coined, Soft-Iron Pole Faces
- High-Flux Alnico Magnets
- Optimum Torque To Mass Ratio

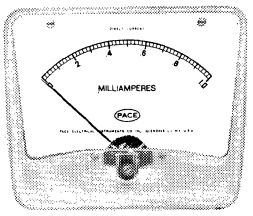
These features, coupled with strict quality control, result in a line of consistently dependable meters with superior shock and vibration characteristics, high accuracy and long, trouble-free life.

PACE meters are supplied in production quantities to meet the custom requirements of Original Equipment Manufacturers. (Specify External or Core Magnet).

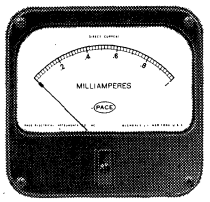
PACE stock meters are also available at leading electronic parts distributors.



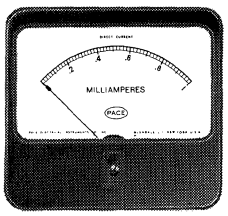
Model 55 . . . . 5¼"
Rectangular
Phenolic



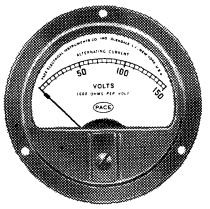
Model 15-LP . . . 1½"
Model 25-LP . . . 2½"
Model 35-LP . . . . . 3"
Model 45-LP . . . 4⅞"
Rectangular
Acrylic



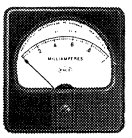
Model 42-W . . . 4¼"
Rectangular
Phenolic



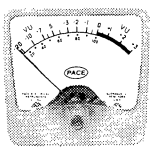
Model 45-L . . . 4⅝"
Rectangular
Phenolic



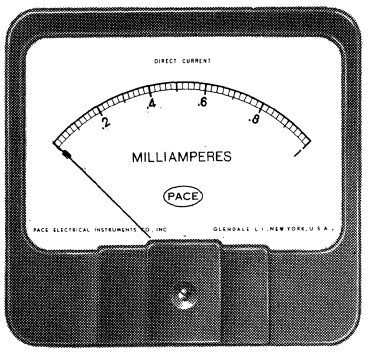
Model 25-R . . . 2½"
Model 35-R . . . 3½"
Round
Phenolic



Model 25-L . . . . . 2⅜"
Model 35-L . . . . . 3"
Rectangular
Phenolic



VU Meters
Available with
Standard A
or B Scales



Model 75 . . . . . 7"
Rectangular
Phenolic

Ranges	Approx. Resistance (ohms)	Models 25-L, 25-R, 25-LP* 15-LP*	Models 35-L, 35-R, 35-LP*	Models 42-W, 45-L, 45-LP*	Model 55	Model 75
D.C. MICROAMMETERS						
0-50	2000	$15.85	$16.40	$17.60	$19.35	—
0-100	1000	13.75	14.30	15.50	17.05	—
0-200	500	12.20	12.90	14.10	15.50	22.55
0-500	200	11.30	11.85	13.20	14.50	20.35
D.C. MILLIAMMETERS						
0-1	100	$10.35	$11.00	$12.20	$13.40	$18.70
0-2.5	40	10.35	11.00	12.20	13.40	18.70
0-5	20	10.35	11.00	12.20	13.40	18.70
0-10	10	10.35	11.00	12.20	13.40	18.70
0-50	2.0	10.80	11.45	12.65	14.00	19.55
0-100	1.0	10.80	11.45	12.65	14.00	19.55
0-250	.4	10.80	11.45	12.65	14.00	19.55
0-500	.2	10.80	11.45	12.65	14.00	19.55
D.C. AMMETERS						
0-1	.100	$10.80	$11.45	$12.65	$14.00	$19.55
0-2.5	.040	10.80	11.45	12.65	14.00	19.55
0-5	.020	11.35	12.00	13.20	14.50	20.10
0-10	.010	11.35	12.00	13.20	14.50	20.10
D.C. VOLTMETERS						
0-3	1000 ohms per volt	$11.20	$11.80	$13.00	$14.30	$19.80
0-10		11.20	11.80	13.00	14.30	19.80
0-15		11.20	11.80	13.00	14.30	19.80
0-50		11.20	11.80	13.00	14.30	19.80
0-150		11.20	11.80	13.00	14.30	19.80
0-250		11.20	11.80	13.00	14.30	19.80
0-500		11.80	12.45	13.65	14.95	20.65
A.C. VOLTMETERS						
0-3	1000 ohms per volt	$14.65	$16.25	$18.15	$20.00	$25.85
0-10		14.65	16.25	18.15	20.00	25.85
0-15		14.65	16.25	18.15	20.00	25.85
0-50		14.65	16.25	18.15	20.00	25.85
0-150		14.65	16.25	18.15	20.00	25.85
0-250		14.65	16.25	18.15	20.00	25.85
0-500		15.20	16.80	18.70	20.70	26.70
VU METERS A or B scales						
—20 to +3	3900	$19.05	$20.65	$22.55	—	—

All prices are subject to change without notice.

*Add 50 cents to prices indicated for "BLACK" acrylic cases Model 25-LPB, 35-LPB and 45-LPB. PACE external magnet meters are calibrated for use on non-magnetic panels. For use on magnetic panels state panel material and thickness and add $1.50 to prices indicated. Core magnet meters are not affected by panel.

Write for complete descriptive catalog to:

PACE Electrical Instruments Co., Inc. Glendale, L. I., N. Y.
(A subsidiary of Pacotronics, Inc.)

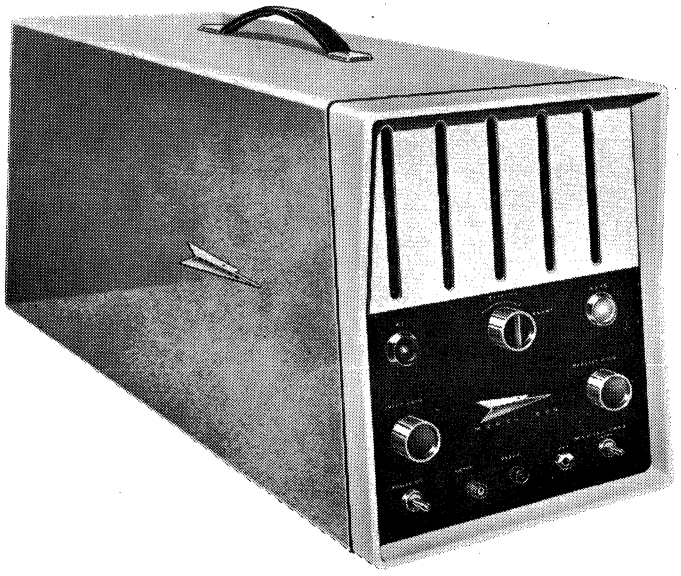
PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Pt. Washington, N. Y.

New Deluxe Line With The 'Professional Look' that spells professional performance

FIRST ELECTRONIC COUNTER IN KIT FORM



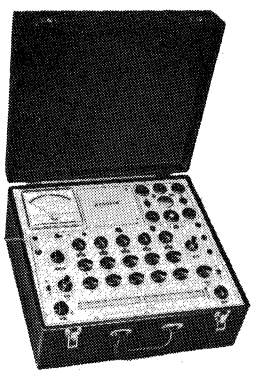
NEW! MODEL 801 DIGITAL READOUT ELECTRONIC COUNTER

A precision laboratory instrument in kit form, offering features heretofore found in wired instruments costing at least $450 more. The 801 will count any phenomenon occurring periodically or at random intervals. The 801 reads directly in cps, rps and cycles per tenth of a second. The display time is variable and the instrument has a frequency response from 1 cycle to 1.2 megacycles with an accuracy of ± 1 count ± 0.1%. (Accuracy of ± 1 count ± .01% with optional crystal.) Input minimum is .2 volts rms and the input attenator may be adjusted to inputs up to 100 volts rms. Input impedance is 1 megohm shunted by 50 uufd. The 801 is ruggedly built and beautifully styled. It is easily operated with carefully engineered controls and circuitry which employs only brand - name components operated at their design center. The 801 counter measures frequency, or random events per unit of time. With suitable transducers and calibration the 801 also measures rps, speed, rpm, weight, pressure, temperature, etc.

It is portable for on-the-spot-measurements.

Model 801K (kit) . . . . Net **$259.95**

Model 801W (wired) . . Net **$725.00**



MODEL 111 DELUXE MUTUAL CONDUCTANCE & EMISSION TUBE TESTER Advanced design tube tester kit. Checks both emission and mutual conductance separately — direct scale reading in micromhos—roll chart indicates the most important single test for normal applications. Tests all receiving tubes; also tests CRT's with PTA-K adapter.

Features rotary type switches; gas check; single-switch short check; anti-backlash roll chart. Tests for inter-element shorts. Allows filament current and tube bias to be measured on meter. Sweeps from zero voltage through normal testing range when making measurements. Has spare switch for future tube types. Sizes, 14x16x6". For 110-120 v., 60 cycle AC. Shipping Weight, 25 lbs.

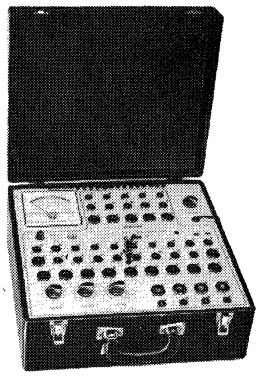
MODEL 111K, Kit, NET **$99.95**

MODEL 111W. Factory-wired. NET **179.95**

MODEL 116 EM & GM TUBE & TRANSISTOR CHECKER Accurate mutual conductance type tube tester kit for rapid testing of all receiving-type tubes and transistors. Makes emission, Gm, gas, life, and short tests. Checks individual sections of multisection tubes. Cover chart lists all popular tubes — gives switch settings. Moleskin covered wood carrying case. 7½x16½ x14½". For 110-120 v., 60 cycle AC. Shpg. weight, 16 lbs.

MODEL 116K. Kit. NET....**$79.95**

MODEL 116W. Factory-wired. **NET $159.95**



Model PTA Picture Tube Adapter

Adapts models 111 and 116 to check CRT's.

MODEL PTA-K (kit). NET..... **$2.95**

MODEL PTA-W. (wired). NET **$4.25**

All prices slightly higher in west

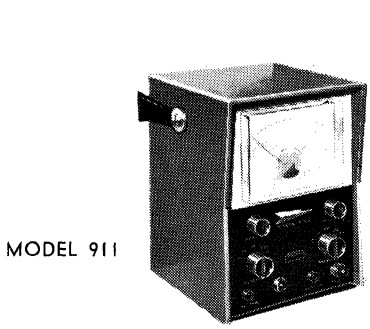
© U.C.P., Inc.

PRECISE TEST EQUIPMENT

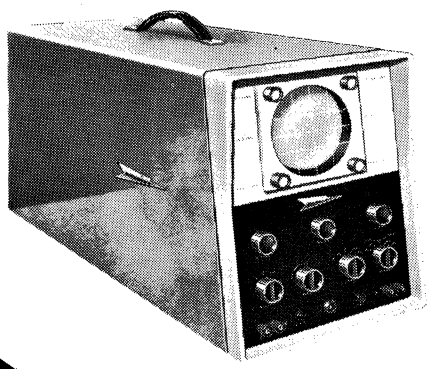
KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Pt. Washington, N. Y.

New Deluxe Line With The 'Professional Look' that spells professional performance

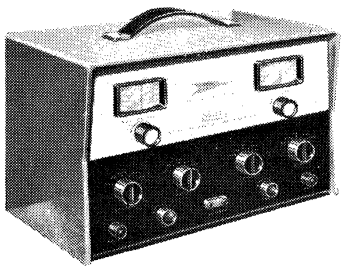


MODEL 911



MODEL 3153

MODEL 302



MODEL 632

PRECISE MODEL 911 VTVM No surplus components—only brand name precision ceramic and wirewound resistors, transformers which feel cool to the touch, permanently etched panels, rugged steel cabinets. In addition to offering overlapping +DC and —DC voltage ranges, from 5 volts full scale to 1000 volts full scale, the 911 will accurately measure the .2 ohm resistance of a dead short as well as cable insulation resistance of one billion ohms or more. AC voltages from 5 volts full scale to 1000 volts full scale can be measured and a db scale from —20 to 55 is provided.

The 911 does not load the circuit; its DC input resistance is 25 megohms, while its AC impedance is approximately 3.5 megohms. The 911 comes with a zero alignment scale for FM and TV discriminators, a 4½" meter in a burn-out proof circuit, test leads and internal battery. With the Precise 912 probe, the frequency response of the 911 may be extended to 250 megacycles. The Precise 999 high-voltage probe allows the 911 to be used up to 30,000 volts.

Model 911K (kit) net **$53.95; Model 911W** (wired) net **$79.95**

NEW! MODEL 3153 — 5" COLOR OSCILLOSCOPE The only reasonably priced wide band oscilloscope which offers flat response up to 5 megacycles. Useful response to beyond 9 megacycles. It is the only professional oscilloscope in the $100 range which offers these precision laboratory features:

Push-pull horizontal and vertical amplifiers—5CP1 cathode ray tube with post acceleration—frequency-compensated stepping attenuators in both vertical and horizontal circuits protect the input signal from wave distortion. Vertical sensitivity is 10 millivolts per cm. Horizontal amplifiers are within ± 6 db through 500 KC. and have a sensitivity of approximately 50 millivolts per cm. Cathode follower assures linear horizontal trace. A full complement of all standard oscilloscope controls, plus an astigmatism control, an intensity on-off switch, and a focus stand-by switch are included.

Model 3153K (kit) net **$104.95; Model 3153W** (wired) net **$149.95**

NEW! MODEL 302 7" WIDE BAND COLOR OSCILLOSCOPE It features direct-coupled push-pull horizontal and vertical amplifiers from input through output. Frequency response flat from DC to 5 megacycles with a vertical sensitivity of 3.94 millivolts per cm. Frequency-compensated stepping attenuators in both vertical and horizontal circuits protect the input signal from wave distortion. Constant impedance push-pull input which is easily converted to single-ended or reverse phase input. Electronic internal input mixing. Bridge-type beam positioning does not vary the characteristics of the medium persistence 7VF1 cathode ray tube which is supplied. The internal return trace is blanked, the external return trace is not blanked and 60-cycle or 120-cycle blanking is supplied by the blanking amplifier. Driven or non-driven linear sweeping rates are offered from 1 cycle to 30 KC in five ranges. Electronic magnification allows any portion of the signal to be enlarged up to 10 times—equivalent to 70 inches of horizontal deflection. An internal square wave calibrating potentiometer makes the 302 oscilloscope a precision VTVM for peak-to-peak measurements. Deflection plates are brought out at the rear of the cabinet and intensity modulation is offered through a Z-modulation amplifier.

The low-loss components, especially the transformers, are all operated well below their ratings. The oscilloscope has an edge illuminated scale with filtered screen and comes in a rugged steel cabinet with deeply etched aluminum panel. A demodulator probe (Precise Model 9127 (MM) and a capacity attenuator probe (Precise Model 960) are available as accessories.

Model 302K (kit) net **$159.95; Model 302W** (wired) net **$229.95**

NEW! MODEL 632 RF-AF-TV MARKER GENERATOR Offers frequencies up to 110 megacycles on fundamentals (to 330 megacycles on harmonics). The generator's audio range covers 20 to 20,000 cycles with variable modulation level and low impedance cathode follower output. The audio oscillator utilizes a Wien bridge circuit while the RF oscillator employs a Colpitts circuit. The Model 632 Marker Generator has many additional unique features specifically engineered for the serviceman's requirements. These include precision individually tuned coils, accurate non-slipping vernier tuning on the RF and AF range, complete shielding, drum dials and coaxial fittings. The economically priced Model 632 uses no surplus parts and all components are operated within wide safety margins.

Note: Factory preassembled and calibrated RF head available at slight additional cost.

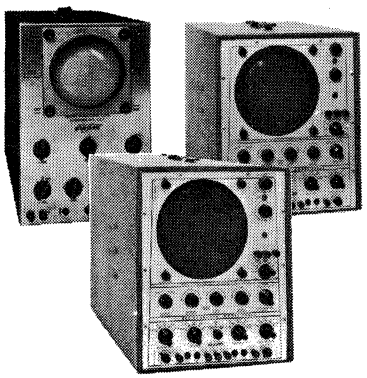
Model 632K (kit) net **$63.95; Model 632W** (wired) net **$89.95**

All prices slightly higher in west

PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

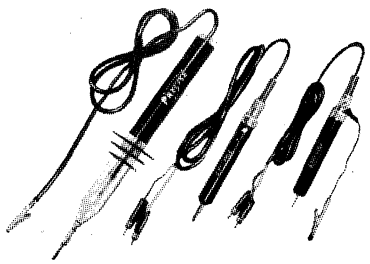
PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Pt. Washington, N. Y.



MODEL 300 7" COLOR OSCILLOSCOPE
Vertcial response ± 3 db up to 5 megacycles with sensitivity of 10 millivolts. Frequency-compensated vertical and horizontal stepping attenuators. Push-pull DC amplifiers; push-pull horizontal. Astigmatic focus control. Linear sweep from 1 cycle to 80 kc. Internal square wave calibrator with pot. Special circuit magnifies any portion of signal up to 10 times. 5-way binding posts, plus gate and sawtooth outputs on front panel. 111x4x17". For 110-120 v., 60 cycle AC. Wt. 35 lbs.
MODEL 300K. Kit. NET.....**$129.95; MODEL 300W.** Factory wired. NET.....**$199.95**

MODEL 3151K 5" COLOR OSCILLOSCOPE
Usable beyond 9 megacycles and flat through 5 megacycles. Vertical sensitivity 10 millivolts/cm. Push-Pull vertical and horizontal amplifiers—High sensitivity—5CP1 tube with post acceleration—Frequency Compensated Stepping Attenuators for both Vertical and Horizontal—Focus, Intensity and Astigmatism conrtols—Calibration output voltage.
MODEL 3151K. Kit. NET.....**$69.95; MODEL 3151W.** Factory wired. NET.....**$119.95**
MODEL 315—Like the famous 3151, except a low frequency version. Easy to use, general purpose oscilloscope with balanced push-pull vertical and horizontal—thru 500 kc.
MODEL 315K. Kit. NET.....**$59.95; MODEL 315.** Factory wired. NET.....**$94.95**

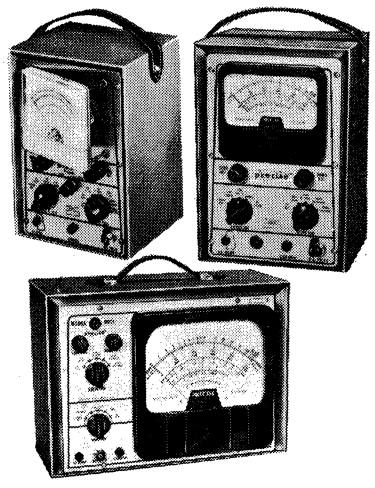
MODEL 308 DELUXE 8½" COLOR OSCILLOSCOPE
Features magnifier positioner; bridge-type centering; outstanding trace sharpness and speed; push-pull inputs for internally mixing 2 signals or observing push-pull waveforms. Vertical response, ± 1.5 db to 5 mc. Return trace eliminator. Linear sweep, 1 cycle to 80 kc. Square-wave calibrator. 11x14x19". For 110-120 v., 50-60 cycle AC. Wt., 36 lbs.
MODEL 308K. Kit. NET .....**$139.95; MODEL 308W.** Factory wired. NET.....**$229.50**



MODEL 999 HIGH VOLTAGE PROBE Designed for high voltage measurements with special emphasis on safety, operational simplicity and rugged construction. Exclusive Features: multiple Insulation, mechanically Shockproof; Changeable tips; Swivel connection. Interchangeable resistors. **Wired Only.**

MODEL 912 RF PROBE Lowest priced, factory-wired probe in the industry. Frequency range —rms readings from AF thru 250 mc. Built-in 600V blocking capacitor. Individually calibrated at 75 MC for accuracy, impedance and shunt capacity. **Wired Only.**

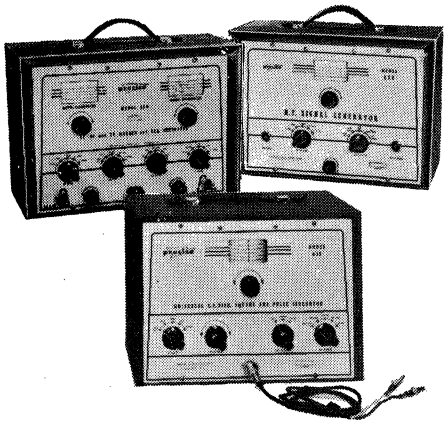
MODEL 960 CAPACITY ATTENUATOR PROBE (For 300 & 308 Scopes)
Reduces input C. and loading effects of an oscilloscope by 10 to 1. Adjustable for any scope. Frequency range thru 100 mc flat, input capacity less than 7 umfd. **Wired Only.**



MODEL 904 VACUUM TUBE VOLTMETER You can tilt the meter left, or right, or up, or down —or even straight ahead—so that it follows the user correcting for parallax all the way. Another Precise first is the "Lead Magician Switch"—which allows your leads to remain in any circuit while you short the VTVM for proper 'Zero Adjust' and open the leads for 'Infinite ohms Adjust'—all this without changing leads. Since three leads are provided, you can leave the 904 connected to both an AC and a DC voltage and take both measurements by rotating the FUNCTION switch and the Lead Magician Switch.
The 904 is fully B+ and B— regulated to maintain readings.
RANGES: AC-VOLTS: RMS 1.5, 5, 15, 50, 150, 500, 1,500 Peak to Peak 4, 14, 140, 400, 1,400, 4,000.
—DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500 +DC VOLTS: 1.5, 5, 15, 50, 150, 500, 1500 OHMS: Rx1; Rx10; Rx100; Rx1000; Rx10,000; Rx100,000; Rx1,000,000.
MODEL 904K. Kit. NET.....**$39.95; MODEL 904W.** Factory Wired. NET.....**$49.95**

MODEL 909 VACUUM TUBE VOLTMETER 1% Ceramic precision Resistors; Coax DC connector; FM zero alignment scale; burn-out proof circuit; 25 megohm input impedance on DC complete with test leads and internal battery. Rugged oversize 4½" meter. Wt. 10 lbs. 10" x 7" x 5".
RANGES: +DC: 0-5-25-250-500-1000 Volts; —DC: 0-5-25-250-500-1000 Volts; AC: 0-5-25-250-500-1000 Volts; Ohms: Rx1-Rx10-Rx1000-Rx10,000-Rx1,000,000 ohms; from .2 Ohms to 1 Billion Ohms; DB: From —20 to +55 DB.
MODEL 909K. Kit. NET.....**$29.95; MODEL 909W.** Factory wired. NET.....**$39.95**

MODEL 9071 . . .VACUUM TUBE VOLTMETER WITH VR.
VR TUBE assures true, accurate and stable readings . . . no drift . . . no shift . . . large, rugged 7½" meter; 1% ceramic precision capacitors; separate 5V AC scale; 25 MEG input on DC; true zero center; deeply etched aluminum panel; sturdy steel case; step-by-step 3 color construction book. Wt.: 11 lbs. Size: 11" x 8" x 5".
(same ranges as Model 909) **MODEL 9071K.** Kit. NET..... **$39.95**
MODEL 9071W. Factory wired. NET.....**$59.95**



MODEL 630-K. RF-AF AND TV MARKER GENERATOR
Reaches 110 mc on fundamentals; 330 mc on harmonics. Pre-assembled calibrated heads; audio, 20-20,000 cps; cathode follower output; variable percent modulation; speech amp.; crystal marker; RF, AF stand-by; Wien Bridge AF oscillator; Colpitts RF oscillator; coax fittings. Also has constant output impedance; Vernier tuning; separate RF section; individually tuned coils; full shielding; filtered line. Size 8x11x15". Has aluminum panel, leather carrying handle. For 110-120 v., 50-60 cycle AC.
MODEL 630K. Kit. NET.....**$44.95**
MODEL 630-KA preassembled RF head. NET.....**$47.50**
MODEL 630-W wired NET.....**$69.95**

MODEL 635 UNIVERSAL AF SINE, SQUARE AND PULSE GENERATOR
For accurate testing of audio and video circuits. 1% Ceramic precision resistors; Wien Bridge; variable Z and cathode-follower output; minimum overshoot and roundoff through 100,000 cycles; sine waves through 200 KC.
MODEL 635W. wired .....**$54.95; MODEL 635K** Kit.....**$39.95**

MODEL 610 RF SIGNAL GENERATOR
The lowest priced signal generator in the field offering:—Same RF head as Model 630; 110 MC on fundamentals; 330 MC on harmonics; 60 and 400 cycle AF; Cathode-follower output; Ext. Mod.; Speech Amp.; Individually tuned coils.
MODEL 610KA (pre-assembled head) NET....**$34.95; MODEL 610K** (Kit) NET....**$27.50**
MODEL 610W (wired) NET.....**$39.95**

All prices slightly higher in west

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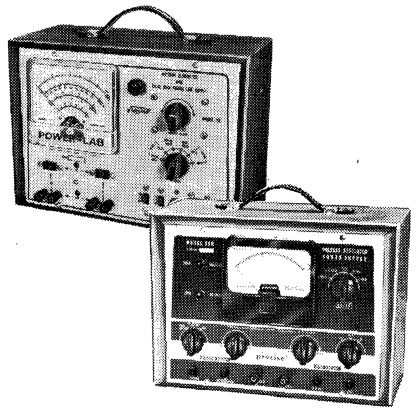
PRECISE TEST EQUIPMENT

KITS AND FACTORY WIRED

PRECISE ELECTRONICS & DEVELOPMENT CORP. Subsidiary of Designatronics, Inc., Pt. Washington, N. Y.



MODEL 760 . . . VOLTAGE REGULATED POWER SUPPLY
Compact versatility; a must for every serviceman, ham, and lab man. 140 volts to over 450 volts with 1% accuracy. Measures current, high voltage, high and low AC voltage. Rugged 4½" meter; heavy duty steel case. Wt.: 10 lbs. Size: 11" x 8" x 5". **Model 760K.** Kit. NET **$49.95; Model 760W.** wired. NET **$69.95**

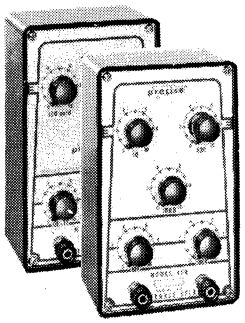
MODEL 713 POWER LAB Most versatile bench-type power supply kit on the market. Combines variable low and high-voltage AC and DC supplies, wattmeter, voltmeter, AC and DC ammeter, and isolation transformer in one compact unit. DC power available is 0-30 v. at 10 amps and 110-180 v. at .075 amps. (1 amp intermittent) AC power: 0-24 v at 20 amps; 90-140 v. at 10 amps continuous (1000 watts) and 20 amps intermittent (2000 watts) without isolation; 90-140 v. at 3 amps (300 watts) with isolation. Meter reads AC, DC current to 20 amps, AC, DC voltage to 180 v.; power to 2 KW. 12x8½x5¼". For 110-120 v., 60 cycle AC.

MODEL 713-K. (kit) (300 watts of isolation) NET **$69.95**

MODEL 713-W (wired) NET..... **$89.95**

MODEL 711-K. (kit) (100 watts of isolation) NET **$59.95**

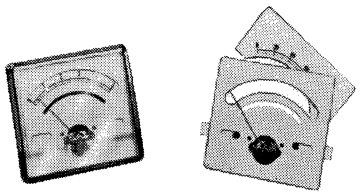
MODEL 711-W. (wired) NET..... **$74.95**



MODEL 478 . . . CAPACITY DECADE BOX Reaches over 1 MFD at 1% accuracy. FOUR DECADES. All capacitors are within 1%; Silver Mica and low-drift, molded, oil-impregnated. Deeply etched aluminum panel; rugged construction; complete with Simplified Construction Manual. Size 3¾" x 6¼" x 2". **478K.** (kit) NET **$18.95; 478W.** (wired) NET **$24.95.**

MODEL 468—RESISTANCE DECADE BOX 5 Separate Switches, 11 Positions on Each; better than ± 1% for Extreme Accuracy; Readings from 10 OHM to 1,111,110 OHM in 5 Decades. Deeply etched Aluminum Panel; Rugged Construction; Complete with famous Precise Simplified Construction Manual. High impact Bakelite case 3¾" x 6¼" x 2". **Model 468K** (kit) NET ..... **$18.95; Model 468W** (wired) NET **$24.95**

used and approved in the missile program . . . PRECISE PDC METERS



Can be adapted to cover any one of 100 voltage and current AC and DC ranges—no need to invest in many separate meters. Ideal for pilot runs, spot applications, in-the-field measurements—design, assembling, repair.

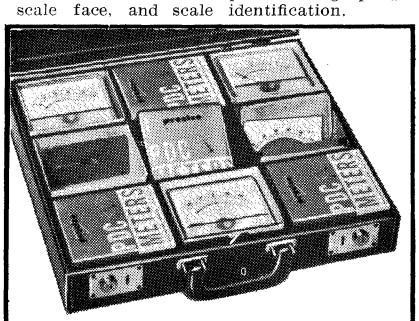
EACH METER FEATURES

- D'Arsonval Moving Coil Design
- Polished Jewels and Pivots
- Fatigue Tested Springs
- Stress-released units
- 2% Accuracy
- Knife-Edged Pointer
- Mirror Scale
- Lithographed Scale Faces
- High Quality Shunts and Multipliers
- Optional Illumination Packet
- Optional Shadow Mask
- Plastic Case
- Sizes: 2½", 3½", 4½"

PRECISE BRINGS UNLIMITED FLEXIBILITY TO METERS

Special interchangeable slip-on scales, and companion snap-in shunts and multipliers, add to the ranges that may be covered with six basic meters.

HERE'S HOW IT WORKS. Let's say you have a 15-volt, 20,000 ohms-per-volt meter, and you need a 2.5 volt, 20,000 ohms-per-volt meter for another application. All you do is to take the same 15-volt, 20,000 ohms/volt meter, open the case, slip out the interchangeable scale face, pull out the resistor in the rear . . . and then slip on a 2.5 scale face, snap in its companion multiplier into the lock-type jaws in the rear . . . and snap the cover back in place . . . and IN LESS THAN A MINUTE YOU HAVE A NEW CUSTOM METER—professionally accurate, perfectly calibrated custom meter with a special lithographed scale face, and scale identification.



SPECIAL PRECISE PDC METER PACKAGE

Here's a special introductory package from PRECISE, one which will provide you with complete coverage of all the ranges indicated above.

YOU GET: ● Six Meter Movements ● Interchangeable Scale Faces ● Shunts and Multipliers ● Illumination Packet ● Beautiful Attache-type Case ● Meter Master Chart

SPECS & RANGES

DC 1000 ohms/v VOLTS	DC 2000 ohms/v VOLTS	DC 20,000 ohms/v VOLTS	AC 1000 ohms/v VOLTS	DC Current AMP.	AC Current AMP.
.05	.05	.1		50 ua	
.5	.25	.5		100 ua	
1.0	.5	1.0	1	200 ua	
1.5	.75	1.5	1.5	400 ua	
2.5	1.25	2.5	2.5	500 ua	1 ma
3	1.5	3	3	1 ma	3 ma
5	2.5	5	5	3 ma	10 ma
10	5	10	10	10 ma	25 ma
15	7.5	15	15	25 ma	50 ma
25	12.5	25	25	50 ma	.1
30	15	30	30	.1	.25
50	25	50	50	.25	.3
100	50	100	100	.3	.5
150	75	150	150	.5	1.0
250	125	250	250	1.0	
300	150	300	300		
500	250	500	500		
1000	500	1000	1000		
1500	750	1500	1500		

ANY ONE OR MORE OF THE ABOVE METERS SET UP WITHIN ONE MINUTE. OTHER SPECIAL SCALES, SUCH AS VU-DB, AVAILABLE, AS WELL AS ZERO CENTER GALVANOMETER.

ALL PRICES SLIGHTLY HIGHER IN WEST

PRECISION APPARATUS COMPANY, INC.

MODEL 120
LABORATORY-TYPE MIRRORED-SCALE V-O-M

The most comprehensive V-O-M ever offered within its price range. It features 61 ranges and functions specifically designed for industry, lab., maintenance shop and technical school.

20,000 OHMS-PER-VOLT DC 5,000 OHMS-PER-VOLT AC
61 RANGES
EXTRA-LOW RESISTANCE RANGE 2 ohms at center scale
EXTRA-LOW VOLTAGE RANGES 0.3 V full scale DC, 1.2 V full scale AC
EXTENDED LOW-CURRENT RANGE 60 μA first DC range
EXTRA-LARGE 5½" mirrored-scale **PACE METER**
DC POLARITY REVERSING SWITCH
WIDE FREQUENCY RESPONSE AC AND DB RANGES
"TRANSIT" POSITION ON RANGE SELECTOR
9 DC VOLTAGE RANGES 20,000 ohms-per-volt (neg. and pos. reading) 0-0.3-1.2-3-12-60-300-600-1200-6000 V.
8 AC AND OUTPUT VOLTAGE RANGES 5000 ohms-per-volt (wide frequency response); built-in 600 V blocking capacitor; 0-1.2-3-12-60-300-600-1200-6000 volts
7 DC CURRENT RANGES (neg. and pos. reading) 0-60-300 μamps; 0-1.2-12-120-600 Ma; 0-12 amps
5 RESISTANCE RANGES (self-contained batteries) 0-200-2000-200,000 ohms; 0-2-20 megohms
8 WIDE-FREQUENCY DECIBEL RANGES—20 to +77 Db
1% MULTIPLIERS AND SHUNTS
DIMENSIONS 5⅜" x 7" x 3⅛"
NET PRICE **$44.95**

MODEL 120M HIGH-ACCURACY
LABORATORY-TYPE MIRRORED-SCALE V-O-M

Designed for industrial and lab. applications. It incorporates every feature and all of the wide-spread ranges of Model 120 PLUS the features listed below.

20,000 OHMS-PER-VOLT DC 5,000 OHMS-PER-VOLT AC
½% ACCURACY MULTIPLIERS AND SHUNTS
1% ACCURACY MIRRORED-SCALE PACE METER
HIGH-ACCURACY MULTIPLIERS AND SHUNTS AND METER ±1½% accuracy DC, ±3% AC
ALL OTHER PHYSICAL AND ELECTRICAL SPECIFICATIONS are identical with Model 120 described above
DIMENSIONS 5⅜" x 7" x 3⅛"
NET PRICE **$55.95**

MODEL 110
POCKET-SIZE HIGH-SENSITIVITY V-O-M

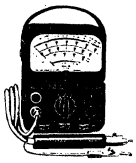
This rugged, pocket-size test set features full-size instrument performance and readability, incorporating an unmatched combination of ranges and functions for use in industrial and service applications.

20,000 OHMS-PER-VOLT DC 5,000 OHMS-PER-VOLT AC
7 DC VOLTAGE RANGES (20,000 ohms-per-volt) 0-0.3-1.5-6-30-150-600-3000 volts
6 AC VOLTAGE RANGES (5,000 ohms-per-volt) 0-1.5-6-30-150-600-3000 volts
5 DC CURRENT RANGES 0-60-600 μA; 0-6-60-600 Ma
3 RESISTANCE RANGES (self-contained batteries) 0-2000-200,000 ohms; 0-20 megohms
6 DECIBEL RANGES from −20 to +71 Db
RUGGED 3½ INCH WIDE-VISION PACE METER
1% MULTIPLIERS AND SHUNTS
DIMENSIONS: 1-11/16" x 3½" x 5⅜"
NET PRICE **$35.95**

MODEL 68
METAL-CASED V-T-V-M WITH PEAK-TO-PEAK VOLTAGE RANGES

A wide-range AC-operated general-purpose electronic multirange tester especially developed to meet the demand for a comprehensive V-T-V-M at a modest price. Designed for industrial applications, maintenance, general electronic service and technical schools. Complete with 3-way Coaxial DC-AC Probe and internal ohmmeter battery.

5 PLUS (+) AND 5 MINUS (−) DC VOLTAGES (left-hand zero) 13⅓ megohms input resistance, 0-3-12-60-300-1200 volts DC
5 WIDE-SPREAD RESISTANCE RANGES 0-1000-100,000 ohms; 0-1-100-1000 megohms
5 HIGH-IMPEDANCE R.M.S. AC VOLTAGE RANGES 0-3-12-60-300-1200 volts R.M.S.
5 PEAK-TO-PEAK VOLTAGE RANGES direct reading 0-8-32-160-800-3200 volts P-P
5 STABILIZED ZERO-CENTER REFERENCE RANGES specifically provided for simplified FM discriminator balancing, voltage polarity determination, etc.
4 HIGH-FREQUENCY RF PROBE RANGES (available through use of accessory Crystal Probe, Model RF-12) 0-3-12-30-120 RF volts (R.M.S.)
ONE COAXIAL 3-WAY VTVM PROBE
1% MULTIPLIERS AND SHUNTS
RUGGED 5½" WIDE-VISION PACE METER
DIMENSIONS 5⅞" x 7¾" x 3½"
NET PRICE **$71.95**



MODEL 88
HIGH-IMPEDANCE LABORATORY-TYPE VACUUM TUBE VOLTMETER with PEAK-TO-PEAK VOLTAGE RANGES TO 3200 VOLTS

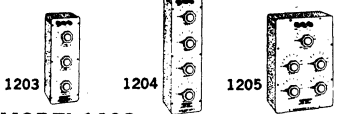
Specially-engineered peak-to-peak voltage ranges afford a new high in peak-to-peak reading accuracy of pulsed waveforms as are encountered in industrial control equipment, TV and similar applications.

MODEL 88, complete with 3-way Coaxial VTVM Probe, detachable AC line cord

7 FUNCTIONS 40 RANGES
6 TRUE ZERO-CENTER DC VOLTAGE RANGES (26⅔ megohms input) 0 to ±1.2, ±6, ±12, ±60, ±300, ±1200 volts DC
5 OHMMETER RANGES 0-1000-10,000 ohms, 0-1-100-1000 megohms
6 MINUS (−) AND 6 PLUS (+) DC VOLTAGE RANGES (left-hand zero) 13⅓ megohms input resistance 0-1.2-6-12-60-300-1200 volts
6 HIGH-IMPEDANCE R.M.S. AC VOLTAGE RANGES 0-1.2-6-12-60-300-1200 volts R.M.S.
6 HIGH-IMPEDANCE P-P AC VOLTAGE RANGES 0-3.2-16-32-160-800-3200 volts P-P
5 HIGH-FREQUENCY PROBE RANGES. Input approximately 5 mmf, 0-1.2-6-12-60-300 volts R.M.S. (Requires accessory High Frequency Vacuum Tube Probe, Model RF-10A)
1 UNIVERSAL COAXIAL DC-AC VTVM PROBE
5½" WIDE-VISION PACE METER
1% MULTIPLIERS AND SHUNTS
DIMENSIONS 5⅜" x 7" x 3⅛"
NET PRICE **$89.95**

DECADE RESISTORS

Designed for use as lab. standards, and general industrial laboratory use.

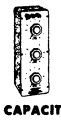


MODEL 1203 999 ohms in steps of 1 ohm (3 dials), size 11¾" x 4" x 5¼".
NET PRICE..... **$74.95**

MODEL 1204 9,999 ohms, in steps of 1 ohm (4 dials), size 14¾" x 4" x 5¼".
NET PRICE..... **$89.95**

MODEL 1205 99,999 ohms in steps of 1 ohm (5 dials), size 11¾" x 7¼" x 5¼".
NET PRICE..... **$109.95**

ACCURACY WITHIN ±0.1% except 1-ohm units which are adjusted to ±0.15%
EXCELLENT STABILITY achieved through use of selected alloys, ceramic forms and careful high-temperature aging
TEMPERATURE COEFFICIENT OF RESISTANCE less than ±0.002% per degree Centigrade; minimum residual reactances
TERMINALS Insulated Jack-top Posts



DECADE CAPACITOR MODEL 1303

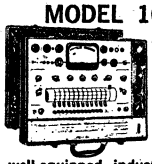
For lab. and industrial test purposes where a high degree of stability and wide range are important.

CAPACITANCE RANGE .001 mf to 1.110 mf
THREE DECADE UNITS in steps of .001, .01 and 0.1 mf
ALL UNITS ACCURATE WITHIN ±1%
MAXIMUM VOLTAGE 400 V peak or DC
TERMINALS Jack-top Binding Posts
METAL CASE AND PANEL for maximum shielding
POLYSTYRENE AND SILVERED MICA CAPACITORS
DIMENSIONS 11¾" x 4" x 5¼"
NET PRICE **$89.95**

MODEL E-310
WIDE RANGE SINE AND SQUARE WAVE GENERATOR

The only generator on the market today to offer both sine and square wave coverage from 5 cps to 600 Kc at a moderate price.

EXTRA-WIDE FREQUENCY RANGE *sine and square* waves from 5 cycles per second to 600 Kc in 5 decimal bands; ±2% reading accuracy (or 1 cycle)
OUTPUT CHARACTERISTICS within ±1 Db over each band and within ±1 Db band-to-band
DISTORTION less than 1% from 5 cps to 600 Kc
LEVEL: Sine wave, 10 volts R.M.S. into 600 ohms; Square wave, 10 volts P-P, 0.2 μsec. rise time; 4-position step attenuator and continuous amplitude control
METERING TERMINALS at front of panel for convenient monitoring of output level via use of external VTVM, VOM or VU meter.
6" DIAMETER TUNING DIAL with 12-1 drive ratio; provides scale lengths of 85" over the 5 bands
DIMENSIONS 9" x 11½" x 11¼"
NET PRICE **$199.95**



MODEL 10-60 *Electronamic*
TUBE AND TRANSISTOR TESTER with ULTRA-SENSITIVE DIRECT-READING GAS TEST

An advanced, industrial-type instrument engineered to meet the needs of modern electronic production and maintenance testing. This instrument will find an important place in the well-equipped industrial laboratory, service shop, and technical school, offering an unparalleled combination of functions at a remarkably low price.

MODEL 10-60, complete with Transistor Adapter Cable and detailed technical manual.

TESTS
1. VACUUM TUBES
2. LOW AND HIGH POWER TRANSISTORS
3. CRYSTAL DIODES
4. VOLTAGE REGULATOR TUBES
5. TV PICTURE TUBES

TUBE TESTING:
POSITIVE, ALL-INCLUSIVE TEST OF TUBE PERFORMANCE not limited to mutual conductance alone; effectively tests tubes over complete path of operation, not at just one arbitrary point
ULTRA-SENSITIVE GAS TEST CIRCUIT detects gas content on **PACE** 50 μA 5½" meter
FREE-POINT LEVER ELEMENT SELECTOR SYSTEM affords utmost protection against obsolescence
DUAL SHORT-CHECK SENSITIVITY special low-voltage short-check circuit
BUILT-IN PIN STRAIGHTENERS for 7- and 9-pin types
TESTS TUBES for regulation, at manufacturers' specified current limits
PROVIDES FOR TESTING FOREIGN-TYPE TUBES
5-WINDOW GEARED ROLL CHART provides the ultimate in space for data listing for all tube and transistor test settings

TV PICTURE TUBE TESTING:
SPECIALLY-ENGINEERED CIRCUIT provides picture-producing beam current test (requires optional accessory Model PTA Picture Tube Cable Adapter and Model PAA 110° Socket Adapter)

TRANSISTOR AND CRYSTAL DIODE TESTING
WIDESPREAD Icbo RANGES COVER ALL TYPES OF TRANSISTORS low, medium and high power
WIDE RANGE OF COLLECTOR POTENTIALS 0.5 volts DC to 160 volts DC in 22 steps
DIRECT READING BETA RANGES circuit provides for separate injection currents for low and high-power types
CRYSTAL DIODE TESTS 22 DC voltages for forward and reverse current tests
LEVER SELECTOR PLUS UNIVERSAL SEMI-CONDUCTOR ADAPTER provides accommodations for all present and future semi-conductor releases

GENERAL INFORMATION:
TUBE AND TRANSISTOR TEST DATA SUBSCRIPTION SERVICE FREE to registered owners for first year; thereafter at a nominal cost
DIMENSIONS 20" x 15" x 7"
NET PRICE **$236.95**

MODEL 10-40
Electronamic TUBE TESTER with DIRECT-READING GAS TEST

A superbly-designed industrial-type instrument engineered to provide positive, all-inclusive testing of tube performance... not limited to mutual conductance alone.

TESTS
1. VACUUM TUBES
2. VOLTAGE REGULATOR TUBES
3. TV PICTURE TUBES

TUBE TESTING:
POSITIVE, ALL-INCLUSIVE TEST OF TUBE PERFORMANCE not limited to mutual conductance alone; effectively tests tubes over complete path of operation
ULTRA-SENSITIVE GAS TEST CIRCUIT directly detects troublesome gas content via built-in V-T-V-M
TESTS ALL MODERN TUBE TYPES INCLUDING SUB-MINIATURES
FREE-POINT LEVER ELEMENT SELECTOR SYSTEM affords utmost protection against obsolescence
DUAL SHORT-CHECK SENSITIVITY special low-voltage short-check circuit
BUILT-IN PIN STRAIGHTENERS for 7- and 9-pin types
TESTS TUBES for regulation, at manufacturers' specified current limits
PROVIDES FOR TESTING FOREIGN-TYPE TUBES
3-WINDOW GEARED ROLL CHART provides the ultimate in space for data listing for all tube and test settings

TV PICTURE TUBE TESTING
SPECIALLY-ENGINEERED CIRCUIT provides for picture-producing beam current test (requires optional accessory Model PTA Picture Tube Cable Adapter and Model PAA 110° Socket Adapter)

GENERAL INFORMATION
TUBE TEST DATA SUBSCRIPTION SERVICE FREE to registered owners for first year; thereafter at a nominal cost
DIMENSIONS 20" x 15" x 7"
NET PRICE **$175.95**

**Reg. U.S. Patent Office*

ALL *PRECISION* TEST EQUIPMENT IS GUARANTEED FOR ONE FULL YEAR

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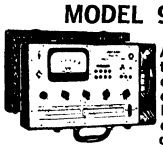
ELECTRONIC TEST EQUIPMENT



MODEL 960 TRANSISTOR AND CRYSTAL DIODE TESTER

A comprehensive semi-conductor test set for reliable testing of transistors and crystal diodes. Operating parameters have been engineered in co-operation with leading semi-conductor manufacturers. Line operated, complete with Transistor Test Cable.

TESTS

1. **LOW-POWER TRANSISTORS**
2. **MEDIUM-POWER TRANSISTORS**
3. **POWER TRANSISTORS**
4. **CRYSTAL DIODES**

DIRECT Icbo READINGS

FIVE Icbo RANGES cover all types of transistors – low, medium and high power; n-p-n and p-n-p types

WIDE RANGE OF COLLECTOR POTENTIALS 0.5 volts DC to 100 volts DC in 17 steps

DIRECT-READING BETA RANGES. Circuit provides for 5 injection currents for low, medium and power types

CRYSTAL DIODE TESTS. 17 DC voltages for reverse current tests; also provides for forward tests

WIDE-ANGLE 5½" 100 MICROAMP PACE METER

TRANSISTOR TEST SETTINGS listed on roller chart

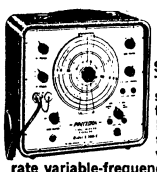
PATCHCORD ELEMENT SELECTOR SYSTEM AND UNIVERSAL SEMI-CONDUCTOR ADAPTER provide for accommodation of future semi-conductor releases

HIGH-SPEED GEARED ROLL CHART

TRANSISTOR AND CRYSTAL DIODE TEST DATA SUBSCRIPTION SERVICE FREE to registered owners for first year, thereafter at a nominal cost

DIMENSIONS 18" x 10½" x 6¼"

NET PRICE **$109.95**



MODEL E-200C

MULTI-BAND SIGNAL-MARKING GENERATOR

The famous general purpose RF signal generator whose exceptional stability and accuracy have made it the #1 choice of technicians and schools everywhere. Also serves as an accurate variable-frequency Marker Generator. MODEL E-200C, complete with output cable.

FREQUENCY COVERAGE 88 Kc to 440 Mc (to 110 Mc on fundamental)

6½" BRUSHED ALUMINUM DIAL direct reading in 10 bands up to 440 Mc; 1% accuracy on all bands

0-1000 POINT VERNIER SCALE

THE CIRCUIT 6AU6 in stable E.C.O. circuit; 6U8 audio oscillator-modulator; 5Y3 full wave rectifier

400-CYCLE SINE WAVE AUDIO OSCILLATOR with over 50 volts output, fully adjustable at front panel

DUAL-SHIELDED RF ATTENUATORS

COMPARTMENT SHIELDING of vital components; AC line is RF filtered

SHIELDED COAXIAL OUTPUT CABLE AND (LO-HI) CABLE CONNECTORS

FOUR TYPES OF SIGNALS. Unmodulated RF, 400 cps Modulated RF, Externally-modulated RF, 400 cps Audio Output

DIRECT-READING VARIABLE MODULATION CONTROL 0-100%; triples signal utility as against obsolete fixed or stepped modulation of only 30% or 40%

BUILT-IN AVC-AGC BIAS SUBSTITUTION

EACH INSTRUMENT INDIVIDUALLY HAND CALIBRATED

DIMENSIONS 11½" x 13" x 6⅝"

NET PRICE **$109.95**

MODEL E-400

SWEEP SIGNAL GENERATOR

Application-engineered for FM and TV visual alignment procedures. Unparalleled standard of performance and value for the efficient TV and FM service lab and test bench. Complete with 2 megacycle and 4.5 megacycle crystals, cables, leads.

DIRECT FREQUENCY READING 3 to 900 Mc in 8 bands; harmonically calibrated from 390 to 990 Mc

ALL VHF CHANNELS DIRECTLY CALIBRATED on tuning dial (channels 2 thru 13)

6½" SATIN BRUSHED-ALUMINUM TUNING DIAL

INTERNAL RETRACE BLANKING CIRCUIT eliminates dual traces

NARROW AND WIDE-BAND ZERO-CENTER SWEEP CIRCUIT 0-1 Mc and 0-15 Mc

DUAL CONTINUOUS RF ATTENUATORS triple shielded

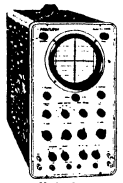
WIDE-RANGE PHASING CONTROL

MULTIPLE CRYSTAL MARKER-CALIBRATOR built-in; 0.02% accuracy; 4.5 Mc and 2 Mc crystals supplied

TERMINATED RG/U TYPE COAXIAL OUTPUT CABLE

DIMENSIONS 11½" x 13" x 6⅝"

NET PRICE **$194.95**



MODEL ES-550B

5-MEGACYCLE HIGH-SENSITIVITY 5" OSCILLOSCOPE

The complete answer to laboratory, industrial and electronic technicians' requirements for a rugged, dependable instrument for broadest coverage of oscilloscope applications including color TV. Provides an unparalleled standard of extra-high sensitivity with full 5-megacycle wide-frequency response.

RESPONSE, 10 CYCLES TO 5 MEGACYCLES

PUSH-PULL WIDE-BAND VERTICAL AMPLIFIER
10 MV (.01 volts) per inch sensitivity
Cathode-follower Input: 2 megohms and 22 mmf
Response 1 Db from 10 cps to 3.5 Mc; 3 Db at 5 Mc

3-POSITION VERTICAL STEP ATTENUATOR frequency-compensated; X100, X10, X1

DIRECT-READING PEAK-TO-PEAK VOLTAGE CALIBRATOR permits use of oscilloscope as dependable high-impedance Vacuum Tube Voltmeter

VERTICAL PATTERN REVERSING SWITCH

PUSH-PULL WIDE-RANGE HORIZONTAL AMPLIFIER
100 MV (0.1 volts) per inch sensitivity
Cathode-follower Input: 2 megohms and 22 mmf
Response 1 Db from 10 cps to 1.0 Mc; 3 Db at 2 Mc

3-POSITION HORIZONTAL STEP ATTENUATOR frequency compensated; X100, X10, X1

LINEAR MULTI-VIBRATOR SWEEP CIRCUIT
10 cycles to 100 Kc; automatically synchronized 30 cycles and 7875 cycles sweep for TV sync-pulse analysis; amplified sweep retrace blanking

AMPLIFIED AUTO-SYNC CIRCUIT

FOUR-WAY SYNC SELECTION
Internal negative, Internal Positive, External & Line

3000-VOLT INTENSIFIER ANODE POTENTIAL assures utmost visibility of oscilloscope traces for pulsed waveforms and high frequencies

"Z" AXIS INPUT TERMINAL for blanking, timing and marking

BUILT-IN 60 CPS PHASING AND BLANKING CONTROLS

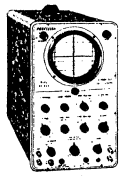
ALL 4 DEFLECTION PLATES READILY AVAILABLE

HIGH-CONTRAST FILTER-TYPE ILLUMINATED GRATICULE

CAMERA MOUNT BEZEL

DIMENSIONS 8¼" x 14½" x 18½"

NET PRICE **$274.95**



MODEL ES-525

GENERAL PURPOSE 5" OSCILLOSCOPE

This highly-stable general-purpose oscilloscope affords the maximum in performance and operation flexibility at moderate cost.

PUSH-PULL VERTICAL AMPLIFIER
Response: 3 Db from 10 cps to 500 Kc; 6 Db to 700 Kc
20 MV (.020 V) R.M.S. per inch sensitivity
Input: 3.3 Megohms and 40 mmf

3-POSITION VERTICAL STEP ATTENUATOR frequency compensated X100, X10, X1

DIRECT-READING BUILT-IN P-P VOLTAGE CALIBRATOR

EXCELLENT SQUARE WAVE RESPONSE 20 cps to 50 Kc

PUSH-PULL HORIZONTAL AMPLIFIER
Response: 3 Db from 10 cps to 150 Kc (at full gain)
60 MV (.060 V) R.M.S. per inch sensitivity
Input: 2.2 Megohms, 30 mmf

INTERNAL LINEAR SWEEP 10 cps to 100 Kc as low as 2 cps with external capacitor

SYNCHRONIZATION Neg, Pos, External and Line

BUILT-IN SINE SWEEP PHASING CONTROL

"Z" AXIS MODULATION INPUT TERMINAL

DEFLECTION PLATES AT REAR

AUDIBLE MONITORING FACILITIES via tip jacks

ILLUMINATED GRATICULE (VARIABLE INTENSITY)

CAMERA MOUNT BEZEL

DIMENSIONS 8¼" x 14½" x 18½"

NET PRICE **$197.95**

MODEL SP-5

OSCILLOSCOPE TEST PROBE SET

Important accessories for application of an oscilloscope to sensitive electronic circuits and to analysis of complex waveforms. For use with all previous and current *PRECISION* Oscilloscopes.

SET INCLUDES:

HIGH-IMPEDANCE/LOW-CAPACITY PROBE –10 to 1 divider type

CRYSTAL DEMODULATING PROBE

RESISTIVE ISOLATING PROBE

DIRECT PROBE (shielded)–plus Master Cable

NET PRICE **$29.95**

ALL *PRECISION* TEST EQUIPMENT IS GUARANTEED FOR ONE FULL YEAR

PRECISION
TEST INSTRUMENTS BY
PACOTRONICS

NOW INTRODUCES AN ALL NEW LINE OF BUDGET PRICED TEST INSTRUMENTS FOR INDUSTRIAL MAINTENANCE AND COMMUNICATIONS.

- **MODEL RS-24,** *Regulated power supply* ..... *net price* **$ 99.95**
- **MODEL 650,** *Grid circuit analyzer tube tester* ..... *net price* **69.95**
- **MODEL ES-150,** *Wide band oscilloscope* ..... *net price* **149.95**
- **MODEL 48,** *VTVM* ..... *net price* **55.95**
- **MODEL IC-60,** *In-circuit capacitor tester* ..... *net price* **32.95**
- **MODEL P-28,** *Battery eliminator and charger* ..... *net price* **64.95**
- **MODEL CB-26,** *Resistance-capacity-ratio bridge* ..... *net price* **79.95**
- **MODEL ST-22,** *RF-AF signal tracer* ..... *net price* **59.95**
- **MODEL 1904,** *Decade condenser* ..... *net price* **29.95**
- **MODEL 1601,** *Decade resistor/divider* ..... *net price* **29.95**
- **MODEL 1803,** *Condenser substitution box* ..... *net price* **12.95**
- **MODEL 1702,** *Resistance substitution box* ..... *net price* **15.95**
- **MODEL E-75,** *RF signal generator* ..... *net price* **49.95**

***It's the 1961 PRECISION/PACE Catalog of Electronic Test Equipment for* INDUSTRY • COMMUNICATIONS • SERVICE •**

providing detailed specifications of the PRECISION instruments on these pages

Plus

MODEL 660, *Tube and Transistor Checker*
MODEL 640, *Tube Checker*
MODEL E-420, *Dot and Bar Generator*
MODEL E-440, *Color Bar Generator*
MODEL 100, *V-O-M*
MODEL 98, *VTVM*
MODEL SS-10, *Series String Filament Checker*

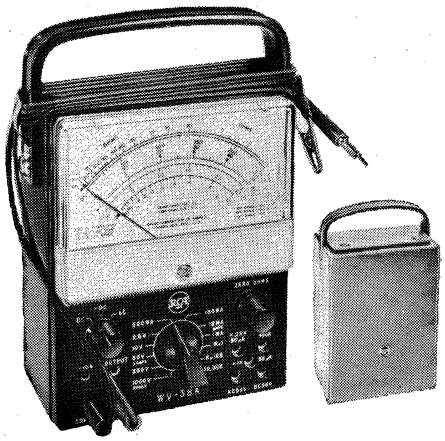
Write for your copy to:

Precision Apparatus Company, Inc.
(a subsidiary of Pacetronics, Inc.)
Glendale 27, New York

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-38A V-O-M (KIT or WIRED)



Ohms-divider network fuse-protected. Easier-to-read scales on extra-large 5¼ inch meter. Polarity reversal switch. Full-wave bridge rectifier. Less circuit loading. Standard dbm ranges.

Extra 1-volt and 0.25-volt (250 mv) ranges.

Handle clips accommodate probes and test leads for extra carrying convenience.

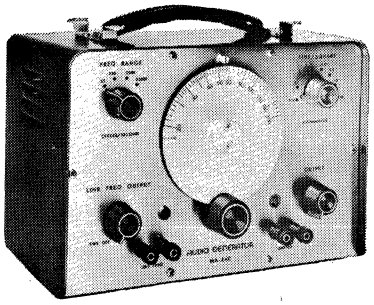
The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on dc and 5,000 ohms-per-volt on ac and an accuracy of ±3% of full scale on dc, ±5% of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 5000 volts, ac and dc; 50 μamp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—R x 1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000,000 ohms). Dimensions: W 5¼" x H 6⅞" x D 3⅜".

$29.95* WV-38A(K) VOM Kit
$43.95* WV-38A VOM (factory wired and calibrated)

WG-270A Accessory Carrying Case for WV-38A VOM **$4.95***

**User Price (Optional)*

WA-44C AUDIO SIGNAL GENERATOR
SINE/SQUARE WAVE OUTPUT



$98.50* Complete with 20 page instruction booklet.

**User Price (Optional)*

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-125 volt source, and covers in four bands a range from 20 cps to 200,000 cps. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and enclosures or finding the impedance of LC combinations. Width 10 11/16", Height 7", Depth 6⅛".

The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ±1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squareware output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measurements
- Wide frequency range, 20 cps to 200,000 cps.
- Less than ¼ of 1% distortion over the audio-frequency range

WR-64A COLOR-BAR/DOT/CROSSHATCH GENERATOR

$189.50*

Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

**User Price (Optional)*

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously. Also provides extremely stable fine-line crosshatch and dot patterns free from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both color and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require no external sync connections. All three patterns are RF outputs, factory set to channel 3 (can be set to channel 4). A sound carrier is provided to permit accurate adjustment of the fine-tuning control on the receiver.

The WR-64A features a chroma control helpful in checking color sync lock and color AFC alignment. The color sub-carrier frequency, the horizontal sync-pulse frequency, and the "bar" frequency are all crystal controlled. A shielded output cable is provided with the instrument. Width 13½", Height 10", Depth 7½". Weight only 13 pounds.

Net

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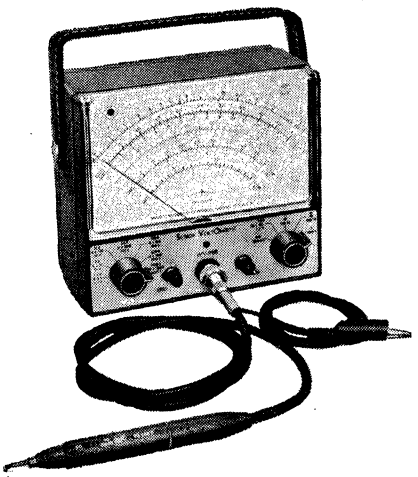
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-98B Senior VoltOhmyst® (Kit or Wired)



Application: provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync and deflection circuits. Includes an improved circuit providing 3% accuracy full scale on both ac and dc measurements with better than 1% tracking error. Separate color-coded, peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Features die-cast aluminum case; high input resistance; electronic protection against burnout; rugged 200-microampere meter movement; and precision multiplier resistors with accuracy of ±1%.

- **Large 6½" easy-to-read, full vision meter (26 sq. in.).**
- **Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak in 7 overlapping ranges.**
- **Measures rms values of sine waves from 0.1 volt to 1500 volts in 7 overlapping ranges.**
- **Measures from 0.02 volt to 1500 volts dc on two scales in 7 overlapping "3-to-1" ranges.**
- **INPUT RESISTANCE — 11 megohms on all dc ranges.**
- **Measures resistance from 0.2 ohms to 1000 megohms on single scale, with 7 overlapping ranges.**
- **FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.**
- **Compact design: 7" wide, 3¾" deep, 6½" high.**

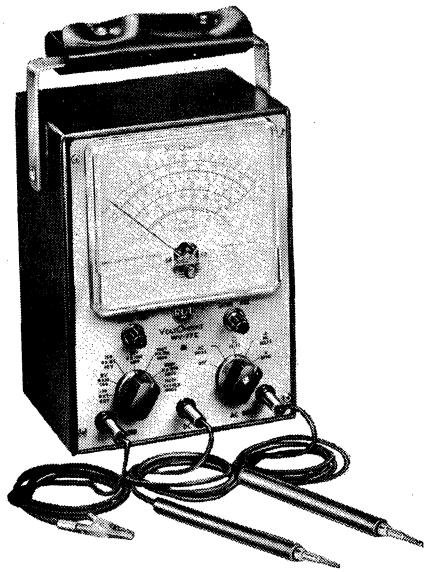
Kit features pre-assembled etched-circuit board and pre-assembled DC/AC-OHMS Probe.

$62.50* WV-98B(k) Senior Volt Ohmyst Kit.

$79.50* WV-98B Senior Volt Ohmyst (Factory Wired).

**User Price (Optional)*

WV-77E VoltOhmyst® (Kit or Wired)



The WV-77E features flat frequency response ±5% from 40 cps to 5 Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is ±3% on dc and ±5% on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard 11 megohms. Width 5⅝", Height 7¾", Depth 4¾", Weight 5 lbs.

- **Sleeve on handle stores probes and cables**
- **Fuse in ohms circuit prevents accidental burnout**
- **Circuit minimizes effect of residual gas in bridge tube**
- **Color-coded scales for easier, faster readings**
- **Ultra-slim probes and extra-flexible cables**

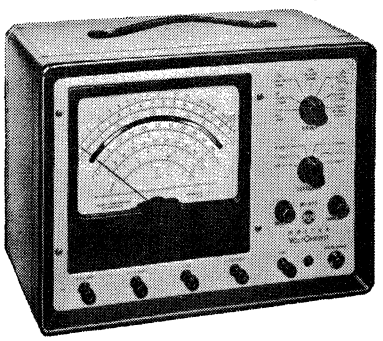
$29.95* WV-77E(K) VoltOhmyst Kit

$43.95* WV-77E VoltOhmyst (Factory-Wired)

**User Price (Optional)*

(Prices for WV-77E(K) and WV-77E include dc probe and cable, ac/ohms probe and cable, ground lead and clip, and instruction booklet. Assembly instruction sheet is provided with the WV-77E(K) VoltOhmyst Kit.)

WV-87B Master VoltOhmyst®



Application: measures dc voltages accurately in high-impedance circuits even with ac present; reads rms values of sine waves and the peak-to-peak value of complex waves or recurrent pulses even in presence of dc. Invaluable for television, radar and other types of pulse work. Has the accuracy and stability necessary for many laboratory applications including a mirror scale.

- **±2% accuracy on ac and dc volts.**
- **Measures resistance from 0.2 ohm to 1000 megohms, current from 10 microamperes to 15 amperes.**
- **Features ±1% multiplier and shunt resistors.**
- **Zero-center scale adjustment for discriminator alignment.**
- **Sensitivity on 1.5 v range — 7.3 megohm/volt.**
- **DC polarity reversing switch.**
- **Measures dc Voltage from 0-1500 volts; ac from 0-1500 volts rms; 4200 volts peak-to-peak.**
- **Frequency Response—30 cps to 250 Mc using auxiliary WG-301A Crystal-Diode Probe.**

$137.50* complete with probes and cables; including WG-299D DC/AC-Ohms Probe and Cable, current cable, ground cable insulator, instruction booklet.

**User Price (Optional)*

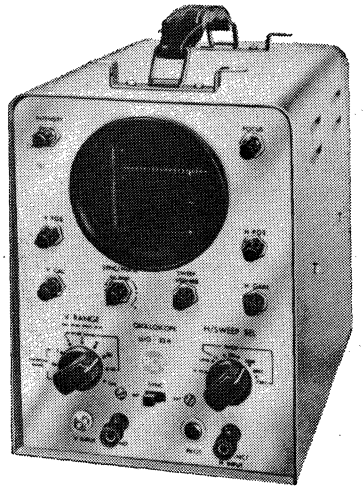
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)

The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work — servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications.
With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within —3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within —3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync — external, ± internal; line sweep — 160° adjustable phase; sync range—to 4.5 Mc.

- **for accuracy—voltage-calibrated frequency-compensated, 3-to-1 step attenuator**
- **for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages**
- **for stability—"plus-minus" internal sync . . . holds sync to 4.5 Mc**
- **for completeness—shielded input cable with low-capacitance probe included**
- **for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables**

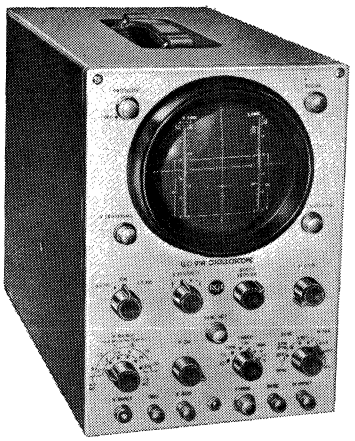


$79.95* —WO-33A(K) Oscilloscope Kit
$129.95* —WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.

**User Price (Optional)*

WO-91A 5" OSCILLOSCOPE



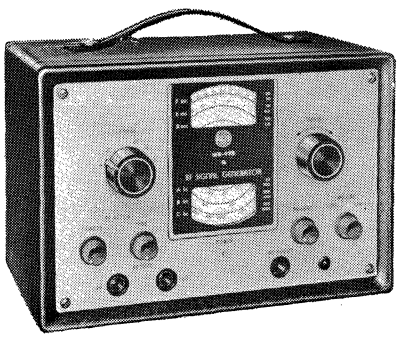
$239.50* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable, alligator clip and insulator, ground cable; green graph screen. Instruction booklet.

**User Price (Optional)*

Application: for production and servicing both black-and-white and color TV receivers. Used to measure color burst signals and for trouble-shooting wide-band color circuits, signal tracing and aligning wide-band video amplifiers, and chrominance circuits. A multi-scale graph screen makes peak-to-peak voltage measurements as simple as with a VTVM. Response: Wide-band within 3 db from 10 cps to 4.5 Mc; High sensitivity within —1 db from 3 cps to 0.5 Mc; within —6 db to 1.5 Mc. Sensitivity: .05 volt peak-to-peak per inch (0.018 volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0.053 volts rms in wide-band position).

- **Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.**
- **Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.**
- **Input Resistance—1 megohm shunted by 40$\mu\mu$f. Lo capacitance position — 10 megohm shunted by 12.5 $\mu\mu$f.**
- **Z-Axis input 12 volts for blanking.**
- **Preset "V" and "H" sweep positions.**
- **"Plus" or "Minus" internal-sync selector.**
- **Positive-lock internal sync.**
- **Sweep Frequency: 10 cps to 100 Kc.**
- **Maximum ac input: 600 volts peak-to-peak.**
- **Weight: 30 lbs. Size 13½" x 16½" x 9".**

WR-49B RF SIGNAL GENERATOR



$79.50* complete with shielded cable for rf or af output, instruction booklet.

**User Price (Optional)*

Application: for alignment and signal tracing of AM and FM radio receivers, alignment of low-frequency if amplifiers in TV receivers, and signal tracing and trouble-shooting in TV receivers. Continuously tunable from 85 Kc to 30 Mc. With the WR-49A you can inject rf signals into plate circuits and other points where dc is present without placing a dc load on circuit under test . . . with protection from burn-out in both equipment and signal generator.

- **Cathode-follower output stage isolates oscillator from effects of load reactance and resistance, thereby maintaining good output waveform, voltage regulation and frequency stability of the oscillator.**
- **Functional-design dial facilitates accurate, easy readings.**
- **Full-length shielding of output cable minimizes radiation and hum pickup.**
- **Built-in dc blocking capacitors.**
- **Built-in 400 cycle oscillator for internal or external use.**
- **Range: 85 Kc to 30 Mc in 6 ranges.**
- **Maximum output at "hi" connector — .05 volts; at "lo" connector — .01 volts rms.**
- **Calibration accuracy of Dial — ±1%.**
- **Attentuation range — 65 db.**
- **Percentage of modulation — adjustable to 70%.**
- **External modulation input available.**
- **Weight: 8 lbs. Size: 7½" x 10½" x 6".**

Net
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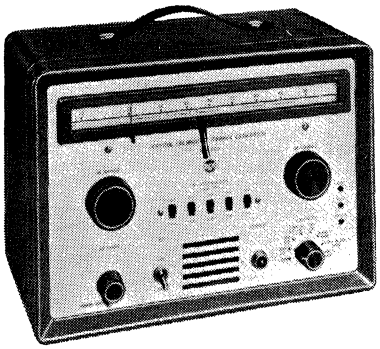
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR



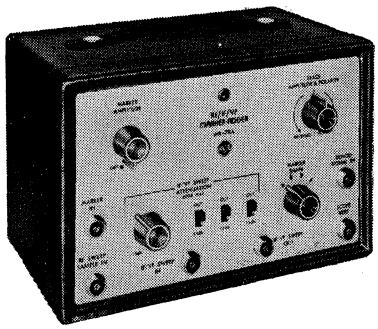
Application: supplies a fundamental frequency rf carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black-and-white) and FM receivers, and other electronic equipment operating in the range of 19 to 260 Mc. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beats at 1 Mc or 10 Mc intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifiers and discriminators.

- **At least 0.1 volt output, into 95 ohms terminated.**
- **Provides signals for adjusting vertical or horizontal linearity.**
- **Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.**
- **Special modulation input available for re-transmission.**
- **Provision for use as Heterodyne Frequency Meter.**
- **Provides dual markers for band-width checks and rf alignment.**
- **Triple markers for sound-if alignment and band-width checks.**
- **Adjustable dial pointer for accurate registration with crystal-calibration check points.**

$242.50* complete with rf output cable, instruction booklet.

**User Price (Optional)*

WR-70A RF/IF/VF MARKER ADDER



$74.50* complete with four coaxial cables and instruction booklet.

**User Price (Optional)*

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- **Eliminates or reduces distortion of sweep curve by the marker.**
- **Permits trap alignment without marker "suckout."**
- **Hi-Q markers — high in amplitude, narrow in width.**
- **Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).**
- **Voltage stabilized for rock-steady trace display.**

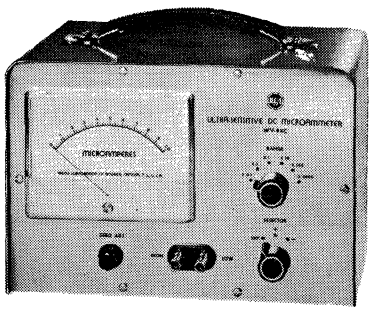
SPECIFICATIONS

IF/VF sweep input — 50 Kc to 50 Mc. RF input — 50 Mc to 250 Mc.

MINIMUM INPUT VOLTAGES — IF/VF — 0.1 volts rms. RF Sweep sample input—0.005 volts rms. Marker input—0.1 volts rms. Maximum demodulator signal input—8 volts peak-to-peak.

MAXIMUM SIGNAL OUTPUT — Marker signal — 2.5 volts rms. Demodulator signal — 10 volts peak-to-peak. Input and output impedances all 100 ohms except demodulator signal input of 0.5 megohm.
Weight: 8 lbs. Size: 7½" x 10½" x 6¼".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER



$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet. (less batteries)

**User Price (Optional)*

Application: a battery-operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.

- **Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.**
- **Can be used as ohmmeter to measure resistance in the order of billions of ohms.**
- **Voltage drop for full-scale deflection only 0.5 volts.**
- **Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.**
- **Over-all microammeter accuracy on .01 range ±5% or better; accuracy on all other ranges ±4% or better.**
- **Size 7½" x 10½" x 6¼". Weight: 10 lbs. including batteries.**

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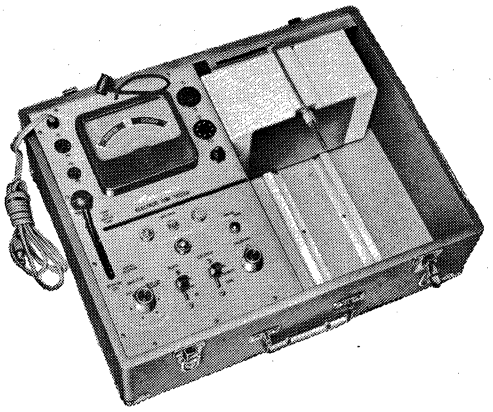
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WT-110A
Automatic ELECTRON-TUBE TESTER



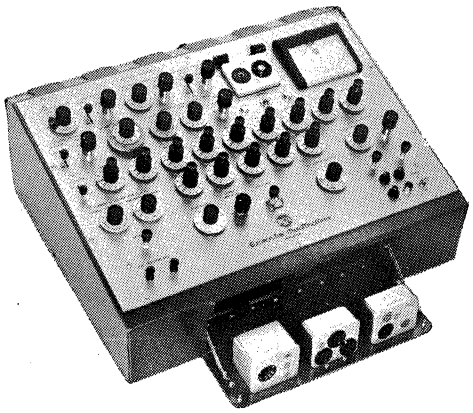
A new approach in fast, accurate tube testing, the WT-110 *Automatic* Electron-Tube Tester utilizes punched cards of heavy-duty plastic for automatic internal set-up of pin connections and test voltages. Complete transconductance test-set-up takes only seconds; cards are permanently hinged in case for convenient insertion into test slot. The WT-110A tests for gas, shorts, interelectrode leakage and over-all tube quality. Quality of tube indicated on "Renew—?—Good" meter scale. Tests 7-pin, 9-pin, octal, and loctal types.

Simplified, automatic design speeds testing of diodes, triodes, and other multielement tubes, as well as double-and-triple section tubes having similar or dissimilar sections. Designed especially for TV and general electron-tube service testing, the WT-110A punch-card system provides for flexibility and easy addition of cards for new tube types. Width 17¼", Height 6⅝", Depth 13¼".

$199.50* complete with 1 set of 239 punched cards, 1 master punch-card, test card, plus 24 additional punched cards, 24 unpunched cards, a card punch and instruction booklets covering card-punching and operation of the tester.

**User Price (Optional)*

WG-324A Gas Tube Adapter permits testing of gas tubes such as OA2, OA3, OB2, OC2, OD3, OD4. **$2.95***



$1,075.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

WT-100A Electron-Tube MicroMhoMeter

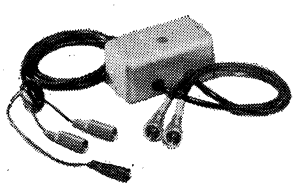
A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical data manuals. It is particularly useful in production line testing, design and development work, pre-selecting for critical applications, quality control programs, and preventive maintenance. MEASUREMENTS PERFORMED: ac heater current from 0.02 ampere to 5 amperes • dc filament current up to 250 ma • voltage drop across rectifier tubes and semiconductor diodes • transconductance from 10 micromhos to 100,000 micromhos. Within the range of its facilities it will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, spetodes, octodes, and multi-unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; in these bases and envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniature, pencil and lighthouse; and semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: W 23½" x H 8" x D 18½". Weight: 50 lbs.

- **measures transconductance to an accuracy of *better* than ± 3%**
- **accurate measurement of "hybrid" auto receiver tube types under actual operating conditions**
- **built-in shorts test for any combination of tube elements**
- **measures transconductance up to 100,000 micromhos in six ranges**
- **measures both control-grid-to-plate and suppressor-grid-to-plate transconductance**
- **built-in calibrating circuit—no null meters or extra devices required**
- **meter completely burnout-proof**
- **regulated power supplies for dc plate and screen test voltages**

WP-25A
TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an autotransformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **$22.00***

WG-304B
RF MODULATOR



An accessory used to check the over-all frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A).

$12.50*

**User Price (Optional)*

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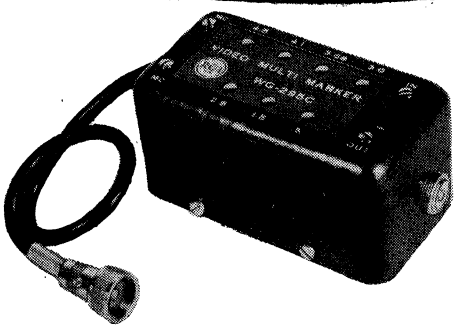
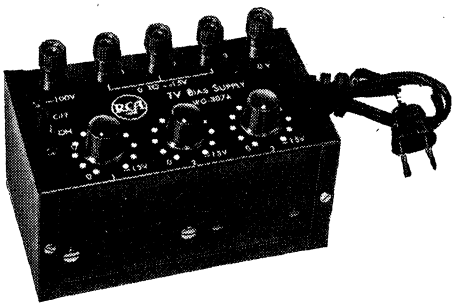
RCA TEST EQUIPMENT ACCESSORIES



WG-295C VIDEO MULTIMARKER

Provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For (Q. R-Y, B-Y, G-Y filters), 1.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color subcarrier frequency), 3 and 4.1 Mc (video and bandpass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified simply by touching a corresponding contact on the WG-295C case. This reduces the amplitude of the particular marker. The WG-295C connects between the IF/VF output on the sweep generator and the video output cable. Equipped with shorting switch. With instruction booklet **$32.50***



WG-307A TV BIAS SUPPLY

Three fully adjustable 0 to 15V negative, plus a negative 100V nominal for biasing the burst keyer. Size: 2½" x 3" x 5¼"; weight: 22 ounces. **$22.50***

WG-301A CRYSTAL-DIODE PROBE

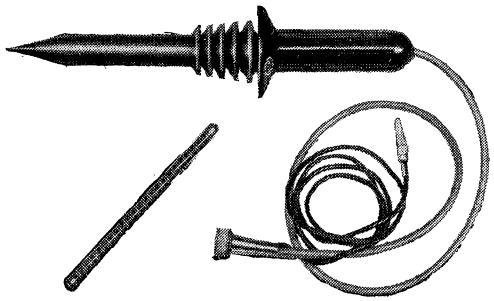
"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmysts® to 250 Mc. $7.75*

WG-299D DC/AC OHMS PROBE AND CABLE

The WG-299D is a single-unit probe for use with Volt Ohmysts® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **$4.95***

WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE

Designed for use with the RCA WO-91A, WO-88A and WO-78B 'Scopes. Cable is 48" long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, less than 12.5 μμf capacitance in low capacitance position. Includes ground lead and clip. $9.95*



WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E VoltOhmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters!

WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only **$7.15***

WG-206, WG-210, or WG-211, Multiplier Resistor Only (each) ... **$2.80***

*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE

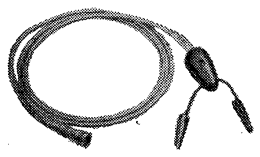
The WG-349A is a 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A and WO-33A(K) Oscilloscopes. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-349A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacitance, when used with the WO-33A and WO-33A(K).

$4.95*

WG-302A RF/IF/VF SIGNAL TRACING PROBE

"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television if and video stages..... $8.50*

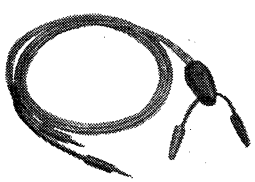
WG-350A DEMODULATOR PROBE



For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals.

$4.95*

WG-351A CRYSTAL DIODE PROBE

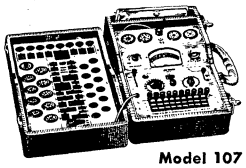


For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc.

$4.95*

**User Price (Optional)*

SECO TEST EQUIPMENT



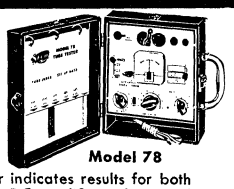
Model 107

COMPLETE TUBE TESTER

Three complete tests in one compact, portable instrument! Ideal tester for Radio-TV, Industrial and Foreign types—including sub-miniature. Dynamic Mutual Conductance Test on pre-wired chassis—Cathode Emission Test for all tubes by free point selector system—"Good-Bad" meter indicates merit. Nationally accepted Grid Circuit Test, developed and patented by Seco. 12AU7 Cascode Amplifier; 6AF6G Electron Eye Indicator; 3" meter. Size: 13½" long x 9" high x 6" wide. Shipping weight: 14½ lbs. In portable carrying case with handy flip-chart for fast, easy tube set-up data. For 105-125 V, 60 cycle AC.

MODEL 107...Wired and Factory Tested.....$139.50 NET

GRID CIRCUIT AND TUBE MERIT TESTER



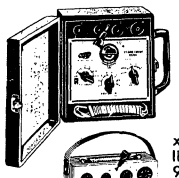
Model 78

Compact, portable, low-cost tester. Fast, easy to use! 5 sockets offer complete TV tube type coverage—all modern heater type radio tubes including hybrid types. Incorporates patented Seco Grid Circuit Test plus reliable Cathode Emission Test—also checks filament continuity and provides open element test. One easy-to-read meter indicates results for both Grid Circuit and Tube Merit Tests. Two-stage DC amplifier isolates and protects meter—achieves wide range of load currents and test conditions. Size: 9" wide x 10½" high x 5½" deep. Shipping weight: 6 lbs. For 110-125 V, 60 cycle AC. With portable carrying case and flip-chart for quick set-up data.

MODEL 78...Wired and Factory Tested.....$69.50 NET

GRID CIRCUIT TUBE TESTER

Only Grid Circuit tester with full TV tube coverage—including voltage amplifiers; power output and heater-type diodes; types with Grid, Plate or Cathode caps; and hundreds of Foreign and Industrial tube types. Tests for Grid Emission, leakage, shorts and gas in one operation! Two new exclusive tests—Cathode Continuity Check and Inter-element Short Test with short identified to pin number. Easy to operate—available in metal case with exposed panel (Model GCT-9S, Size: 6½" wide x 6½" high x 2½" deep. Shipping Weight: 4 lbs.) or mounted in carrying case (Model GCT-9W, Size: 6½" wide x 6½" high x 2½" deep. Shipping weight: 4½ lbs.) For 105-125 V, 60 cycle AC.



GCT-9W

GCT-9S

MODEL GCT-9-S...Wired and Factory Tested .....$32.95 NET (GCT-9-W $34.95 NET)

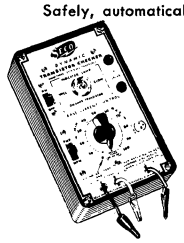
VACUUM TUBE VOLTMETER

Model 208

Practically "fool-proof" VTVM with features never before available on similar type equipment. Large, easy-to-read 4½", 200 microamp meter on sloping panel provides 7 AC, 7 DC, and 7 ordinary Ohms ranges—plus a special RETMA (EIA) Ohms scale to check coded resistors and tolerance limits. Accuracy is within 3% on all scales. Meter has burn-out protective circuit, and is damped by ON-OFF switch which shunts meter in OFF position when unit is carried. Unit incorporates specially designed "shift-lever" type function switch with most commonly used functions at "can't miss" positions. Color coding on switch identifies proper probe—switch automatically connects proper probe. Line voltage check is independent of VTVM bridge circuit. Additional HV-RF jack eliminates probe jockeying. Unit is mounted in all metal shielded case suitable for use in strong RF fields. Complete with shelf mounting stand, leads with slim probes, and common lead clip.

MODEL 208.....$74.50

DYNAMIC TRANSISTOR CHECKER



Model 100

Safely, automatically tests PNP and NPN transistors "in or out" of circuit. No set-up necessary. Covers wide range of types: small signal including "drift" types; medium power and power types. Provides positive check for "opens", shorts and gain—indicates results by simple visual signal. Also provides GO-NO-GO test at practical collector currents, and permits matching of similar transistor types. Transistors under test may be easily plugged into unit or "clipped" into circuit with external leads. Size: 3¼" wide x 6¼" long x 2¼" deep. Shipping weight: 1½ lbs. Powered by one 1.5 V "C" cell.

MODEL 100...Wired and Factory Tested.....$19.95 NET

2-WAY RADIO TEST SET

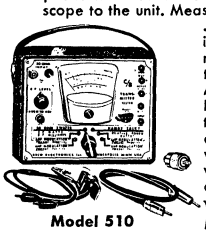
Combination Crystal Checker, RF Signal and Field Strength Meter! Cuts service and installation time on all types of crystal controlled transmitters and receivers! Checks crystal activity on third overtone transmitter crystals—checks fundamental types and third overtone receiver crystals at fundamental frequency. Plug into jacks and use 0-50 ma. meter for final amplifier tuning. Use as output indicator. Insert crystal for quick check of "on channel" operation. Supplies low power, unmodulated RF signal for adjusting squelch, etc.—or tone modulated RF signal for peaking. Unit may be modulated by external signal generator or voice modulator. Lets you check modulation visually or with headphones. With 15 ft. remote cable. Size: 2¼" deep x 3¼" wide x 6¼" high. Shipping weight: 1½ lbs. Powered by two 1.5 V "C" cells.

Model 500

MODEL 500...Wired and Factory Tested .....$29.95 NET

TRANSMITTER TESTER

For Citizens Band and low power transmitters up to 160 MC. Large 3" meter is calibrated for direct reading amplitude modulation percentage; 0-5 watts RF output; 0-400 ma. RF output. High impedance input provided for Handy Talkies. Percentage of modulation scale provides check of positive and negative modulation peaks. Model 510 is equipped for headphone modulation monitoring or the connection of a scope to the unit. Measures losses in transmission lines . . . ideal for testing coaxial insertion devices such as connectors, switches, relays, filters, tuning stubs and patch cords. An Attenuator cable is available for RF metering up to 15 feet. Optional "T" pad attenuator adapts the Model 510 for use with transmitters rated up to 50 watts. Size 6¾" wide x 2¼" deep x 5¼" high—shipping weight 2 lbs.



Model 510

MODEL 510 . . $46.95 NET

ATTENU-LOAD

Dual purpose 50 Ohm—50 Watts attenuator and load termination. Ten db "T" pad attenuator reduces power levels by ratio of 10 to 1. The fully shielded 50 ohm termination is designed for coaxial cable applications.

MODEL 511A.....$21. 50 NET

Model 511A

ANTENNA TESTER

In-line antenna efficiency tester and in-line R. F. Power Meter. Dual cylinder air coupler rated at 1000 watts maximum—does not insert error into coaxial line up to 160 MC. Direct reading scales show clear numerical values. An English reading "Antenna System Efficiency" scale marked off in red and green, GOOD-POOR. Scale is graduated in percent. A direct reading of FORWARD POWER AND REFLECTED POWER. A standing Wave Ratio scale from 1:1 to 8:1 for those who prefer this accepted scale. Three "Watts" ranges are provided with switching, 0-10 watts, 0-100 watts and 0-1000 watts. Size 6¾" wide x 2¼" deep x 5¼" high . . . shipping weight 2½ pounds.

Model 520

MODEL 520.....$42.95 NET

BATTERY ELIMINATOR FOR TRANSISTOR EQUIPMENT

Substitutes for battery used to normally operate and service portable radios and other low-power transistorized equipment. Supplies clean, filtered DC—can't be damaged by short circuit. Voltage variable from 0 to 15V—sufficient output for checking transistor receivers up to 22½ V. Voltage scale calibrated at 15 ma. Max. output: 100 ma. Size: 4½" wide x 5" long x 1½" high. Shp. Wt.: 1½ lbs. For 105-125 V, 60 cycle AC.

Model PS-2

MODEL PS-2...Wired.....$13.95 NET

FLYBACK CIRCUIT AND INDUCTANCE ANALYZER

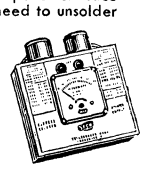
Troubleshoots TV deflection circuits fast—100% accuracy! Quick "yes" or "no" answer. Checks complete horizontal circuit, not just individual components. No disconnecting or charting required. Uses resonant frequency and "Q" meter principle—will not be obsoleted due to variables in engineering design of circuits to be checked. Size: 7" wide x 5½" deep x 5¼" high. Shp. Wt.: 5 lbs. For 110-125 V, 60 cycle AC.

Model FB-4

MODEL FB-4 . . . Wired .....$38.95 NET

IN-CIRCUIT CURRENT CHECKER

Provides positive on-the-spot check of output tube cathode current—indicates whether or not TV horizontal circuitry is over-loading output tube and associated components. Place in a circuit in seconds—no need to unsolder or disturb circuit wiring. Front panel lists tube types checked and typical cathode current specified by tube manufacturer. Size: 5½" wide x 2" deep. Shp. Wt.: 1 lb.



Model HC-6

MODEL HC-6 . . . Wired .....$12.95 NET

SECO ELECTRONICS, INC.

MINNEAPOLIS • MINNESOTA

A subsidiary of Di-Acro Corporation • Lake City, Minnesota

© U.C.P., Inc.

Test with confidence

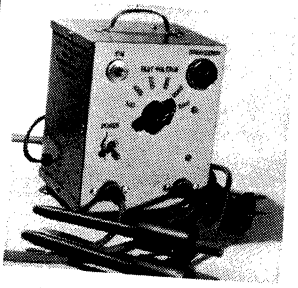
WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.

PIQUA 3, OHIO

High-Voltage Insulation Tester

with buzzer signal on breakdowns
. . . grounds
. . . shorts



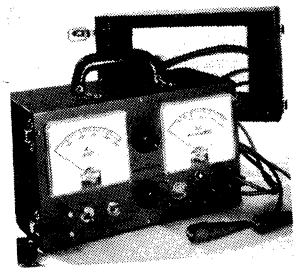
MODEL 101

Watch what you are doing . . . not the tester

SIX TEST VOLTAGES . . . 500 to 2500 V.A.C. PRICED SO YOU CAN AFFORD TO SPOT A FEW ALONG YOUR ASSEMBLY LINES. FOR SAFETY

High-Voltage Leakage Tester

checks insulation for leakage
. . . grounds
. . . arcing



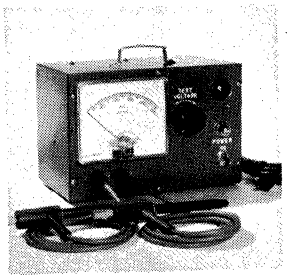
MODEL 122

16 lb. Portable for lab and field work

0/2100 V.A.C. . . . . 0/100/1000 MICROAMPS CAPACITY COMPENSATION . . . MEASURES A.C. RESISTANCE, CAPACITY, AND POWER FACTOR.

Adjustable High-Voltage Tester

with buzzer signal on breakdowns
. . . grounds
. . . shorts



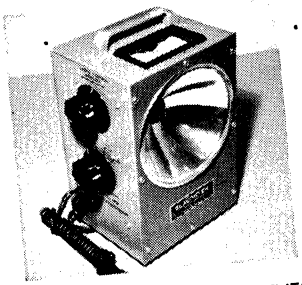
MODEL 106

Voltmeter shows actual Test Voltage

ADJUSTABLE VOLTAGES TO 2500 V.A.C. RECOMMENDED FOR BREAKDOWN TESTING AT FINAL ASSEMBLY AND INSPECTION.

Metered Precision Stroboscope

with high intensity daylight lamp
. . . stable
. . . accurate



MODEL 165

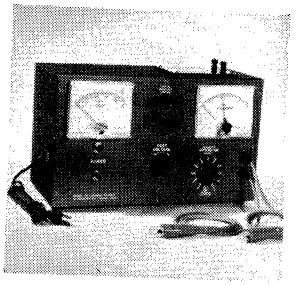
1% accuracy portable

FOR SPEED MEASUREMENTS TO 100,000 RPM FOR MOTION STUDIES . . . CAN BE SYNCHRONIZED WITH EXTERNAL SIGNALS . . . CAN BE TRIGGERED WITH EXTERNAL CONTACTS . . . CAN BE COUPLED TO COUNTER, SCOPE, OR OTHER EQUIPMENT.

SLAUGHTER CO. • PIQUA , OHIO

High-Voltage Leakage Tester

audibly signals excess leakage
. . . grounds
. . . arcing



MODEL 103

Measures Leakage . . . not capacity current

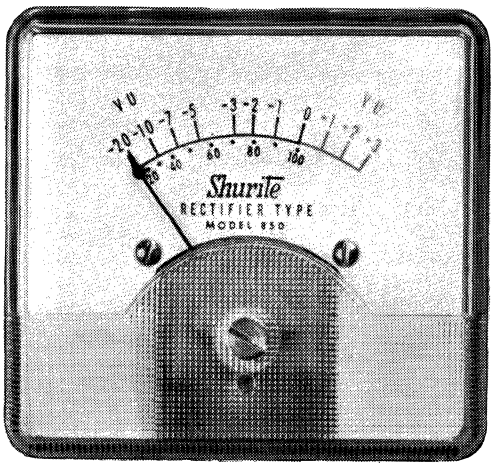
TEST VOLTAGE ADJUSTABLE TO 2100 V.A.C. LEAKAGE LIMIT ADJUSTABLE . . . 0 TO 5 MA. DETECTS 20 MICROAMPERE ARCS . . . CANCELS CHARGING CURRENT CAUSED BY INHERENT CAPACITY. USED AT FINAL INSPECTION FOR BREAKDOWN AND LEAKAGE TESTS.

SLAUGHTER CO. • PIQUA , OHIO

© U.C.P., Inc.

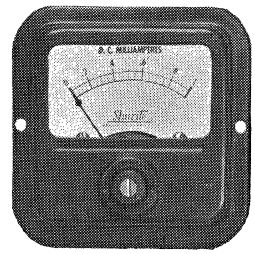
Shurite®
PANEL METERS

SHURITE Meters are attractive, rugged, dependable instruments with accuracy well within ±5%, and have the ability to duplicate readings. DC meters are polarized-vane solenoid type, or moving-magnet construction when indicated; AC meters are double vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off by providing continuing accuracy during a longer useful life. All models fit 2 5/32" hole, and Model 850 also fits any smaller size down to 2 1/16". All are guaranteed. . . . **0-1 D.C. MILLIAMPERES.** Sensitive-type meters such as stock Nos. 9300Z or 8300Z, 0-1 D.C. Ma. with approximately 1000 ohms internal resistance, and stock Nos. 9332Z and 8332Z, 0-3 D.C. Ma., 500 ohms internal resistance, are specified in many circuits. Volume production makes moderate prices possible.

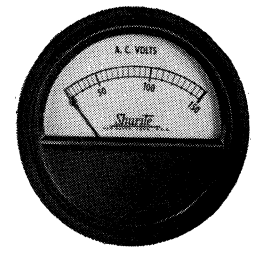


MODEL 850 SERIES (SHOWN ACTUAL SIZE)

ZERO ADJUSTER OPTIONAL



MODEL 950 SERIES WITH ZERO ADJUSTER (metal-case)



MODEL 550 SERIES (Rimless Round) (metal-case)

CLEAR PLASTIC INSTRUMENTS

Now number one in popularity, the 850 Series dresses up panels and retains the characteristically sturdy construction of the Shurite metal-cased 550 and 950 Series. The 850 snap-on front of crystal polystyrene 2 17/32" wide x 2 5/16" high, admits light from all sides and accentuates the appearance of the scale arc which is the longest in its field. The case back, with interior frosted finish, is molded of the same material to provide weight reduction and superior insulation.

NEW VU METER. To measure volume levels in audio transmission circuits; 850 Series case; range —20 to +3 VU, red and black scale; AC rectifier type; pointer normally at —20 VU; standard ±5% accuracy; zero adjuster included; see Bulletin VUS-61 for application circuitry; meter illustrated above.
Stock No. 8801Z **$5.85**

TYPICAL USES

Amateur radio rigs . . . battery eliminators .. . battery chargers . . . volt-ohm milliammeters and kits . . . model train equipment . . . ultrasonic equipment . . . battery condition testers . . . tuning circuits for stereo and tape recorders . . . burglar or fire alarm systems . . . transistor testers . . . emergency lighting equipment . . . voltage regulators . . . plating equipment . . . electric-welding equipment . . . soil moisture testers . . . school and demonstration panels . . . detergent strength analyzers . . . line voltage test for appliance servicing . . . rectifiers . . . metal locators . . . many other applications.

FEATURES

GUARANTEE: Warranted to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 40c handling charge within one year after purchase.

ALL METAL DIALS—age and moisture resistant, lithographed in black on white for high visibility.

STURDY DESIGN—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs.

MODERN APPEARANCE—with concealed coils and raised dial design, enhancing appearance and greatly increasing readability.

WIDE SELECTION—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

DC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1**	1000	5300Z	9300Z	**$3.75**	8300Z	**$3.95**
0-3L**	500	5332Z	9332Z	**3.45**	8332Z	**3.65**
0-3	4800	5301	9301	**2.85**	8301	**3.05**
0-5	3475	5302	9302	**2.60**	8302	**2.80**
0-10	870	5303	9303	**2.35**	8303	**2.55**
0-15	485	5304	9304	**2.15**	8304	**2.35**
0-25	172	5305	9305	**2.15**	8305	**2.35**
0-50	46	5306	9306	**2.15**	8306	**2.35**
0-100	10.4	5307	9307	**2.15**	8307	**2.35**
0-150	4.7	5308	9308	**2.15**	8308	**2.35**
0-200	2.8	5309	9309	**2.15**	8309	**2.35**
0-300	1.5	5310	9310	**2.15**	8310	**2.35**
0-400	.46	5311	9311	**2.15**	8311	**2.35**
0-500	.30	5312	9312	**2.15**	8312	**2.35**

* For zero adjuster, add 35c to price and Z to stock number.

** Sensitive type, note internal resistance. Moving-magnet construction, patent pending. Price includes zero adjuster built-in.

DC AMMETERS

RANGE Amps.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.105	5201	9201	**$2.15**	8201	**$2.35**
0-3	.02 Max.	5202	9202	**2.15**	8202	**2.35**
0-5	.02 Max.	5203	9203	**2.15**	8203	**2.35**
0-8	.02 Max.	5204	9204	**2.15**	—	—
0-10	.02 Max.	5205	9205	**2.15**	8205	**2.35**
0-15	.02 Max.	5206	9206	**2.15**	8206	**2.35**
0-25	.02 Max.	5207	9207	**2.60**	8207	**2.80**
0-50	.02 Max.	5208	9208	**2.60**	8208	**2.80**
3-0-3	.02 Max.	5210	9210	**2.25**	—	—
5-0-5	.022 Max.	5211	9211	**2.25**	—	—
6-0-6	.02 Max.	5212	9212	**2.25**	—	—
10-0-10	.02 Max.	5213	9213	**2.60**	8213	**2.80**
20-0-20	.02 Max.	5214	9214	**2.60**	8214	**2.80**
30-0-30	.02 Max.	5215	9215	**2.60**	8215	**2.80**
50-0-50	.02 Max.	5216	9216	**2.75**	8216	**2.95**

* For zero adjuster, add 35c to price and Z to stock number.

AC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-10	4800	5607	9607	**$3.50**	8607	**$3.70**
0-25	750	5601	9601	**3.35**	8601	**3.55**
0-50	150	5602	9602	**3.35**	8602	**3.55**
1-100	37	5603	9603	**3.35**	8603	**3.55**
0-250	5.4	5604	9604	**3.35**	8604	**3.55**
0-500	1.34	5605	9605	**3.35**	8605	**3.55**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

AC AMMETERS

RANGE Amps	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	.42 Max.	5501	9501	**$3.25**	8501	**$3.45**
0-3	.072 Max.	5502	9502	**3.25**	8502	**3.45**
0-5	.041 Max.	5503	9503	**3.25**	8503	**3.45**
0-10	.02 Max.	5504	9504	**3.25**	8504	**3.45**
0-15	.02 Max.	5508	9508	**3.25**	8508	**3.45**
0-30	.02 Max.	5505	9505	**3.35**	8505	**3.55**
0-50	.02 Max.	5506	9506	**3.55**	8506	**3.75**

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1961

Net

© U.C.P., Inc.

DC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1	10	5101	9101	$2.15	—	—
0-3	93	5102	9102	2.15	8102	$2.35
3-0-3	250	5103	9103	2.15	—	—
0-5	300	5104	9104	2.15	8104	2.35
0-6	390	5105	9105	2.15	—	—
0-8	600	5106	9106	2.15	8106	2.35
0-10	880	5107	9107	2.15	8107	2.35
0-15	2370	5108	9108	2.15	8108	2.35
0-20	3500	5121	9121	2.15	8121	2.35
0-25	1240	5109	9109	2.45	8109	2.65
O-25H**	5800	5110	9110	2.85	8110	3.05
0-50	2540	5122	9122	2.40	8122	2.60
0-50H**	11800	5111	9111	3.10	8111	3.30
0-75	3740	5112	9112	2.45	—	—
0-100	5140	5113	9113	2.45	—	—
0-100H**	23800	5114	9114	3.00	—	—
0-150	7540	5115	9115	2.60	8115	2.80
0-150H**	34800	5116	9116	3.25	8116	3.45
0-300H**†	74800	5117	9117	3.35	8117	3.55
0-500H**†	124800	5118	9118	3.60	8118	3.80
0-750H**†	184800	5119	9119	4.10	—	—

* For zero adjuster add 35c to price and Z to stock number.
** H denotes high resistance.
† Supplied with external resistors.

AC VOLTMETERS

RANGE Volts	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-4	11	5401	9401	$3.40	—	—
0-6	15.8	5402	9402	3.40	—	—
0-10	27	5403	9403	3.40	8403	$3.60
0-15	32.3	5404	9404	3.40	8404	3.60
0-25	53	5412	9412	3.40	8412	3.60
0-50	96	5405	9405	3.75	8405	3.95
0-150	100	5406	9406	3.85	8406	4.00
0-300**	100	5407	9407	4.35	8407	4.55
0-600**	100	5408	9408	4.90	—	—
0-750**	100	5409	9409	5.50	—	—

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850
*For zero adjuster add 35c to price and Z to stock number.
**Supplied with external resistors.

RESISTANCE METERS

RANGE Ohms	Volts	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
10,000	4.5**	5701	9701	$2.75	8701	$2.95

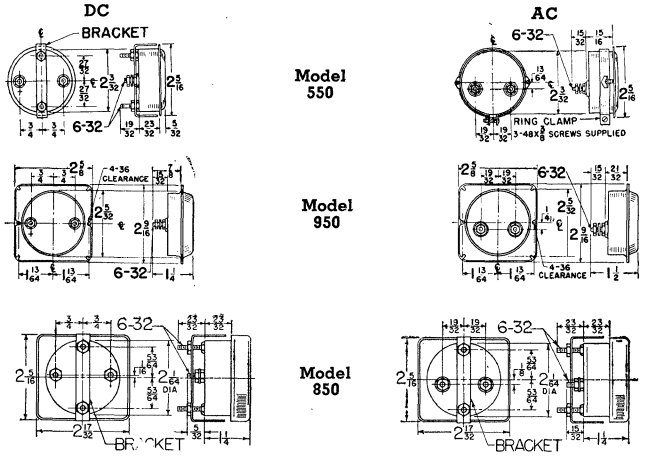
*For zero adjuster add 35c to price and Z to stock number.
**Requires 3 flashlight cells for resistance readings but does not require resistor for voltage readings.

POCKET TYPE METERS

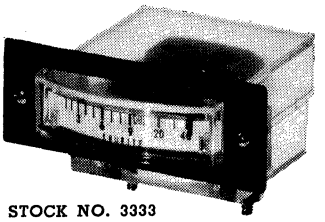
Please ask for Catalog 94-C which describes 11 types of battery testers (Pocket Meters). These have stock numbers beginning with the digit 4. Typical is **Stock No. 4151,** 0-7 DC volts, approx. resistance 670 ohms **$2.50**

3-HOLE MOUNTING ADAPTER

To adapt any Model 550 (round) meter for 3-hole flange mounting (former Model 650) attach this 2¾" flange from front of panel **Model 5-A,** standard black with hardware, each **$0.18**



EDGEWISE MODEL 350 SERIES Including NEW S METER

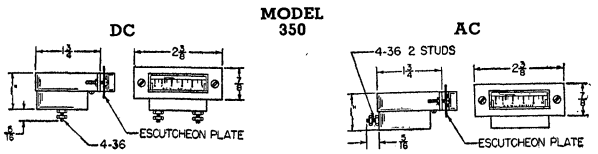


STOCK NO. 3333

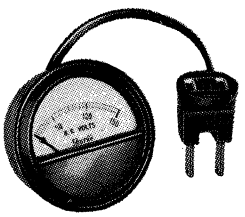
The crystal polystyrene front of this latest series adds beauty to panel designs and the 1.2" scale length offers easy reading. Less than half the panel space of other Shurite meters is required. Horizontal mounting; black and white dials, accuracy well within ±5%; weight under 2 ozs.; black escutcheon plate supplied. Ranges normally available through distributors are:

RANGE	Resistance Approx. Ohms.	Stock No.	Net Each
0-10 DC Milliamperes	800	3303	$3.45
0-50 DC Milliamperes	25	3306	3.35
0-100 DC Milliamperes	8	3307	3.35
0-5 DC Amperes	.02 Max.	3203	3.35
0-10 DC Amperes	.02 Max.	3205	3.45
10-0-10 DC Amperes	.02 Max.	3213	3.55
0-10 DC Volts	850	3107	3.35
0-15 DC Volts	1400	3108	3.35
0-15 AC Volts	728	3404	3.45
0-150 AC Volts	14000	3406	4.10
0-1000 AC Miliamperes	32	3603	3.45
0-5 AC Amperes	.04 Max.	3503	3.45

S METER. To measure relative signal strength; edgewise 350 case as illustrated; range 0-40 db; black and red scale; standard accuracy ±5%; pointer normally at 40; basic movement is 0-5 Ma. DC with 1000 ohms internal resistance; see Bulletin VUS-61 for application notes and typical circuits.
Stock No. **3333** **$3.45**



HANDY AC-DC LINE VOLTAGE TESTER



Stock 5406-LT—To use this highly popular line tester, push in the plug and read line voltage, then plug in the TV set, iron, toaster, washer, air-conditioner, or other appliance, and note the new reading. Find (and demonstrate) voltage drop or inadequate wiring. Cord is permanently attached to metal-cased meter which tests single outlets without accessories. Range 0-150 Volts. Standard package of 6 individually boxed meters includes attractive counter display at no extra charge. Per meter **$4.10**

IMPORTANT — HOW TO ORDER

For all standard models, give (1) Model Number, (2) Range, (3) Stock Number. If Model number and stock number are not stated, Model 550 will be supplied.

ZERO ADJUSTERS (Z) For DC meters, zero-adjusters are available only on Models 550, 950 and 850. For AC meters, zero adjusters are available on Model 850. When ordering, add Z to stock number. Example: Model 550-DC voltmeter, 0-1 volt range without zero adjuster is 5101. With zero adjuster, it is 5101Z. Add 35c to price.

PANEL CALIBRATION (S) Meters are calibrated for non-magnetic panels. If for magnetic (steel) panel mounting, specify thickness and overall size of panel, and add -S to stock number when ordering, as 5101-S.

VISCOSITY DAMPING Careful application of new silicone compound on bearing surfaces damps pointer overtravel.

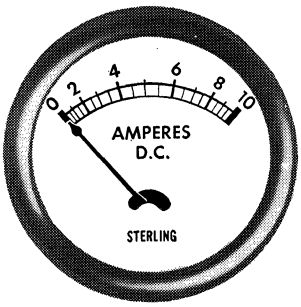
SEE YOUR DISTRIBUTOR Besides carrying most types, and being able to obtain your other needs promptly, your authorized Shurite distributor of electronic parts is qualified to suggest the right meter for your need.

SHURITE METERS NEW HAVEN, CONNECTICUT

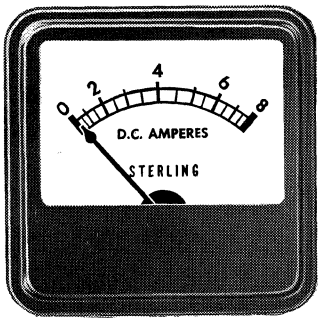
PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective Sept. 1, 1961

STERLING PANEL METERS

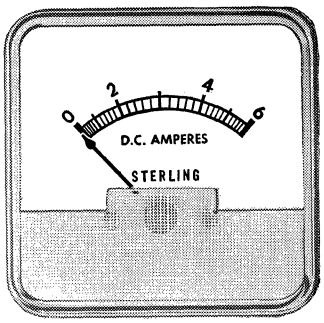
PRICE LIST



MODEL 80
2-5/32" dia. flange, flush case. Fits mounting hole 2-1/32" dia. Black clamp mounting. Black enamel finish.



MODEL 75
2-1/4" square flange, fits mounting hole 2-1/32" dia., Back clamp mounting. Black enamel finish.



MODEL 55
2-1/4" clear plastic face. Fits mounting hole 2-1/32" dia. Back clamp mounting.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%.

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
D.C. AMMETERS						
0-1	.02 Max.	80-855	$1.80	75-855	55-855	$2.05
0-3	.02 Max.	80-856	1.80	75-856	55-856	2.05
0-6	.02 Max.	80-857	1.80	75-857	55-857	2.05
0-8	.02 Max.	80-928	1.80	75-928	55-928	2.05
0-10	.02 Max.	80-858	1.80	75-858	55-858	2.05
0-15	.02 Max.	80-864	1.80	75-864	55-864	2.05
0-25	.02 Max.	80-865	1.80	75-865	55-865	2.05
0-50	.02 Max.	80-866	2.40	75-866	55-866	2.65
30-0-30	.02 Max.	80-867	1.80	75-867	55-867	2.05
D.C. MILLIAMMETERS						
0-1	1000	80-834	$3.60	75-834	55-834	$3.85
0-2	4350	80-835	2.70	75-835	55-835	2.95
0-5	2175	80-836	2.25	75-836	55-836	2.55
0-10	750	80-837	2.10	75-837	55-837	2.40
0-15	319	80-838	1.80	75-838	55-838	2.05
0-25	130	80-839	1.80	75-839	55-839	2.05
0-50	33	80-840	1.80	75-840	55-840	2.05
0-100	8	80-841	1.80	75-841	55-841	2.05
0-150	3	80-842	1.80	75-842	55-842	2.05
0-200	2.4	80-843	1.80	75-843	55-843	2.05
0-300	1.3	80-844	1.80	75-844	55-844	2.05
0-500	.23	80-848	1.80	75-848	55-848	2.05
D.C. VOLTMETERS						
0-1	15	80-801	$1.80	75-801	55-801	$2.05
0-3	130	80-802	1.80	75-802	55-802	2.05
0-5	210	80-804	1.80	75-804	55-804	2.05
0-10	1000	80-807	1.80	75-807	55-807	2.05
0-15	1580	80-808	1.80	75-808	55-808	2.05
0-25	1700	80-809	1.80	75-809	55-809	2.05
0-50	3340	80-811	1.80	75-811	55-811	2.05
0-150	10000	80-815	2.25	75-815	55-815	2.55
0-300	100000	80-817	3.00	75-817	55-817	3.30
A.C. AMMETERS						
0-1	.7	80-886	$2.85	75-886	55-886	$3.15
0-3	.09	80-887	2.85	75-887	55-887	3.15
0-5	.04	80-888	2.85	75-888	55-888	3.15
0-10	.02	80-889	2.85	75-889	55-889	3.15
0-15	.02	80-917	2.85	75-917	55-917	3.15
0-30	.02	80-892	3.00	75-892	55-892	3.30
A.C. MILLIAMMETERS						
0-100	104	80-882	$2.85	75-882	55-882	$3.15
0-250	16	80-883	2.85	75-883	55-883	3.15
0-500	3	80-884	2.85	75-884	55-884	3.15
A.C. VOLTMETERS						
0-10	104	80-872	$2.85	75-872	55-872	$3.15
0-15	210	80-873	2.85	75-873	55-873	3.15
0-25	1750	80-910	2.85	75-910	55-910	3.15
0-50	2750	80-879	2.85	75-879	55-879	3.15
0-150	11500	80-874	3.60	75-874	55-874	3.90
0-300	19400	80-875	4.05	75-875	55-875	4.35

For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

STERLING POCKET METERS

No. 10 Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales **Net Price $3.15**

No. 13 Transistor Hearing Aid tester. Has 0-7 volt scale. **Net Price $2.79**

No. 24 Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions **Net Price $2.10**

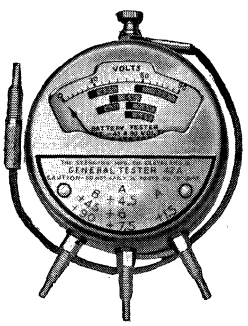
No. 34 Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions. **Net Price $2.25**

No. 42A General voltmeter. Has red-green color zones for all standard batteries plus 0-100 scale. Three ranges — 0/1.5, 0/7.5 and 0/100. **Net Price $3.90**

No. 44 Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions. **Net Price $2.55**

Send for complete pocket meter and battery tester catalog.

The STERLING Manufacturing Company
Cleveland, Ohio



42A GENERAL TESTER

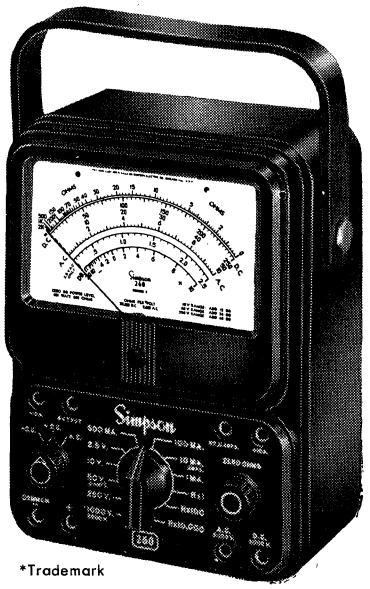
© U.C.P., Inc.

Simpson : VOLT – OHM – MILLIAMMETERS

FAMOUS 260® VOM – NOW BETTER THAN EVER!

CONVERTS TO
10 DIFFERENT TESTERS
WITH PLUG-IN ADAPTERS

(See next page)



*Trademark

The 260 in Ever-Redy Carrying Case

The 260RT (Roll-Top Safety Case Unit)

Outsells All Others Combined

For years, the rugged dependability of the Simpson 260 has made it the world's most popular volt-ohm-milliammeter. Now . . . Simpson offers a new and improved 260 . . . easier to operate, more sensitive, more accurate . . . a better buy than ever before. Over a million Simpson 260's have been purchased by technicians, service organizations, laboratories, factories, and the armed forces. Such overwhelming preference is proof that the 260 best meets the needs of VOM users. When you're in the market for a VOM, you can feel sure that the 260 is your best buy.

FEATURES

1. POLARITY REVERSING SWITCH: Speeds up servicing when making direct current measurements.
2. 50 MICROAMPERE-250 MILLIVOLT RANGE: Gives more sensitive measurements . . . reads lower values of current and voltage.
3. EASIER-TO-READ SCALES: Black and red scales have been spread out for faster reading, less chance of error.
4. LESS CIRCUIT LOADING: Sensitivity of AC voltage ranges has been increased to 5000 ohms per volt.
5. POPULAR DBM RANGES: —20 DBM to +50 DBM, one milliwatt in 600 ohms.
6. IMPROVED FREQUENCY RESPONSE IN AC MEASUREMENTS: Five to 500,000 cycles per second.
7. FULL-WAVE BRIDGE RECTIFIER SYSTEM: Provides more accurate AC voltage measurements.

RANGES

DC VOLTAGE (20,000 ohms-per-volt): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v. Accuracy, ±3% of full scale..

AC VOLTAGE (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v. Accuracy, ±5% of full scale.

AF OUTPUT VOLTAGE (With .1 microfarad internal series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.
VOLUME LEVEL IN DECIBELS (Zero DB equal to 1 milliwatt across a 600 ohm line): —20 to +10 DB; —8 to +22 DB; +6 to +36 DB; +20 to +50 DB.
DC RESISTANCE: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center). Accuracy, ±3% of arc length.
DIRECT CURRENT: 0-50 u a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

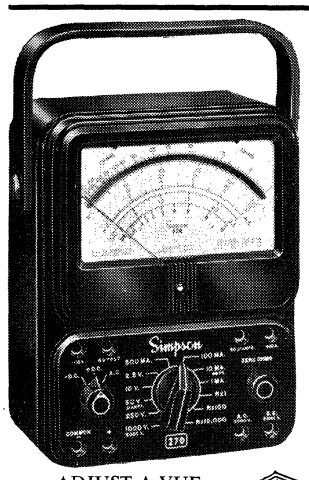
DEALER'S NET PRICES

260 VOM, complete with test leads and Operator's Manual **$43.95**
(Size: 5¼" x 7" x 3⅛". Wt: 3½ lbs. Ship Wt: 5 lbs.)
1818 LEATHER CARRYING CASE **7.75**
4236 EVER-REDY VINYL CARRYING CASE **9.75**
260RT VOM, in Roll-Top Safety Case, complete with test leads and Operator's Manual **49.95**
(Size: 6⅜" x 9" x 4¾". Wt: 6½ lbs. Ship. Wt: 9 lbs.)
HIGH VOLTAGE PROBE for 260 (25,000 v) **9.95**
HIGH VOLTAGE PROBE for 260 (50,000 v) **12.50**

Adjust-A-Vue Handle — holds the 260 at convenient viewing angle. Eliminates separate gadgets and makeshift props.

1½% ACCURACY VOM—MODEL 270

(Converts to Different Testers with Plug-in Adapters— See next page)



ADJUST-A-VUE HANDLE

Excellent Repeatability
Greater Accuracy Predictable Over a Wide Temperature Range
DC Accuracy, 1½%* Full Scale
AC Accuracy, 2%* Full Scale
Resistance Accuracy, ±1½° of Arc
*At an Ambient Temperature of 77°F

RANGES

DC VOLTAGE (20,000 ohms-per-volt): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC VOLTAGE (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF OUTPUT VOLTAGE (With .1 microfarad internal series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.

VOLUME LEVEL IN DECIBELS (Zero DB equal to 1 milliwatt across a 600 ohm line): —20 to +10 DB; —8 to +22 DB; +6 to +36 DB; +20 to +50 DB.
DC RESISTANCE: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).
DIRECT CURRENT: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

MODEL 270, complete with test leads and Operator's Manual $59.95
MODEL 270 RT, in Roll-Top Case $65.95
25,000 V High Voltage Probe, No. 0247 $11.50
50,000 V High Voltage Probe, No. 0248 $12.50
Leather Carrying Case No. 1818 ..... $ 8.50
Vinyl Carrying Case, No. 4236 ..... $ 9.75

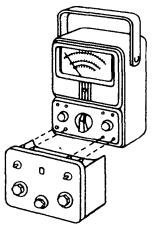
© U.C.P., Inc.

Net

Simpson : ADAPTERS FOR SIMPSON VOLT – OHM – MILLIAMMETERS

CONVERT YOUR SIMPSON 260® AND 270 VOMs INTO TEN DIFFERENT TESTERS

ADD-A-TESTER ADAPTERS



JUST PLUG THEM IN

Think of it! A small investment turns your 260® and 270 VOMS into a whole array of testers — equipment with a quality that is found only in individual pieces of test equipment at much higher prices. The secret lies in combining an adapter with the *top-notch meter and circuitry* of your 260 and 270. Each combination of ADD-A-Tester unit and 260 or 270 is self-contained, self-powered. Each adapter ADD-A-TESTER ADAPTERS (All measure 5-5/16″ x 4-3/8″ x 3-7/16″)

TRANSISTOR TESTER, Model 650 ..... $26.95
- Beta Ranges: 0-10, 0-50, 0-250, (F.S.)
- Beta Accuracy: ±3%, with 260, ±5% nominal
- Ico Range: 0-100 ua
- Ico Accuracy: ±1%, with 260, ±3% (F.S.)

DC VTVM, Model 651 ..... $32.95
- Voltage Ranges: 0-.5/1.0/2.5/5.0/10/25/50/100/250/500
- Accuracy: ±1%, with 260 ±3% (F.S.)
- Input Impedance: greater than 10 megohms for all ranges

TEMPERATURE TESTER, Model 652 ..... $38.95
- Temperature Ranges: —50°F to +100°F, +100°F to +250°F
- Accuracy: with 260 ±2° (nominal)
- Three lead positions provided
- Sensing Element: Thermistor

AC AMMETER, Model 653 ..... $18.95
- Ranges: 0-0.25/1/2.5/12.5/25 amps
- Accuracy: ±1%, with 260 ±3% nominal
- Frequency Range: 50 cycles to 3000 cycles.

AUDIO WATTMETER, Model 654 ..... $18.95
- Load Ranges: 4, 8, 16, 600 ohms
- Wattage: Continuous 25 watts (8,600 ohms)
  50 watts (4, 16 ohms)
  Intermittent 50 watts (8,600 ohms)
  100 watts (4, 16 ohms)
- Accuracy: ±5%, with 260 ±10% nominal
- Direct reading scale from 17 microvolts to 100 watts

MICROVOLT ATTENUATOR, Model 655 ..... $18.95
- Ranges: 2.5 microvolts to 250,000 microvolts continuously variable in decade steps

goes on and off in a jiffy. No gadgets, no complicated connections. Furthermore, Add-A-Tester units require only 1/2 to 1/3 the storage space of individual testers. By reducing bench clutter, this compactness makes jobs go faster, raises shop efficiency. Make your 260 and 270 VOMS do double duty. See your Electronic Parts Distributor and get all the facts soon.

- Frequency: DC to 20 KC

BATTERY TESTER, Model 656 ..... $19.95
- Checks all radio and hearing aid batteries up to 90 volts at the manufacturer's recommended load, or any external load.

NEW! MILLIOHMMETER, Model 657 ..... $44.95
- Resistance Ranges: 0-.1/.25/.5/1 ohm
- Accuracy: Adapter only ± ½%
  Adapter with 260 ± 1½% F.S. (nominal)
  Adapter with 270 ± 1% F.S.
- Scale — Linear

TV PICTURE TUBE TESTER, Model 658 ..... $34.95
- Tests Performed:
  Provides for checking shorts, emission, grid control, gas, and rejuvenation.
- Heater Voltages:
  1.5, 2.35, 2.5, 2.68, 4.7, 6.3, 8.4, 12.6, 16 volts
- Type of Bases Accepted:
  Duo-decal plus 3 adapters for 7 and 8 pin bases
- Type Tubes:
  All general type TV picture tubes including color (with adapter).

NEW! D.C. AMMETER, Model 661 ..... $17.95
- Current Ranges: 0-1/2.5/5/10/25 amperes
- Accuracy:
  Adapter only ± ½%
  Adapter with 260 ± 2% F.S. (nominal)
  Adapter with 270 ± 1½% F.S.

Note: All Simpson 260 Adapters provide for normal 260 usage without disconnecting the adapter.

Net

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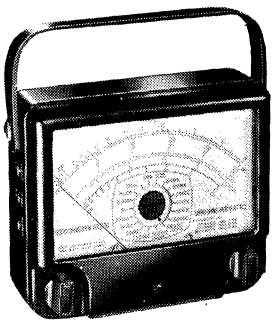
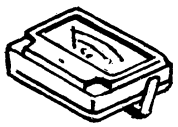
Simpson : VOLT – OHM – MILLIAMMETERS



MODEL 267
Complete with Operator's Manual and Test Leads $49.95
Carrying Case, No. 5262 $9.95

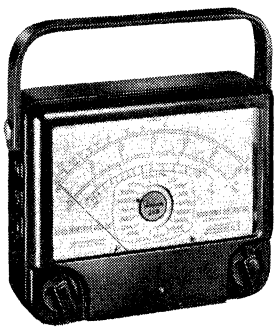


ADJUST-A-VUE handle holds Models 267 and 268 at convenient viewing angles

TWO NEW VOMs!

Big 7" Meter . . . Single Range Selector Switch

LOW MICROAMP RANGES: 0-50 (Model 267), 0-60 (Model 268).
EASIER TO READ SCALES: Black and Red scales have been spread out for faster reading, less chance for error.
LESS CIRCUIT LOADING: Sensitivity of AC Voltage ranges to 5000 ohms per volt.
POPULAR DBM RANGES: —20 DBM to +50 DBM one milliwatt in 600 ohms for "0" DB.
IMPROVED FREQUENCY RESPONSE IN AC MEASUREMENTS: 5 to 500,000 cycles per second ±2 DB.
FULL WAVE BRIDGE RECTIFIER SYSTEM: Provides more accurate AC voltage measurements.
RUGGED PRINTED CIRCUIT. ALL COMPONENTS EASILY ACCESSIBLE.



MODEL 268
Complete with Operator's Manual and Test Leads $49.95
Carrying Case, No. 5262 $9.95

RANGES	Model 267	Model 268
DC VOLTS	0-.25, 2.5/10/50/250/500/1000	0-3/12/60/300/600/1200
AC VOLTS	0-2.5/10/50/250/500/1000	0-3/12/60/300/600/1200
DC MICROAMPERES	0-50	0-60
DC MILLIAMPERES	0-1/10/100/500	0-1.2/12/120
DC AMPERES	0-10	0-12
DB SCALE	—20 +10, 1 mw 600 ohms	—12 +11, 1 mw 600 ohms
OUTPUT RANGES	AC Volt ranges to 250 V with .1/mfd condenser in series	AC Volt ranges to 300 V with .1 mfd condenser in series
OHMS Ranges	RX1	RX100 RX10K
Ctr. Scale Value	12	1200 120,000
DIMENSIONS	6" x 7¼" x 3¼"	NET WEIGHT 3¼ pounds (approx.)

100,000 OHMS PER VOLT
MODEL 269*, AC-DC Volt-Ohm-Microammeter

Self Shielded . . . 33 ranges . . . 7" scale . . . rugged Core Magnet Meter Movement with spring backed jewels. Can replace VTVM's for many voltage and resistance checks. Carrying case and accessory probes available.

VOLTS DC: 1.6, 8, 40, 160, 400, 1600, 4000 . . . 100,000 ohms per volt. Accuracy, ±3% of full scale.

VOLTS AC: 3, 8, 40, 160, 800 . . . 5,000 ohms per volt. Accuracy, ±5% of full scale.

OUTPUT: 3, 8, 40, 160 volts AC.

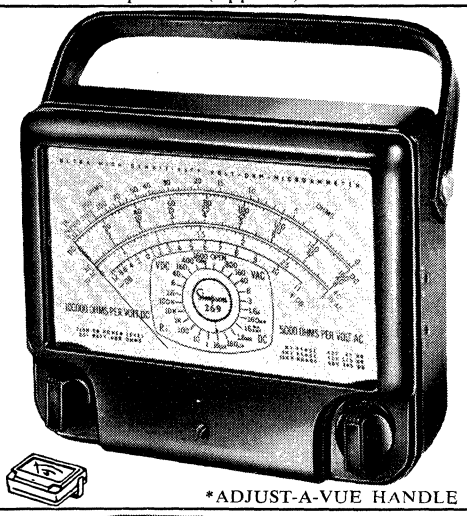
DECIBELS: —12 to +45.5 DB in 4 ranges. ODB = .001 watt in 600 ohms.

RESISTANCE DC: 0-2K ohms (18 ohms center); 0-20K ohms (180 ohms center); 0-200K ohms (1.8K ohms center); 0-2 megohms (18K ohms center); 0-20 megohms (180K ohms center); 0-200 megohms (1.8 megohms center). Accuracy, ±3% of arc length.

CURRENT DC: 0-16, 0-160 ua; 0-1.6, 0-16, 0-160 ma; 0-1.6, 0-16 a.

SIZE: 7-15/16" x 6" x 2-15/16". WEIGHT: 4 lbs.

MODEL 269 with leads and Operator's Manual **$89.95**



*ADJUST-A-VUE HANDLE

DELUXE VOM
MODEL 262*, AC-DC Volt-Ohm-Milliammeter

This compact instrument is made possible by the Simpson **Self Shielded** Core Magnet Meter Movement with spring backed jewels. . . . 20,000 ohms per volt . . . 33 ranges . . . 7" scale. Carrying case and accessory probes available.

VOLTS DC: 1.6, 8, 40, 160, 400, 1600, 4000 . . . 20,000 ohms per volt. Accuracy, ±3% of full scale.

VOLTS AC: 3, 8, 40, 160, 800 . . . 5,000 ohms per volt. Accuracy, ±5% of full scale.

OUTPUT: 3, 8, 40, 160 volts AC.

DECIBELS: —12 to +45.5 DB in 4 ranges. ODB = .001 watt in 600 ohms.

RESISTANCE DC: 0-500 ohms (4.5 center); 0-5K ohms (45 ohms center); 0-50K ohms (450 ohms center); 0-500K ohms (4.5K ohms center); 5 megohms (45K ohms center); 0-50 megohms (450K ohms center). Accuracy, ±3% of arc length.

CURRENT DC: 80, 160 ua; 1.6, 16, 160 ma; 1.6, 16 a.

SIZE: 7-15/16" x 6" x 2-15/16". WEIGHT: 4 lbs.

MODEL 262 with leads and Operator's Manual **$69.95**

*ADJUST-A-VUE HANDLE

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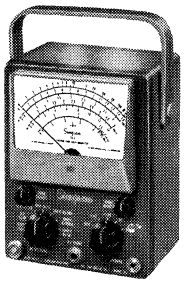
Simpson

VACUUM TUBE VOLT–OHMMETERS



HIGH SENSITIVITY VTVM

Model 311

Compare these features: 22 MEGOHM Input Impedance • Peak-to-Peak Readings of Complex AC Voltages • Accessory RF Probe with High Frequency Response and Accuracy • New "TIMESAVER" Probe Tip Hangs on Wire for Continuous Readings, Gives Quick Pressure Contact also for Point-to-Point Readings • Unbreakable Metal Case • Sensibly Priced.

SPECIFICATIONS

DC VOLTS: 0-1.5, 5, 15, 50, 150, 500, 1500 (±3% accuracy). AC VOLTS: 0-1.5, 5, 15, 50, 150, 500, 1500 (±3% accuracy, of full scale).

AC PEAK-TO-PEAK: 0-4, 14, 40, 140, 400, 1400, 4000 volts (±5% accuracy, of full scale).

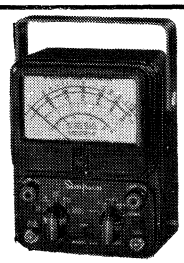
INPUT IMPEDANCE: 22 Megohms.

OHMS: X1; X10; X100; X1000; X10,000; X100,000; X1 megohm (meter can be set for center zero for FM alignment).

AC FREQUENCY RANGE: 30 to 100,000 cycles per second.

MODEL 311, complete with **slimline** probe, lead, ground cable, clips, and Operator's Manual **$69.95**

RF PROBE: 50 cycles to 100 megacycles, ±5%; 0-150 volts RMS, maximum. Input capacity, 10 mmf **$11.50**



*ADJUST-A-VUE HANDLE

VTVM, Model 303*

AC VOLTS: 1.2, 12, 60, 300, 1200. Accuracy, ±5% of full scale.
DC VOLTS: 1.2, 12, 60, 300, 1200. Accuracy, ±3% of full scale.
OUTPUT: 1.2, 12, 60 volts AC.
RESISTANCE DC: 1K ohms (10 ohms center); 100K ohms (1000 ohms center); 1 megohm (10K ohms center); 10 megohms (100K ohms center); 1000 megohms (10 megohms center).
DECIBELS: —20 to +63 DB in 5 ranges. ODB = .001 watt in 600 ohms.
R.F. VOLTS: (with R.F. probe) 20 volts maximum. Frequency — Flat 20 Kc to 100 Mc.
LINE VOLTAGE: 105-125V, 50/60 Cycles.
Accessory Probes and Carrying Case available.
MODEL 303 with DCV Probe, ACV-Ohms Probe, Ground Lead, Operator's Manual **$73.95**

LOW-OHM-METER, MODEL 362

Greater Accuracy from 0.1 to 25 ohms

RANGES: 0-5 ohms and 0.25 ohms.

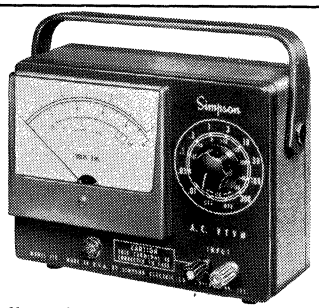
Low Circuit Current

The two ranges of the Low-Ohm Meter permit highly accurate readings between 0.1 and 25 ohms. This is ideal for checking motor armatures and fields; switch and relay contact resistances; shorts between generator windings and grounds; shorts in TV and radio chassis wiring; electrical equipment in industrial plants; plus many other uses. Accuracy is within 3% of full scale value.
Model 362 with calibrated test leads **$24.95**

AC VTVM, Model 715

High input impedance, multi-voltage ranges and wide frequency response are incorporated in Model 715 to offer a greater versatility for general purpose applications. Ideal for hi-fi and general low level audio work such as hum and ripple measurements, IF gain and vibration analyzing. Model 715 features a specially designed meter scale that provides DB markings on both the voltage range positions and the meter scale.

Examine this high sensitivity AC VTVM, compare its features! It has the rugged dependability that has made Simpson the World's Largest Manufacturer of Electronic Test Equipment.



RANGES:
Volts: 0 to .01/.03/.1/.3/1/3/10/30/100/300 rms
Decibels: Total Range —52 to +52 DBM
Zero DBM: 1 millivolt in 600 ohms
Scale Markings: —12 to +2 DB
ACCURACY: ±5% of full scale
TESTER: 10 millivolts full scale on lowest range
INPUT IMPEDANCE: Minimum 1 meg @ 1 KC
INTERNAL MULTIPLIERS: ±1% precision resistors
FREQUENCY RESPONSE: 10 cps to 400 KC ±1 DB
INPUT POWER REQUIREMENTS: 110 to 125 VRMS, 50/60 cps @ 10 watts
SIZE: 7½" wide x 5½" high x 3" deep

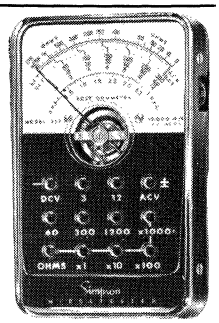
Complete with operator's manual and test leads ... **$69.95**

MIDGETESTER, Model 355, AC-DC Volt-Ohmmeter

SELF SHIELDED, 10,000 Ohms Per Volt AC and DC

World's smallest! Ideal for appliance repair, radio-TV service, etc. Utilizes the rugged Core Magnet Meter Movement.
VOLTS, DC: 3, 12, 60, 300, 1200.
VOLTS, AC: 3, 12, 60, 300, 1200.
RESISTANCE, DC: 0-10K ohms (120 ohms center); 0-100K ohms (1.2K ohms center); 0-1 megohm (12K ohms center); 0-10 megohms (120K ohms center).
SIZE: 2¾" wide, 4½" high, and 1" thick.
WEIGHT: 7 oz.
MODEL 355 with Leads, Operator's Manual **$34.95**

ZIPPER CASE, Leather with Belt Loop #6355 ..... **$3.95**



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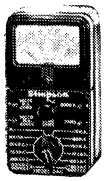
Simpson "CARRY-AROUND" SIZE TESTERS AND TEMPERATURE TESTERS

SMALL, HANDY MICROTESTERS (Size: 3" x 5⅞" x 2½")

AC-DC VOLT-OHM-MILLIAMMETER, Model 240



Designed for radio testing . . . 1000 ohms per volt, AC and DC.
AC VOLTS: 15, 150, 750, 3000.
DC VOLTS: 15, 75, 300, 750, 3000.
DC MILLIAMPERES: 15, 150, 750.
OHMS: 0-3000 (center scale 30); 0-300,000 (center scale 3000). Model 240 with Leads. **$31.95**

AC-DC VOLT-OHM-MILLIAMMETER, Model 230 — AC Volts: 10, 250, 1000 (400 ohms per volt) — DC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliamperes: 10, 50, 250 — Ohms: 0-1000, 0-100,000 — with Leads **$30.95**

DC AMMETER, Model 375 — 0-1, 2.5, 5, 10, 25 amps **$21.95**

DC MILLIAMMETER, Model 373 — 0-1, 5, 10, 25, 50, 100, 250, 1000 ma **$21.95**

DC MICROAMMETER, Model 374 — 0-50, 100, 250, 500, 1000 ua **$24.95**

AC AMMETER, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **$22.95**

AC MILLIAMMETER (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **$24.95**

DC VOLTMETER (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **$22.95**

AC VOLTMETER (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **$21.95**

AC VOLTMETER, Model 371 — 0-150, 0-300, 0-600 volts **22.95**

OHMMETER, Model 372—0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **$29.95**

AC VOLT-AMP-WATTMETER, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000—with break-in plug and Leads **$48.95**

AC-DC VOLT-WATTMETER, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **$43.95**

AC-DC VOLT-WATTMETER, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **$43.95**

BATTERY TESTER, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads **$29.95**

TEMPERATURE TESTERS — Check 3 Temperatures at 1 Time

THERM-O-METER*
Model 388-3L

Scale: Fahren./cent.
−50°F to +1000°F
−46°C to + 538°C

The Therm-O-Meter measures the temperature of air, gases, liquids, or solids by means of thermocouple type leads. Readings can be made in 15 to 30 seconds, and up to a distance of 7½'. Model 388-3L, the three-lead model, is particularly useful where two or three temperatures must be measured at the same time.

LEADS — Two types available: General Purpose and Surface Temperature probe. Length is 7½'.

SIZE AND WEIGHT—7-15/16" x 6" x 2-15/16", 4 lbs.

MODEL 388-3L* (for three leads) with one No. 0190 general purpose lead, battery, and Operator's Manual. **$67.95**

MODEL 388* (for one lead) with one No. 0190 general purpose lead, battery, and Operator's Manual. **$62.95**

Ever-Redy Carrying Case, Vinyl, No. 5262..... **$9.95**

General Purpose Lead, No. 0190..... **$4.95**

Surface Temperature Probe Lead, No. 0187..... **$8.95**

*Adjust-A-Vue Handle supports instrument at convenient angles.

TEMPERATURE METER
Model 385-3L

Measures Temperatures from −50° to +70° F

The Temperature Meter was developed primarily for servicing refrigeration equipment such as deep-freeze units, home refrigerators, and walk-in coolers. It can also be used to service air-conditioning units when the test requirements fall within its temperature range.

MODEL 385-3L, for three 15-foot leads, is especially useful where two or three temperatures must be checked at the same time, such as in setting up a refrigerator thermostat or in checking ambient temperature rises and control apparatus.

LEADS — General purpose type, 15' long. Thermistor tip.

SIZE AND WEIGHT — 3" x 5⅞" x 2½", 1½ lbs.

MODEL 385-3L (for three leads) with one test lead and Operator's Manual **$33.95**

Additional Thermistor Lead, No. 0010 ..... **$4.75**

Ever-Redy Carrying Case, Leather, No. 4299 **$8.75**

DUAL RANGE THERM-O-METER

Low Range, −50° to 100°F; High Range, 100° to 250°F

APPLICATIONS — Frozen Food Packaging, Ice Manufacturing, Freezer Storage, Refrigeration, Photo Processing, Air Conditioning, Heating Systems, Pasteurization, Distillation, and numerous others. Readings are made in 15 to 30 seconds.

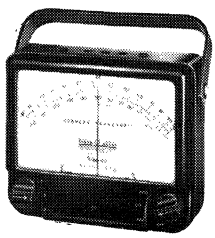
ACCURACY — Over-all accuracy is ±3°F, in any position. However, near center scale, accuracy is within ±2°F or better. Compensated for room temperature effects from 60°F to 100° F.

PROBE — Thermistor tip with a 15' lead. The lead cord is only .144" in diameter to permit closing doors of equipment being checked. Model 389-3L is designed to accommodate 3 leads simultaneously with separate readings through one selector switch.

MODEL 389-3L, Complete with single Thermistor, Lead, and Operator's Manual **$62.50**

Additional Thermistor Lead, No. 0010 **4.75**

Carrying Case, No. 5262 ..... **9.95**



Model 389-3L
Measures Temperatures In Up to *Three* Locations at *One* Time on a combination Fahrenheit and Centigrade scale.

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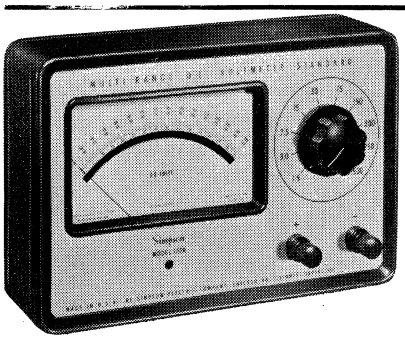
Simpson

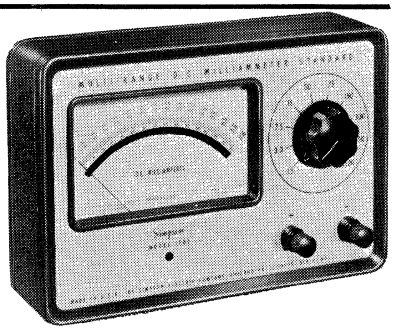
PORTABLE STANDARDS



NEW MULTIRANGE STANDARDS

(0.5% FULL SCALE)

MADE TO CONFORM TO ASA C-39.1-1959



DC VOLTMETER
Model 1700 ..... $160

DC MILLIAMMETER
Model 1702 ..... $135

Simpson introduces a new line of laboratory standards for general industrial laboratory testing, plant incoming inspection, production line applications and for high school and college laboratories.

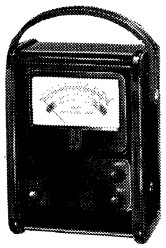
These standards feature Simpson's self shielding deep core construction with spring mounted sapphire jewels and hardened steel pivots. This feature ensures the high degree of accuracy built into each standard. The combination of the self shielded core magnet meter movement and the steel case make these instruments impervious to the effects of external fields.

The meter is temperature compensated from 15° C. to 35° C. Hand stepped, hand drawn, white enameled dial with mirror segment assures greater accuracy over the entire scale arc. Tubular aluminum knife-edge pointer (painted black on top side only) improves readability, eliminates parallax.

These portable, multi-range standards are available from your industrial electronic distributor. Request him to arrange a demonstration today.

PORTABLE LABORATORY EQUIPMENT

Model 9 & 10



Model 880

	MODEL 1700, DC V	MODEL 1702, DC MA
RANGES	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	
ACCURACY	½ of 1% of full scale in horizontal position @ 25°C.	
LOSS (Max.)	1 milliampere	50 to 150 mv
EXTERNAL TEMPERATURE INFLUENCE	¼ of 1%	¼ of 1%
DIELECTRIC TEST	3000 rms	3000 rms
MIRROR SCALE LENGTH	5.5 inches	
DAMPING	Magnetic	
METER MOVEMENT	Deep Core Magnet Meter Movement (1 5/16)	
SENSITIVITY	1000 ohms per volt	
RANGE SWITCH	Rotary, Ceramic, solid silver alloy contacts	
POINTER	Knife-Edge Tubular Aluminum	
PANEL	Etched Aluminum	
ZERO ADJUSTER	External	
CASE	Steel (Gray Paint)	
SIZE	11 3/8" x 7 3/8" x 3 1/4"	

MODELS 9 AND 10

For inspection, lab and research work; feature 4½" hand drawn mirrored scales with knife edge pointer. **Model 9** DC meter with D'Arsonval movement; ±0.5% accuracy of full scale at 77° F. **Model 10** AC meter with iron vane movement; accuracy ±1%.

RANGE Volts	Model 9 Sensitivity	Net Ea. 9 (DC)	Model 10 Sensitivity	Models 10 (AC)	Range Amperes	Model 9 MV Drop	Net Ea. 9 (DC)	Model 10 Resist.	Models 10 (AC)	Range	Model 9 Approx. Res.	Net Ea. 9 (DC)	Model 10 Approx. Res.	Models 10 (AC)
50	1000 opv	$49.50	66.6 opv	$43.95	5	50	$49.50	.010 ohms	$43.95	1 ma	90 ohms	$57.15	.....	.....
100	1000 "	49.50	166.0 "	43.95	15	50	49.50	.0022 "	43.95	50 ma	3 "	49.50	80 ohms	$43.95
150	1000 "	49.50	166.0 "	43.95	30	50	49.50	.0022 "	43.95	100 ma	1.5 "	49.50	20 "	43.95
300	1000 "	55.00	166.0 "	49.50	50	50	49.50	.0005 "	43.95	500 ma	0.3 "	49.50	0.9 "	43.95
15-150*	1000 "	55.00	.....	.....	100	50 (ex. sh.)	49.50	.....	.....	10-100 ma*	8/1	55.00	.....	.....
150-300*	1000 "	60.45	166.0 opv	55.00	2.5-5*	50	55.00	.....	.....	25-250 ma*	4.5/0.5	55.00	.....	.....
300-750*	1000 "	66.00	166.0 "	60.45	5 -10*	50	55.00	.....	.....	100-500 ma*	1/0.2	55.00	.....	.....
15-150-300†	1000 "	63.75	.....	.....	2.5-10-25†	50	60.45	.....	.....	50 μa#	1900 ohms	71.55	.....	.....
150-300-600†	1000 "	66.00	166.0 opv	60.45	10 -25-50†	50	60.45	.....	.....	100 μa#	1900 "	67.00	.....	.....

*Double range. †Triple range. #Also available for 200 μa range. Net Each $64.95

MODEL 880 AC-DC DYNAMOMETER TYPES

Accuracy ±1% of full scale at 77° F. Mirrored 4½" hand drawn scale with knife edge pointers.

VOLTMETERS—Sensitivity Approx. 45 O.P.V.

Maximum Volts	Net Each	Maximum Volts	Net Each
0-150	$60.45	0-75-150--300†	$76.95
0-150-300*	71.55	0-150-300-600†	76.95

*Double range. †Triple range.

In Roll-Top Safety Case—For Models 9, 10 and 880.
Add to Net $8.00

WATTMETERS

Amperes Normal	Amperes Maximum	Watts Range Low	Watts Range High	Maximum Volts	Net Each
1	1.5	100	200	150-300	$60.45
2	3.0	200	400	150-300	60.45
5	7.5	500	1000	150-300	60.45
10	15.	1000	2000	150-300	60.45
20	30.	2000	4000	150-300	66.00
50	75.	5000	10000	150-300	66.00
2.5- 5*	3.75- 7.5	250- 500-1000		150-300	76.95
5-10*	7.5 -15.0	500-1000-2000		150-300	76.95

*Double current range.

Net

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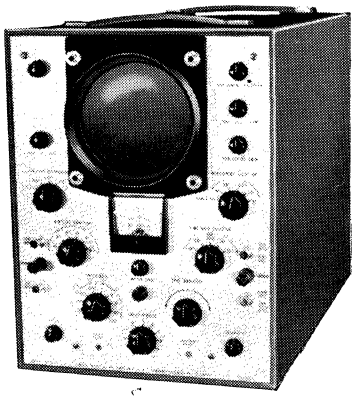
Simpson

LAB AND PRODUCTION LINE TEST EQUIPMENT

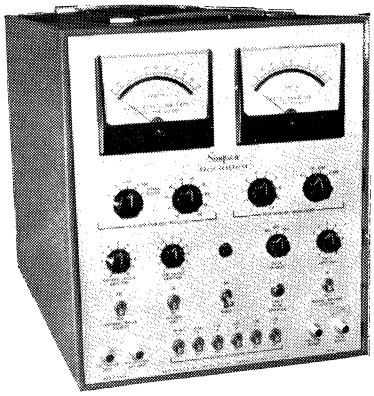
MODEL 2610 WIDE BAND OSCILLOSCOPE



High gain and stability for production line or lab use. Accuracy, ±3% of vertical calibration. Graticule calibrated in centimeters; controlled edge illumination. Removable bezel has mounting studs for standard camera mount. BNC connectors. VERTICAL AMPLIFIER: **Response:** Linear Position, DC to 5.0 mc/sec, ±0.5 db or DC to 8.0 mc/sec, ±1.5 db; Transient Position, DC to 3.5 mc/sec, —3 db and — 6 db at 5.0 mc/sec; Differential Input, 2 cps to 3.0 mc/sec., ±1.5 db. **Sensitivity:** 2.5 mv rms/cm without delay line; 5.0 mv rms/cm with delay line; 2.5 mv rms/cm differential. **Rise Time:** 0.1 μsec. in Transient Position. **Delay:** 0.25 μsec. delay line. **Attentuation:** Multipliers of X1, X3, X10, X30, X100, X300, X1000, plus 12 db attenuator; Differential Input variable 0-12 db through vertical gain control. **Input Impedance:** 1.0 megohm shunted by 30 μμf (AC or DC coupled); Differential Input, 1.0 megohm shunted by 15 μμf (AC coupled only). **Probe:** 10:1 probe with 10 megohm input resistance shunted with 15 μμf. HORIZONTAL AMPLIFIER: **Response:** 2 cps to 1.0 mc/sec, ±1.5 db. **Sensitivity:** 12 mv rms/cm (min.). **Attenuation:** Three 20 db steps, plus 21-22 db variable attenuator. **Input Impedance:** 1.0 megohm shunted by 45 μμf (AC only). Sawtooth voltage output of horizontal sweep signal provided. **Switching:** May be connected (by BNC) to external source; may be connected internally to time base. TIME BASE RECURRENT SWEEPS: **Recurrent Sweep Frequency:** 3 cps to 500 kc (3-10, 10-30, 30-100, 100-300, 300-1000, cps; 1-3, 3-10, 10-30, 30-100, 100-500 kc); plus "Fine Frequency" control. **Triggered Sweeps:** Four precalibrated sweeps (5, 50, 500, 5000 μsec), ±5% accuracy; fifth triggered sweep has approximately 1.0 μsec duration. **Synchronization:** Internal or external; plus or minus. GENERAL: **Power:** 200 watts, 117.5., 50/60 cps. **Size:** 15″ x 11½″ x 20½″. Weight, 53 lbs.

Simpson Model 2610 Oscilloscope—With probe, green filter, graticule, detachable line cord, manual. Net Each **$575.00**

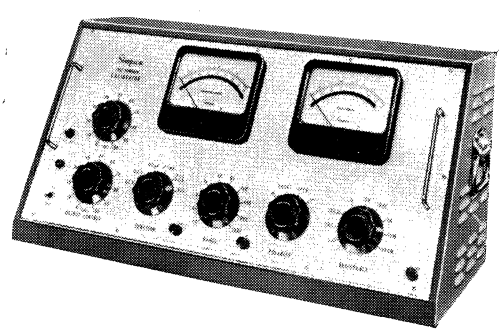
MODEL 2620 PULSE GENERATOR



Offers wide range of continuously variable, metered pulse repetition rates and pulse durations; provision for external gating, triggering, and "single shot" uses. **Pulse Repetition Rate (PRR):** Continuously variable, 10-100,000 PPS (10-100, 100-1000, 1000-10,000, 10,000-100,000; indicated on 4½″ "Wide-Vue" meter. **Accuracy:** ±4% of PRR setting. **Pulse Duration:** Continuously variable, 0.1-1000 μsec (0.1-1, 1-10, 10-100, 100-1000); ±5%, ±0.1 μsec. **Rise Time:** 0.02 μsec. **Decay Time:** 0.03 μsec. **Droop:** Less than 5%. **Pulse Polarity:** Positive or negative. **Pulse Amplitude:** 0-80 v. open; 0-40 v. across 93 ohms. **Jitter:** Under 5 millisec. **Output Impedance:** 93 ohms nominal. **Output Attenuator:** Six fixed sections, with attenuation of 1, 2, 3, 5, 10 and 20 db (provides any fixed value from 1-41 db in 1 db steps); plus continuously variable attenuator with 10 db range; ±1% accuracy. **Termination:** Matched termination may be selected by switch on front panel. **Duty Cycle:** 25% max. **Pulse Position:** Fixed delay of 1.0 μsec between "+sync output" pulse and "main pulse." **+Sync Output:** Positive 0.25 μsec pulse with a PRR determined by setting of PRR control; amplitude variable, 0-40 v. **Trigger Input:** May be triggered by external sine wave or trigger with amplitude of 12-600 v. p-p, whose PRR or frequency does not exceed the generator PRR limits. **Gated Operation:** May be "gated" from external negative gate with amplitude of —10 to —100 v. **Connectors:** BNC except ground (binding posts) and power line (detachable type line cord). **Power:** 250 watts, 117.5 v., 50/60 cps. **Size:** 15½″ x 13¼″ x 21″. Weight, 66 lbs.

Simpson Model 2620 Pulse Generator—With detachable line cord and manual. Net Each **$625.00**

MODEL 2600 SELF-POWERED CALIBRATOR



Multi-range, self-powered unit calibrates and tests electrical instruments. Laboratory standard, semi-portable design can set-up and indicate certain parameters; produces and meters accurate values of DC voltage and current. AC voltage over a wide range. Used on Simpson production lines to check and calibrate. Uses spring back jewels in core meter movement to eliminate damage to meter pivots due to shock. Separate AC and DC panel instruments are 7″ core type with mirrored scales with 5.9″ arc length. Two terminal connections handle all 49 ranges for quick operation; 30° sloped front panel for added convenience. **Accuracy:** ± 0.5% of full scale on DC within 45°-105°F. ± 0.75% of full scale on AC within 45°-105°F and 50-2,000 cps. ± 1% to 10 megs, ± 2% 100 megs, for resistance values. **DC Volts:** 0-1.6/4/8/16/40/80/160/400/800/1600. **DC Microamperes:** 0-1.6/4/8/16/40/80/160/400/800/1600. **DC Milliamperes:** 0-1.6/4/8/16/40/80/160/400/800/1600. **DC Amperes:** 0-16. **AC Volts:** 0-1.6/4/8/16/40/80/160/400/800/1600. **Resistance:** 1, 10, 100, 1,000, 10,000 and 100,000 ohms; 1, 10 and 100 megs.; all fixed values. **Power Required:** 50 watts, 117.5 v. AC, 60 cps; 150 watts on the 16 amp DC range. **Size:** 15″ x 31″ x 15″. Weight, 132 lbs.

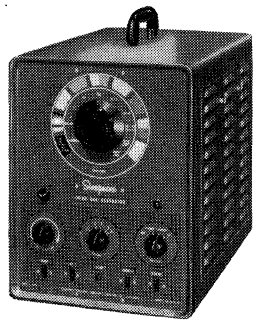
Simpson Model 2600 Calibrator—Net Each **$1620.00**

Simpson

TV-RADIO, INDUSTRIAL TEST EQUIPMENT

COLOR BAR GENERATOR

Model 430



- Service Any Color TV Receiver — Past, Present, and Future
- True, 100% Saturated NTSC Signals
- Exceptionally Wide Range of Outputs
- Outputs *Pictured in Color* on Single Master Control

IMPORTANT SPECIFICATIONS

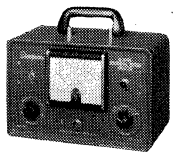
OUTPUTS — Y; chroma; color bar (8 bars simultaneously); R-Y; B-Y; R-Y and B-Y simultaneously; I; Q; I and Q simultaneously; G-Y at 90°; sync and burst; horizontal sync; high level 3.58 megacycle output; high level modulated rf output; positive or negative video output. 4.5 Megacycle (crystal controlled) marker for proper tuning.

CHROMA LEVEL SWITCH — 0 db for checking older style receivers and some current models; 6 db for video checks of newer receivers using vestigial color sideband alignment; 15 db for checking color sync lock under weak signal conditions. Variable chroma control position for other chroma levels.

COLOR BAR DISPLAY PATTERN — Left to right: red, yellow, green, cyan, white, magenta, blue, black.

Model 430, complete with Operator's Manual, and Leads **$395.00**

In-Circuit HORIZONTAL SYSTEM ANALYZER, Model 382



Model 382 is the world's most complete "testing package" for analyzing TV horizontal deflection systems. With this **one** instrument, you can:

(1) Check any winding in the horizontal system (transformer or yoke) for **shorts** and **opens.** Even one shorted turn is clearly indicated on a large 4½" meter. Uses reliable, time-proven Q-type test.

(2) Check flyback and yoke **system** IN-CIRCUIT (disconnect only plate cap of output tube). High-Q systems are checked on a quick-reading, Good-Bad scale (most present day sets use the High-Q system); Low-Q systems on comparative logging scale.

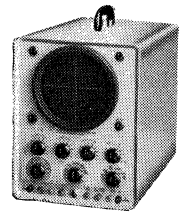
(3) Measure capacitance value (and check for open capacitors) — direct-reading scales indicate from 10 mmf to 0.1 mfd — no bridge to balance. Measures capacitance to better than 10%.

(4) Make continuity checks of **any** wire-wound component, such as width coils, linearity coils, oscillator transformers; check capacitors for direct shorts. Can check many other components for Q, also.

Model 382, test cable, Operator's Manual **$69.95**

COLORSCOPE

Model 458



- 100% RESPONSE AT 3.58 MC COLORBURST
- DUAL BANDWIDTH — NARROW OR WIDE
- BIG 7-INCH SCREEN

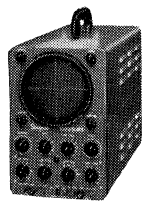
$249.95

Frequency Response of Vertical Amplifier
Wide Band Position
From 20 cycles/sec. to 4.5 mc/sec.—flat within ±1 db.
From 10 cycles/sec. to 5.0 mc/sec.—within ±2 db.
Rise Time — less than 0.05 microseconds.
Narrow Band Position
From 20 cycles/sec. to 200 kc/sec.—flat within ±1 db.
From 10 cycles/sec. to 300 kc/sec.—within ±2 db.
Maximum Vertical Deflection Sensitivity
WB:50 Mv RMS/inch; NB: 20 Mv RMS/inch
Frequency Response of Horizontal Amplifier
Same as Vertical Amplifier — Narrow Band Position
Maximum Horizontal Deflection Sensitivity
"Hi" — 150 Mv RMS/inch; "Low" — 1.4V RMS/inch
Z-axis sensitivity 4.0 volts RMS to extinguish beam
Calibrating Voltage (@ 117.5 VAC Input to Colorscope) 1.0 P-P volts ±10%
Maximum Input Voltage—600 volts peak
Input Resistance (Minimum)—3.3 Megohms ±10%
Input Capacitance @ 5.0 mc/sec.—20 uuf ±10%
Sawtooth Sweep Range—14 cycles/sec. to 250 kc/sec.

HANDISCOPE, Model 466

5" SCREEN

Measures only 8" x 12¼" x 16¼"



FREQUENCY RESPONSE OF VERTICAL AMPLIFIER: From 15 cycles/sec to 100 Kc/sec, flat within ±1 db; 6 db down at 250 Kc/sec; usable to 1 Mc/sec.

MAXIMUM VERTICAL DEFLECTION SENSITIVITY: 30 Millivolts R.M.S./inch.

FREQUENCY RESPONSE OF HORIZONTAL AMPLIFIER: From 15 cycles/sec to 20 Kc, flat within ±1 db; 6 db down at 100 Kc/sec.

MAXIMUM HORIZONTAL DEFLECTION SENSITIVITY: 0.7 volt RMS/inch.

Z-AXIS SENSITIVITY (VOLTAGE REQUIRED TO EXTINGUISH BEAM): 20 volts RMS.

CALIBRATING VOLTAGE (at 117.5 VAC power source): 1 volt P-P ±10%.

MAXIMUM INPUT VOLTAGE: 400 volts peak.

INPUT RESISTANCE: 0.1 Meg (at atten. x 1); 0.5 Meg (at atten. x 100).

INPUT CAPACITANCE: 40 uuf (at atten. x 1); 35 uuf (at atten. x 100).

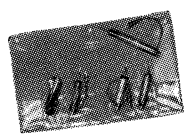
SAWTOOTH SWEEP RANGE: 15 cycles/sec to 80 Kc/sec.

MODEL 466 with lead, Operator's Manual **$149.95**

PROBE KIT FOR 458 and 466 SCOPES

Adaptable to other Scopes Also

Contains: Low Capacity, Voltage Double-Detector, 100:1 Voltage Divider, and Dual-Direct Probes; Plastic Roll Case; 466 Adapter Socket; and Operator's Manual **$45.15**



Model 739

Net

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Simpson

TV-RADIO, INDUSTRIAL TEST EQUIPMENT

PORTABLE
Field Strength Meter
Model 498A

- **Multi-Power**
- **Calibrated**
- **Operates Anywhere**
- **Covers All Channels**

This newest Simpson calibrated field strength meter provides means for measurement of television signals in any locality. It answers the need of service technicians for a combination power line or battery operated field strength meter that is self-charging.

MODEL 498A covers all channels. UHF and VHF. Measures relative field strength from approximately 20 microvolts to .05 volts. Excellent for fringe areas. Also useful as a tuner substitute when servicing TV. Continuously variable sensitivity. Operates from any **one** of **four** sources: (1) 117 VAC line; (2) Self-contained storage battery*; (3) Your automobile battery; and (4) Your external battery.

ACCURACY: VHF (±6 db); UHF (±8 db).

SIZE: 8″ x 11″ x 8½″. WEIGHT: 11½ lbs. Shipping Wt: 15 lbs.

MODEL 498A, 117 VAC and 6.3 VDC, less battery. **$199.95**

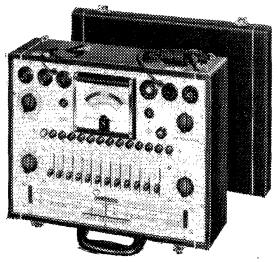
No. 5721 Storage battery, 12 ampere hour capacity. **$14.00**

*Internal storage battery can be recharged by self-contained charger or from your automobile battery while traveling between jobs.

PLATE CONDUCTANCE

TUBE TESTER
Model 1000

Extra Lo-Volt Leakage Test
Will Not Damage Any Tube



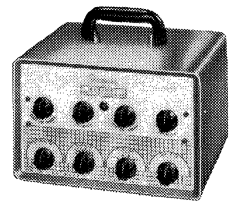
MODEL 1000 is ideal for radio-TV and industrial control servicing. Tests any receiving tube, including 9 pin miniatures and sub-miniatures with base arrangements in a line or circle. The Simpson plate conductance method makes testing simpler . . . more positive . . . more accurate. Multi-position toggle switches provide quick adjustment.

Snap-Out-Snap-In transparent plastic windows are provided over the roll chart . . . add new tube data at any time.

LINE VOLTAGE: 105-125 Volts, 50-60 cycle.
SIZE: 15¾″ x 11¾″ x 6″.
WEIGHT: 15 lbs. Shipping Wt: 19 lbs.

MODEL 1000 complete with Operator's Manual **$189.95**

VARIDOT
WHITE DOT GENERATOR
MODEL 434A



VARIABLE DOT SIZE . . . VARIABLE DOT NUMBER

The NEW Simpson Model 434A provides white dot patterns with variable dot size (from 1 to 8 scanning lines, with corresponding dot widths), and variable dot number, from 6 to 11 horizontal dots, and 6 to 12 vertical dots.

Very high modulation provides bright, clear dots.

With the Model 434A White Dot Generator, you make linearity adjustment of black and white TV and linearity and convergence adjustments on color TV receivers with confidence. Adjustable dot size provides a check of receiver transient response.

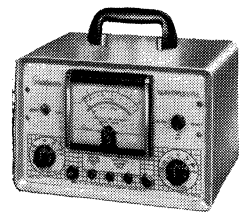
Horizontal and vertical sync pulses are provided, with adjustable vertical sync which can be operated at line frequency or off line frequency. This also operates as a hum-check control for both color and black and white receivers. This feature is rarely found in test equipment offered at this price. Vertical and horizontal synchronization assures you of correct aspect ratio . . . ample attenuation . . . 300 ohm RF output.

Positive or negative video output . . . excellent for accurate and fast checking transient response of video amplifiers is available.

Modulated RF output is available, operating on fundamentals from Channel 2 to Channel 6. Line Voltage: 117 Volts, 50-60 cycles, 45 watts.

DEALER'S NET PRICE, Complete with operating instructions and output cables **$149.95**

CAPACOHMETER
Model 383A
World's First IN-CIRCUIT
Capacitor Leakage Tester



The "Capacohmeter" combines in "one package" the flexibility to: (a) Measure leakage of defective paper, mica, or ceramic capacitors in ohms; (b) indicate directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 micromicrofarads to 10.0 microfarads; (c) detects many marginal capacitors by means of a pulse technique. All tests are read directly on a 4½″ instrument. No adjusting of a bridge circuit and balancing controls. All measurements made under load conditions. Borderline capacitors which cause costly "call backs" are immediately knocked out" with the "pulse test." Many tests are made right "in circuit."

Model 383A, complete with test leads and Operator's Manual **$89.95**

Simpson : TEST EQUIPMENT ACCESSORIES AND PANEL METERS

ACCESSORIES FOR SIMPSON TEST EQUIPMENT

Ever-Ready Leather Carrying Case
No. 4236.....$9.75

CARRYING CASES . . . Save you time and protect your instruments. Instruments are always ready for instant testing.

For Models	Part No.	Price
260, 270—Leather	1818	$8.50
260, 270, 303—Ever-Redy Leather	4236	9.75
262, 269, 388-3L, 389-3L—Ever-Redy Vinyl	5262	9.95
385-3L, New 267, New 268—Ever-Redy Vinyl	8073	8.75
391, 392—Leatherette-Covered	3413	5.95
355—Ever-Redy Leather	6355	3.95
All Microtesters—Ever-Redy Leather	4299	7.50
All Microtesters—Leatherette-Covered	3011	5.95

LEADS

For Models	Part No.	Price
260 Series 3, Banana plugs and alligator clip	7500	$ 2.10
260 Series 3, New 267, New 268, Banana plugs and test prods	7538	2.50
355 Test prods	8600	1.85
385,-3L, 389-3L, 15 ft. Thermistor lead	0010	4.75
385,-3L, 389-3L, 30 ft. Thermistor lead	0216	5.55
385,-3L, 389-3L, 50 ft. Thermistor lead	0415	6.50
385,-3L, 389-3L, 100 ft. Thermistor lead	0416	8.70
385,-3L, 389-3L, 150 ft. Thermistor lead	0417	$10.95

For Models	Part No.	Price
Test prods and elbow terminals 230/240/260-2/372	8381	$2.50
Test prods and spade terminals—all microtesters	8379	2.50
Alligator clips and elbow terminals—230/240/260-2/372	8375	1.75
Alligator clips and spade terminals—all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30

PROBES—High Voltage Types

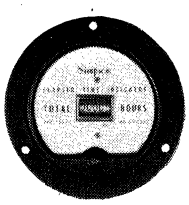
For Models	Probe No.	Price
221 (30,000v)	0009	$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	12.50
260 Series 3 (25,000v)	0247	11.50
260 Series 3 (50,000c)	0248	12.50
262 (16,000v)	0172	11.95
262 (40,000v)	0180	12.50
267 (2500 VDC)	8568	3.60
267 (5000 VDC)	8569	3.60
267 (2500 VAC)	8570	3.60
267 (5000 VAC)	8571	3.60
268 (3000 VDC)	8572	3.60
268 (6000 VDC)	8573	3.60
268 (3000 VAC)	8574	3.60
268 (6000 VAC)	0004	3.60

For Models	Part No.	Price
269 (16,000v)	0173	11.95
269 (40,000v)	0181	13.50
270 (25,000v)	0247	11.50
270 (50,000v)	0248	12.50
303 (30,000v)	0074	11.95
Miscellaneous Type Probes		
303 High frequency	0073	$ 8.75
303 AC Probe	0068	3.55
303 DC Probe	0067	3.55
303 Ground lead	0069	1.00
311 High frequency	0731	11.50
311 High voltage	0732	11.75
311 DC-AC/OHMS	0734	8.50
311 Ground lead	0733	1.25

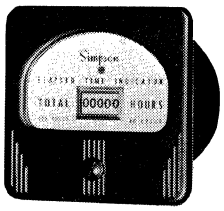
Miscellaneous Type Probes

For Models	Part No.	Price
388-3L General purpose thermocouple	0190	4.95
388,-3L Surface temperature thermocouple	0187	$ 8.90
479, 480 High frequency crystal probe and cable	0185	7.65
479, 480 Output cable 45mc	0046	4.25
Voltage Doubler	0740	14.65
Low Capacitance	0741	14.00
100:1 Voltage Divider	0742	15.20
Direct-Resistive Dual Purpose	0743	11.55

ELAPSED TIME METERS



MODEL 55ET



MODEL 57ET

These meters use self-starting synchronous clock motors.

They indicate up to 9999.9, then recycle and begin again at 0000.0. Molded bakelite case. Case depth—2 9/16".

RANGE	MODEL 55 ET	MODEL 57 ET
120V-60 cps	$17.95	$17.95
240V-60 cps	18.25	18.25

Checks Safety Thermocouples on GAS-FIRED Equipment

MILLIVOLTMETER MODEL 387

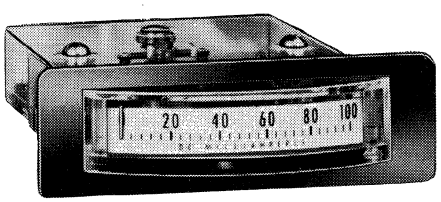
For Servicing Gas-Fired — Furnaces • Boilers • Heaters • Hot Water Heaters • Dryers • Refrigerators

The new Simpson Millivoltmeter makes gas unit servicing faster, more accurate. Simply place the probe leads across the thermocouple terminals and test for correct value. Ranges are 10, 30, 100, 300, and 1000 millivolts. Accuracy is 3% of full scale from 50° to 120°F. Handy pocket size—only 3"x5⅞"x2½".

MODEL 387, with leads and Operator's Manual

$29.95

Space-Saving EDGEWISE PANEL METERS



Unusual design permits mounting wherever space is a problem; makes every square inch count on a crowded panel; will solve many of your design problems. Supplied complete with mounting hardware, including bezel with two speed nuts for quick, simple mounting.

Types: Direct Current and AC Rectifier. **Accuracy:** DC 2% of full scale; AC Rectifier, 5%. **Pointers:** Knife-edge, lance, spade types. **Standard Scale:** Black numbers on white background; 1⅞" long. **Terminals:** Solder or stud type. **Case:** Dustproof, molded lucite. Weight, about 5 ozs.

DC MILLIAMMETERS

RANGE MILLIAMPERES	APPROX. RESISTANCE	MODEL 1502C
0-1	20 ohms	$14.40
0-5	2.5 ohms	14.40
0-10	13.5 ohms	14.40
0-15	.....	14.40
0-25	5.4 ohms	15.00
0-50	2.7 ohms	15.00
0-100	1.35 ohms	15.00
0-150	.9 ohms	15.00
0-200	.675 ohms	15.00
0-250	.54 ohms	15.00
0-300	.45 ohms	15.00
0-500	.27 ohms	15.00

VOLUME LEVEL INDICATORS—VU Meters

RANGE	MODEL 1507E
"A" SCALE	$24.30
"B" SCALE	24.30

AC VOLTMETERS—Rectifier Type

RANGE	APPROX. RESISTANCE	MODEL 1507C
0-150	1000 ohms	$18.75
0-300	per volt	18.75

DC VOLTMETERS

RANGE VOLTS	APPROX. RESISTANCE	MODEL 1502C
0-10	1000 ohms per volt	$14.55
0-15	1000 ohms per volt	14.55
0-25	1000 ohms per volt	14.55
0-50	1000 ohms pervolt	14.55
0-100	1000 ohms per volt	14.55
0-150	1000 ohms per volt	14.55
0-300	1000 ohms per volt	14.55
0-500	2000 ohms per volt	14.70

DC AMMETERS

RANGE AMPERES	APPROX. RESISTANCE	MODEL 1502C
0-1	.050 ohms	$15.30
0-5	.010 ohms	15.30
0-10	.005 ohms	15.30
0-15	.0033 ohms	15.30
0-25	.002 ohms	15.30
0-50	.001 ohms	15.30

DC MICROAMMETERS

RANGE MICROAMPERES	APPROX. RESISTANCE	MODEL 1502C
0-25	3150 ohms	$21.75
0-50	1800 ohms	19.05
0-100	1100 ohms	16.95
0-200	290 ohms	15.30
0-500	90 ohms	14.85

Net

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Simpson

WIDE-VUE PANEL METERS

2½", 3½", 4½"

Modern styling with durable, open face plastic cover for wide-angle readability and protection of meter face; permits longer scales. Black, one-piece wrap-around cover is made of methyl methacrylate. Black bakelite case on 2½" and 3½" models; lucite case on 4½" units. DC meters have self-shielded core magnet movements except 0-25 and 0-50 microammeters and VU meters, which are external magnet type. AC meters have moving vane type movement. Accuracy is 2% except Models 1347C and 1349C, 5%. All are calibrated for nonmagnetic panels; for steel panels, state panel thickness and add $1.65 to prices shown.

Models 1227C and 1257 — 2½" meters require 2.17" dia. hole; four mounting studs on 1.88" centers. Scale length 2.36".

Models 1327C, 1347C and 1357 — 3½" meters require 2.73" dia. hole; four mounting studs on 2.24" centers. Scale 3.14" long.

Models 1329C, 1349C and 1359 — 4½" meters secure 2.75" dia. hole; four mounting studs on 4" x 3.56" centers. Scale length, 3.93".

CALIBRATION AND DIALS — All DC Wide-Vue meters listed below have the Simpson self-shielded core-type movement (Calibration not affected by stray magnetic fields), except 0-15, 0-25, 0-50, 25-0-25 DC Microammeters and VU Meters which have the Simpson external magnet type movement. All AC Wide-Vue meters have the Simpson Iron-vane type movement. When ordering external magnet meters to be used on steel panels, state the panel thickness and add $1.65 to list price shown below for recalibration. AC Milliammeters and Ammeters are calibrated for use on 25 through 800 cps; AC Voltmeters for use on 25 through 125 cps. For other specified frequencies add $1.65 to the list price.

DC VOLTMETERS—Core Magnet Type Movement

Range	Resistance	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
0-5		$13.35	$13.80	$15.30
0-8		.....	13.80	15.30
0-10		13.35	13.80	15.30
0-15	1000	13.35	13.80	15.30
0-25	ohms	13.35	13.80	15.30
0-30	per volt	13.35	13.80	15.30
0-50		13.35	13.80	15.30
0-100		13.35	13.80	15.30
0-150		13.35	13.80	15.30
0-200		13.35	13.80	15.30
0-250		13.35	13.80	15.30
0-300		13.35	13.80	15.30
0-500	2000	13.80	14.55	15.75
0-750	ohms	17.10	14.55	15.75
1-1000	per volt	17.40	18.15	19.35

DC AMMETERS—Core Magnet Type Movement

0-1	.050	$12.60	$13.20	$14.55
0-1.5	.033	12.60	13.20	14.55
0-2	.025	12.60	13.20	14.55
0-3	.0166	12.60	13.20	14.55
0-5	.010	12.60	13.20	14.55
0-10	.005	12.60	13.20	14.55
0-15	.0033	12.60	13.20	14.55
0-25	.0020	12.60	13.20	14.55
0-30	.0017	12.60	13.20	14.55
0-50	.001	12.60	13.20	14.55
0-100	10.0	12.60	13.20	14.55
0-150	10.0	12.60	13.20	14.55
0-200	10.0	12.60	13.20	14.55
0-300	10.0	12.60	13.20	14.55
0-500	10.0	.....	13.20	14.55
15-0-15	.0033	.....	14.10	.....
30-0-30	.0017	.....	14.10	.....
50-0-50	.001	.....	14.10	.....

DC MILLIAMMETERS—Core Magnet Type Movement

0-1	46	$12.45	$13.05	$13.80
0-3	46	12.45	13.05	13.80
0-5	23	12.45	13.05	13.80
0-10	2.2	12.45	13.05	13.80
0-15	2.2	12.45	13.05	13.80
0-20	2.2	12.45	13.05	13.80
0-25	6.0	12.75	13.35	14.55
0-50	3.0	12.75	13.35	14.55
0-100	1.5	12.75	13.35	14.55
0-150	1.0	12.75	13.35	14.55
0-200	.75	12.75	13.35	14.55
0-250	.60	12.75	13.35	14.55
0-300	.50	12.75	13.35	14.55
0-500	.30	12.75	13.35	14.55
0-750	.20	.....	13.35	14.55
0-1000	.05	12.75	13.35	14.55

AC VOLTMETERS—Iron Vane Type Movement

0.5	33	.....	$12.15	$13.95
0-10	133	$11.85	12.15	13.95
0-15	300	11.85	12.15	13.95
0-25	833	12.00	12.60	13.95
0-50	3,333	12.00	12.60	13.95
0-100	16,666	12.30	13.20	13.95
0-150	25,000	12.60	13.50	14.55
0-250	41,166	12.60	13.50	14.55
0-300	50,000	12.60	13.50	14.55
0-500	83,333	16.20	17.40	18.60

AC AMMETERS—Iron Vane Type Movement

Range	(ohms) Approx. Resistance	Model 1257	3½" Model 1357	4½" Model 1359
0-1	.287	$11.25	$12.00	$14.00
0-1.5	.185	11.25	12.00	14.10
0-2	.115	.....	12.00	14.10
0-3	.027	11.25	12.00	14.10
0-5	.012	11.25	12.00	14.10
0-10	.0031	11.25	12.00	14.10
0-15	.0022	11.25	12.00	14.10
0-25	.0003	11.85	12.45	14.55
0-30	.....	11.85	12.45	14.55
0-50	.0006	11.85	12.45	14.55
0-100	.012	11.25	12.00	14.10
0-150	.012	11.25	12.00	14.10
0-200	.012	11.25	12.00	14.10
0-250	.012	.....	.....	.....
0-300	.012	11.25	12.00	14.10
0-500	.012	.....	.....	.....

AC MILLIAMMETERS—Iron Vane Type Movement

0-10	2,000	$11.25	$12.00	$14.10
0-15	875	.....	.....	.....
0-25	390	.....	.....	.....
0-50	80	11.25	12.00	14.10
0-100	20	11.25	12.00	14.10
0-250	5	11.25	12.00	14.10
0-500	.9	11.25	12.00	14.10

DC MICROAMMETERS—Core Magnet Type Movement

Range	(ohms) Approx. Resistance	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
0-15††	4500	.....	$22.05	$24.15
0-25††	2200	$18.75	19.65	21.75
0-50††	2000	16.20	16.65	18.00
0-100	2000	14.55	15.15	16.95
0-200	1000	13.20	13.80	15.30
0-500	200	13.05	13.50	14.70
25-0-25††	2000	.....	16.80	18.15
50-0-50	2000	14.70	15.30	17.10
100-0-100	1000	13.35	13.95	15.45
500-0-500	46	12.60	13.20	13.95

DC MILLIVOLTMETER—Core Magnet Type Movement

0-50	10	$12.60	$13.20	$14.55

AC VOLTMETERS—RECTIFIER TYPE—Core Magnet Type Movement

Range	Resistance	1247 2½" Model	3½" Model 1347C	4½" Model 1349C
0-5		$16.05	$17.85	$19.65
0-10	1000	16.05	17.85	19.65
0-15	ohms	.....	17.85	19.65
0-50	per	.....	17.85	19.65
0-150	volt	16.05	17.85	19.65
0-300		16.05	17.85	19.65
0-150	2000 ohms per volt	.....	18.60	20.40

VOLUME LEVEL INDICATORS—DECIBEL METERS ZERO POWER LEVEL—6MW. 500 OHM LINE—Core Magnet Type Movement

Range	2½" Model 1247C	3½" Model 1347C	4½" Model 1349C
General-Purpose 5000 ohms	$17.90	$18.15	$19.80

VOLUME LEVEL INDICATORS—V. U. METERS REFERENCE LEVEL—1 MW. 600 OHM LINE—External Magnet Type Movement

Range	2½" Model 1247	3½" Model 1347	4½" Model 1349
††A—Scale	$21.45	$22.05	$23.25
††B—Scale	.....	22.05	23.25

DC GALVANOMETERS—Core Magnet Type Movement

Scale	Sensitivity Micro-Amps	Resistance	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
50-0-50	500-0-500	46 ohms	$12.45	$13.20	$13.95
50-0-50	75-0-75	2000 ohms	13.50	14.70	16.20

RF AMMETERS—Core Magnet Type Movement

Range	(ohms) Approx. Resistance	3½" Model 1337C	4½" Model 1339C
0-1	.343	$15.45	$17.70
0-1.5	.200	15.45	17.70
0-2	.120	15.45	17.70
0-2.5	.10	15.45	17.70
0-3	.08	15.45	17.70
0-5	.045	15.45	17.70
0-8	.031	15.45	17.70
0-10	.023	15.45	17.70

††Has external magnet type movement

RF MILLIAMMETER—Core Magnet Movement

0-500	0.63	$18.30	$20.70

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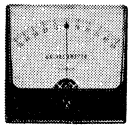
Simpson : NEW STOCK PANEL METER TYPES

NEW 1½" WIDE-VUE PANEL METERS



SPECIFICATIONS	MODEL 1212C	MODEL 1214C
ACCURACY	2% of full scale	3% of full scale at 25° C and 60 cps sine wave[1]
MOVEMENT TYPE	Core magnet meter movement (Self-Shielded)	
SCALE LENGTH	1.5" at 90° Arc (38.1 mm)	

DC VOLTMETERS, Model 1212C

RANGE	Approx. Ohms/Volt	PRICE
0-5		$12.30
0-10		12.30
0-15	1000	12.30
0-25	SELF-	12.30
0-30	CONTAINED	12.30
0-50		12.30
0-100		12.30
0-150		12.30
0-300	2000	$12.30
0-500	EXT. MULT.	15.60

DC AMMETERS, Model 1212C

RANGE	Approx. Resist. (Ohms)	PRICE
0-1	.050	$12.30
0-2	.025	12.30
0-3	.0166	12.30
0-5	.010	12.30
0-10	.005	12.30
0-15	10	$12.30
0-25	10	12.30
0-50	10	12.30

EXT. SHUNT VOLTAGE DROP 50 MV

DC MILLIAMMETERS, Model 1212C

RANGE	Approx. Resist. (Ohms)	PRICE
0-1	46	$11.85
0-5	23	11.85
0-10	2.2	11.85
0-15	2.2	11.85
0-25	6.0	12.30
0-50	3.0	12.30
0-100	1.5	12.30
0-150	1.0	12.30
0-200	0.75	12.30
0-250	0.60	12.30
0-300	0.50	12.30
0-500	0.30	12.45

*Self-contained. Voltage drop 150 MV or less.

DC MICROAMMETERS, Model 1212C

RANGE	Approx. Resist. (Ohms)	PRICE
0-50	5300	$15.75
0-100	2000	$13.95
0-200	1000	12.60
0-500	200	12.45
25-0-25	2000	15.90
50-0-50	2000	14.10
100-0-100	1000	12.75
500-0-500	46	12.00

VU METER, Model 1214C

"A" SCALE	----------	$19.35

AC VOLTMETER, Model 1214C

RANGES	Approx. Ohms/Volt	PRICE
0-5	1000	$17.25
0-10	SELF-CONTAINED	17.25
0-150		17.25
0-300	2000 SELF-CONTAINED	17.85

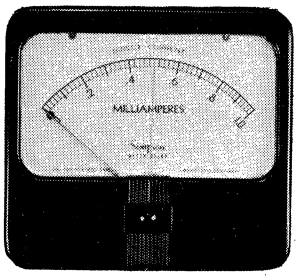
DC MILLIVOLTMETERS, Model 1212C

RANGE	Approx. Resist. (Ohms)	PRICE
0-50	10	$12.30

DC GALVONOMETERS

SCALE	SENSITIVITY MICROAMPERES	RESISTANCE (Ohms)	PRICE
50-0-50	75-0-75	2000	$12.75
50-0-50	500-0-500	46	12.00

NEW 4½" METER RELAY—FRONT ADJUSTABLE—MODEL 29XA



GENERAL: Model 29XA Relays are of the D'Arsonval Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

CALIBRATION: Accuracies ± 2% of full scale.

CONTACTS: Platinum Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

CONTACT ADJUSTMENT: Contacts are externally adjustable over 95° of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

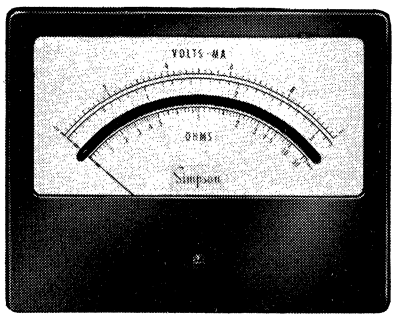
CONTACT DIFFERENTIAL: Normally, contacts will close within 2% of full scale value and break within 10% of full scale value.

INSULATION: Breakdown 300 volts AC from Relay contacts to meter circuit. 3 KV AC from Relay terminals to mounting panel. (All Tests at 60 cycles.)

Range	Description	Approx. Resistance (ohms)	Price
0-50	DC Microammeter	5200	$44.10
0-100	DC Microammeter	1800	42.15
0-200	DC Microammeter	1000	39.60
0-500	DC Microammeter	280	39.00
0-1	DC Milliammeter	140	38.10
0-50	DC Millivoltmeter	10	38.25

NEW 1% AND 2% PANEL METERS—6" SIZE

Red knife-edge pointers; ¼-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6" (114.8 mm).



DC MICROAMMETERS—

Ranges	High-Flux Meter Movement 2% Model 1150H	1% Model 1150H
0-15	$28.35	----------
0-25	25.95	----------
0-50	23.55	$28.50
0-100	22.50	27.45
0-200*	19.50*	24.45*
0-500*	18.90*	23.85*

* Core movement—Models 1150E

DC MILLIVOLTMETER—

Ranges	Core Meter Movement 2% Model 1150E
0-50	$18.75

DC MILLIAMMETER—

Ranges	Core Meter Movement 2% Model 1150E	1% Model 1150E
0-1	$18.00	$22.95
0-10	18.00	----------
0-50	18.00	----------
0-100	18.00	22.95
0-500	18.00	22.95

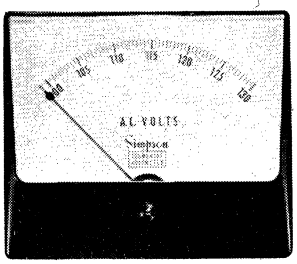
DC VOLTMETERS—

Ranges	Core Meter Movement Approx. Ohms/Volt	2% Model 1150E
0-10		$18.00
0-25	1000	18.00
0-50	Self-	18.00
0-100	Contained	18.00
0-150		18.00
0-300		18.00
0-500	2000 Self-Cont.	$18.60

DC AMMETER—

Ranges	Core Meter Movement 2% Model 1150E	Ranges	2% Model 1150E
0-1	$18.75	0-15	$18.75
0-5	18.75	0-25	18.75
0-10	18.75	0-30	18.75
		0-50	18.75

NEW SEGMENTAL VOLTMETER—100 to 130 VOLTS—4½" (Expanded Scale)



MODEL 1349C $40.50

SCALE LENGTH: 3.93" (100 mm).

RANGE: 100-130 AC Volts.

OPERATING FREQUENCY RANGE: 20-2,000 cps.

ACCURACY: ±0.5% of center scale value at 25°C and 60 cps sine wave.

FREQUENCY INFLUENCE: Less than 0.5% of center scale value over the range of 20-2,000 cps.

TEMPERATURE INFLUENCE: Less than .25% of center scale value for temperature range of ±20° from 25°C.

SENSITIVITY: 160 to 100 ohms/volt (end scale values). Sensitivity decreases as input voltage increases.

RESPONSE TIME: 2 seconds.

INTERMITTENT INPUT VOLTAGE (Maximum): 150 volt RMS for 10 seconds.

STORAGE TEMPERATURE RANGE: —30°C to 65°C.

MOVEMENT TYPE: Shielded Core Magnet Meter Movement.

CALIBRATION: Shielded Core type calibrated for either magnetic or non-magnetic panel.

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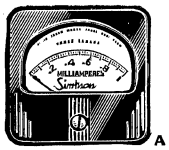
Simpson PANEL METERS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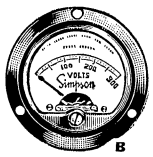
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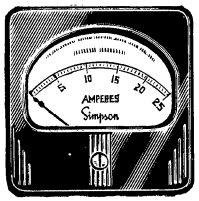
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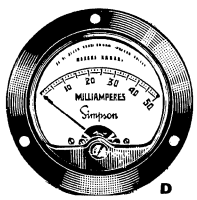
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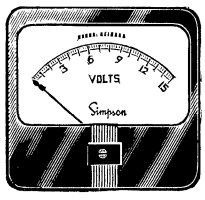

E

FIGURE A—Models 127, 137, 147, 157. 2½" rectangular case. Width 2⅜"; height, 2⅜". Mounts in round hole. Body diameter, 2⅜". Scale length, 1⅞". Bakelite case.
FIGURE B—Models 125, 135, 145, 155. 2½" round case, open face style. Flange diameter, 2¾"; depth overall, 2⅝"; body diameter, 2¹¹⁄₁₆"; scale length, 1⅞". Bakelite case.
FIGURE C—Models 27, 37, 47, 57. 3½" rectangular case. Width, 3"; height, 3⅛". Mounts in round hole. Body diameter, 2¾". Scale length, 2⅝". Bakelite case.
FIGURE D—Models 25, 35, 45, 55. 3½" round case. Open face style. Flange diameter, 3½"; depth overall, 2¼"; body diameter, 2¾"; scale length, 2⅝". Bakelite case.
FIGURE E—Models 29, 39, 49, 59. 4½" rectangular case. Width, 4²¹⁄₃₂"; height, 4¹³⁄₆₄". Mounts in round hole. Body diameter, 2¾". Scale length, 3²³⁄₃₂". Bakelite case.

*ILLUMINATED DIALS

The 2½" and 3½" rectangular instruments indicated (*) in tables below are also carried in stock with lucite illuminated dials. Supplied complete with socket and 6 volt bulb for additional Dealer Net of **$3.45.** 2½" R.F. ammeters lucite illum. must be supplied with external thermocouple. Add **$5.55** to Net for couple. **All instruments calibrated for use on non-magnetic panels.**

VOLTMETERS

External resistors are furnished on AC meters having a range of 500 volts or higher, 2½" DC meters 750 volts or higher, 3½" and 4½" DC meters, 1000 volts or higher.

Model	125-127	25-27	29	155-157	55-57	59
Range		DC			AC	
0-1.5	$12.15	$12.60	$13.95	$10.80	$11.55	$13.20
0-3	12.15	12.60	13.95	10.80	11.55	13.20
0-5	12.15	12.60	13.95	10.80	11.55	13.20
0-8	12.15	12.60	13.95	.....	.....	.....
0-10	12.15*	12.60*	13.95	10.80*	11.55*	13.20
0-15	12.15	12.60	13.95	10.80*	11.55*	13.20
0-25	12.15	12.60	13.95	11.25	11.85	13.20
0-30	12.15	12.60	13.95	.....	.....	.....
0-50	12.15*	12.60*	13.95	11.25	11.85	13.20
0-100	12.15	12.60	13.95	12.30	12.90	13.80
0-150	12.15*	12.60*	13.95	12.00*	12.75*	13.95
0-200	12.15	12.60	13.95	.....	.....	.....
0-250	12.15	12.60	13.95	12.00	12.75	13.95
0-300	12.15*	12.60*	13.95	12.00*	12.75*	13.95
0-500	12.90*	13.20*	14.40	16.50	16.80	17.40
0-750	15.75	13.20	14.40	18.30	18.45	19.20
0-1000	16.05	16.65*	18.30	19.80	19.95	20.85
0-1500	.....	16.95	18.60	.....	.....	.....
0-2000	.....	17.25*	18.90	.....	.....	.....
0-2500	.....	17.55	19.20	.....	.....	.....
0-3000	.....	17.85*	19.50	.....	.....	.....
0-4000	.....	18.15*	19.80	.....	.....	.....
0-5000	.....	18.45*	20.10	.....	.....	.....

AMMETERS

0-1	$12.00	$12.45	$13.80	$10.65	$11.25	$13.50
0-1.5	12.00	12.45	13.80	10.65	11.25	13.50
0-2	12.00	12.45	13.80	10.65	11.25	13.50
0-3	12.00	12.45	13.80	10.65	11.25	13.50
0-5	12.00	12.45	13.80	10.65	11.25	13.50
0-10	12.00	12.45	13.80	10.65	11.25	13.50
0-15	12.00	12.45	13.80	10.65	11.25	13.50
0-25	12.00	12.45	13.80	10.95	11.55	14.10
0-30	12.00	12.45	13.80	10.95	11.55	14.10
0-50	12.00	12.45	13.80	10.95	11.55	14.10
0-75	11.55	12.00	13.50	10.65	11.25	13.50
0-100	11.55	12.00	13.50	10.65	11.25	13.50
0-150	11.55	12.00	13.50	10.65	11.25	13.50
0-200	11.55	12.00	13.50	10.65	11.25	13.50
0-250	11.55	12.00	13.50	10.65	11.25	13.50
0-300	11.55	12.00	13.50	10.65	11.25	13.50
0-500	11.55	12.00	13.50	10.65	11.25	13.50
0-750	11.55	12.00	13.50	.....	.....	.....
0-1000	11.55	12.00	13.50	.....	.....	.....
15-0-15	12.30	12.75	14.25	.....	.....	.....
30-0-30	12.30	12.75	14.25	.....	.....	.....
50-0-50	12.30	12.75	14.25	.....	.....	.....

WATTMETERS—DYNAMOMETER TYPE

Watts	Volts	Amps	175-177	75-77	79
0-75	150	1.0	$25.35	$26.70	$33.00
0-150	150	2.0	25.35	26.70	33.00
0-300	150	4.0	25.35	26.70	33.00
0-750	150	10.0	25.35	26.70	33.00
0-600	300	4.0	27.75	29.10	35.55
0-1500	300	10.0	27.75	29.10	35.55
0-3000	300	20.0	27.75	29.10	35.55

DC GALVANOMETERS

Scale	Sensitivity Micro-Amp.	Resistance	Model 125-127	Model 25-27	Model 29
50-0-50	500-0-500	46 ohms	$11.85	$12.30	$13.20
50-0-50	75-0-75	2000 ohms	12.75	14.10	15.45

MILLIAMMETERS

Model	125-127	25-27	29	155-157	55-57	59
Range		DC			AC	
0-1	$11.25*	$11.85*	$13.05	.....	.....	.....
0-1.5	11.25	11.85	13.05	.....	.....	.....
0-3	11.25	11.85	13.05	.....	.....	.....
0-5	11.25	11.85	13.05	.....	.....	.....

MILLIAMMETERS (Cont.)

0-10	11.25*	11.85*	$13.05	$10.65	$11.25	$13.50
0-15	11.25*	11.85*	13.05	10.65	11.25	13.50
0-20	11.25	11.85	13.05	.....	.....	.....
0-25	12.00*	12.45*	13.95	10.65	11.25	13.50
0-50	12.00*	12.45*	13.95	10.65	11.25	13.50
0-75	12.00	12.45	13.95	.....	.....	.....
0-100	12.00*	12.45*	13.95	10.65	11.25	13.50
0-150	12.00	12.45	13.95	.....	.....	.....
0-200	12.00*	12.45*	13.95	.....	.....	.....
0-250	12.00	12.45	13.95	10.65	11.25	13.50
0-300	12.00*	12.45*	13.95	.....	.....	.....
0-500	12.00*	12.45*	13.95	10.65	11.25	13.50
0-750	12.00	12.45	13.95	.....	.....	.....
0-1000	12.00	12.45	13.95	.....	.....	.....

DC MICROAMMETERS

Range	Approximate Resist., Ohms	Model 126-127	Model 25-27	Model 29
0-15 μa	4500	.....	$22.05	$24.15
0-25 μa	2200	$18.75	19.65	21.75
0-50 μa	2000	16.20	16.65	18.00
0-100 μa	2000	13.95	14.55	16.35
0-200 μa	1000	12.30	13.05	14.55
0-500 μa	200	11.85	12.45	13.95
25-0-25 μa	2000	16.35	16.80	18.15
50-0-50 μa	2000	14.10	14.70	16.50
100-0-100 μa	1000	12.45	13.20	14.85
500-0-500 μa	46	11.85	12.00	13.20

DC MILLIVOLTMETERS

Range 0-50 mv: **Model 125-127, $11.55; Model 25-27, $12.00; Model 29, $13.50.** Range 0-100 mv: **Model 125-127, $11.55; Model 25-27, $12.00; Model 29, $13.50.**

AC VOLTMETERS—RECTIFIER TYPE

	1000 Ohms/Volt		2000 Ohms/Volt	
Range	Model 45-47	Model 49	Model 45-47	Model 49
0-1	$17.25	$19.05	$17.85	$19.65
0-3	17.25	19.05	17.85	19.65
0-5	17.25	19.05	17.85	19.65
0-10	17.25	19.05	17.85	19.65
0-15	17.25	19.05	17.85	19.65
0-50	17.25	19.05	17.85	19.65
0-100	17.25	19.05	17.85	19.65
0-150	17.25	19.05	17.85	19.65
0-300	17.25	19.05	17.85	19.65

AC MILLIAMMETERS AND MICROAMMETERS

Milliammeters			Microammeters		
Range	Model 45-47	Model 49	Range	Model 45-47	Model 49
0-1	$17.10	$18.60	0-100	$19.65	$21.15
0-2	17.10	18.60	0-200	17.25	18.90
0-5	17.10	18.60	0-300	17.10	18.60
			0-500	16.80	18.30

RF AMMETERS—INTERNAL THERMOCOUPLE TYPE

Range	Approximate Resist., Ohms	Model 135-137	Model 35-37	Model 39
0-1	.343	$13.20*	$14.10*	$16.35
0-1.5	.200	13.20	14.10	16.35
0-2	.120	13.20*	14.10*	16.35
0-2.5	.10	13.20	14.10	16.35
0-3	.08	13.20*	14.10*	16.35
0-5	.045	13.20*	14.10*	16.35
0-8	.031	13.20	14.10	16.35
0-10	.023	13.20	14.10	16.35

RF MILLIAMMETERS

0-115†	.....	.....	$27.45	$28.95
0-150	4.5	.....	17.10	19.50
0-250	3.0	.....	17.10	19.50
0-500	.6	.....	17.10	19.50

†0-100 linear scale—50 divisions.

VOLUME LEVEL INDICATORS—DB METERS

Zero Power Level—6 milliwatts. 500 ohm line.

Description	Models		
—10 to +6 db, 5000 ohms	145-147	45-47	49
General Purpose type	$17.40	$17.55	$19.20
High Speed type	.....	19.50	20.85
Low Speed type	.....	19.35	20.25
VU METERS—Reference Level, 1 milliwatt. 600 ohm line.			
Not illum. A or B Scale. 3900 ohms		$21.45	$23.25†
Illuminated A or B Scale. 3900 ohms		.....	25.80†

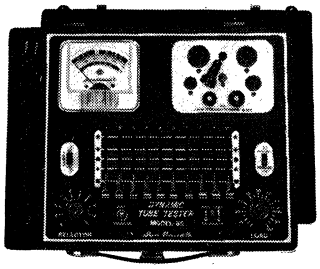
† Model 142—4" Rectangular; Fig. E.

65X—60B

SUPERIOR TEST EQUIPMENT

New Model 85 — *a DYNAMIC type*

TRANS-CONDUCTANCE TUBE TESTER

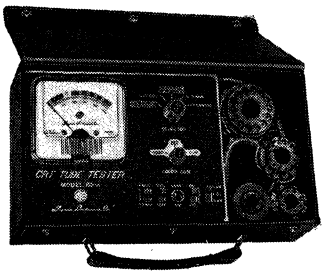


- Employs latest improved TRANS-CONDUCTANCE circuit. Tests tubes under "dynamic" (simulated) operating conditions. An in-phase signal is impressed on the input section of a tube and the resultant plate current change is measured as a function of tube quality. This provides the most suitable method of simulating the manner in which tubes actually operate in radio, TV receivers, amplifiers and other circuits. Amplification factor, plate resistance and cathode emission are all correlated in one meter reading.
- SYMBOL REFERENCES: for the first time ever in a trans-conductance tube tester, Model 85 employs time-saving symbols (★, +, ●, ▲, ■,) in place of difficult-to-remember letters previously used. Repeated time studies proved to us that use of these scientifically selected symbols speeded up the element switching step. As the tube manufacturers increase the release of new tube types, this time-saving feature becomes more necessary and advantageous.
- THE "FREE-POINT" LEVER TYPE ELEMENT SWITCH ASSEMBLY marked according to RETMA basing, permits application of test voltages to any of the elements of the tube.
- NEW IMPROVED TYPE METER with sealed air-damping chamber provides accurate, vibrationless readings.
- FREE FIVE (5) YEAR CHART DATA SERVICE. The chart provided with Model 85 includes easy-to-read listings for over 1,000 modern tube types. Revised up-to-date subsequent charts will be mailed to all Model 85 purchasers at no charge for a period of five years after date of purchase.
- SPRING RETURN SAFETY SWITCH guards Model 85 against burn-out if tube under test is "shorted."
- AN ULTRA-SENSITIVE CIRCUIT is used to test for shorts and leakages up to 5 megohms between all tube elements.

Model 85 comes complete, housed in a handsome portable cabinet with slip-on cover. Only **$52.50**

New Model 83A

C. R. T. TESTER



Tests and Rejuvenates
ALL PICTURE TUBES
ALL BLACK AND WHITE TUBES

From 50 degree to 110 degree types—from 8" to 30" types.

ALL COLOR TUBES

Test ALL picture tubes—in the carton out of the carton—in the set!

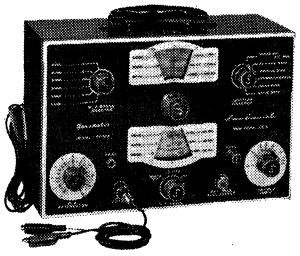
- Model 83A is not simply a rehashed black and white C.R.T. Tester with a color adapter added. Model 83A employs a new improved circuit designed specifically to test the older type black and white tubes, the newer type black and white tubes and all color picture tubes.
- Model 83A provides separate filament operating voltages for the older 6.3 types and the newer 8.4 types.
- Model 83A employs a 4" air-damped meter with quality and calibrated scales.
- Model 83A properly tests the red, green and blue sections of color tubes individually—for each section of a color tube contains its own filament, plate, grid and cathode.
- Model 83A will detect tubes which are apparently good but require rejuvenation. Such tubes will provide a picture seemingly good but lacking in proper definition, contrast and focus. To test for such malfunction, you simply press the rej. switch of Model 83A. If the tube is weakening, the meter reading will indicate the condition.
- Rejuvenation of picture tubes is not simply a matter of applying a high voltage to the filament. Such voltages improperly applied can strip the cathode of the oxide coating essential for proper emission. The Model 83A applies a selective low voltage uniformly to assure increased life with no danger of cathode damage.

Model 83A comes housed in handsome portable Saddle Stitched Texon case — complete with sockets for all black and white and all color tubes. Only **$38.50**

New Model TV-50A

GENOMETER

7 SIGNAL GENERATORS IN ONE!



- **R.F. Signal Generator for A.M.**
- **R.F. Signal Generator for F.M.**
- **Audio Frequency Generator**
- **Marker Generator**
- **Bar Generator**
- **Color Dot Pattern Generator**
- **Cross Hatch Generator.**

This Versatile All-Inclusive GENERATOR Provides ALL the Outputs for Servicing:
• A.M. RADIO • F.M. RADIO • AMPLIFIERS • BLACK AND WHITE TV • COLOR TV

R.F. SIGNAL GENERATOR: 100 Kilocycles to 60 Megacycles on fundamentals and from 60 Megacycles to 180 Megacycles on powerful harmonics.

VARIABLE AUDIO FREQUENCY GENERATOR: Provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

MARKER GENERATOR: The following markers are provided: 189 Kc; 262.5 Kc.; 456 Kc.; 600 Kc.; 1000 Kc.; 1400 Kc.; 1600 Kc.; 2000 Kc.; 2500 Kc.; 3579 Kc.; 4.5 Mc.; 5 Mc.; 10.7 Mc.; (3579 is the color burst frequency.)

BAR GENERATOR: Pattern consists of 4 to 16 horizontal bars or 7 to 20 vertical bars.

DOT PATTERN GENERATOR (FOR COLOR TV): The Dot Pattern projected on any color TV Receiver tube by the Model TV-50A will enable you to adjust for proper color convergence.

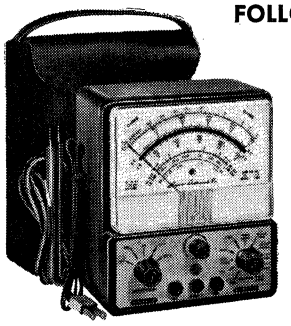
CROSS HATCH GENERATOR: The pattern consists of non-shifting horizontal and vertical lines interlaced to provide a stable cross-hatch effect.

The Model TV-50A comes complete with shielded leads and operating instructions. Only **$47.50**

New Model 80

20,000 OHMS PER VOLT ALLMETER

THE *ONLY* 20,000 OHMS PER VOLT V.O.M. SELLING FOR LESS THAN $50 WHICH PROVIDES *ALL* THE FOLLOWING FEATURES



6 INCH FULL-VIEW METER provides large easy-to-read calibrations. No squinting or guessing when you use Model 80.

MIRRORED SCALE permits fine accurate measurements where fractional readings are important.

CAPACITY RANGES permit you to accurately measure all condensers from .00025 MFD to 30 MFD in addition to the standard, volt, current, resistance and decibel ranges.

HANDSOME SADDLE-STITCHED CARRYING CASE included with Model 80 Allmeter at no extra charge enables you to use this fine instrument on outside calls as well as on the bench in your shop.

SPECIFICATIONS:

7 D.C. VOLTAGE RANGES: (At a sensitivity of 20,000 Ohms per Volt) 0 to 15/75/150/300/750/1500/7500 Volts.
6 A.C. VOLTAGE RANGES: (At a sensitivity of 5,000 Ohms per Volt) 0 to 15/75/150/300/750/1500 Volts.
3 RESISTANCE RANGES: 0 to 2,000/200,000 Ohms. 0-20 Megohms.
2 CAPACITY RANGES: .00025 Mfd. to .3 Mfd., .05 Mfd. to 30 Mfd.
5 D.C. CURRENT RANGES: 0—75 Microamperes, 0 to 7.5/75/750 Milliamperes, 0 to 15 Amperes.
3 DECIBEL RANGES: —6 db to +18 db, +14 db to +38 db, +34 db to +58 db.

FEATURES:

- A built-in Isolation Transformer automatically isolates the Model 80 from the power line when capacity service is in use.
- Selected, 1% zero temperature coefficient metalized resistors are used as multipliers to assure unchanging accurate readings on all ranges.

Model 80 Allmeter comes complete with operating instructions, test leads and portable carrying case. Only . . . . . . **$42.50 NET**

Manufactured by

SUPERIOR INSTRUMENTS CO.
NEW YORK, N. Y.

Trade Discount Applies to List Prices Only

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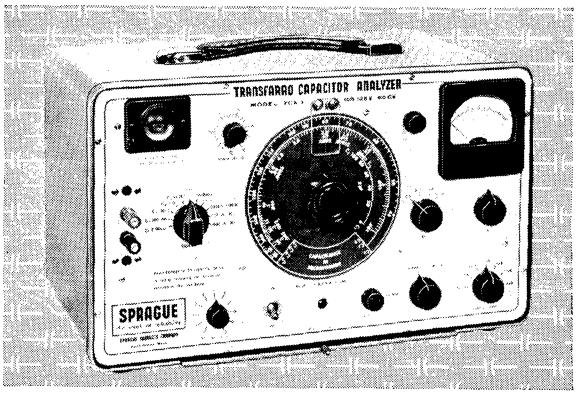
SPRAGUE TEST EQUIPMENT



TCA-1 TRANSFARAD*

THE FIRST ANALYZER SPECIFICALLY DESIGNED TO SAFELY TEST TRANSISTOR CIRCUIT CAPACITORS

The Sprague TCA-1 is specifically designed to safely test capacitors such as tantalum capacitors, low-leakage aluminum electrolytic miniatures, low voltage ceramics and low voltage paper and film capacitors used in transistor and other low voltage circuits. No industrial laboratory or modern electronic service shop can afford to be without one!

MODEL TCA-1 TRANSFARAD 115 VAC/60 cy.....$197.50 net

- **CAPACITANCE BRIDGE** measures 1 $\mu\mu$F to 2000 μF in five overlapping ranges. Only 0.5 volt is applied to the bridge from a continuously adjustable power supply. The voltage across the capacitor is less than this applied voltage, the amplitude depending on the capacitance being measured. No possibility of overheating or deforming *any* low voltage capacitor during measurements.
- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms. Only 25v d-c is applied, permitting measurements on low voltage ceramic, mica, and film capacitors. IR of ceramics rated below 25v may be calculated from leakage current measurements at exact rated voltage.
- **LEAKAGE CURRENT** measured directly on meter at exact rated d-c voltage of capacitor. Sensitive circuit makes full scale measurements from 0.6 μa to 600 μa in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector in high-gain amplifier has sensitivity control permitting accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** is assured by dual regulation of the power supply. Specially processed etched circuits and complete encapsulation of the critical bridge-null amplifier insure long-time stability.
- **BINDING POSTS** are shielded against strays, assuring greater accuracy during low capacitance measurements.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three-wire line cord grounds instrument case.
- **OPERATING PROCEDURES** are clearly shown on convenient pull-out slide.

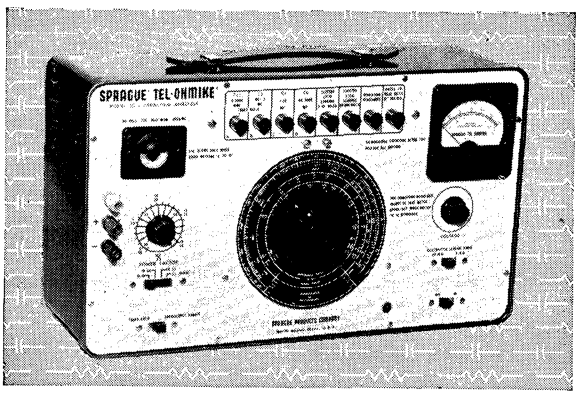
MODEL TCA-1RM FOR RACK MOUNTING

Electrically identical with the standard instrument, Model TCA-1RM has a standard 19" w. x 10½" h. panel so that it can be mounted in the conventional relay rack.

MODEL TCA-1RM ..... $207.50 net

*Trademark

TO-5 TEL-OHMIKE® CAPACITOR ANALYZER



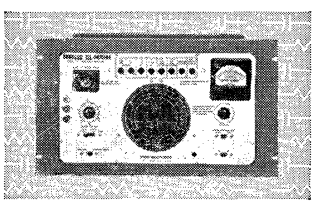
The TO-5 TEL-OHMIKE capacitor analyzer is a must for checking all capacitors except special low voltage transistor types. The TO-5 is a moderately priced instrument with laboratory quality and accuracy—the highest accuracy of any instrument of its type available to the service trade!

- **CAPACITANCE BRIDGE** measures up to 2000 mf in five overlapping ranges. The special 1 mmf to 100 mmf range is exclusive with the Tel-Ohmike.
- **INSULATION RESISTANCE** directly read on large meter up to 20,000 megohms for papers, ceramics, and micas. No guessing with neon lamps.
- **LEAKAGE CURRENT** of electrolytics measured directly on meter, with exact rated voltage up to 600v. applied from continuously adjustable power supply. Two ranges: 0-6-60 ma. No guessing on eye-width or counting lamp blinks!
- **POWER FACTOR** of electrolytics measured by Wien Bridge up to 55% in three ranges.
- **TURNS RATIO SCALE** to measure turns ratio of power and audio transformers.
- **MAGIC-EYE TUBE** simplifies bridge balancing for capacitance and power factor measurements.
- **PUSH-BUTTONS** for instant range selection, also discharge capacitors for safety upon release.
- **MODERN CASE** finished in two-tone gray; measures 8⅞" high, 14⅝" wide, 6⅛" deep. Weight only 12½ pounds.

MODEL TO-5RM FOR RACK MOUNTING

Electrically identical to the standard instrument, Model TO-5RM has a standard 19" wide x 10½" high panel so that it can be mounted in standard relay racks.

Model TO-5RM.....$102.50 net



MODEL TO-5.....115 VAC/50-50 cy.....$92.50 net

Model TO-5X.....115-230 V/25-60 cy ..... 98.75 net

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All prices and sizes subject to change without notice.

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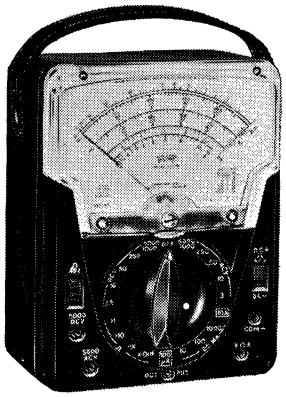
TRIPLETT TEST EQUIPMENT



MODEL 630-PL VOLT-OHM-MILLIAMETER

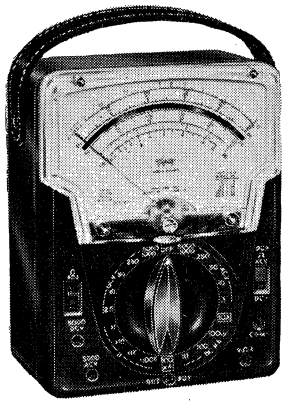
- Instant-vision, wider spread scales; streamlined case, handsome modern design.
- Outstanding linear ohm scale; low reading .1 ohm; high to 100 megs.
- One switch selects any range; minimizes chance of incorrect settings and burnouts. 5 to 500,000 cycles per second frequency response in AC measurements.
- DC Polarity reversing switch.
- High Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt D.C.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/volt.
AC Volts: 0-3-10-50-250-1,000-5,000 — at 5,000 ohms/volt.
Decibels: —20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100—at 250 millivolts.
DC Milliamperes: 0-10-100-1,000—at 250 millivolts.
DC Amperes: 0-10—at 250 millivolts.
Ohms: 0-1,000-10,000—(4.4-44 at center scale).
Megohms: 0-1-100—(4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 1/32" x 5½" x 7½".

MODEL 630-PL—U.S.A. Dealer Net..... **$49.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

MODEL 630-APL VOLT-OHM-MILLIAMMETER

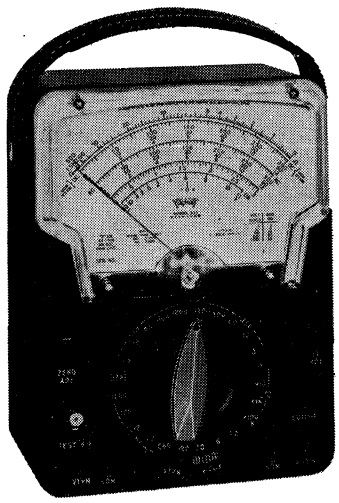


- Laboratory type V-O-M featuring ½% resistors and more accurate movement for greater accuracy.
- Long MIRRORED scales to eliminate parallax in reading.
- One switch selects any range; minimizes chance of incorrect settings and burnouts. 5 to 500,000 cycles per second frequency response in AC measurements.
- DC Polarity reversing switch.
- High Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/volt.
AC Volts: 0-3-10-50-250-1,000-5,000 — at 5,000 ohms/volt.
Decibels: —20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100—at 250 millivolts.
DC Milliamperes: 0-10-100-1,000—at 250 millivolts.
DC Amperes: 0-10—at 250 millivolts.
Ohms: 0-1,000-10,000—(4.4-44 at center scale).
Megohms: 0-1-100—(4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3 1/32" x 5½" x 7½".

MODEL 630 APL—U.S.A. Dealer Net..... **$59.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.



MODEL 631 — COMBINATION VOLT-OHM-MILLIAMMETER AND VACUUM TUBE VOLTMETER

- Two fundamental units at the price of a single tester; the number one instrument for all electronic men.
- VTVM stability assured by battery operation.
- Sensitivity plus—sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt.
- Long battery life on VTVM action.
- A V-O-M for general use and a VTVM when needed; ranges entirely adequate for servicing needs.
- Large meter easy to read; unbreakable meter face.
- Single switch selects all ranges; minimizes chance of incorrect settings and burnouts.
- Accuracy 3% DC to 1200 V.

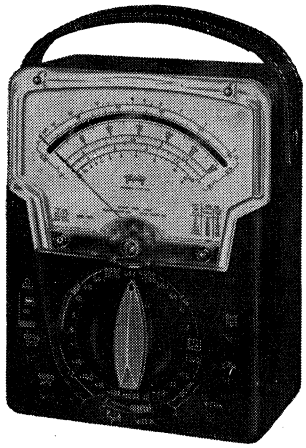
V-O-M RANGES

DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).
Ohms: 0-1,500-15,000.
Megohms: 0-1.5-150.
DC Microamperes: 0-60 at 250MV. Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
DC Milliamperes: 0-1.2-12-120-1,200 at 250 MV.
DC Amperes: 0-12 at 250 MV.
DB: —20, +11, +23, +37, +51, +63. (600 ohm line at 1 MW).

VTVM RANGES

DC Volts: 0-1.2-6-30-120.
CASE—Molded, fully insulated, 3 1/32" x 5½" x 7½".

MODEL 631—U.S.A. Dealer Net..... **$69.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.



MODEL 630-NA — VOLT-OHM-MILLIAMMETER

- The super deluxe of VOMs.
- Seventy ranges; nearly double those of conventional testers.
- Frequency compensated from 35 cps to 20 kc.
- Temperature compensated.
- Accurate within 1½% of full scale reading on DC.
- Large open front meter easy to read.
- Mirrored scale.
- Meter protection against overloads.

RANGES

DC Volts: 0-.240-.6-3-12-60-300-1,200-6,000 at 10,000 ohms per volt.
0-.120-.3-1.5-6-30-150-600-3,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.
Ohms: 0-1K-10K-100K.
Megohms: 0-1-10-100.
DC Microamperes: 0-120 at 240 millivolts. 0-60-600 at 120 millivolts.
DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts. 0-6-60-600 at 120 millivolts.
DC Amperes: 0-12 at 240 millivolts. 0-6 at 120 millivolts.
DB: —20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated, 3 1/32" x 5½" x 7½".

MODEL 630-NA—U.S.A. Dealer Net..... **$79.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

Net
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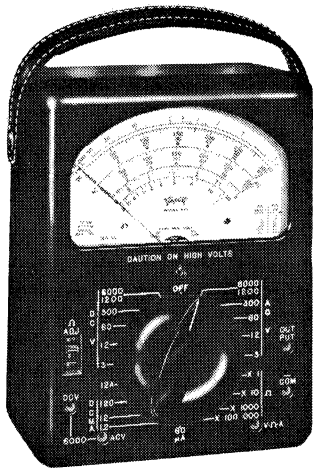
TRIPLETT TEST EQUIPMENT

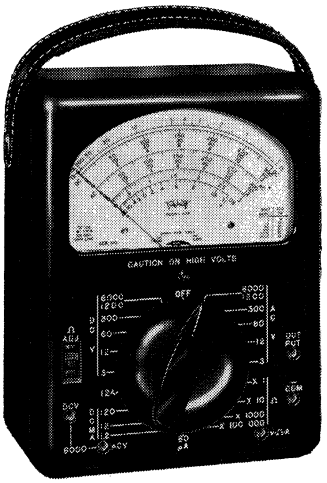
MODEL 630 — VOLT-OHM-MILLIAMMETER



- Popular streamlined tester with long meter scales arranged for easy reading.
- Outstanding linear ohm scale; low reading .1 ohm, high 100 megs.
- One switch will select any range; minimizes chance of incorrect settings and burnouts.
- Accuracy 3% DC to 1200 V.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated. 3 3/32" x 5½" x 7½".
MODEL 630—U.S.A. Dealer Net.....**$49.50**
Complete with leads, alligator clips, rubber feet, batteries and Instruction manual.



MODEL 630-A — VOLT-OHM-MILLIAMMETER

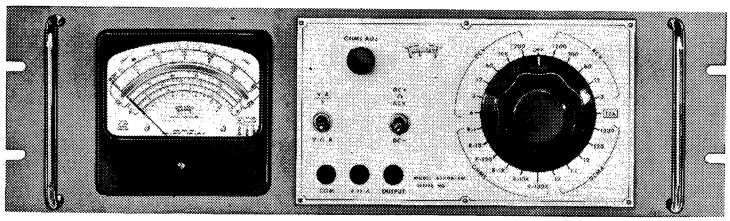
- A laboratory type VOM with ½% resistors for greater accuracy.
- Long mirrored scale to eliminate parallax.
- Banana jacks, low resistance connections.
- High flux magnet for increased ruggedness.
- One switch selects any range; minimizes chance of incorrect settings and burnouts.
- Accuracy 1½% on DC to 1200 V.

RANGES

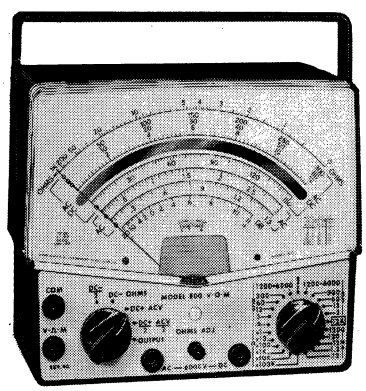
DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12 at 250 millivolts.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated. 3 3/32" x 5½" x 7½".
MODEL 630-A—U.S.A. Dealer Net.....**$59.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

MODEL 630-NA-RM — RACK MOUNTED V-O-M

Rack mounted V-O-M with ranges same as Model 630-NA above, except for 6000 AC and DC Volts. The heavy etched aluminum panel, 19" x 5¼" has two chrome plated handles for easy removal of the tester from the rack. The 4" meter has mirror scale and knife-edge pointer. Standard test leads come out the front. Also provision in the back for a three-lead connector. There is a DC reversing switch on the panel. Large, easy to turn single selector switch. Tester components and wiring enclosed in aluminum housing.



MODEL 630-NA-RM—U.S.A. Dealer Net.....**$89.50**



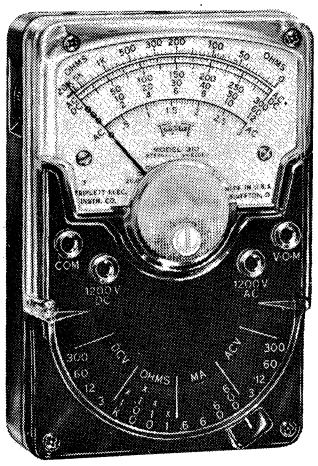
MODEL 800 — VOLT-OHM-MILLIAMMETER

- New design with open front for readibility.
- Seventy ranges: nearly double those of conventional testers.
- Greater scale length (7"), knife edge pointer, mirror scale.
- Frequency compensated from 40 cps to 20 kc to 300 V.
- Temperature compensated.
- Accurate within 1½% of full scale reading on DC.

RANGES

DC Volts: 0-.240-0.6-3-12-60-300-1200-6000 at 10,000 Ohms per Volt.
0-.120-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt.
AC Volts: 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt.
0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt.
DB: −30 to +70 in 12 ranges.
DC Microamperes: 0-60-600 at 120 MV. 0-120 at 240 MV.
DC Milliamperes: 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV.
DC Amperes: 0-6 at 120 MV. 0-12 at 240 MV.
Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale).
Output: Condenser in series with AC volt ranges.
MODEL 800—U.S.A. Dealer Net.....**$89.50**

TRIPLETT TEST EQUIPMENT



MODEL 310 VOLT-OHM-MILLIAMMETER

- The only complete miniature V-O-M with 20,000 ohms per volt and selector range switch.
- Self-shielded for checking in strong magnetic field.
- Rugged, high torque, bar-ring instrument.
- Unbreakable plastic meter window. Fitting interchangeable test prod into top of tester makes it the common probe, freeing one hand.
- Standard sensitivity, 20,000 ohms per volt DC, and 5,000 ohms per volt AC.
- Accuracy 3% DC.

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (at 5,000 ohms per volt).
Ohms: 0-20,000-200,000.
Megohms: 0-2-20.
DC Microamperes: 0-600 at 250 millivolts.
DC Milliamperes: 0-6-60-600 at 250 millivolts.
WEIGHT: Approx. 14 oz. complete with batteries.
CASE—Molded, fully insulated, 2¾" x 4¼" x 1 5/16".
MODEL 310—U.S.A. Dealer Net **$37.50**
Complete with leads, batteries and instruction manual.

TRIPLETT MODEL 10 CLAMP-ON ADAPTER

Just plug into any Triplett Model 310 Miniature V-O-M it becomes an AC clamp-on ammeter to measure AC amperes without cutting or opening current carrying wires. The split transformer yoke opens at the touch of a lever to fit around a single conductor or bus-bar for direct readings of AC amperes from 6 to 300 in 6 steps.

MODEL 10 ..... **$15.50**

RANGES
AC Amperes: 0-6-12-30-60-120-300.

The Model 10 can be used at a distance from the Model 310 by using No. 311 lead attachment. This permits readings in difficult locations.

No. 311 Leads ..... **$2.10 net**

In addition, to use with the Model 310, the Model 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 ohms per volt such as Triplett Models 630, 630-A, 630-NA, 630-PL, 631, etc., by employing Triplett

No. 611 Leads ..... **$2.10 net**

TRIPLETT MODEL 101 LINE SEPARATOR

Serves to plug in at outlet to divide 2 conductor cords for clamp-on measuring. Makes accurate, rapid testing of radio and TV sets, appliances, motors, etc., possible without opening or splitting double conductors. Also serves to increase ammeter sensitivity 10X and 20X, if desirable, for easier reading.

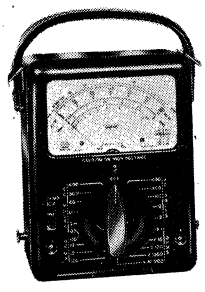
MODEL 101 ..... **$6.00 net**

RANGE	Max. Capacity Amps.
Direct	30
Divide by 10	12
Divide by 20	6

MODEL 100 V-O-M AND CLAMP-ON AMMETER SET

Consists of Model 310 VOM, Model 10 Clamp-On Adapter, Model 101 Line Separator, No. 311 leads — all conveniently packaged in one handy, durable, high-quality Model 379 leather carrying case which has provision for all parts.

MODEL 100 ..... **$64.50 net**



MODEL 630-T — VOLT-OHM-MILLIAMMETER

Specially designed for telephone maintenance. Accurary 2% on DC. Fused protected circuit protects resistors and meter in ohms ranges.

Special neck strap supplied to hold instrument, leaving both hands free.

Banana jack connectors to eliminate all shock hazard. Completely insulated case to protect instrument from ground.

RANGES

DC Volts: 0-.3-3-12-60-300-600 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-600 at 3,000 ohms per volt.
Ohms: 0-1K-10K-100K.
Megohms: 0-1-10.
DC Microamperes: 0-60 at 150 millivolts.
DC Milliamperes: 0-1.2, 12-120 at 150 millivolts.
DB: —20 to +57.
CASE—Molded, completely insulated to protect instrument from ground, 3 3/32" x 5½" x 7½".
WEIGHT—4 lbs.
MODEL 630-T—U.S.A. Dealer Net **$59.50**

LEATHER CARRYING CASES

Case 639 ..... **Net $9.90**
Case 639-N (Center open flap snaps back, use tester In case) ..... **Net $9.90**
Case 639-P (Sponge rubber lined) ..... **Net $14.90**
Case 669 ..... **Net $6.90**
Case 369 (For testers 310, 305, 308, 309) ..... **Net $3.20**
Case 369-T (Neckstrap carrying case for Model 310) ..... **Net $7.70**
Case 379 (For 310-10-101) ..... **Net $6.00**
Case 659 (For Tester 650) ..... **Net $11.90**
Case 659-P (For Tester 650) ..... **Net $17.60**
Case 629 (For 625-NA, 660, 661, 690-A) ..... **Net $7.20**

TESTER STAND

Metal stand holds Model 630, 630-A, 630-PL, 630-APL, 630-NA, 630-T, 631 or 650 tester in approximately a 45° angle; will enable you to make easier readings.

STAND ONLY—Pt. T-255-A-33—U.S.A. Dealer ..... **Net $1.00**

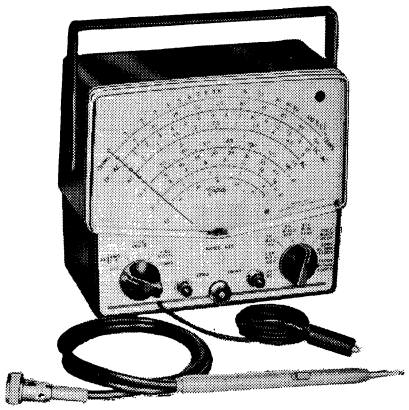
EXTERNAL SHUNTS

Pt. T-91-247— 30 Amperes (Plug-In) ..... **$ 9.90**
Pt. T-91-248— 60 Amperes (Portable) **$13.20**
Pt. T-91-255—120 Amperes (Portable) **$13.20**

Net
© U.C.P., Inc.

TEST EQUIPMENT

TRIPLETT



MODEL 850 ELECTRONIC VOLT-OHMMETER

- Extremely versatile with superior voltage measuring capabilities.
- .5 volt full scale range on DC—useful in low voltage transistor circuits.
- Better stability—meter connected in cathode circuit of 12AU7.
- Full view scales—7" long at top arc for easy reading.
- Electrical protection of meter against burnout.

RANGES

Eight DC Volts Ranges: 0-.5-1.5-5-15-50-150-500-1500.

Seven AC RMS Volts Ranges: 0-1.5-5-15-50-150-500-1500.

Seven Peak-to-Peak Volts Ranges: 0-4-14-40-140-400-1400-4000.

Seven Resistance Ranges: 0-1000-10,000-100,000—1 Meg-10 Meg-100 Megohms-1000 Megohms.

Frequency Range: 15 CPS to 3 MC; (Up to 250 MC with accessory diode probe available extra.)

Input Impedance: DC Volts 11 Megohms; AC Volts minimum of .83 Megohms.

CASE—Molded black case completely insulated. 7⅝" x 6⁷⁄₁₆" x 3¾". Carrying handle also can be used to place the tester at 25° angle for ease in reading.

PANEL—Etched aluminum.

MODEL 850—U.S.A. Dealer Net **$79.50**

MODEL 650 — VACUUM TUBE VOLTMETER

Complete frequency coverage from 15 cps to over 150 MC, with one probe supplied with instrument.

One volt full scale reading on both DC-AC.

Reads peak to peak AC volts and RMS.

Separate 1 volt AC and 5 volt scales for greater accuracy.

Single selector switch for all ranges.

Accuracy 3% DC.

RANGES

DC Volts: 0-1-5-10-50-100-500-1,000.

AC-RF Volts: 0-1-5-10-50-100-500 (15 cps to over 150 MC).

Peak to Peak Volts: 0-2.8-14-28-140-280-700.

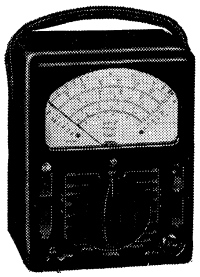
Ohms: 0-1K-10K-100K-1 Meg.-100 Meg..-1,000 Meg.

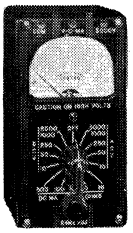
CASE—Insulated molded case and panel, 3¾" x 5½" x 7½". Removable strap handle.

MODEL 650—U.S.A. Dealer Net **$99.50**

Complete with leads, alligator clips, rubber feet, battery and instruction manual.

DC High Voltage Probe: 50 KV-500 DC volt; 10KV-100 DC volt; 5 KV-50 DC Volt. ..... **net each $15.50**





MODEL 666-HH POCKET VOLT-OHM-MILLIAMMETER

Compact, hand-size V-O-M.

Three-inch meter integral with panel, adjusted to 400 microamperes at 250 millivolts.

Only three jacks necessary for all ranges.

Accuracy 3% DC to 1000 V.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-2,000-400,000.

DC Milliamperes: 0-10-100-500 at 250 millivolts.

Output Volts: 0-10-50-250-1,000; jack with condenser in series with AC ranges.

CASE—Black molded, insulated 3⅛" x 5⅞" x 2⁹⁄₁₆".

MODEL 666-HH—U.S.A. Dealer Net **$29.50**

Complete with leads, alligator clips, battery and instruction manual.

Hand-size—the ideal tester for electrical maintenance.

Recessed range knob enables tester to fit in tool kit.

AC rectifier pre-calibrated unit for easy replacement.

Banana jacks at top of the panel lessen possibility of leads falling over the meter dial.

Single switch selects all ranges; minimizes chance of incorrect settings and burnouts.

Accuracy 3% DC to 1000 V.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-3,000-300,000.

MODEL 666-R — POCKET VOLT-OHM-MILLIAMMETER

Megohms: 0-3.

DC Milliamperes: 0-10-100 at 250 MV.

DC Amperes: 0-1 at 250 MV.

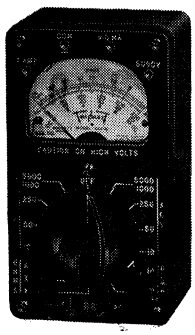
Output Volts: 0-10-250-1,000; jack with condenser in series with AC ranges.

CASE—Black molded, streamlined, completely insulated. Handy pocket size, 3⅛" x 5⅞" x 2⁹⁄₁₆".

MODEL 666R—U.S.A. Dealer Net **$32.50**

Complete with leads, alligator clips, batteries and instruction manual.

Special field case designed for the 666-R. Camera-type leather case, **No. 669-RL** **$6.60**



THE LITTLE TRIPLETTS . . . MATCHED HAND SIZE INSTRUMENTS

MODEL 305 DC MILLIVOLTMETER. For gas-fired equipment, appliances, furnaces, etc. Place probe lead across thermocouple terminals for measurements. DC Millivolt ranges: 0-10, 0-30, 0-100, 0-300, 0-1000. With 42-inch leads.

MODEL 305. Net **$32.50**

MODEL 307 AC AMMETER. Ranges: 0-1, 0-2.5, 0-5, 0-10, 0-25. Can be used with Model 10 Clamp-on Ammeter to extend ranges.

MODEL 307. Net **$32.50**

MODEL 308 LOW OHMMETER. For testing motors, armatures and fields, shorts, grounds, etc. Ranges: 0-50, 0-500, 0-5,000. I Ohm center scale on 0-50 range; lowest reading .1. (Scale length to .1 marking is 3⁄₁₆".) Includes batteries. Has ohms adjust knob.

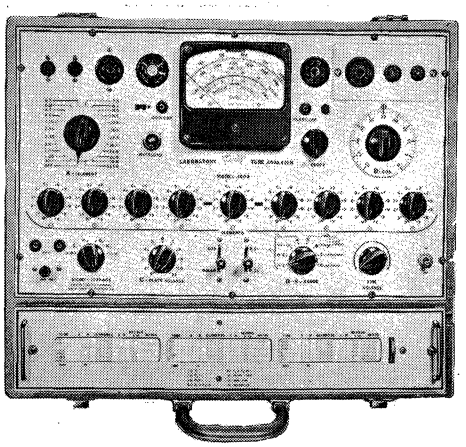
MODEL 308. Net **$32.50**

MODEL 309 OHMMETER. Ranges: 0-2,000, 0-20,000, 0-200,000 Ohms; 0-2, 0-20 Megohms. 20 Ohm center scale on 0-2,000 range. Includes batteries. Has ohms adjust knob on side of case.

MODEL 309. Net **$32.50**

Matched hand-size units, all 4¼" x 2¾" x 1⁵⁄₁₆" in size. Fully insulated black molded plastic cases. Selector switch speeds range selection. The Model 369 carrying case accommodates all but Model 307 Ammeter, which has binding posts at the bottom of the case. All have BAR-RING magnet, self-shielded, rugged, high-torque meters.

TRIPLETT TEST EQUIPMENT



MODEL 3444 — NEW PORTABLE TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER

Rapid, positive, completely analyzes, solves the most perplexing tube analysis problems—Laboratory, Research, Industrial Production, Radio, TV, Theatre, PA Equipment, Communications, etc.

Measures true Gm—no extra compensating factors—using proper value DC electrode potentials, 5 KC-AC signal source and vacuum tube micro-ammeter at very low 33 ohm plate impedance.

Offers unique test advantages never before available in portable models: CHECKS PLATE current cut-off. PLOTS tube characteristic curves. CHECKS GAS under actual operating condition. CHECKS RECTIFIERS under load. CHECKS THYRATRON firing voltage, grid current. CHECKS DUAL section tubes with only 1 lever movement. CHECKS ACCURACY Gm circuits by self-checking Gm circuit. PROVIDES SHORTS, LEAKAGE measurements from 0-10 megohms using filtered DC supply 85V. New easy tube chart data. PROVIDES cut-off measurements voltage, amplifiers. RECESSED SOCKET SAVERS (under-panel mounted) easily removable for replacement.

CASE: Wood, gray leatherette covered, 15 5/16" x 18 13/16" x 7 3/4".

MODEL 3444—U.S.A. Dealer Net **$279.50**

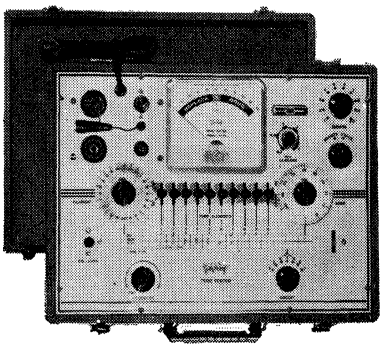
MODEL 3414 — TUBE TESTER — MORE FLEXIBLE

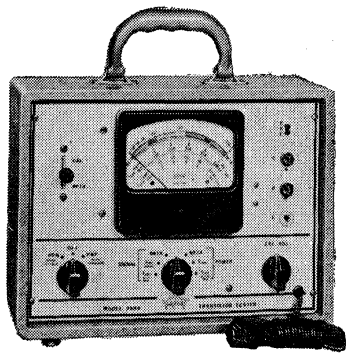
All switch settings made before tube warms up; ready for testing before filaments reach proper temperature. Rejects burned out tubes instantly without filament heatup. Complete flexibility for new tube setups; plus non-obsolescence factor. Few simple switch settings give complete accurate story tube capabilities. Modified plate conductance circuit for closer correlation to tube characteristics. Neon indicator shorts test. Slightest inter-element shorts show while cathodes are hot. New variable leakage test from 0.3 Meg. to over 3 Meg. Checks all today's and tomorrow's tubes (including new series filament tubes). With BV adapter ($5.40) tests TV picture tubes in set. Wide angle neon indicator for greater visibility glow test. Checks appliances for shorts, open circuits.

CASE: Counter-portable, wood, dark gray leatherette covered, 15 7/8" x 11 1/2" x 6 1/2".

PANEL: Etched, heavy gauge aluminum, black and red markings, 12 lbs.

MODEL 3414—U.S.A. Dealer Net **$89.50**

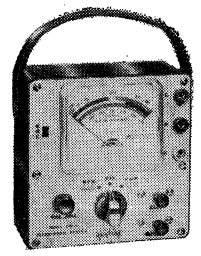




MODEL 2590 — NEW TRANSISTOR TESTER

Tests Power Type Transistors and Signal Type Transistors under SIMULATED OPERATING CONDITIONS. Tests for shorts and leakage . . . Provides for testing ICEO (at 9.5 volts); ICBO (at 9.5 volts), and BETA (at 3 volts) on both NPN and PNP transistors . . . Checks leakage and forward currents of Diodes . . . SIMPLE AND STRAIGHTFORWARD IN OPERATION . . . No roll chart or special technical data is required. The only information needed to make a test is the transistor type . . . FOR ANY BASING ARRANGEMENT. A transistor socket and a set of external leads permit use with any basing arrangement . . . Power—115 volts, 50-60 cycle AC. No batteries are required . . . **CASE**—Handsome gray leatherette covered case, 11 5/8" x 8 5/8" x 5 1/8". Case has rubber feet. Luggage style handle for ease in carrying . . . **RECESSED PANEL**—Panel of etched heavy gauge aluminum has natural finish with black and red markings and trim . . . **WEIGHT**—Approximately 5 1/4 lbs.; Shipping weight, 9 lbs.

MODEL 2590—Suggested U.S.A. Dealer Net Price **$54.50**



MODEL 690-A — TRANSISTOR TESTER

Leakage and gain tests for all low and medium power PNP and NPN type transistors . . . Measures DC Beta (current gain from base to collector with grounded emitter) from 5 to Infinity. The long, GOOD scale provides a better indication of the degree of quality . . . Affords an exact test for shorts and leakage . . . Checks forward and reverse leakage of diodes. Prevents drain on batteries in case of accidental shorting of leads. Battery operation eliminates need for external power supply . . . Error-proof controls . . . Easily portable. Transistor socket and external leads for any basing layout. **CASE**—Black molded 2 1/2" x 5 1/2" x 6" with removable black leather strap handle. Overall thickness of tester 3".

PANEL—Black and red markings etched on aluminum.

MODEL 690-A—U.S.A. Dealer Net **$32.50**

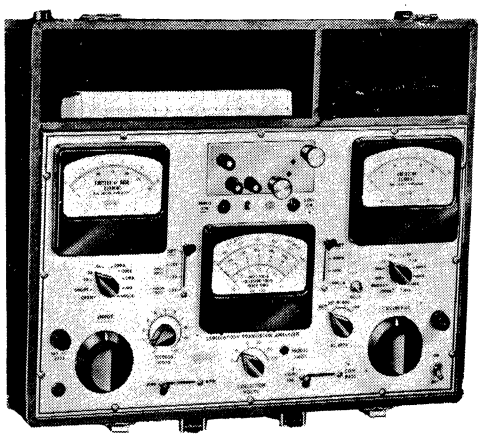
Carrying case 629.

Net

© U.C.P., Inc.

TEST EQUIPMENT

TRIPLETT



MODEL 3490 — TRANSISTOR ANALYZER

RANGES

Input Current (Emitter or Base) ..... 0-1 Amp, 0-300 Ma, 0-100 Ma, 0-100 Ma, 0-30 Ma, 0-10 Ma, 0-3 Ma, 0-1 Ma, 0-300 Ua.

Collector Current ..... 0-10 Amp, 0-3 Amp, 0-1 Amp, 0-300 Ma, 0-100 Ma, 0-30 Ma, 0-10 Ma, 0-3 Ma, 0-1 Ma, 0-300 Ua.

ICEO, ICO (ICBO) ..... 0-60 Ma, 0-6 Ma, 0-600 Ua, 0-60 Ua.

Collector Voltage 0-120V, 0-60V, 0-30V, 0-12V, 0-3V

Emitter or Base Voltage 0-12V, 0-1.2V

Tetrode ..... 0-10V Calibrated Control

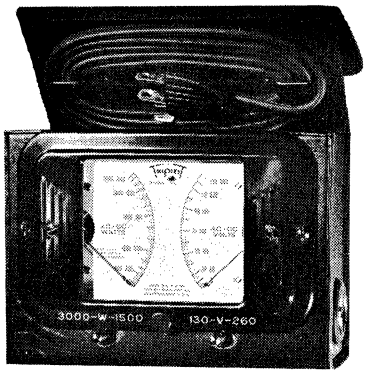
For the ultimate in Transistor Analysis, Model 3490 offers among other features:

THREE INDEPENDENT Power Supplies—COLLECTOR currents to 10 Amperes—INPUT currents to 1 Ampere—SEPARATE Input and Collector meters (4½") monitor emitter or base—CONTINUOUSLY VARIABLE Emitter or Base Voltage or Current—CONTINUOUSLY VARIABLE Tetrode Voltage—MEASUREMENT AT ANY POTENTIAL of ICO and ICEO—DC ALPHA or BETA measurement on Signal and Power Types—MEASUREMENT OF AC BETA on Signal Types at 1000 cycles—CONTINUOUS INSTRUMENT COVERAGE, no skips—ALSO HANDLES Punch Through; Saturation and Floating Potential Measurements—ANALYZES transistors in either the Common Base or Common Emitter configuration.

CASE—Wood, gray leatherette covered, 18 13/16" x 15 7/16" x 8" with removable cover and sloping etched aluminum panel.

MODEL 3490—Suggested U.S.A. Dealer Net **$399.50**

MODEL 2002 — APPLIANCE TESTER



For installations and servicing.

Shows power consumption of industrial equipment, radios, electric ranges, refrigerators, washers and other household appliances under actual operating conditions, on either DC or AC between 25 and 133 cycles.

A Wattmeter on the left and a Voltmeter on the right permit Watts and Volts to be read simultaneously or independently.

Shows if voltage remains within limits under operating loads.

Current coils assure ample capacity for momentary tests on motor starting overloads.

Heavy inner construction assures ample current capacity for momentary tests on motor starting overloads.

Shows faulty power lines.

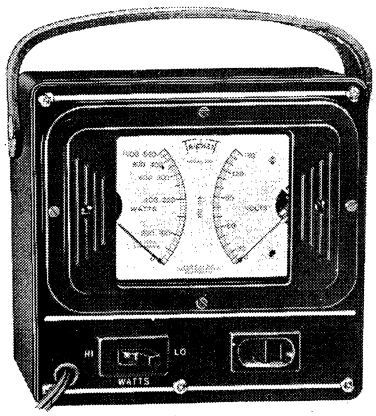
RANGES

Watts: DC-AC: 0-1,500-3,000.

Volts: DC-AC: 0-130-260.

CASE—Heavy leather and snap button cover and leather handle, 6½" x 4½" x 3¼". Storage space for leads furnished which include one cord to plug into wall socket, another with a socket to receive connections from appliances under test.

MODEL 2002—U.S.A. Dealer Net **$49.50**



MODEL 660, 661 — LOAD CHECK

A time-saver, designed for TV servicing. Helps prevent repair come-backs.

No time lost in connecting this unit. Just plug in the power cord of the radio and all meters are connected.

Quick way to locate hidden shorts and overloaded circuits.

Double meter indication provides simultaneous check of line voltage and power.

Shows faulty power line wiring as well as proper functioning of the appliance under test.

Simple operation by means of only one toggle switch to change watts range.

Double range on Watts meter permits one unit to serve from a 5-tube radio to the largest TV set.

RANGES **Watts:** DC-AC: 0-500-1,000 **Volts:** DC-AC: 0-150

CASE—Black molded, 2½" x 5½" x 6", insulated to protect instrument from ground. Removable black leather strap handle.

MODEL 660—U.S.A. Dealer Net **$39.50**

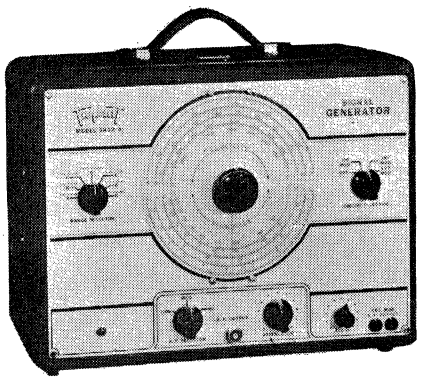
MODEL 661

RANGES **Watts:** DC-AC: 0-150-300 **Volts:** DC-AC: 0-150

Designed for Radio and Low Wattage Appliances. Appearance and construction same as 660 with watt range 150-300.

MODEL 661—U.S.A. Dealer Net **$39.50**

MODEL 3432-A — SIGNAL GENERATOR



The generator is provided with a 400 cycle audio frequency with variable control for 0-100 per cent modulation.

Band A	160-370 KC	Band E	4.85-13 MC
B	360-735 KC	F	12.5-35 Mc
C	715-1875 KC	G	34-110 MC
D	1825-4950 KC	G (Harmonics)	68-220 MC

CASE—Metal with black baked suede finish, 15 11/32" x 11 11/32" x 6¼". Black leather strap handle, rubber feet.

MODEL 3432-A—U.S.A. Dealer Net **$109.50**

Designed for new servicemen coming into the service field. One generator to align radio, television (monochrome and color).

Complete frequency coverage 160 KC to 110 MC fundamental with seven bands (220 MC harmonics).

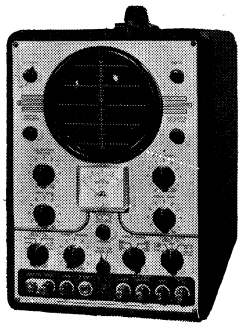
R.F. circuits are double shielded with copper steel shields.

Large easily read etched aluminum dial.

Cathode follower output provides good stability by acting as a buffer to the oscillator.

TRIPLETT TEST EQUIPMENT

MODEL 3441-A — NEW 5 INCH OSCILLOSCOPE



- Maximum sensitivity (10 millivolts per inch). Wide band width 4.5 MC (usable to 9 MC).
- Wide band amplifiers for color TV servicing.
- Calibration voltage metered so line voltage is not a factor.
- Horizontal amplifier frequency range flat to + or — 1 DB from 20 cycles to 60 KC.
- Deflection sensitivity .15 volts RMS per inch.
- Saw tooth output supplies a saw tooth wave form from 10 to 60,000 cycles. Output variable 0-70 volts peak to peak. Polarity-reversing switch keeps wave form showing in conventional manner.

PANEL—Black and red on white. Characters etched on aluminum.

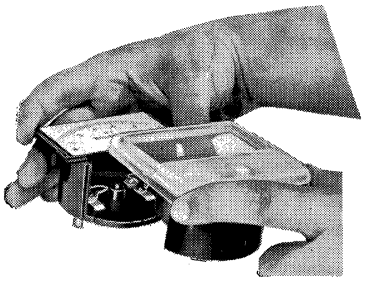
CASE—Metal with black suede enamel finish, 15 1/32" x 11 1/32" x 16". Leather handle.

MODEL 3441-A—U.S.A. Dealer Net **$249.50**

Crystal (Demodulating or Signal Tracing) Probe. Part No. 9989 **$11.50**

Low capacity (10-1). Part No. 10379-A **$13.10**

NEW TRIPLETT UNIMETERS



An innovation in self-service meters these Select-Your-Range Unimeters consist of two basic meter movements, which can be combined with any one of a number of separate dial-component units for a wide variety of meter ranges. The basic meter movements and the Dial-Component units lock together simply; no soldering, no wiring, no opening of the dust-proof movement is required.

In two sizes, 327-U 3½" rectangular and 420-U 4½" rectangular with mirror scale for greater accuracy in reading. Also in handy kits, both sizes, as below. The triple-purpose kit case with handle provides handy portability; easy protective storage and attractive display.

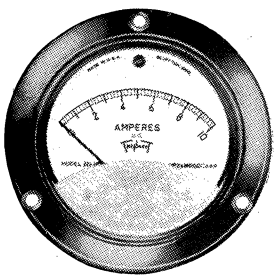
UNIMETER PRICE LIST — BASIC MOVEMENTS

	U.S.A. Dealer Net
Model 327-U 0-1 DC Milliammeter (50 MV)	**$12.10**
Model 327-U 0-50 DC Microammeter (250 MV)	**17.50**
Model 420-U 0-1 DC Milliammeter (50 MV)	**13.20**
Model 420-U 0-50 DC Microammeter (250 MV)	**18.70**

DIAL-COMPONENT UNITS

U.S.A. Dealer Net Price Each Unit (Specify for use with 327-U or 420-U) **$2.75**

DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA	DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA
0-1	0-100	0-10	0-1	0-10	0-50	0-15	0-250	0-150	0-15		0-500
0-5	0-150	0-25	0-5	0-150	0-100	0-25	0-300	0-300	0-25		
0-10	0-200	0-50	0-10	0-300	0-200	0-50	0-500	0-500	0-50	*500 o/v	



RUGGEDIZED INSTRUMENTS

A complete line of 2½" and 3½" ruggedized and sealed instruments designed to meet government specification MIL-M-10304A.

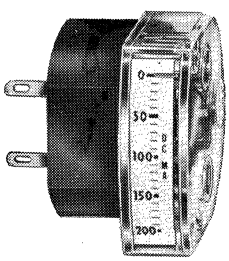
Triplett ruggedized instruments employ the unique and exclusive bar-ring construction so well adapted to ruggedization, that the addition of spring loaded jewels and an internal rubber mount (both designed for jewel protection) constitute the essential difference between the commercial and ruggedized movements.

The bar-ring construction is inherently self-shielding so that the heavy steel case does not affect instrument calibration nor does mounting in a steel panel of any thickness.

The unusually strong housing consists of a drawn steel case with heavy die cast window bezel. The bezel seals the window to the case with a simple gasket and screws. A tough plastic window is used instead of glass.

Husky gasket-sealed studs are used for electrical connections to provide additional protection over delicate glass sealed types.

Most catalog ranges of DC: MV, Volts, Mic. Ma, Amp and AC rectifier type can be supplied. Regular dials in accordance with MIL-M-10304A are supplied although special dials of all descriptions can be made up for special applications.



MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2½" sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 5% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down Is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only 5/16" x 1 1/16".

DC-MA	Dealer Net
0-1	$10.90
0-10	10.90
0-25	11.30
0-50	11.30
0-100	11.30
0-150	11.30
0-200	11.30
0-300	11.30
0-500	11.30
DC-VM	
0-10	$11.80
0-50	11.80
0-150	11.80

DC-UA	Dealer Net
0-50	$16.40
0-100	14.30
0-200	12.20
DC-AM	
0-10	$11.80
AC-VM (Rect. Type)	
0-150	$19.70
0-300	20.70
VU Meters	
A or B Scales	$21.90

Net

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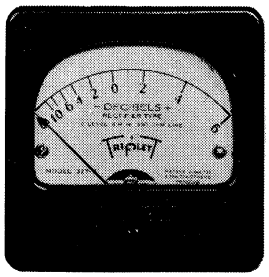
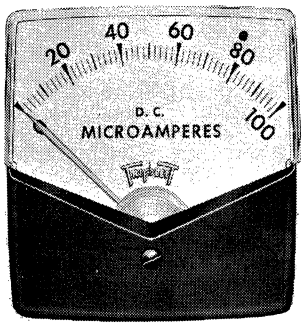
INSTRUMENTS

TRIPLETT

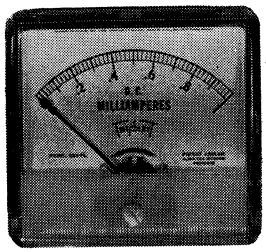


DC 221-T, 321-T

AC 231-S, 331-S

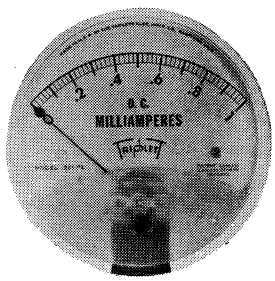


DC 220-M, 320-M, 420-M



DC 227-PL, 327-PL

AC 237-PL, 337-PL



DC 221-PL, 321-PL

AC 231-PL, 331-PL

DC MILLIVOLTMETERS

Range	Approx. Res.	Scale Div.	2½" Models 221-T 227-T	2½" Models 220-M 221-PL 227-PL	3½" Models 320-M 321-T 327-T	3½" Models 321-PL 327-PL	4½" Model 420	4½" Models 420-M 420-PL
0-50	6.3	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-100	12.5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-150	20	75(30)**	10.90		11.60		12.80	

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Models 420-M, 420, 420-PL
0-10	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50
0-50	50	11.80	11.80	12.30	12.30	13.50
0-100	50	11.80	11.80	12.30	12.30	13.50
0-150	75(30)**	11.80	11.80	12.30	12.30	13.50
0-200	40	11.80	11.80	12.30	12.30	13.50
0-250	50	11.80	11.80	12.30	12.30	13.50
0-300	60(30)	11.80	11.80	12.30	12.30	13.50
0-500	50	14.10***	14.10***	13.00	13.00	14.20
0-750	75(30)**	17.20***	17.20***	13.00	13.00	14.20
0-1000	50	14.90	14.90	15.50	15.50	16.70
0-2000	40	15.50	15.50	16.20	16.20	17.40
0-3000	60(30)**	16.20	16.20	16.80	16.80	18.00
0-4000	40	16.50	16.50	17.20	17.20	18.40
0-5000	50	16.80	16.80	17.50	17.50	18.70

DC VOLTMETERS (1000 Ohms per Volt) — WIREWOUND RESISTORS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Models 420-M, 420, 420-PL
0-1	50	$11.80	$11.80	$12.30	$12.30	$13.50
0-3	60(30)**	11.80	11.80	12.30	12.30	13.50
0-5	50	11.80	11.80	12.30	12.30	13.50
0-10	50	11.80	11.80	12.30	12.30	13.50
0-25	50	14.40	14.40	15.00	15.00	16.20
0-50	50	14.40	14.40	15.00	15.00	16.20
0-100	50	15.00	15.00	15.60	15.60	16.80
0-150	75(30)**	15.00	15.00	15.60	15.60	16.80
0-300	60(30)**	18.30	18.30	18.90	18.90	20.10
0-500	50	20.50***	20.50***	21.00	21.00	22.20
0-750	75(30)**	23.40***	23.40***	24.10	24.10	25.30
The following supplied with external resistor boxes at prices shown:						
0-1000	50	41.30	41.30	42.00	42.00	43.10
0-2000	40	67.70	67.70	68.20	68.20	69.40

***Supplied with external resistors.

DC MICROAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-20	4750	40	$19.40	$19.40	$20.00	$20.00	$21.20	$21.20
0-50	2000	50	16.40	16.40	16.90	16.90	18.20	18.20
0-100	825	50	14.30	14.30	14.90	14.90	16.10	16.10
0-200	360	40	12.20	12.20	12.90	12.90	14.10	14.10
0-500	156	50	11.70	11.70	12.20	12.20	13.40	13.40
50-0-50	825	50	14.30	14.30	14.90	14.90	16.10	16.10
100-0-100		50	12.20	12.20	12.90	12.90	13.40	13.40
500-0-500	55	50	10.90	10.90	11.60	11.60	12.80	12.80

DC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-1	55	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-1.5	30	75(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-3	14	60(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-5	8.5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-10	3.1	50	10.90	10.90	11.60	11.60	12.80	12.80
0-15	6.6	75(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-25	4	50	11.30	11.30	12.00	12.00	13.20	13.20
0-50	2	50	11.30	11.30	12.00	12.00	13.20	13.20
0-75	1.3	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-100	1	50	11.30	11.30	12.00	12.00	13.20	13.20
0-150	0.6	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-200	0.5	40	11.30	11.30	12.00	12.00	13.20	13.20
0-250	0.4	50	11.30	11.30	12.00	12.00	13.20	13.20
0-300	0.33	60(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-400	0.25	40	11.30	11.30	12.00	12.00	13.20	13.20
0-500	0.2	50	11.30	11.30	12.00	12.00	13.20	13.20
0-750	0.13	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-1000	0.1	50	11.30	11.30	12.00	12.00	13.20	13.20

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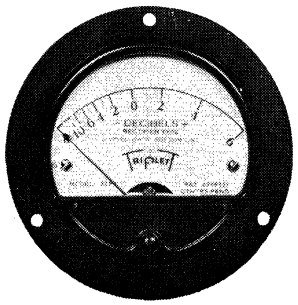
Net

TRIPLETT INSTRUMENTS



DC AMMETERS

Range	Scale Div.	2½" Models 221-T, 227-T	2½" Models 220-M, 221-PL, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-M, 321-PL, 327-PL	4½" Model 420	4½" Models 420-M, 420-PL
0-1	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-3	60(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-5	50	11.80	11.80	12.30	12.30	13.50	13.50
0-10	50	11.80	11.80	12.30	12.30	13.50	13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50	13.50
0-30	60(30)**	11.80	11.80) 221-PL	12.30	12.30) 321-PL	13.50	
0-50	50	11.80	11.80) only	12.30	12.30) only	13.50	

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switchboard type with 5 ft. leads.

AC VOLTMETERS

Range	Approx. Ohms/Volt	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-1.5	1.33	75(30)**	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-3	3.33	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-5	4	50	11.40	11.40	12.10	12.10	12.80	12.80
0-10	10	50	11.40	11.40	12.10	12.10	12.80	12.80
0-15	16	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	20	50	11.40	11.40	12.10	12.10	12.80	12.80
0-50	50	50	11.40	11.40	12.10	12.10	12.80	12.80
0-100	91	50	11.40	11.40	12.10	12.10	12.80	12.80
0-150	125	75(30)**	12.50	12.50	13.10	13.10	13.80	13.80
0-250	144	50	13.10	13.10	13.80	13.80	14.40	14.40
0-300	144	60(30)**	13.80	13.80	14.30	14.30	15.00	15.00
0-500*	125	50	17.80	17.80	18.50	18.50	19.10	19.10
0-750*	125	75(30)**	20.60	20.60	21.20	21.20	21.90	21.90
0-1000*	125	50	22.20	22.20	22.90	22.90	23.50	23.50

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained. Double-range Voltmeters are available on special order. Prices on request.

AC AMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-1	.21	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-2	.11	40	11.40	11.40	12.10	12.10	12.80	12.80
0-3	.02	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-5	.01	50	11.40	11.40	12.10	12.10	12.80	12.80
0-10	.005	50	11.40	11.40	12.10	12.10	12.80	12.80
0-15	.002	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	.001	50	11.40	11.40	12.10	12.10	12.80	12.80
0-30	.011	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-50	.0005	50	11.40	11.40	12.10	12.10	12.80	12.80
0-75	.0003	75			13.30		14.50	

AC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 231-PL, 237-PL	3½" Models 331-S, 337-S	3½" Models 331-PL, 337-PL	4½" Model 430	4½" Model 430-PL
0-10	0-10	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
0-15	1150	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0-25	344	50	11.40	11.40	12.10	12.10	12.80	12.80
0-50	82	50	11.40	11.40	12.10	12.10	12.80	12.80
0-100	21	50	11.40	11.40	12.10	12.10	12.80	12.80
0-200	6.7	40	11.40	11.40	12.10	12.10	12.80	12.80
0-250	3.4	50	11.40	11.40	12.10	12.10	12.80	12.80
0-500	0.8	50	11.40	11.40	12.10	12.10	12.80	12.80

THERMO AMMETERS (R.F.)

Range	Approx. Res.	Scale Div.	2½" Models 241-T, 247-T	3½" Models 341-T, 347-T	3½" Models 341-T, 347-T	4½" Model 440	4½" Model 440-PL
0-.5 Amps	.93	50	$12.10	$12.80	$12.80	$14.00	$14.00
0-1 Amps	.35	50	12.10	12.80	12.80	14.00	14.00
0-1.5 Amps	.21	75(30)	12.10	12.80	12.80	14.00	14.00
0-2.5 Amps	.13	50	12.10	12.80	12.80	14.00	14.00
0-5 Amps	.06	50	12.10	12.80	12.80	14.00	14.00
0-10 Amps	.03	50	12.10	12.80	12.80	14.00	14.00

Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding $6.10 net to price of instrument shown above. External couples only less meter, with leads, $7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

***Supplies with external resistors.

Net

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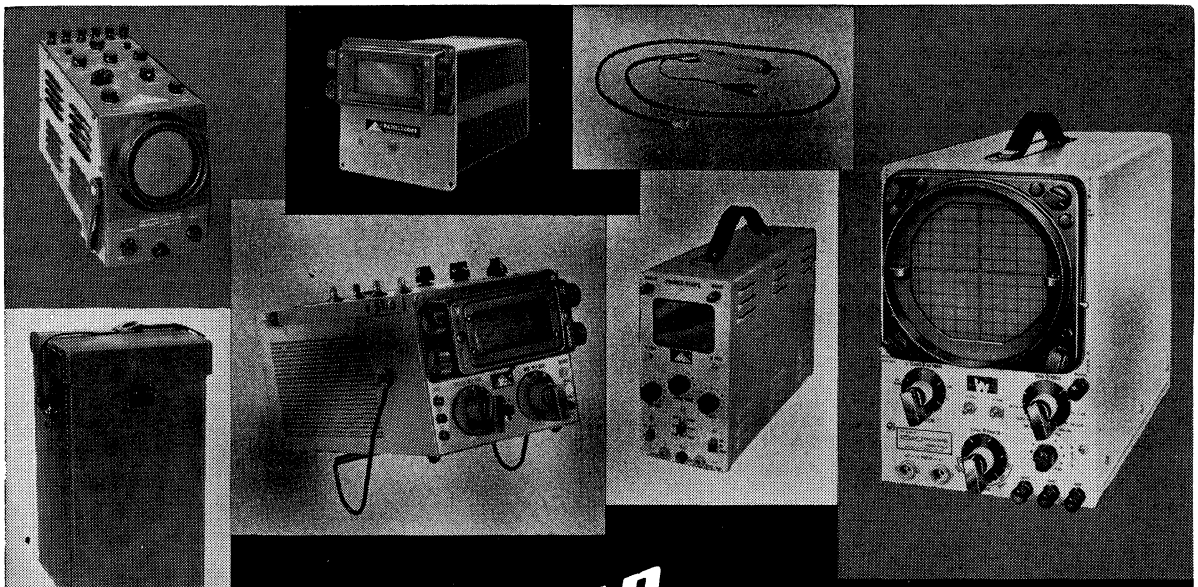


SEE Waterman POCKETSCOPES® CRAFTSCOPES® • PANELSCOPES® FIRST

LIGHT • ACCURATE • PORTABLE • DC COUPLED

NEW DUAL TRACE VOLTMETER TYPE MEASUREMENTS

	PRIMER SCOPE MARK I	PRIMER SCOPE MARK II	Industrial POCKETSCOPE® S-11-A	Hi Gain POCKETSCOPE® S-14-A	Wide Band POCKETSCOPE® S-14-B	Computer POCKETSCOPE® S-14-C	Twin Tube POCKETSCOPE® S-15-A	TV & Hi Fi CRAFTSCOPE® S-16-A	Direct Reading POCKETSCOPE® Hi-Gain S-17-A	Basic PANELSCOPE® P-1	Indicator PANELSCOPE® P-100
CR Tube Size—Inches	3	3	3	3	3	3	1½x3**	5	1½x3	1½x3	1½x3
Accelerating Voltage	850	850	560	850	850	1000	850**	800/1600	850	900	900
V Sens.-(MV rms)	6/div	36/div**	100/in	10/in	50/in	70/in*	—	2.5/cm	3.6/div	—	20 V/in
V Sens. (MV dc)	250/div	100/div**	280/in	28/in	140/in	200/in	28/in**	100/cm	10/div	56 V/in	—
V Response	DC-75 KC	DC-100 KC	DC-200 KC	DC-155 KC	DC-700 KC	DC-700 KC	DC-155 KC**	DC-5.0 MC†	DC-230 KC	From DC††	From 3c††
V Pulse rise—μ sec.	2.6	2.5	2	2.2	0.35	0.35	2.2**	0.07	2	††	††
H Sens. (MV rms)	150/div	150/div	100/in	15/in	150/in	—	—	10/cm	140/div	—	28 V/in
H Sens. (MV dc)	—	—	280/in	42/in	420/in	—	2.8 V/in**	—	—	80 V/in	—
H Response	20c-75 KC	20c-75 KC	DC-200 KC	DC-155 KC	DC-200 KC	—	DC-140 KC**	3c-180 KC	3c-170 KC	From DC††	From 3c††
Sweep	REP	REP	REP	REP-TRIG	REP-TRIG	TRIG	REP-TRIG	REP	TRIG	—	—
Range	20c-20 KC	20c-20 KC	3c-50 KC	0.5c-50 KC	0.5c-50 KC	20μS-2S	0.5c-50 KC	5c-50 KC	100μS-10S	—	—
Case Depth—in.	10	10	11	12	12	12	12	12½	10	10	10
Case Width—in.	3½	3½	5	6	6	6	6	7	5½	5¼	5¼
Case Height—in.	7	7	7	7	7	7	7	10½	4¾	5⅜	5⅜
Weight—lbs.	5¾	7¾	8¾	12¾	14	16	16¼	18½	8	5	5
Shipping Weight—lbs.	7	9	10	16	17	19	19	21	10	7	7
AC Voltage Input	105-125	105-125	105-125	105-125	105-125	105-125	105-125	105-125	105-125	105-125	105-125
Frequency in cps	60	60	50-400	50-400	50-400	50-400	50-400	50-400	50-400	50-400	50-400
Watts	40	60	43	50	65	85	75	65	48	10	10
PRICE	$69.95	$149.50	$149.50	$249.00	$239.00	$289.00	$399.00	$245.00	$295.00	$109.50	$129.50

*7 MV rms with Amplifier Probe A-11-D
**Each Channel
†Hi-Sensitivity V Response 5c-500 KC
††Coupling is direct to deflection plates making upper limit dependent on driving source

PRICES & SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PROBES

MODEL	FUNCTION	USED WITH	PRICE
A-10-A	Combination Probe (1 & 10:1)	S-14-A,B S-15-A	$19.90
A-10-B	Combination Probe (1 & 10:1)	S-16-A	9.95
A-10-C	Combination Probe (1 & 10:1)	S-14-C	19.90
A-10-H	Combination Probe (1 & 10:1)	S-17-A	11.95
A-11-D	Amplifier Probe (1:10)	S-14-C	39.90

CARRYING CASES For POCKETSCOPE® Model

MODEL		PRICE
A-20-A	S-11-A	$11.95
A-20-B	S-14-A,B,C S-15-A	11.95
A-20-C	S-17-A	11.95

Engineering data sheets available with complete descriptions

See page 1488 for Waterman Rayonic® Cathode Ray Tubes

WATERMAN PRODUCTS CO., INC.
Philadelphia 25, Pa.
Cable Address—Pocketscope, Philadelphia 25, Pa.

WATERMAN PRODUCTS

WESTON INSTRUMENTS

The CROWN SERIES
distinguished by handsome, functional design

Weston's Crown Line represents the ultimate in meter design, performance and readability. Their striking cases will enhance the most modern panels or electronic equipment.

Scales are exceptionally long for the case diameters: up to 2.5 inches for the 2.5-inch models. Ballistic characteristics are greatly improved.

Clear plastic covers and exceptionally long scales afford unmatched readability, with excellent natural illumination from top, front and sides. Confusing shadows are eliminated. In poorly lighted areas, one bulb mounted above the instrument furnishes adequate illumination. The neutral tone of the multi-prism front is designed to complement test equipment or panels of any color. CORMAG® mechanisms eliminate the need for external shielding; they can be closely grouped on magnetic or nonmagnetic panels without special adjustments or danger of intereffects.

SPECIFICATIONS

MECHANISM—Models 1721/1722 core magnet moving coil type. Model 1724—Movable iron vane.

ACCURACY—D.C. instruments are within ±2% of full scale value. Model 1722 rectifier type a-c instrument is within ±3% of full scale when used on sine wave 60 cycle source at normal room temperature of 25°C.
Model 1724 a-c instrument is within ±2% of full scale value.

CASE—Crown shape with molded Bakelite base and clear plastic cover.

MOUNTING—Models 1721/1722/1724—Interchangeable with any 2.5" MIL Spec instrument, including the flush round Bakelite case Weston 506 Series.

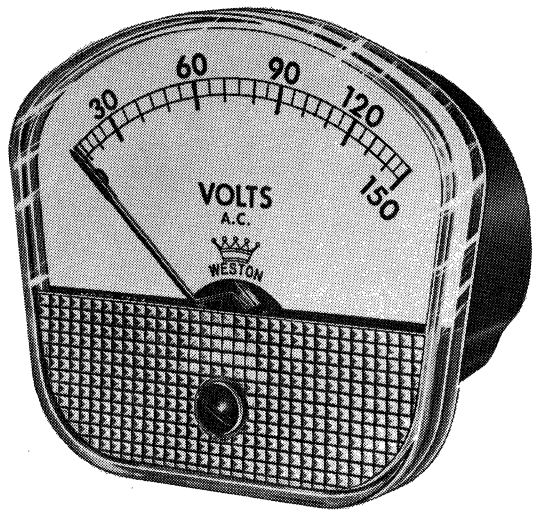
TERMINALS—8-32 BC rods with nuts and washers.

POINTERS—Lance type, black finish.

SCALES—Models 1721/1722—Full 2.5" long—(longer than most 3½" panel instruments) 100° arc.
Model 1724—2.25" long, 90° arc.

ZERO CORRECTOR—Screwdriver type, 360° rotation.

SHIELDING—Models 1721/1722—CORMAG® mechanism.
Model 1724 is unshielded.



TYPICAL RANGES

D-C MODEL 1721
VOLTMETERS—1,000 Ohms Per Volt

Range	Scale Div. 1721	Price 1721
5	50	$13.50
15	75	13.50
50	50	13.50
150	75	13.50
300	60	14.00
500	50	—

AMMETERS

Range (Self-Contained)	Scale Div. 1721	Price 1721
1	50	$13.00
3	60	13.00
5	50	13.00
10	50	13.00

External Shunt Type	Scale 1721	Scale Div. 1721	Price 1721
50 MV	100 amps	50	$13.25
50 MV	150 amps	75	13.25
50 MV	200 amps	40	13.25

MILLIAMMETERS

Range	Approx. Res. 1721	Scale Div. 1721	Price 1721
1	80	50	$13.00
5	8	50	13.00
10	1.1	50	13.00
20	1.1	40	13.00
50	2	50	13.00
100	1	50	13.00
200	0.5	40	13.00
300	0.33	60	13.00
500	0.2	50	13.00
1-0-1	45	50	13.00

MICROAMMETERS

Range	Approx. Res. 1721	Scale Div. 1721	Price 1721
20	5500	40	$23.00
50	4800	50	19.00
100	1230	50	16.00
200	600	40	13.50
500	230	50	13.50
50-0-50	1230	50	16.00

RECTIFIER TYPE A-C MODEL 1722
VOLTMETERS—1,000 Ohms Per Volt

Range	Scale Div.	Price
5	50	$20.00
15	75	20.00
50	50	20.00
150	75	20.00
300	60	20.00

MILLIAMMETERS

Range	Approx. Res.	Scale Div.	Price
1	470	50	$20.00
5	150	50	20.00

MICROAMMETERS

Range	Approx. Res.	Scale Div.	Price
200	2,000	40	$22.50
500	750	50	20.00

MODEL 1724 A-C VOLTMETER
25-125 CYCLES

Range	Scale Div.	Approx. Ohms/Volt	Price
5	50	10	$17.00
10	50	10	17.00
15	30	14	17.00
30	30	27	17.00
50	50	45	17.00
150	30	130	17.50
300	30	260	19.00
500	50	260	21.50

A-C AMMETER
25-500 CYCLES

Range	Scale Div.	Approx. Resis. Ohms	Price
1	50	0.125	$17.00
2	40	0.035	17.00
3	30	0.0165	17.00
5	50	0.002	17.00
10	50	0.001	17.00

A-C MILLIAMMETER
25-500 CYCLES

Range	Scale Div.	Approx. Resis. Ohms	Price
15	60	600	$17.00
50	50	82	17.00
100	50	21	17.00
500	50	0.65	17.00

RESALE DISCOUNT—15% 1-9, 20% 10-24

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

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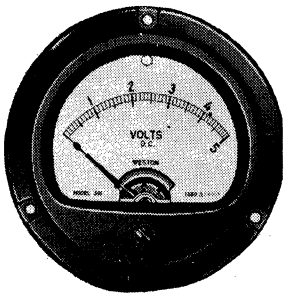
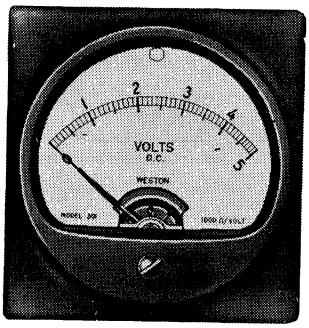
WESTON INSTRUMENTS

201/301 PANEL INSTRUMENT SERIES





The Weston 301 Line—famous and trusted throughout industry for many years—has undergone important changes. The 3½-inch instruments look different, are more versatile, work better and longer. And now a sister line of 2½-inch instruments has been introduced—the 201 Group—matching the 301 instruments in appearance and incorporating the same new features.

The renowned Weston CORMAG® mechanism is now standard equipment . . . permits mounting on magnetic or nonmagnetic panels, close to other instruments, without special adjustments. It makes the "301" and "201" immune to the effects of stray magnetic fields. Ballistic characteristics are improved; even critical damping can be obtained. New, modernistically styled Bakelite cases—round or rectangular—are standard. These cases are interchangeable for A.C. and D.C. models.

MODELS 201/301—D.C. VOLTMETERS
1000 Ohms/Volt

Range	Scale Div. 201	Scale Div. 301	Price 201	Price 301
1				
1.5		75		$15.25
3	30	60	$14.25	15.25
5	25	50	14.25	15.25
8	40	40	14.25	15.25
10	20	50	14.25	15.25
15	30	75	14.25	15.25
30	30	60	14.25	15.25
50	25	50	14.25	15.25
80	40	40	14.25	15.25
100	20	50	14.25	15.25
150	30	75	14.25	15.25
200	40	40	14.75	15.75
300	30	60	14.75	15.75
500	25	50	15.25	16.25
1KV		50		20.25

MODELS 201/301—D.C. MILLIAMMETERS

Range	Scale Div. 201	Scale Div. 301	App. Resis. 201	App. Resis. Ohms 301	Price 201	Price 301
1	20	50	100	88	$13.75	$14.75
1.5		75		88		14.75
2		40		45		14.75
3		60		45		14.75
5	25	50	6	8	13.75	14.75
10	20	50	2.5	2.5	13.75	14.75
15	30	75	2.5	2.5	13.75	14.75
20	40	40	2.5	2.5	13.75	14.75
30	30	60	2.5	2.5	13.75	14.75
50	25	50	2	2	13.75	14.75
100	20	50	1	1	13.75	14.75
150	30	75	0.66	0.66	13.75	14.75
200		40		0.5		14.75
300		60		0.33		14.75
500	25	50	0.2	0.2	13.75	14.75
800	40	40	0.12	0.12		14.75
1000	20	50	0.05	0.05	13.75	14.75
1-0-1	40	40	40	45	13.75	14.75
50-0-50	50	50	2	2		14.75
100-0-100	40	40	1	1	13.75	14.75

MODELS 201/301—D.C. AMMETERS

Range	Scale Div 201	Scale Div 301	Price 201	Price 301
1	20	50	$13.75	$14.75
2	40	40	13.75	14.75
3	30	60	13.75	14.75
5	25	50	13.75	14.75
10	20	50	13.75	14.75
15	30	75	14.75	15.75
30		60		15.75
50	25	50	14.75	15.75
10-0-10		40		14.75
30-0-30		60		15.75
50-0-50		50		15.75

MODELS 201/301—D.C. MICROAMMETERS

Range	Scale Div. 201/206	Scale Div. 301/306	Approx. Res. 201	Approx. Res. 206	Approx. Res. 301	Approx. Res. 306	Price 201	Price 206	Price 301	Price 306
10	20	50	—		—	4500		$31.00*		$32.00*
20	40	40	—	1520	5500	1520		26.00*	$24.75	27.00
30	30	60	—	1520	5500	1520		25.00*	23.00	26.00*
50	25	50	4150	1140	4800	1140	$19.75	24.00*	20.75	24.00*
100	20	50	870	660	1230	600	16.75	22.00*	17.75	22.00*
200	40	40	600	—	600	—	14.25		15.25	22.00
500	25	50	160	—	230	—	14.25		15.25	
50-0-50	20	50	870	—	1230	—	16.25		17.75	
100-0-100	40	40	600	—	600	—	14.25		15.25	
500-0-500	20	50	100	—	88	—	13.75		14.75	

MODEL 204/304 SERIES—A.C. VOLTMETERS

Range	Scale Div. 204/304	Approx. Ohms/Volt 204/304	Price 204	Price 304
1.5	30	3	$17.50*	$18.50
3	30	6	17.50*	18.50
5	50	10	17.50	18.50
10	50	10	17.50	18.50
15	30	14	17.50*	18.50
30	30	27	17.50*	18.50
50	50	45	17.50*	18.50
80	40	70	17.50*	18.50
130	26	115	18.00*	19.00
150	30	130	18.00	19.00
250	25	220	19.00*	20.00*
300	30	260	19.50	20.50
500	50	260	22.00*	22.00

A.C. AMMETERS—25-500 CYCLES

Range	Scale Div. 204/304	Approx. Resis. Ohms 204/304	Price 204	Price 304
1	50	0.125	$17.00	$18.00
2	40	0.035	17.00	18.00
3	30	0.0165	17.00	18.00
5	50	0.002	17.00	18.00
10	50	0.001	17.00	18.00
20	40	0.001	17.00*	18.00
30	30	0.00085	17.00	18.00
50	50	0.00072	17.00	18.00

A.C. MILLIAMMETERS

Range	Scale Div. 204/304	Approx. Resis. Ohms 204/304	Price 204	Price 304
15	30	600	$17.00*	$18.00*
50	50	82	17.00*	18.00
100	50	21	17.00*	18.00
500	50	0.65	17.00	18.00

208 THERMO SERIES—THERMO-AMMETER

Range	Scale Div.	Price	Range	Scale Div.	Price
1	20	$29.00*	8	40	$29.00*
1.5	30	29.00*	10	20	29.00*
2	40	29.00*	15	30	29.00*
3	30	29.00*	20	40	29.00*
5	25	29.00			

THERMO-MILLIAMMETER

Range	Scale Div.	App. Resis. Ohms	Price
100	20	5.2	$33.00*
*115	20	5.2	33.00*
120	30	5.2	33.00*
300	30	1.8	33.00*
500	25	1.3	33.00*

*Current Squared Galvanometer with uniform 100 division scale.

MODEL 308 SERIES—THERMO-AMMETER

Range	Scale Div.	Price	Range	Scale Div.	Price
1	50	$30.00	5	50	$30.00
1.5	60	30.00	8	40	30.00
2	40	30.00	10	50	30.00
2.5	50	30.00	15	60	30.00
3	60	30.00	20	40	30.00*
4	40	30.00			

THERMO-MILLIAMMETER

Range	Scale Div.	App. Resis.	Price
† 10	50	85	$66.00
† 20	40	22	66.00
† 50	50	5	66.00
100	50	8	34.00
*115	50	5.2	34.00
120	60	5.2	34.00
150	75	5.2	34.00
200	40	2.7	34.00
300	60	2.4	34.00
500	50	1.3	34.00

For ranges of 100 MA or higher, expanded scale can be furnished at an additional $8.00.
†Vacuum Thermocouple type
*Current Squared Galvanometer with uniform 100 division scale

RESALE DISCOUNT—15% 1-9, 20% 10-24, except those marked *

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

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WESTON INSTRUMENTS

PANEL INSTRUMENT SERIES, CONT.

202/302 RECTIFIER TYPE A.C. SERIES A.C. VOLTMETER

	1000 Ohms/Volt Scale Div.	Price			2000 Ohms/Volt Scale Div.	Price	
Range	302	202	302	Range	302	202	302
3	60	$20.25*	$21.25	1	50	$20.75*	$21.75
5	50	20.25*	21.25	1.5	75	20.75*	21.75
10	50	20.25*	21.25	3	60	20.75*	21.75*
15	75	20.25*	21.25	5	50	20.75*	21.75*
30	60	20.25*	21.25	10	50	20.75*	21.75*
50	50	20.25*	21.25	15	75	20.75*	21.75
100	50	20.25*	21.25	30	60	20.75*	21.75*
150	75	20.25*	21.25	50	50	20.75*	21.75
300	60	20.75*	21.75	100	50	20.75*	21.75*
				150	75	20.75*	21.75

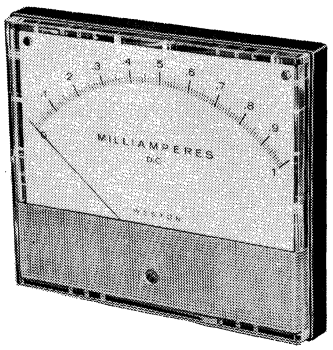
A.C. MILLIAMMETERS

Range	Scale Div.	Approx. Resis. Ohms	Price 202	Price 302
0.5	50	1030	$20.25*	$21.25*
1	50	470	20.25*	21.25
2	40	270	20.25*	21.25
5	50	150	20.25*	21.25

A.C. MICROAMMETERS

Range	Scale Div.	Approx. Resis. Ohms	Price 202	Price 302
100	50	3400	$24.00	$25.00
200	40	2400	22.75	23.75*
300	60	2000	22.75	23.75*
500	50	1030	20.25	21.25

NEW 1951 SERIES



An important new addition to the Weston panel instrument line. Noteworthy features include clear plastic or Bakelite cases which are readily interchangeable . . . 4.7" long scale . . . 2% accuracy . . . spring back jewels . . . minimum power consumption and response time.

TYPICAL RANGES
D-C MODEL 1951

D-C AMMETERS

Range (Self-contained)	Scale Div.	Price
1	50	$21.25
2	40	21.25
5	50	21.25
10	50	21.25

External Shunt Type	Scale	Scale Div.	Price
50 MV	100	50	$20.50
50 MV	150	75	20.50
50 MV	200	40	20.50

D-C MICROAMMETERS

Range	Scale Div.	Approx. Res.	Price
50	50	4700	$22.25
100	50	1230	19.25
200	40	600	16.75
500	50	230	16.75

D-C MILLIAMMETERS

Range	Scale Div.	Approx. Res.	Price
1	50	115	$20.50
5	50	11	20.50
10	50	2.7	20.50
20	40	2.7	20.50
50	50	2.0	20.50
100	50	1	20.50
200	40	0.5	20.50
500	50	0.2	20.50

D-C VOLTMETERS (1000 Ohms per Volt)

Range	Scale Div.	Price
5	50	$21.25
15	75	21.25
50	50	21.25
150	75	21.25
300	60	21.25

RECTIFIER TYPE A-C—MODEL 1952

A-C MILLIAMMETERS

Range	Scale Div.	Approx. Res.	Price
1	50	470	$25.25
5	50	150	25.25

A-C MICROAMMETERS

Range	Scale Div.	Approx. Res.	Price
200	40	2400	$28.75
500	50	750	28.75

A-C VOLTMETERS (1000 Ohms per Volt)

Range	Scale Div.	Price
3	60	$26.25
15	75	26.25
50	50	26.25
150	75	26.25
300	60	26.25

RESALE DISCOUNT—15% 1-9, 20% 10-24, except those marked *

MARK II ANALYZER

Model 980 Mark II

Price $49.50

Combination protective front cover and tilt stand $5.50

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation
- Fully Insulated Crackproof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components—No Parts Selection Required
- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c.
Scale Length: 4.63"
Ranges:
D-C Volts: 1.6, 8, 40, 160, 400, 800, 4000 . . . at 20,000 ohms/volt.
A-C Volts: 1.6, 8, 40, 160, 400, 1600 . . . at 1,000 ohms/volt.
DB Range: —15 db to +54 db (in six ranges).
D-C Amperes: 8
D-C Milliamperes: 1.6, 8, 80, 800.
D-C Microamperes: 80.

Ohms Range	Center Scale	Full Scale
R x 1	25	1,000
R x 10	250	10,000
R x 100	2,500	100,000
R x 1,000	25,000	1 megohms
R x 10,000	250,000	10 megohms

Case: Black impact resistant plastic, with carrying strap.

Panel: Black impact resistant plastic with engraved white markings.

Size: 6.25" x 7.50" x 2.25".

Approx. Weight: 2.5 lbs.

Ohms: Four decade ranges: 1K to 10 meg full scale; 25 ohms to 250K center scale.

High Voltage Probes: High voltage probes are available for measuring high voltages up to 20 kv at 50 microamperes or less. Probes have multiplier resistors encased in insulated handles. Multipliers are rated with a flash voltage of 30 kv.

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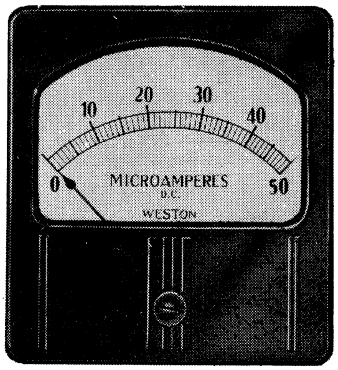
WESTON INSTRUMENTS



741/744 PANEL INSTRUMENTS

These instruments are regularly supplied in flush, black bakelite cases which can be mounted on panels up to ⅞" thick. The adjustable mounting arrangement is invisible from the front of the panel.

Illumination feature available if required.

Rated Accuracy: 1% of full scale value.

Overall Dimensions: 4" x 4.25" (101.6 x 107.9 mm)

Scale: 3.52" (90 mm)

Model 741: Permanent Magnet Moving Coil Type

Model 744: Movable Iron Type

MODEL 741 D-C VOLTMETERS (1000 ohms/volt)

Range	Scale Div.	Price
10	50	$45.25
30	60	45.25
50	50	45.25
150	75	46.75
300	60	49.75

MODEL 741 D-C AMMETERS

Range	Scale Div.	Price
1	50	$45.25
5	50	45.25
10	50	45.25
25	50	45.25
50	50	45.25

MODEL 741 D-C MILLIAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
1	60	39	$45.25
10	50	2.8	45.25
25	50	1.06	45.25
50	50	2	45.25
100	50	1	45.25
200	40	0.5	45.25
300	60	0.33	45.25
500	50	0.2	45.25

MODEL 741 D-C MICROAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
30	60	1800	$63.25
50	50	720	61.50
100	50	290	60.25
200	40	475	48.00
500	50	98	48.00

MODEL 744 A-C VOLTMETERS (25-125 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
10	50	33	$49.50
15	75	98	49.50
30	60	362	49.50
130	65	7880	51.00
150	75	9100	51.00
*300	60	18200	59.25
*500	—	—	71.00

*Furnished with External Resistor Type 51

MODEL 744 A-C AMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
1	50	1.12	$49.50
3	60	0.112	49.50
5	50	0.0275	49.50
10	50	0.0135	49.50
15	75	0.0068	49.50
20	40	0.0026	49.50
30	60	0.0020	49.50
50	50	0.00070	49.50

MODEL 744 A-C MILLIAMMETERS (25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
250	50	10.2	$49.50

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ¾ of 1% — Movable Iron Type — Shielded Case Size 5-1/16" x 5¼" x 3¼"—Weight 2½ lbs.—Hand Calibrated Mirror Scales Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

A-C VOLTMETERS

Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

Range	Price
10, 30, 50, 75	$ 94.25
10/5, 20/10, 30/15	95.75
450/300/150	112.25
600/300/150	112.25
750/300/150	112.25

A-C MILLIAMMETERS

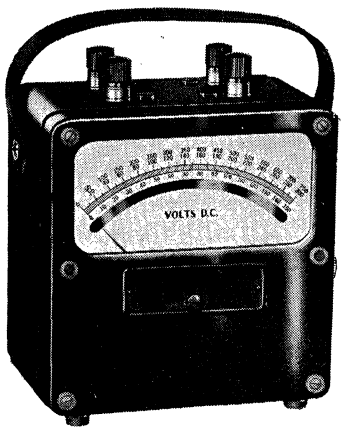
Made in single and double ranges only, for use on frequencies from 25 to 500 cycles.

Range	Price
15, 30, 75, 500	$ 85.75
300/150	100.25

A-C AMMETERS

Made in single, double and triple ranges for use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
1, 1.5, 2, 3	$ 89.25
15, 25, 30	89.25
2/1, 5/2.5, 10/5	102.25
3/1.5/0.75, 5/2.5/1, 10/5/1	140.25
20/5/2, 30/7.5/3, 50/20/5	140.25



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS

Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.

Electrodynamometer Type
Accuracy ½ of 1% ..... Scale Length 4.04"
Case Size 5 1/16" x 5¼" x 3¼" ..... Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	.1	$192.25
Double Current Ranges		
300/150	5/2.5	$192.25

MODEL 931—D-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ½ of 1% Core Magnet Moving Coil Type. Case Size 5-1/16" x 5¼" x 3¼"—Weight 2 lbs. — Hand Calibrated Mirror Scales — Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

D-C VOLTMETERS

Range	Net Price 1,000 Ohms Per Volt	Price 5,000 Ohms Per Volt
3, 15, 50	$ 87.25	$ 98.75
300/150/3	101.25	112.75
750/300/150	101.25	112.75

D-C AMMETERS

	Price
1, 1.5, 3, 5	$ 89.00
30/15/3	101.50
50/20/5	101.50

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
15, 150	$ 85.50
1500/150/15	98.75
15/1.5/.15	110.50

Single range Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

Range	High Resistance Approx. Res. Ohms	High Resistance Price	Low Resistance Approx. Res. Ohms	Low Resistance Price
30	2300	$110.50	490	$112.75
100	2000	98.75	60	110.50
200	600	94.00	15	98.75

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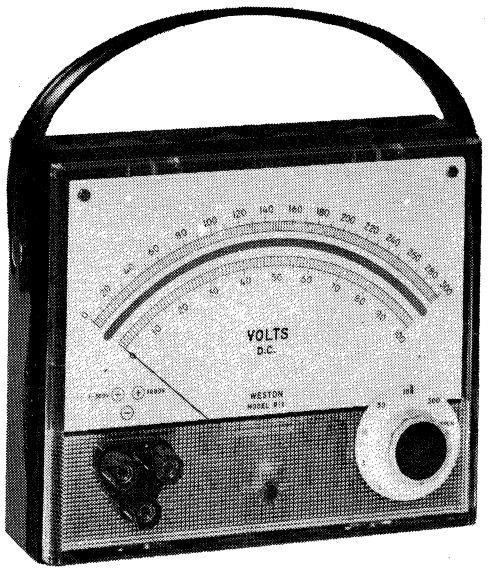
WESTON INSTRUMENTS

911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . .
Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . *all* hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



SPECIFICATIONS

ACCURACY—±1% of full scale value on d-c voltmeters and milliammeters (±2% of full scale value on 300 and 1000 volts d-c).
±2% of full scale value on rectifier type a-c voltmeters 10 through 300 volts.
±3% of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: 7½" x 6½" x 2⅜".

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.
Adjustable resistors provide for easy recalibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide ¾" spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large 7.2" mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE—7½" x 6½" x 2⅜".

RANGES AND PRICES

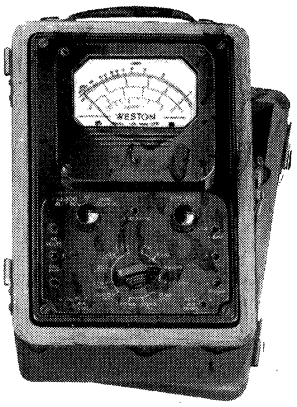
Model 911 D-C VOLTMETER (20,000 ohms per volt)
1000/300/100/30/10/3/1 Volts ..... Price $68.50

Model 911 D-C AMMETER
10/3/1 amps., 300/100/30/10 ma ..... Price $68.50

Model 911 D-C MILLIAMMETER
100/30/10/3/1/.3/.1 milliamperes ..... Price $68.50

Model 912 A-C VOLTMETER (5,000 ohms per volt)
1000/300/100/30/10/3 Volts ..... Price $78.50

SUPER-SENSITIVE ANALYZER MODEL 779



ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.

Size: 6⅜" x 9⅛" x 4⅞" (162 x 232 x 124 mm) Approx. Wt.: 6 lb. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.

RANGES

Volts D-C	Volts A-C	Current D-C Only	Decibels	Ohms
2.5	2.5	.1 Ma	— 14 to + 2*	0-3000
10	10	1 Ma	— 2 to + 14*	0-30,000
50	50	10 Ma	+ 12 to + 28*	0-300,000
250	250	50 Ma	+ 26 to + 42†	0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††	
		1 Amp	(6 milliwatts,	
		10 Amp	500 ohms, zero level)	

* Substantially flat to 10,000 cycles.
† Substantially flat to 3,000 cycles. †† Substantially flat to 1,000 cycles.

Model 779 Type 1
Price $194.25

MODEL 799 INSULATION TESTER

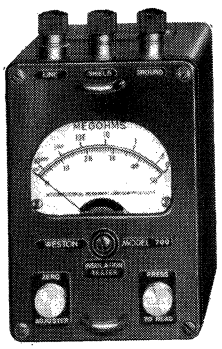
ACCURACY: Within ⅛" of scale length. SCALE: 2.375" (60.3 mm)

Size: 3 3/16" x 5¼" x 5" (86 x 133 x 127 mm) Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.

RANGES: 0-10,000 megohms (Logarithmic scale)

Price $99.50



Model 799

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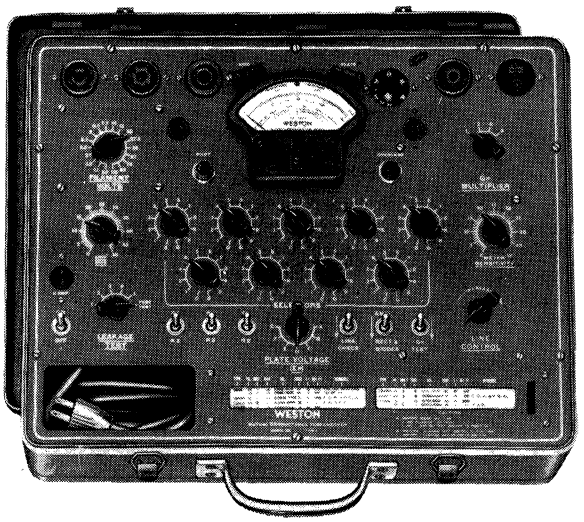
WESTON INSTRUMENTS

WESTON MODEL 981 PROPORTIONAL MUTUAL CONDUCTANCE TUBECHECKER



FEATURES

METER MEASUREMENT OF HIGH LEAKAGE RESISTANCE: Provides an accurate meter measurement of leakage resistance as high as 5 megohms between tube elements, thus being particularly useful for TV servicing and TV line production assembly.

MULTIPLE SWITCHING FACILITIES: Protection against obsolescence is assured through the use of nine single circuit, twelve position, selector switches.

TWIN SECTION TUBES: Three toggle switches make it possible to rapidly check and compare the respective sections of twin section tubes at only one setting of the selector switches.

SINGLE SOCKET FOR EACH TUBE BASE REGARDLESS OF TUBE CONNECTION: Eliminates the possibility of plugging a tube into the wrong socket.

Gm MEASUREMENTS: Gm measurements are made more accurately by using filtered d-c plate, screen grid and control grid potentials. A precision voltage divider network and selector switch allows a proportionate value of signal voltage to be chosen for testing tubes having transconductances up to 30,000 micromhos. Signal voltages of 5.2, 2.6, 1.3, and 0.65 volts peak-to-peak having a frequency of 5000 cycles are provided.

ROLL INDEX CHART—A complete listing of tube test data is available at the flick of a finger by means of an easy-to-read, built-in roll chart.

LEAKAGE TEST: The leakage tests are performed at a d-c potential of 125 volts. For each numbered position of the LEAKAGE TEST switch, a specific tube element is isolated and connected into a series ohmmeter circuit consisting of the isolated element, the 125 volt d-c potential, a current limiting resistor, a milliammeter, and all other elements of the tube.

VOLTAGE REGULATOR TUBES: A selenium rectifier supply furnishes 200 volts d-c for testing of voltage regulator tubes.

SUBMINIATURE TYPE TUBES: A 45 volt potential source facilitates testing of subminiature tubes.

SPECIFICATIONS

FILAMENT VOLTAGES: .65, 1.1, 1.5, 2, 2.5, 0.6a, 3.3, 5, 6.3, 7.5, 10, 13, 20, 27.5, 35, 47, 70, 115.

PLATE VOLTAGES: 90, 130, 220 volts d-c; 22, 44, 160 volts a-c.

SIGNAL VOLTAGES: 5.2, 2.6, 1.3, 0.65 volts peak-to-peak.

Gm RANGE: Up to 30,000 micromhos.

POWER REQUIREMENTS: 100 to 125 volts, 60 cycles single phase a-c, 30 watts.

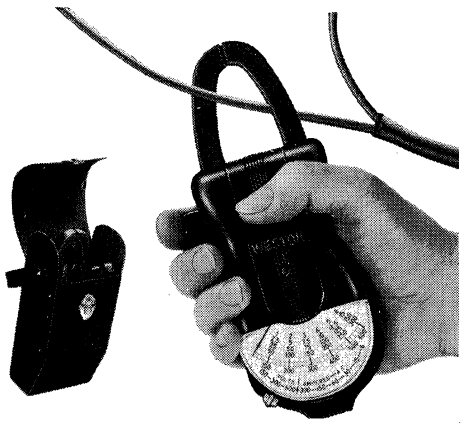
CASE: Grey hammertone finished steel.

SIZE: 17.50" x 13.25" x 6.00".

WEIGHT: 23½ lbs. (10.7 Kgs.).

Model 981 Type 3A ..... **Price $311.75**

Model 749 Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1" round, or 1¾" x ⅜" rectangular conductors. Furnished with test leads in scuff-proof case.

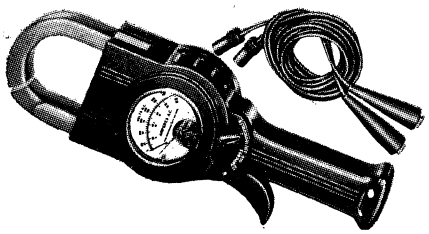
Plug-In Adapter available for making both current and voltage measurements . . . has female receptacles on both sides for plugging in load without disturbing circuit being tested . . . convenient for lead insrtion for voltage checks . . . serves as 10 to 1 divider for low current mesaurements.

RATED ACCURACY: (Model 749) ±3% full scale deflection.

RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.

Model 749 — ***$51.50 complete*** Plug-In Adapter — ***$5.25***

Model 633 Clamp Volt-Ammeter and Clamp-Ammeter



MODEL 633 Type VA-1

	Price
Model 633 Type VA-1 (Incl. Potential Leads) — 1000/250/100/25/10 amperes a-c 700/350/175 volts a-c	**$128.75**
Model 633 Type A-3 — 2000/1000/500/250/100/50 amperes a-c	**121.50**
Model 9958, 50 Foot Extension Cable, Plug & Receptacle for Model 633 Type A-3	**79.25**
Leather Carrying Case (Model 633 Types VA-1, A-3)	**13.50**
Leather Carrying Case (Model 9958 — Cable, Plug and Receptacle)	**22.50**

NOTE—*Model 633 instruments may be used for continuous duty up to 500 amperes.*

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3	13⅝"x4⅜"x2½" 3¼ lbs.
Leather Carrying Case (Types VA-1, A-3)	14½"x5½"x3⅝" 2¼ lbs.
Model 9958, 50 Foot Extension Cable, Plug & Receptacle	4¼ lbs.
Leather Carrying Case (Model 9958—Cable, Plug & Receptacle) 14"x8½"x3¾"	4¼ lbs.

Prices Subject To Change Without Notice.

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Net

POLYSTYRENE ROD — TUBING — SHEET

For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.

POLYSTYRENE ROD — Transparent

Available in 12″ or 48″ lengths

Catalog Number	Diameter	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-100	1/8″	$ .03	$ .12
JB-101	3/16″	.07	.28
JB-102	1/4″	.12	.48
JB-103	5/16″	.18	.72
JB-104	3/8″	.26	1.04
JB-105	7/16″	.36	1.44
JB-106	1/2″	.48	1.92
JB-107	5/8″	.72	2.88
JB-108	3/4″	1.00	4.00
JB-109	7/8″	1.42	5.68
JB-110	1″	1.90	7.60
JB-111	1 1/8″	2.50	10.00
JB-112	1 1/4″	3.00	12.00
JB-113	1 3/8″	3.60	14.40
JB-114	1 1/2″	4.30	17.20
JB-116	1 3/4″	6.00	24.00
JB-118	2″	7.50	30.00

POLYSTYRENE TUBING — Satin Finish

Available in 12″ or 48″ lengths.

Catalog Number	O.D.	I.D.	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-201	1/4″	1/8″	$ .10	$ .40
JB-202	5/16″	3/16″	.14	.56
JB-203	3/8″	1/4″	.18	.72
JB-205	1/2″	3/8″	.26	1.04
JB-206	5/8″	1/2″	.32	1.28
JB-207	3/4″	5/8″	.40	1.60
JB-208	1″	7/8″	.56	2.24
JB-220	1 1/2″	1 1/4″	1.50	6.00
JB-222	2″	1 3/4″	2.20	8.80

POLYSTYRENE SHEET

The following sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16″	12″ x 12″	$4.15
JB-126	3/32″	12″ x 12″	4.80
JB-127	1/8″	12″ x 12″	5.50
JB-128	3/16″	12″ x 12″	7.15
JB-129	1/4″	12″ x 12″	8.15
JB-245	1/16″	12″ x 24″	7.80
JB-246	3/32″	12″ x 24″	9.15
JB-247	1/8″	12″ x 24″	10.50
JB-248	3/16″	12″ x 24″	13.15
JB-249	1/4″	12″ x 24″	15.65
JB-315	1/32″	24″ x 24″	9.65
JB-301	1/16″	24″ x 24″	11.15
JB-302	3/32″	24″ x 24″	13.00
JB-303	1/8″	24″ x 24″	14.80
JB-304	3/16″	24″ x 24″	18.75
JB-305	1/4″	24″ x 24″	23.00
JB-316	5/16″	24″ x 24″	27.65
JB-309	3/8″	24″ x 24″	31.25
JB-311	1/2″	24″ x 24″	38.65
JB-317	5/8″	24″ x 24″	50.00
JB-318	3/4″	24″ x 24″	69.25
JB-319	1″	24″ x 24″	94.15

JULIUS BLUM & CO., INC.
CARLSTADT, N. J.

Serving Industry Since 1910

Net

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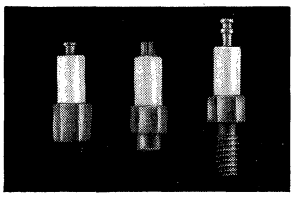
GARLOCK

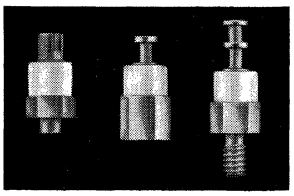
CHEMELEC® STAND-OFF AND FEED-THRU INSULATORS are applied as insulated tie-points in circuit wiring, offering low-loss, high-frequency service in radar, television, missile guidance, fire control and tracking systems. Extremely reliable, they are unaffected by humidity, mechanical shock and vibration, and will withstand ambient temperatures from −110°F to +500°F, pressure altitudes from 0 to 80,000 feet. Garlock Catalog Ad-169.

STAND-OFF SERIES 69002



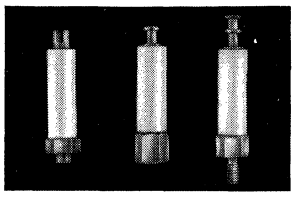
(*Parts 0001-0015*)
Insulation Teflon* TFE. Turrets machined from brass rod, hot-tin dipped for easy soldering; other finishes to order. Bases hex brass, cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specs. Flashover Point (Short time test at sea level)—7000 VRMS; Capacitance (Frequency 1000 KC)—.12 MMFD. Standard R.M.A. colors, all sizes and terminal designs. Priced from 18¢.

STAND-OFF SERIES 69002



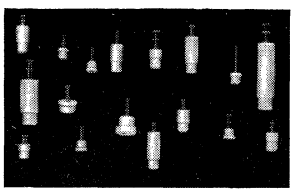
(*Parts 0101-0115*)
Insulation Teflon TFE. Turrets machined from brass rod, hot-tin dipped for easy soldering; other finishes to order. Bases are hex brass, cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specs. Flashover Point (Short time test at sea level)—6300 VRMS; Capacitance (Frequency 1000 KC)—.24 MMFD. Standard R.M.A. colors, all sizes and terminal designs. Priced from 19¢.

STAND-OFF SERIES 69002



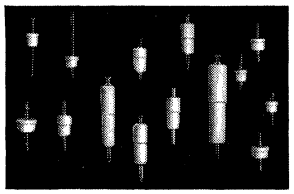
(*Parts 0201-0215*)
Insulation Teflon TFE. Turrets machined from brass rod, hot-tin dipped for easy soldering; other finishes to order. Bases are hex brass, cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specs. Flashover Point (Short time test at sea level)—15,500 VRMS; Capacitance (Frequency 1000 KC)—.14 MMFC. Standard R.M.A. colors, all sizes and terminal designs. Priced from 25¢.

STAND-OFF SERIES 69002



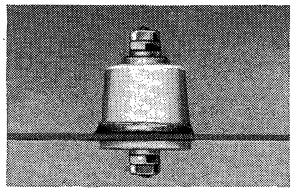
(*Compression-Mounted*)
For compression mounting, are self-fastening, need no additional hardware. Insulator body is Teflon TFE, permitting press-fit without breakage, soldering without damage. Solder terminal is brass, finish is hot-tin dip (other finishes to order). Flashover Point (Short time test at sea level)—3500 to 10000 VRMS (depending on size); Capacitance (Frequency 1000 KC)—.10 to .45 (depending on size). All sizes and terminal designs. Priced from 7¢.

FEED-THRU SERIES 69001



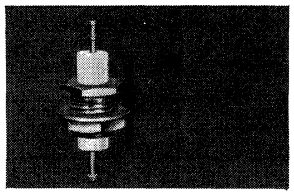
(*Compression-Mounted*)
For compression mounting, are self-fastening, need no additional hardware. Insulator body is Teflon TFE, permitting press-fit without breakage, soldering without damage. Solder terminal is brass; finish is hot-tin dipped (other finishes to order). Flashover Point (Short time test at sea level)—1500 to 15,500 VRMS (depending on size); Capacitance (Frequency 1000 KC)—.45 to 1.02 (depending on size). All sizes and terminal designs. Priced from 7¢.

FEED-THRU SERIES 69001



(*Multi-Bond Hermetic Solder Seal*)
Fluorocarbon-metal, hermetically-fused seal permits insulators to be soldered directly to deck. Seal holds a vacuum and sealing-in oil for sustained periods; withstands shock, vibration, extreme temperatures and climatic conditions. Insulator Teflon TFE, with metalized area contacting bed plate and upper washer for soldering to accomplish hermetic seal. Hardware is nickel-plated brass. Flashover Point (Short time test at sea level)—5000 to 15,000 VRMS (depending on size); Capacitance (Frequency 1000 KC)—2.30 to 2.65 (depending on size): Priced from $5.00.

FEED-THRU SERIES 69001



(*Parts 0500-0700*)
Hollow-threaded metal body fits through bed plate, is secured by hex nut. Terminal passing through hollow body is spaced by force-fitted Teflon TFE plug. Insulation Teflon TFE. Body cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specs. Brass terminal hot-tin dipped (other finishes to order). Flashover Point (Short time test at sea level)—3500 to 6300 VRMS (depending on size); Capacitance (Frequency 1000 KC)—2.00 to 1.95 (depending on size). Several sizes, colors. Priced from 35¢.

GARLOCK ELECTRONIC PRODUCTS

GARLOCK INC.

CAMDEN NEW JERSEY

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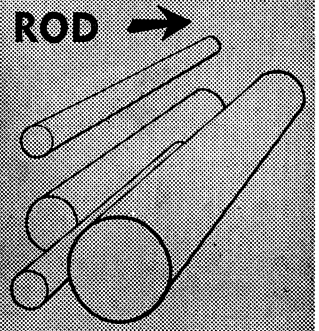
PLASTICS for electronics

ROD



(R = Rods, B = Bars, ½R = Half Round)

EXAMPLE: Cat. No. R11A-½ is ½" diameter Acrylic Rod 1 foot long.

MATERIAL →	POLY-STY-RENE	ACRYLIC			PHENOLIC Paper Base	PHENOLIC Canvas Base	POLY-ETHY-LENE	NYLON	TEFLON			MACH-INABLE LAVA	MACH-INABLE CER-AMIC
Length →	1′	1′	1′	1′	1′	1′	1′	1′	1′	6″	3″	1′	8″
CAT. NO. → Dia.	R10A	R11A	½R11A	B11A	R12A	R13A	R14A	R15A	R16A	R16P	R16L	B17A	B18R
1/16	—	—	—	—	—	—	—	.06	—	—	—	—	—
1/8	.03	.06	—	—	.69	1.02	—	.18	—	—	—	—	—
3/16	.06	.09	—	—	.71	1.04	—	.27	.98	.63	.37	—	—
1/4	.09	.15	—	.27	.72	1.05	.10	.45	1.18	.77	.47	—	—
5/16	.14	.21	—	—	.80	1.16	—	.63	1.52	.97	.58	—	—
3/8	.18	.29	—	.53	.92	1.36	.39	.87	1.94	1.34	.81	—	—
1/2	.36	.48	.35	.84	1.38	2.03	.53	1.49	3.10	2.25	1.34	1.95	.90
5/8	.60	.75	.60	1.50	2.12	2.85	.72	1.94	4.55	3.32	2.00	—	—
3/4	.81	1.08	.86	—	2.76	3.72	1.05	2.64	6.38	4.64	2.78	2.70	1.80
7/8	1.20	1.43	—	—	3.44	4.67	1.43	3.48	8.47	6.30	3.78	—	—
1″	1.70	1.88	—	—	4.16	5.70	2.03	4.38	10.95	7.32	4.79	4.05	2.70
1⅛″	2.11	2.33	—	—	4.56	6.91	—	5.43	13.76	9.58	6.14	—	—
1¼″	2.54	2.78	—	—	5.37	8.13	2.93	6.39	16.87	11.08	7.45	—	—
1⅜″	3.38	3.83	—	—	6.43	9.74	—	7.28	20.12	13.60	8.96	—	—
1½″	3.58	4.13	—	—	7.55	11.43	4.20	8.40	23.88	16.29	10.57	9.45	—
1⅝″	4.23	—	—	—	8.64	13.08	—	10.25	27.95	19.60	12.56	—	—
1¾″	4.91	5.47	—	—	10.79	16.34	—	11.97	32.35	22.92	13.88	—	—
1⅞″	5.54	—	—	—	12.75	19.32	—	13.29	40.70	26.48	16.03	—	—
2″	6.24	6.98	—	—	15.05	22.77	7.05	15.42	41.48	29.86	17.38	14.63	—

R10, 11, 14, 15 and 16 also available in 4′ and 6′ lengths. R12 and 13 also available in 3′ random lengths. Smaller sizes in the R15 are available in 100′ and 500′ continuous lengths.

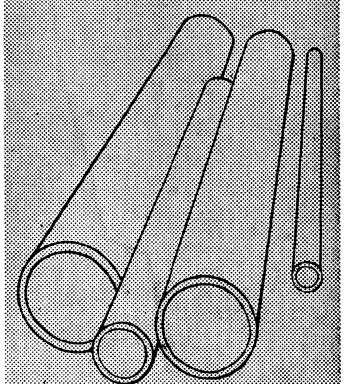
illumitronic

sunnyvale, california

engineering

The Illumitronic Jobber Line of PLASTICS is the most complete line available in small standard sizes and short lengths. All sizes are available from stock. For quantity requirements request quotation.

TUBING



EXAMPLE: Cat. No. T15A-¼x⅛ is ¼" O.D. with ⅛" I.D. Nylon Tubing 1 foot long.

MATERIAL →	POLY-STY-RENE	ACRY-LIC	PHENOLIC Paper Base	PHENOLIC Canvas Base	POLY-ETHY-LENE	NYLON	TEFLON		MACH-INABLE CER-AMIC
Length →	1′	1′	1′	1′	1′	1′	1′	6″	8″
CAT. NO. → O.D. I.D.	T10A	T11A	T12A	T13A	T14A	T15A	T16A	T16P	T18R
1/8 x 3/32	—	—	—	—	—	.06	—	—	—
1/4 x 1/8	.09	.15	.60	.83	.09*	—	—	—	—
1/4 x 3/16	—	—	—	—	—	.14	1.53	1.01	—
3/8 x 1/4	.15	.21	.64	.88	.18*	—	1.79	1.17	—
3/8 x 19/64	—	—	—	—	—	.27	—	—	—
1/2 x 3/8	.21	.37	.74	.97	.24*	.72	—	—	—
1/2 x 1/4	—	—	—	—	—	—	2.99	1.96	—
5/8 x 1/2	.24	.41	.81	1.05	.36	—	—	—	—
3/4 x 5/8	.30	.51	.88	1.20	.42	—	—	—	—
3/4 x 1/2	—	—	—	—	—	—	5.08	3.30	—
7/8 x 3/4	.39	.63	.94	1.30	—	—	—	—	—
7/8 x 5/8	—	—	—	—	—	—	5.98	3.88	—
1 x 7/8	.42	—	1.04	1.47	.54	—	—	—	—
1 x 3/4	.81	1.13	1.42	2.22	—	—	7.69	5.00	—
1¼x1	1.12	1.35	1.58	2.55	.81	—	—	—	—
1½x1¼	1.20	1.65	1.73	3.00	1.05	—	—	—	3.30
1¾x1½	1.58	1.80	2.02	3.30	1.27	—	—	—	—
2 x1¾	1.65	2.25	—	—	—	—	—	—	5.40
2¼x2	—	3.00	—	—	—	—	—	—	—
2½x1¾	—	—	—	—	—	—	—	—	5.85
3 x2¾	—	3.60	—	—	—	—	—	—	—
3 x2½	—	—	—	—	—	—	—	—	6.15

T10, T11 and T14 also available in 4′ and 6′ lengths. T12 and T13 also available in 3′ random lengths.
*T14 also available in 100′ and 500′ continuous lengths.

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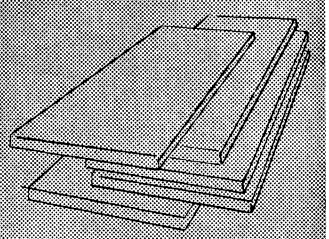
PLASTICS for electronics

SHEET

MATERIAL →	POLYSTYRENE			ACRYLIC			PHENOLIC Paper Base			PHENOLIC Canvas Base		
SIZE →	6"x12"	12"sq.	24"sq.	6"x12"	12"sq.	24"sq.	6"x12"	12"sq.	24"sq	6"x12"	12"sq.	24"sq.
CAT. NO. →	S10A	S10C	S10E	S11A	S11C	S11E	S12A	S12C	S12E	S13A	S13C	S13E
Thickness												
1/32	1.77	2.82	9.18	—	—	—	.39	.60	1.86	.57	.96	3.02
1/16	1.84	3.08	10.77	1.59	2.66	8.41	.61	1.02	3.23	1.05	1.76	5.56
1/8	2.46	4.11	14.50	1.68	2.79	8.84	1.23	2.04	6.48	2.10	3.51	11.13
3/16	3.20	5.32	18.35	1.99	3.34	10.53	1.83	3.06	9.68	3.16	5.27	16.69
1/4	3.64	6.07	21.55	2.35	3.93	12.45	2.44	4.08	12.93	4.21	7.02	22.25
3/8	5.08	8.47	29.93	3.78	6.30	19.96	3.67	6.14	19.44	6.33	10.55	33.38
1/2	6.27	10.46	36.71	5.03	8.39	26.57	4.90	8.18	25.87	8.43	14.06	44.52
5/8	8.55	14.25	47.35	6.22	10.83	32.85	6.13	10.23	32.37	10.54	17.57	55.63
3/4	11.79	19.65	65.44	7.42	12.38	39.21	7.35	12.26	38.80	12.66	21.09	66.77
7/8	12.65	21.07	70.09	8.65	14.42	45.66	8.58	14.31	45.31	14.76	24.60	77.88
1"	16.02	26.70	89.24	9.84	16.40	51.92	9.82	16.37	51.82	16.86	28.11	89.02

S11 also available in sizes 36"x60", 36"x36". S12 and S13 also available in sizes 36"x48", 36"x36".

EXAMPLE: Cat. No. S14C-1/4 is 1/4" thick Polyethylene Sheet 12"x12".



MATERIAL DESIGNATION

10 = Polystyrene
11 = Acrylic*
12 = Paper Base Phenolic
13 = Canvas Base Phenolic
14 = Polyethylene
15 = Nylon
16 = Teflon
17 = Machinable Lava**
18 = Machinable Ceramic**

*(Acrylic is also called Plexiglas or Lucite)
**May be drilled or machined.

illumitronic
sunnyvale, california
engineering

SHEET

MATERIAL →	POLYETHYLENE			NYLON				TEFLON		
SIZE →	6"x12"	12"sq.	24"sq.	3"x6"	4"x12"	6"x12"	12"sq.	3"x6"	6"x12"	12"sq.
CAT. NO. →	S14A	S14C	S14E	S15L	S15M	S15A	S15C	S16L	S16A	S16C
Thickness										
.005	.14	.27	.93	—	—	—	—	* .32	.93	1.48
.010	.24	.36	1.26	—	.48	—	—	* .53	1.73	2.66
.015	.33	.48	1.65	—	.68	—	—	* .80	2.55	4.00
.020	.39	.60	2.00	—	.83	—	—	* 1.09	3.46	5.33
.025	—	—	—	—	1.05	—	—	* 1.30	4.34	6.68
.030	.54	.90	3.06	—	1.20	—	—	* 1.57	5.11	8.00
.040	.68	1.17	4.06	—	1.50	—	—	* 2.10	6.81	10.66
.050	.75	1.35	4.66	—	1.83	—	—	* 2.63	8.51	13.33
.060	.97	1.65	5.65	—	2.25	—	—	* 3.14	10.21	15.99
1/32	.54	.90	3.06	—	1.20	—	—	* 1.57	5.11	8.00
1/16	.97	1.65	5.65	—	2.25	6.38	9.38	* 3.14	10.21	15.99
1/8	1.62	2.70	9.31	—	5.03	10.64	15.00	4.81	16.01	25.38
3/16	2.01	3.36	11.77	3.99	—	13.30	18.75	7.08	23.67	37.00
1/4	3.00	4.95	17.36	5.19	—	17.29	24.38	8.92	29.79	46.50
3/8	4.65	7.74	26.73	7.18	—	23.94	33.75	13.77	45.75	71.63
1/2	6.30	10.50	36.77	7.98	—	26.60	37.50	17.82	59.32	92.75
5/8	7.95	13.26	46.42	9.98	—	33.25	46.88	22.34	**	**
3/4	11.55	19.20	**	11.97	—	39.90	56.25	26.40	—	—
7/8	—	—	—	—	—	**	**	30.46	—	—
1"	15.60	25.95	—	—	—	—	—	35.38	—	—

S14 also available in sizes 60"x36" and 36"x36". S16 also available in size 24"x24".
*1/16 and smaller are skived sheets, larger are cast sheets.
**Larger sizes available on request.

TOLERANCES:

6" ± 1/16"	3"x6" ± 1/16"
1' ± 1/8"	6"x12" ± 1/4"
3' ± 1/4"	12"x12" ± 1/4"
4' ± 1/2"	24"x24" ± 1/2"
6' ± 1"	36"x36" ± 1"

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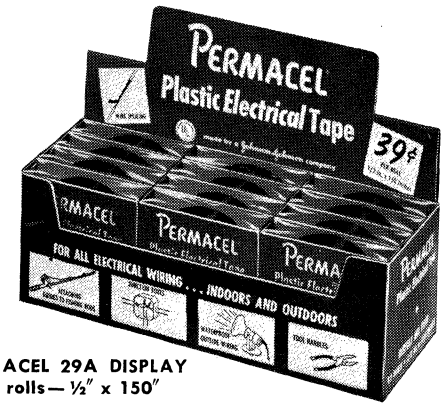

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PERMACEL 29
PLASTIC ELECTRICAL TAPE
TECHNICAL DATA

Dielectric Strength	10,000 volts
Thickness	7 mils
Adhesion (oz./inch)	25
Tensile strength (lbs./inch)	20
Elongation	175%

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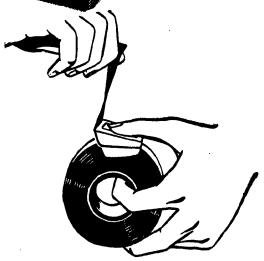

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DOYLESTOWN, PENNSYLVANIA

All merchandise of current manufacture, suitable for laboratory experiments and training aids. Complete transmitter and receiver parts. All units are constructed of standard RG-52/U brass waveguide and employ UG/39 type flanges unless otherwise stated. All units are nickel plated.

#501 Wave Guide type RG52 equipped with 2 type UG 39 flanges, 501 C has two chokes type UG 40, and 501 CF has one flange and one choke. Standard length 4", can also be furnished in full inches from 2" to 20" or longer 2"to 4" **$5.40**

#502 Wave Guide to Coax Adaptor has UG39 type flange, two inches of RG 52 type guide and a UG 23 connector which will mate with UG 21 cable connector as used with RG 8, 9 or 10 type coax **$5.40**

#503 Klystron Tube Mount for 723A/B or 2K25 Klystrons. Equipped with 3DB pad, 1N23 crystal, UG 88 connector for crystal current, RG 52 Wave Guide and UG 39 type flange. Power cable equipped with M1P8 connector to connect with 510 power supply. This Klystron tube mount may be used as local oscillator for micro wave receiver, transmitter, signal generator, spectrum analyzer and test oscillator. Klystron not supplied. Klystron shell is at ground potential using 510 power supply **$24.00**

#503A Klystron Tube Mount same as 503 less pad and crystal mount **$15.00**

#504 Frequency Meter consists of 4" length of RG 52 type wave guide with UG 39 input and output flanges. The 1" micrometer head tunes a cylindrical cavity from approximately 8.2 KMC to 10 KMC. The coupling and Q permit satisfactory absorption indications of resonance in the tuning band **$30.00**

#505 Slotted Line consists of a 4" length of slotted RG 52 equipped with UG 39 input and output flanges. The sliding probe, adjustable for depth and 5 CM travel, is equipped with a IN 23 crystal terminated in to a UG 88 connector and 200 ohm shunt resistance. With a suitable amplifier as supplied in the 510 power supply, wave length and VSWR can be indicated **$30.00**

#506 Flap Attenuator adjustable from 0 to over 20 DB at power levels under 1 watt. Consists of 4" length of RG 52 equipped with 2 type UG 39 flanges **$18.00**

#507 Wave Guide Termination consists of 2.5 inches of RG 52 guide and a UG 39 input flange. Will absorb power at levels less than 1 watt. The strip of absorbing material is easily removed **$5.40**

#508 Thermister Mount consists of 1.75inch length of RG 52 guide with a UG 39 input flange. Thermister balances, with no RF power input, at 600 to 1000 ohms and will indicate down to 1 MW RF with a 100 micro ampere bridge balance meter. High power levels may be indicated using fixed standard attenuators ahead of the thermister. D. C. bridge output is through a UG 88 connector to DC power and bridge balance meter in type 510 Power Supply **$18.00**

#509 Horn Antenna consists of 3" length of RG 58 guide flared at one end for low gain transmission or reception. Output is through coax connector type UG 23 **$9.00**

#509-F Horn Antenna with flange input **$9.00**

#510 Power Supply furnishes fixed regulated cavity potential for 723A/B or 2K25 Klystrons (cavity grounded) adjustable and regulated repeller voltage, unregulated filament and means to insert signal for repeller modulation. Sensitive meter may be switched from tube mount crystal current to Thermistor bridge output and to VSWR amplifier output. Regulated power for thermister bridge and VSWR amplifier also provided for. Operates from 110 to 130 volt AC 1ø 60 C/S power, using less than 50 watts. **$120.00**

#511 Shunt Tee consists of 3" length of RG 52 guide equipped with three UG 39 flanges **$12.00**

#512 Directional Coupler consists of 4" length of RG52 guide equipped with UG 39 flanges. Attenuation approximately 20 DB. Directional output is terminated in UG 23 connector. **$15.00**

#513 Fixed Attenuator is the same as 506 except fixed pad is used **$13.50**

#514 R.F. Cable consists of 2 feet of RG 8 type coax equipped with two UG 21 cable connectors **$6.00**

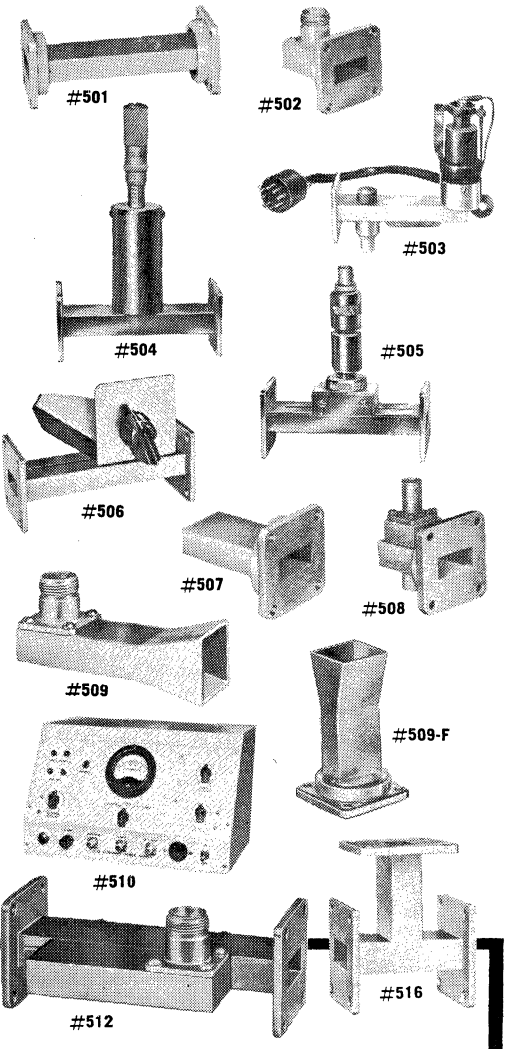
#515 Video Cable consists of 2 feet of RG 58 cable equipped with two UG 89 cable connectors **$4.50**

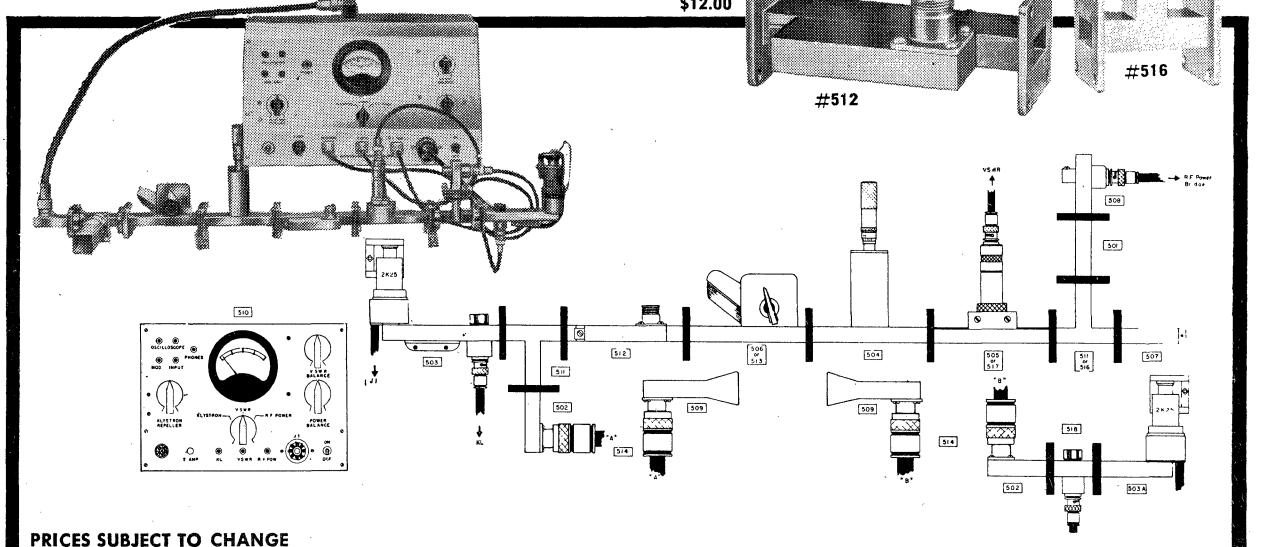
#516 Series Tee consists of 3" lengths of RG 52 guide terminated with 3 type UG 39 flanges. **$12.00**

#517 Tuning Probe is the same as 505 except that probe is grounded and crystal is not required. **$24.00**

#518 Crystal Mount consists of 2 inch length of RG 52 equipped with 2 UG 39 Flanges and 1N23 crystal terminated with UG 88 connector. Suitable for R.F. detection or mixer applications as required for heterodyne reception and spectrum analyzers. **$12.00**

"X" BAND MICROWAVE COMPONENTS 8.7 to 9.3 KMC





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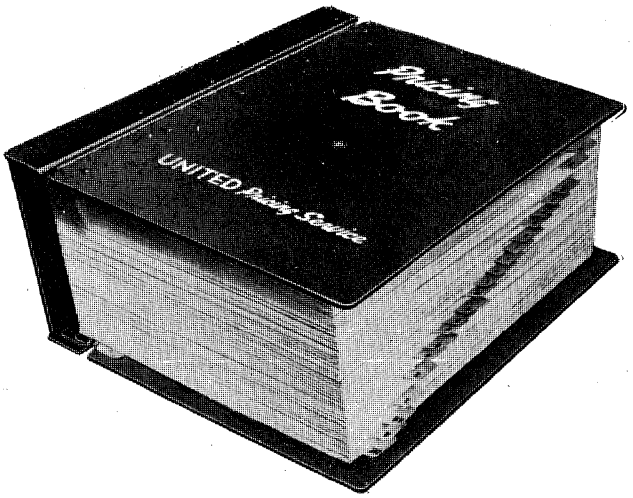

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HEMPSTEAD, N. Y.

DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

hurst

SYNCHRONOUS MOTORS

FOR HEAVY DUTY CONTINUOUS TIMING

new!

POSITIVE CLUTCH & INSTANTANEOUS BRAKE

... electrically actuated!

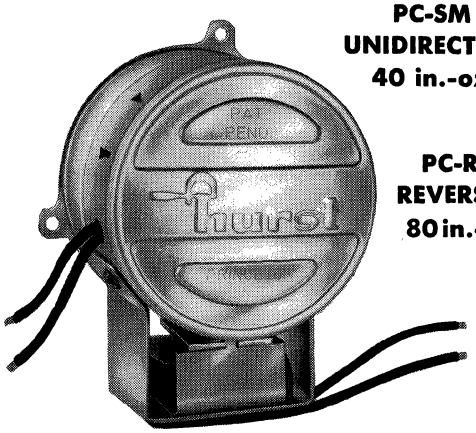
★

STARTS & STOPS IN 10 MILLISECONDS

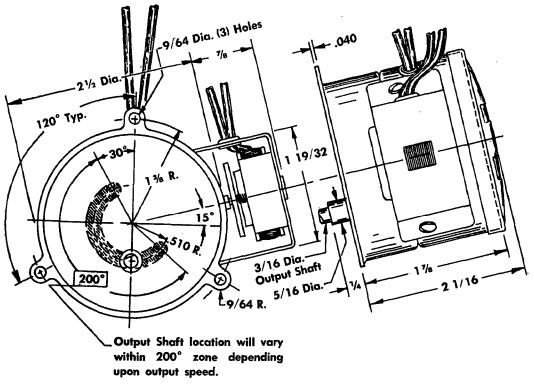
★

PC-SM
UNIDIRECTION
40 in.-oz.

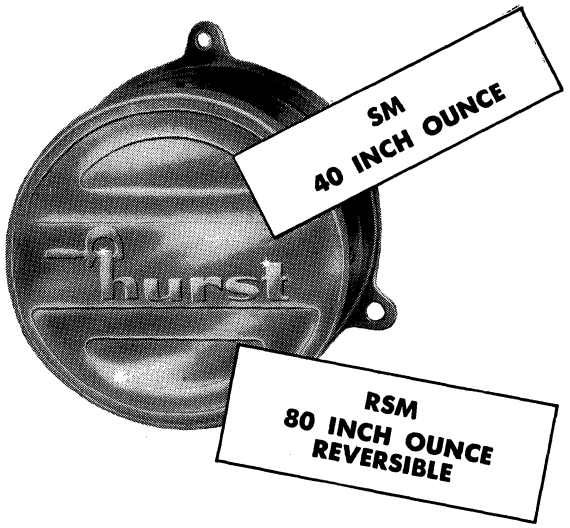
PC-RSM
REVERSIBLE
80 in.-oz.



For extremely fast starts and stops, motor runs continuously with clutch and brake controlled by switching actuator only.
Available on both SM and RSM. This new positive clutch will start the output shaft within 10 milliseconds and the brake will stop output shaft within 1/10° at 1 RPM or within 6° on 60 RPM. Other speeds proportional.



MOUNTING DIMENSIONS for PC-SM and PC-RSM



This compact motor is engineered for tough jobs demanding accurate timing. It has excellent shock and vibration resistance and will start instantly at full torque. It will not overheat during continuous duty nor in a stall position.

Gear-trains are constructed to withstand loads more than three times the motor's rated capacity.

SERIES SM & RSM SPECIFICATIONS

TYPE (SM)	Hysteresis/Synchronous
TYPE (RSM)	Capacitor/Synchronous
TORQUE (SM)	40 inch ounces at 1 RPM
TORQUE (RSM)	80 inch ounces at 1 RPM
DUTY (SM & RSM)	Continuous
WEIGHT (SM)	12 oz.
WEIGHT (RSM)	14 oz.
SHAFT SIZE (In stock) (SM & RSM)	3/16"x1" flatted
MOUNTING (SM & RSM)	3 No. 6 holes spaced 120°
POWER (In stock) (SM&RSM)	95/130 V. 60 cycle 7 watts
ROTATION (In stock) (SM)	CW (Right hand facing shaft)
ROTATION (RSM)	Reversible
TEMPERATURE RISE (SM&RSM)	40°C. above ambient
OPERATING TEMPERATURE (SM & RSM)	-40°C. (-40°F.) to 105°C. (221°F.)

NET PRICES

SM 40 inch-ounce	$ 8.10
RSM 80 inch-ounce (Rev.)	9.60
PC-SM 40 inch-ounce	12.22
PS-RSM 80 inch-ounce (Rev.)	13.72

hurst MFG. CORP. Princeton, Indiana

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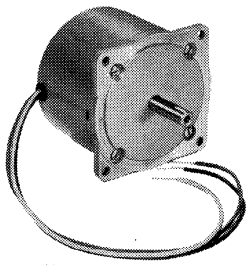
SLO-SYN® Synchronous Motors

- **INSTANT STARTING; STOPPING, REVERSING**
- **72 RPM SHAFT SPEED WITHOUT GEARS**
- **CAN BE USED AS D-C STEPPING MOTORS**
- **START AT FULL RATED TORQUE**

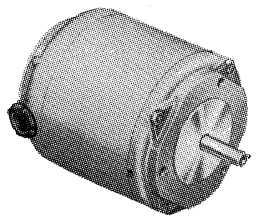
A SLO-SYN Synchronous Motor is a permanent magnet type a-c motor having instant start, stop and reverse characteristics and a basic shaft speed of 72 RPM with 60 cycles applied. Adaptable for use as a d-c stepping motor or incremental positioning device that can be stepped 200 times per revolution of the motor shaft. Compact and economical, has almost negligible overshoot, no ratchets or detents. A single-pole, three-position switch can give complete forward, reverse and "off" control because the motor has three leads only. Starts or stops in less than 0.025 second or approximately 1.5 cycles. No need for mechanical or electrical braking; stops in less than 5° of motor shaft rotation. Starting and operating currents are nearly identical; no excessive inrush current when motor is turned on. All types have lubricated-for-life bearings.



50 OZ-IN

TYPES SS50 AND SS50M

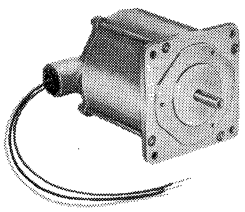
Well-suited for limited space applications, actuating selector switches, tape handling, process timing. Militarized type SS50M meets or exceeds applicable military specifications. Planetary gear types available.



150 AND 250 OZ-IN

TYPES SS150, SS152, SS150M, SS250 AND SS252

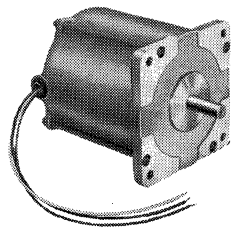
Types SS150 and SS152 can be ordered with resistor and capacitor integrally mounted in an enclosure on the end of the motor (suffix RC when ordering). Militarized type SS150M meets or exceeds applicable military specifications. Planetary gear types available.



250 OZ-IN

TYPE X250

Explosion-proof. Underwriters' Laboratories Approved for Class 1, Group D service. Provides safe operation in areas where a small arc or spark could cause an explosion.



1000 OZ-IN

TYPE X1000

Explosion-proof. Built to conform with Class 1, Group D specifications. Ideally suited for "on-off" a-c servo duty and heavy duty applications.

TORQUE (Oz-In)	VOLTS	MAX. AMPS.	RESISTOR	CAPACITOR	TYPE	APPROXIMATE WEIGHT (Pounds) NET	SHIPPING
50/60 CYCLES, 1 PHASE, 72 RPM @ 60 CYCLES							
50	120	0.3	250 ohms ±5%, 25 W	2.6 mfd ±6%, 330 VAC	SS50 / SS50M	3	3.5
150	120	0.4	250 ohms ±5%, 25 W	3.75 mfd ±6%, 330 VAC	SS150 / SS150M	6.5	8
150	240	0.2	1200 ohms ±5%, 25 W	1.0 mfd ±6%, 660 VAC	SS152	6.5	8
250	120	0.6	150 ohms ±5%, 50 W	6.5 mfd ±6%, 330 VAC	SS250 / X250	6.5 / 7.75	8 / 9
250	240	0.3	750 ohms ±5%, 50 W	1.75 mfd ±6%, 660 VAC	SS252	6.5	8
1000	120	3.0	65 ohms ±5%, 200 W	30.0 mfd ±6%, 330 VAC	X1000	22	25

PLANETARY GEAR TYPES

Standard types having specially-designed planetary gear assemblies are available. The speed reduction assembly is completely enclosed in a dust proof housing mounted on the shaft end of the motor. The load is evenly distributed over three nylon gears thereby reducing the possibility of tooth damage. The self-lubricated nylon gears provide quiet operation and long life. The planetary gear shaft is ball bearing mounted. When ordering, the basic type number must be suffixed with the desired planetary gear assembly number. For example, type SS50-Pl.

PLANETARY ASSEMBLY SUFFIX	GEAR RATIO	APPROX. SPEED* (RPM)	OUTPUT TORQUE: BASIC TYPES SS50 SS50M	OUTPUT TORQUE: BASIC TYPES SS150 SS150M SS152	OUTPUT TORQUE: BASIC TYPES SS250 SS252	OUTPUT TORQUE: BASIC TYPE X250
P1	4-1/3	16.6	120 oz-in	400 oz-in	650 oz-in	650 oz-in
P2	21-2/3	3.32	600 oz-in	2000 oz-in	—	2000 oz-in
P3	108-1/3	0.665	2000 oz-in	2000 oz-in	—	2000 oz-in
P4	541-2/3	0.133	2000 oz-in	2000 oz-in	—	2000 oz-in
P5	2708-1/3	0.027	2000 oz-in	2000 oz-in	—	2000 oz-in

*Exact speed may be calculated from basic motor speed (72 RPM) and given ratio.

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100 AND 4000

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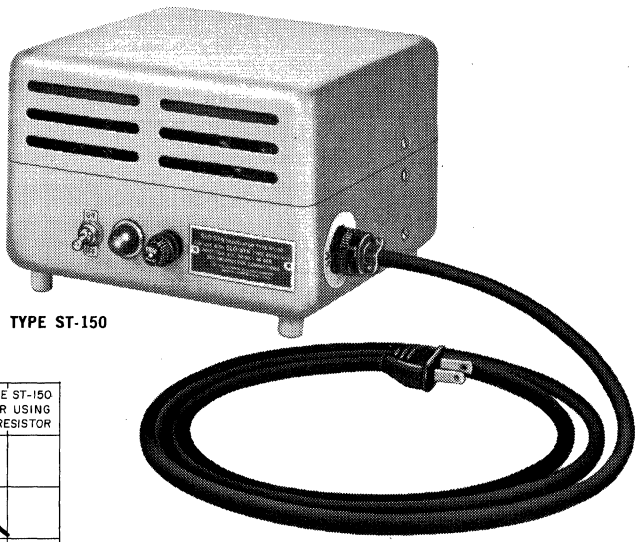
SLO-SYN® *Translator*

SLO-SYN Translator type ST-150 is a pulse-to-step converter designed for use with bifilar SLO-SYN Synchronous Motor types SS50-1009 and SS150-1010. It converts low-level signal pulses or square waves into the correct switching sequence needed to drive the SLO-SYN motor at 200 discrete steps per revolution. Internal power supply allows alternate operation from an external shorting switch if desired. Power input is 120 volts a-c, 0.5 ampere. SLO-SYN Translators are used in programmed positioning, remote positioning, indexing and indicating applications.



TYPE ST-150

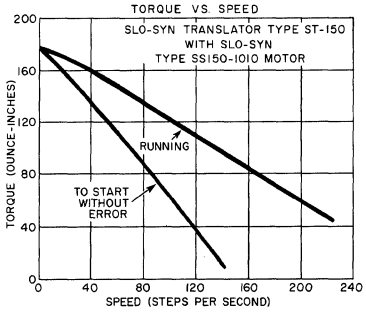


FIGURE 1

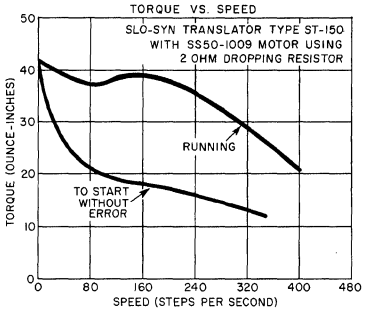


FIGURE 2

Figure 1 shows the torque vs. speed characteristics of a SLO-SYN Synchronous Motor type SS150-1010 operating with a SLO-SYN translator type ST-150. Figure 2 shows the characteristics when used with a type SS50-1009 motor (a 2 ohm ±5%, 25 watt minimum dropping resistor is required).

SS150 AND SS250 TYPES

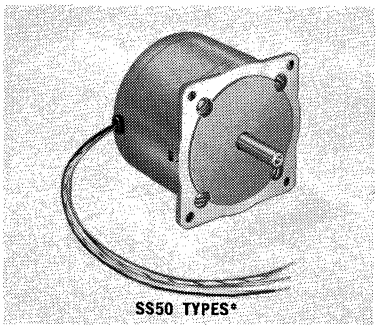
Bifilar and Four-Lead

SLO-SYN® *Synchronous Motors*

BIFILAR SLO-SYN Synchronous Motors are used for d-c stepping applications where the use of push-pull circuitry and a center-tapped power supply is not possible or where increased torque at high stepping speeds is required.

BIFILAR SLO-SYN SYNCHRONOUS MOTORS-RATINGS FOR STEPPING APPLICATIONS

TYPE	D-C VOLTS	AMPERES PER WINDING	APPROXIMATE WEIGHT (Pounds)	
			NET	SHIPPING
SS50-1010	2.0	3.3	3	3.5
SS50-1009	5.5	1.3		
SS50-1008	8.0	0.85		
SS50-1001	14.0	0.53		
SS50-1007	35.0	0.21		
SS150-1023	1.4	8.5	6.5	8
SS150-1009	2.5	4.0		
SS150-1010	10.0	1.25		
SS150-1017	25.0	0.5		
SS250-1006	2.5	5.0	6.5	8
SS250-1002	9.0	1.55		
SS250-1004	22.5	0.61		



SS50 TYPES*

FOUR-LEAD SLO-SYN Synchronous Motors are designed to provide the flexibility needed for use with equipment requiring isolated windings with no common connection.

*Bifilar types have five leads.

FOUR-LEAD SLO-SYN SYNCHRONOUS MOTORS-RATINGS FOR STEPPING APPLICATIONS

TYPE	D-C VOLTS	AMPERES PER WINDING	APPROXIMATE WEIGHT (Pounds)	
			NET	SHIPPING
SS50-1012	2.5	3.1	3	3.5
SS50-1011	10.0	0.75		
SS50-1002	25.0	0.30		
SS50-1014	50.0	0.15		
SS150-1007	2.0	6.3	6.5	8
SS150-1018	7.0	1.75		
SS150-1015	17.5	0.70		
SS150-1025	35.0	0.35		
SS250-1010	3.0	5.3	6.5	8
SS250-1009	8.0	2.0		
SS250-1008	16.0	1.0		
SS250-1007	32.0	0.50		

FOR MORE DETAILED INFORMATION
about ratings, specifications and technical data about SLO-SYN synchronous motors and the SLO-SYN translator, request the complete SLO-SYN literature file which includes information about the use of SLO-SYNS as d-c stepping motors.

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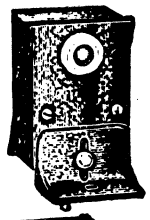
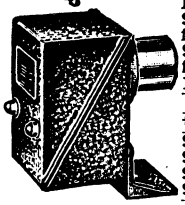
AUTOTRON Photoelectric Controls

AUTOTRON, INC. • Danville, Illinois

S SERIES PHOTOELECTRIC CONTROLS

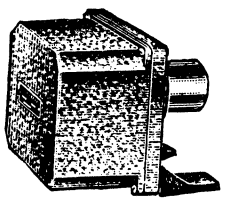




Rugged, industrial quality controls preadjusted for use with 100% light beam interruption. Used for counting and control applications where phototube dark time and phototube light time each is .060 second or more.
Control Relay Contacts SPDT rated 8 amperes at 115 v. AC non-inductive load.
Splashproof cast aluminum case with adjustable mounting bracket, tapped for ½" conduit. Power consumption 10 watts.
S1A, S4A Photoelectric Controls—Require 20 foot-candle minimum light. Lens diameter ¾".
S2A, S5A Photoelectric Controls—Require 10 foot-candles minimum light. Lens diameter 1½"

Energized †Dark	Energized †Light	50-60 Cycles Volts	Net Each
S1A	S4A	115/230	$38.75
S1AR	S4AR	115 or 230 (specify)	50.75
S2A	S5A	115/230	45.00
S2AR	S5AR	115 or 230 (specify)	57.00

F SERIES PHOTOELECTRIC CONTROLS



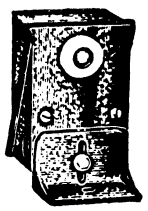
"Fail Safe", sensitive, high speed. Widely used where "safe" relay action is required in case of tube failure, where light change is limited, and where phototube dark time or light time is short. Special, quick response DC circuit permits speeds to 1200 operations (cycles) per minute. Sensitivity adjustment inside case inhibits tampering. Shaftlock secures setting.
Minimum light, 5 foot-candles. Minimum phototube dark time, .025 second; minimum phototube light time, .025 second.
Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Splashproof cast aluminum case tapped for ½" conduit. Rigid mounting feet. Lens dia. 1½". 115/230 v., 50-60 cycles. Power consumption, 20 watts.

Energized †Dark	Energized †Light	For 115/230 v., 50-60 Cycles Description	Net Each
*F2B	*F1B	Photoelectric Control	$67.50
*F2BR	*F1BR	Above with R feature	79.50

TUBELESS PHOTOELECTRIC CONTROLS

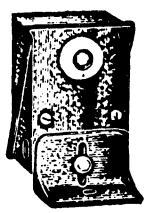
Reliable photoelectric control without vacuum tubes has been made possible by development of transistors, magnetic amplifiers and light-sensitive elements such as cadmium cells. The following AUTOTRON controls represent months of development utilizing the best of the latest developments.

BC1 PHOTOELECTRIC CONTROL



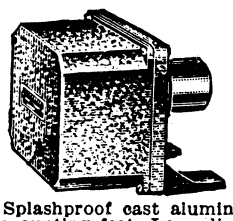
†Light-Energized—Cad Cell Sensing Element 10 foot-candles minimum light.
.07 second ‡minimum dark time.
.07 second ‡minimum light time.
Plate Relay: Energizes when light is on the Cad Cell Sensing Element; Contacts SPDT, silver cadmium oxide, rated 4 amps at 115 v. AC, non-inductive load.
Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket. Lens dia. ¾". 115/230 v., 50-60 cycles. Power consumption, 2 watts.
BC1 Photoelectric Control—Net ... **$42.50**

TRANSISTORIZED PHOTOELECTRIC CONTROLS
BT1 †LIGHT ENERGIZED, BT2 †DARK ENERGIZED



10 foot-candles minimum light.
.04 second ‡minimum dark time.
.04 second ‡minimum light time.
Plate Relay: Contacts SPDT, silver cadmium oxide, rated 8 amps at 115 v. AC, non-inductive load.
Splashproof cast aluminum case tapped for ½" conduit. Adjustable mounting bracket. Lens dia. ¾". 115/230 v., 50-60 cycles. Power consumption, 2 watts.
BT1 or BT2 Photoelectric Control—Net Each..... **$49.50**

BM1 PHOTOELECTRIC CONTROL †LIGHT ENERGIZED— MAGNETIC AMPLIFIER



10 foot-candles minimum light.
.04 second ‡minimum dark time.
.04 second ‡minimum light time.
Plate Relay: Energizes when light is on the Sensing Element.
Contacts SPDT, silver cadmium oxide, rated 10 amps at 115 v. AC, non-inductive load.
Splashproof cast aluminum case tapped for ½" conduit. Rigid mounting feet. Lens dia. 1½". 115/230 v., 50-60 cycles. Power consumption, 2 watts.
BM1 Photoelectric Control—Net Each..... **$69.50**

PHOTOELECTRIC TIMING CONTROLS

For applications requiring delayed plate relay response to light change, such as conveyor jam-up, spraying, processing, etc.

T1A Photoelectric Timing Control

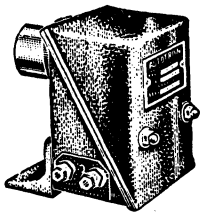


Plate relay energizes when phototube is dark and timing period has expired; de-energizes when light is on the tube. Time delay with shaft lock adjustment from 1 to 10 seconds. Repeat accuracy 4%. Minimum light, 40 foot-candles. Plate relay: Contacts SPDT, rated 8 amps at 115 v. AC, noninductive load. Splashproof aluminum case, tapped for ½" conduit. Adjustable mounting bracket. Lens dia. 1½". Power consumption, 10 watts. 115/230 v., 50-60 cycles.
T1A Timing Control—Net Ea.. **$57.50**

T2B and T3A Photoelectric Timing Controls

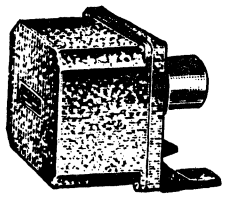


Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for ½" conduit. Lens diameter 1½". 115/230 v., 50-60 cycles. Power consumption 20 watts.

T2B Photoelectric Timing Control: Plate relay energizes when light is on the phototube, de-energizes when the light beam is interrupted and the timing period expires. Repeat accuracy 3%. Minimum light 20 foot-candles.

Adjustable Timing Ranges (specify)		Minimum Light Time
No. 1.	.25 to 3 seconds	.25 second
No. 2.	1.25 to 10 seconds	.5 second
No. 3.	3.0 to 20 seconds	1.0 second

***T2B Photoelectric Timing Control**—Net Each.. . . . **$72.50**
***T2BR**—Above with Safety Relay. Net Each..... **84.50**

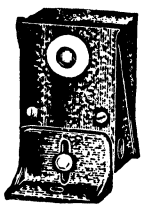
T3A Photoelectric Timing Control: Plate relay energizes when light is on the phototube and timing period expires. De-energizes when the light beam is interrupted. Timing accuracy, 2%. Minimum light, 10 foot candles.

Adjustable Timing Ranges (specify)

No. 0.1	.03 to 0.1 second	No. 1.	.5 to 15 seconds
No. 0.5	.25 to 8.0 seconds	No. 2.	1 to 30 seconds
	No. 3.	20 seconds to 5 minutes	

***T3A Photoelectric Timing Control**—Net Each..... **$72.50**
***T3AR-T3A**—Above With Safety Relay—Net Each.... **84.50**

L1A LIGHT SOURCE



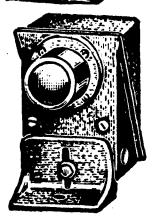
Has ¾" OD straight, fixed beam conservatively rated as follows—

Foot-Candles	20	10	5	2
Distance in feet	8	12	15	18

Dustproof, cast aluminum case. Adjustable bracket. Tapped for ½" conduit. 115/230 v., 50-60 cycles.

Model	L1A	L1AY	L1AR	L1ARY
Net Each	$18.50	$23.50	$30.50	$35.50

L2A LIGHT SOURCE



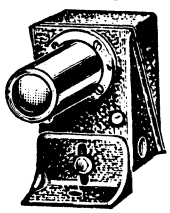
Has 1½" OD straight, fixed beam conservatively rated as follows—

Foot-Candles	20	10	5	2
Distance in feet	13	20	30	45

Splashproof, cast aluminum case. Adjustable bracket. Tapped for ½" conduit. 115/230 v., 50-60 cycles.

Model	L2A	L2AY	L2AR	L2ARY
Net Each	$21.80	$26.80	$33.80	$38.80

L3A LIGHT SOURCE



Light beam adjustable from a minimum focal length of 4¾" and corresponding focal size of 5/16" x ¼" to a straight light beam of 1½" OD. Light input at twice the focal distance exceeds 30 foot-candles.

Splashproof, cast alum. case; adjustable bracket, tapped for ½" conduit. 115/230 v., 50-60 cycles.

Model	L3A	L3AY	L3AR	L3ARY
Net Each	$29.30	$34.30	$41.30	$46.30

FEATURES AND NOTES

R—Built-in SAFETY Relay—**In control:** Energizes when power comes on; de-energizes when tube filament burns out or power goes off. **In light source:** Energizes when light comes on; de-energizes when lamp fails or goes off. (Contacts SPDT, rated 5 amps at 115 v. AC.)

Y—Built-in Light Beam Intensity Adjustment.

*Available with built-in heating element at **$7.50** extra.

†Dark Energized—Plate relay energizes when light beam is interrupted; de-energizes when the light beam is restored, when a tube filament fails, or any tube loses emission.

Light Energized—Plate relay energizes when light beam is restored; de-energizes when light beam is interrupted, when a tube filament fails or any tube loses emission.

‡Specified **minimum dark and light time are based on the specified minimum foot-candles.**

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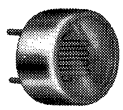
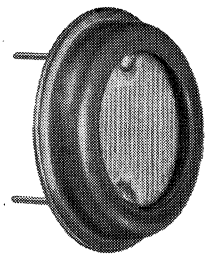
JEM custom Powermaster Photocells

BY PIONEER A SUBSIDIARY OF PENN CONTROLS, INC.



CDS-7 PHOTOCELL . . .
Cadmium Sulfide; O.D. ½"
List $1.95



CDS-9 PHOTOCELL . . .
Cadmium Sulfide; O.D. 1¼"
List $3.50

GLASS TO METAL HERMETICALLY SEALED CELLS

Powermaster Photocells are useful in any application where an operation must be controlled by variations of illumination. They are highly stable light-controlled variable resistors; the slightest variation in light intensity reaching the sensitive layer causes the resistance to change, thereby altering current flow and permitting the cell to act as a light activated switch. The types shown here are typical of the many photocells now offered in production quantities.

TYPICAL CHARACTERISTICS

	Physical Dimension	Sensitive Area	Resistance at 50 FC Incandescent	Resistance at 1 FC Daylight	Dark Resistance	Dissipation	Voltage DC or Peak AC
CDS-7	.500 x .280	.370 diam.	100 ohm—1000 ohm	2.5 K—100 K	1 M—1000 M	250 mw	300 and 500
CDS-9	1.25 x .250	.950 diam.	100 ohm—1000 ohm	2.5 K—100 K	1 M—1000 M	½ W continuous 2 W—1 Min.	500 and 700 and 1000

● **SPECIALIZED SOLID STATE RESEARCH AND DEVELOPMENT** is available to you at Pioneer Electric & Research Corp. Complete facilities and an experienced research team are ready to serve you.

THE Pioneer ELECTRIC & RESEARCH CORPORATION

Subsidiary of Penn Controls, Inc.

Forest Park, Illinois

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FOTOLECTRIC® CONTROLS BY WORNER ELECTRONIC DEVICES RANKIN, ILLINOIS.

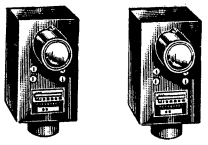
NET PRICES

INDUSTRIAL FOTOLECTRIC CONTROLS

Write for Engineering Bulletins on these items or on any requirements not shown here.

EXCITER LAMP & PHOTO-CELL RECEIVER

The Exciter Lamp unit is designed to project the light beam and the Photo-Cell Receiver is designed to pick up the beam and convert its light into electrical energy through the Amplifier unit.

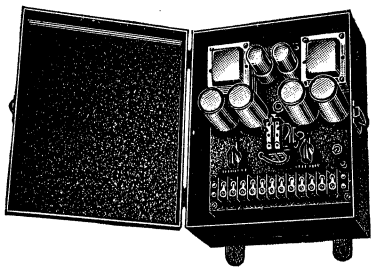


Model 33 **Model 23**

For Use With Amplifiers Nos. 63, 63-A, 63-B, 63-C and No. 64 Listed Below

Model 33 Exciter Lamp and Model 23 Photo-cell Receiver units operate as a Set most generally installed for industrial applications. The light beam from the Model 33 series Exciter Lamps covers a distance of from a few inches up to 25 ft. from unit to unit. (See Price List for distances of various models). The Set is heavy cast iron with ½ in. conduit fittings. Gray finish. For use in damp areas, the Set can be made moisture-proof at slight additional cost.

Model No.	Description	Size, Inches	Price, Each
33	Exciter Lamp Unit	4¼ x 2¾ x 2¾	$19.50
23	Photo-Cell Receiver	4¼ x 2¾ x 2¾	22.50



MODEL 63 SERIES AMPLIFIERS

(Electronically Operated Relays)

Size: 9¼" x 11½" x 5"

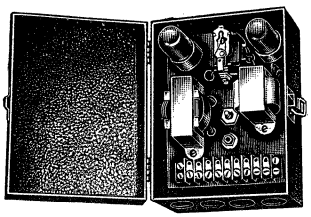
Insure Positive and Accurate Performance

Especially designed for use with the above combination of standardized Worner Photo-Cell and Exciter Lamp units shown. The relay under normal conditions will operate up to 650 times a minute. Will operate also from light sources such as daylight, artificial lights, radiant energy, etc.
MODEL 63 Series Amplifiers are specially engineered, highest quality units. They enjoy wide preference as they efficiently meet exacting requirements and replace the need of costly individually engineered equipment. For technical details, please address the factory.

	Price, Each
Model 63, Described Above	$117.00
Model 63-A, combines Model 63 and Time Delay Circuit giving delay from zero to 45 seconds	134.10
Model 63-B, same as Model 63 with additional amplification to operate on less active change of light	141.30
Model 63-C, same as Model 63 but operates with "on" light	117.00

MODEL 64 AMPLIFIER

An efficient unit for practically any industrial applications that do not require fine detection and where the Relay is not required to operate in excess of 450 times a minute. (For fine detection at greater speeds, we recommend a choice of Model 63 series.)



Model 64 Amplifier ..... ea. $67.35

"MINIATURE" FOTOLECTRIC HEADS

Exciter Lamp
Model M-36

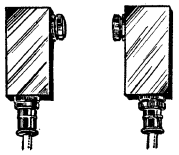


Photo-Cell Receiver
Model M-26

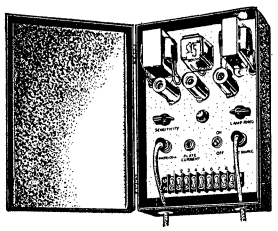
For horizontal installation, order Models M-37 and M-27

Size 1¼" x ¾" x 2½" for space limitations. One-piece solid aluminum, machined for components. Pin-point detection on cross-over beam at distances from 3" to 12". Diverging beam supervises objects 1" or larger at a distance up to 8 ft. Operates up to 10,000 counts per minute with Model 66-A below. Units equipped with 6 ft. of cable with prong-type positive connectors. For guaranteed efficiency, Miniature Heads should be used only with Amplifiers described below.

Model M-36 Vertical Exciter Lamp $21.06
Model M-26 Vertical Photo-cell Receiver 25.56
Model M-37 Horizontal Exciter Lamp 21.06
Model M-27 Horizontal Photo-cell Receiver 25.56

MODEL 66 SERIES AMPLIFIERS

Use With Miniature Heads



Speeds shown below are based upon "on" and "off" periods being equal. Model 66, double-pole, double-throw relay with contact rating of 110 v. 60 cy. a.c., 10 amps. non-inductive, 5 amps. inductive. Light beam intensity control.

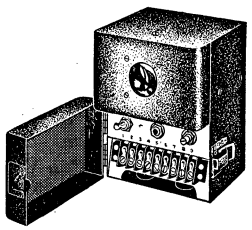
Model 66-A Amplifier, for use with ultra high speed electronic decade counters. Accurate counts of light beam interruption or variation of intensity up to 10,000 counts per minute ..... Each $138.60

Model 66 Amplifier, same as Model 66-A except that it operates up to 900 counts per minute ..... Each $131.10

Model 67 Amplifier, for applications where fine detection at high speeds is not a factor or Relay is not required to operate in excess of 450 times per minute ..... Each $69.90

TWO-UNIT SET for INDOOR USE
Model 62 R & L

Model 62-L
Exciter Lamp



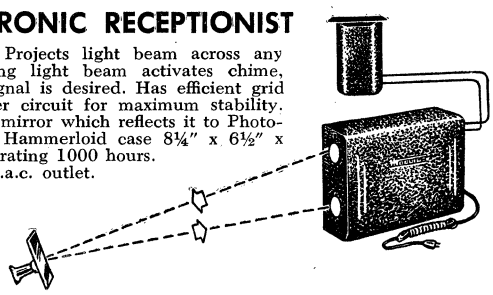
Model 62-R
Amplifier

This Amplifier unit includes Photo-Cell, Relay and Components. Efficient for distances from a few inches to 75 ft., where Relay is not required to operate in excess of 400 times a minute, such as: Counting, sorting large objects; limit switches; start, stop operations; opening doors, etc.

Model 62 R & L "Two-Unit Set" ..... Per Set $82.50

THE ELECTRONIC RECEPTIONIST

Three-piece set. Projects light beam across any entrance. Breaking light beam activates chime, located where signal is desired. Has efficient grid controlled rectifier circuit for maximum stability. Projects beam to mirror which reflects it to Photo-cell in the unit. Hammerloid case 8¼" x 6½" x 3¾" . Lamp-life rating 1000 hours.
Plugs into 110 v.a.c. outlet.



Model 61 Fotolectric Announcer, ... Per Set $40.50

Prices slightly higher West of Rockies

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FOTOLECTRIC® CONTROLS BY ELECTRONIC DEVICES WORNER RANKIN, ILLINOIS.

NET PRICES

WORNER BURGLAR ALARM SYSTEMS

Write for Engineering Bulletins on these items or on any requirements not shown here.

MODEL 9000 SERIES This is the Worner Master Control System. It consists of the Model 9000-S Master Control Panel which supervises 1, 2, 3 or 4 Fotolectric Sets of Model No. 9000 series shown. Each Fotolectric Set consists of Exciter Lamp and Photo-cell Receiver chosen in pairs for distance to be covered. Fotolectric Sets are located for detection. Control Panel remotely installed, contains Relays which energize alarm circuits.

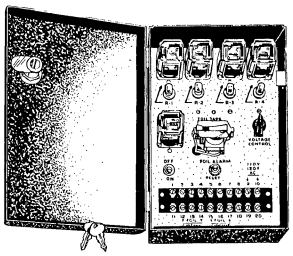


Illustration shows four Relay units plugged in to show plug-in location for 1, 2, 3 or 4 Relays as needed. Model 9000-S Master Control Panel is priced "less Relays". One Relay unit is automatically supplied with each Model No. 9000 series Fotoelectric Set ordered.

SIZE: 7" wide, 10¼" hi., 4⅜" dp.

MODEL 9000-S MASTER CONTROL PANEL supervises up to four Fotolectric Sets. On a separate circuit, it will also supervise foil tape, door traps and window switch systems. Both circuits operate independently and simultaneously. Sounds continuous alarm (until reset) when either of these detection circuits is opened or wiring of Fotolectric system is tampered with. Model 9000-S Master Control Panel prevents false alarms should power fail or drop momentarily and resets automatically when power is restored. Also operates with any type electrical devices employed by professional burglar alarm companies. For 110-120 v. 50/60 cy. ac.

Model 9000-S Master Control Panel .....**each, $61.05**

FOTOLECTRIC SETS Models for 100 and 150 ft. ranges are not weatherproof, for indoor use only. Models for 75, 250 and 500 ft. ranges are weatherproof, for both indoor and outdoor use. Exciter Lamps for all ranges project infra-red (invisible) light beams. Sets for 75, 150, 250 and 500 ft. ranges have unwanted light rejector which improves day-light range.

Model No.	Range	Fotolectric Set	Per Set
9100	100 ft.	Master Tresp. Trap	$ 88.50
9150	150 ft.	Master Tresp. Trap	103.50
9075	75 ft.	Master Tresp. Trap	117.85
9250	250 ft.	Master Tresp. Trap	130.80
9500	500 ft.	Master Tresp. Trap	146.25

MODEL 7000 SERIES operates with burglar alarm company's central office control, police signal or local alarm. The Relay may be connected either in series or parallel to meet circuit requirements. One or more Fotolectric Sets of No. 7000 series can be used and can be operated by an existing control panel. Can be used with foil systems, etc., if Control Panel is so equipped. For 110-120V or 24V.

Model No.	Range	Fotolectric Set	Per Set
7100	100 ft.	Central Cont. Tresp. Trap	$ 88.50
7150	150 ft.	Central Cont. Tresp. Trap	103.50
7075	75 ft.	Central Cont. Tresp. Trap	117.85
7250	250 ft.	Central Cont. Tresp. Trap	130.80
7500	500 ft.	Central Cont. Tresp. Trap	146.25

MODEL 5000 SERIES is a TWO-PIECE set comprising No. 5000 series Fotolectric sets. For 100 ft. and 150 ft. ranges for interior use only where a single beam is ample protection. Not intended for use with foil systems, etc. Equipped with lock and key. 110V.

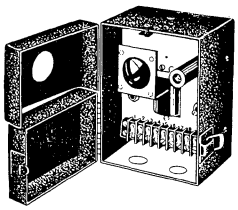
Model No.	Range	Fotolectric Set	Per Set
5100	100 ft.	Single Beam Tresp. Trap	$ 88.50
5150	150 ft.	Single Beam Tresp. Trap	103.50

FOTOLECTRIC SETS

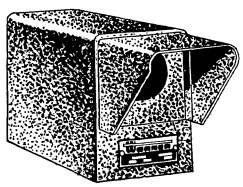
Same cases house different components. Order by Model Number of Series desired.

For 100 Ft. Ranges Exciter Lamps and Photo-cell Receivers have matching cases.

For 150-Ft. Range Exciter Lamp



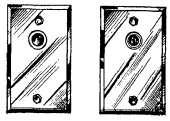
For 150-Ft. Range Photo-cell Receiver



For 75, 250 and 500-Ft. Ranges, all units are Weatherproof. Exciter Lamps and Photo-cell Receivers are externally the same.

"MINIATURE" FOTOLECTRIC BURGLAR ALARM

"In-Wall" Concealment



Light Source and Photo-cell Receiver units concealed in light-switch type face plates. Projects invisible light beam ranging up to 35 feet (indoors). Standard size wall plates concealing Fotolectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Fotolectric sets must be used only with specially engineered amplifiers listed below.

Model 81 "In-Wall" Light Source, each **$21.18**
Model 82 "In-Wall" Photo Cell Receiver, each **22.92**

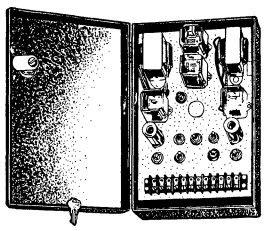
MODEL 80 SERIES AMPLIFIERS

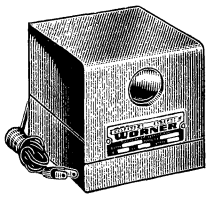
Use With Above Fotolectric Units

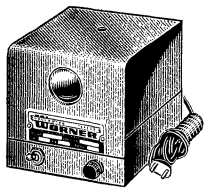
Two specially engineered units. Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous, regulated warning signal "special" upon order. For 110, 120 volts, 60 cycle, a.c.

Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotolectric Set.
each $115.50

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotolectric Sets, each installed to guard a separate area. Will also supervise one Fotolectric Set where amplification is provided for future addition of a second Fotolectric Set,
each $178.50







THE TWO-UNIT WORNER WATCHMAN

Exciter Lamp is equipped with removable infra-red filter. Provides invisible light beam ranging up to 50 ft. The Electronically Operated Relay combines Photo-cell and electrical components. Equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without unmounting. Identical cases 5" x 5" x 5½" welded steel, mahogany hammerloid finish. For indoor use; 110-120V. 60 cycle A.C.

Model 4000 Two Unit Watchman .....**per set $63.00**

MORE THAN FIFTY STOCK UNITS

comprise the Worner line. For more information on Industrial Control, Burglary, Automatic Lighting, Fire Protection, etc., please write or phone your wholesaler. Catalogs and Engineering Bulletins available on request.

FOTOLECTRIC FIRE PROTECTION

SMOKE DETECTION For institutions, schools, hospitals, hotels, etc., where fire originating in or drawn into ventilating or air conditioning ducts are fan driven to a succession of uncontrollable outbreaks throughout building. The Worner Fan Motor Stop installed on air duct minimizes this hazard by early detection, automatic stopping of fan and signaling of alarm. Meets requirements of National Board of Fire Underwriters and listed by Underwriters Laboratories. Write for Bulletin 650.

Also request data on "Fotolectric Fire Protection in Space Areas".

Prices slightly higher West of Rockies

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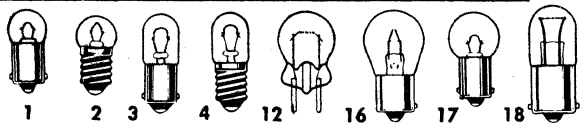
CHICAGO MINIATURE LAMPS

—backed by over 50 years experience in standard and special lamp design.

The list below merely represents a few of our most popular lamps. Specifications and engineering data covering all standard lamps available on request.

For proved dependability always ask us for Chicago Miniature Lamps.

CHICAGO MINIATURE LAMP WORKS, CHICAGO ILL.

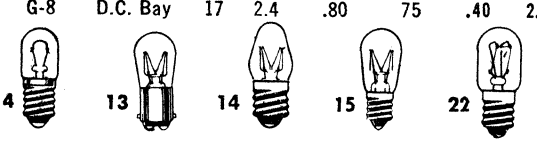


PANEL, INDICATOR, RADIO and COIN MACHINE LAMPS

Lamp No.	Bulb	Base	Fig.	Volt	Amps or Candle-Power	Hrs. Life	List Each	Box of Ten
12	G-3½	2-Pin	12	6.3	.15	L	$ .25	$1.53
40	T-3¼	Min. Scr.	4	6.3	.15	3000	.15	.92
41	T-3¼	Min. Scr.	4	2.5	.50	3000	.15	.92
43	T-3¼	Min. Bay	3	2.5	.50	3000	.15	.92
44	T-3¼	Min. Bay	3	6.3	.25	3000	.15	.92
46	T-3¼	Min. Scr.	4	6.3	.25	3000	.15	.92
47	T-3¼	Min. Bay	3	6.3	.15	3000	.15	.92
48	T-3¼	Min. Scr.	4	2.0	.06	1000	.15	.92
49	T-3¼	Min. Bay	3	2.0	.06	1000	.15	.92
50	G-3½	Min. Scr.	2	7.5	.25	500	.15	.92
51	G-3½	Min. Bay	1	7.5	.22	1000	.15	.92
52	G-3½	Min. Scr.	2	7.5	.22	1000	.20	1.22
53	G-3½	Min. Bay	1	14.4	.12	1000	.15	.92
55	G-4½	Min. Bay	1	7.0	.41	500	.15	.92
57	G-4½	Min. Bay	1	14.0	.24	1000	.15	.92
57X	G-4½	Min. Bay	1	14.0	.24	1000	.20	1.22
63	G-6	S.C. Bay	17	7.0	.63	1000	.20	1.22
63L	G-6	S.C. Bay	17	7.0	.79	L	.40	2.44
81	G-6	S.C. Bay	17	6.5	1.02	500	.25	1.53
1458	G-5	Min. Bay	17	20.0	.25	250	.20	1.22
1489	T-5	S.C. Bay	18	6.5	2.75	125	2.20	13.40
1490	T-3¼	Min. Bay	3	3.2	.16	3000	.17	1.04
1618	S-8	D.C. Bay	16	6.4	21 C.P.	200	.60	3.67
1648	S-8	D.C. Bay	16	8.0	21 C.P.	200	.60	3.67
1815	T-3¼	Min. Bay	3	14.0	.20	3000	.20	1.22
1822	T-3¼	Min. Bay	3	36.0	.10	1000	.50	3.06
1847	T-3¼	Min. Bay	3	6.3	.15	L	.20	1.22
1866	T-3¼	Min. Bay	3	6.3	.24	L	.20	1.22
1891	T-3¼	Min. Bay	3	14.0	.24	500	.17	1.04
1892	T-3¼	Min. Bay	3	14.0	.12	L	.20	1.22

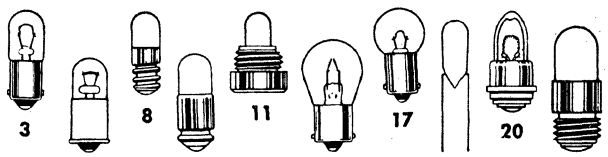
FLASHLIGHT AND LANTERN LAMPS

PR-2	B-3½	Min. Flgd.	6	2.4	.50	15	.20	1.22
PR-3	B-3½	Min. Flgd.	6	3.6	.50	15	.20	1.22
PR-4	B-3½	Min. Flgd.	6	2.3	.27	10	.20	1.22
PR-6	B-3½	Min. Flgd.	6	2.5	.30	30	.20	1.22
PR-7	B-3½	Min. Flgd.	6	3.8	.30	30	.20	1.22
PR-8	B-3½	Min. Flgd.	6	1.9	.60	10	.25	1.53
PR-9	B-3½	Min. Flgd.	6	2.7	.15	45	.25	1.53
PR-12	B-3½	Min. Flgd.	6	6.0	.50	15	.20	1.22
PR-13	B-3½	Min. Flgd.	6	4.75	.50	15	.20	1.22
13	G-3½	Min. Scr.	2	3.8	.30	15	.17	1.04
14	G-3½	Min. Scr.	2	2.5	.30	15	.17	1.04
27	G-4½	Min. Scr.	2	5.0	.30	30	.17	1.04
31	G-4½	Min. Scr.	2	6.15	.30	15	.20	1.22
112	TL-3	Min. Scr.	5	1.1	.22	5	.17	1.04
123	G-3½	Min. Scr.	2	1.2	.30	10	.17	1.04
222	TL-3	Min. Scr.	5	2.2	.25	5	.17	1.04
263	G-3½	Min. Scr.	2	2.40	.35	45	.20	1.22
425	G-4½	Min. Scr.	2	5.0	.50	15	.17	1.04
502	G-4½	Min. Scr.	2	5.1	.15	100	.17	1.04
605	G-4½	Min. Scr.	2	6.15	.50	15	.17	1.04
965	T-4½	Min. Scr.	4	9.84	.50	15	.25	1.53
1491	G-8	D.C. Bay	17	2.4	.80	75	.40	2.44



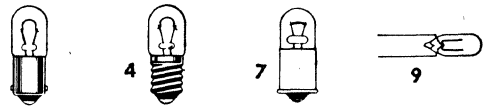
SMALL STANDARD VOLTAGE LAMPS

Lamp No.	Watts	Bulb	Fig.	Base	Voltage	List Each
6T4½/1	6	T-4½	4	Canda.	110-125	$ .55
6S6	6	S-6	15	Canda.	110-125	.22
6S6/D.C.	6	S-6	13	D.C. Bay	110-125	.30
7C7	7	C-7	22	Canda.	110-125	.22
10C7	10	C-7	22	Canda.	110-125	.25
10C7/D.C.	10	C-7	14	D.C. Bay	110-125	.29
10S6/10	10	S-6	15	Canda.	230-250	.52
10S6/D.C.	10	S-6	13	D.C. Bay	230-250	.67



AIRCRAFT AND SPECIAL LAMPS

Lamp No.	Bulb	Base	Fig.	Volts	Amps or Candle-Power	Hrs. Life	List Each	Box of Ten
301	G-5	S.C. Bay	17	28	3 C.P.	500	$ .40	$2.44
302	G-5	D.C. Bay	17	28	3 C.P.	500	.40	2.44
303	G-6	S.C. Bay	17	28	6 C.P.	500	.40	2.44
304	G-6	D.C. Bay	17	28	6 C.P.	500	.40	2.44
305	S-8	S.C. Bay	16	28	15 C.P.	300	.60	3.67
306	S-8	D.C. Bay	16	28	15 C.P.	300	.70	4.28
307	S-8	S.C. Bay	16	28	21 C.P.	300	.60	3.67
307F	S-8	S.C. Bay	16	28	21 C.P.	300	.70	4.28
308	S-8	D.C. Bay	16	28	21 C.P.	300	.70	4.28
309	S-11	S.C. Bay	16	28	32 C.P.	300	.70	4.28
310	S-11	D.C. Bay	16	28	32 C.P.	300	.75	4.58
311	S-11	S.C. Bay	16	28	50 C.P.	300	.90	5.50
312	S-11	D.C. Bay	16	28	50 C.P.	300	.95	5.80
313	T-3¼	Min. Bay	3	28	.17	500	.35	2.14
313R	T-3¼	Min. Bay	3	28	.17	500	.55	3.36
323	T-1¼	Special	11	3	.19	350	1.00	6.11
323R	T-1¼	Special	11	3	.19	350	1.05	6.42
325	T-1¼	Special	21	3	.19	350	1.25	7.64
327	T-1¾	Mid. Flgd.	7	28	.04	1000	.90	5.50
328	T-1¾	Mid. Flgd.	7	6	.20	500	.70	4.28
328L	T-1¾	Mid. Flgd.	7	6	.20	3000	2.10	12.80
328NR	T-1¾	Mid. Flgd.	7	6	.20	500	3.85	23.50
329	T-1¼	Special	21	2.5	.40	30	1.50	9.17
330	T-1¾	Mid. Flgd.	7	14	.08	750	1.00	6.11
331	T-1¾	Mid. Flgd.	7	1.35	.06	500	.80	4.89
332	T-1¾	Mid. Flgd.	7	6	.20	500	1.20	7.33
334	T-1¾	Mid. Grvd.	10	28	.04	1000	.90	5.50
335	T-1¾	Mid. Scr.	8	28	.04	1000	1.20	7.33
336	T-1¾	Mid. Grvd.	10	14	.08	750	1.25	7.64
337	T-1¾	Mid. Grvd.	10	6	.20	500	1.20	7.33
337L	T-1¾	Mid. Grvd.	10	6	.20	3000	2.10	12.80
338	T-1¾	Mid. Flgd.	7	2.7	.06	500	.80	4.89
342	T-1¾	Mid. Scr.	8	6	.04	1000	1.15	7.03
344	T-1¾	Mid. Flgd.	7	10	.015	L	1.50	9.17
345	T-1¾	Mid. Flgd.	7	6	.04	1000	1.40	8.55
1251	G-6	S.C. Bay	17	28	3 C.P.	1000	.40	2.44
1767	T-1¾	Mid. Scr.	8	2.5	.20	500	.60	3.67
1768	T-1¾	Mid. Scr.	8	6.0	.20	500	.75	4.58
1768L	T-1¾	Mid. Scr.	8	6.0	.20	3000	2.25	13.70
1769	T-1¾	Mid. Scr.	8	2.5	.20	500	.80	4.89
1775	T-1¾	Mid. Scr.	8	6.3	.075	500	.80	4.89
1816	T-3¼	Min. Bay	3	13	.33	1000	.30	1.83
1819	T-3¼	Min. Bay	3	28	.035	1000	.45	2.73
1820	T-3¼	Min. Bay	3	28	.10	1000	.40	2.44
1829	T-3¼	Min. Bay	3	28	.07	1000	.35	2.14
CM8-680	T-1	Unbased	19	5	.060	L	3.20	19.60
CM8-682	T-1	Special	20	5	.060	L	4.20	25.66
CM8-715	T-1	Unbased	19	5	.115	L	3.20	19.60
CM8-718	T-1	Special	20	5	.115	L	4.20	25.66



POPULAR NEON GLOW LAMPS

Lamp No.	Watts or MA	Bulb No.	Base	Fig.	Series Resistor Ohms	Life	List Each
NE-2	1/25	T-2	Unbsd.	9	200K	25000	$.10
NE-2A	1/25	T-2	Unbsd.	9	200K	25000	.10
NE-2D	1/10	T-2	Mid. Flg.	7	62K	5000	.82
NE-2E	1/10	T-2	Unbsd.	9	62K	5000	.10
NE-2H	1/4	T-2	Unbsd.	9	25K	5000	.12
NE-2J	1/4	T-2	Mid. Flg.	7	25K	5000	.82
NE-2X	1/10	T-2	Unbsd.	9	62K	5000	.09
NE-45	1/4	T-4½	Canda.	4	30K	7500	.85
NE-48	1/4	T-4½	D.C. Bay	3	30K	7500	.70
NE-51	1/25	T-3¼	Min. Bay	3	200K	15000	.21
NE-51H	1/4	T-3¼	Min. Bay	3	25K	5000	.23
NE-57	1/4	T-4½	Canda.	4	30K	5000	.99

Prices shown include Federal Excise Tax.

Trade Discount Applies to List Prices Only

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INDICATOR LIGHTS

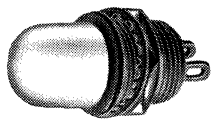
for every panel design by

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa. • Chicago, Ill. • El Segundo, Calif.

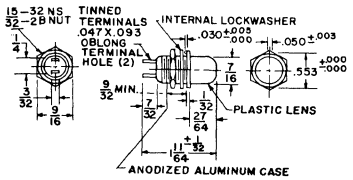
Shown below are only a few of the more than 50 basic standard types of indicator lights available from Control Switch Division. Actually, there are dozens of variations in color, mounting, appearance and circuitry possible for almost every basic style. For example, indicator lights are available for 6, 14, or 28 volt, D.C. and 110 V. A.C. circuits. So whatever your needs, there are ready-made, in-stock indicator lights to fit your panel.

(LIST PRICES BELOW ARE FOR UNITS WITHOUT LAMPS)

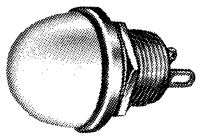
SERIES L14005B



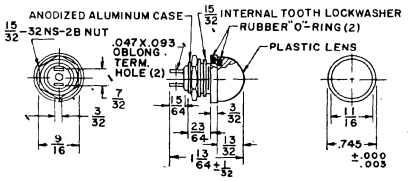
Conforms to MS-25256. Long plastic lens for 180° visibility. Front panel mounting (L14000) shown; also available for back mounting (L14200). Uses MS-25237 lamps. **LIST $1.12**



SERIES L5105



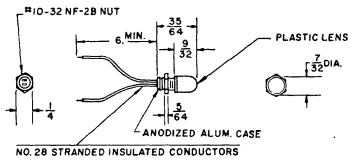
Watertight, front-of-panel mounting. Wide-angle visibility. 2-terminal circuit. Mounts in ½-inch hole. Uses MS-25237 lamps. Press-to-Test Model L16200 available. **LIST $1.62**



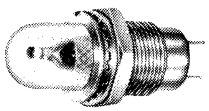
SERIES L10000

Supplied with 5V. Lamp

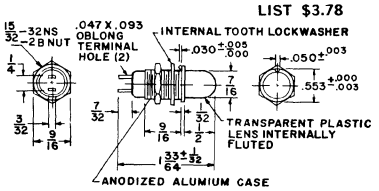
Sub-miniature, moisture-proof. Rated life of 60,000 continuous hours at 5 volts. Models available to mount flush with panel surface. **LIST $5.45**



SERIES L15015B

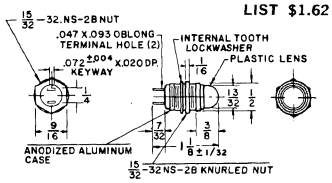


Neon indicator with built-in 62,000 ohm resistor for 115V circuits. Conforms to MS-25257. Available for front or back panel mounting. **LIST $3.78**

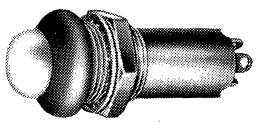


SERIES L14215

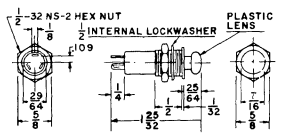
Special model for back-of-panel mounting on very compact panels. Mounting nut is tightened from front. Lens has knurled nut for easy removal of lens-lamp module. Uses MS-25237 lamps. **LIST $1.62**



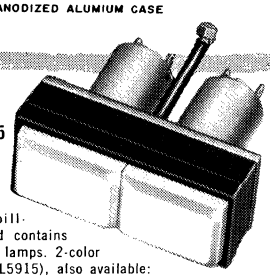
SERIES L3005



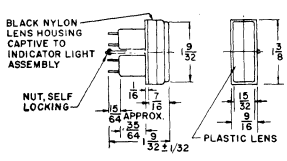
Moisture-proof push-to-test indicator light. Test lamp circuit by pushing plastic lens. Supplied with or without silicon rubber boot to seal panel. Lens has "O"-ring seal. Flange-type mounting in ½-inch hole. Uses MS-25237 lamps. **LIST $3.75**



SERIES L5915

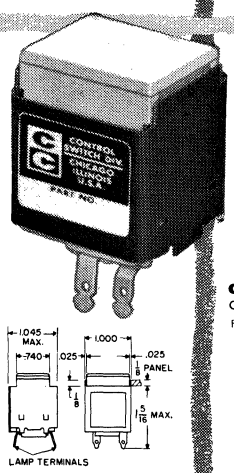


Miniature "bill-board" placard contains two MS-25237 lamps. 2-color model shown (L5915), also available: 1-color (L5900) and Press-to-Test (L5200). All legends engraved (not hot-stamped). Self-indexing unit. Captive lens. **L5915: LIST $6.73**



SERIES C6

TWINLITE modular indicator light assembly with identical panel appearance and mounting configuration to Series C6 lighted push-buttons. Mounts with barriers in rows, in matrix, or individually. Contains two lamps on individual or common circuits. Split or solid color buttons available. With 6 V. or 28 V. lamps. **LIST $5.25**



CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa. • Chicago, Ill. • El Segundo, Calif.

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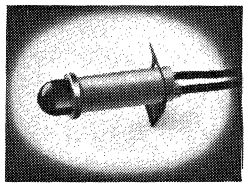
INDUSTRIAL DEVICES, Inc.

EDGEWATER, NEW JERSEY

OMNI-GLOW PILOT LIGHT



For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus, OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built-in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

Easy mounting — only a ½" hole required for any panel thickness. Instant fastening — speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts, long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is 1 13/16" long overall. Lens extends 7/32" in front of panel. Black plastic (105°C) leads are 4½" long, stripped and tinned ½".

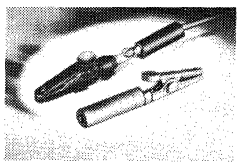
Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

Furnished complete with lamp and speed nut, OMNI-GLOW is UL approved—CSA Approval No. 13346.

Catalog Number	Description	List Price
1010A1	OMNI-GLOW Pilot Light (red lens)	$ .90
1010A2	OMNI-GLOW Pilot Light (clear lens)	$ .90
1010A3	OMNI-GLOW Pilot Light (amber lens)	$ .90
1010A4	OMNI-GLOW Pilot Light (white lens)	$ .90

SAFE-T-KLIP

(U. S. Patent 2,754,490)



New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

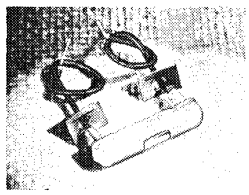
Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is ⅜"; maximum height is ⅝".

Four models are available. The #1410A is for use with a wire lead and provides either a soldered or screw terminal connection. The nylon sleeve is threaded to the clip for easy connection: Overall assembled length is 2 13/16". The #1410B, with overall length of 2 11/32", provides positive clip connection to all standard (.081 dia.) phone-tip test prods. The #1410C has a jack for standard banana plugs and an overall length of 2 1/16".

The 1410D is similar to 1410B except that the entrance hole is modified for Signal Corps. application.

Catalog Number	Description	List Price
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	$1.80 pr.
	Color — black (Model No. 1410-A1)	.90 ea.
	Color — red (Model No. 1410-A2)	.90 ea.
1410B	SAFE-T-CLIP for use with standard .080" test prod	1.50 pr.
	Color — black (Model No. 1410-B1)	.75 ea.
	Color — red (Model No. 1410-B2)	.75 ea.
1410C	SAFE-T-KLIP for use with banana plug	1.20 pr.
	Color — black (Model No. 1410-C1)	.60 ea.
	Color — red (Model No. 1410-C2)	.60 ea.
1410D	SAFE-T-KLIP for Signal Corps use	1.40 pr.
	Color — black (Model No. 1410-D1)	.70 ea.
	Color — red (Model No. 1410-D2)	.70 ea.

TINY-GLOW PILOT LIGHT



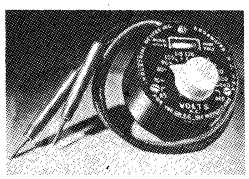
Midget Size. For use on instrument panels, switchboards, electrical and electronic apparatus. Neon lamp draws less than 1 milliampere at 110 volts. Over 25,000 hours of actual service, operates over a wide range, 75 to 250 volts. A.C. or D.C. TINY-GLOW outlasts the equipment that it serves.

Shock and vibration proof, no spring contacts, soldered connections. Requires less back-of-panel space than any other pilot light. Polished chrome plated housing, ⅜" brass mounting studs. Mounts simply and easily with speed nuts on two 13/64" holes, 1⅜" apart. Furnished complete with lamp and speed nuts. Dimensions: 1 1/16" x 7/16" x ⅜".

Catalog Number	Description	List Price
300	TINY GLOW Pilot Light	$1.25

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)



MINI-VOLT is an "abuse-proof" voltmeter, sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigeratior and air conditioning servicemen, experimentors, lab technicians, handymen.

MINI-VOLT has wide application for all equipment whose proper operation requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to 660 volts, Model #400B is used to identify AC or DC lines, check rectifiers, filter capacitors, chokes; test for blown fuses, grounded components, DC polarity, measure voltage drops with load, and 1001 other uses.

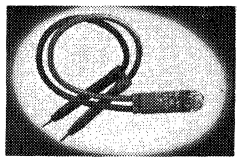
For use on AC (any frequency) or DC, MINI-VOLT, with an impedance of approximately ½ megohm, draws negligible current and can therefore provide dependable voltage readings even on circuits used in electronic apparatus.

Will provide a lifetime of service — glow lamp is guaranteed for 25,000 hours of actual operation. Furnished complete with extra-heavy insulated 12-inch flexible test leads and test prods.

Lightweight impact resistant case and dial panel, thoroughly insulated. So rugged that instrument can be thrown into tool box or dropped to floor without damage. C.S.A. approval #8910.

Catalog Number	Description	List Price
400B	Range 65 to 660 volts	$3.75

LINE-VOLT TEST LIGHT



LINE-VOLT Model No. 1310 is a rugged, compact test light covering the wide range of 55-550 VAC or 90-600 VDC.

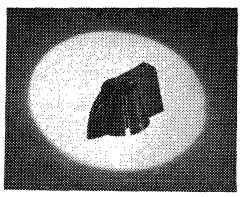
LINE-VOLT tells immediately whether there is power in the line, checks fuses, can identify AC or DC lines, grounded components, continuity of line circuits.

Leads are 12" long overall and are heavy-duty flexible wire terminating in 3½" insulated prods with really sharp points—able to pierce insulation, paint, or oxidation. Bright lamp provides immediate positive indication.

14" long overall, diameter ⅝".

Catalog Number	Description	List Price
1310	LINE-VOLT Test Lite (55-550 volts)	$1.50

NYLON CONTROL KNOBS



Loose knob problems are gone forever with molded nylon pointer knobs! Nylon toughness eliminates metal bushings; nylon resilience provides a positive, vibration-proof, high-torque lock against the shaft.

Nylon knobs are practically unbreakable, can't fade or chip, have high insulation resistance, are virtually immune to acid and solvents.

Furnished complete with set-screw, these knobs fit a ¼" shaft and are available in red or black.

Catalog Number	Description	List Price
1431-1	Nylon pointer knob, 1¼" x 13/32" x ¾", black	$ .25
1431-2	Same in red	.25

INDUSTRIAL DEVICES, INC. EDGEWATER, NEW JERSEY

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THE COMPLETE LINE OF

DIALCO® PILOT LIGHTS

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

DATALITES®

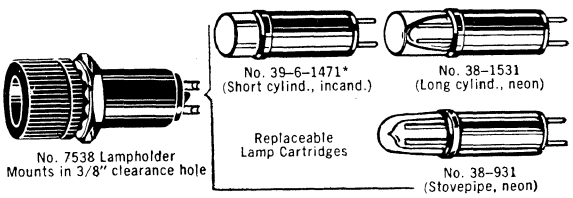
For the Computer-Automation Industries

DATALITES by DIALCO are ultra-miniature Indicator Lights specially designed to meet the critical requirements of the computer-automation fields. Made in 2 basic styles: *Lamp Holders with* DIALCO'S own *replaceable Lamp Cartridges,* or integrated DATALITES *with Built-in Neon Lamps* which are *not replaceable* (see below). Ultra-compact, single units mount in ⅜" clearance hole.

DATALITES have fully insulated terminals and conform to all applicable military specifications. Integrated units are available *with or without built-in resistors* (see below).

Also available—twin-lamp assemblies which mount in ¾" clearance hole.

DATALITES with DIALCO'S Replaceable Lamp Cartridges



NEON or INCANDESCENT LAMP CARTRIDGES

Lamps used: T–1¾ wire-lead incandescent Lamps...or Neon Lamps NE–2E (regular), or NE–2H (High Brightness) which is specified by adding **H** to the Cat. No....Example: 38**H**–931.

Neon Cartridge Cat. Nos.

LENS COLOR (Transparent)	STOVEPIPE	LONG CYL.
Red	38–931	38–1531
Yellow (Amber)	38–933	38–1533
White	38–935	38–1535
Light Yellow	38–936	38–1536
Clear (Colorless)	38–937	38–1537

Green or blue lenses are not listed. They are not recommended for use with Neon lamps.

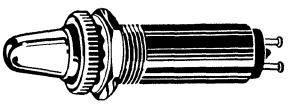
Incandescent Cartridge Cat. Nos.

LENS COLOR (Translucent)	SHORT CYL. (Translucent)
Red	* 39–6–1471
Green	39–6–1472
Yellow (Amber)	39–6–1473
Blue	39–6–1474
White	39–6–1475
Light Yellow	39–6–1476

***NOTE:** The **–6–** in the Cat. Nos. indicate a 6V lamp. For 14V or 28V, change the **–6–** to–**14**– or –**28**–. Example: 39–**14**–1471.

DATALITES with Built-in NE-2E or NE-2H Neon Lamps

(Lamps are not replaceable.)



No. 249–7841–931 with built-in resistor

Available–shorter unit, without resistor, No. 249–7840–**1431**

(NOTE: To specify a unit for the High Brightness Neon Lamp, add **H** to the Cat. No....Example: 249–7841**H**–931.**)**

HOT-STAMPED LEGENDS *(Digits, Letters or Symbols)* on Dialco Lamp Cartridge Lenses

SHORT and LONG CYLINDRICAL lenses can be hot-stamped with one *to three* digits of standard size, as follows: 1 DIGIT, 11/64" high (14 pt. type) . . . 2 DIGITS, 9/64" high (10 pt. type) . . . 3 DIGITS, 5/64" high (8 pt. type) . . . *These standard sizes of Legends will be provided in a uniform manner per order*—i.e., the size of type will be determined by the largest legend indicated in each individual order.

Standard—BLACK letters; but white, red, green, or blue letters can be supplied to order.

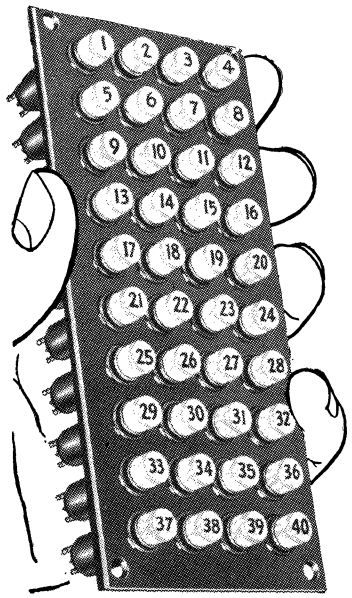
Colored Legends on black or gray lenses: Legends can also be furnished in *"negative"*, or *"reverse" style.* That is, the legend is illuminated in white or other color while the background remains opaque black or gray. To order, insert —*XP20B*— for black lens and —*XP20G*— for gray lens.
Ex.: 39—6—*XP20B*—1471; 39—6—*XP20G*—1471.

MULTIPLE INDICATORS

in a compact "package"—

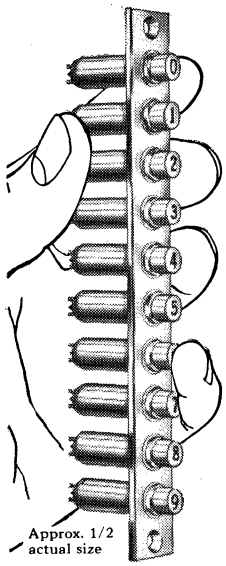
Ready to install in a minimum of space

For Data-Processing Equipment, Computers, and Automation Applications



Approx. ½ actual size

"DATA MATRIX" No. DM-7538-40; panel size, 5½" x 2½"; accommodates 40 Lamp Holders with Incandescent Lamp Cartridges capped with short cylindrical lenses.



"DATA STRIP" No. DSV-7538-10. Vertical, complete with 10 No. 39-28-1475 Dialco Lamp Cartridges . . . **No. DSH-7538-10,** same as above, but for *horizontal* reading.

A Complete "Data Matrix" and "Data Strip" Manufacturing Service

To expedite installation of multiple-indicators, let DIALCO perform the following manufacturing services for you:

- **Fabricate** a "Data Matrix" or "Data Strip" panel to your specifications.
- **Punch** the necessary holes therein for DIALCO Lamp Holders and your fuses, switches, screws, etc.
- **Mount** the required number of Lamp Holders on the panel for vertical or horizontal reading. Lamp Holders can be spaced on ½" centers or in any specified way. **There is no basic (or stock) item;** we can supply from 2 to 40 Lamp Holders on a panel or strip.
- **Insert** required Lamp Cartridge into Lamp Holders.
- **Hot Stamp** or engrave legends on lenses (see column at left).

Lamp Holders accommodate DIALCO's Neon or Incandescent Lamp Cartridges (see column at left).

Each Lamp Holder has 2 terminals and is completely insulated (without the use of insulating shoulder washers).

MATERIALS AND FINISHES: Lamp Holder housing, panel or strip and cartridge sleeve are aluminum with clear anodize finish Option: black anodize finish.

For complete data, see brochure *FORM L-160B.*

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THE COMPLETE LINE OF

DIALCO® PILOT LIGHTS

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

Sub-Miniature Indicator Lights for NEON Lamps

NE-2D *(regular)*
NE-2J *(high brightness)*
(See below)

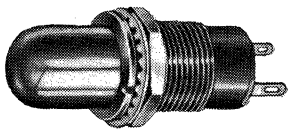
TWO TERMINALS — FULLY INSULATED — Conform to all applicable military specifications

For FRONT of Panel Insertion in 15/32" Clearance Hole

With Built-in Resistor

(A patented DIALCO feature—
U.S. Pat No. 2,421,321)

Conform to MS25257



Accommodates a T-2 Neon Glow Lamp: NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; *for Catalog Numbers see below* . . . **NE-2J** (High Brightness) for 110-125 Volts A.C. only; *for Catalog Numbers, see Brochure L-159C.*

DIALCO Cat. No. WITHOUT LAMP	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25252-NE-2D	LENS COLOR
137-8836-933 ■	MS25257-2	MS25257-1	Aviation Yellow
137-8836-931 ■	MS25257-4	MS25257-3	Identification Red
137-8836-937 ■	MS25257-6	MS25257-5	Clear (Colorless)

■ With patented built-in resistor: 62K ± 10%.

*MARKING: The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

Also: Similar Series not covered by MS25257: For NE-2D lamp, with standard 62K built-in resistor . . . For NE-2J *(high brightness)* lamp, with standard 18K built-in resistor. See *Brochure L-159C.*

The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

These lamps have formed bulbs and midget flanged bases; designated as *NE-2D* for the regular lamp, and as *NE-2J* for the high brightness type which has higher voltage characteristic requiring 110 volts A.C. or 140 volts D.C. for reliable performance. A resistor (or other ballast) must be used. Since the current is never more than 3 m.a., the resistor may be the 1/3 watt type. Recommended values are as follows:

For NE-2D at 105-125 volts A.C. or D.C.

Bright light	Medium intensity	Long life
62,000 ohms	100,000 ohms	220,000 ohms

For NE-2J (High Brightness) at 110-125 V. (A.C. only)

Bright light	Medium intensity	Long life
18,000 ohms	33,000 ohms	100,000 ohms

For FRONT of Panel Insertion in 15/32" Clearance Hole

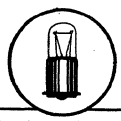
Without Built-in Resistor

This Series is similar in size, general appearance, and construction to the Series shown at the left, except for the following: Has no built-in resistor or anti-rotation tab. *Catalogue Numbers,* with soldering terminals, are as follows:

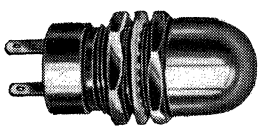
Red	137-8536-931
Yellow (Amber)	137-8536-933
White	137-8536-935
Light Yellow	137-8536-936
Clear (Colorless)	137-8536-937

Sub-Miniature Indicator Lights for T-1¾ Bulbs

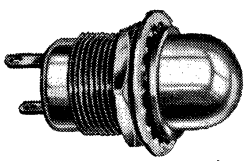
MIDGET FLANGE BASE INCANDESCENT



TWO TERMINALS — FULLY INSULATED — Conform to all applicable military specifications



Back of Panel Insertion:
Requires a single 15/32"
Clearance Hole



Front of Panel Insertion:
Requires a single 17/32"
Clearance Hole

CATALOGUE NUMBERS

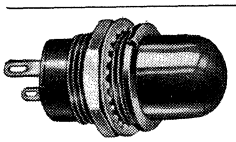
Transparent colors

Color	(Back insertion)	(Front insertion)
Red	101-3830-931	101-5030-931
Green	101-3830-932	101-5030-932
Yellow (Amber)	101-3830-933	101-5030-933
Blue	101-3830-934	101-5030-934
White (Opal)	101-3830-935	101-5030-935
Light Yellow	101-3830-936	101-5030-936
Clear (Colorl's)	101-3830-937	101-5030-937

Translucent colors

Red	101-3830-971	101-5030-971
Green	101-3830-972	101-5030-972
Yellow (Amber)	101-3830-973	101-5030-973
Blue	101-3830-974	101-5030-974
White (Opal)	101-3830-975	101-5030-975
Light Yellow	101-3830-976	101-5030-976

These pilot lights are also available with *Taper-Tab* Terminals. Specify by changing the middle part of the catalog number "-3830-" to "-6330-", & "-5030-" to "-6530-".



Front of Panel Insertion:
Requires a single 15/32"
Clearance Hole

Anti-rotation Tab on face of flange prevents rotation of unit while nut is being tightened.

DIALCO Catalog No.	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25237-327	CAP COLOR
162-8430-933	MS25256-2	MS25256-1	Aviation Yellow
162-8430-932	MS25256-4	MS25256-3	Aviation Green
162-8430-931	MS25256-6	MS25256-5	Identification Red
162-8430-937	MS25256-8	MS25256-7	Aviation White
162-8430-975	MS25256-10	MS25256-9	Translucent White
162-8430-934	MS25256-12	MS25256-11	Aviation Blue

*MARKING: The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

RUGGED CONSTRUCTION, PHENOLIC INSULATION — Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground.

These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

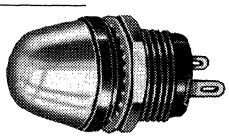
Order Complete with Lamp. Specify Lamp Number.

MANUFACTURER'S RATINGS

LAMP NO.	MILITARY NO.	VOLTS	AMPS	LIFE HOURS
331 *	———	1.3	.06	500
338 *	———	2.7	.06	500
328	MS25237	6.0	.20	1000
345	———	6.0	.04	1000
344 *	———	10.0	.015	L
349	———	6.3	0.20	3000
330	———	14.0	.08	750
327	MS25237	28.0	.04	1000

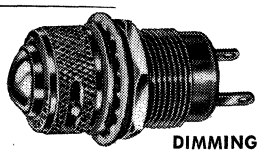
L = indefinite, over 6000 hours
*Recommended for use with **transparent** lenses only.

New WATER-TIGHT *Series*



Series No. 177-8430-971 is designed to be water-tight, oil-tight, and dust-tight on face of panel. Mounts from front of panel in 15/32" clearance hole. Two 1/16" thick neoprene retained "O" rings assure absolute seal. Stovepipe lens; choice of 7 colors.

DIMMERS — MECHANICAL or POLAROID



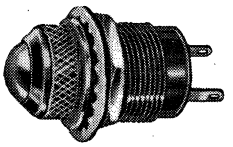
Illustrated: Units for *Front* of Panel Insertion; require a 17/32" clearance hole. Units for *Back* of Panel Insertion require a 15/32" clearance hole.

DIMMING
Front of Panel Insertion

CATALOGUE NUMBERS

DIMMING	(*Back* insert.) Lens, unfrosted	(*Front* insert.) Lens, unfrosted
Semi-blackout	109-3830-131	109-5030-131
Blackout	108-3830-131	108-5030-131
Polaroid	112-3830-131	112-5030-131
NON-DIMMING	111-3830-131	111-5030-131

For *"Lens, backfrosted,"* change series numbers ending in —131 to *—111.* For *"Lens, frosted all over,"* change series numbers ending in —131 to *—121.*



NON-DIMMING

LENS COLOR: The *final figure* in Catalogue Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted (For example: 111-3830-135).
Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4 . . . White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7

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THE COMPLETE LINE OF

PILOT LIGHTS

DIALCO®

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

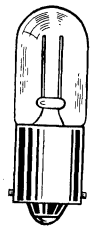
ASSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

NOTE: To designate a unit for use with the High Brightness **NE-51H** lamp, add **H** to the Catalog Number. Example: 52408**H**-991

For operation on 105-125V. or 210-250V. . . . The required resistor is an integral part of the unit — BUILT IN. Also, simple external resistors for all higher voltages.

Assemblies Conform to All Applicable Military Specifications.



NE-51 or NE-51H (High Brightness)

External resistors will be furnished which will permit use of these pilot lights on voltages higher than 250 volts.

75W., 125V.

PROPER CHOICE OF LAMP AND BUILT-IN RESISTOR VALUES: The NE-51 glow lamp types are shown with resistor tables. Lamps are the *standard NE-51* and the *new NE-51H*. The *high brightness lamp* may be operated at about three times the level of current that may be applied to the standard lamp and it will produce more than eight times as much light.

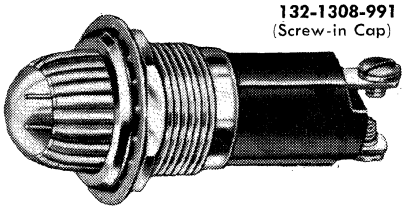
* The **NE-51H** Neon Glow Lamp is not recommended for use on **DC** circuits up to 140 V.

BUILT-IN RESISTOR VALUES for the NE-51 TYPE GLOW LAMPS (Values in ohms)

NE-51			New NE-51H (high brightness)		
VOLTS	Applied to terminals 105-125	210-250	VOLTS*	Applied to terminals 105-125	210-250
BRIGHT LIGHT	56,000 (1/3 watt)	180,000 (1/3 watt)	BRIGHT LIGHT	18,000 (1/3 watt)	56,000 (1/3 watt)
MEDIUM LAMP LIFE	100,000 (1/3 watt)	270,000 (1/3 watt)	MEDIUM LAMP LIFE	33,000 (1/3 watt)	100,000 (1/3 watt)
VERY LONG LAMP LIFE	220,000 (1/3 watt)	680,000 (1/3 watt)	VERY LONG LAMP LIFE	100,000 (1/3 watt)	220,000 (1/3 watt)

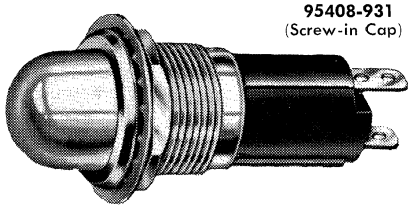
For Mounting in 11/16" Clearance Hole *(For Front of Panel Insertion)*

132-1308-991 (Screw-in Cap)



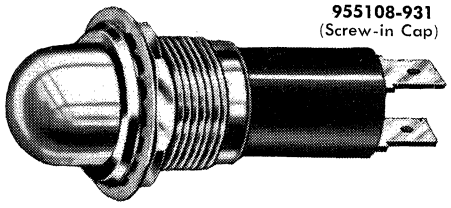
With SCREW TERMINALS

95408-931 (Screw-in Cap)



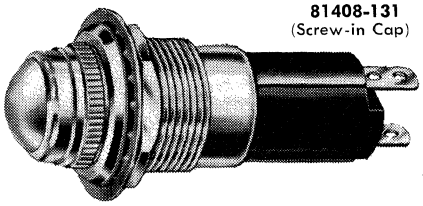
With SOLDERING TERMINALS

955108-931 (Screw-in Cap)

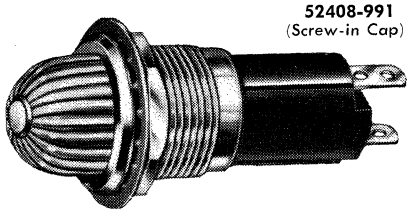


With QUICK-CONNECT TERMINALS

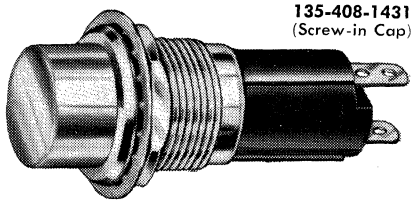
81408-131 (Screw-in Cap)



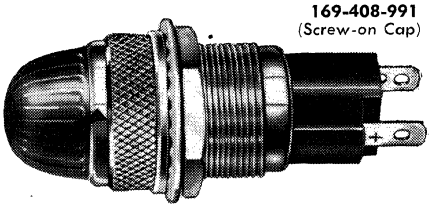
52408-991 (Screw-in Cap)



135-408-1431 (Screw-in Cap)



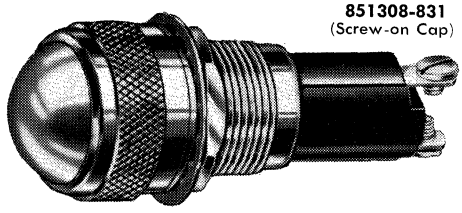
169-408-991 (Screw-on Cap)



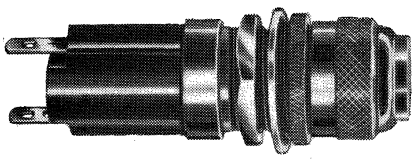
LENS COLOR: The *final figure* in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note: White lenses are translucent and are always furnished unfrosted. (For example: 37408-335).

Red—1; Yellow (Amber)—3;
White Translucent—5;
Light Yellow—6; Clear (Colorless)—7.

851308-831 (Screw-on Cap)



9/16" Assemblies mount from BACK of panel only

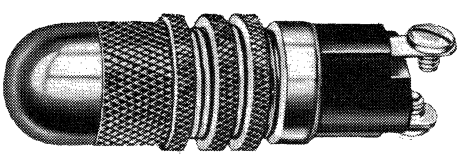


37408-XP15-331 (Screw-on Cap)

With optional hardware

Assemblies which mount in a 9/16" clearance hole are useful where close center-to-center spacing is required.

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.



With standard hardware

171308-931 (Screw-on Cap)

ORDER COMPLETE WITH LAMPS so that you will be assured of receiving the pilot lights and correct lamps at one time, ready for immediate use.

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Foremost Manufacturer of Pilot Lights

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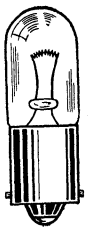
(Illustrations are approx. actual size)



ASSEMBLIES for T-3¼ INCANDESCENT LAMP

2 to 55V. (No Higher)

With Miniature Bayonet Base

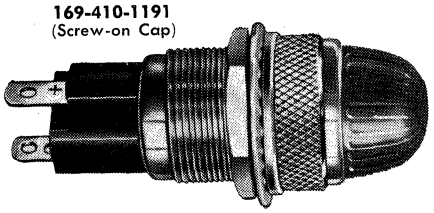
Conform to All Applicable Military Specifications

For Mounting in 11/16" Clearance Hole

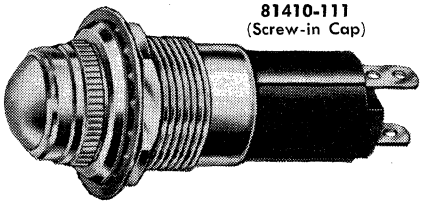
For Front of Panel Insertion

75W., 125V.

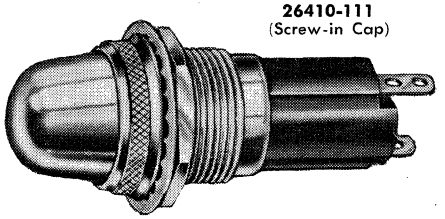
169-410-1191
(Screw-on Cap)



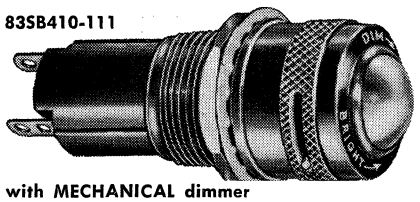
81410-111
(Screw-in Cap)



26410-111
(Screw-in Cap)



83SB410-111



with MECHANICAL dimmer

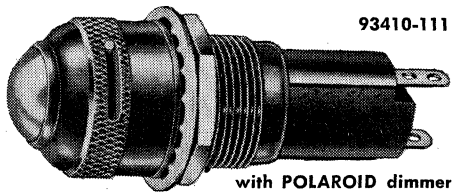
Mechanical and Polaroid Dimmers

Mount in 11/16" clearance hole

Any of the Dialco mechanical dimmers can be supplied either for *"Complete Blackout"* or for *"Semi-Blackout"*. Typical Catalogue Numbers are as follows:

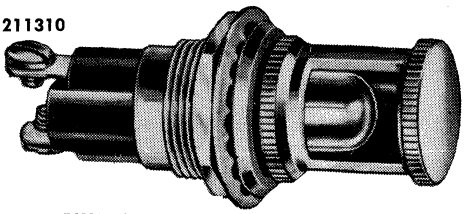
83B410-111 ("Complete Blackout")
83SB410-111 ("Semi-Blackout")

93410-111



with POLAROID dimmer

211310



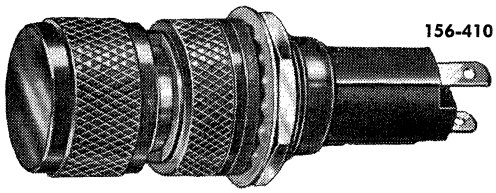
PUSH-IN CAP with opening ½" x ½"
Typical Assembly. Other Catalog Nos. are assigned to cover other optional features.

Assemblies with Light Shield Caps

Mount in 11/16" clearance hole

Complete Series available with the following Push-in Caps: With ONE opening 3/32" x 1/2", 3/16" x 1/2", 3/16" x 9/16", 1/2" x 1/2" . . . With TWO openings 1/2" x 1/2" . . . Also Screw-in Cap with opening 3/16" x 1/2", and Friction-Fit Cap with opening 1/8" x 1/2".

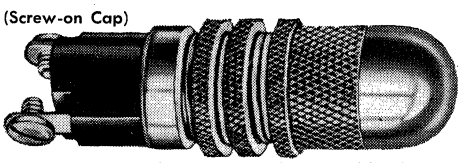
156-410



PUSH-PULL CAP

Variable Opening—from 0" to ¼" x ⅜"

(Screw-on Cap)



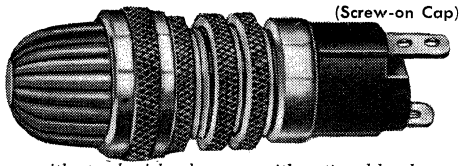
with standard hardware: **171310-931**
with optional hardware: **171310-XP15-931**

For Mounting in 9/16" Clearance Hole

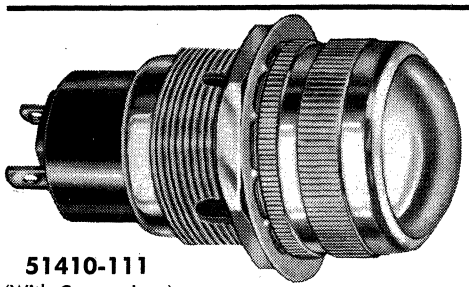
(from BACK of panel)

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

(Screw-on Cap)



with standard hardware: **70410-1191**
with optional hardware: **70410-XP10-1191**

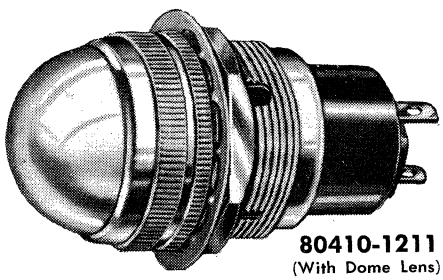


51410-111
(With Convex Lens)

For Mounting in 1" Clearance Hole

Complete Series available with Screw-on Caps (as illustrated), Friction-Fit Caps, or Bayonet Caps. Choice of 9 Lens Types: Flat, Dome, Stovepipe, Faceted, Torpedo Faceted, Torpedo, Large Torpedo, Small Convex, Large Convex. 7 Lens Colors (see below).

GLASS LENSES: Plastic lenses are not recommended for use with lamps rated over 2 watts.



80410-1211
(With Dome Lens)

LENS COLOR: The *final figure* in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example: 80410-1235.)

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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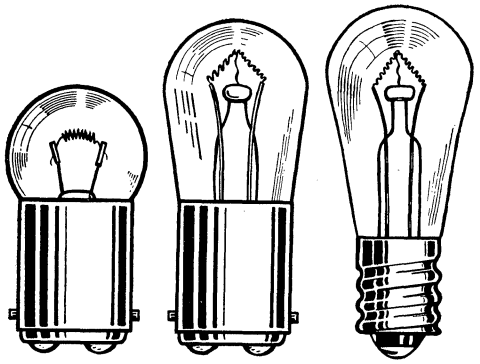
(Illustrations are approx. actual size)

ASSEMBLIES for INCANDESCENT LAMPS

(with double contact bayonet base or candelabra screw base)

For Mounting in 1" Clearance Hole

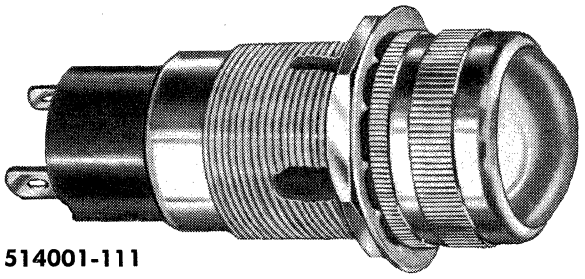


G-6 D.C. Bay. (32V. max.) | S-6 D.C. Bay. | S-6 Cand. Screw

VOLTAGES (at 6 watts): 6, 12, 24, 32, 48, 70-80, 125, 130, 135, 145.

75W., 125V.

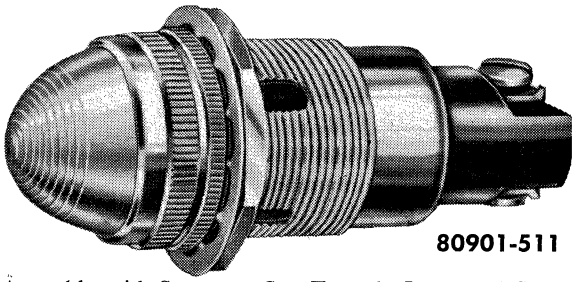
FEATURES: DIALCO makes the most extensive line of 1" enclosed assemblies for large incandescent lamps. 3 such styles of lamps are shown here together with 6 typical units. These units are available with Screw Terminals, Soldering Terminals, or Quick Connect Terminals (will mate with standard solderless female connectors) . . . 8 glass lens types are available, in 7 colors (see below). Plastic lenses are not recommended because of the high degree of heat that incandescent lamps generate.



514001-111

Assembly with Screw-on Cap, Convex Lens, and Soldering Terminals. Similar units available with Quick Connect Terminals.

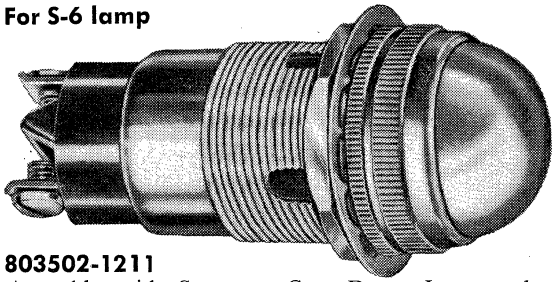
Typical assemblies for use with S-6 bulb with candelabra screw base



80901-511

Assembly with Screw-on Cap Torpedo Lens, and Screw Terminals in side position. Similar units available with screw terminals in protruding position.

For S-6 lamp

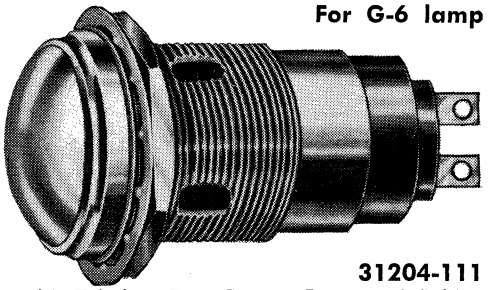


803502-1211

Assembly with Screw-on Cap, Dome Lens, and Screw Terminals. Terminals may be specified as *fixed* type or *movable* type.

Typical assemblies for use with double contact bayonet base incandescent lamps

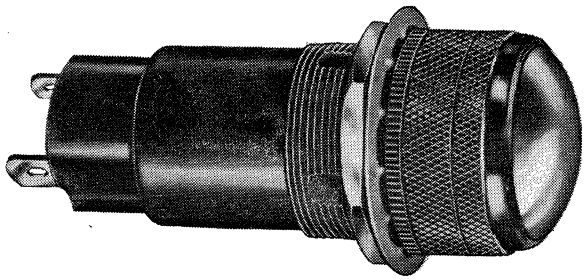
For G-6 lamp



31204-111

Assembly with Friction Cap, Convex Lens, and Soldering Terminals. 2 other types of soldering terminals are *fixed* or *movable.*

DIMMERS and LIGHT SHIELDS



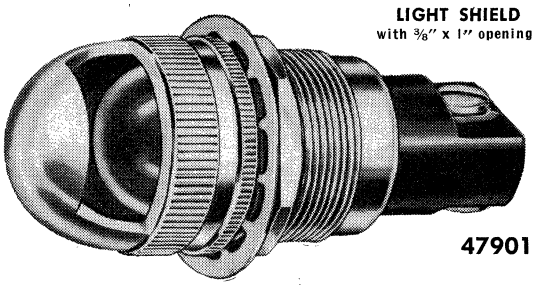
71B4001-111 Mechanical Dimmer

784001-111 Polaroid Dimmer

Typical assemblies for use with S-6 bulb with candelabra screw base

Shown are typical assemblies in a most extensive Series available only from DIALCO.

LIGHT SHIELD with 3/8" x 1" opening



47901

LENS COLOR: The *final* figure in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that *white lenses* are translucent and are always furnished unfrosted. (For example: 80901-535).

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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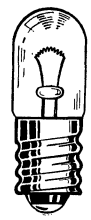
(Illustrations are approx. actual size)

A SELECTION OF OPEN TYPES

For T-3¼ Low Voltage Incandescent Lamps

Typical assemblies for bayonet base lamp.
Available also for screw base type. See listing below.



Min. Screw Base (2-48V.)

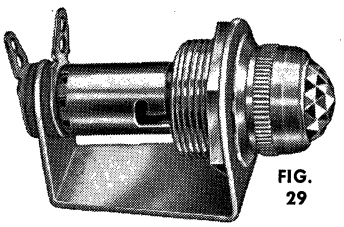
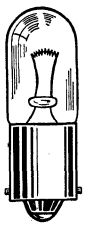


FIG. 29



Min. Bayonet Base (2-55V.)

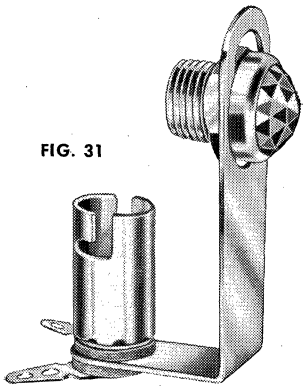


FIG. 31

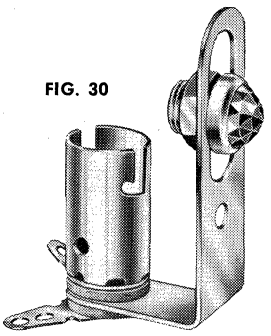
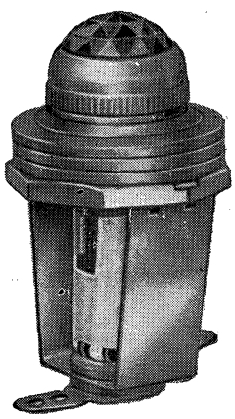
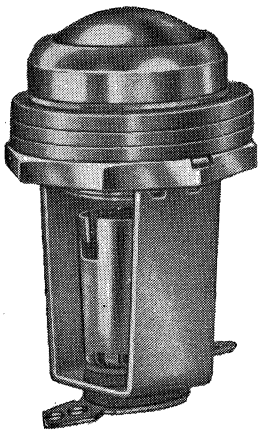


FIG. 30





Octagon lock nut and bracket on these two units welded into one-piece construction

FIG. 32 FIG. 33

CATALOGUE NUMBERS

Assemblies for T-3¼ miniature bayonet base lamps

No. 810B-431	Faceted	½″ lens.	For	11/16″ mounting hole.	Fig. 29
No. 710U-431	Faceted	½″ lens.	For	7/16″ mounting hole.	Fig. 31
No. 755U-431	Faceted	11/32″ lens.	For	9/32″ mounting hole.	Fig. 30
No. 857B-431	Faceted	½″ lens.	For	11/16″ mounting hole.	Fig. 32
No. 67B-111	Convex	¾″ lens.	For	13/16″ mounting hole.	Fig. 33

Assemblies for T-3¼ miniature screw base lamps

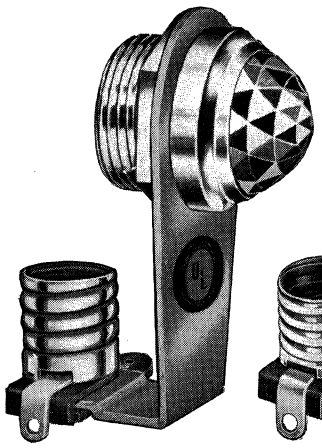
					Similar to
No. 810M-431	Faceted	½″ lens.	For	11/16″ mounting hole.	Fig. 29
No. 510-431	Faceted	½″ lens.	For	7/16″ mounting hole.	Fig. 31
No. 555-431	Faceted	11/32″ lens.	For	9/32″ mounting hole.	Fig. 30
No. 855-431	Faceted	½″ lens.	For	11/16″ mounting hole.	Fig. 32
No. 66M-111	Convex	¾″ lens.	For	13/16″ mounting hole.	Fig. 33

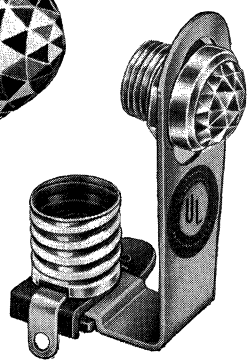
LENS COLOR: The **final figure** in the catalogue number indicates that lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

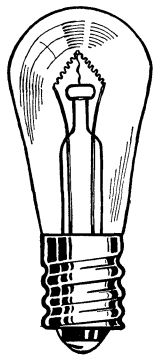
Red—1 Green—2 Yellow (Amber)—3 Blue—4
White Translucent—5 Light Yellow—6 Clear (Colorless)—7

For Candelabra Screw Base Lamps

75W., 125V.



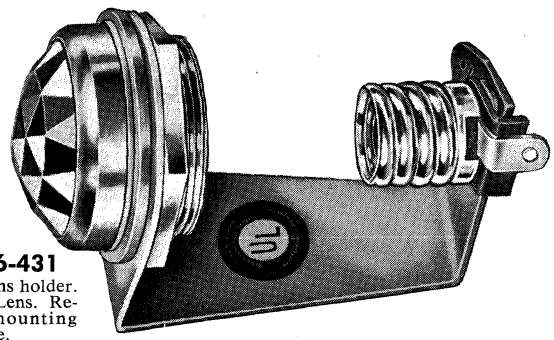




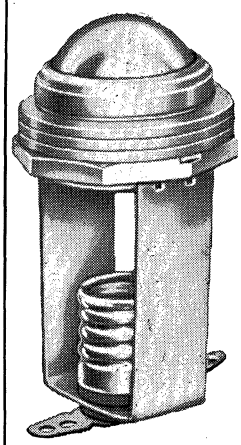
25-18-15-431
Tamper-proof lens holder. 5/8″ Faceted Lens. Requires 11/16″ mounting clearance hole.

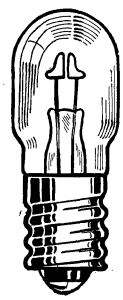
10-18-14-431
With elongated slot. 1/2″ Faceted Lens. Requires 7/16″ mounting clearance hole.

S-6 (6 to 145 V.)



31-18-16-431
Friction-fit lens holder. 1″ Faceted Lens. Requires 1″ mounting clearance hole.



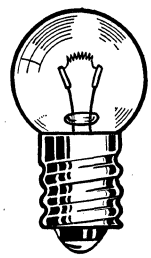


NE-45

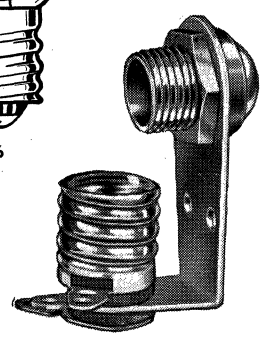
67BN-831

For NE-45 Neon Glow Lamps (105-125 V.)

Friction-fit lens holder. 3/4″ Plastic Dome Lens. Requires 13/16″ mounting clearance hole . . . Octagon lock nut and bracket on this unit welded into one-piece construction.



G-6



610-121

For G-6 Low Voltage Lamps (up to 32 V., no higher)

Tamper-proof lens holder. 1/2″ Convex Lens. Requires 7/16″ mounting clearance hole.

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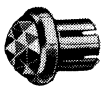
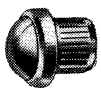
Lens Holders with Lenses for Panel Mounting

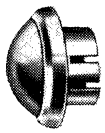
FRICTION FIT PUSH IN TYPES



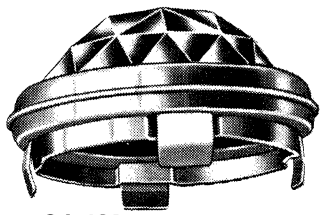
4004-431
9/32″ hole
1/4″ shank



6004-631
9/32″ hole
1/4″ shank

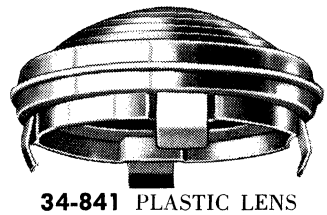


38003-631
3/8″ mtg. hole
3/16″ shank
Options: 1/8″, 3/32″

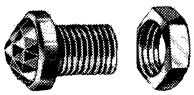


34-431 GLASS LENS

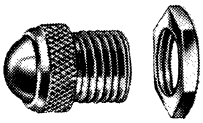
These Holders snap into a 1⅜″ hole



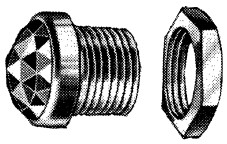
34-841 PLASTIC LENS



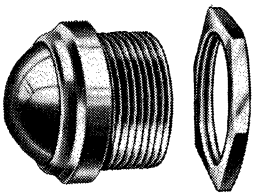
5006-431
9/32″—32 thread
3/8″ shank
(option 1/4″)



7005-631
3/8″—24 thread
5/16″ shank

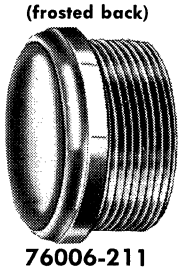


10006-431
7/16″—27 thread
3/8″ shank
(options: 1/4″, 5/8″)



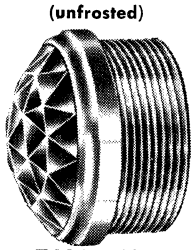
25006-111
11/16″—27 thread
3/8″ shank
(option 1/4″)

FLAT (frosted back)



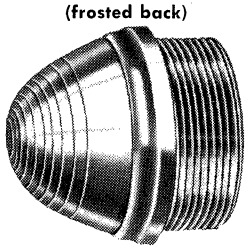
76006-211

FACETED (unfrosted)



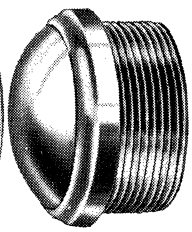
76006-431

TORPEDO (frosted back)



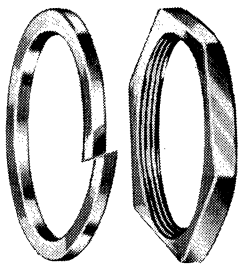
76006-511

CONVEX (frosted back)



1″—27 thread

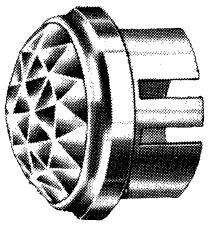
76006-111



3/8″ shank—tamper proof

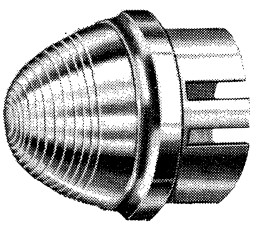
Mount in 1″ clearance hole

FACETED (unfrosted)



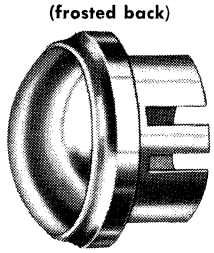
31-431

TORPEDO (frosted back)



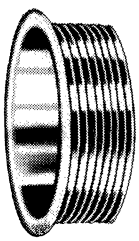
31-511

CONVEX (frosted back)



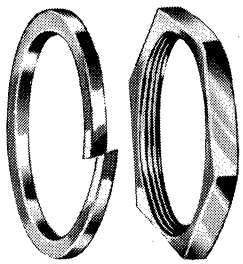
31-111

BUSHING



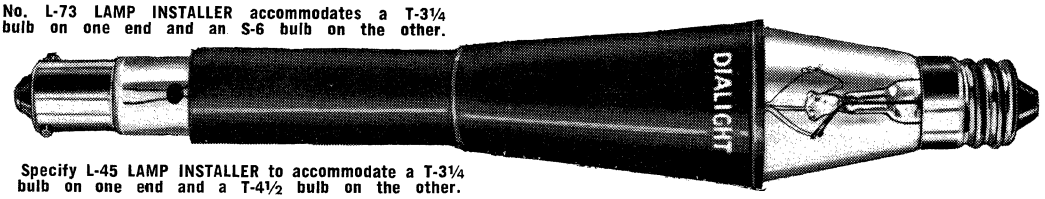
1″—27 thread

31246



3/8″ shank

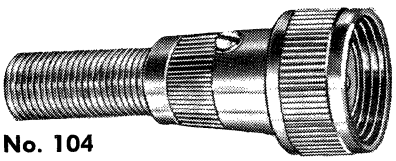
No. L-73 LAMP INSTALLER accommodates a T-3¼ bulb on one end and an S-6 bulb on the other.



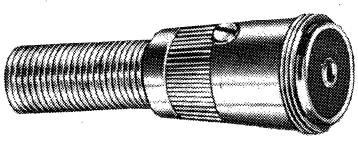
Specify L-45 LAMP INSTALLER to accommodate a T-3¼ bulb on one end and a T-4½ bulb on the other.

CONNECTORS FOR SINGLE CONDUCTOR CABLE

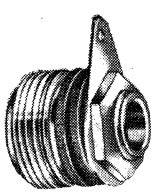
For Microphones, Speakers, Pick-ups, Jacks (using cable shield for second conductor).
Female Cable Connector, Catalog **No. 104.** This unit has a spring protector to prevent sharp bending of cable. It solders to cable sheath, and is secured by a set screw. **Catalog No. 101** has the same general characteristics, but is a **male** connector.



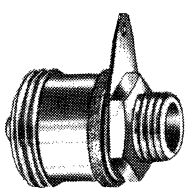
No. 104



No. 101



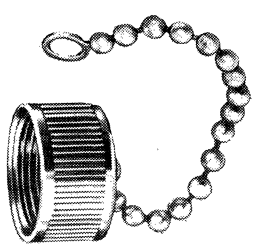
No. 50



No. 51

Male Chassis Connectors . . . No. 50. Shell grounds to panel, or may be insulated by washers. Fits a ⅜″—24 threaded hole, or may be secured by nut. **No. 50P** is similar to No. 50, but is designed to force fit in hole in panel. Does not require a nut to fit in place. **No. 51 Connector** has a sprung center contact which grounds before cable connection is broken, preventing open circuit howls.

Cap and Chain, Catalog No. 103. To protect unused male connectors. Chain secured by screw prevents loss when removed to make connection.



No. 103

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THE COMPLETE LINE OF

DIALCO® PILOT LIGHTS

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

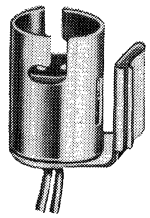
Bracket Mounted SOCKETS

For Incandescent or Neon Lamps

75W., 125V.

Accommodates Lamps With Double Contact Candelabra Bayonet Base

12-200 Series

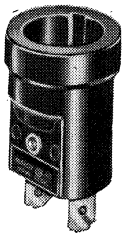


Cat. No. 12-258

12-200 Series Sockets are furnished with bakelite discs, including separately sprung contacts, and have 6″ wire leads. Also available with ceramic discs (called *1200* Series) for heat-resistant applications.

5700 Series Sockets use tab terminals. These assemblies are ruggedly constructed with moulded bakelite housings and specially designed contacts.

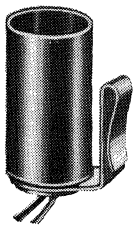
5700 Series



Cat. No. 57-07

Accommodates Lamps With Candelabra Screw Base

400 Series

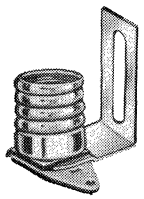


Cat. No.4-45

400 Series Sockets are housed in heavy moulded bakelite. They are equipped with built-in wire leads, 6″ long.

1800 Series Sockets are intended for use with lamps on commercial voltages. Terminals are locked in place and thoroughly insulated from the bracket and each other.

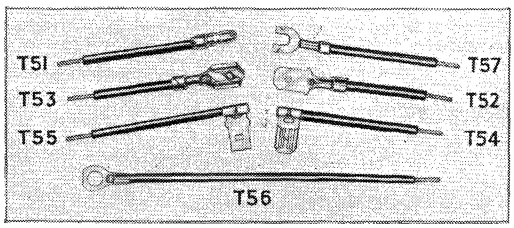
1800 Series



Cat. No. 18-79

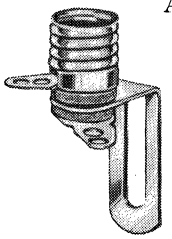
WIRE TERMINATIONS

All wire assemblies are furnished with 6″ long standard leads, ends stripped ½″. Standard insulation is vinyl plastic with copper conductors. Special insulations such as Asbestos, 105°C Plastic, Rubber, SRIR, etc., may be furnished.



A large variety of *solderless terminals* can be furnished with most wire lead assemblies. Some standard popular types are shown here. To assure your receiving the correct terminal, please specify our assembly part number as well as the terminal required.

600 Series



Cat. No. 6-06

Accommodates Lamps With Candelabra Screw Base

600 Series Sockets have soldering terminals, and can be furnished with the same basic brackets as shown in grouped illustration below.

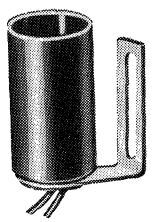
Accommodates Lamps With Miniature Bayonet Base

300 Series Sockets have moulded bakelite housing. UL and CSA listed for 75W., 125 V.

700 Series Sockets have soldering terminals. Some popular basic types are shown in illustration below.

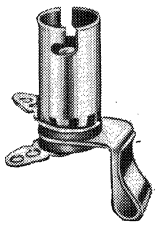
200 Series Sockets are supplied with insulating sleeves, eliminating any accidental grounding.

300 Series



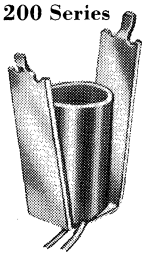
Cat. No. 3-05

700 Series



Cat. No. 7-02

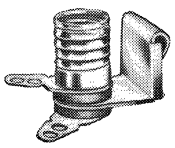
200 Series



Cat. No. 2-15

Accommodates Lamps With Miniature Screw Base

500 Series

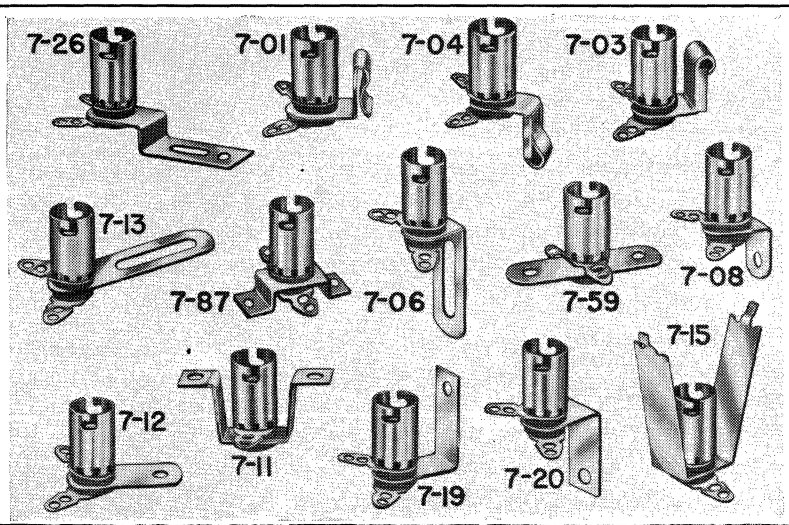


Cat. No. 5-03

500 Series Sockets are supplied with soldering terminals. This group, as well as those sockets in the *600* and *700 Series*, are also furnished for *Grounded* use with only *one* terminal.

ORDER COMPLETE with LAMP so that you will be assured of receiving the proper socket and correct lamp at one time, ready for immediate use.

CHOICE OF BRACKETS ⟹ The series of brackets shown at the right can be used with any of our 200, 500, 600, and 700 Series Sockets. All the sockets have 2 terminals.



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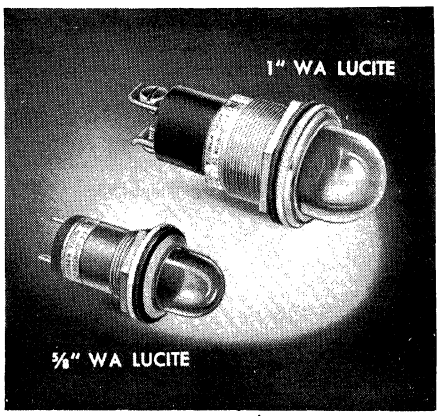
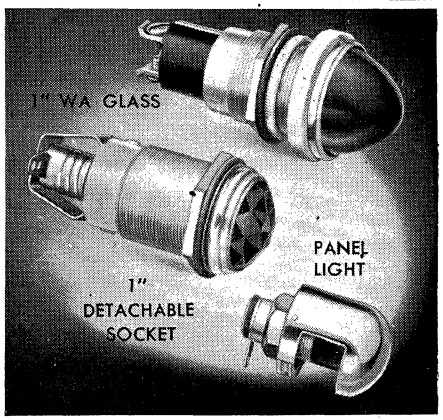
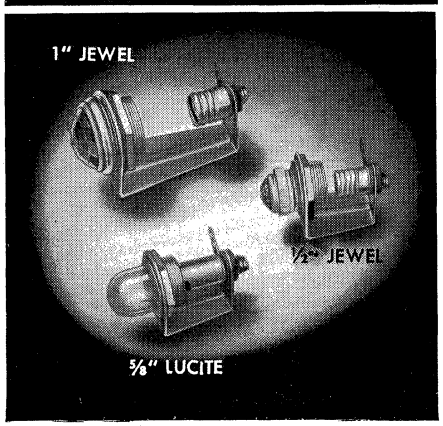
E. F. Johnson Company

WASECA, MINNESOTA







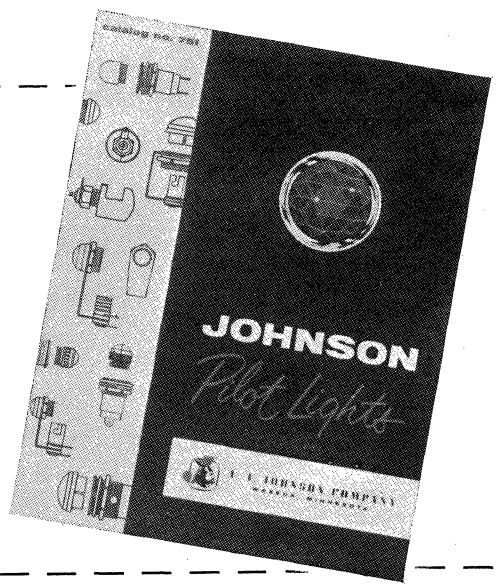
Quick and Easy... Pilot Light Selection!

Now you can save valuable replacement or specification time with Johnson Panel Indicators. Available in a wide variety of types, Johnson "preferred" units are immediately available at parts distributors throughout the country. Careful standardization, with an eye to replacement as well as interchangeability, makes Johnson Pilot Lights the first choice of leading manufacturers.

Available types include: continuous indication neon types; models for high and low voltage incandescent bulbs; standard or wide angle glass and lucite jewels in clear, red, green, amber, blue or opal. Specials, including those meeting military specifications are also available in production quantities. For full information, write today!

NEW PILOT LIGHT CATALOG!

Write for your copy today. Complete specifications, prices and technical data . . . everything you need to pick a unit for original equipment manufacture or "in the field" replacement.



(See pages 648-669 for complete listing)

© U.C.P., Inc.

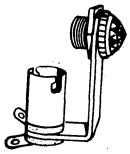
DRAKE

MINIATURE LIGHTING

INDICATOR LIGHT ASSEMBLIES

11/32" JEWEL . . . VERTICAL MOUNTING

Smallest Miniature Lampholder Assemblies Made



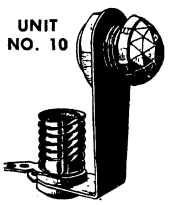
UNIT NO. 5B

MOUNTING: in 15/16" diameter hole, on panels up to ⅛" thick. Minimum center-to-center spacing, 9/16".

FEATURES: E-Z-Tite bezel—for fast assembly, fast replacement . . . vibration and shock resistance (to prevent loosening) . . . tested at 125 volts . . . faceted plastic lenses . . . bright nickel panel hardware—other parts cadmium . . . lamps, G3½, G4½ . . . **Economy Style units.**

NO. 5	Miniature Screw	$.36
NO. 5B	Miniature Bayonet	$.39

½" JEWEL . . . VERTICAL MOUNTING



UNIT NO. 10

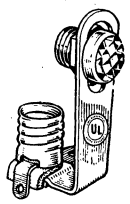
MOUNTING: in 7/16" hole on panels up to ¼" thick.

FEATURES: Faceted plastic lenses in standard colors . . . panel hardware, bright nickel—other parts cadmium . . . tested at 125 volts . . . **Economy Style units.**

NO. 10	Miniature Screw	$.41
NO. 10G	Miniature Bayonet	$.42

½" JEWEL . . . VERTICAL MOUNTING

UNDERWRITERS APPROVED, 75 W. — 125 W.



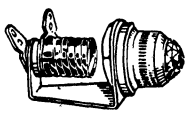
UNIT NO. 10C

MOUNTING: in 7/16" hole, on panels up to ¼" thick.

FEATURES: takes minimum depth behind panel . . . slotted bracket hole permits adjustment of lamp filament behind lens for maximum illumination . . . faceted plastic lenses (FAC), in standard colors . . . panel hardware, bright nickel . . . other parts cadmium . . . **Economy Style units.**

NO. 10C	Candelabra Screw	$.48

½" JEWEL . . . HORIZ. MOUNTING



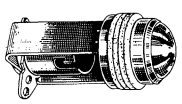
UNIT NO. 20S

MOUNTING: in 11/16" diameter hole . . . Min. center-to-center spacing, 5/16".

FEATURES: Lamp removable from front of panel . . . ½" faceted glass lens . . . bezel, bright nickel plated . . . tested at 125 V.

UNIT	LAMP-HOLDER	DEPTH BEHIND PANEL	PANEL THICKNESS	LIST
NO. 20	Min. Bayonet	1-13/32"	0 to 7/64"	$.63
NO. 30	Min. Bayonet	1-7/32"	¼"	$.65
NO. 40	Min. Bayonet	1-11/32"	½ to 15/64"	$.65
NO. 20S	Min. Screw	1-1/16"	0 to 15/64"	$.65
NO. 30S	Min. Screw	15/16"	¼"	$.65

¾" JEWEL . . . HORIZ. MOUNTING



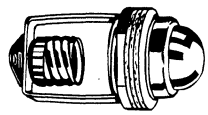
UNIT NO. 60

MOUNTING: in 13/16" diameter hole, on panels up to ¼" thick.

FEATURES: Polished chrome slip-fit bezel for fast assembly and printed disc alignment . . . supplied with 3 fibre washers to compensate for panel thicknesses . . . miniature types tested at 125 Volts, candelabra types stand 1250 Volt breakdown. Regular hardware . . . lenses, convex—smooth, frosted on back (SFB) standard colors . . . Nos. A460N-IL and A460T-IL are Underwriters Listed for 75 W.—125 V. service.

NO. 60	Miniature Bayonet	$1.45
NO. 60S	Miniature Screw	$1.43
NO. A460N-IL	Cand. Screw (for NE45 lamp)	$1.51
NO. A460T-IL	Cand. Screw (for 115V, 6W, T4½ lamp)	$1.52

¾" JEWEL . . . HORIZ. MOUNTING



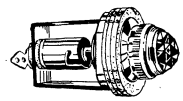
UNIT NO. 61N

MOUNTING: in 13/16" dia. hole, on panels up to 5/16" thick.

FEATURES: supplied with 3 fibre washers to compensate for panel thicknesses . . . regular hardware . . . lenses, domed plastic, providing 180° visibility . . . colors—colorless, red . . . takes NE45 neon glowlamp . . . for UL unit, order No. A6IN-IL.

NO. 61N	Candelabra Screw	$1.50

½" JEWEL . . . HORIZ. MOUNTING



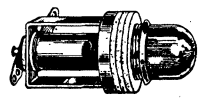
UNIT NO. 50

MOUNTING: in 11/16 diameter hole, **specially designed for use on more than one thickness of panel.**
Supplied with 3 fibre washers which compensate for panel thicknesses.

FEATURES: Lamp removable from front of panel . . . faceted glass lens, standard colors . . . panel hardware, bright nickel —other parts cadmium . . . tested at 125 volts.

UNIT	LAMPHOLDER	DEPTH BEHIND PANEL FACE	LIST
NO. 50	Min. Bayonet	1-17/64"	$.86
NO. 50S	Min. Screw	1-13/64"	$.86

⅝" PLASTIC CAP HORIZONTAL MOUNTING



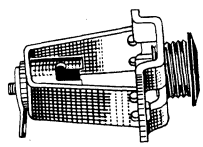
UNIT NO. 51

MOUNTING: in 11/16" diameter hole, on panels up to ¼" thick.

FEATURES: Translucent plastic macrodome gives wide angle vision, easily seen from sides . . . lamp removable from front of panel . . . supplied with three 1/16" thick fibre washers for adjustment to varying panel thicknesses . . . regular hardware . . . standard colors . . . tested at 125 V.

UNIT	LAMPHOLDER	DEPTH BEHIND PANEL FACE	LIST
NO. 51	Min. Bayonet	1-13/64"	$.76
NO. 51S	Min. Screw	1-9/64"	$.74

½" GLASS LENS, ⅝" PLASTIC LENS OR 11/16" FLAT PLASTIC LENS



UNIT NO. 52

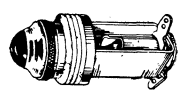
MOUNTING: in 9/16" dia. hole on panels up to 5/16" thick (depending on lens style). Lamps replaceable from rear of panel only.

FEATURES: Three choices of lens (jewel) style . . . exclusive formed nut secures unit to panel . . . snap-in bracket makes lamp replacement easy . . . choice of grounded lampholders for automotive use, etc., or UL Listed lampholders for neon lamps at 125 and 250 volts.

NO. 52	Min. Bayonet	Solder Term	Flat Cap	$.48
NO. 53	Min. Bayonet	Solder Term	Macrodome	$.48
NO. 54	Min. Bayonet	Solder Term	Glass Lens	$.67
NO. ULR554-IL	Min. Bayonet	Wire Leads	Glass Lens	$.91

½" JEWEL . . . HORIZ. MOUNTING

POLARIZED VARIABLE INTENSITY



UNIT NO. 80

MOUNTING: in 11/16" diameter hole, on panels up to ¼" thick.

FEATURES: Polaroid discs permit regulation of light intensity—a partial turn of lens dims light . . . supplied with 3 fibre washers to compensate for panel thicknesses . . . lens, smooth frosted on back, standard colors . . . bright nickel plated bezel, other parts cadmium.

NO. 80	Miniature Bayonet	$1.72

ALL PRICES LIST

Trade Discount Applies to List Prices Only

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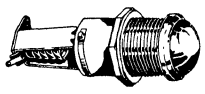
MINIATURE LIGHTING

INDICATOR LIGHT ASSEMBLIES



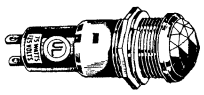
UNIT NO. 75

1" JEWEL . . . HORIZ. MOUNTING

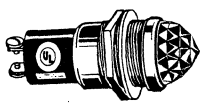
MOUNTING: in 1" diameter hole on panels up to ½" thick.

FEATURES: Slip-fit bezel for easy installation . . . withstands voltage breakdown of 1000 volts . . . takes 6S6 and 7C7 lamps . . . Nos. 175 and 275 take any standard miniature lamp . . . highly polished chrome finish bezel, other parts burnished cadium plated . . . convex lenses in standard colors; lenses also available faceted (FAC) and smooth plain (SP)—**use SP with neon glow lamps** . . . printed discs available for readout applications.

NO. 75	UL listed	Candelabra Screw	**$1.49**
NO. 175		Miniature Screw	**$1.39**
NO. 275		Miniature Bayonet	**$1.42**



UNIT NO. 75AP



UNIT NO. BS75AP-BH

1" JEWEL . . . HORIZ. MOUNTING

UNDERWRITERS LISTED

MOUNTING: in 1" diameter hole on panels up to ½" thick.

FEATURES: Heavy-duty candelabra screw base assembly designed for use on rugged equipment . . . socket assembly and mounting tube are one piece . . . lenses, faceted or smooth convex or beehive glass, standard colors . . . bright polished chrome bezel, other parts cadmium . . . Underwriters Approved for 125 volt, 75 W. service . . . depth behind panel 2¼".

NO. 75AP	Solder Terminals	Cand. Screw	**$1.72**
NO. BS75AP	Screw Terminals	Cand. Screw	**$1.91**

UNIT NO. B979C-IBE-431

UNIT NO. B979C-IBE-550

UNIT NO. 5243-205-320

"TITELITE" OIL — WATER — DUST PROOF UNITS 1" AND ⅝" LENSES HORIZONTAL MOUNTING

MOUNTING: Type No. 79 (Heavy Duty, 1" lens), in 1" diameter hole, from front or rear of panel . . . max. panel thickness, 7/16"; Type No. 205 (Miniature, 5/8" lens), in 11/16" diameter hole, from front of panel only . . . max. panel thickness, 5/16".

FEATURES: Two sealing gaskets effectively resist oil, water, dust penetration . . . HEAVY DUTY TYPE.

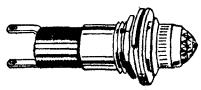
NO. 79 UNITS—Candelebra Screw or D.C. Cand. Bayonet bases . . . for use with neon or incandescent lamps . . . three lens styles —Faceted, Beehive or Plain Beehive for maximum side visibility, Flat Cap generally used with printed heat resistant discs . . . pop-out lamps with screw base units, lamp ejector spring in bayonet base units, for easy lamp replacement . . . wide choice of lens colors . . . available to meet Mil. Specs . . . UL listed.

MINIATURE TYPE NO. 205 UNITS—for use with neon or incandescent lamps . . . stocked with built-in resistor for neon glow lamps . . . with neon lamps, takes less space than other standard voltage units . . . threaded lens shank for easy lamp replacement from front . . . lens style gives wide angle visiblity . . . attractive chrome plated lensholder . . . wide choice of colors in glass lenses, fluted or diffusing . . . UL Listed.

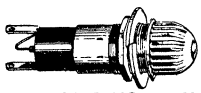
NO. B979C-IBE-431	Beehive Lens	**$3.12**
NO. B979C-IBE-550	Flat Lens	**$3.54**
NO. 5223-205-301	No resistor	**$2.08**
NO. 5243-205-320	Built-in 100,000 ohm resistor	**$2.33**

TOTALLY ENCLOSED MINIATURE BAYONET ASSEMBLIES

UNDERWRITERS LISTED



UNIT NO. 100



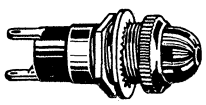
UNIT NO. 101N

MOUNTING: in 11/16" diameter hole on panels up to ⅜" thick.

FEATURES: Available with ½" faceted glass lenses, or transparent plastic macrodome fluted on inside . . . latter style gives three times the visibility of the plain cap . . . units with built-in current-limiting resistors can be operated on any voltage over 65 V. AC and 90 V. DC and under 125 V. AC or DC . . . lenses available in standard colors . . . bright chrome plated bezel and flange.

NO. 100	convex glass lens	Min. Bay.	**$1.19**
NO. 100N	built-in resistor	Min. Bay.	**$1.37**
NO. 101	plastic macrodome	Min. Bay.	**$1.03**
NO. 101N	100K built-in resistor. NE51 lamp.	Min. Bay.	**$1.29**
NO. 101N-022	22K built-in resistor. NE51H lamp.	Min. Bay.	**$1.29**

TOTALLY ENCLOSED MINIATURE BAYONET ASSEMBLIES



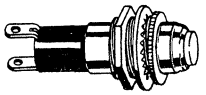
UNIT NO. 102

MOUNTING: in 11/16" diameter hole on panels up to ⅜" thick.

FEATURES: 5/8" glass macrodome lens provides 180° visibility for lamps of over 1 watt power consumption . . . gives a more De Luxe appearance than plastic . . . units with built-in current-limiting resistors can be operated on any voltage over 65 V. AC and 90 V. DC, and under 125 V. AC or DC . . . lenses available in standard colors . . . bright chrome plated bezel and flange.

NO. 102	no resistor		**$1.69**
NO. 102N	100K built-in resistor..	NE51 Lamp	**$1.95**
NO. 102N-022	22K built-in resistor ..	NE51H Lamp	**$1.95**

TOTALLY ENCLOSED MINIATURE BAYONET ASSEMBLIES

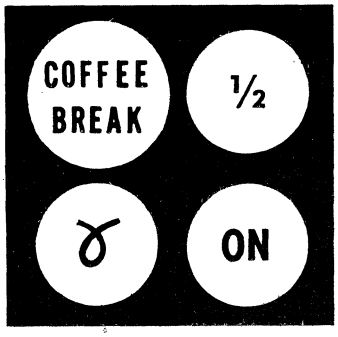


UNIT NO. 103

MOUNTING: in 11/16" diameter hole on panels up to ⅜" thick.

FEATURES: Slip-fit bezel for easy alignment of readout lenses . . . **E-Z-Tite** flange for fast, secure mounting . . . units with built-in current-limiting resistors for High Brightness neon lamps . . . can be operated on voltages from 65 V. to 125 V. AC . . . lenses available in standard colors . . . printed discs or lens faces available for readout applications . . . bright chrome plated bezel and flange.

NO. 103	no resistor		**$1.53**
NO. 103N-022	22K built-in resistor..	NE51H lamp	**$1.78**



PRINTED DISCS

For all kinds of indicating and warning purposes, printed plastic discs may be obtained for use with most DRAKE assemblies. Materials are non-oxydizing, heat-resistant. Any lettering or numerals may be used which fit within limits of disc. Prices are low.

ALL PRICES LIST

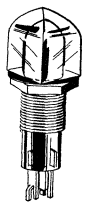
MINIATURE LIGHTING

INDICATOR LIGHT ASSEMBLIES

GLOW TYPE NEON INDICATOR LIGHTS

for maximum visibility and appearance

★ POSTLITE ★



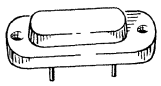
UNIT NO. 105

MOUNTING: in ½" diameter hole, on panels up to 9/16" thick.

FEATURES: supplied complete with non-replaceable standard or High-Brightness neon glow lamp . . . special design one-piece body-and-lens construction of clear, colorless plastic . . . equipped with 100K built-in resistor for 125 volt circuits . . . head ⅝" square . . . overall length 2⅝".

NO. 105 .....Postlite.....**$1.08**

★ FLUSHLITE ★



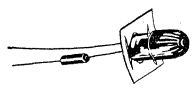
UNIT NO. 110

MOUNTING: with two ⅛" rivets or No. 6 screws—mounts on front or rear of panel.

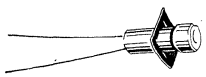
FEATURES: supplied with non-replaceable standard or High Brightness neon glow lamp . . . special design one-piece body-and-lens construction of milky white plastic . . . equipped with 100K built-in resistor for 125 volt circuits . . . solder terminals mounted on laminated phenolic base . . . overall height 9/16" . . . overall length 1⅞" . . . base width 9/16".

NO. 110 .....Flushlite.....**$.75**

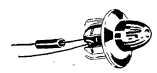
"ECONOGLO" NEON GLOW INDICATOR ASSEMBLIES



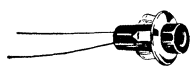
UNIT NO. R116-323



UNIT NO. 116-604



UNIT NO. R117-323



UNIT NO. 117-604

MOUNTING: Nos. 116 and R116, in a 5/16" diameter hole, from front, secured from behind with Tinnerman nut . . . Nos. 117 and R117, in ½" diameter hole, from front, secured by snap-in plug.

FEATURES: Designed to give maximum performance at minimum cost, with neon glow lamps . . . supplied with built-in 100K resistors . . . lenses, plain or fluted plastic, colorless or red . . . length in front of panel: 116, R116, ⅜"—117, R117, 7/16".

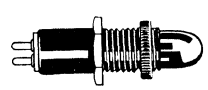
with Tinnerman Nut

NO. 116 .....no resistor .....**$.37**
NO. R116 .....100K built-in resistor.**$.53**

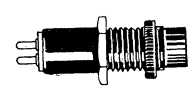
with snap-in plug

NO. 117 .....no resistor .....**$.46**
NO. R117 .....100K built-in resistor.**$.61**

"MINEON" NEON GLOW INDICATOR ASSEMBLIES



UNIT NO. R118 DOME



UNIT NO. R118 FLAT

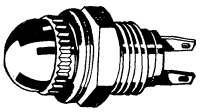
MOUNTING: from rear of panel, in ⅜" dia. hole . . . max. panel thickness, ⅜".

FEATURES: Extra-small . . . fast, secure installation with **E-Z-Tite** nut . . . rugged construction with attractive black anodized aluminum body . . . cadmium plated steel hex. nut . . . built-in 100K current-limiting resistor . . . solder lugs, with ceramic base . . . plain or inside fluted domed plastic lenses; or flat cylindrical plastic lens, which can be imprinted with hot-stamped legend for readout—any copy which fits within lens diameter . . . 4 lens color choices . . . operate on standard line voltage . . . with either NE2H (High Brightness) or NE2E (Standard) lamps.

NO. R118.....Plain or Fluted macrodome.....**$1.17**
NO. R118.....Plain Flat cylindrical lens.....**$1.17**

"TINYLITE" MIDGET ASSEMBLY

HORIZONTAL MOUNTED



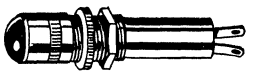
UNIT NO. 121
(shown full size)

MOUNTING: in 7/16" or 15/32" hole on panels up to 9/32" thick.

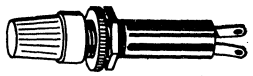
FEATURES: smallest available indicator lights with replaceable midget screw lamp and completely insulated from housing—occupies only about 1/3 cubic inch of space . . . lamp replaceable from front of panel . . . friction device prevents screw base from loosening because of vibration, etc. . . . **E-Z-Tite** flange for quick assembly . . . lenses: choice of smooth domed plastic, or flat plastic cap which can be hot-stamped with figures or letters; both styles give 180° visibility . . . standard colors . . . overall length (including terminals) 1-1/16" . . . supplied complete with midget screw lamp installed.

NO. 121-7.....with 7 Volt lamp **$1.16**
NO. 121-14.....with 14 Volt lamp **$1.21**
NO. 121-18.....with 18 Volt lamp **$1.38**

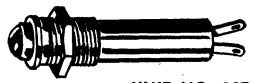
"TELESLIDE" INDICATOR LIGHT ASSEMBLIES



UNIT NO. 135



UNIT NO. 136



UNIT NO. 137

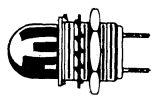
MOUNTING: in 15/32" diameter holes, on 23/32" centers.

FEATURES: designed especially for data processing equipment and other electronic instrumentation in less than standard voltage range—functions with T2 lamps, 24-55 volts . . . relatively low cost . . . small diameter permits close grouping . . . lenses: convex glass—available with molded-in letter or numerals, fired black enamel filled, in standard colors; or nylon cap, in several colors, which protrudes 13/16" from panel for 180° visibility . . . length overall approx. 2½" . . . **E-Z-Tite** knurl on ring nuts for Nos. 136 and 137, for fast mounting . . . solder terminals.

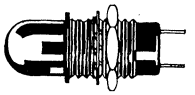
NO. 135.....11/32" D. convex glass lens.....**$1.90**
NO. 136.....plastic nylon cap, fluted.....**$1.41**
NO. 137.....½" D. convex glass lens.....**$1.84**

Small additional charge for numbers or letters on Nos. 135 and 137

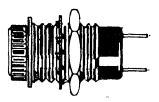
MIL-STANDARD INDICATOR LIGHT ASSEMBLIES



UNIT NO. MS25256



UNIT NO. MS25257



UNIT NO. 5042-133

MOUNTING: in 15/32" dia. hole; center-to-center spacing ¾", on panels up to 9/32" thick for Type 131—up to 15/32" thick for type 133.

FEATURES: Two types—No. 131 for use with incandescent lamps from 1 to 28 V. design voltage . . . No. 133, with built-in 62,000 ohm resistor, for use with NE2D neon glow lamps . . . electrical connections insulated from ground . . . insulation exceeds environmental test requirements of MIL-L-3661A per MIL-STD-202B for moisture, temperature and dielectric factors . . . lamps easily replaced from front of panel . . . wide choice of lens colors . . . compact, for min. space requirements . . . flat lens may be hot stamped with any legend which fits within lens diameter.

OPTIONAL: less expensive models for commercial applications.

Mil. Units

NO. MS25256...Short Plastic Macrodome.....**$1.86**
NO. MS25257...Long Plastic Macrodome...with resistor.....**$3.24**

Commercial Units

NO. 5032-131...Short Plastic Macrodome.....**$1.40**
NO. 5042-133...Long Plastic Macrodome...with resistor.....**$1.95**

ALL PRICES LIST

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MINIATURE LIGHTING

LENSES (JEWELS) and LAMPHOLDERS

½" LENS (JEWEL) — SLOTTED SHANK

colors. . .bright nickel plated bezel.
Slip-fit type. . .faceted plastic lens, standard
NO. 23....Shank 3/16" long, ⅜" O.D.....$.18

11/32" LENS (JEWEL) — SLOTTED SHANK

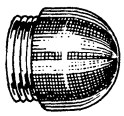
Slip-fit type . . . faceted plastic lens, standard colors . . . statuary bronze plated bezel.
NO. 24.....Shank ¼" long, 9/32" O.D.. .....$.14

½" LENS (JEWEL) — THREADED, WITH NUT

Screw-in type . . . faceted plastic lens, in standard colors . . . bright nickel plated.
NO. 16-17.....Shank ⅜" long, 7/16" O.D.....$.24

½" LENS (JEWEL) — THREADED

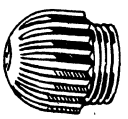
Screw-in type . . . faceted glass lens, standard colors . . . bright nickel plated.
NO. 25.....Shank 3/16" long, 15/32" O.D.....$.29



UNIT NO. 25P

⅝" PLASTIC MACRODOME LENSES

Screw-in types, designed to give widest possible (180°) visibility . . . transparent, fluted inside suggested for neon lamps — translucent plain for incandescent lamps.



UNIT NO. 25PF

NO. 25P ....Plain ..Shank 3/16" long, ⅝" O.D...$.16
NO. 25PF....Fluted .Shank 3/16" long, ⅝" O.D...$.16

¾" LENS (JEWEL) — THREADED, WITH NUT

Faceted glass lens, standard colors . . . chrome plated bezel . . . hex. nut, cadmium.

NO. 60A3-27.....Shank ⅜" long, 11/16" O.D.....$.86

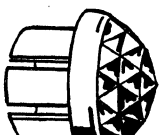
UNIT NO. 60A

11/16" LENS SLOTTED SHANK

Slip-fit types . . . with convex SFB glass or plastic domed lenses, standard colors . . . chrome plated bezel.

UNIT NO. 60A-D

NO. 60A .....Shank ¼" long, ⅞" O.D.....$.62
NO. 60A-D.....Shank ¼" long, ⅞" O.D.....$.62



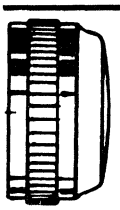
UNIT NO. 75A

1½" LENS SLOTTED SHANK

Slip-fit types . . . with faceted plastic convex or beehive lenses, standard colors . . . chrome plated bezels.

UNIT NO. 75A-BH

NO. 75A..(FAC or SP)..Shank 5/16" long, 1-3/32" O.D.....$.63
NO. 75A-BH...(FAC)...Shank 5/16" long, 1-3/32" O.D.....$.72

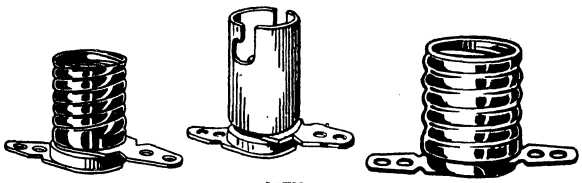


1" LENS (JEWEL) — THREADED INSIDE

Screw-on type . . . with flat glass lens . . . standard colors . . . chrome-plated bezels . . . frequently used with heat-resistant plastic discs, printed with any legend which fits within disc diameter.

NO. 78A-FLAT..Glass lens.overall length, ⅝"..$1.16
small added charge for printed discs

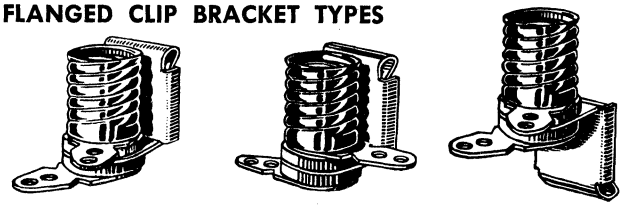
STOCK LAMPHOLDERS



117H MINIATURE SCREW
217H MINIATURE BAYONET
417H CANDELABRA SCREW

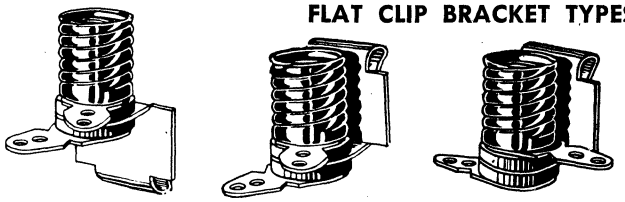
Code numbers for Types:
MIN. SCREW—100 SERIES: MIN. BAYONET—200 SERIES
CAND. SCREW—400 SERIES

FLANGED CLIP BRACKET TYPES



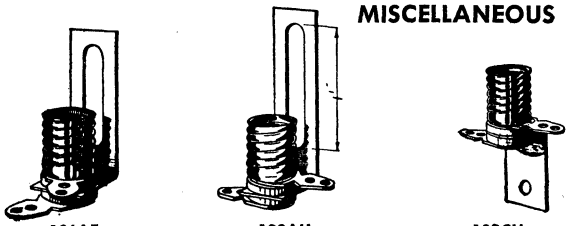
103AE - 203AE 403AE
103AH - 203AH 403AH
103CE 203CE - 403CE

FLAT CLIP BRACKET TYPES



104CE 204CE - 401CE
104AE 204AE - 404AE
104AH - 204AH 404AH

MISCELLANEOUS TYPES



106AE 206AE 406AE
108AH 208AH 408AH
109CH 209CH 409CH

PART NO. 27 — STEEL HEX NUT

Cadmium plate . . . 11/16"—27 thread . . . 13/16" across flat . . . 3/32" thick.....$.035

PART NO. 28 — BRASS MOUNTING BUSHING

9/16"-27 fem. thread . . . shank ⅜" long . . . 11/16"-27 . . . male thread . . . ¾" flange diameter . . . bright nickel plated.....$1.45

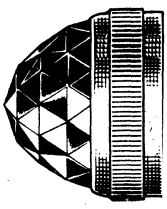
PART NO. 36L—INTERNAL TOOTHED LOCK WASHER

Cadmium plate . . . 45/64" I.D., 51/64" O.D., .030 thick . . . .$.02

1" LENS (JEWEL) - THREADED INSIDE

Screw-on type . . . with faceted or concentric-cut beehive glass lenses . . . standard colors . . . chrome plated bezels . . . full 180° visibility.

NO. 78A-BH (FAC or SFB)....
overall length, 31/32".....$1.11



ALL PRICES LIST

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ATR Replacement Vibrator Specifications

FOR COMPLETE INFORMATION ON AUTO RADIO VIBRATORS FOR AUTOMOBILES MANUFACTURED PRIOR TO AND IN 1954 SEE ATR VIBRATOR MANUAL NO. 554. THIS MANUAL ALSO CONTAINS INFORMATION ON HOUSEHOLD, 2-WAY COMMUNICATION SETS AND:

- VIBRATOR LISTINGS BY RECEIVER NAME AND MODEL NUMBER.
- BUFFER REFERENCE CIRCUITS.
- SUBSTITUTION CHART ON DISCONTINUED VIBRATORS.
- VIBRATOR SPECIFICATIONS.
- VIBRATOR EQUIVALENT CHARTS.
- CROSS REFERENCE LISTINGS.
- AUTO BATTERY GROUND CHARTS.
- INSTALLATION NOTES.
- SERVICING PROCEDURE FOR AUTO RADIO VIBRATORS.

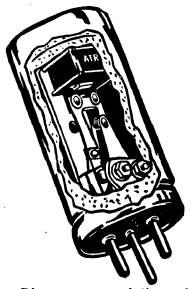
FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW

No. 340 (Boxed)
No. 1400 (Bulk)

4-Prong
6-Volt

For all 6-Volt Sets Since 1954

No. 1343 (Boxed)
No. 1843 (Bulk)



3-Prong
12-Volt

FOR ALL 12-VOLT GENERAL MOTORS SINCE 1954

Plus automobiles shown in box below.

No. 1340 (Boxed)
No. 1840 (Bulk)

4-Prong
12-Volt

For 12 Volt Cars other Than GM Since 1954

Except automobiles shown in box below.

ATR Type 1343 and 1843 also used in following automobiles:
1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco).

EVERYBODY AGREES ATR AUTO-RADIO VIBRATORS *are* TOPS

Here's why-

ATR Vibrators, the heart of vibrator-operated power supplies, are proven units of the highest quality engineered to perfection. They are backed by more than twenty-six years of vibrator design and research, development and manufacturing — ATR pioneered in the vibrator field.

All ATR Products incorporate only the best materials and workmanship and are carefully manufactured under rigid engineering inspections and tests making them the finest that can be built.

...ATR Vibrators Feature

- √ **Ceramic Stack Spacers** with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.
- √ **Instant Starting** — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.
- √ **Large Oversize Tungsten Contacts** having Full Wiping Action — for greater reliability and longer life.
- √ **Perforated Reed** of Highest Quality Swedish Spring Steel — for uniform flexibility and prevention of reed breakage.
- √ **Highest Precision Construction and Workmanship** — Practically all parts used are held to within a tolerance of 0.0005 of inch.
- √ **Value Plus** — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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Communication Vibrators for SUPER SERVICE

As introduced in the 1954 May-June issues of many leading radio magazines, ATR COMMUNICATION VIBRATORS are truly THE WORLD'S FINEST. See reprint of ad on this page for feature specifications.

ATR COMMUNICATION VIBRATORS eliminate the problem of short-life call-backs on those tough two-way communication rigs. Yes, Sir! these ATR COMMUNICATION VIBRATORS deliver SUPER SERVICE.

ATR VIBRATORS FEATURE:

CERAMIC STACK SPACERS with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.

INSTANT STARTING — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

LARGE OVERSIZED TUNGSTEN CONTACTS having Full Wiping Action—for greater reliability and longer life.

PERFORATED REED of Highest Quality Swedish Spring Steel—for uniform flexibility and prevention of reed breakage.

HIGHEST PRECISION CONSTRUCTION AND WORKMANSHIP — Practically all parts used are held to within a tolerance of 0.0005 of an inch.

VALUE PLUS — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

ATR INTRODUCES

The World's Finest Communication VIBRATORS

featuring:

- CERAMIC STACK SPACERS
- ¼" DIAMETER POWER CONTACTS
- DRIVER-TYPE COIL CONSTRUCTION
- SPECIAL REED HINGE and WIRING
- POWER CAPABILITY UP TO 15 AMPERES

A COMPLETE LINE OF REPLACEMENT

ATR VIBRATORS

FOR AUTOMOTIVE, HOUSEHOLD and TWO-WAY COMMUNICATION SETS

ATR VIBRATORS are proven units of the highest quality, engineered to perfection. They are backed by more than 30 years of vibrator design and research, development and manufacturing.
ATR pioneered in the vibrator field.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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"A" BATTERY ELIMINATORS

. . . FOR DEMONSTRATING AND TESTING AUTO RADIOS

6 VOLT OR 12 VOLT!

TRANSISTOR or VIBRATOR OPERATED!

LOW RIPPLE!!

Specially Designed for Testing and Operating Auto Radios and D.C. Electrical Apparatus on Regular A.C. Lines, 105-125 Volts, 50-60 Cycles.

SUGGESTED USES:

As a power supply for radio sets, aircraft instruments, relays, motors and other electrical and electronic equipments. In the laboratory, for supplying various low D.C. voltages.

Battery Eliminators may be treated as batteries in the sense that they can be connected in series for higher voltages at the same current output per unit or in parallel for the same output voltage per unit at higher currents.

- **Eliminates Storage Batteries and Battery Chargers.**
- **Operates the Equipment at Maximum Efficiency at All Times.**
- **Delivers Filtered Direct Current at the Correct Voltage for Proper Operation.**
- **Minimum Ripple**
- **Fully Automatic and Fool-Proof**
- **Adjustable Voltage Control**

Featured cut illustrates Heavy Duty "A" Battery Eliminator, Model 620C-ELIT; equipped with Voltmeter, Ammeter and Voltage Control.

Illustrates Standard "A" Battery Eliminator, Model 610C-ELIF; equipped with Voltmeter, Ammeter and Voltage Control.

Equipped with Full-Wave Dry Disc Selenium Rectifier, Assuring Noiseless, Interference-Free Operation and Extreme Long Life and Reliability.

TYPE 610C-ELIF—Rated output 6 volts at 10 amperes continuous or 12 volts at 6 amperes continuous. Size 6½" x 9⅛" x 8½". Shipping weight, 22 lbs. Code word "SELIT." USER NET PRICE $49.95

TYPE 620C-ELIT—Rated output 6 volts at 20 amperes continuous or 12 volts at 10 amperes continuous. Uses dual rectifiers. Sizes 6½" x 12⅞" x 8½". Shipping weight, 33 lbs. Code word "HELIT." USER NET PRICE $66.95

Either 6 or 12 volt output obtainable by means of simple output toggle switching arrangement having locking device to prevent accidental switching.

All ATR Eliminators have as standard equipment: On-Off Switch, 8-Position Voltage Control, Meter(s), Fuse Protection, Rubber Mounting Feet, 6-ft. All-Rubber Cord Set and Cabinet of heavy gauge metal having attractive grey-hammerloid finish.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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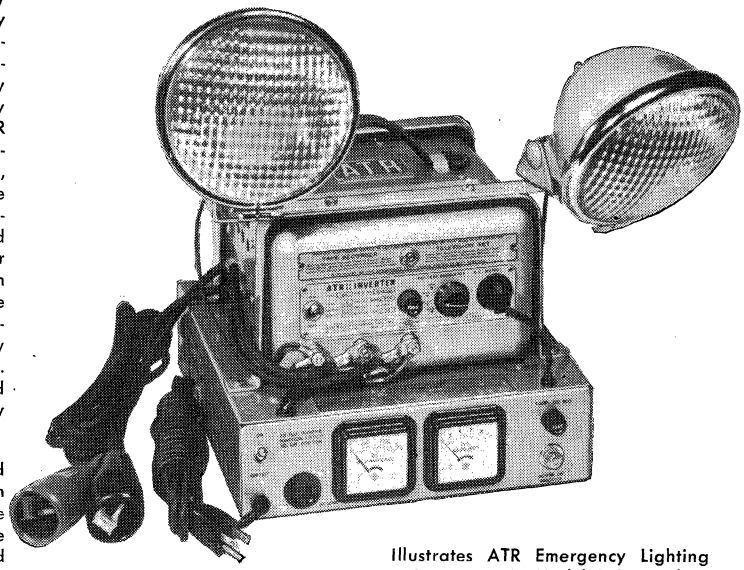
ATR EMERGENCY LIGHTING AND POWER UNITS

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

ATR Emergency Lighting and Power Units are actually a combination of an ATR Inverter, automatic Battery Charger, and transfer panel. These Emergency Standby-Power Units are especially recommended for applications as mentioned above and feature RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector. ATR Emergency Lighting and Power Units provide instantaneous operation of the equipment being protected, within approximately 1/20th of a second. They are designed for quiet long life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in type Inverter Vibrators. These Inverters also come equipped with four-point voltage regulators which make possible the correct output voltage for the power load being protected. These Inverters are recommended for use only with loads having power factors in excess of 70%. Additional external power factor correction is required in order to operate lower power factor loads as low as 50%.

The ATR Charger portion is completely automatic and will maintain the storage battery at full charge, with minimum gassing, from regular 115-volt AC 60 cycle power line. In the event of power line failure, the storage battery, which has been kept fully charged for this purpose from the regular power line, is connected automatically to the lamps, or to the Inverter, or both. The Inverter then supplies power automatically to the load being protected. When the commercial power is restored, the transfer unit, automatically switches the "protected load" to commercial power and turns the Inverter and lights off. At this point, depending on the state of charge of the battery, the battery charger will deliver approximately 6-3 amperes to a 6-volt battery (or less to a 12-volt battery) for fast recharging. As soon as battery reaches full charge, the charger will automatically switch to a trickle charge of 100-150 milliamperes (adjustable) to maintain this full charge.

SERIES ETA



Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

TYPE	*STORAGE BATTERY INPUT	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE INT.	CONT.	DEALER NET PRICE COMPLETE WITH LAMPS
661-ETM	6-volts	110-volts	80	60	$102.67
662-ETS	6	110	100	80	119.67
663-ETH	6	110	150	125	136.00
1232-ETS	12	110	125	100	119.67
1233-ETH	12	110	175	150	136.00
1234-ETJ	12	110	250	200	153.00

Above models come equipped with lamps, as illustrated. These lamps operate directly from storage battery. Each ATR model above permits maximum flexibility in its utilization; that is, lamps and power unit may be operated all at the same time or individually as the user may select. Models as above are available without lamps and, if so desired, please specify "less lamps."

All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of ETM Model complete with lamps, 11⅝" x 16" x 15"; shipping weight, 29½ lbs. Dimensions of ETS Model complete with lamps. 11⅝" x 16" x 16¼"; shipping weight, 36½ lbs. Dimensions of ETH Model complete with lamps, 11⅝" x 16" x 18"; shipping weight, 42½ lbs. Dimensions of ETJ Model complete with lamps, 12⅞" x 16" x 19¾"; shipping weight; 50½ lbs. All of the above models "less lamps" have similar dimensions except the 16" dimension is changed to 11" and the shipping weight is 4½ lbs. less.

* Recommend 100 ampere-hour lead-acid type automobile storage battery for general use; however, for minimum maintenance, we recommend 50-100 ampere-hour nickel-cadmium type battery. Both types are available direct from storage battery supplier.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

ATR UNIVERSAL INVERTERS

Specially Designed for Operating Standard A.C. Tape Recorder, Television Set, Dictating Machine, Radio Set, Ham Gear, Public Address System, Amplifier, Record Player, Electric Razor, Food Mixer, Vacuum Cleaner, Sewing Machine, Business Machine, Electric Drill, Fluorescent and Incandescent Lamp, and Electronic Test Equipment from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Trains, Planes, and D.C. Districts. Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

Featured cut above illustrates Model 12U-RHG.

ATR Universal Inverters are actually a combination of 4 Inverter designs in one unit! These Inverters are especially recommended for applications as mentioned above and feature complete RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector utilizing a simple toggle switch. With ATR Inverters, the need for special equipment is eliminated. They are designed for quiet, long-life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in Inverter Vibrators. These Inverters also come equipped with four-point voltage regulator which make possible the correct output voltage for minimum to maximum loads and also help compensate for input voltages which are lower or higher than normal. The operating efficiency is in excess of 75%. To figure approximate current consumption from storage battery, divide the rated input wattage of the recorder (or load) being operated by the storage battery voltage and further divide this answer by .75 which will give the actual current consumption based on the actual load and efficiency. The battery current consumption required for a tape recorder is normally less than that drawn by ordinary automobile headlight(s). These Universal Inverters are recommended only for use with loads having power factors in excess of 70%.

ATR Inverters should be used only for the applications as outlined.

"—P" models equipped with cigarette lighter cord set to plug into dash receptacle.

All ATR Universal Inverters are housed in attractively finished grey-hammerloid metal cabinets.

Dimensions of Standard (RSF) Model Universal Inverters, 8½" x 9⅞" x 5¼"; shipping weight 22 lbs.

Dimensions of Heavy Duty (RHG) Model Universal Inverters, 6⅞" x 11¼" x 8½"; shipping weight 27 lbs.

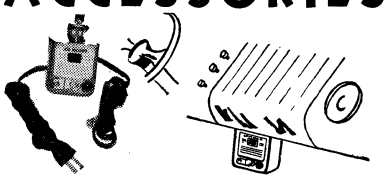
Dimensions of Super Heavy Duty (HSJ) Model Universal Inverters 6½" x 12⅞" x 8½"; shipping weight 37 lbs.

For correct replacement Vibrator, consult Inverter Vibrator Guide.

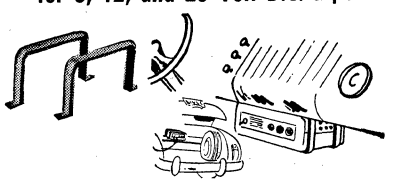
Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	Dealer Price
6U-RSF	6	110 Volts	100	80	22 lbs.	$ 50.00
6U-RSF-P	6	110	100	80	22	50.00
6U-RHG	6	110	150	125	27	66.34
6U-HSJ	6	110	175	150	37	83.34
12U-RSF	12	110	125	100	22	50.00
12U-RSF-P	12	110	125	100	22	50.00
12U-RHG	12	110	175	150	27	66.34
12U-HSJ	12	110	250	200	37	83.34
*28U-RSF	28	110	125	100	22	59 97
*28U-RHG	28	110	175	150	27	79.67
*28U-HSJ	28	110	250	200	37	96.67
32U-RSF	32	110	150	100	22	59.97
32U-RHG	32	110	200	180	30	70.50
32U-HSJ	32	110	325	225	37	96.67
50U-RSF	50	110	150	100	22	59.97
50U-RHG	50	110	225	200	27	79.67
110U-RSF	110	110	250	150	22	50 00
110AU-RHG	110	110	325	250	27	59.97
110BU-RHG	110	110	450	350	30	70.50
110U-HSJ	110	110	600	400	37	96.67
220U-RSF	220	110	250	150	22	53 00
220U-RHG	220	110	325	250	27	66.34
220U-HSJ	220	110	500	300	37	103.34

* Recommended for 24 volt battery systems.

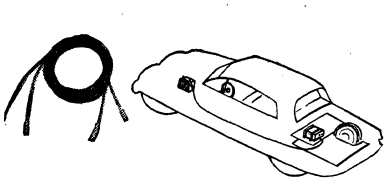
ACCESSORIES for 6, 12, and 28 Volt D.C. Input Inverters.



REMOTE CONTROL UNIT — for under-dash mounting permitting installation of Inverter in auto-trunk compartment. Dealer Price $5.97



MOUNTING BRACKETS — to securely mount Inverter in trunk compartment of car or under-dash, as illustrated. Dealer Price $3.30 pr.



EXTENSION CABLES — to provide additional cable lengths for installation of Inverter in trunk compartment. Dealer Price $6.63 pr.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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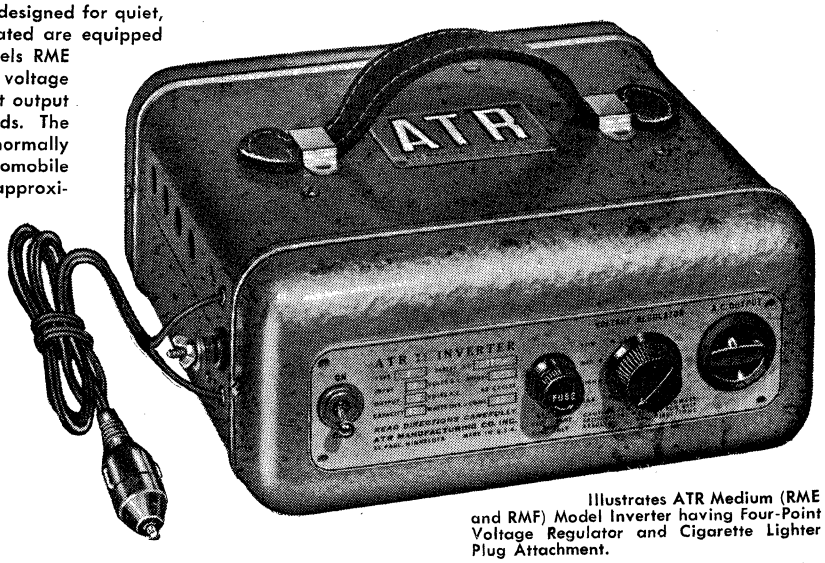
PORTABLE — Plug-in Type
INVERTERS

Specially Designed for Operating Standard A.C. Dictating Machines, Record Players, Incandescent Lamps, Electric Razors, Electronic Test Equipment, and Other Small Electrical and Electronic Devices from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Planes, Trains, and D.C. Districts.

ATR Portable Inverters are light-weight plug-in units for applications as recommended above. These Inverters feature instant starting, frequency stability, and high efficiency and reliability. Inverters have partial RF filtering which is only suitable for small insensitive type radios. For sensitive radio sets, ATR Universal Inverters, catalog sheet 657U, must be used. The 6 and 12-volt units are equipped with cigarette lighter cord set to plug into dash receptacle; whereas, the other higher input voltage units are equipped with standard two-blade plug-in cord sets. With ATR Inverters the need for special equipment is eliminated. They are designed for quiet, long-life operation. All ATR Models indicated are equipped with ATR plug-in Inverter Vibrators. Models RME and RMF come equipped with a four-point voltage regulator which makes possible the correct output voltage for minimum to maximum loads. The battery current consumption required is normally less than that drawn by one ordinary automobile headlight. The operating efficiency is approximately 75%. To figure battery current consumption see catalog sheet 657U. These Inverters are recommended only for use with loads having power factors in excess of 80% and should be used only for the applications as outlined above and on the reverse side of this sheet. **These Portable Inverters are not recommended for tape recorder operation, except as specified in (2) below.**

Illustrates ATR Mighty Midget (DME) Model Inverter having Cigarette Lighter Plug Attachment.



Illustrates ATR Medium (RME and RMF) Model Inverter having Four-Point Voltage Regulator and Cigarette Lighter Plug Attachment.

EASY TO INSTALL
EASY TO OPERATE

Illustrates Under-Dash Mounting for ATR Models RME and RMF. See Page 942 for available accessories.

Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

TYPE	INPUT D.C. VOLTS	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE Int.	OUTPUT WATTAGE Cont.	SHIPPING WEIGHT	DEALER PRICE
6-DME (1)	6	110 Volts	40	30	5 lbs.	$16.63
6C-DME (1)	6/12	110	40	30	5	19.30
6-RMF (2)	6	110	80	60	12	33.00
6C-RMF (2)	6/12	110	80	60	12	36.64
12-DME (1)	12	110	50	40	5	16.63
12T-RME (2) (3)	12	110	125	90	12	33.00
*28-RME (2)	28	110	100	80	12	46.34
32-RME (2)	32	110	100	80	12	46.34
110-RME (2)	110	110	150	100	12	39.67

* Recommended for 24-Volt Battery Systems.
For Inverters having larger or smaller output capacities, or for operation on other D.C. input voltages, please consult available ATR Inverter catalog sheets.
All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of Medium (RME and RMF) Model Inverters, 8⅜" x 8" x 3¾"; shipping weight, 12 lbs. Dimensions of Mighty Midget (DME) Model Inverters, 5¼" x 4¾" x 2¾"; shipping weight, 5 lbs. For correct replacement vibrator, consult Inverter Vibrator Guide.

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Soundscriber (with engine of car not running).
(2) Primarily recommended for Dictaphone's Time Master, Gray Audograph and DeJur Stenorette dictating machines, or other similar types. Also, highly recommended for Norelco Tape Recorder Model EL-3516 and Geloso Model G255-S.
(3) THIS INVERTER SPECIALLY DESIGNED AND RECOMMENDED ALSO FOR USE WITH RCA 8½" PORTABLE TV SET OR G.E. 9" PORTABLE TV SET IN AN AUTOMOBILE.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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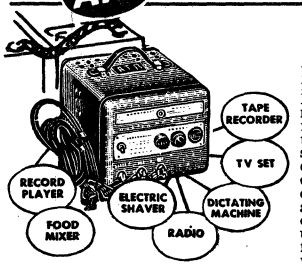
ATR Inverters, Vibrators, "A" Eliminators, etc.



ATR DC TO AC UNIVERSAL INVERTERS

New, universal inverters for operating 110-v., 60 cycle AC equipment from DC voltages in autos, buses, trucks, boats, trains, planes and DC districts. Designed especially for standard 110-volt AC tape recorders, TV sets, radios, PA systems, electric razors, test equipment, etc. Units are carefully engineered and ruggedly constructed to provide long life operation. All feature complete RF interference suppression and exceptional frequency stability. Have operating efficiency in excess of 75%. Four-point voltage regulator corrects output voltage for minimum and maximum loads, and also helps compensate for input voltages lower or higher than normal. Inverters are recommended for use with loads having power factors in excess of 70%. Built-in toggle switch selects most efficient operation for use with TV sets or tape recorders. Inverters are not recommended for use with large motor driven appliances such as refrigerators, washing machines, etc. All have ON-Off switches. Housed in attractive gray hammeroid metal cabinet with convenient leather carrying strap. Sizes: Standard Model RSF, 8½x9⅞x5¼"; Heavy-Duty Model RHG 6⅞x11¼x8½", Extra-Heavy-Duty Model HSJ, 6½x12⅞x8¾". With battery clips for instant connection to power source. Models with "P" suffix equipped with adapter cord for use in auto cigarette lighter receptacles. *Recommended for24 volt battery operation. **Before ordering, check wattage of equipment with which inverter will be used.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6U-RSF	6	110 Volts	100	80	22 lbs.	$75.00	**$50.00**
	6U-RSF-P	6	110	100	80	22	75.00	**50.00**
	6U-RHG	6	110	150	125	27	99.50	**66.34**
	6U-HSJ	6	110	175	150	37	125.00	**83.34**
	12U-RSF	12	110	125	100	22	75.00	**50.00**
	12U-RSF-P	12	110	125	100	22	75.00	**50.00**
	12U-RHG	12	110	175	150	27	99.50	**66.34**
	12U-HSJ	12	110	250	200	37	125.00	**83.34**
	* 28U-RSF	28	110	125	100	22	89.95	**59.97**
	* 28U-RHG	28	110	175	150	27	119.50	**79.67**
	* 28U-HSJ	28	110	250	200	37	145.00	**96.67**
	32U-RSF	32	110	150	100	22	89.95	**59.97**
	32U-RHG	32	110	200	180	30	105.75	**70.50**
	32U-HSJ	32	110	325	225	37	145.00	**96.67**
	50U-RSF	50	110	150	100	22	89.95	**59.97**
	50U-RHG	50	110	225	200	27	119.50	**79.67**
	110U-RSF	110	110	250	150	22	75.00	**50.00**
	110AU-RHG	110	110	325	250	27	89.95	**59.97**
	110BU-RHG	110	110	450	350	30	105.75	**70.50**
	110U-HSJ	110	110	600	400	37	145.00	**96.67**
	220U-RSF	220	110	250	150	22	79.50	**53.00**
	220U-RHG	220	110	325	250	27	99.50	**66.34**
	220U-HSJ	220	110	500	300	37	155.00	**103.34**

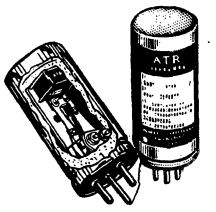
ATR PORTABLE PLUG-IN TYPE INVERTERS

SPECIALLY DESIGNED FOR OPERATING STANDARD A. C. DICTATING MACHINES, RECORD PLAYERS, INCANDESCENT LAMPS, ELECTRIC RAZORS, ELECTRONIC TEST EQUIPMENT, AND OTHER SMALL ELECTRICAL AND ELECTRONIC DEVICES FROM D. C. VOLTAGES IN AUTOMOBILES, BUSES, TRUCKS, BOATS, PLANES, TRAINS, AND D. C. DISTRICTS.

Lightweight inverters for operating 110 v. AC equipment from DC voltage sources. Feature excellent frequency stability and high efficiency. 6 and 12-volt units plug into cigarette lighter receptacle of any vehicle; others are equipped with standard 2-prong plugs. All are designed especially for use with dictating machines; record players, electric razors, test equipment, etc. Not recommended for tape recorders and large motor driven appliances such as refrigerators, washing machines, etc. Gray Hammeroid case with leather carrying strap. Sizes: DME, 5¼x4¾x2¾"; RME and RMF, 8⅜x8x3¾". *Recommended for 24-volt operation. **Check wattage rating of equipment before ordering. RMF/RME Model Inverters equipped with voltage regulator.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6-DME (1)	6	110 Volts	40	30	5 lbs.	$24.95	**$16.63**
	6C-DME (1)	6/12	110	40	30	5	28.95	**19.30**
	6-RMF (2)	6	110	80	60	12	49.50	**33.00**
	6C-RMF (2)	6/12	110	80	60	12	54.95	**36.64**
	12-DME (1)	12	110	50	40	5	24.95	**16.63**
	12T-RME (2) (3)	12	110	125	90	12	49.50	**33.00**
	* 28-RME (2)	28	110	100	80	12	69.50	**46.34**
	32-RME (2)	32	110	100	80	12	69.50	**46.34**
	110-RME (2)	110	110	150	100	12	59.50	**39.67**

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Sound-scriber (with engine of car not running).
(2) Primarily recommended for Dictaphone's Time Master, DeJur Stenorette, and Gray Audograph dictating machines or other similar types. Also recommended for use with Norelco tape recorder Model EL-3516 and Geloso Model G 255-S tape Recorder.
(3) **This Inverter specially designed and recommended also for use with RCA 8½" portable TV set or G.E. 9" portable TV set in an automobile.**



ATR VIBRATORS

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW ... ATR VIBRATORS FEATURE

Ceramic Stack Spacers with Two-Bolt Stack construction.

Instant Starting—as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

Large Oversize Tungsten Contacts having Full Wiping Action—for greater reliability and longer life.

Perforated Reed of Highest Quality Swedish Spring Steel.

Highest Precision Construction and Workmanship—Practically all parts used are held to within a tolerance of 0.0005 of inch.

Value Plus—as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship. Available in TEN-PAK.

ATR No. 1400 (Bulk), 4-Prong, 6-Volt For All 6-Volt Sets Since 1954. . . . . **Net $1.19**

ATR No. 1843 (Bulk), 3-Prong, 12-Volt For All 12-Volt General Motors Since 1954. . . . . **Net $1.25**

ATR No. 1843 also used in following automobiles: 1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco)

ATR No. 1840 (Bulk), 4-Prong, 12-Volt For 12 Volt Cars other Than GM Since 1954. . . . . **Net $1.25**

ATR ELECTRONIC TUBE PROTECTOR

A "MUST" FOR EVERY TV HOME! WILL DOUBLE OR TRIPLE THE LIFE OF ALL TYPES OF ELECTRONIC TUBES, INCLUDING TV PICTURE TUBE. Automatic in operation, for use with any electronic equipment having input wattage of 100 to 300 watts. Fuse protected; rugged construction; and enclosed in interior decorator's golden brown hammeroid-finish metal case. Available in two models. Our Floor Model 300 is 4"x2⅝"x2¾" and weighs 2 lbs. Has 6 ft. cord set to plug into wall socket. Wall Model 250 is 1-15/16" OD x 3⅛" in length and plugs directly into wall socket. Shipping weight is 1 lb.

—Wall Model 250
(115 volt A.C.) . . . . . **Net $2.63**
—Floor Model 300
(115 volts A.C.) . . . . . **Net $3.30**

ATR SHAV-PAKS

Every man should have this lightweight ATR Inverter in his car for that "Keep Clean-Shaved Look." Will operate standard A.C. Electric Shavers from your CAR or Boat*. Complete with 3 ft. cord set. Plugs into cigarette lighter receptacle. Fuse protected, rugged construction, and attractively housed in grey hammeroid-finish steel case. Size 4"x2⅝"x2¾". Shipping weight 2½ lbs.

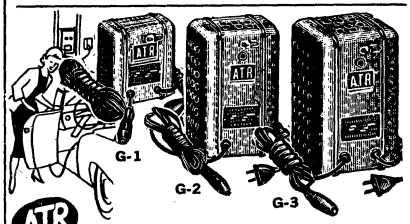
Model 6-SPB (6 volt) . . . . . **Net $7.97**
Model 12-SPB (12 volt) . . . . . **Net $7.97**

ATR "A" BATTERY ELIMINATOR

FOR DEMONSTRATING AND TESTING TRANSISTOR OR VIBRATOR-TYPE AUTO RADIOS. Designed for testing D.C. Electrical Apparatus on regular 110 volt A. C. lines . . . equipped with full-wave dry disc-type rectifier, assuring noiseless, interference-free operation. Fully Automatic and Fool-Proof; has voltmeter, ammeter, and 8-position voltage control. Fuse protected, and housed in heavy gauge grey hammeroid-finish metal case. 6 ft. cord set included. Size: Model 610C-ELIF, 6½"x9½"x8½"—shipping weight 22 lbs.; Model 620C-ELIT, 6½"x12⅞"x8½"—shipping weight 33 lbs.

IDEAL AS A POWER SUPPLY FOR MODEL RAILROAD TRAINS, RADIO SETS, ELECTRO PLATING OUTFITS, AND OTHER 6 OR 12 VOLT, D.C. EQUIPMENT. MAY ALSO BE USED AS A BATTERY CHARGER.

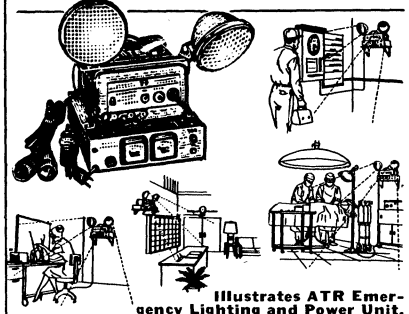
—Model 610C-ELIF (6 volt at 10 amps. or 12 volt at 6 amps.) . . . . . **Net $49.95**
—Model 620C-ELIT (6 volt at 20 amps. or 12 volt at 10 amps.) . . . . . **Net $66.95**



ATR AUTO PLUG-IN, HOME-TYPE PORTABLE BATTERY CHARGERS

No installation . . . just plug into cigarette lighter receptacle! Makes motor starting easy! Keeps your car battery fully charged in your own garage. Operates directly from standard 110 volt A.C. Household Current. Available in three portable sizes for both 6 or 12 volt cars. Light in weight, rugged in construction, economical, and built to last. Each battery charger is housed in grey hammerloid-finish metal case. Complete with cord sets. Size of G1 is 5⅜"x4⅛"x2¾"—shipping weight is 6 lbs.; G2 is 8½"x5½"x3⅛"—shipping weight is 8 lbs.; and G3 is 8½"x5½"x5¼"—shipping weight is 10 lbs.

(G-1) **—Model 612CA4** (4 amp.) 6 or 12 volt . . . . . **Net $19.46**
(G-2) **—Model 612CA6** (6 amp.) 6 or 12 volt . . . . . **Net $22.46**
(G-3) **—Model 612CA10** (10 amp.) 6 or 12 volt . . . . . **Net $27.71**



Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

ATR EMERGENCY LIGHTING and POWER UNIT

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

Type	*Storage Battery Input	A.C. Output 60 Cycles	Output Wattage Int.	Output Wattage Cont.	Net With Lamps
661-ETM	6-volts	110-volts	80	60	**$102.67**
662-ETS	6	110	100	80	**119.67**
663-ETH	6	110	150	125	**136.00**
1232-ETS	12	110	125	100	**119.67**
1233-ETH	12	110	175	150	**136.00**
1234-ETJ	12	110	250	200	**153.00**

For Units Without Lamps Deduct $13.33 Net

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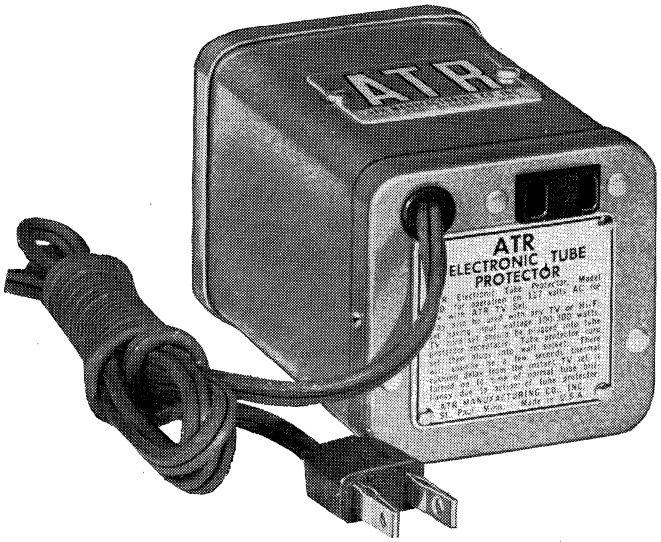
Electronic Tube PROTECTOR

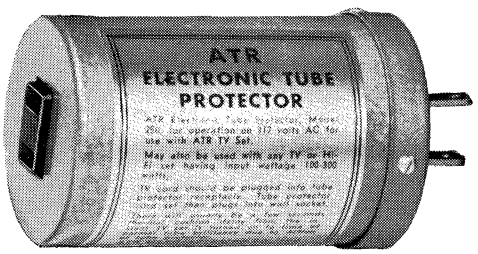
Specially Designed To Protect ALL Electronic Tubes in TV or Hi-Fi Sets, Amplifiers, and Similar Electronic Equipment. Will Double or Triple Tube Life Including Picture Tubes.

ATR Electronic Tube Protectors should double or triple the life of all electronic tubes including picture tube in TV or Hi-Fi Sets, Amplifiers, Electronic Organs, and other similar electronic equipment. The ATR Electronic Tube Protector utilizes a thermal cushion-action principle which also protects all other components by eliminating initial damaging surge currents. The ATR Electronic Tube Protector can be used with any electronic equipment having input wattage of 100 to 300 watts. The Electronic Tube Protector plugs into the AC wall socket; whereas, the TV or Hi-Fi Set then plugs into the tube protector receptacle. There will usually be a few seconds thermal cushion-action delay from the instant TV set is turned on to time of normal tube brilliancy due to action of Tube Protector.

EASY TO OPERATE



Illustrates ATR Electronic Tube Protector
Model 300



Illustrates ATR Electronic Tube Protector
Model 250

Two (2) models are available as illustrated

Features—

- Small Size
- Fuse Protection
- Metal Case
- Long Life
- Rugged Construction
- Automatic Operation

TYPE	INPUT A.C. Volts	A.C. OUTPUT Volts	A.C. OUTPUT Amperes	SHIPPING WEIGHT	Dealer Price
250	115	115	1-3	1	$2.63
300	115	115	1-3	2	3.30

ATR Type 250 Electronic Tube Protector has dimensions $1\frac{15}{16}$" OD x $3\frac{1}{8}$" in length. Housed in attractively finished golden brown hammerloid metal container. Plugs directly into wall socket as illlustrated on reverse side.

ATR Type 300 Electronic Tube Protector has dimensions 4" x $2\frac{5}{8}$" x $2\frac{3}{4}$". Housed in attractively finished golden brown hammerloid steel case having rubber mounting feet. Has cord set to plug into wall socket providing flexibility in positioning.

JOBBERS ATTENTION: See Page 990 in this ATR Section and Page 630 in Section 1900 for your Catalog Needs!

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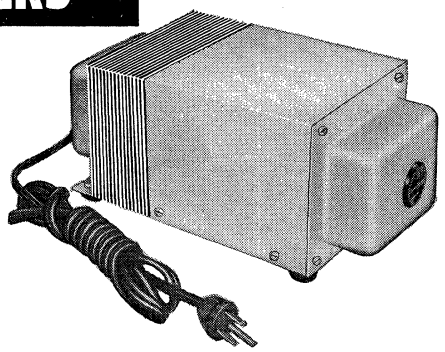
DEPENDABLE PERFORMANCE WITH ACME ELECTRIC

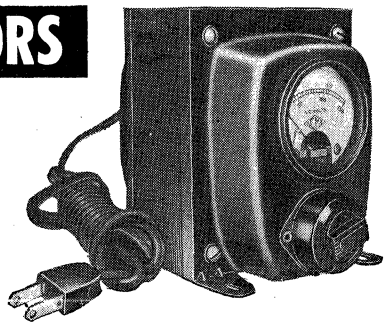
AUTOMATIC VOLTAGE STABILIZERS



This automatic voltage stabilizer has been specifically engineered to provide the necessary stabilization for television receivers up to 24". It is provided with a primary cord and plug for connection to any convenient 115/120 volt, 60 cycle circuit. A built-in receptacle accommodates connection for the TV set. This unit functions only when TV set is turned on. When set is not in use, a built-in relay disconnects primary circuit thus stopping coil magnetism. Operation is noiseless and completely automatic. Voltage fluctuation from 95 to 130 volts is automatically adjusted to stabilized 118 volts ±2% within 1/30th second.

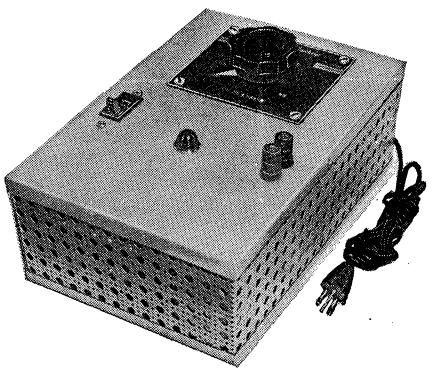
Output capacity 200 VA
Length 11½"; width 5⅜"; height 5¼"
Weight 22 lbs

MANUAL TYPE VOLTAGE ADJUSTORS



The type 8394 M voltage adjustor is ideal for applications where a below normal or above normal voltage exists for relatively long periods of time each day Essentially this is a tapped winding transformer with four below normal voltage contacts and two above normal voltage contacts, to provide voltage correction over a range from 95 to 125 volts. Unit is furnished complete with cord and plug for connection to available circuit, built-in secondary receptacle and includes voltmeter and regulating switch.
Capacity 300 VA
Height 4¾"; width 4"; depth 5"
Weight 5 lbs.

D.C. POWER SUPPLY

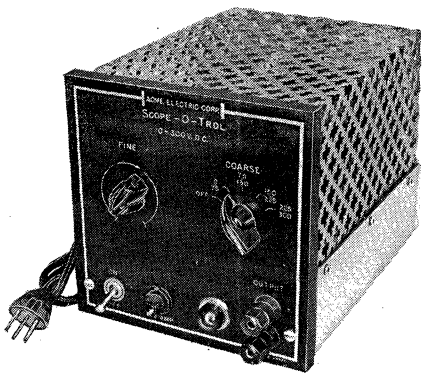


The type PS 6757 is a compact portable instrument that supplies a stabilized direct current, adjustable from 0/45 volts. It is ideal for use in transistor testing, circuit testing, to provide regulated voltage for light testing. Used in place of battery stacks, it provides a dependable direct current source of supply.

Supplied with grounded cord and plug set to connect to any convenient 60 cycle, 95/130 volt circuit. Filtered direct current output range from 0 to 45 volts, 0/2.5 amperes is continuously adjustable and stabilized ±1% at any setting regardless of alternating current fluctuation. Voltage regulation 5% between full load and no-load at full voltage setting.

Portable Model PS 6757
11½" x 7¾" x 4". Weight 23 lbs.
Rack Model PS 1-6757
19" x 5¼" x 7½". Weight 21 lbs.

SCOPE-O-TROL



This is a DC voltage reference supply particularly useful in oscilloscope analysis. It provides an opposing potential which cancels out the direct current increment of a circuit being checked, so that both DC and AC steady state voltages may be observed on the scope in their true form.

This instrument completely eliminates the common method of stacking batteries in various combinations thus completely avoiding the spurious response and great variations frequently resulting from instability of battery output.

Supplied with primary grounded cord and plug for connection to any 115 volt 60 cycle AC circuit. Regulated output range from 0 to 300 volts DC is stabilized at any desired setting. Coarse adjustment is in 75 volt steps. Fine adjustment potentiometer .25/ degree. Ripple is less than 1 millivolt RMS. Current limiting and short circuit protection are inherent features.

Scope-O-Trol type PS-31510

Input 115 volts, 60 cycle. Output 0-300 volts DC

Size: 6" x 6¼" x 9"; weight 7 lbs.

Acme ACME Electric

ACME ELECTRIC CORPORATION
MAIN OFFICE and PLANTS: **CUBA, N.Y.**
In Canada: Acme Electric Corp. Ltd., 50 Northline Rd., Toronto, Ontario

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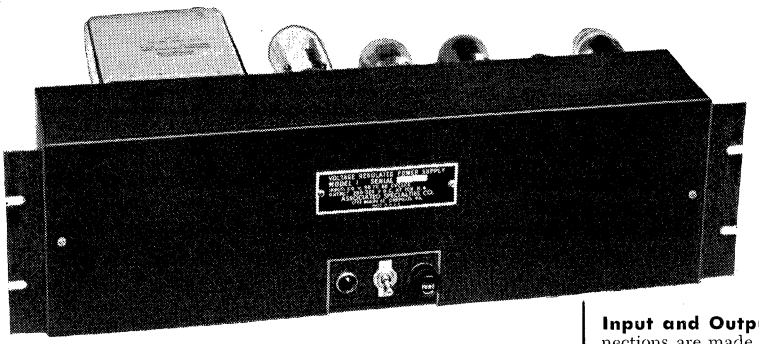
Associated Specialties Co.

OREFIELD, PA.



ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES $52.50
MODEL 1-BK (BLACK RIPPLE FRONT PANEL)
MODEL 1-GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC. 50-60 cycles.

DC Output Voltage: Continuously variable from 200 to 325 volts DC for load currents 0 to 100 ma.

Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.

Ripple Output: Less than 10 millivolts rms.

Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.

AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.

Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.

Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.

Dimensions: Standard 19″ relay rack mounting. Panel Width: 19 inches; Panel Height: 5¼ inches; Depth Behind Panel: 7¼ inches.

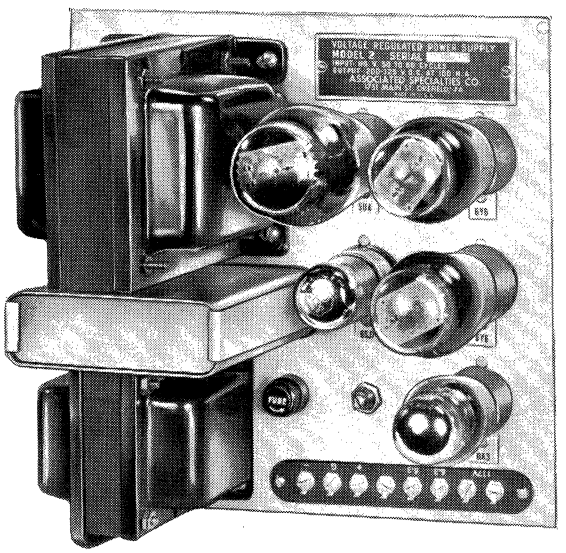
Cabinet Finish: Standard Black ripple enamel.

Controls: Rear Chassis—DC output voltage control. Front Panel —Pilot light, input power switch, and fuse.

Weight: Net weight is approximately 20 pounds.

High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.

Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay rack or cabinet. This allows quick and easy inspection.



MODEL 2 SUB-CHASSIS MOUNTING $49.50

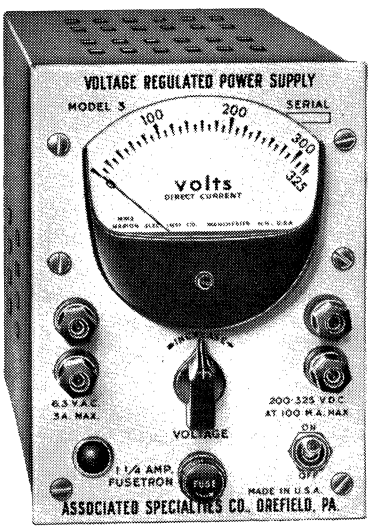
Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

SAME AS MODEL 1 EXCEPT

Dimensions: 9″ wide, 8¾″ long, 4¾″ high above chassis, 1¾″ clearance required below chassis. Size of cut-out required, 8¼″ wide x 8″ high. Location of four mounting holes: 8⅝″ wide x 8$\frac{13}{32}$″ high.

Chassis Finish: Aluminum.

Controls: DC output voltage control adjustable from the top side of the chassis.



MODEL 3 CABINET MOUNTING $69.50

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 EXCEPT

Input Connections: A line cord at rear of cabinet.

Output Connections: 5 way binding posts.

Dimensions: 5″ wide, 7″ high, 16″ deep.

Panel Finish: Aluminum.

Cabinet Finish: Gray enamel.

Controls: D.C. output voltage on front panel.

Meters: Output voltage.

Weight: Net weight is approximately 20 pounds.

Weight: Net weight is approximately 14½ lbs.

MODEL P2 PANEL $9.00

Mounts two Model 2 power supplies side by side in a 19 inch relay rack space 8¾″ high.

BURGESS BATTERIES

P6

2U6

Hg-9

2R

C5

P45M

XX45

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS										
NE	-------	-------	1½	Flashlight	7/16 (diam.)		1 11/64	6	1/8	$ .125
XX9	1900	239	9, 13½	Socket	1 9/32	29/32	2 17/32	1	2 oz.	1.50
D6	1603	276	9	Snap Type	2 9/16	2	3 3/32	1	1	1.80
2N6	1602	246	9	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.85
4D4	1400	274	6	Snap Type	2 17/32	2	7 5/16	1	2½	4.75
2U6	1604	216	9	Snap Type	1	39/64	1 7/8	12	1	1.35
A4	-------	-------	6	Flat Contacts	1 9/32	1 9/32	2 11/32	1	1/4	1.00
D6PI	1601	2506	3, 6, 9	Socket	2 19/32	1 7/16	7 27/32	1	1 3/8	2.50
C6X	-------	2356	9	Snap Type	2 5/16	1 1/32	6 1/16	1	5/8	1.60
P6	1600	226	9	Snap Type	1	(diam.)	1 15/16	12	1 3/8	1.35
D5	26	707	7½	Snap Type	2 9/16	2	2 23/32	1	7/8	1.50
130	14	635	1½	Flashlight	63/64 (diam.)		1 15/16	12	1 3/8	.25
230	13	A100	1½	Flashlight	1 21/64 (diam.)		2 25/64	24	5 1/4	.25
930	15	1015	1½	Flashlight	35/64 (diam.)		1 31/32	12	1/2	.25
M6	1605	266	9	Snap Type	1 13/16	1 13/16	2 7/16	1	2/5	1.50
D6S	1608	2761	9	Socket	2 1/4	1 1/4	7 29/32	1	1 1/8	1.95
2Z3	1610	243	4½	Snap Type	1 3/8	1 3/8	2 3/4	1	3/8	1.59
YL6	1606	E177	9	Snap Type	3/5	3/5	1 9/10	12	1/2	1.20
L6	1611	206	9	Flat Contacts	47/64 (diam.)		1 31/32	12	1	.75
BURGESS MERCURY ACTIVATORS Information on additional Mercury Batteries not listed below is available.										
Hg-1R		E1	1.35	Flat	5/8 (diam.)		21/32	4	.13	.59
Hg-3R		E3	1.35	Flat	1	(diam.)	21/32	4	.30	.80
Hg-4R		E4	1.35	Flat	1 13/64 (diam.)		21/32	4	.45	1.05
Hg-9		E9	1.4	Flat	17/32 (diam.)		1 31/32	12	.90	.75
Hg-12R		E12	1.35	Flat	5/8 (diam.)		2	2	.25	1.25
Hg-42R		E42	1.35	Flat	1 13/64 (diam.)		2 3/8	1	.50	3.15
H133		E133	4.2	Flat	21/32 (diam.)		2	12	.20	1.50
H146		E146	8.4	Snap	1	19/32	1 15/16	6	.50	1.95
H163		E163	4.2	Flat	21/32 (diam.)		1 5/16	2	.15	1.60
H164		E164	5.6	Flat	21/32 (diam.)		1 3/4	12	.20	2.00
H165		E165	7.0	Flat	21/32 (diam.)		2 13/64	2	.80	2.45
H177		E177	9.8	Snap	35/64 (diam.)		1 29/32	12	.50	1.95
H233		E233	4.2	Flat	1 1/64 (diam.)		1 31/32	1	.20	2.65
Hg-312			1.4	Flat	5/16 (diam.)		9/64	6	.024	.33
Hg-400R		E400	1.35	Flat	29/64 (diam.)		9/64	6	.024	.36
Hg-401		E401	1.4	Flat	29/64 (diam.)		1 1/8	3	.09	.50
Hg-450R			1.35	Flat	29/64 (diam.)		9/16	4	.01	.50
Hg-502R		E502	1.35	Flat	17/32 (diam.)		1 31/32	2	.16	.96
Hg-520			1.40	Flat	1/2 (diam.)		9/32	6	.22	.25
Hg-601R			1.35	Flat	5/8 (diam.)		1 9/64	2	.16	1.00
Hg-625R		E625	1.35	Flat	5/8 (diam.)		1/4	4	.05	.45
Hg-630		E630	1.4	Flat	5/8 (diam.)		1/4	4	.05	.45
Hg-640		E640	1.4	Flat	5/8 (diam.)		7/16	4	.15	.45
Hg-675		E675	1.4	Flat	29/64 (diam.)		13/64	6	.22	.38
302157			1.35	Socket	2 7/16	1 5/16	4 3/16	1	.844	15.75
302250			9.45	Tabs	21/32 (diam.)		1 7/8	1	.062	3.75
302478-M			9.8	Flat	1 1/4	(diam.)	3 9/16	1	.556	6.60
302642-M			6.75	Flat	1 1/4	(diam.)	2 9/16	1	.394	5.25
303145			8.4	Snaps	2 1/8	13/16	4 3/8	1	.551	9.10
BURGESS PORTABLE RADIO "A"										
Z4	2	724	6	Flat Contacts	1 3/16	1 3/16	2 7/32	1	1/5	1.00
F3	3	736	4½	Socket	4	1 7/16	4 1/8	6	6½	1.35
B5	8	713	7½	Socket	3 29/32	7/8	2 27/32	1	1/2	2.25
C5	9	717	7½	Socket	2 7/32	1 15/16	3 1/32	6	3 3/8	1.50
T5	10	W360	7½	Socket	2 17/32	2 19/32	3 29/32	3	4	1.90
2R	13	950	1½	Flashlight	1 21/64 (diam.)		2 25/64	48	11	.20
1	14	935	1½	Flashlight	63/64 (diam.)		1 15/16	24	2 5/8	.20
Z	15	915	1½	Flashlight	35/64 (diam.)		1 31/32	12	1/2	.15
2D	18	720	1½	Socket	2 9/16	1 9/32	2 31/32	1	2/5	1.20
D3	19	726	4½	Socket	3 7/8	1 5/16	2 15/16	6	4 1/2	1.35
21R	20	964	1½	Flashlight	1 21/64 (diam.)		4 1/8	1	2/5	.45
BURGESS PORTABLE RADIO "B" BATTERIES										
P45	211P	477	67½	Snap Type	1 29/32	1	5 9/32	6	3 3/4	3.10
XX45	200	467	67½	Snap Type	2 3/4	1 11/32	3 43/64	6	4½	3.50
P45M	211M	-------	67½	Snap Type	1 29/32	1	5 9/32	6	4	4.00
K45	203	457	67½	Snap Type	2 11/16	1 5/16	2 1/4	6	2½	3.45
N60	204	490	90	Snap Type	3 11/16	1 9/32	3 19/32	6	6	4.50
XX50	212	437	75	Snap Type	1 27/32	1 5/16	6 5/16	6	5 1/4	4.50
U30	213	415	45	Snap Type	1 3/32	19/32	3 17/32	1	1/8	2.50
P60	214	479	90	Snap Type	1 29/32	1	7 13/32	6	5	3.95
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.50
UX45	217	416	67½	Snap Type	1 7/32	31/32	3 31/32	1	1/4	2.95
N60X	216	495	90	Snap Type	1 7/8	1 11/32	7 1/8	1	1	4.95
UB45	-------	-------	67½	Snap Type	1	19/32	4 1/8	1	3/16	2.75

Trade Discount Applies To *List Prices Only*
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BURGESS BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS PORTABLE RADIO "A & B" BATTERIES										
G6B60	400	752	9A, 90B	Recessed Plug	13 29/32	2 13/16	4 21/32	1	7	$8.25
F6A60	401	753	7½, 9A, 90B	Socket	9 5/16	2 21/32	4 5/16	1	6	7.75
T5Z50	403	755	6, 7½A, 75B	Socket	8½	3 11/32	2⅜	1	3½	7.25
T5Z50P	431	785	7½A, 75B	Recessed Plug	8½	3 11/32	2⅜	1	3½	6.90
F6A60P	406	757	9A, 90B	Recessed Plug	9 7/16	2¾	4 11/32	1	6	7.95
T6Z60	405	756	7½, 9A, 90B	Socket	8 15/16	2 3/16	3 13/16	1	4½	6.95
T6Z60P	428	727	9A, 90B	Recessed Plug	8 15/16	2 3/16	3 13/16	1	4½	7.45
4TZ60	425	729	1½A, 90B	Socket	7⅝	2⅛	3¾	1	3¾	6.25
BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES										
*(L after cell number indicates types with solder lugs on terminals). Information on additional Nickel Cadmium Batteries not listed below is available.										
CD1			1.25		.460 (diam.)	.225		1		1.66
CD2			1.25		.610 (diam.)	.236		1		1.16
CD8			1.25		.984 (diam.)	.232		1		1.29
CD8L			1.25		.984 (diam.)	.257		1		1.41
CD3			1.25		.984 (diam.)	.275		1		1.31
***CD3L**			1.25		.984 (diam.)	.300		1		1.44
CD4			1.25		.984 (diam.)	.350		1		1.36
***CD4L**			1.25		.984 (diam.)	.375		1		1.73
CD5			1.25		1.700 (diam.)	.300		1		2.10
***CD5L**			1.25		1.700 (diam.)	.325		1		2.29
CD6(AA)			1.25		.560 (diam.)	1.950		1		2.75
CD6L(AA)			1.25		.560 (diam.)	2.275		1		3.14
CD9			1.25		.550 (diam.)	3.680		1		4.30
CD7(D)			1.25		1.300 (diam.)	2.425		1		5.00
CD7L(D)			1.25		1.300 (diam.)	2.775		1		5.35
CD21			6		1.065 (diam.)	1.525		1		8.20
CD22			6		1.065 (diam.)	1.975		1		8.43
CD23			6		1.800 (diam.)	1.725		1		14.50
CD24			9.6		1.065 (diam.)	2.650		1		13.41
CD25			9.6		1.065 (diam.)	3.110		1		13.68
CD25L			9.6		1.065 (diam.)	3.200		1		13.54
CD26			9.6		1.800 (diam.)	2.575		1		22.50
CD27			12		1.065 (diam.)	2.925		1		16.50
CD28			12		1.065 (diam.)	3.600		1		17.08
CD29			12		1.800 (diam.)	3.100		1		27.95
CD30			6		1½	1½	3 13/16	1		28.53
CD31			6		3 13/16	1 17/32	3⅝	1		34.00
CD100			1.25		1.36	.75	3.36	1		11.72
CD101			1.25		1.36	1.36	2.40	1		10.90
CD102			1.25		1.36	1.36	3.36	1		12.22
CD103S			1.25		1.57	.92	4.01	1		15.85
CD104			1.25		1.67	1.93	3.13	1		17.32
CD105			1.25		1.67	1.93	3.65	1		19.39
CD106S			1.25		1.57	1.48	4.01	1		24.84
CD107			1.25		1.67	1.93	4.25	1		21.05
CD108			1.25		1.05	3.56	4.90	1		20.30
CD109			1.25		1.34	3.56	4.90	1		25.75
CD110			1.25		1.66	3.56	4.90	1		30.22
CD111			1.25		1.97	3.56	4.90	1		34.70
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("A" TYPES)										
Z	15	915	1½	Flashlight	35/64 (diam.)	1 31/32		12	½	.15
7	24	912	1½	Flashlight	13/32 (diam.)	1¾		12	¼	.15
1	14	935	1½	Flashlight	63/64 (diam.)	1 15/16		12	1¼	.20
2R	13	950	1½	Flashlight	1 21/64 (diam.)	2 25/64		48	10	.20
5R	...	...	1½	Flashlight	49/64 (diam.)	2 15/64		12	¾	.20
8R	23	960P	1½	Socket	1 3/32 (diam.)	3 15/16		1	¼	.85
9R	...	1015E	1½	Flashlight	35/64 (diam.)	1 63/64		12	½	.17
37	...	...	1½	Flashlight	1 5/16 (diam.)	6⅛		1	⅕	.98
2F	11	W353	1½	Socket	2 19/32	1⅜	4¼	1	¾	1.10
2Z	...	1016E	1½	Flashlight	1⅛	19/32	1 63/64	10	¾	.45
2FBP	700	W354	1½	Binding Post	2 21/32	1⅜	4 1/32	5	4⅕	1.15
F2BP	701	W352	3	Binding Post	2 21/32	1⅜	4 1/32	5	4	1.15
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1⅖	1.19
2F2H	703	W356	3	Binding Post	2⅝	2⅝	4 1/16	5	7	1.55
422	704	750	3	Brass Straps	1 11/32	23/32	2 5/16	10	1⅕	.85
432	705	751	4½	Brass Straps	1 31/32	21/32	2¼	10	2	1.00
532	706	703	4½	Brass Straps	2 15/32	13/16	2 23/32	1	3/10	1.02
2F4FL	...	...	6	Flexible Leads	4⅛	2 11/16	5½	1	2 4/5	2.35
44	...	...	1½	Binding Post	1 29/32 (diam.)		4 5/32	1	⅞	1.43
4	...	...	1½	Flashlight	41/64 (diam.)		2	50	3	.31
2BBP	...	...	1½	Binding Post	1 19/32	27/32	2 11/16	6	1½	1.65
B2BP	...	...	3	Binding Post	1⅝	13/16	2 11/16	6	1½	1.40
2F2BP	...	...	3	Binding Post	5 3/16	1 5/16	4 5/32	1	1 4/5	3.20

F6A60

CD3

CD7

CD25

F2BP

F4BP

5308

(Continued on next page)

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BURGESS BATTERIES

Y15

U10

XX30PI

5540

2

TW1

4FH

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("A" TYPES) (Cont.)										
4F	4	742	1½	Socket	2⅝	2⅝	4³⁄₃₂	6	8½	$ 1.65
F4PI	6	744	6	Socket	2²¹⁄₃₂	2²¹⁄₃₂	4⅛	6	9	1.65
G3	7	746	4½	Socket	4¹⁄₁₆	1⅞	4¹¹⁄₁₆	6	7½	1.50
F4X	-----	-----	6	Binding Post	5⁵⁄₁₆	1¹³⁄₃₂	4⅛	1	1¾	3.79
2F4	1	718	6	Socket	4	2¹³⁄₁₆	5⁷⁄₁₆	1	2½	3.90
6F	5	743	1½	Socket	4³⁄₃₂	2¾	4¹⁄₁₆	1	2⅛	2.75
4FL	12	-----	1½	Socket	4⅞	1⅜	5⁵⁄₁₆	1	1½	2.20
8F	17	741	1½	Socket	3²⁹⁄₃₂	2²³⁄₃₂	5½	1	3	3.45
2F4L	16	747	6	Socket	4	1½	10¾	2	6½	3.95
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("B" TYPES)										
U10	208	411	15	Flat Contact	1	³⁹⁄₆₄	1⁷⁄₁₆	1	1 oz.	1.15
U15	215	412	22½	Flat Contact	1	³⁹⁄₆₄	1³¹⁄₃₂	1	1 oz.	1.50
U20	210	413	30	Flat Contact	1	³⁹⁄₆₄	2¹⁷⁄₃₂	1	2 ozs.	1.75
W30	-----	-----	45	Binding Post	3	1¼	3²⁵⁄₃₂	1	⅗	3.15
XX15	-----	425P	22½	Socket	1¹¹⁄₃₂	¹⁵⁄₁₆	3⅞	1	¼	1.95
XX22	-----	433P	33	Socket	2¹⁷⁄₃₂	³¹⁄₃₂	3⅛	1	⅓	2.45
XX30PI	-----	455P	45	Socket	2¹⁷⁄₃₂	³¹⁄₃₂	4³⁄₃₂	1	½	3.00
Y10	220	504	15	Flat Contact	¹⁹⁄₃₂	¹⁹⁄₃₂	1²³⁄₆₄	1	1 oz.	1.15
Y15	221	505	22½	Flat Contact	¹⁹⁄₃₂	¹⁹⁄₃₂	1³¹⁄₃₂	1	1 oz.	1.50
Y20	223	506	30	Flat Contact	1³⁄₁₆	¹⁹⁄₃₂	1¹³⁄₃₂	1	1 oz.	1.85
Y20S	222	507	30	Flat Contact	¹⁹⁄₃₂	¹⁹⁄₃₂	2⁹⁄₁₆	1	1 oz.	1.85
Z30NX	711	W350	45	Binding Post	3³⁄₃₂	1⅞	4¹⁹⁄₃₂	5	7⅗	3.85
U200	722	493	300	Pin Jacks	2¾	2⁹⁄₃₂	3⅞	1	1	11.95
D30	-----	487	45	Socket	5¹⁄₁₆	2¹⁄₃₂	7⁵⁄₁₆	1	4½	4.95
Z30T	-----	-----	45	Socket	3	2⁵⁄₁₆	4⅛	1	1½	3.75
W30BPX	-----	W358	45	Binding Post	3	1¼	3²⁵⁄₃₂	1	⅗	3.55
X30FL	-----	-----	45	Flexible Leads	2¹⁵⁄₁₆	1⁵⁄₁₆	4¹³⁄₁₆	1	⁴⁄₅	5.82
Z30BP	-----	W351	45	Binding Post	3¹¹⁄₁₆	2¹¹⁄₃₂	3⁷⁄₁₆	1	1⅗	7.55
Z60BP	-----	-----	90	Binding Post	3¾	2¹¹⁄₃₂	5¹⁵⁄₁₆	1	2⅗	13.30
Z96P (9968)	-----	-----	144	Binding Post	2⅝	2⅝	13⁵⁄₁₆	1	3¾	26.00
5156PI	721	768	22½	Socket	4⁷⁄₆₄	2⅜	2⁵⁵⁄₆₄	1	1⅗	4.45
XX30	201	455	45	Snap Type	2¹⁷⁄₃₂	³¹⁄₃₂	3²¹⁄₃₂	6	3³⁄₁₀	2.75
M30	202	482	45	Socket	3⁹⁄₁₆	1¾	5½	1	2	3.85
A60	-----	-----	90	Socket	4⁷⁄₁₆	3⅜	4½	1	3⅓	7.95
W30PI	-----	733	45	Socket	2³¹⁄₃₂	1⁷⁄₃₂	3²⁹⁄₃₂	1	⅝	3.33
W20PI	-----	-----	30	Socket	1⁵⁄₁₆	1¹³⁄₁₆	3⁷⁄₃₂	1	½	2.47
XX69	227	W361	103½	Flashlight	1¹¹⁄₃₂	1¹¹⁄₃₂	11²³⁄₃₂	1	1	6.57
Z30	205	738	45	Socket	3	2⁵⁄₁₆	4¹⁄₁₆	2	2¾	3.95
A30	206	W359	45	Socket	3⁹⁄₁₆	2¼	4⁵⁄₁₆	2	3½	3.55
B30	207	484	45	Socket	4¹⁄₁₆	2¹⁷⁄₃₂	5⁵⁄₁₆	2	4½	4.70
4156	710	763	22½	Binding Post	3¹⁷⁄₃₂	2⅛	2²⁹⁄₃₂	1	1	2.35
5156SC	708	778	22½	Spring Clip	4⅛	2½	2¾	5	8	4.45
5308	709	W376	45	Binding Post	4¹⁄₁₆	2⁹⁄₁₆	5⅛	1	3	4.35
K10	224	417	15	Flat Contact	1¼	⅞	1¹⁷⁄₃₂	1	2 ozs.	1.65
K15	225	420	22½	Flat Contact	1¼	⅞	2⁹⁄₃₂	1	2 ozs.	1.75
K20	226	430	30	Flat Contact	1¼	¹⁵⁄₁₆	2²³⁄₃₂	1	3 ozs.	2.15
BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES										
2370PI	718	771	4½	Binding Post	4¹⁄₆₄	1²⁷⁄₆₄	2⁶³⁄₆₄	5	3½	2.25
2370	712	761T	4½	Binding Post	3¹⁵⁄₁₆	1⅜	2⅞	5	3¾	1.90
5540	713	773	7½	Bndg Post Neg	4	⅞	2¾	5	2⅖	2.35
5360	714	781	4½	Binding Post	2¹³⁄₃₂	²⁷⁄₃₂	2²¹⁄₃₂	10	2⅕	1.25
W5BP	-----	-----	7½	Binding Post	2³¹⁄₃₂	²³⁄₃₂	1¾	6	⁴⁄₅	2.10
A3BPX	-----	-----	4½	Binding Post	1³¹⁄₃₂	²³⁄₃₂	2¼	1	¼	2.50
A8BP	-----	-----	12	Binding Post	2²⁵⁄₃₂	1²⁵⁄₆₄	2¹⁵⁄₃₂	1	½	3.80
A9BP	-----	-----	13½	Binding Post	2¾	2³⁄₃₂	2¹³⁄₃₂	1	½	4.20
B5P	-----	-----	7½	Socket	4⁵⁄₃₂	1¹³⁄₃₂	2²⁹⁄₃₂	1	⅗	3.75
D6BP	909	-----	9	Binding Post	4³⁄₃₂	2¾	3	1	1⅗	3.10
2156	702	766	22½	Spring Clips	6²¹⁄₃₂	4¹⁄₁₆	2³¹⁄₃₂	6	17½	6.25
BURGESS FARM RADIO "A", "B", AND "A" & "B" BATTERIES										
20F2	720	X-125	3	Socket	11½	4	6⅛	1	14	9.30
20F	719	740	1½	Socket	7⅝	2⁹⁄₁₆	6¹⁵⁄₁₆	1	6⁴⁄₅	9.85
21308PI	727	W364P	45	Socket	8⅛	4¹⁵⁄₃₂	7⁹⁄₃₂	1	12⁴⁄₅	7.65
21308SC	715	W364F	45	Spring Clip	8⅛	4¹⁵⁄₃₂	7⁹⁄₃₂	1	12⁴⁄₅	7.65
10308PI	726	W363P	45	Socket	8½₃₂	4½₃₂	7³⁄₁₆	1	11½	6.90
10308SC	716	W363F	45	Spring Clip	8½₃₂	4½₃₂	7³⁄₁₆	1	12	6.90
2308PI	717	W365P	45	Socket	8³⁄₃₂	2³¹⁄₃₂	7¼	1	7⁴⁄₅	5.50
2308SC	723	W365F	45	Spring Clip	8³⁄₃₂	2³¹⁄₃₂	7¼	1	7⁴⁄₅	5.50
17GD60	413	759	1½A, 90B	Socket	15¹¹⁄₁₆	4⅜	7¹⁄₁₆	1	20	10.65
BURGESS FLASHLIGHT AND LANTERN BATTERIES (Continued on next page)										
2 (24V)	13	950	1½	Flashlight	1²¹⁄₆₄ (diam.)		2⅜	48	11	.20
2 (50 Bulk)	13	950	1½	Flashlight	1²¹⁄₆₄ (diam.)		2⅜	50	11	.20
210 (24V)	-----	1050	1½	Flashlight	1²¹⁄₆₄ (diam.)		2⅜	48	11	.25
210 (Bulk)	-----	1050	1½	Flashlight	1²¹⁄₆₄ (diam.)		2⅜	50	10¾	.25
1	14	935	1½	Flashlight	⁶³⁄₆₄ (diam.)		1¹⁵⁄₁₆	24	2⅝	.20

Trade Discount Applies To *List Prices Only*
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BURGESS BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS FLASHLIGHT AND LANTERN BATTERIES (Cont.)										
Z	15	915	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	$ .15
7	24	912	1½	Flashlight	13/32 (diam.)		1¾	12	¼	.15
N (Bare)	910	W468	1½	Flashlight	7/16 (diam.)		1 11/64	12	1/5	.125
F4H	908	509	6	Spring	2⅝	2⅝	4⅜	12	18	1.19
F4SC	917	510F	6	Spring Clip	2⅝	2⅝	4½	1	1½	1.19
4F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2 3/5	2.05
530	------	------	45	Socket	4 1/16	2 17/32	5 5/16	2	6	3.85
TW1	918	731	6	Binding Post	5⅜	2⅞	4 15/16	1	3 1/5	2.75
TW2	------	------	6	Binding Post	5⅜	2⅞	4 15/16	1	3 1/5	2.75
BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES * Battery also available with spring clip terminals ** Battery also available with screw terminals										
4FH	900	735	1½	Screw Terminal	2⅝	2⅝	4	12	16	1.25
4F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2 3/5	2.05
4F4H	902	706	6	Binding Post	8 5/16	2 13/16	5 13/16	1	6 1/5	4.98
4F5H	903	715	7½	Binding Post	7 3/16	3 31/32	5 13/16	1	7 2/5	7.25
4F6H	904	716	9	Binding Post	8½	3 31/32	5 13/16	1	9	8.25
*6 Ign.	905	6 Ign.	1½	Screw Terminal	2½ (diam.)		6⅝	12	22	1.25
**6 Tel.	906	6 GL	1½	Spring Clip	2½ (diam.)		6⅝	12	24 3/5	1.25
6 Ind.	911	6 Ind.	1½	Screw Terminal	2½ (diam.)		6⅝	12	22	1.35
S461	907	1461	6	Binding Post	10½	2¾	7 13/32	6	51	4.98
2Z2PI	...	W371	3	Socket	1 5/32	1 5/32	2 13/32	12	2½	1.02
BURGESS PHOTO-FLASH BATTERIES										
120	...	835	1½	Flashlight	1 (diam.)		1 15/16	48	5¼	.25
220	...	850	1½	Flashlight	1 11/32 (diam.)		2 25/64	48	11	.25
920	...	815	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.20
U15	215	412	22½	Flat Contact	31/32	9/16	1 31/32	1	1 oz.	1.50
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.50
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
XX150	...	489	225	Pin Jacks	4¼	2⅝	4¼	1	2½	9.95
U160	...	491	240	Flat Contact	2 9/16	1 5/16	4 13/32	1	¾	7.95
N150	...	492	225	Pin Jacks	3 9/16	2¾	4¾	1	2½	8.75
U320	...	497	510	Flat Contact	2 15/16	1 17/32	5 7/16	1	1½	15.95
K30P-K			45	Battery & Bulb				6	2½	2.50

No. 6 Ignition

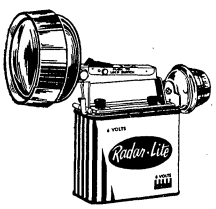
220

U15

BURGESS RADAR LIGHTS

NOTICE: All Radar Lights are packed in individual cartons complete with battery.

BURGESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	LIST PRICE EACH Head Only	Battery	Complete
TW3	Radar-Lite Spot-Flasher	1	5 1/10	$10.20	$2.75	$12.95
TW4	Radar-Lite Spot-Without Flasher	1	4¾	7.75	2.75	10.50
TW7	Radar-Lamp Chrome-Finish	1	4 1/5	6.50	2.75	9.25
TW8	Radar-Lamp Copper-Finish	1	4 1/5	6.50	2.75	9.25
TW9	Radar Bearcat Focusing Lantern	1	4⅛	4.50	2.75	7.25
TW11	Radar-Lite (Bulb Reflector Model)	1	4¾	6.20	2.75	8.95
TW12	12 Volt Radar-Lite (Uses TW2 Battery)	1	5	8.20	2.75	10.95
TW4E	Power Failure Operated Lantern (Spot Beam)	1	6	17.50	2.75	20.25
TW6E	Power Failure Operated Lantern (Flood Beam)	1	6	17.50	2.75	20.25
TW34	Radar-Flash	1	4 1/5	3.95	2.75	6.70



TW3

BURGESS RADAR-MATE (less batteries)

BURGESS Number	Description (Batteries not included)	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	List Price Each
JR1	4½ Volt Lantern. Uses 3 No. 2 (Size D) batteries.	6	7	$4.98

TW7

BURGESS FLASHLIGHT CASES (less batteries)

618 Assort.	3-159, 3-258, 3-259, 3-359	1	4⅛	17.25
259	Aurora Flashlight—2 Cell Prefocused	6	2¾	1.69
159	Magnet Flashlight—2 Cell Prefocused	6	2⅛	1.79
258 Assort.	7 Vanguard Flashlights (Includes 1 FREE)	1	2½	9.03
359	Family Special Flashlight—2 Cell Prefocused	8	2½	.98
57 Assort.	1-257, 4-357, 1-457	1	3⅜	12.84
257	Satellite Torch—2 Cell Junior Prefocused	3	¾	1.75
357	Satellite Torch—2 Cell Prefocused	6	2¾	1.95
459	Satellite Torch—3 Cell Prefocused	1	⅝	2.95
457	Satellite Torch—4 Cell Prefocused	1	¾	3.29
152	Penlight—Tu-Tone Colors	12	⅞	.88
350	2 Cell Tough Industrial Flashlight	6	3	1.90
450	3 Cell Tough Industrial Flashlight	1	½	2.15
453	2 Cell Industrial—Safety Light	1	½	5.00
P92	Penlight (Heavy Duty) Assorted Colors	6	½	.88
LD34	Lens Display Kit—32 Popular Lenses	1	1½	3.20

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Carter Motor — GENEMOTORS, DC-AC CONVERTERS FREQUENCY CHANGERS

CARTER CUSTOM DYNAMOTORS

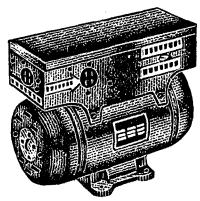
For railroad and marine radio-telephone, industrial communications systems, locomotives, telephone emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. **Size:** 12⅝″ x 6¹¹⁄₁₆″ x 7¼″. Weight, 47 lbs.

Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	Net Each
DS1220P	118-132	12.8	5	18	$172.50
HS1220P	67-74	12.8	5	18	172.50
CS1220P	33-37	12.8	5	18	172.50
WS1220P	45-50	12.8	5	18	172.50
DS640P	118-132	6.3	15	40	172.50
HS640P	67-74	6.3	15	40	172.50
CS640P	33-37	6.3	15	40	172.50

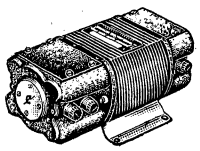
MARINE REFRIGERATOR-APPLIANCE CONVERTERS

Operates standard refrigerators, compressors, vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure-boats. Converter operates only when power is called for. Input, from 24 to 230 v. DC. Size: 14″ x 6¾″ x 11″ high. Net Weight, 65 lbs.

Carter Number	DC Input	Net Each
RF24	24 v.	$336.75
RF28	28 v.	336.75
RF32	32 v.	336.75
RF48	48 v.	336.75
RF64	64 v.	336.75
RF115	115 v.	336.75
RF230	230 v.	336.75



DUOVOLT 6/12 VOLT GENEMOTORS

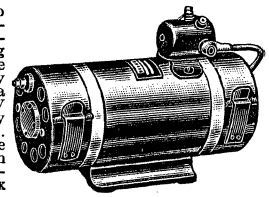


Will operate 30- to 100-watt mobile transmitters. Incorporates two separate six-volt windings, each having its own field. Six or twelve volt operation is obtained simply by connecting the four input leads in parallel or in series. May be transferred from one car to another regardless of battery voltage, without replacing generator and without wiring modification of hookup. Size: 3½″ high, 4¾″ wide, 8″ long. Weight, 11½ lbs.

Carter No.	Input Volts	Input Amps	Input Volts	Input Amps	Output Volts	Output Amps	Duty	Net Each
450ABNS	6	29	12	14.5	400	.250	Int.	$73.88
4030VBNS	5.2	40	10.4	20	400	.300	Int.	74.25
4228VBNS	5.8	33	11.6	16.5	420	.280	Int.	74.25
4432VBNS	5.8	42	11.6	21	430	.325	Int.	74.63
520ABNS	6	28	12	14	500	.200	Int.	75.75
624VBNS	5.7	46	11.4	23	600	.240	Int.	75.75
6427VBNS	5.7	51	11.4	25.5	640	.270	Int.	77.25
7212ABNS	6.1	28	12.2	14	720	.125	Int.	77.25

CHANGE-A-VOLT DYNAMOTORS

Operate 6 volt 2-way radio equipment from 12 volt systems without rewiring. Supplied complete with starting relay and switch, 12 volt fuse block and wiring to directly convert a 12 volt battery to a 6 volt radio supply. B615V delivers 15 amps continuously and 45 amps intermittent. 65% efficiency. Can also serve as battery equalizer when operating low voltage equipment. Size: 11⅛″ x 4½″ x 7¼″ high. Weight, 25 lbs.



Carter No.	Input* Volts	Input* Amps	Net Each	Carter No.	Input† Volts	Input† Amps	Net Each
B615V	12	11.5	$88.50	E128V	24	6.0	$88.50
E615V	24	5.7	88.50	J128V	28	5.3	88.50
J615V	28	5.0	88.50	C128V	32	4.6	88.50
C615V	32	4.3	88.50	HS128V	70	2.2	88.50
HS615V	70	2.1	88.50	D128V	115	1.3	88.50
D615V	115	1.2	88.50				

*Output 6 volts, 15 amps. †Output 12 volts, 8 amps.

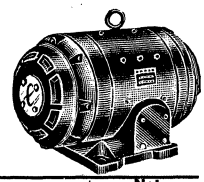
CUSTOM CONVERTERS

Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add **$3.75** to net prices. All models 100% power factor. Size: 200 watts, 12⅜″ w. x 6¾″ d. 7¼″ h.; 210 and 300 watts, 11⅝″ w.; 500 watts, 12⅝″ w; 750 watts, 13⅛″ w.

Carter Number	DC Inp. V.	DC Inp. A.	Net Each	Carter Number	DC Inp. V.	DC Inp. A.	Net Each
DS1020C5P	115†	2.6†	$157.50	D1030CP	115§	4.6§	$142.50
HS1020C5P	64†	5†	160.25	E1050CP	24#	33#	163.88
CS1020C5P	32†	9†	160.25	C1050CP	32#	25#	163.88
BR1021CP*	12†	29‡	195.00	D1050CP	115#	7#	161.25
B1030CP	12§	45§	142.50	C1075CP	32▲	32▲	184.50
E1030CP	24§	22§	142.50	D1075CP	115▲	8.8▲	184.50
C1030CP	32§	19§	142.50				

Watts At 115 v. AC, 60 cps: †200 ‡210 §300 #500 ▲750
*Equipped with manual frequency control. For frequency control on all other models, add **$59.25** to net prices. Filter available; add **$30.00** to net prices.

MONARCH CONVERTERS

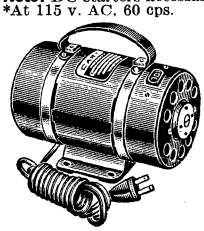


The Monarch series is ideal for heavy-duty industrial service, marine, mine, crane and railroad communications. Slow speed (1800 rpm.), long life, 4-pole design; ball bearing equipped. **No filter is necessary for most applications.** Size: 19″ x 11″ x 12″ high. Three-phase output available at no extra charge. 24 and 28 v. input available.

Carter Number	DC Input Volts	DC Input Amps	Watts*	Net Each
C10150M	32	69	1500	$480.00
W10200M	48	60	2000	517.50
H10200M	64	45	2000	517.50
D10200M	115	25	2000	517.50
K10200M	230	12.5	2000	532.50

Note: DC starters necessary on above models; add **$70.50** to net.
*At 115 v. AC, 60 cps.

MARK II SUPER CONVERTERS

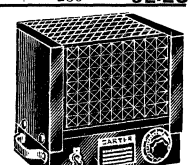


New, long life design increases brush life and assures dependable service. Smooth, quiet, ball bearing operation. Standard 100% P.F. models change DC to AC for operating amplifiers, office equipment, test instruments, radios and other high-power-factor equipment. Also available in 70% P.F models to operate popular tape recorders from DC input. Many other catalog models available promptly from factory stock. A converter can be furnished to operate any tape recorder. Continuous duty. Size: 8¼″ x 4½″ x 5″ high. Weight, 13 lbs.

STANDARD 100% PF CONVERTERS

Carter No.	DC Input Volts	DC Input Amps	Watts, AC at 60 cps, 115 v.	Net Each
D1040CB	115	.7	40	$86.25
D1010CB	115	1.7	100	88.50
D1015CB	115	2.0	150	89.25
B1040CB	12	8	40	79.50
B1010CB	12	15	100	81.75
B1015CB	12	23	150	82.50
Mark II Heavy Duty Super Converter. Continuous duty, less filter, 10¼″ long, 4½″ wide, 5″ high. Weight, 19 lbs.				
D1020CB	115	2.6	200	$99.00
D1025CB	115	3.2	250	99.00
B1020CB	12	30	200	92.25
B1025CB	12	34	250	92.25

AC TO AC FREQ. CHANGERS



Produces 115 v., 50 or 60 cycle AC output from 25 to 400 cycle input. For operating standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase input or output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add **$30.00** to net price. Add **$70.50** to net price for manual DC starter (required on all models except 24 28 and 32 v. DC input).

Carter No.	Output Watts	Net Each	Carter No.	Output Watts	Net Each
FC1020L	20	$185.25	FC1025CP	250	$363.75
FC1040L	40	186.00	FC1050CP	500	386.25
FC1060L	60	186.75	FC1075CP	750	408.75
FC1080C	80	237.75	FC10100M	1000	746.25
FC1010C	100	238.50	FC10150M	1500	780.00
FC1015C	150	239.25	FC10200M	2000	821.25
FC1020C	200	249.00			

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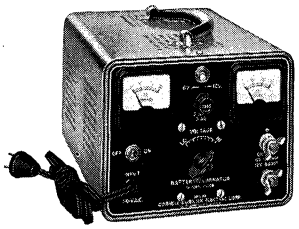
CDE CORNELL-DUBILIER RADIART

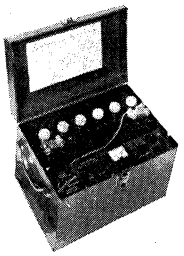
POWERCON LINE

INVERTERS
DC-AC



BATTERY ELIMINATORS
AC-DC

MOBLPAKS
DC-DC



SPORTSMAN, SR.
PORTABLE

- COMPLETE COVERAGE — Each inverter applicable to widest variety of uses. Good inventory turnover.
- SIMPLIFIED SERVICING — All components individually and readily accessible. No potted assemblies.
- SINE-WAVE-REGULATED — Models hold output steady as input or load varies and provide commercial wave form for best operation of sensitive equipment.
- POWER FACTOR CORRECTION — Auxiliary PF Correctors available to permit standard inverters to handle low PF loads. Special Inverters are not required.
- SPORTSMAN, SR. POWERCON — Combines a vibrator inverter, battery charger and a compartment for standard 12 volt auto battery, so that 110 volt AC power is available for operation of TV, radio, record players, etc.
- MOBLPAK POWERCONS — Supply up to 500 V. DC — 225 MA from 6 or 12 volt sources for mobile radio service.
- BATTERY ELIMINATORS — Compact, well filtered, conveniently styled power package for test bench.

REGULAR POWERCONS
(DC to 110 V.AC)

Model	Input Volts	Output Watts	Class	*List Price
12SP2	12	20	SP	**$13.40**
12L8	12	80	L	**39.50**
12S10	12	100	S	**63.60**
12H15	12	150	H	**87.30**
12SH22	12	225	SH	**113.65**
28H15	28	150	H	**99.00**
32H18	32	180	H	**103.50**
110S15	110	150	S	**63.15**
110H25	110	250	H	**78.60**
110SH40	110	400	SH	**149.15**

BATTERY ELIMINATOR POWERCONS

Model	Input Volts	Output Watts	Class	*List Price
110B6	110	6A–12 V.DC 10A– 6 V.DC	H	**$87.30**
110B12	110	10A–12 V.DC 20A– 6 V.DC	H	**111.90**

TRANSIPOWER TRANSISTORIZED MOBILE SUPPLIES

Model	Input Volts	Output Watts	Price
12TP3	12	300 V.DC* 100 MA	**$45.00** User Net
12TP12	12	500 V.DC* 240 MA	**60.00** User Net

* Have taps at one-half rated voltage.

SINE-WAVE-REGULATED POWERCONS
(DC to AC)

Model	Input Volts	Output Watts	Class	*List Price
12SW10	12	100	H	**$122.35**
12SW25	12	250	SH	**135.50**
110SW15	110	150	H	**122.35**

"SPORTSMAN, SR." POWERCON

(110 V.AC from self-contained battery)

Model **12SS14** Input Volts 12

Output Watts 140 Class SS User Net **$65.00**

Note: Unit includes 140 Watt Inverter, built-in Battery Charger and compartment for standard 12 V. auto battery (not provided)

DICTATOR POWERCON (6/12 V.DC to 110 V.AC)

6/12D6	6/12	60	L	**$43.90**

MOBLPAK POWERCONS (Low DC to High DC)

6/12DC6	6/12	300 V.DC 200 MA	S	**$65.70**
6/12DC12	6/12	500 V.DC 225 MA	S	**105.00**

POWERCON ACCESSORIES

Model No.	Explanation	*List Price
LEAD KITS		
LK-605	Dual #6 — 5 feet	**$8.95**
LK-612	Dual #6 — 12 feet	**16.50**
LK-616	Dual #6 — 16 feet	**20.50**
LK-805	Dual #8 — 5 feet	**6.25**
LK-812	Dual #8 — 12 feet	**10.75**
LK-816	Dual #8 — 16 feet	**13.00**
LK-1005	Dual #10 — 5 feet	**5.25**
LK-1012	Dual #10 — 12 feet	**8.50**
LK-1016	Dual #10 — 16 feet	**10.25**
MOUNTING KITS		
MK-3544-1	For L and S cases	**$5.50**
MK-3544-2	For H case only	**6.00**
MK-3544-3	For SH case only	**7.50**
REMOTE CONTROL KITS (For 6 and 12 volt models in L, S, H and SH cases)		
RK-105	5′ extension cable	**$9.00**
RK-112	12′ extension cable	**11.00**
RK-116	16′ extension cable	**12.00**
MASTER FUSE KITS (2″ cartridge)		
FK-220	20 ampere	**$3.50**
FK-230	30 ampere	**3.50**
FK-240	40 ampere	**4.50**
FK-250	50 ampere	**4.50**
FK-260	60 ampere	**4.50**
POWER FACTOR CORRECTORS		
PF-1	60% PF loads 10-100 watts; 30% PF loads 10- 25 watts	**$17.10**
PF-2	60% PF loads 150-300 watts; 30% PF loads 50- 75 watts	**34.20**
PF-3	60% PF loads 350-500 watts; 30% PF loads 100-150 watts	**42.70**

* List prices are subject to Dealer Discount.

1. Standard models deliver 110 volts, 60 cycle, AC power. Output watt ratings are based on continuous operation on high power factor loads. They should be reduced by the percent of power factor where inductive loads are involved.

2. All models are housed in cases of similar design and appearance. The class designations signify approximate size and weight as follows:

   SP — Shaver Pack—2⅝ x 2½ x 3 7/32 ..... 2 lbs.
   LM — Light Midget—3 x 3½ x 4 13/16 ..... 4 lbs.
   M — Midget—3 15/16 x 4⅝ x 5 15/16 ..... 6 lbs.
   L — Lightweight—5½ x 6¼ x 8 ..... 12 lbs.
   S — Standard—5½ x 6¼ x 9 ..... 14 lbs.
   H — Heavy—6½ x 7½ x 11 ..... 20 lbs.
   SH — Super Heavy—8 x 9½ x 13 ..... 35 lbs.
   SS — Sportsman, Sr.—9½ x 9½ x 14 ..... 20 lbs. (less bat.)

3. For complete information, refer to Cornell-Dubilier Bulletins EB-3006 for 6, 12 volts; EB-3007 for Power Factor Correctors; EB-3008 for 28, 32 volts; EB-3009 for Moblpak series; EB-3010 for 110, 220 volts; EB-3011 for Dictator Model only; EB-3012 for Battery Eliminators; EB-3013 for Accessories and installation procedures; EB-3015 for Sportsman, Sr.

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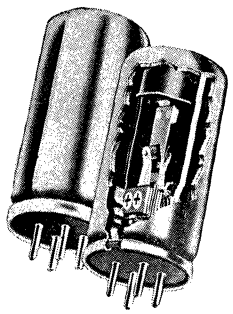
CDE **CORNELL-DUBILIER**

RADIART

VIBRATORS

- **STANDARD REPLACEMENT**
- **COMMUNICATIONS**
- **SPECIAL PURPOSE**
- **HEAVY DUTY**



STANDARD AND SPECIAL PURPOSE VIBRATORS

INTERRUPTER

6 Volt		6 Volt		12 Volt	
Type No.	List Price	Type No.	List Price	Type No.	List Price
5300	$4.95	5342	$3.80	6301	$5.15
5301	4.95	5363	6.70	6326	4.80
5303	5.15	5366	6.70	6330	5.15
5304	6.70	5370	5.15	6370	4.95
5307	5.15	5506	7.55	6511	8.10
5314	5.15	5510	7.55	6513	8.10
5320	5.15	5513	8.10	6514	10.45
5321	5.15	5516	7.25	6517	8.10
5323	4.40	5560	9.05		
5326	4.40			Other Voltages	
5331	5.15			5300-32	7.55
5333	5.15			5314-4	5.15
5335	5.15			5513-4	8.10
				5514-4	8.10

SYNCHRONOUS

6 Volt		6 Volt		12 Volt	
Type No.	List Price	Type No.	List Price	Type No.	List Price
5400	$8.10	5607	$9.05	6607	$10.45
5404	8.10	5610	8.10	6609	10.45
5406	8.10	5616	9.05	6610	9.05
5407	8.10	5620	8.10	6614	9.05
5408	8.10			6615	9.05
5409	8.10			6616	10.45
5410	8.10				
5411	8.10			Other Voltages	
5425	9.65			5468-2	11.30
5426	8.10			5469-2	10.30
5429	9.65			5615-24	9.05
5437	8.10				
5438	8.10				
5454	8.10				

COMMUNICATIONS VIBRATORS

INTERRUPTER

6 Volt		12 Volt for 6/12		12 Volt Only	
Type No.	List Price	Type No.	List Price	Type No.	List Price
5715	$7.25	6715	$7.25	6715S	$7.25
5718	7.25	6718	7.25		
5721	7.25	6721	7.25		
5722	9.05	6722	9.05		
5725	7.25	6725	7.25		

SYNCHRONOUS

6 Volt		12 Volt for 6/12		12 Volt Only	
Type No.	List Price	Type No.	List Price	Type No.	List Price
5805	$8.10	6805	$8.10	6820S	$8.10
5820	8.10	6820	8.10		
5822	9.05	6821	7.25		
5824	10.45	6822	9.05		
		6824	10.45		

HEAVY-DUTY VIBRATOR SPECIFICATIONS

Type No.	Voltage	Frequency	List Price
6VB6	6	60 ± 2	Note 1
6VB6H	6	60 ± ½	$14.20
6VD6	6	60 ± 2	Note 1
6VD6H	6	60 ± ½	24.70
6VL6H	6	60 ± 2	14.20
6VL10	6	100 ± 3	12.90
12VB6	12	60 ± 2	Note 1
12VB6H	12	60 ± ½	14.20
12VD6	12	60 ± 2	Note 1
12VD6H	12	60 ± ½	24.70
12VL6	12	60 ± 2	12.90
12VL6H	12	60 ± ½	14.20
12VL10	12	100 ± 3	12.90
28VB6	28	60 ± 2	Note 1
28VB6H	28	60 ± ½	14.20
28VD6H	28	60 ± ½	24.70
28VL6	28	60 ± 2	12.90
28VL10	28	100 ± 3	12.90

Type No.	Voltage	Frequency	List Price
32VB6	32	60 ± 2	Note 1
32VB6H	32	60 ± ½	$14.20
32VD6H	32	60 ± ½	24.70
32VL6H	32	60 ± 2	14.20
32VL10	32	100 ± 3	12.90
64VL10	64	100 ± 3	12.90
110VB6	110	60 ± 2	Note 1
110VB6H	110	60 ± ½	14.20
110VC6H	110	60 ± ½	24.70
110VL6H	110	60 ± ½	14.20
110VL10	110	100 ± 3	12.90

Old Types Replaced by Above

2989	Replaced by	32VB6H
3047	Replaced by	12VD6H
3079	Replaced by	110VC6H
3087	Replaced by	12VB6H
3103	Replaced by	6VB6H
4123	Replaced by	6VD6H

Type No.	Voltage	Frequency	List Price
Popular Old Types in Stock			
427	6	60 ± 2	$12.90
490	6	60 ± 3	24.70
491	6	60 ± 2	24.70
1315	110	60 ± 2	14.20
1315H	110	60 ± ½	15.25
3077	110	60 Adj.	15.25
11028	110	60 ± 2	15.25
Auto Radio Types—Small Powercons			
2522	110	60 ± 3	9.10
2529	6	60 ± 5	4.40
2530	12	60 ± 5	4.40
2531	6	60 ± 3	8.10
2532	12	60 ± 3	8.10
2533	110	60 ± 3	4.40
2563	6	60 ± 3	10.90
2564	24	60 ± 3	10.90
2565	110	60 ± 3	10.90

NOTE 1. This vibrator, which had a broad frequency tolerance, is no longer manufactured. Use similar type (such as 6VB6H) listed above, which has close frequency tolerance.

 Trade Discount Applies To List Prices Only © U.C.P., Inc.

Electro CHICAGO

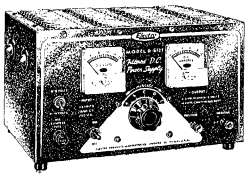
DC POWER SUPPLIES

COMPARE QUALITY, PERFORMANCE and PRICE

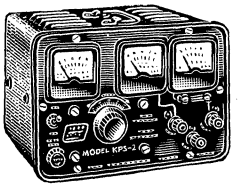
1 YEAR WARRANTY

All Models Operate From 117 VAC 50/60 CPS

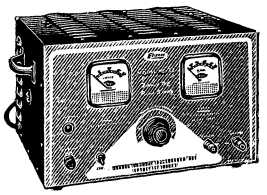
Model "PS-3"



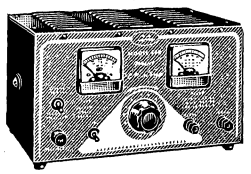
Model D612T "H"



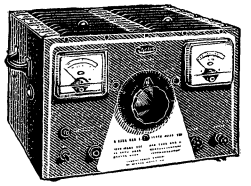
Models "PS-2" "KPS-2"



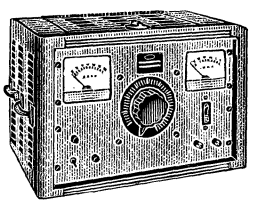
Model "PS-30"



Models "EFB" "EB"



Models "NFB" "NB"



Model "GFA"

REGULATED TRANSISTORIZED POWER SUPPLY at half the cost of comparable units

0-25 VDC . . . 200MA from 0 to 15 VDC, 100MA from 15 to 25 VDC "PS-3"—Net..... **$79.50**

Low Cost Universal Power Supply . . . Ideal as power source for transistor circuit design, development and experimentation; as bias supply for vacuum tube circuitry. DC voltages remain constant regardless of load at any output setting and of AC supply fluctuations between 110-130 VAC, 60 CPS.

Special Features . . . • Internal Zener Diode reference. • "Floating" output terminals with separate chassis ground terminal. • 2% accuracy meter for voltage and current.
RIPPLE . . . Less than 1 MV RMS for all rated conditions. Less than ½ MV for AC input from 115 to 120V.
LOAD REGULATION . . . 100 MV max. within ratings.
DC IMPEDANCE . . . 0.5 ohms.
OVERLOAD PROTECTION . . . Primary fuse. Short circuit current limited to safe value by internal circuitry.
CABINET . . . 6¼ x 5 x 6". Gray wrinkle finish. Net weight, 3½ lbs.

TWO CONTINUOUSLY VARIABLE RANGES . . . 0-8 VDC, 0-16 VDC

10 A Continuous Duty up to 12 VDC, Up to 20 VDC for Transistor Portable Radio Loads "D-612T"—Net..... **$59.95**

Service Transistor/Tube-Vibrator Auto and Portable Radios . . . Special choke input filter circuit holds AC ripple below minimum requirements critical to the testing of transistor auto radios and transistor personal radios. Ideal for testing citizens band transceivers, auto accessories, small DC motors, relays, solenoids, etc.

Special Features . . . • Insulated binding post terminals. • Patented EPL Conduction Cooling. • Larger, longer-scale clear plastic meters.
RIPPLE . . . Less than 0.5% RMS to 5 A, 2% at 10 A.
LOAD REGULATION . . . on 16 V range, .44 volts per amp. from 3 A to 10 A. On 8 V range .3 volts per amp. from 3 A to 10 A.
OVERLOAD PROTECTION . . . Primary fuse.
CABINET . . . 7" x 12" x 8½", 18-gauge steel; blue hammerloid finish. Net weight, 20 lbs.

HEAVY DUTY, DUAL RANGE

6 VDC up to 20 ADC Continuous Duty, 12 VDC up to 10 ADC Continuous Duty "H"—Net..... **$86.00**

Service Mobile Equipment . . . Ample power for LPI 10-watt mobile transmitters and receivers. Regulation adequate for switching from standby to transmit on mobile equipment. Connect in parallel or series for higher currents or voltages.

Special Features . . . • Patented EPL Conduction Cooling. • 8-position voltage adjustment for each range.
RIPPLE . . . Less than 5% RMS at max. rated current.
LOAD REGULATION . . . On 12 V range, .23 volts per amp. from 3A to 10 A. On 6 V range, .15 volts per amp. from 3 A to 20 A.
OVERLOAD PROTECTION . . . Primary fuse.
CABINET . . . 7" x 12" x 8½", 18-gauge steel; blue hammerloid finish. Net weight, 29 lbs.

TWO CONTINUOUSLY VARIABLE RANGES

0-20 VDC at 75MA, 0-16 VDC at 5 A "PS-2"—Net..... **$56.00**

Also available as Model "KPS-2" in kit form. "KPS-2"—Net..... **$44.95**

Service Transistor Portable Radios and Today's Transistor/Tube 12-Volt Auto Radios . . . Use 0-20 VDC range for transistor portables and 0-16 VDC range for 12/6 volt auto radios. Also operates citizens band transceivers, relays and other low voltage devices.

Special Features . . . 2 output ranges, each with own meter and terminals. • Special Pi-type filter holds ripple well below minimum critical requirements. • Separate milliameter for transistor circuits. • Separate fuse in 75 MA circuit to protect transistors. • EPL Patented Conduction Cooling.
RIPPLE . . . 0.15% maximum for 75 MA output. 0.5% maximum for 5 A output.
LOAD REGULATION . . . 1.6 volts per ampere from no-load to full load.
DC IMPEDANCE . . . 1.6 ohms, no-load to full load.
OVERLOAD PROTECTION . . . Primary fuse and 75 MA output fuse.
CABINET . . . 6" x 8½" x 8". 18-gauge steel; blue wrinkle finish. Net weight, 12 lbs.

RUGGED, HEAVY CURRENT—12 VDC . . . Low Ripple

30 ADC Continuous Duty, Up to 50 ADC for Short Periods "PS-30"—Net..... **$195.00**

Service Auto, Taxi, Truck, Aircraft and Marine Communications Equipment . . . Ideal power supply for base station operation. Connect in series or parallel for higher voltages or currents.

Special Features . . . High, continuous current output. • Heavy overload capacity. • 8-position voltage adjustment tap. • Patented EPL Conduction Cooling.
RIPPLE . . . Less than 1% RMS at max. rated current.
LOAD REGULATION . . . .11 volts per amp. from 6 A to 30 A.
DC IMPEDANCE . . . 0.27 ohms, no-load to full load.
OVERLOAD PROTECTION . . . Primary fuse.
CABINET . . . 9¼" x 16¾" x 13". 18-gauge steel; blue hammerloid finish. Net weight, 56 lbs.

TWO CONTINUOUSLY VARIABLE RANGES . . . 0-32 VDC up to 4 ADC, 0-16 VDC up to 8 ADC

Model "EFB" (less than 0.1% ripple at top load) Net..... **$130.00**
Model "EB" (less than 5% ripple at top load) Net..... **$105.00**
Model "EFBR" Same specification as Model "EFB" Net..... **$150.00**

Models "EFB" and "EFBR" Designed for Transistor and Critical Electronic Work . . . Deliver up to 128 watts of highly filtered DC power to all types of low voltage electronic equipment where ripple voltage is a critical factor, such as military, aircraft and ground support equipment. Model "EB", with 5% maximum ripple serves broad field of applications in laboratory work; operates relays, solenoids, etc. where ripple voltage isn't a critical requirement.

Special Features . . . • Special choke and Pi-type filter circuits. • 2% accuracy D'Arsonval movement meters. • EPL Patented Conduction Cooling.
RIPPLE . . . Less than 0.1% RMS for "EFB" and "EFBR". Less than 5% RMS for "EB".
LOAD REGULATION . . . 32 V range: 1.25 volts per amp. between 0 and 4 amps. 16 V range: 1 volt per amp. between 0 and 8 amps.
DC IMPEDANCE . . . 1.25 ohms for 32 VDC range. 1.0 ohms for 16 VDC range (no-load to full load)
OVERLOAD PROTECTION . . . Primary fuse.
CABINET . . . "EFB" and "EB": 7" x 12" x 8½", "EFBR" has rack panel to fit Western Electric and EIA racks. 18-gauge steel; blue hammerloid finish. Net weight: "EFB" 31 lbs., "EB" 23 lbs., "EFBR" 34 lbs.

Model "EF" . . . Lower price. Same as "EFB" except: output ranges 0-28 VDC at 5 ADC and 0-14 VDC at 5 ADC: 1% maximum ripple; and more coarse output voltage adjustment; slightly better load regulation; net weight, 21 lbs.

0-32 VDC UP TO 15 ADC . . . Continuously Variable

Model "NFB" (Less than 0.75% ripple at top load) Net..... **$250.00**
Model "NB" (Less than 5% ripple at top load) Net..... **$225.00**
Model "NFBR" (Same specifications as "NFB") Net..... **$275.00**

Low Cost Heavy Current Power Supplies . . . delivering up to 480 watts of well filtered DC power for ground support equipment; low voltage electronic equipment for industrial, military, commercial and aircraft applications; operation of DC motors, relays, phone circuits, transistor circuits, valves, solenoids.

Special Features . . . • Silicon rectifiers for higher efficiency. • Special chokes, condensers and Pi-type filters. • 2% accuracy D'Arsonval movement meters.
RIPPLE . . . Less than 0.75% at top load for "NFB" and "NFBR". 5% RMS at 15 A for "NB".
LOAD REGULATION . . . 0.3 volts per amp. between 0 and 15 amps.
DC IMPEDANCE . . . 0.3 ohms (No load to full load).
OVERLOAD PROTECTION . . . Primary circuit fuse. Output circuit instantaneous trip circuit breaker.
CABINET . . . Models "NFB" and "NB": 9¾" x 14¼" x 14¼" ("NFBR" has rack panel to fit Western Electric and EIA racks 10½" x 19"). 18-gauge steel, blue hammerloid finish. Net weight: "NFB" 71 lbs., "NB" 61 lbs., "NFBR" 82 lbs.

SEMI-REGULATED POWER SUPPLY . . . 0-125 VDC up to 10 ADC

(less than 1% ripple at top load) Model "GFA" Net..... **$575.00**

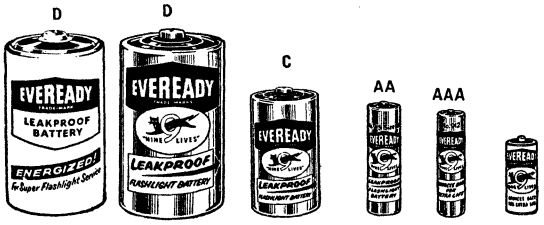
Full 10 Amperes of Low-Ripple DC Current at Voltages from 0 to 125 VDC . . . Applications are unlimited and include design and testing of DC appliances, phone circuits, small DC motors, relays, solenoids and shielded room lighting . . . for electromagnet power source, general laboratory work, and many other uses.

Special Features . . . • Efficient germanium rectifiers. • Special combination regulating and filtering circuit. • Both primary and secondary overload protection. • Large, easy-to-read 2% D'Arsonval movement meters.
RIPPLE . . . 1% RMS with 10 A. 125 V load.
LOAD REGULATION . . . 1.6 volts per amp. to 10 A. (12% of no-load voltage, at maximum output conditions.)
DC IMPEDANCE . . . 1.6 ohms (no-load to full-load).
OVERLOAD PROTECTION . . . Primary circuit fuse. Output circuit fast-acting circuit breaker.
CABINET . . . 14¼" x 22" x 15¾". Heavy gauge steel. Gray wrinkle. Recessed front panel. Net weight, 150 lbs.

ELECTRO PRODUCTS LABORATORIES Chicago, Ill. **Since 1936—Pioneers in Low Voltage DC Power Supplies**

© UCP., Inc.

EVEREADY TRADE-MARK FLASHLIGHTS and BATTERIES



D-99 Heavy duty | 950 General-Purpose | 935 | 915 | 912 | 904

No. 1251 — 2-Cell Heavy Duty Spotlight. Rugged insulated case. Will not shatter, crack or dent. Unbreakable safety-glow lens-guard. Ring-hanger. List price (without batteries) **$2.89. No. 1259**—2-Cell Safety Flashlight. Approved by United States Bureau of Mines and listed with Underwriters Laboratories Inc. List price each (without batteries) **$4.15.** Both types available in 3-Cell sizes. **(No. 1351, $3.29; No. 1359, $4.35.)**

No. 330 Utility Lite, shock - resistant. Resists acids, alkalies, oils, greases, temperature extremes. Insulated against electric shock. List **$0.99** (without batteries). Also available No. 331 Utility Lite with magnet switch. List price **$1.99** (without batteries).

Pouch No. 1348

Pouch for #3452 Head Lite: rainproof — fits on belt or strap. List **69¢** each.

Head Lite with long-range beam frees both hands for work at home or on the job. List **$3.29** each (without batteries).

No. 3452

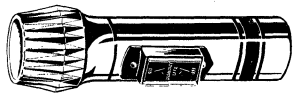
Display No. 15

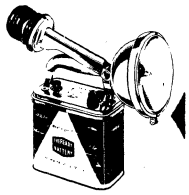
Display Package No. 15 — "Little Jim," replica of the famous "Eveready" Masterlite Square Flashlight. Pocket-size, with unbreakable decorator colored safety-glow lens-guard. List **69¢** each (without batteries).

Display Package No. 130B — "All-American" assortment of 14 flashlights in 5 decorator colors: turquoise, coral, red, white or black — safety - glow head and easy - to - work jumbo switch. List **$1.19** each (without batteries).

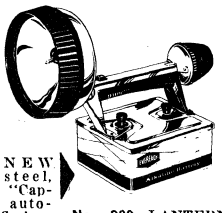
Display No. 130B

No. 5MF Magnet Lite with powerful "Alnico" magnet. Uses 2 "Eveready" No. 950 or D-99 batteries and PR2 lamp. List price **$1.99** (without batteries). Also 6-5MF display package containing 6 Magnet Lights. List **$11.94** per display package.



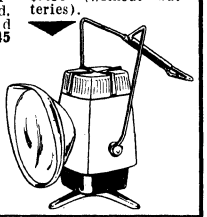


No. 100 "Big Jim" Lantern with red beacon flasher, weatherproof switches and wiring. Heavy-gauge, chrome-plated steel. Sealed beam visible up to 1 mile. List **$10.75** (without battery.)



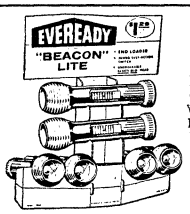
No. 150 NEW stainless steel, weatherproof "Captain" with automatic red flasher. Uses NEW 6 volt alkaline battery No. 520. Gives twice the light of other lanterns. A precision - engineered, super - powered light. List **$14.45** (without battery).

No. 200 LANTERN "Eveready" "Fire-Ball" with powerful spotlight, 4-way handle, red signal. List **$7.95** (without batteries).



No. 27 Highlander contains 7 "Eveready" flashlights. Chrome-colored with 3 red, 2 yellow, 2 turquoise heads. List **$1.19** ea.

No. 101 "Big Jim" (without red beacon flasher) has the same fine features as #100. List **$8.00** (without battery).
No. 151 "Captain" (without red flasher) but with all the other fine features of No. 150. List **$12.45** (without battery). Above lanterns not shown.



No. 20

Contains 7 "Beacon Lites." Chrome colored case with red or copper-colored case with green. List price **$1.29**

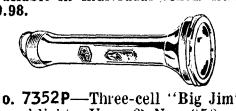
No. 23

No. 230

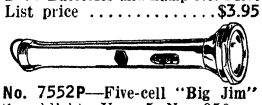
No. 23 contains 12 No. 230 Heavy-duty Penlites. No. 230 Penlite also available in individual boxes. List Price **$0.98** each.

No. 212

No. 21C contains 12 No. 212 Small Penlites. No. 212 Penlite also available in individual boxes. List **$0.98.**

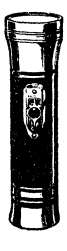


No. 7352P—Three-cell "Big Jim" Searchlight. Uses 3 No. 950 or D-99 Batteries and Lamp No. PR3. List price **$3.95**



No. 7552P—Five-cell "Big Jim" Searchlight. Uses 5 No. 950 or D-99 Batteries and Lamp No. PR12. List price **$4.95**

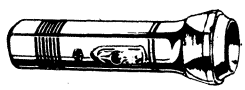
No. 25 contains 6 No. 2251 Spotlights. List **$1.95** each.



No. 2251—2 cells. List **$1.95.**

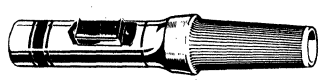
No. 2351—3 cells. List **$2.35.**

No. 7231P—Small Square Spotlight. Uses 2 No. 935 Batteries and Lamp No. PR4. List price **$1.85**



No. 7251P — Deluxe "Masterlite" heavy-gauge square flashlight with lens guard. Uses 2 No. No. 950 or D-99 Batteries and Lamp No. PR2. List price **$1.99** (without batteries).

No. 7251—Deluxe "Masterlite," all metal with square easy-grip case. Chrome with black. List **$1.99** (without batteries).



5MF5 $2.29 With 5" signal wand and Magnetic switch that holds flashlight to any steel object. Also available with 3" signal wand No. 5MF3 (List price $2.19 without batteries).

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EVEREADY TRADE-MARK

BATTERIES FOR RADIO

ELECTRONIC AND OTHER APPLICATIONS

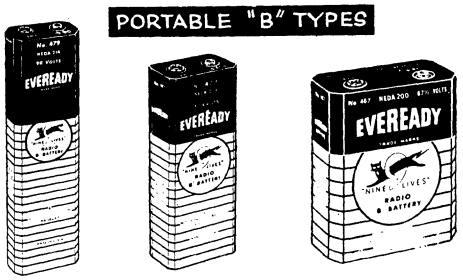
ENERGIZERS FOR TRANSISTOR RADIOS AND OTHER ELECTRONIC APPLICATIONS

CATHODIC ENVELOPE BATTERIES
for Transistor Radios

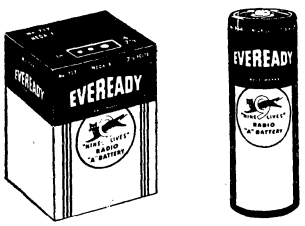
ALKALINE ENERGIZER BATTERIES
for portable TV, Transistor Radio, and Mechanical power Applications

SEALED RECHARGEABLE NICKEL CADMIUM BATTERIES

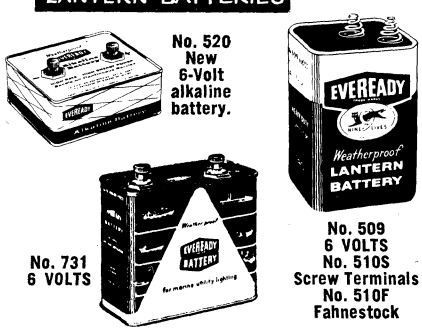
PORTABLE "B" TYPES



PORTABLE "A" TYPES



LANTERN BATTERIES



DRY CELL

HOT-SHOT BATTERY

EMERGENCY LIGHTING

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EVEREADY COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in Inches L	W	H	Terminals & Voltages	Battery Weight lbs.	ozs.	Unit Pkg. Quan.	List Price Each	Major Use
E1	1100	0.625 Diam. x 0.650			Flat Contact—, +1.35		0.43	4	$ 0.58	Meters, Instruments, Signal Lights, Miniature Radios
E3		0.985 Diam. x 0.660			Flat Contact—, +1.35		0.93	4	0.80	
E4		1.195 Diam. x 0.660			Flat Contact—, +1.35		1.6	4	1.05	
No. 6 "Ignitor" Gen. Purpose	905 914	2⅝ Diam. x 6⅝			**Screw—, +1½	2	2	12	1.25	Ignition, Lighting
No. 6 "Gray Label" Telephone	906	2⅝ Diam. x 6⅝			***Fahnestock—, +1½	2	2	12	1.25	Telephone
No. 6 Railroad & Industrial	911	2⅝ Diam. x 6⅝			**Screw—, +1½	2	2	12	1.85	Ignition, Telephone
E9	1103	0.550 Diam. x 1.968			Flat Contact—, +1.40		1.05	4	0.75	Transistor Applications
E9N		0.550 Diam. x 1.968			Flat Contact—, +1.40		1.05	2	0.80	Transistor Radio
E12	1101	0.640 Diam. x 1.968			Flat Contact—, +1.35		1.4	2	1.25	Instruments, Miscellaneous
N24		0.61 Diam. x 0.235			Flat Contact—, +1.25		0.12	1	1.00	Instruments, Hobby, Transistor Applications, Miscellaneous
N26		0.988 Diam. x 0.230			Flat Contact—, +1.25		0.32	1	1.10	
N26T		0.988 Diam. x 0.230 (plus tabs)			Solder Tabs—, +1.25		0.32	1	1.20	
N28		0.988 Diam. x 0.252			Flat Contact—, +1.25		0.4	1	1.15	
N28T		0.988 Diam. x 0.252 (plus tabs)			Solder Tabs—, +1.25		0.4	1	1.25	
N32		0.988 Diam. x 0.343			Flat Contact—, +1.25		0.44	1	1.20	
N32T		0.988 Diam. x 0.343 (plus tabs)			Solder Tabs—, +1.25		0.44	1	1.30	
N36		1.697 Diam. x 0.286			Flat Contact—, +1.25		1.16	1	2.10	
N36T		1.697 Diam. x 0.286 (plus tabs)			Solder Tabs—, +1.25		1.16	1	2.20	
N38		1.355 Diam. x 0.380			Flat Contact—, + 1.25		4.5	1	2.50	Instruments
N38T		1.355 Diam. x 0.380 (plus tabs)			Solder Tabs—, +1.25		4.5	1	2.60	Instruments
E42		1-9/32 Diam. x 2.390			Flat Contact—, +1.35		5.85	1	2.75	Instruments
N45		17/32 Diam. x 1-31/32			Solder Tabs—, +1.25		0.8	1	3.00	
N46		17/32 Diam. x 1-31/32			Flat Contact—, +1.25		0.8	1	2.75	
N52		17/32 Diam. x 3-35/64			Solder Tabs—, +1.25		1.4	1	4.55	
N56		1-11/32 Diam. x 2-13/32			Flat Contact—, +1.25		4.5	1	5.00	Instruments, Hobby, Transistor Applications, Miscellaneous
N67		1-15/32 x 1-15/32 x 3-25/32			Wire Leads—, +6		8.3	1	26.40	Instruments, Hobby, Transistor Applications, Miscellaneous
N70		3-53/64 x 1-35/64 x 3⅝			Wire Leads—, +6	1	12	1	42.30	
N73		1-23/64 x 1-23/64 x 2-13/32			Nut & Stud; Tab—, +1.25		5.9	1	8.65	
N74		1-23/64 x 1-23/64 x 3-25/64			Nut & Stud; Tab—, +1.25		9.2	1	10.15	
N75		1-23/32 x 2 x 3-5/32			Nut & Stud—, +1.25		12.3	1	13.35	
N76		1-23/32 x 2 x 3-45/64			Nut & Stud—, +1.25		15.2	1	14.60	
N77		1-23/32 x 2 x 4-¼			Nut & Stud—, +1.25	1	1.6	1	15.95	
N79		1-1/16 x 3-37/64 x 4-15/16			Nut & Stud—, +1.25	1	12	1	19.70	
N81		1-25/64 x 3-37/64 x 4-15/16			Nut & Stud—, +1.25	2	2.9	1	23.95	
N83		1-45/64 x 3-37/64 x 4-15/16			Nut & Stud—, +1.25	2	9.6	1	28.45	
N85		2-1/64 x 3-37/64 x 4-15/16			Nut & Stud—, +1.25	3	1.6	1	32.75	
E91	1107	9/16 Diam. x 1-31/32			Flat Contacts—, +1.5		0.75	24	0.50	Portable Radio
E94	927	1-11/32 Diam. x 1-7/32			Flat Contact—, +1½		1.8	24	0.50	Electronic Photoflash
E95		1-11/32 Diam. x 2-13/32			Flat Contact—, +1½		4.3	12	0.75	Communication Equipment
E97S		1-11/32 Diam. x 5-7/32			Ins. Screw—, +1½		8	12	1.10	Hobby
†D99		1-11/32 Diam. x 2-13/32			Flat Contact—, +1½		3.3	48	0.25	Flashlight, Toys
A100	13	1-11/32 Diam. x 2-13/32			Flat Contact—, +1½		3.3	48	0.25	Portable Radio "A", Transistor
E132		0.662 Diam. x 1.315			Flat Contact—, +2.70		0.9	2	1.25	Transistor Applications
E133	1304	0.662 Diam. x 1.965			Flat Contact—, +4.2		1.4	2	1.50	Transistor Applications
E134		0.662 Diam. x 2.620			Flat Contact—, +5.40		1.9	2	2.25	Transistor Applications
E146	1604	1-1/32 x ⅝ x 2			Min.Snap—, +8.40		1.6	1	1.95	Transistor Radio
E163	1305	0.662 Diam. x 1.327			Flat Contact—, +4.20		0.87	2	1.60	Transistor Applications
E164	1404	0.662 Diam. x 1.767			Flat Contact—, +5.60		1.16	2	2.00	Transistor Applications
E165	1500	0.662 Diam. x 2.217			Flat Contact—, +7.00		1.45	2	2.45	Transistor Applications
E177	1606	35/64 Diam. x 1-29/32			Min. Snap—, +9.8		0.67	1	1.95	Transistor Radio
206	1611	3/4 Diam. x 2			Flat Contacts, Neg. Recessed—, + 9		1.2	1	0.75	Transistor Radio
216	1604	1-1/32 x 11/16 x 1-29/32			Min. Snap—, +9		1.3	6	1.35	Transistor Radio
226	1600	1 Diam. x 1-15/16			Snap Type—, +9		2.0	6	1.35	Transistor Radio
E233	1300	1-1/64 Diam. x 1-31/32			Flat Contact—, +4.20		3	1	2.65	Transistor Radio
239	1900	1-21/64 x 1-1/32 x 2-11/16			Socket—, +9, +13-½		3	1	1.50	Transistor Radio
243	1610	1-13/32 x 1-11/32 x 2¾			Min. Snap—, +4½		4.5	1	1.70	Transistor Radio
246	1602	1-13/32 x 1-11/32 x 2¾			Min. Snap—, +9		4.5	1	1.85	Transistor Radio
266	1605	1-13/16 x 1-13/16 x 2-7/16			Snap Type—, +9		7	1	1.50	Transistor Radio
274	1400	2-9/16 x 2-1/32 x 7-29/32			Snap Type—, +6	2	7	1	4.75	Transistor Radio
276	1603	2-9/16 x 2-1/32 x 3-5/32			Snap Type—, +9		15	1	1.80	Transistor Radio
333	1306	0.662 Diam. x 1.965			Flat Contacts—, + 4.5		0.9	1	0.75	Transistor Radio
W-350	711	3-1/32 x 1⅞ x 4-31/32			Ins. Screw—, +22½, +45		14.5	1	3.85	Radio, Transceivers, Instruments
W-351		3⅝ x 2¼ x 3-11/16			Screw—, +22½, +45	1	5.5	1	7.55	Radio, Transceivers, Instruments
W-352	701	2-21/32 x 1-11/32 x 4-9/16			Ins. Screw—, +3		12.5	1	1.25	Electronic Devices, Instruments
W-353	11	2-19/32 x 1⅜ x 4¼			Socket—, +1½		12.5	1	1.10	Portable Radio
W-354	700	2-21/32 x 1-11/32 x 4⅜			Screw—, +1½		12.2	1	1.25	Instruments
W-356	*	2⅝ x 2⅝ x 4-9/16			Ins. Screw—, +3	1	6	1	1.55	Radio and Electric Devices
W-357	901	3⅞ x 2-11/16 x 5-13/16			Fahnestock—, +3	2	12	1	2.05	Model Ignition, Telephone
W-358		2-15/16 x 1-3/16 x 4⅛			Ins. Screw—, +45		8.75	1	3.55	Industrial
W-359	206	3-9/16 x 2¼ x 4½			Socket—, +45	1	11.8	1	3.55	Portable "B"
W-360	10	2-9/16 x 2-9/16 x 4-1/32			Socket—, +7½	1	3	1	1.90	Portable "A"
W-361	227	1-11/32 x 1-11/32 x 11-23/32			Flat Contacts—, +103½	1	4	1	6.57	Portable "B"
W-362		2-15/16 x 11/16 x 1¾			Screw+, —4½, —7½		1.5	1	2.10	Radio "C"
▲W-363F	*	8-1/32 x 4-1/16 x 7⅝			Fahnestock—, +22½, +45	10	5	1	6.90	Heavy Duty Radio "B"
▲W-364F	*	8⅛ x 4-7/16 x 7-11/16			Fahnestock—, +22½, +45	11	14	1	7.65	Heavy Duty Radio "B"
▲W-365F	723	8-1/16 x 2-15/16 x 7⅝			Fahnestock—, +22½, +45	7	7.5	1	5.50	Industrial "B"
W-366	407	9-1/32 x 2-1/32 x 4-23/32			Socket—"A", +1½ "A", —"B", +63 "B"	4	4	1	8.80	Portable Radio "A-B"
W-367	408	9⅛ x 2¾ x 4-7/16			Socket—"A", +7½ "A", —"B", +63 "B"	4	5	1	9.20	Portable Radio "A-B"
W-368	*	9-1/32 x 2-23/32 x 3-9/16			Recessed Plug—"A", +6 "A", —"B", +75 "B"	4		1	9.50	Portable Radio "A-B"
W-369	410	9-15/16 x 2-¼ x 4-23/32			Socket—"A", +1½ "A", —"B", +90 "B"	4	5	1	7.85	Portable Radio "A-B"
W-370	*	2-13/32 x 1-11/32 x 7-5/32			Socket—"A", +1½ "A", —"B", +60 "B"	1	1.5	1	5.85	Portable Radio "A-B"
W-371		1-5/32 x 1-5/32 x 2-9/16			Socket (including plug)—, +8		2.2	1	0.95	Model Ignition
E400	1106	0.455 Diam. x 0.135			Flat Contact—, +1.35		0.04	6	0.36	Transistor Applications
E401	1102	0.470 Diam. x 1.130			Flat Contact—, +1.40		0.4	3	0.52	Transistor Applications
409	916	2-5/8 x 2-5/8 x 4-3/32			Coil Spring—, + 6	1	6.5	1		Industrial
411	208	1-1/32 x ⅝ x 1-29/64			Flat Contact—, +15		0.8	1	1.15	Pocket Radio "B", Instruments
412	215	1-1/32 x ⅝ x 2			Flat Contact—, +22½		1.2	1	1.50	Pocket Radio "B", Instruments
413	210	1-1/32 x ⅝ x 2-9/16			Flat Contact—, +30		1.4	1	1.75	Pocket Radio "B", Instruments
415	213	1-3/64 x ⅝ x 3-11/16			Min. Snap—, +45		2.5	1	2.50	Pocket Radio "B"
416	217	1-21/64 x 63/64 x 3½			Min. Snap—, +67½		4	1	2.95	Portable Radio "B"
417	224	1-5/16 x 31/32 x 1-9/16			Flat Contact—, +15		1.8	1	1.65	Pocket Radio "B", Instruments
420	225	1-5/16 x 31/32 x 2-3/16			Flat Contact—, +22½		2.5	1	1.75	Pocket Radio "B", Instruments
425P		1-23/64 x 1-1/32 x 3-15/16			Socket—, +22½		4.1	1	1.95	Instruments
430	*	1-5/16 x 1 x 2-13/16			Flat Contacts—, +30		3.2	1	2.15	Pocket Radio "B", Instruments
430P		1-23/64 x 1-1/32 x 3-11/32			Socket—, +30		3.2	1	2.15	Instruments
433P		2-21/32 x 1-1/64 x 3-1/16			Socket—, +33		6	1	2.45	Instruments
437	212	1-15/16 x 1-15/32 x 6-15/32			Snap Type—, +75		14.8	1	4.50	Portable Radio "B"
455	*	2-21/32 x 1 x 3-11/16			Snap Type—, +45		7.8	1	2.95	Portable Radio "B"
455P		2-21/32 x 1-1/64 x 3-29/32			Socket—, +45		8.6	1	3.00	Instruments
457	203	2-13/16 x 1⅜ x 2½			Snap Type—, +67½		7.4	1	3.45	Portable Radio "B"
467	200	2-13/16 x 1⅜ x 3-45/64			Snap Type—, +67½		12	1	3.50	Portable Radio "B"
468		2-13/16 x 1-3/8 x 3-45/64			Snap Type—, + 67-1/2		12	1	3.95	Radio Electronic
477	211	1-29/32 x 63/64 x 5-7/16			Snap Type—, +67½		8.6	1	3.25	Portable Radio "B"
479	214	1-31/32 x 1-1/32 x 7-15/32			Snap Type—, +90		12	1	3.95	Portable Radio "B"
482	202	3-19/32 x 1-27/32 x 5½			Socket—, +45	1	15	1	3.85	Portable Radio "B"
484	207	3-31/32 x 2-17/32 x 5-5/16			Socket—, +45	3	2	1	4.70	Fluoreseent Lantern
487		5⅛ x 2-1/16 x 7¼			Socket—, +22½, +45	4	2	1	4.95	Farm Radio "B"
489		4-11/32 x 2-11/16 x 4-3/16			Socket—, +225	2	12	1	9.95	Electronic Photoflash
490	204	3-23/32 x 1⅜ x 3-45/64			Snap Type—, +90		15	1	4.50	Portable Radio "B"
491		2-19/32 x 1-5/16 x 4½			Flat Recessed & Socket—, +240		13	1	7.95	Electronic Photoflash

Trade Discount Applies To *List Prices Only*

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SECTION 4000

"Eveready" Battery Number	NEDA Number	Overall Dimensions in Inches L	W	H	Terminals & Voltages	Battery Weight lbs.	ozs.	Unit Pkg. Quan.	List Price Each	Major Use
492		3-9/16 x 2-29/32 x 4-29/32			Socket—, +180, +225	2	8	1	$ 8.75	Electronic Photoflash
493	722	2-11/16 x 2-7/32 x 3-29/32			Pinjacks—, +300		14.5	1	11.95	Geiger Counter
495	*	1-15/16 x 1-15/32 x 7⅛			Snap Type—, +90	1		1	4.95	Portable Radio "B"
497		3 x 1-19/32 x 5⅝			Flat Recessed—, +180, +510	1	10	1	15.95	Electronic Photoflash
E502		0.550 Diam. x 1.968			Flat Contact—, +1.35		1.05	2	0.95	Transistor Applications
504	220	⅝ x 19/32 x 1⅜			Flat Contact—, +15		0.6	1	1.15	Pocket Radio "B", Instruments
505	221	⅝ x 19/32 x 1-63/64			Flat Recessed—, +22½		0.8	1	1.50	Pocket Radio "B", Instruments
506	223	1-13/64 x ⅝ x 1-27/64			Flat Contact—, +30		0.9	1	1.85	Pocket Radio "B", Instruments
507	222	⅝ x 19/32 x 2.605			Flat Contact—, +30		0.9	1	1.85	Pocket Radio "B", Instruments
509	908	2⅝ x 2⅝ x 4-13/32			Coil Springs—, +6	1	5	1	1.19	Lanterns
510F	917	2⅝ x 2⅝ x 4-13/32			Fahnestock—, +6	1	4	1	1.19	Miscellaneous
510S	*	2⅝ x 2⅝ x 4⅜			Screw—, +6	1	4	1	1.19	Miscellaneous
515		35/64 Diam. x 1-31/32			Flat Contact—, + 1.5		0.5	24	0.15	Flashlights, Toys
520	930	5-17/32 x 4-21/32 x 2-21/32			Ins. Screw—, +6	2	8	1	4.50	Lantern
560		2-21/32 x 1-17/32 x 7-5/32			Socket—, +7½	1	10	1	5.25	Portable Television
621		2-9/16 Diam. x 13			Screw—, +3	4	10	12	3.90	Fishing Buoy
E625		0.615 Diam. x 0.238			Flat Contact—, +1.35		0.14	4	0.45	Transistor Applications
E630		0.615 Diam. x 0.238			Flat Contact—, +1.40		0.17	4	0.42	Transistor Radio
635	14	1-1/32 Diam. x 1-15/16			Flat Contact—, +1½		1.4	12	0.25	Portable Radio "A" Transistor
E640		0.625 Diam. x 0.440			Flat Contact—, +1.40		0.38	4	0.47	Transistor Applications
702		2-17/32 x ⅞ x 3⅛			Socket—, +4½		5	1	1.40	Shot Firing
703	*	2-7/16 x 27/32 x 3-1/16			Spring—, +4½		5	1	1.02	Instruments
704		2-11/16 x 1-11/32 x 4⅜			Socket—, +8		11.8	1	1.70	Shot Firing
706	902	8-5/16 x 2-13/16 x 6-7/16			Ins. Screw—, +6	5	14	1	5.98	Ignition, Emergency Lighting
707	26	2-9/16 x 2-1/32 x 2-13/16			Snap Type—, +7½		12	1	1.50	Portable Radio "A"
708		2⅝ x 2¾ x 4-13/16			Socket—, +22½	1	11	1	3.80	Shot Firing
713	8	3-29/32 x 53/64 x 2-27/32			Socket—, +7½		6.3	1	2.25	Portable Radio "A"
714		3-31/32 x 1-11/32 x 3½			Screw—, +4½		14.5	1	1.55	Telephone Test Sets
715	903	7¼ x 4-1/16 x 6-7/16			Ins. Screw—, +7½	7	10	1	7.25	Ignition, Emergency Lighting
716	*	8-37/64 x 4-1/16 x 6-7/16			Ins. Screw—, +9	8	8	1	8.25	Ignition, Emergency Lighting
717	9	2-5/32 x 1-15/16 x 3-1/32			Socket—, +7½		8	6	1.65	Portable Radio "A"
††718	1	3-29/32 x 2¾ x 5-7/16			Socket—, +6	2	4	1	3.90	Portable Radio "A"
720	18	2-25/32 x 1-13/32 x 3-1/32			Socket—, +1½		6.5	1	1.20	Portable Radio "A"
724	2	1-7/32 x 1-7/32 x 2-11/32			Flat Contact—, +6		2.5	1	1.00	Portable Radio "A"
726	19	4-3/32 x 1-7/16 x 2-15/16			Socket—, +4½		10.5	1	1.35	Portable Radio "A"
727	428	8⅞ x 2⅛ x 3-25/32			Recessed Plug—"A", +9 "A", —"B", +90 "B"	2	14	1	7.45	Portable Radio "A-B"
††729	*	3-27/32 x 2-7/32 x 7-13/16			Socket—"A", +1½ "A", —"B", +90 "B"	2	7	1	6.25	Portable Radio "A-B"
731	918	5-11/32 x 2-27/32 x 4-15/16			Ins. Screw—, +6	3	4	1	2.75	Lantern
735	900	2⅝ x 2⅝ x 4⅜			Screw—, +1½	1	7	1	1.25	Model Ignition "Glo-Plug"
736	3	3-15/16 x 1-5/16 x 4-3/32			Socket—, +4½	1		1	1.35	Portable Radio "A"
738	205	3 x 2-5/16 x 4⅛			Socket—, +22½, +45	1	3	1	3.95	Portable Radio "B"
††740	719	4-19/32 x 3⅞ x 7¾			Socket—, +1½	6		1	9.85	Farm Radio "A"
††741	17	3⅞ x 2-11/16 x 5⅜			Socket—, +1½	2	10	1	3.45	Portable Radio "A"
742	4	2⅝ x 2⅝ x 3-27/32			Socket—, +1½	1	6	1	1.65	Portable Radio "A"
††743	5	3-13/16 x 2⅝ x 4-1/32			Socket—, +1½	1	15	1	2.75	Portable Radio "A"
744	*	2⅝ x 2⅝ x 3-27/32			Socket—, +6	1	6	1	1.65	Portable Radio "A"
746	7	3-15/16 x 1-5/16 x 4-21/32			Socket—, +4½	1	3	1	1.50	Portable Radio "A"
750	*	1-11/32 x 11/16 x 2-21/32			Spring—, +3		2	1	0.85	Instruments
751	705	2 x 11/16 x 2-21/32			Spring—, +4½		3	1	1.00	Instruments
752	400	14-1/16 x 2-11/16 x 4-1/16			Recessed Plug—"A", +9 "A", —"B", +90 "B"	6	2	1	8.25	Portable Radio "A-B"
752W	*	14-1/16 x 2-11/16 x 4-1/16			Recessed Plug—"A", +9 "A", —"B", +90 "B", —, +1½	6	8	1	9.25	Portable Radio "A-B"
753	401	9-7/32 x 2-23/32 x 4-5/16			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	4	12	1	7.75	Portable Radio "A-B"
754	402	10-15/32 x 3¼ x 4			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	6	1	1	9.45	Portable Radio "A-B"
755	403	8-9/16 x 3¾ x 2-7/16			Socket—"A", +6 "A", +7½ "A", —"B", +75 "B"	3	9	1	7.25	Portable Radio "A-B"
756	*	8⅞ x 2⅛ x 3-25/32			Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	2	14	1	6.95	Portable Radio "A-B"
757	406	9-7/32 x 2-23/32 x 4-7/32			Recessed Plug—"A", +9 "A", —"B", +90 "B"	4	12	1	7.95	Portable Radio "A-B"
759	*	15-11/16 x 4-1/32 x 6-15/16			Socket—"A", +1½ "A", —"B", +90 "B"	16	4	1	10.65	Farm Radio "A-B"
761T	712	4-1/16 x 1-15/32 x 3½			Screw—, +1½, +3, +4½		14	1	1.90	Telephone Test Sets
762S	709	4-3/32 x 2-9/16 x 5-7/16			Ins. Screw—, +22½, +45	2	12	1	4.35	Instruments
763	710	3½ x 2-3/32 x 2-15/16			Screw—, +22½		14	1	2.35	Instruments
766T	*	6¾ x 4⅛ x 3-15/16			Fahnestock—, +16½, +18, +19½, +21, +22½	4	10	1	6.25	Switchboard Testing
771	*	3-29/32 x 1⅜ x 3-1/16			Socket+, —3, —4½		13	1	2.25	Radio "C"
773	*	3-29/32 x ⅞ x 3⅛			5 Screw; 1 wire+, —1½, —3, —4½, —6, —7½		9	1	2.35	Radio "C"
776	*	7-27/32 x 4⅛ x 9⅞			Socket & Recessed Plug—"A", +7½ "A", +9 "A", —"B", +90 "B"	14	12	1	14.95	Home Receiver "A-B"
778	*	4⅛ x 2-17/32 x 3-7/16			Fahnestock+, —3, —4½ —6, —9, —10½, —16½, —22½	1	8	1	4.45	Instruments
781	*	2-15/32 x 55/64 x 3¼			Screw+, —4½		5	1	1.25	Instruments
785	431	8⅜ x 3⅝ x 2¼			Socket—"A", +7½ "A", —"B", +75 "B"	2	12	1	6.90	Portable Radio "A-B"
789		5-9/32 x 1-7/16 x 3¼			Flat—, +3	1	1.5	1	2.55	Finger Print Camera
799		8-5/32 x 4¼ x 8-19/32			Fahnestock—, +22½, +45, +49½	13	5	1	11.95	Camera Cranking
†904	910	0.445 Diam. x 1.180			Flat Contact—, +1½		0.22	6	0.125	Flashlight, Novelties
†912	24	13/32 Diam. x 1¾			Flat Contact—, +1½		0.3	12	0.15	Flashlight, Toys
†915		9/16 Diam. x 1-31/32			Flat Contact—, +1½		0.6	24	0.20	Flashlight, Toys
†935		1-1/32 Diam. x 1-15/16			Flat Contact—, +1½		1.4	24	0.20	Flashlight, Toys
†950		1-11/32 Diam. x 2-13/32			Flat Contact—, +1½		3	48	0.20	Flashlight, Toys
960P	23	1-11/32 Diam. x 4-1/16			Socket—, +1½		5	1	0.85	Portable Radio "A"
964	20	1-11/32 Diam. x 4-3/16			Flat Contact—, +1½		5.9	12	0.45	Portable Radio "A"
1015	15	9/16 Diam. x 1-31/32			Flat Contact—, +1½		0.6	24	0.25	Transistor Portable
1016		1-9/64 x 19/32 x 2-1/64			Flat Contact—, +1½		1.1	1	0.45	Pocket Radio "A"
1050		1-11/32 Diam. x 2-13/32			Flat Contacts—, + 1-1/2		3.3	48		Industrial
1052P		1-1/8 Diam. 3-29/32			Socket—, + 1.5		3.6	1	0.70	Instrument
1461	907	10-13/32 x 2-25/32 x 7-9/32			Ins. Screw—, +6	9	9	4	4.98	Ignition, Fence Controllers
1462		5⅜ x 5⅜ x 7¼			Ins. Screw—, +6	9	7	4	5.98	Ignition, Fence Controllers
1562	*	7-15/16 x 5 x 7½			Ins. Screw—, +7½	11	10	4	7.25	Ignition, Searchlights
1662	913	7-27/32 x 5-9/32 x 7-9/32			Ins. Screw—, +9	14	1	4	8.25	Ignition, Searchlights
2314	2400	1-21/64 x 1-1/32 x 2⅞			Socket+, —12, —21		3	1	2.25	Transistor Portable
2356	1612	2-3/16 x 1-5/32 x 6¼			Snap Type—, +9	1	1	1	1.60	Transistor Radio
2506	1601	8 x 2-13/16 x 1-9/16			Socket—, +3, +6, +9	1	8	1	2.50	Transistor Portable
2709	1613	1-13/32 x 47/64 x 4-11/16			Snap Type—, +9		4	1	1.50	Transistor Portable
2713	1403	1-13/32 x 47/64 x 4-11/16			Min. Snap—, +6		4	1	1.00	Transistor Portable
2731	1303	2-13/16 x 1¾ x 8-11/32			Socket—, +4½	2	11	1	2.75	Transistor Radio
2744	920	2-21/32 x 2-21/32 x 3⅞			Socket—, +6	1	14	1	1.60	Barricade Flasher, Miscellaneous
2745	924	2-21/32 x 2-21/32 x 4-7/16			Coil Springs—, +6	1	14	1	1.60	Barricade Flasher, Lantern
2746	925	2-21/32 x 2-21/32 x 4⅜			Screw—, +6	1	14	1	1.60	Lighting, Miscellaneous
2761	1608	2-9/32 x 1¼ x 7-31/32			Socket—, +9	1	9	1	2.25	Transistor Portable
2762	1609	2-13/16 x 1¾ x 8-11/32			Socket—, +9	2	11	1	2.75	Transistor Radio
2780	923	5-11/32 x 2-27/32 x 4-5/32			Socket—, +12	3	8	1	3.40	Barricade Flasher, Miscellaneous
E302157		2½ x 1⅜ x 4¼			Socket—, +1.35		13.5	1	15.50	Radio Activity Detection Device
E302158		3¼ x 1⅜ x 4¼			Socket—, +47.25, +22.95, +2.70, +5.40	1	3	1	37.00	Radio Activity Detection Device
E302351		1-1/16 Diam. x 2⅝			Flat Contact—, +5.40		4.5	1	4.10	Indicator
E302478		1-9/32 Diam. x 3⅜			Flat Contact—, +9.80		9	1	6.60	Wire Recorder
E302642		1-9/32 Diam. x 2⅝			Flat Contact—, +7.00		5	1	5.25	Fire Alarm

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

†Flashlight types.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

††Shipped from factory only.

▲Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W-365P.

SECTION 4000

DC POWER SUPPLIES
SILICON & SELENIUM RECTIFIERS

SILICON POWER RECTIFIER

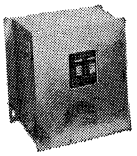
For transistor circuits & electronic equipment
MODEL G92F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 0-30. Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: $145.00 NET

*Also available in 5 Amperes
PRICE: $95.00 NET

INDUSTRIAL POWER UNITS

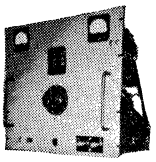


MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts
APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6½" D

PRICE $63.00 NET

SILICON INDUSTRIAL POWER UNIT

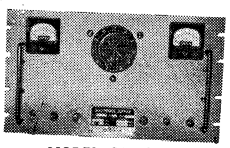


MODEL #G30-40F

INPUT: 115 or 230 Volts AC, 60 cycles, single phase
OUTPUT: 0-32 Volts DC, 0-40 Amperes DC, continuous duty
RIPPLE: 1% RMS
DIMENSIONS: 12¼"Hx19"Wx13"D
REGULATION: D.C.V. at full load: 32 minimum D.C.V. at 1/10 load: 35 maximum

PRICE: $385.00

SILICON POWER RECTIFIER

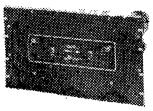


MODEL G30.10FR

INPUT: 115 Volts AC, 60 Cycles, Single Phase
OUTPUT: 0-30 Volts DC, 0-10 Amperes, continuous duty
CONTROL: Continuously variable over entire range
REGULATION: 7% No Load to Full Load
RIPPLE: 0.2% RMS
METERS: 2% Accuracy
DIMENSIONS: 19"Wx13"Dx10½"H

PRICE: $185.00 NET

SILICON RACK MOUNT SUPPLY

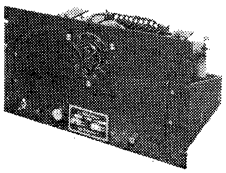


MODEL #GX30-10

INPUT: 115 Volts AC 60 Cycles, Single Phase
OUTPUT: 30 Volts DC 0-10 Amperes Continuous Duty
REGULATION: 10% No Load to Full Load
RIPPLE: Below 0.5% RMS
DIMENSIONS: 8¾" H x 19" W x 10" D

PRICE: $137.50 NET

SELENIUM POWER SUPPLY

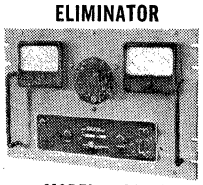


MODEL G48-6FM

INPUT: 115 Volts AC 60 Cycles—Single Phase
OUTPUT: 0-48 Volts DC, 0-6 Amperes
CONTROL: Continuously variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 19" W x 13" D x 10½" H, Fits RETMA, Western Electric racks

PRICE: $190.00 NET

AIRCRAFT BATTERY ELIMINATOR

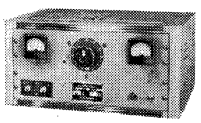


MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty
RIPPLE: 0.5% RMS
Unique overload device prevents needle slam and shows overload condition
REGULATION: D.C.V. at full load: 30
D.C.V. at 1/10 load: 35
METERS: 2% Accuracy

PRICE: $200.00 NET
PRICE: $185.00 LESS DUST COVER
May be used for Rack or Bench

SILICON POWER SUPPLY



MODEL #GS 14-15F

INPUT: 115 Volts AC, 1 Phase, 60 cycles
OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty
RIPPLE: Less than 1% RMS
METER ACCURACY: 2%
DIMENSIONS: 9" H x 17½" W x 9" D

PRICE: $125.00 NET

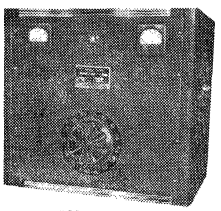
SELENIUM POWER SUPPLY

MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty
REGULATION: 12% No Load to Full Load
RIPPLE: Below 1% RMS
DIMENSIONS: 5" W x 13½" L x Overall Height 10"

PRICE: $75.00 NET

SILICON GENERAL PURPOSE RECTIFIER

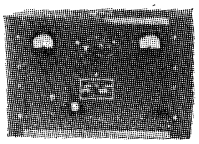


MODEL G-115

INPUT: 115 or 220 Volts AC 60 cycles, 1 Phase
OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 22"H x 19"W x 15"D

PRICE: $475.00 NET

DC POWER SUPPLY

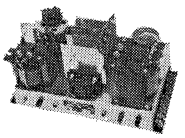


MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase
DC
OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes,
RIPPLE: 100 MV RMS
DIMENSIONS: Rack 8¾" H x 19" L x 9½" D
CABINET: 10½"Hx22"Lx12"D

PRICE: $240.00

SILICON POWER SUPPLY



MODEL GX30-20

INPUT: 115 Volts, 1 Phase, 60 cycles
OUTPUT: 0-34, Volts, DC 0-20 Amperes, continuous duty
REGULATION: No load to full load: 18%
RIPPLE: Below 1% Silicon Rectifiers, High Efficiency
DIMENSIONS: 10" x 17" x 3"

PRICE: $185.00 NET

GATES ELECTRONIC CO.

NEW YORK, N. Y.

Also See Our Ad on Power Supplies Page 1156 in the 4th Edition of the Electronic Engineers Master

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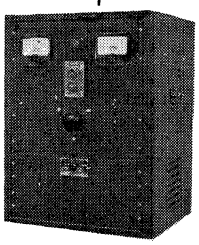
SECTION 4000

DC POWER SUPPLIES
SILICON & SELENIUM RECTIFIERS

SILICON POWER RECTIFIER
Model G50-50R



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-50 volts DC, 0-50 amperes continuous duty

RIPPLE: 0.5% RMS

REGULATION: No Load to Full Load 8%

METERS: 2% Accuracy

SILICON INDUSTRIAL POWER UNIT
Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

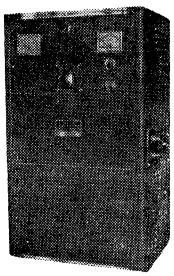
OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR
Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

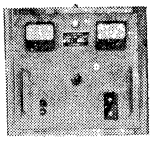
OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty

RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

SILICON REGULATED POWER SUPPLY
Model G530-40M



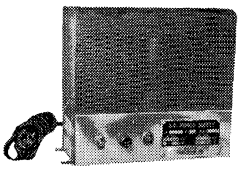
INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 5-30 Volts DC, 0-40 amperes

RIPPLE: 1% RMS

REGULATION: ±1% from no load to full load

METERS: 2% Accuracy



SILICON POWER SUPPLY
Model GX24-1

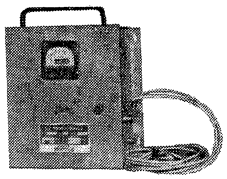
INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 24 Volts DC, 0-1 ampere DC, continuous duty

RIPPLE: 0.4% RMS

REGULATION: 10% no load to full load

PRICE: $50.00



PORTABLE SILICON BATTERY CHARGER
Model G612-20

INPUT: 115 volts AC, 60 cycles, 1 phase

OUTPUT: 6/12 Volts DC, 20 amperes continuous duty

METER: Amp. meter 2% Accuracy

DIMENSIONS: 11"H x 9"W x 6½"D

PRICE: $45.00

BENCH PLATING RECTIFIER
Model G10-8

INPUT: 115 Volts, 50-60 cycles, 1 phase

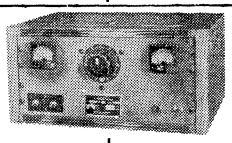
OUTPUT: 10 amperes, 0-8 Volts DC

RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy volt meter, amp. meter

PRICE: $75.00



BENCH PLATING RECTIFIER
Model G30-8

INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 30 amperes, 0-8 Volts DC

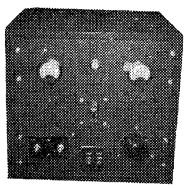
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $115.00

BENCH PLATING RECTIFIER
Model G50-8



INPUT: 115 volts, 50-60 cycles, 1 phase

OUTPUT: 50 amperes, 0-8 Volts DC

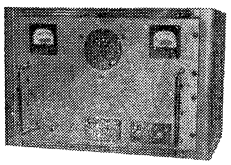
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METER: 2% Accuracy, volt meter, amp. meter

PRICE: $175.00

BENCH PLATING RECTIFIER
Model G100-8



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 100 amperes, 0-8 Volts DC

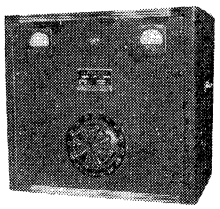
RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $275.00

BENCH PLATING RECTIFIER
Model G200-6



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 200 amperes, 0-6 Volts DC

RECTIFIER: Full wave selenium rectifier

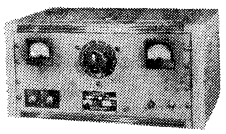
COOLING: Fan

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $395.00

BENCH PLATING RECTIFIER
Model G50-15



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 50 amperes, 0-15 Volts DC

RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $210.00

GATES ELECTRONIC CO.

NEW YORK, N. Y.

© UCP., Inc.

P.R. MALLORY & CO. Inc.

MALLORY DRY BATTERIES

P.R. MALLORY & CO. INC. INDIANAPOLIS, IND. Mercury, Manganese and Zinc-Carbon

MANGANESE ALKALINE BATTERIES

Mallory Number	Volts	Use	Wt. Oz.	Net Each
Mn1306	4.5	Transistor radio	1⅛	65c
Mn1400	1.5	Transistor radio and flashlight	2⅜	51c
Mn1500	1.5	Transistor radio, camera, flashlight	.916	33c
Mn9100	1.5	Transistor radio, camera, flashlight	.444	20c

MERCURY BATTERIES

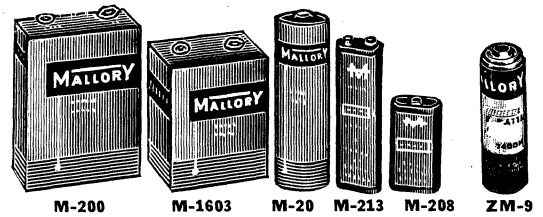
Flat terminals, unless otherwise noted.

Mallory Number	Volts	Cap., MAH	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM-1	1.4	1000	Electronic	⅝ dia. x 21/32	0.75	$0.38
RM-1R	1.35	1000	Electronic	⅝ dia. x 21/32	0.75	.38
RM-1RT†	1.35	1000	Electronic	⅝ dia. x 21/32	0.75	.43
RM-1RT2‡	1.35	1000	Electronic	⅝ dia. x 21/32	0.75	.48
RM-3R	1.35	2200	Electronic	1 dia. x 21/32	0.93	.54
RM-4R	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	.69
RM-4RT†	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	.74
RM-4Z	1.4	2400	Electronic	1.2 dia. x ½	1.2	.58
RM-12	1.4	3600	Electronic	⅝ dia. x 2	2.0	.82
RM-12R	1.35	3600	Electronic	⅝ dia. x 2	2.0	.82
RM-12RT†	1.35	3600	Electronic	⅝ dia. x 2	2.0	.87
RM-12RT2‡	1.35	3600	Electronic	⅝ dia. x 2	2.0	.92
RM-42	1.4	14000	Electronic	1.2 dia. x 2⅜	5.9	1.85
RM-42R	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	2.25
RM-42RT†	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	2.30
RM-42RT2‡	1.35	14000	Electronic	1.2 dia. x 2⅜	5.9	2.35
RM-312	1.4	36	Electronic	5/16 dia. x 9/64	0.01	.23
RM-400R	1.35	75	Electronic	29/64 dia. x 9/64	0.04	.25
RM-401	1.35	800	Electronic	29/64 dia. x 1⅛	0.4	.34
RM-411	14	120	Electronic	1 x 17/32 x 1⅜	1	2.50
RM-412	22.4	120	Electronic	1 x 17/32 x 15/16	1	3.50
RM-413	28	120	Electronic	1 x 17/32 x 2½	1.5	4.50
RM-415§	42	120	Electronic	1 x 17/32 x 3½	2.5	6.50
RM-450R	1.35	350	Electronic	29/64 dia. x 9/16	0.18	.34
RM-502R	1.35	2400	Electronic	½ dia. x 1 31/32	1.05	.62
RM-520	1.4	130	Electronic	½ dia. x 9/32	0.07	.15
RM-601R	1.35	1800	Electronic	⅝ dia. x 1⅝	1.2	.65
RM-625R	1.35	350	Electronic	⅝ dia. x ¼	0.15	.30
RM-625RT†	1.35	350	Electronic	⅝ dia. x ¼	0.15	.35
RM-625RT2‡	1.35	350	Electronic	⅝ dia. x ¼	0.15	.40
RM-630	1.4	350	Electronic	⅝ dia. x ¼	0.17	.30
RM-640*	1.4	500	Electronic	⅝ dia. x 7/16	0.38	.30
RM-640RT2‡	1.35	500	Electronic	⅝ dia. x 7/16	0.38	.40
RM-675	1.4	175	Electronic	29/64 dia. x 13/64	0.07	.26
TR-113R	4.05	250	Electronic	21/32 dia. x 53/64	0.45	1.29
TR-114R	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.50
TR-114RT2‡	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	1.60
TR-115R	6.75	250	Electronic	21/32 dia. x 1 5/16	0.73	1.64
TR-132R	2.7	1000	Electronic	21/32 dia. x 1 5/16	1	.84
TR-133*	4.2	1000	Radio, Paging sys.	21/32 dia. x 2	1.4	1.00
TR-134R	5.4	1000	Electronic	21/32 dia. x 2 39/64	1.9	1.53
TR-135R	6.75	1000	Electronic	21/32 dia. x 3¼	2.4	1.85
TR-136R	8.1	1000	Electronic	21/32 dia. x 3 29/64	2.9	2.30
TR-145	7	250	Electronic	21/32 dia. x 1⅝	0.58	1.58
TR-146§*	8.4	350	Radio	1 x 19/32 x 1 5/16	1.6	1.37
TR-152R	2.7	350	Electronic	15/32 dia. x 1⅛	0.42	.72
TR-153R	4.05	350	Electronic	15/32 dia. x 1 1/16	0.6	.92
TR-162R	2.7	500	Electronic	21/32 dia. x ⅞	0.58	.87
TR-163	4.2	500	TV tuner	21/32 dia. x 1 5/16	0.87	1.10
TR-164*	5.6	500	Radio	21/32 dia. x 1¾	1.16	1.35
TR-165	7	500	TV tuner	21/32 dia. x 2⅜	1.45	1.64
TR-169	12.6	.....	Electronic	.....	2.88	3.20
TR-175	7	350	Radio	31/64 dia. x 1½	1	1.02
TR-177§*	9.8	250	Radio	35/64 dia. x 1 39/64	1	1.37
TR-233	4.2	2200	Radio	1 1/64 dia. x 1 31/32	3	1.80
TR-234	5.6	2200	Electronic	1 dia. x 2 19/32	3.88	2.44
DM-9N	1.4	2400	Radio	½ dia. x 1 31/32	1	.54
ZM-9*	1.4	2400	Radio	½ dia. x 1 31/32	1	.51

*Available in plastic jewel box, add suffix **P**, e.g., TR-146**P**. †1 tab, 1 flat terminal. ‡2 tab terminals. §Snap terminals.

MERCURY POWER-PAK BATTERIES

Mallory Number	Volts	Cap., MAH	Use	Terminals	Net Each
302125-M	7.0	2400	Fire alarm	Flat	$ 4.25
302157	1.35	28000	Radiation eqpt.	Sckt	10.35
302158	22.95, 2.7 47.25, 5.4	500	Radiation eqpt.	Sckt	24.38
302227	4.05	250	P.H. meter	Tabs	1.65
302229	5.4	250	P.H. meter	Tabs	1.75
302240	24.3	2400	Instruments	Leads	22.50
302249	6.75	250	Radiation eqpt.	Tabs	2.28
302250	9.45	250	Radiation eqpt.	Tabs	2.45
302257	1.35	14400	Test equipment	Leads	7.40
302271-M	1.35-13.5	3600/250	Electronic	Leads	5.18
302351-M	5.4	2200	Fire alarm	Flat	2.67
302354	5.4	250	Radiation eqpt.	Leads	1.80
302358	10.8	250	Radiation eqpt.	Leads	2.83
302360	8.1	250	Radiation eqpt.	Leads	3.60
302362	16.2	250	Radiation eqpt.	Leads	3.87
302424	6.75	1000	Instruments	Tabs	2.57
302425	48.6	250	"B"	Snaps	16.51
302435	6.75	250	Radiation eqpt.	Flat	2.28
302437	9.45	250	Radiation eqpt.	Flat	2.30
302462	97.2	1000	Transmitter "B"	Leads	32.34
302464	6.75	3600	Geophysical	Leads	7.35
302465	47.25	1000	Geophysical	Leads	15.40
302467	5.4	1000	Test equipment	Tabs	1.85
302478-M	9.8	2400	Recorder	Flat	4.29
302497	6.75	2200	Test equipment	Posts	4.16
302499	64.8	500	Missile	Leads	28.50
302502	94.5	250	Geophysical	Leads	26.50
302506	16.2, 4.05	250	Telemetry	Leads	9.17
302510	1.35	43200	Computer	Posts	15.44



M-200 M-1603 M-20 M-213 M-208 ZM-9

MERCURY POWER-PAKS (CONTINUED)

Mallory Number	Volts	Cap., MAH	Use	Terminals	Net Each
302519	5.4	7200	Test equipment	Leads	$11.47
302527	97.2	250	"B"	Leads	26.50
302530	10.8	14000	Missile	Posts	38.48
302539	21.5	250	Electronic	Sckt	9.78
302540	1.35	14000	Test equipment	Tabs	2.86
302554	97.2	250	"B"	Snaps	26.50
302558	64.8, 34.1	500	Missile	Leads	25.50
302579	29.7	250	Test equipment	Leads	10.85
302580	27	3400	Electronic	Sckt	21.40
302589	21.5	250	Electronic	Sckt	12.20
302604	5.4	250	Electronic	Flat	1.37
302609	12.15	250	Electronic	Flat	2.70
302642	7.0	2400	Fire alarm	Flat	3.40
302651	1.35	14000	Electronic	Leads†	3.62
302667	6.7	14000	Electronic	Leads	22.37
302702	2.7	2200	Geophysical	Leads	2.67
302795	10.75	3600	Electronic	Sckt	15.37
302800	75.6	1000	Electronic	Snaps	27.50
302830	12.06-6.7	1000/7200	Electronic	Sckts	19.25
302896	9.4, 1.35	3600	Recorder	Snaps‡	15.80
302904	5.4	3400	Meter	Leads	4.32
302905	6.75	3400	Test equipment	Leads	5.65
302907	9.45	3400	Electronic	Leads	6.70
302908	10.8	3400	Radiation eqpt.	Leads	7.48
303145	8.4	3600	Depth finder	Snap	6.33
303203	4.05	2200	Electronic	Flat	1.80
303219	9.8	175	Electronic	Flat	1.80

†Special leads. ‡Three negative leads.

MERCURY VOLTAGE REFERENCE BATTERY

Mallory No. 303113—Eight outputs, 0–10.80 v. in 1.35 v. steps. **Size:** 6½″ x 2⅝″ x 1″. In lined leatherette case with complete technical information. Net Each..... **$39.50**

ZINC-CARBON BATTERIES

Mallory No.	Nom. Volts	Use	T*	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M-4	1.5	Radio "A"	a	2 11/16 x 2 11/16 x 4 7/16	20	$1.16
M-6	6	Radio "A"	a	2 9/16 x 2 9/16 x 3 31/32	9	1.16
M-9	7.5	Radio "A"	a	2 7/32 x 1 15/16 x 3 1/32	31	1.15
M-13F	1.5	Flashlight "D"	b	1 11/32 dia. x 2 13/32	3.3	.13
M-13R	1.5	Radio "D"	b	1 11/32 dia. x 2 13/32	3.3	.155
M-13X	1.5	Industrial "D"	b	1 11/32 dia. x 2 13/32	3.3	#
M-14F	1.5	Flashlight "C"	b	1 1/32 dia. x 1 15/16	1.5	.13
M-14R	1.5	Radio "C"	b	1 1/32 dia. x 1 13/16	1.5	.155
M-15F	1.5	"AA" penlight	b	9/16 dia. x 1 31/32	0.5	.13
M-15R	1.5	Radio penlight	b	9/16 dia. x 1 31/32	0.5	.155
M-20	1.5	Radio "A"	b	1 3/16 dia. x 4 11/64	6	.32
M-24F	1.5	Junior penlight	b	13/32 dia. x 1¾	0.3	.095
M-26	7.5	Radio "A"	c	2 9/16 x 2 1/32 x 2 13/16	12	1.05
M-200	67.5	Radio "B"	c	2 13/16 x 1 5/8 x 3 45/64	12	2.45
M-201	45	Radio "B"	c	2 21/32 x 1 x 3 11/16	9	2.08
M-202	45	Radio "B"	a	3 19/32 x 1 27/32 x 5 1/32	31	2.70
M-208	15	Electronic "B"	b	1 1/32 x 5/8 x 1 29/64	0.8	.81
M-210	30	Electronic "B"	b	1 1/32 x 5/8 x 2 9/16	1.4	1.23
M-211P	67.5	Radio "B"	c	1 29/32 x 63/64 x 5 7/16	8.5	2.27
M-212	75	Radio "B"	c	1 15/16 x 1 15/32 x 6 15/32	14	3.15
M-213	45	Radio "B"	c	1 3/64 x 5/8 x 3 11/16	3	1.75
M-214	90	Radio "B"	c	1 31/32 x 1 1/32 x 7 15/32	12	2.77
M-215	22.5	Radio "B"	b	1 1/32 x 5/8 x 2	1.5	1.05
M-217	67.5	Radio "B"	c	1 31/64 x 63/64 x 3 1/2	4.6	2.07
M-401	7½, 9, 90	Radio "A-B"	a	9 7/32 x 2 23/32 x 4 5/16	76.0	5.43
M-405	7½, 9, 90	Radio "A-B"	a	8 1/32 x 2 1/32 x 3 25/32	46.0	4.87
M-413	1½, 90	Farm radio	a	15 11/16 x 4 1/32 x 6 15/16	260.0	7.95
M-504	15	Electronic "B"	b	5/32 x 19/32 x 1 3/8	0.6	.81
M-505	22.5	Electronic "B"	b	5/32 x 19/32 x 1 63/64	0.6	1.05
M-506	30	Electronic "B"	b	1 13/64 x 3/8 x 1 27/64	0.9	1.30
M-507	30	Electronic "B"	b	5/32 x 19/32 x 2 39/64	0.9	1.30
M-900	1.5	Ignition	e	2 3/8 x 2 5/32 x 4 9/64	20	.84
M-902	6	Lighting	e	8 1/16 x 2 13/32 x 6 7/16	94.0	4.01
M-903	7.5	Lighting	e	7 1/4 x 4 1/16 x 6 7/16	122.0	4.86
M-904	9	Lighting	e	8 17/64 x 4 1/16 x 6 7/16	136.0	5.53
M-905	1.5	Ignition	e	2 5/8 dia. x 6 5/8	34	.84
M-906	1.5	Telephone	f	2 5/8 dia. x 6 5/8	34	.84
M-907	6	Industrial	e	10 13/32 x 2 25/32 x 7 9/32	153	3.34
M-908	6	Metal lantern	g	2 11/16 x 2 11/16 x 4 7/16	21	.79
M-910F	1.5	Flashlight "N"	b	29/64 dia. x 1 3/16	0.22	.08
M-911	1.5	R.R., Indust.	e	2 5/8 dia. x 6 5/8	34	.90
M-914	1.5	Ignition	f	2 5/8 dia. x 6 5/8	34	.84
M-915	6	Lighting	e	2 11/16 x 2 11/16 x 4 7/16	21	.79
M-916	6	R.R. lantern	g	2 11/16 x 2 11/16 x 4 7/16	21	.79
M-918	6	Lighting	e	5 11/32 x 2 27/32 x 4 15/16	52	1.83
M-920	6	Flasher	a	2 11/16 x 2 11/16 x 4 7/16	21	#
M-1600	9	Radio	c	1 dia. x 1 15/16	1.8	.62
M-1602	9	Radio	c	1 13/32 x 1 11/32 x 2¾	4.5	1.30
M-1603	9	Radio	c	2 1/16 x 2 1/32 x 3 5/32	15	1.26
M-1604	9	Radio	c	1 1/32 x 1 11/16 x 1 29/32	1.3	.48
M-1605	9	Radio	c	1 13/16 x 1 13/16 x 2 7/16	7	1.05
M-1611	9	Radio	b	¾ dia. x 2	7	.53
M-1900	13.5	Radio	a	1 21/64 x 1 1/32 x 2 11/16	3	1.05

*Terminals: **a**—Socket. **b**—Flat. **c**—Snap. **d**—Recessed plug. **e**—Screw. **f**—Fahnestock clip. **g**—Coil spring. #Write for price.

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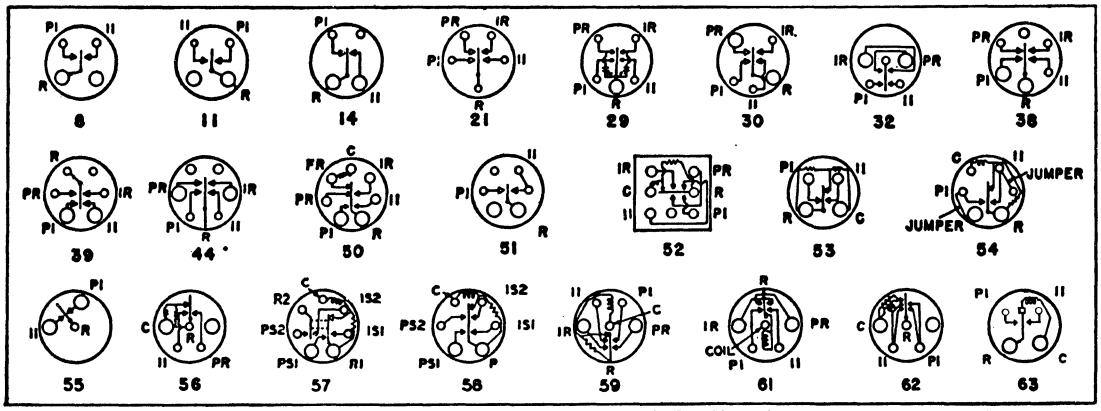
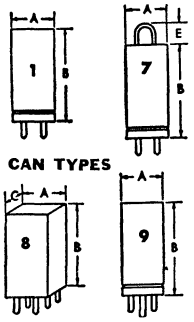
P.R. MALLORY & CO. INC. INDIANAPOLIS, IND.

VIBRATORS
BUFFER CAPACITORS



BASE DIAGRAMS: C = Coil; FR = Frame; II = Inertia Interrupter; IR = Inertia Rectifier; IS = Inertia Spring; PI = Pull Interrupter; PR = Pull Rectifier; PS = Pull Spring; R = Reed.

Mallory Vibrators are assembled from carefully matched materials built to extremely close tolerances, assuring perfect balance and precise operation. Crude rubber insulation and heavy cans effectively deaden sound and vibration. Every Mallory vibrator is tested for output, starting voltage and wave form. If Mallory type number is not known refer to diagram above or write for **VIBRATOR GUIDE, 15c** FREE when request is included with order for Mallory Vibrators.



COMMUNICATION TYPE

Designed for mobile communications and other heavy duty uses. Engineered to the finest standards and will give long, trouble-free service when used as recommended.

Mallory No.	Volts	Type	Base Diag.	Size, Inches	Net Each
G1501	12	Int.	53	1½ x 2⅞	$4.14
G1502	12	Int.	54	1½ x 2⅞	2.94
G1801	12	Syn.	32	1½ x 2⅞	5.13
G1807	12	Syn.	44	1½ x 2⅞	5.13
1501	6	Int.	53	1½ x 2⅞	3.81
1512	6	Int.	54	1½ x 2⅞	4.14
1513	6/12	Int.	56	1½ x 2⅞	4.14
1514	6	Int.	53	1½ x 2⅞	4.14
1701	6	Int.	57	1½ x 3	5.76
1751	6	Int.	58	1½ x 3	5.88
1752	6/12	Int.	62	1½ x 3	5.82
1807	6	Syn.	44	1½ x 2⅞	4.62
1808	6	Syn.	38	1½ x 2⅞	4.62
1813	6	Syn.	32	1½ x 2⅞	4.62
1852	6	Syn.	59	1½ x 2⅞	5.82

BUFFER CAPACITORS

Tubular paper capacitors have case molded from high grade, mineral-filled bakelite; sealed against moisture and mechanical shock by epoxy resin. Double tinned copperweld wire leads. Tolerance, ±10%. Working voltage, 1600 v. DC; test 3200 v. DC.

Mallory No.	Capacity µf	Size, Inches Dia. x Length	Net Each
GEM-1621	.001	3/8 x 1¼	39c
GEM-16215	.0015	3/8 x 1¼	39c
GEM-1622	.002	3/8 x 1¼	39c
GEM-16225	.0025	7/16 x 1¼	45c
GEM-1623	.003	7/16 x 1¼	39c
GEM-16233	.0033	7/16 x 1¼	39c
GEM-1624	.004	7/16 x 1¼	39c
GEM-16247	.0047	7/16 x 1¼	39c
GEM-1625	.005	1/2 x 1½	39c
GEM-16256	.0056	1/2 x 1½	39c
GEM-1626	.006	1/2 x 1½	39c
GEM-16268	.0068	1/2 x 1½	39c
GEM-1627	.007	1/2 x 1½	39c
GEM-16275	.0075	1/2 x 1½	39c
GEM-1628	.008	1/2 x 1½	39c
GEM-16282	.0082	1/2 x 1½	39c
GEM-1611	.01	1/2 x 1½	42c
GEM-161125	.0125	5/8 x 1⅞	42c
GEM-1612	.02	5/8 x 1⅞	36c
GEM-16122	.022	5/8 x 1⅞	45c
GEM-1613	.03	5/8 x 1⅞	42c
GEM-1614	.04	3/4 x 2¼	42c
GEM-1615	.05	3/4 x 2¼	42c

COMMON AUTO REPLACEMENT TYPES

Famous **"Gold Label"** models indicated by *.

Mallory No.	Volts	Type	Base Diag.	Can Type	Size, In. A x B x C	Net Each
G1601*	12	Int.	8	1	1½ x 2⅝	$2.82
G1602*	12	Int.	55	9	1½ x 2⅝	2.82
W1601	4	Int.	8	1	1½ x 2⅝	2.94
509P	6	Int.	8	1	1½ x 2⅞	2.49
716	6	Syn.	30	7	1 15/16 x 3½	4.62
903M	6	Int.	8	1	1½ x 2⅞	2.16
1501	6	Int.	53	1	1½ x 2⅞	3.81
1601*	6	Int.	8	1	1½ x 2⅝	2.82

COMPLETE VIBRATOR SPECIFICATIONS

Mallory No*	†	Volts	Type	Base Diag.	Can Type	Size, Inches A x B x C	Net Each
F294	1	32	Int.	8	1	1½x2⅞	$4.29
F826S	1, 2	32	Int.	8	1	1½x2⅞	4.62
G294	...	12	Int.	8	1	1½x2⅞	5.13
G1501	1	12	Int.	53	1	1½x2⅞	4.14
G1502	...	12	Int.	54	.....	1½x2⅞	2.94
G1601	...	12	Int.	8	1	1½x2⅝	2.82
G1602	...	12	Int.	55	9	1½x2⅝	2.82
G1603S	1, 2	12	Int.	8	1	1½x2 15/16	4.62
G1604	...	12	Int.	8	1	1¼x2 3/16	4.62
G1801	...	12	Syn.	32	1	1½x2⅞	5.13
G1801S	1, 2	12	Syn.	32	1	1½x2 15/16	5.97
G1802S	1, 2	12	Syn.	21	1	1½x2 15/16	5.97
G1803S	...	12	Int.	38	1	1½x3	5.97
G1807	...	12	Syn.	44	1	1½x2⅞	5.13
G1808	...	12	Syn.	38	1	1½x2⅞	5.13
M1501	...	24	Int.	53	1	1½x2⅞	4.14
T4002	...	2	Syn.	52	8	1½x2½x1½	6.42
T4003	...	2	Syn.	50	1	1 5/16x2⅛	5.88
W1601	3	4	Int.	8	1	1½x2⅝	2.94
W1802	3	4	Syn.	21	1	1½x2⅞	4.95
273C	...	6	Syn.	29	1	2x4½	5.49
294	...	6	Int.	8	1	1½x2⅞	2.94
298	...	6	Int.	51	1	1½x2⅞	3.81
509P	...	6	Int.	8	1	1½x2⅞	2.49
716	...	6	Syn.	30	7	1 15/16x3½	4.62
743	...	6	Syn.	38	1	1¼x2⅞	4.62
825S	1, 2	6	Int.	8	1	1½x2⅞	4.14
854	...	6	Int.	11	1	1½x2⅞	2.94
870	...	6	Int.	14	1	1½x2⅞	2.94
903M	...	6	Int.	8	1	1½x2⅞	2.16
954	...	6	Syn.	39	1	1½x3 5/16	4.62
1501‡	1	6	Int.	53	1	1½x2⅞	3.81
1512‡	...	6	Int.	54	1	1½x2⅞	4.14
1513‡	...	6/12	Int.	56	1	1½x2⅞	4.14
1514‡	...	6	Int.	53	1	1½x2⅞	4.14
1601	1	6	Int.	8	1	1½x2⅝	2.82
1603S	1, 2	6	Int.	8	1	1½x2 15/16	3.81
1604	...	6	Int.	8	1	1 5/16x2 3/16	2.94
1609	...	6	Int.	63	1	1½x2⅞	3.30
1701‡	...	6/12	Int.	57	1	1½x3	5.76
1751‡	...	6	Int.	58	1	1½x3	5.88
1752‡	...	6/12	Int.	62	1	1½x3	5.82
1801S	1, 2	6	Syn.	32	1	1½x2 15/16	5.13
1802	1	6	Syn.	21	1	1½x2⅞	4.62
1806	...	6	Syn.	61	1	1½x2⅞	4.62
1807‡	...	6	Syn.	44	1	1½x2⅞	4.62
1808‡	...	6	Syn.	38	1	1½x2⅞	4.62
1813‡	...	6	Syn.	32	1	1½x2⅞	4.62
1852‡	...	6	Syn.	59	1	1½x2⅞	5.82
GC7	4	Ground Cup		.....	.....		.27
AR-1	5	Adapter		.....	.....		.90
VP-1	...	Vibrator Puller		.....	.....		1.65

†—**1:** For new equipment design only, other types for replacement purposes only. **2:** Hermetically sealed. **3:** Designed for photoflash applications. **4:** A grounding cup for 1½" dia. vibrators which makes low RF ground between vibrator can and power supply. **5:** Five special sockets for Practical Vibrator tester. Supplied as complete kit only. **Int.**—Interrupter. **Syn.**—Synchronous. ‡For Mobile communications and heavy duty uses.

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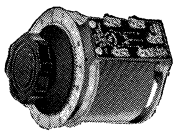
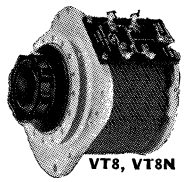
OHMITE®

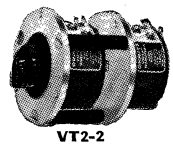
RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

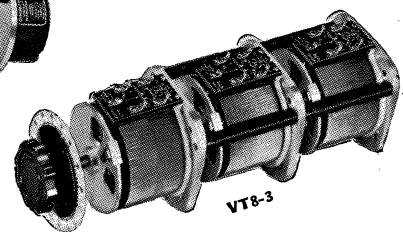
OHMITE "V.T." VARIABLE TRANSFORMERS

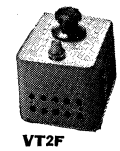

VT4, VT4N

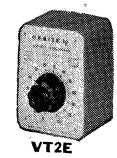
VT2, VT2N


VT8, VT8N

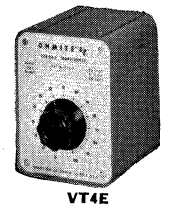

VT2-2

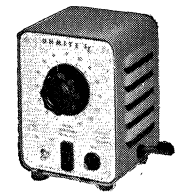

VT8-3

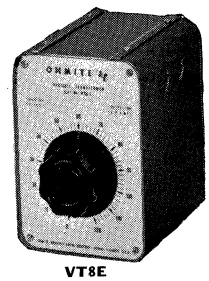

VT2F


VT2E

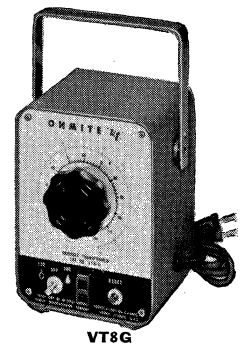
Toroidal core type autotransformers providing distortion-free continuously adjustable voltage from fixed AC input. Highly advanced Ohmite design. Sizeable bonus in current available in all units where output greater than line volts ("overvoltage") is not required ("N" suffix); "LN" suffix indicates low input (36V max.) and very high current output; positive current transfer achieved with direct brush to slip spring shunt. **Mounting:** VT2 panel mounting by ⅜-32 bushing; VT2 tandem units by ¼-20 bolts; all VT4 and VT8 types panel or table mounting by ¼-20 bolts; VT20, VT20B, panel or table mounting by four ⅜" dia. bolts or three ⅜-24 bolts. Shafts of VT4, VT8, VT20 units slide to brush or base side. Units not cased except where indicated. Frequency 60 to 400 cps except *50 to 400. Over-all dimensions include shaft. Suffixes "-2" and "-3" indicate number of units in tandem assembly (shipped with connection instructions). Cased units (grey crackle) as follows: VT2E, VT4E, VT8E—fixed mounting, in-conduit-line; VT2F, VT4F, VT8F—portable with switch, outlet, fuse; VT8G—portable with overvoltage—no-overvoltage switch, outlet, circuit breaker, adjustable handle (not included in dimension); VT20B—basic protective enclosure which exposes transformer terminal panel.

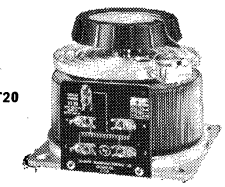

VT4E

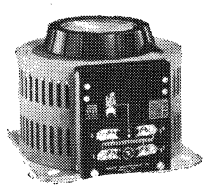

VT4F


VT8E

VT8F


VT8G


VT20


VT20B

SINGLE PHASE
SINGLE TRANSFORMERS—UNCASED

Ohmite No.	Max. Output Amps	Max. Output Volts	Feature or Connection	Size, Inches	Wt.††† Lbs.	Net††† Ea., 1-5▲
VT2	1.5	0-120/132	Basic 1.5 amp model	$2^{13}/_{16}$ dia. x $2^{15}/_{16}$	2.4	$ 8.50
VT2N	1.8	0-120	No overvoltage	$2^{13}/_{16}$ dia. x $2^{15}/_{16}$	2.4	9.00
VT2LN*	5.0	0-36	36 v max in. Hi Amps.	$2^{13}/_{16}$ dia. x $2^{15}/_{16}$	2.4	9.75
VT4*	3.5	0-120/140	Basic 3.5 amp model	$3^{9}/_{16}$ x $4^{7}/_{32}$ x $4^{3}/_{4}$	5.25	12.50
VT4N*	4.75	0-120	No overvoltage	$3^{9}/_{16}$ x $4^{7}/_{32}$ x $4^{3}/_{4}$	5.25	13.00
VT4LN*	12.0	0-36	36 v. max in. Hi Amps.	$3^{9}/_{16}$ x $4^{7}/_{32}$ x $4^{3}/_{4}$	5.25	17.00
VT8*	7.5	0-120/140	Basic 7.5 amp model	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $5^{1}/_{2}$	10.25	18.00
VT8N*	10.0	0-120	No overvoltage	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $5^{1}/_{2}$	10.25	18.50
VT8H*	3.0	0-240/280	240 v. input**	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $5^{1}/_{2}$	10.25	20.00
VT8HN*	4.0	0-240	240 v. input. No overvoltage**	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $5^{1}/_{2}$	10.25	21.00
VT8LN*	12.0	0-36	36 v. max in. Hi Amps.	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $5^{1}/_{2}$	10.25	22.50
VT20*	20.0	0-120/140	Basic 20 amp model	$7^{1}/_{2}$ x $8^{1}/_{16}$ x $5^{9}/_{16}$	22.0	45.00
SINGLE TRANSFORMERS—CASED						
VT2E	1.2	0-132‡	Fixed mounting	$3^{1}/_{4}$ x $2^{1}/_{2}$ §§ x $4^{1}/_{4}$	2.8	$12.50
VT2F	1.5	0-132§	Portable	$3^{1}/_{4}$ x $2^{1}/_{2}$ §§ x $4^{1}/_{4}$	3.2	14.50
VT4E*	2.8	0-140‡	Fixed mounting	$4^{1}/_{2}$ x $4^{1}/_{2}$ §§ x 6	7.4	17.50
VT4F*	3.5	0-140§	Portable	$4^{7}/_{8}$ x $4^{1}/_{2}$ §§ x 6	7.8	18.50
VT8E*	6.0	0-140‡	Fixed mounting	$5^{5}/_{16}$ x $5^{5}/_{16}$ ## x $7^{5}/_{16}$	13.5	23.00
VT8F*	7.5	0-140§	Portable	$5^{15}/_{32}$ x $5^{5}/_{16}$ ## x $7^{5}/_{16}$	13.8	24.00
VT8G*	6.0	0-120/140§	De luxe portable	$5^{3}/_{4}$ x $5^{5}/_{16}$ ## x $7^{5}/_{16}$●	14.2	28.50
VT20B*	20.0	0-120/140	Basic encl. 20 amp	$7^{1}/_{2}$ x $8^{1}/_{16}$ x $5^{11}/_{16}$	22.0	50.00
TWO-IN-TANDEM ASSEMBLIES††						
VT2-2	1.5	0-240/264	Series connection‡‡	$3^{15}/_{16}$ dia. x $6^{3}/_{16}$	5.25	$25.00
VT2N-2	1.8	0-240	Series connection‡‡	$3^{13}/_{16}$ dia. x $6^{3}/_{16}$	5.25	26.00
VT4-2*	3.5	0-240/280	Series connection‡‡	$4^{5}/_{32}$ x $4^{13}/_{16}$ x $8^{7}/_{8}$	11.3	37.00
VT4N-2*	4.75	0-240	Series connection‡‡	$4^{5}/_{32}$ x $4^{13}/_{16}$ x $8^{7}/_{8}$	11.3	38.00
VT8-2*	7.5	0-240/280	Series connection‡‡	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{3}/_{16}$	20.6	44.50
VT8N-2*	10.0	0-240	Series connection‡‡	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	45.50
VT8H-2*	3.0	0-480/560	Series connection‡‡	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	48.50
VT8HN-2*	4.0	0-480	Series connection‡‡	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	50.50
THREE PHASE TWO-IN-TANDEM ASSEMBLIES††						
VT2-2	1.5	0-120/132	Open delta connection	$3^{13}/_{16}$ dia. x $6^{3}/_{16}$	5.25	$25.00
VT2N-2	1.8	0-120	Open delta connection	$3^{13}/_{16}$ dia. x $6^{3}/_{16}$	5.25	26.00
VT4-2*	3.5	0-120/140	Open delta connection	$4^{5}/_{32}$ x $4^{13}/_{16}$ x $8^{7}/_{8}$	11.3	37.00
VT4N-2*	4.75	0-120	Open delta connection	$4^{5}/_{32}$ x $4^{13}/_{16}$ x $8^{7}/_{8}$	11.3	38.00
VT8-2*	7.5	0-120/140	Open delta connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{3}/_{16}$	20.6	44.50
VT8N-2*	10.0	0-120	Open delta connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	45.50
VT8H-2*	3.0	0-240/280	Open delta connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	48.50
VT8HN-2*	4.0	0-240	Open delta connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $10^{5}/_{16}$	20.6	50.50
THREE-IN-TANDEM ASSEMBLIES††						
VT2-3	1.5	0-240#	"Y" connection	$3^{13}/_{16}$ dia. x $8^{15}/_{16}$	8.0	$40.00
VT4-3†	3.5	0-240/280	"Y" connection	$4^{5}/_{32}$ x $4^{13}/_{16}$ x $12^{15}/_{16}$	17.0	59.50
VT8-3†	7.5	0-240/280	"Y" connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $15^{1}/_{8}$	31.0	64.00
VT8H-3†	3.0	0-480/560	"Y" connection	$4^{7}/_{8}$ x $5^{11}/_{16}$ x $15^{1}/_{8}$	31.0	70.00

*Frequency 50 to 400 cps: all others 60 to 400. †May be used at 50 cps if connected for no-overvoltage output. ‡User wires for desired output. Dial normally calibrated for overvoltage. §Factory connected overvoltage output, may be also easily reconnected for no-overvoltage output. VT8G has overvoltage/no-overvoltage switch. #Overvoltage connection must not be used. **Also have taps for 120 v. input with 280 v. output for VT8H and 240 v. output for VT8HN. With use of 120 v. input the max. current rating applies up to 120 v. output but reduces to approx. 50% at max. output voltage. ††Tandem assemblies normally furnished without interconnection between units. ‡‡When series connected, load cannot be grounded. §§Add ⅞" for knob thicknesses. ##Add 1" for knob thickness. ●Case height only. †††Includes knob and dial. ▲Write for prices on Larger quantities,

ACCESSORIES

No. 6512 Adapter Plate—For four-hole mtg. of VT4. Matches other popular four-hole mtgs. Two sets of four panel mtg. holes (¼"-20 tap): 2¾" centers and 3¼" centers. Net Ea., 1-5▲..... **67c**

BRUSH-CONTACT ASSEMBLIES

No. 6514 (VT2 types expt. LN); **No. 6515** (VT4 types expt. LN)—Net Ea., 1-5▲..... **$1.00**

No. 6516 (VT8 types expt. H, HN, LN); **No. 6516H** (VT8H, HN only). Net Ea., 1-5▲..... **$1.25**

No. 6517 (for VT2LN), **No. 6518** (for VT4LN) Net Ea., 1-5▲..... **$2.00**

No. 6519 (for VT8LN), Net Ea., 1-5▲..... **$2.50**

No. 6590 (for VT20), Net Ea., 1-5▲..... **$1.75**

EXTRA DIALS

Ohmite No.	For VT Types	Dial Calibration	Net Ea., 1-5▲
5005	VT2	0-120, 0-132 CW	$ .25
5011	VT2	0-100, 100-0 CW	.25
5006	VT4, VT8	0-120, 0-140 CW	.50
5008	VT4, VT8	0-120, 0-140 CCW	.50
5009	VT4, VT8	0-240, 0-280 CW	.50
5010	VT4, VT8	0-240, 0-280 CCW	.50
5012	VT4, VT8	0-100, 100-0 CW	.50
5013	VT20	0-120, 0-140 CW	1.20

EXTRA KNOBS▲

5116 for VT2 Types Net. ea..... $ .50
5155 for VT4, VT8 Types Net. ea..... 1.00
5157 for VT20 Types Net. ea. 1-5..... 1.75

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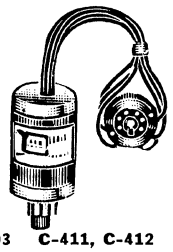
Perma-Power® TV Accessories

C-202, C-212, C-222

C-401, C-402, C-403


C-411, C-412

C-301, C-311

C-201

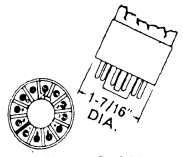
K-101

T-101

T-201

TV TUBE BRITENERS, SERVICE AIDS

2-BRITE UNIVERSAL TV BRITENER



Model C-202 Duodecal Base | Model C-212 110° Button Base | Model C-222 110° Shell Base

- **IF THE BASE IS RIGHT—THE BOOST IS RIGHT**
- **THE MOST UNIVERSAL BRITENER EVER MADE**
- **WORKS ON ANY SET—SERIES OR PARALLEL—REGARDLESS OF HEATER RATING**
- **FITS ALL BASE STYLES**

Truly universal Britener that can be used on any black and white set without endangering the delicate filaments through too much boost. Designed to give a full 50% heater power boost for all heater voltage and current ratings: 2.34 v., 600 ma; 2.68 v. 450 ma; 4.7 v., 300 ma; 6.3 v., 300 ma; 6.3 v., 450 ma; 6.3 v., 600 ma; and, 8.4 v., 450 ma. Convenient, top-located slide switch selects for series or parallel wiring. Will not harm picture tube if used with wrong setting. Simply choose correct base style from chart, above, and install with confidence. **$2.25**

Perma-Power Model C-202—Duodecal base. Net Each...

Perma-Power Model C-212—Button base 110° (RCA type). Net Each **$2.25**

Perma-Power Model C-222—Shell base 110° (Sylvania-DuMont type). Net Each **$2.25**

VU BRITENERS MODELS C-401, C-402, C-411

Single-purpose autoformer Briteners. Provides 50% power boost for heaters rated 6.3 volts, 0.300, 0.450 or 0.600 ampere. Operates on electrostatic or magnetic focus TV picture tubes. Shipping Weight, 8 oz.

Perma-Power Model C-401—For sets with parallel wired filaments only; duodecal base. Net Each **89c**

Perma-Power Model C-402—For sets with series wired filaments only; duodecal base. Net Each **89c**

Perma-Power Model C-411—For sets with parallel wired filaments only; 110° button base. Net Each **$1.49**

VU BRITENERS MODELS C-403, C-412

Single purpose autoformer Briteners. For heaters rated at 2.34 volts, 0.6 ampere; 2.68 volts, 0.450 ampere; 4.7 volts, 0.300 ampere; 6.3 volts, 0.300, 0.450, or 0.600 ampere; and 8.4 volts, 0.450 ampere. Operate on electrostatic or magnetic focus television picture tubes. Shipping Weight, 8 ounces.

Perma-Power Model C-403—For sets with series wired filaments only; duodecal base. Net Each **$1.12**

Perma-Power Model C-412—For sets with series wired filaments only; 110° button base. Net Each **$1.75**

BRITENER MODELS C-301 AND C-311

BRITENS AND ISOLATES PARALLEL OR SERIES TV PICTURE TUBES

Multi-purpose isolation transformer Briteners. For all 6.3 volt heater ratings on electrostatic or magnetic focus TV picture tubes. Provides 6.3 volts to filament to relieve cathode-filament short problems or 8.0 volts to increase cathode emission. Simple switch permits quick, easy selection. Operates on either series or parallel wired filaments. Shpg. Wt., 10 oz.

Perma-Power Model C-301—For picture tubes with conventional duodecal base. Net Each **$2.67**

Perma-Power Model C-311—For picture tubes with 110° button base. Net Each **$2.98**

GOLDEN C-BRITE MODEL C-201

BRITENS PARALLEL OR SERIES TV PICTURE TUBES

A dual purpose autoformer Britener. Features a gold-anodized aluminum housing. Exclusive, reversible plug adapts to either parallel or series wired filaments. For all 6.3 volt heater ratings on electrostatic or magnetic focus TV picture tubes. Provides an output of 8.0 volts. Shpg. Wt., 8 oz.

Perma-Power Model C-201—For picture tubes with conventional duodecal base. Net Each **$1.49**

TV TUBE RESTORER MODEL K-101

Unique design, locates and corrects for dozens of picture tube faults: Open cathode; heater to cathode short; open control grid; control grid to cathode short; low emission; or any combination of these defects. For all 6.3 volt heater ratings on electrostatic or magnetic focus TV picture tubes. Use as an isolation Britener or for extra high power boost. Shpg. Wt., 1 lb.

Perma-Power Model K-101—For picture tubes with conventional duodecal base. Net Each **$3.98**

COLOR BRITE MODEL C-501

TO BRITEN COLOR TV PICTURE TUBES

Single-purpose autoformer Britener that extends the useful life of all three-gun color television picture tubes. Provides increased filament voltage to boost electron emission and return full contrast and color quality. Shipping Weight, 1 pound. **$5.85**

Perma-Power Model C-501—Net Each...

COLOR GUN KILLER MODEL T-101

TO MAKE PURITY ADJUSTMENTS

Enables each gun of three-gun color television picture tubes to be operated either singly or in combinations so as to make purity adjustments. Avoids disconnecting or cutting of leads. Shipping Weight, 8 ounces. **$3.25**

Perma-Power Model T-101—Net Each...

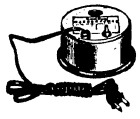
COLOR KINE ADAPTER MODEL T-201

TO TEST COLOR TV PICTURE TUBES

Enables each gun of a three-gun color television picture tube to be individually tested on tube testers that were designed to test black and white picture tubes. Shipping Weight, 8 ounces. **$2.69**

Perma-Power Model T-201—Net Each...

PERMA-POWER MAGNEFORMER MODEL F100



Special device for quick, easy economical magnetizing or demagnetizing of small tools, instruments, etc. Fully portable. Simple instructions supplied. Fully guaranteed. **$4.49**

Perma-Power Model F-100—Net Each..

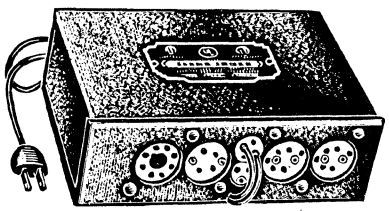
AUTOMATIC TV VOLTAGE REGULATOR MODELS D-200, D-101

Corrects low line voltage to restore full height and width of TV picture. Rated 300 watts, 90-135 volts. Boosts 10 volts automatically when line is below 110 volts. Easy plug-in installation. Turns on and off with TV set. Shpg. Wt., 2½ lbs. **$5.97**

Perma-Power Model D-200—Net Each...

Perma-Power Model D-101—Manual version, switchable for high line voltage adjustments. **$4.17**

Net Each...



PERMA-POWER BATTERY ELIMINATOR

MODEL "A" 1½-VOLT SUPPLY

CONVERTS BATTERY RADIOS TO ALL-ELECTRIC OPERATION

For 1½ volt radios with 4, 5 or 6 tubes. Designed to give nearly constant power from varying line voltages. Maintains rated output under varying tube loads. Universal sockets for all battery plugs. Fits in back of battery radios as well as battery compartments of most portables. **"A" Voltage:** 1.45 volts DC at 200 to 350 ma. **"B" Voltage:** 90 volts DC at 13 ma. **Size:** 2⅛" x 4½" x 6¾". **Weight:** 4 lbs. **$12.65**

Perma-Power Model A-101—Net Each...

Perma-Power Co. CHICAGO, ILLINOIS

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PRECISE MEASUREMENTS COMPANY BUILDS HIGH VOLTAGE POWER SUPPLIES

These well designed and constructed power packs are proven by many years of service in industry, laboratories, universities and by the United States Government. Only the best available selected material goes into these units. Listed below are some of our standard design models. Other voltages and currents available as we stock large quantities of specialized transformers and components to give you faster more efficient service. Since 50 per cent of our orders are for special supplies, we will cheerfully give you quotations on your specific requirements.

HANDY PORTABLE MODELS

New Mirror Scale Instrument Illustrated

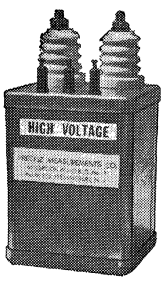
One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6" precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

Model	Max. Voltage	Regulated 100 Microamps	Unregulated 1 MA.	Unregulated 5 MA.
6000-1	1,000		$150.00	$200.00
6000	2,500	120.00	175.00	225.00
6005	5,000	135.00	200.00	250.00
6010	10,000	145.00	225.00	275.00
6015	15,000	155.00	250.00	300.00
3025	25,000	205.00	275.00	350.00

Note. Regulated power supplies are of the radio frequency type and adjust from approximately 20% to full rated voltage. The 1 and 5 milliampere types are transformer operated and have a range of zero to full voltage output. These are recommended for industrial service applications.

Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. Add $50.00 to any meter equipped power supply.

For additional built-in current meter (both meters are 3 inch size), including automatic meter protector circuit, add $50.00 to any power supply.



PACKAGED POWER SUPPLIES

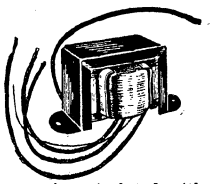
These conveniently packaged power units will be found ideal for applications requiring minimum size and weight. Features isolated high voltage terminals permitting either the positive or negative side to be grounded. Rectifier tubes are operated from separate filament transformers so that DC output voltage can be varied from zero to full rated value. Selenium rectifier types have extra cells to assure operation under high line voltage or light loading. All standard units have well filtered DC output. Power packs with AC output available on order.

Model	Output Voltage	Current	Model	Output Voltage	Current
05-KV-5MA	500 Volts DC	5 Ma.	20-KV-1MA	20-KV-DC	1 Ma.
1-KV-5MA	1-KV-DC	5 Ma.	20-KV-5MA	20-KV-DC	5 Ma.
2-KV-5MA	2-KV-DC	5 Ma.	30-KV-1MA	30-KV-DC	1 Ma.
5KV-1MA	5-KV-DC	1 Ma.	30-KV-5MA	30-KV-DC	5 Ma.
5-KV-5MA	5-KV-DC	5 Ma.	50-KV-1MA	50-KV-DC	1 Ma.
10-KV-1MA	10-KV-DC	1 Ma.	50-KV-5MA	50-KV-DC	5 Ma.
10-KV-5MA	10-KV-DC	5 Ma.	75-KV-1MA	75-KV-DC	1 Ma.
15-KV-1MA	15-KV-DC	1 Ma.	100-KV-1MA	100-KV-DC	1 Ma.
15-KV-5MA	15-KV-DC	5 Ma.			

TRANSFORMERS, HIGH VOLTAGE

For experimental, industrial, or production use. These units are small and compact and rated for constant service. Primary designed for 115 Volts, 60 Cycle. Secondary is isolated. Only standard models are listed. We can wind specials for any frequency or voltage. Metering windings available.

Model	Voltage	Current
1 KVT*	1 KV	5 MA
2 KVT*	2 KV	5 MA
3 KVT*	3 KV	5 MA
5 KVT*	5 KV	5 MA
10 KVT	10 KV	5 MA
15 KVT	15 KV	5 MA
25 KVT	25 KV	5 MA
50 KVT	50 KV	5 MA



* Primary tapped at 105/115/125V, secondary isolated with tap at half voltage point.

Also available with MYLAR insulation and dry EPOXY MOLDED.

ANTI-STATIC TRANSFORMERS

For elimination of static charges on plastics and paper. EPOXY MOLDED *Shock-Proof* construction. 115 Volt 60 cycle input.

Model	Voltage	Maximum Current
10 KVT-EXP	10 KV	5 MA
15 KVT-EXP	15 KV	5 MA

PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

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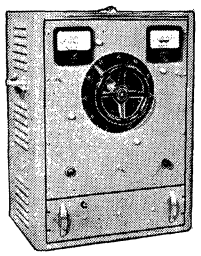
PRECISE MEASUREMENTS COMPANY BUILDS

HIGH VOLTAGE POWER SUPPLIES

FOR INDUSTRIAL APPLICATIONS

INDUSTRIAL POWER SUPPLIES



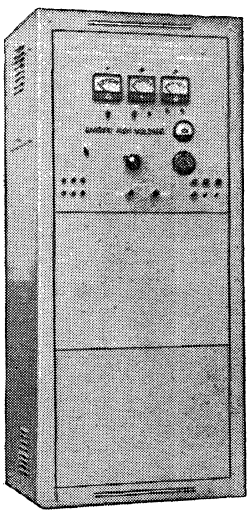
Regulated Types Available

Standard hum level 5% or less. .01% to 1% ripple available. All power supplies have automatic overload cutout control circuits. Regulated models available.

These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is greatly simplified and a number of safety features are built in for maximum protection of personnel and equipment. Output is continuously variable from zero to full rated value. Polarity reversing models (as illustrated) can be had at additional cost.

Model	Voltage	Current	Price
F-500V	0-500	3 Amp	$800.00
F-6001	0-1000	2 Amp	975.00
F-6002	0-2000	1 Amp	985.00
F-6003-A1	0-3000	100 MA	375.00
F-6003-AV	0-3000	500 MA	550.00
F-6003-AK	0-3000	1 Amp	1100.00
F-6005-A1-H	0-5000	100 MA	550.00
F-6005-AV	0-5000	500 MA	750.00
F-6005-A1K	0-5000	1 Amp	1200.00
F-6010-A1	0-10,000	100 MA	800.00
F-6020-A05	0-20,000	50 MA	975.00
F-6050-T	0-50,000	½ MA	600.00
F-6100-T	0-100,000	½ MA	1100.00

HEAVY DUTY POWER SUPPLIES

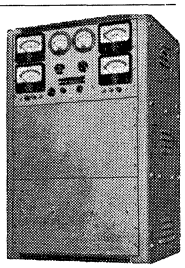


For use in applications where high voltages at extra high currents are required. Illustrated is our 100 K W Model, rated for 0 to 7,000 Volts at 14 Amperes DC. This unit is housed in a single convenient cabinet. Output voltage is regulated against line and load changes. Voltage is smoothly adjustable from zero to full output. Automatic circuits protect against overvoltage or over current conditions, turning off main power in a split second. Use of special transformer construction allows constant load drain at full rated output. All power supplies in this series is available with fixed or adjustable output and with or without regulation.

Model	Voltage	Current
A-10	0-1000	5 amperes
A-30	0-3000	5 amperes
A-31	0-3000	10 amperes
A-32	0-3000	20 amperes
A-50	0-5000	5 amperes
A-51	0-5000	10 amperes
A-72	0-7000	15 amperes
A-100	0-10,000	5 amperes
A-110	0-10,000	10 amperes
A-300	0-30,000	5 amperes

CONSTANT CURRENT POWER SUPPLIES

Designed for application where output current must remain constant regardless of loading resistance changes. Used for magnet fields, plating applications, gaseous lamps. Dependable magnetic current stabilizer has no moving parts, no tubes, no transistors to replace. Simply set current to desired level, no balancing or other adjustments needed. Ideal for lamp operation since operating state ionizing voltage in no way affects lamp current. Standard hum level 5%. Lower hum levels available on order.



Duel 500 V - 500 V, 10 Ampere Power Supply. Isolated outputs may be seried or paralleled.

Model	Maximum Voltage	Maximum Current
C-25-700	25 Volts	700 Amperes
C-70-70	70 Volts	70 Amperes
C-500-10	500 Volts	10 Amperes
C-Duel 500-10	500 or 1,000 Volts	10 or 20 Amperes
C-800-2	800 Volts	2 Amperes
C-1000-100	1000 Volts	100 Amperes

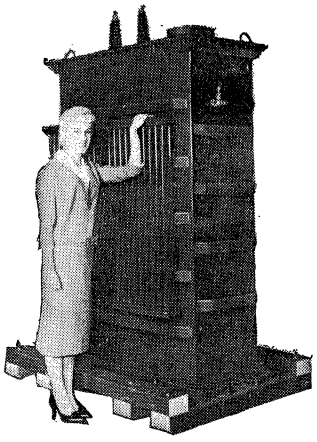
AC INSULATION AND BREAKDOWN TESTERS

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output with simple toggle switch selection. Units include kilovoltmeter, current meter and automatic overload cutout circuits.

Model	Voltage	VA	AC	Price AC and DC
3000	0 to 3,000	75	$150.00	$ 250.00
3010	0 to 3,000	300	250.00	400.00
3050	0 to 3,000	1,500	500.00	650.00
3100	0 to 6,000	3,000	700.00	1,100.00
5000	0 to 5,000	75	175.00	300.00
1000	0 to 10,000	75	200.00	350.00
1500	0 to 15,000	75	250.00	AC only
2500-AC	0 to 25,000	75	400.00	AC only
2500-DC	0 to 25,000	75	DC only	400.00

INDUSTRIAL SERVICE PACKAGED POWER SUPPLIES

For use in applications where large amounts of DC output power is required. Input is usually 220 Volt or 460 Volt, three phase (single phase types also available). Output is rectified DC which is completely isolated so that either side can be grounded. All units use new type WIDE AREA silicon rectifiers. No tubes or other delicate parts to replace or wear out. Low forward conducting resistance results in excellent voltage regulation. Special cell balance precautions guard against surge damage. Simply connect one of these units to the power lines and obtain direct current output. Variable voltage output is obtainable by adjusting input voltage. Standard models are listed below. Good delivery on other voltages and currents.



Model	Output Voltage	Current Amps.
100-100	100	100
100-1000	100	1000
500-50	500	50
500-500	500	500
1000-50	1000	50
1000-100	1000	100
3000-10	3000	10
3000-50	3000	50
5000-10	5000	10
5000-25	5000	25
10,000-2	10,000	2
10,000-5	10,000	5
20,000-2	20,000	2
20,000-5	20,000	5
30,000-2	30,000	2
30.000-5	30,000	5

PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

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RCA BATTERIES

RADIO • FLASHLIGHT • FARM • TRANSISTOR • INDUSTRIAL • SPECIAL

PORTABLE "A" TYPES

PORTABLE "B" TYPES

PORTABLE "A-B" TYPES

TRANSISTOR BATTERIES

RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	INTERCHANGEABILITY GUIDE EVEREADY	NEDA	BURGESS	STANDARD PKG. QTY.	WT. (lbs.)	MAX. DIMENSIONS (in.) L.	W. or DIAM.	HT.
VS002	(Substitute Type VS067)										
VS004	1.15	1.65	1½	742	4	4F	12	16	2⅝	2⅝	4 1/16
VS009	1.16	1.65	6	744	6	4FP1	12	17	2 23/32	2 23/32	4 5/16
VS010	2.73	3.90	6	718	1	2F4	6	17	3⅞	2 13/16	5½
VS065	1.15	1.65	7½	717	9	C5	12	6½	2 7/32	1 15/16	3 1/32
VS067	.95	1.35	4½	736	3	F3	12	13	4	1 7/16	4 3/16
VS068	.70	1.00	6	724	2	Z4	12	2	1¼	1¼	2 7/16
VS069	.84	1.20	1½	720	18	2D	12	5½	2⅝	1⅜	2 15/16
VS070	.60	.85	1½	960P	23	8R	12	4½	—	1 11/32	4 1/16
VS072	.95	1.35	4½	726	19	D3	12	9	3 31/32	1 7/16	3
VS129	1.58	2.25	7½	713	8	B5	6	2½	4 1/16	15/16	3
VS141	.77	1.10	1½	W353	11	2F	6	5	2 1/32	1⅜	4¼
VS236	.32	.45	1½	964	20	21R	48	19	—	1⅛ (dia.)	4 11/64
VS315	1.05	1.50	7½	707	26	D5	6	6	2 1/16	2 1/32	2 13/16
VS012	3.29	4.70	45	484	207	B30	6	19¾	3 31/32	2 17/32	5 5/16
VS013	2.70	3.85	45	482	202	M30	6	12⅝	3 19/32	1 27/32	5½
VS014	2.49	3.55	45	W359	206	A30	5	10⅛	3 7/16	2¼	4 9/16
VS015	2.76	3.95	22½-45	738	205	Z30	5	7	3	2 5/16	4 1/8
VS016	2.45	3.50	67½	467	200	XX45	12	10	2 13/16	1⅜	3 45/64
VS055	2.08	2.95	45	455	201	XX30	12	6¾	2 21/32	1	3 11/16
VS082	2.42	3.45	67½	457	203	K45	12	6½	2 13/16	1⅜	2½
VS084	1.05	1.50	22½	412	215	U15	12	1	1 1/32	5/8	2
VS086	1.75	2.50	45	415	213	U30	12	2	1 3/64	5/8	3 11/16
VS090	3.15	4.50	90	490	204	N60	12	13	3 23/32	1⅜	3 45/64
VS217	3.15	4.15	75	437	212	XX50	12	12½	1 15/16	1 15/32	6 15/32
VS218	2.27	3.25	67½	477	211P	P45	12	6⅝	1 29/32	63/64	5 7/16
VS219	2.77	3.95	90	479	214	P60	12	9	1 31/32	1 1/32	7 15/32
VS316	3.47	4.95	90	495	216	N60X	6	7	1 15/16	1 15/32	7⅛
VS318	2.07	2.95	67½	416	217	UX45	6	1¾	1 21/64	63/64	3½
VS019	5.43	7.75	7½-9-90	753	401	F6A60	6	32	9¼	2 13/16	4 7/16
VS047	5.78	8.25	9-90	752	400	G6B60	6	41¾	13 3/16	2 13/16	4 7/16
VS050	5.08	7.25	6-7½-75	755	403	T5Z50	6	23	8⅝	2½	3 11/16
VS057W	4.87	6.95	7½-9-90	756	405	T6Z60	6	19	8⅞	2¼	3⅞
VS058	5.57	7.95	9-90	757	406	F6A60P	6	31	9 13/16	2¾	4 7/16
VS059	5.22	7.45	9-90	727	428	T6Z60P	6	20	9 7/16	2¼	3 13/16
VS060	4.83	6.90	7½-75	785	431	T5Z50P	6	18	8 7/16	2 7/16	3 11/16
VS064	4.38	6.25	1½-90	729	425	4TZ60	6	16½	7 13/16	2¼	3 13/16
VS150**	.30	.45	1.4	E640	—	RM640	20	½	—	0.625	0.440
VS163**	1.10	1.60	4.2	E163	—	TR163	10	¾	—	0.662	1.327
VS164**	1.35	2.00	5.6	E164	—	TR164	10	1	—	0.662	1.767
VS165**	1.64	2.45	7	—	—	TR165	10	1	—	0.662	2.217
VS300A	.95	1.35	9	226	1600	P6M	36	4½	—	31/32	1 31/32
VS301	1.76	2.50	3, 6, 9	2506	1601	D6P1	12	18	8	1 9/16	2 13/16
VS304	1.05	1.50	13½	239	1900	XX9	12	2⅝	1 21/64	1 1/32	2 11/16
VS305	1.30	1.85	9	246	1602	2N6	12	3½	1 13/32	1 11/32	3 3/16
VS306	1.26	1.80	9	276	1603	D6	6	5¾	2 9/16	2 1/32	3 5/32
VS309A**	1.37	1.95	9.8	E177	1606	TR177	12	½	—	35/64	1 29/32
VS312**	1.15	1.75	8.4	E146	1604	TR146	12	1¼	1	19/32	1 15/16
VS313**	.51	.75	1.4	E9	15	ZM9	96	7	—	9/16	1 31/32
VS321	1.93	2.75	4½	2731	—	—	12	36¾	2 13/16	1¾	8 11/32
VS322	1.05	1.50	9	266	1605	M6	12	5¾	1 13/16	1 13/16	2 7/16
VS323	.95	1.35	9	216	1604	2U6	36	2.7	1 1/32	1 1/16	1 29/32
VS324	1.19	1.70	4.50	243	1610	2Z3	12	3½	1 13/32	1 11/32	2¾
VS325	.71	1.00	6	2713	1403	—	6	1.8	1 13/32	47/64	4 11/16
VS326	1.05	1.50	9	2709	1613	—	6	2	1 1/32	¾	4 1/16
VS327	.53	.75	9	206	1611	—	12	1	—	¾	2
VS334	.155	.25	1.5	1015	15	930	144	5¼	—	9/16	2
VS335	.155	.25	1.5	635	14	130	72	8¼	—	1	15/16
VS336	.155	.25	1½	A-100	13	230	192	40½	—	1 11/32	2 13/32
VS400**	1.80	2.65	4	E233	1300	TR233R	10	2½	—	1 1/32	1 31/32
VS1073†	.20	.30	1.5	—	910	Mn9100	72	2	—	0.470	1.130
VS1149‡	.65	.95	4.5	—	1306	Mn1306	24	2	—	0.662	1.965
VS1334†	.33	.50	1.5	E91	15	Mn1500	48	3	—	0.550	1.968
VS1335†	.51	.75	1.5	E93	14	Mn1400	24	4	—	1 1/32	2

* Optional. **Mercury Types † New Alkaline Multi-Purpoes Type ‡ New Alkaline Radio Type

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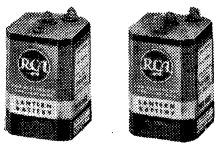
RCA BATTERIES

RADIO • FLASHLIGHT • FARM • TRANSISTOR • INDUSTRIAL • SPECIAL

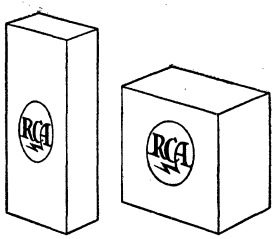
LIGHTING TYPES



FARM TYPES

INDUSTRIAL and SPECIAL-PURPOSE TYPES

TYPES MADE TO ORDER



RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	INTERCHANGEABILITY GUIDE EVEREADY	NEDA	BURGESS	STANDARD PKG. QTY.	WT. (lbs.)	MAX. DIMENSIONS (in.) L.	W. or DIAM.	HT.
VS034A	.125	.20	1½	915	15	Z	144	6	—	5/16	2
VS035A	.125	.20	1½	935	14	1	240	26	—	1	1 15/16
VS036	.125	.20	1½	950	13	2R	192	38	—	1 5/16	2 3/8
VS040C	.79	1.19	6	509	908	F4H	12	16½	2¾	2¾	4 3/8
VS040S	.79	1.19	6	510S	915	F4BP	12	16¼	2¾	2¾	4¼
VS073	.08	.125	1½	904	910	N	96	1½	—	7/16	1 3/16
VS074	.095	.15	1½	912	24	7	120	2½	—	7/16	1¾
VS138	1.45	2.05	3	W357	901	4F2H	5	14½	3 15/16	2¾	6¼
VS317	1.83	2.75	6	731	918	TW1	4	13	5 7/16	2 7/8	4 5/16
VS022	7.95	10.65	1½-90	759	413	17GD60	3	52	16 1/16	4¼	6 11/16
VS119	10.47	14.95	7½-9-90	776	415	S6D60	3	47	8¼	4½	13 7/8
VS006C	.84	1.25	1½	6GL	914	—	12	27	—	2 5/8	6 5/8
VS006S	.84	1.25	1½	61GN	905	61GN	12	27	—	2 5/8	6 5/8
VS028	.88	1.25	4½	781	714	5360	5	1¾	2 17/32	15/16	3 1/16
VS029	1.65	2.35	1½-3-4½-6-7½	773	713	5540	10	5	4 1/8	15/16	3
VS039	3.34	4.98	6	1461	907	S461	4	38	10 3/8	2 7/8	7 3/8
VS070	.60	.85	1½	960P	23	8R	12	4½	—	1 5/16	3 15/16
VS083	.81	1.15	15	411	208	U10	12	¾	1 1/32	5/8	1 29/64
VS085	1.23	1.75	30	413	210	U20	12	1¼	1 1/32	5/8	2 9/16
VS093	8.37	11.95	300	493	722	U200	3	3½	2 11/16	2 7/32	3 29/32
VS100	.87	1.25	3	W352	701	F2BP	5	4¼	2 11/16	1 7/16	4 9/16
VS101	.87	1.25	1½	W354	700	2FBP	5	4¼	2 5/8	1 7/16	4 9/16
VS102	1.61	2.35	—22½	763	710	4156	5	5	3¼	2 1/8	2 13/16
VS103	4.01	5.98	6	706	902	4F4H	4	23½	8 5/16	2 13/16	6 5/16
VS106	.84	1.25	1½	735	900	4FH	12	15½	2 11/16	2 11/16	4 3/16
VS112	3.05	4.35	22½-45	W376	709	5308	5	15¼	4 3/16	2 11/16	6
VS114	2.69	3.85	22½-45	W350	711	Z30NX	5	6½	3	1 7/8	4 15/16
VS127W	5.02	7.20	22½-45	W363F	724	10308SC	4	44½	8 3/16	4 7/16	8
VS130	1.33	1.90	—1½-3-4½	761T	712	2370ST	5	5	4	1 7/16	3 1/16
VS131	3.12	4.45	—22½◆	778	708	5156SC	4	6½	4 1/8	2½	3 5/16
VS133	.68	1.02	4½	703	706	532	10	3	2 3/8	15/16	3 1/16
VS134	.57	.85	3	750	704	422	10	1¼	1 7/16	¾	2 9/16
VS136	1.08	1.55	3	W356	703	2F2H	5	8	2 11/16	2 11/16	4¼
VS139	4.86	7.25	7½	715	903	4F5H	4	31½	7¼	4	6 5/16
VS140	5.53	8.25	9	716	904	4F6H	4	38	8½	4 1/16	6 7/16
VS141	.77	1.10	1½	W353	11	2F	6	5	2 21/32	1 7/16	4¼
VS142	.66	1.00	4½	751	705	432	10	2	2	¾	2 5/16
VS143**	.38	.59	1.34	E1	—	RM1R	40	2	—	0.625	0.650
VS144**	.82	1.25	1.35	E12	—	RM12R	10	1¼	—	0.640	1.968
VS145**	.25	.36	1.35	E400	—	RM400R	60	½	—	0.455	0.135
VS147**	.30	.45	1.4	E630	—	RM630R	40	½	—	0.615	0.238
VS148**	.84	1.25	2.7	E132	—	TR132R	10	¾	—	0.662	1.315
VS149**	1.00	1.50	4.2	E133	1306	TR133R	10	1	—	0.662	1.965
VS157W	5.53	7.90	22½-45	W364F	715	21308SC	4	51	8⅛	4 5/8	7 11/16
VS317	1.83	2.75	6	731	918	TW1	4	13	5 7/16	2 7/8	4 5/16
VS136	1.08	1.55	3	W356	703	2F2H	5	8	2 11/16	2 11/16	4 3/16
VS140	5.53	8.25	9	716	904	4F6H	4	38	8½	4 1/16	6 7/16
VS142	.66	1.00	4½	751	705	432	10	2	2	¾	2 5/8

● Wax coated. ◆ Other voltage taps: 3, 4½, 6, 9, 10½, 16½. * Optional. ■ Sealed-in-Steel.

RCA COMPONENTS DIVISION, Camden, N.J.

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in performance! in reliability! in dollar-for-dollar value!

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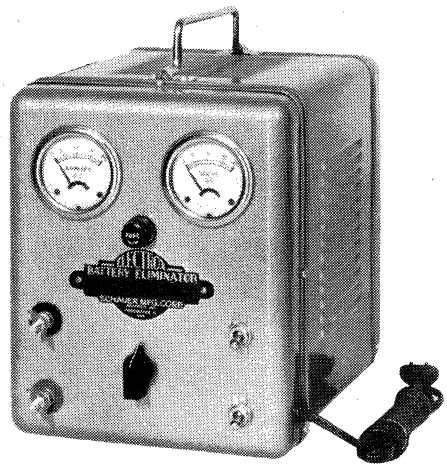
Again Schauer leads the field! Here are streamlined, new Battery Eliminators specifically engineered to meet the growing needs of auto radio service men. In one compact unit, quality-built D.C. Power Supplies which more than meet manufacturers' specifications for the operation and servicing of any 6- or 12-volt auto radio equipped with signal-seeking, push-button or manual tuners.

SCHAUER MODEL AR 5612 — Output adjustable by means of a rugged, silver contact tap switch. Toggle switch changes unit from 6-volt to 12-volt operation. Low range output: 7½ volts at 12 amps., continuous; 20 amps., intermittent. High range: 15 volts at 6 amps., continuous; 11 amps., intermittent. Components include Selenium rectifiers, transformer, condenser-type filters, accurate 0-20 V. and 0-20 A. meters, heavy wing-nut binding posts and carrying handle. Housed in sturdy steel case 7½" wide x 9½" deep x 9" high.

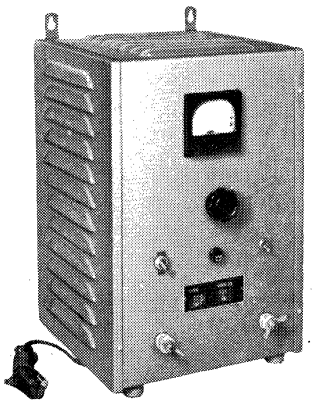
SCHAUER MODEL AR 4612 — Non-adjustable 6-volt and 12-volt Battery Eliminator. Built to same high-quality standards as Model AR 5612, above. Equipped with high-low switch to change from nominal 6-volt to nominal 12-volt operation.

Own SCHAUER Battery Eliminators — they're the choice of leading service men. Specifications and illustrations of these units are found in Bulletin No. 1469. Write for your free copy.



MODEL AR 5612

MODEL AR 4612



MODEL SA-48006

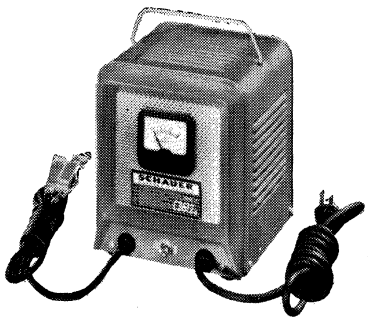
SCHAUER MODEL SA-48006 ADJUSTABLE 6-VOLT AND 12-VOLT BATTERY ELIMINATOR FOR AM AND FM 2-WAY AND MARINE RADIOS

A.C. Input: 115 volts, 60 cycle, single phase. D.C. Output: Unit delivers either 6 volts D.C. up to a maximum of 48 amperes; or 12 volts D.C. up to a maximum of 24 amperes. To maintain required voltage output under various load conditions, a ruggedly built, dial-type tap switch provides adjustment from less than 1 ampere up to the maximum rated output. A conveniently located switch is provided for changing to the voltage desired.

Equipment: Rectification is obtained through the use of Selenium dry plate rectifiers; ample filtering of the output is provided by an efficient choke and condenser combination; heavy-duty output terminals with wing nuts for connecting D.C. leads; precision D.C. voltmeter; cartridge type fuse; 6 feet of A.C. cord and plug. Case is 10" wide x 9 " deep x 15 ' high, finished in durable grey wrinkle, arranged for either bench or wall mounting.

SCHAUER BATTERY CHARGERS

A complete line of battery chargers for safe recharging of storage batteries. Available in models for charging 6-volt batteries, for 12-volt batteries, and other models for charging both 6-volt and 12-volt batteries. Four to 20 ampere capacities. Equipped with exclusive Schauer *"Charger Guard"*—an automatic corrector which acts instantly in case of an overload or short circuit. No manual resetting of the circuit breaker, and fuses are eliminated. Approved by Underwriters' Laboratories, Inc. Write for new Bulletin No. 2488.



RECTIFIER DIVISION

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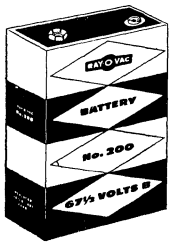
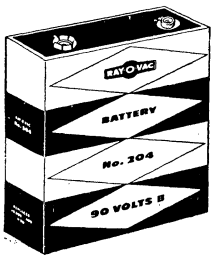
A COMPLETE LINE OF POWERFUL BATTERIES

B BATTERIES



200

STOCK NO.	VOLTAGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
200	67½	2 11/16	1 3/8	3 3/4	RMA 119	467	XX45	VS016	3.50
201	45	2 21/32	1	3 11/16	RMA 119	455	XX30	VS055	2.95
202	45	3 3/16	1 13/16	5 1/2	RMA 110	482	M30	VS013	3.85
203	67½	2 3/4	1 3/8	2 1/2	RMA 119	457	K45	VS082	3.45
204	90	3 11/16	1 3/8	3 3/4	RMA 119	490	N60	VS090	4.50
205	22½, 45	3 1/16	2 5/16	4 1/16	RMA 111	738	Z30	VS015	3.95
206	45	3 7/16	2 1/4	4 5/16	RMA 111	W359	A30	VS014	3.55
207	45	4 1/8	2 5/8	5 5/16	RMA 111	484	B30	VS012	4.70
208	15	1 1/32	3 9/64	1 7/16	RMA 120	411	U10	VS083	1.15
A210*	30	1 1/64	3 5/64	2 17/32	RMA 120	413	U20	VS085	1.75
211M	67½	1 29/32	6 3/64	5 33/64	2 Snap Fasteners	—	P45M	VS216/215	3.95
211P	67½	1 7/8	1	5 15/32	2 Snap Fasteners	477	P45	VS218	3.25
212	75	1 13/16	1 3/8	6 1/4	2 Snap Fasteners	437	XX50	VS217	4.50
213	45	1 3/16	35/64	3 9/16	2 Snap Fasteners	415	U30	VS086	2.50
214	90	1 7/8	1	7 15/32	2 Snap Fasteners	479	P60	VS219	3.95
215	22½	1 1/64	5/8	2	RMA 120	412	U15	VS084	1.50
217	67½	1 21/64	6 3/64	3½	Snap Fasteners	416	UX45	VS318	2.95



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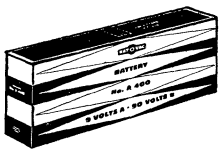
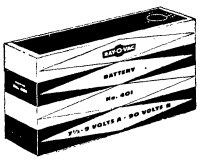


A400*



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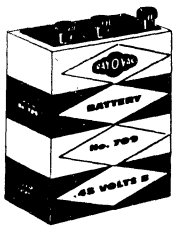

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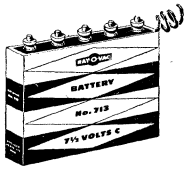

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211M

A B BATTERIES

STOCK NO.	VOLTAGE	DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
A400*	9, 90	13 5/8	2 3/4	4 5/16	4 Prong Recessed Plug	752	G6B60	VS047	8.25
401	7½, 9, 90	9 3/16	2 23/32	4 3/8	RMA 116	753	F6A60	VS019	7.75
403	6, 7½, 75	8 9/16	3 11/16	2 7/16	RMA 116	755	T5Z50	VS050	7.25
405	7½, 9, 90	8 11/16	2 3/16	3 3/4	RMA 116	756	T6Z60	VS057W	6.95
406	9, 90	9½	2 23/32	4 3/8	4 Prong Recessed Plug	757	F6A60P	VS058	7.95
407	1½, 63	9 1/8	2	4 3/4	4 Hole Socket	W366	4GA42	VS053	8.80
408	7½, 63	8 5/8	2 3/4	4 1/8	RMA 116	W367	G5A42	VS038	9.20
409	1½, 90	5½	2 1/16	7 1/8	RMA 115	—	5DA60	VS043	6.13
410	1½, 90	10	2 5/16	4 13/16	RMA 115	W369	6TA60	VS054	7.85
413	1½, 90	15 3/4	4 1/4	6 13/16	RMA 115	759	17GD60	VS022	10.65
415	7½, 9, 90	8 1/8	4 5/16	13 5/8	RMA 116 & 4 Prong Plug	776	S6D60	VS119	14.95
422	6, 75	12 5/8	2 3/4	4 1/8	4 Prong Recessed Plug	—	G4B50	VS046	5.95
425	1½, 90	3 11/16	2 1/4	7 13/16	RMA 115	729	4TZ60	VS064	6.25
426	1½, 90	12 9/16	5 3/8	6 5/8	RMA 115 & 8 Hole Socket	—	18GD60	VS045	9.65
428	9, 90	8 11/16	2 3/16	3 3/4	4 Prong Recessed Plug	756P	T6Z60P	VS059	7.45
431	7½, 75	8 7/16	3 11/16	2 3/8	5 Prong Recessed Plug			VS060	6.90

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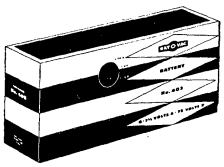

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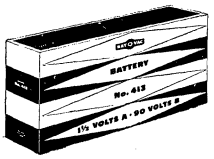

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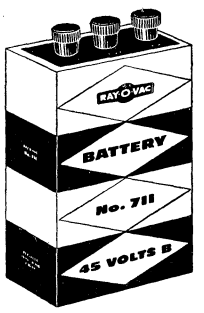
INDUSTRIAL AND SPECIAL-PURPOSE BATTERIES

STOCK NO.	VOLTAGE	DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
700	1½	2 5/8	1 3/8	4 5/16	2 Screw	W354	2FBP	VS101	1.25
701	3	2 5/8	1 3/8	4 5/16	2 Screw	W352	F2BP	VS100	1.25
703	3	2 11/16	2 11/16	4 3/8	2 Screw	W356	2F2H	VS136	1.55
704	3	1 3/8	3/4	2 5/16	2 Flat Spring	750	422	VS134	.85
705	4½	2	3/4	2 5/8	2 Flat Spring	751	432	VS142	1.00
706	4½	2 15/32	15/16	3 1/16	2 Flat Spring	703	532	VS133	1.02
708	3, 4½, 6, 9, 10½, 16½, 22½	4 1/8	2 1/2	3 5/16	8 Spring Clip	778	5156SC	VS131	4.45
709	22½, 45	4 1/8	2 5/8	5 7/16	3 Screw	W376	5308	VS112	4.35
A710	22½	3 7/16	2 1/8	2 3/4	Screw	4156	763	VS102	2.35
711	22½-45	2 31/32	1 27/32	5	3 Screw	W350	Z30NX	VS114	3.85
712	1½, 3, 4½	3 15/16	1 3/8	3	4 Screw	761T	2370ST	VS130	1.90
713	1½, 3, 4½, 6, 7½	3 15/16	7/8	3	5 Screw 1 Pigtail	773	5540	VS029	2.35
714	4½	2 15/16	13/16	2 7/8	2 Screw	781	5360	VS028	1.25
715	22½, 45	8 1/8	4 1/8	7 11/16	3 Spring Clip	W364F	21308SC	VS157	7.65
A716	22½, 45	8	4	7 3/8	3 Spring Clip	W363F	10308SC	VS127	6.90
717	22½, 45	8 1/16	3 3/16	7 3/16	RMA 107	W365P	2308P1	VS026	5.00
718	3, 4½	3 15/16	1 5/16	2 7/8	RMA 112	771	2370P1	VS030	2.25
721	3, 4½, 16½, 22½	4	2½	3	RMA 113	768	5156P1	VS031	4.45
722	300	2 5/8	2 5/32	3 13/16	2 Flush Pin Jack	493	U200	VS093	11.95
723	22½, 45	8 1/8	3 1/4	7 9/16	3 Spring Clip	W365F	2308SC	VS126	5.50
724	22½, 45	8	4	7 3/8	3 Spring Clip	—	10308SC	VS127W	5.75
726	22½, 45	8 1/16	4 5/16	7 3/16	RMA 107	W363P	10308P1	—	5.75



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TRANSISTOR BATTERIES

2LP

STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
1600	9	31/32 diam.		1 31/32	2 Snap Fasteners	226	P6	VS300	.98
1601	9, 6, 3	8	2 3/4	1 9/16	4-Hole Socket	2506	D6PI	VS301	2.50
1602	9	1 3/8	1 3/8	2 3/4	2 Snap Fasteners	246	2N6	VS305	1.85
1603	9	2 9/16	2 1/32	3 3/32	2 Snap Fasteners	276	D6	VS306	1.80
1604	9	1	19/32	1 31/32	2 Snap Fasteners	216	2U6	VS312	.75
1605	9	1 13/16	1 1/4	2 5/16	Snap Fasteners	M6	266	—	1.50
1606	9	35/64		1-29/32	2 Snap Fasteners	E177	—	VS309A	1.61
1900	9, 13 1/2	1 1/4	7/8	2 5/16	3 Hole Socket	239	XX9	VS304	1.50

6 Ign. SC.

Note: 2LP or 5LP size D, 1LP size C and 7R or 7LP size AA 1½ Volt batteries are also used in transistor applications. These batteries are listed under the lighting and ignition battery section.

1LP

MERCURY TRANSISTOR BATTERIES

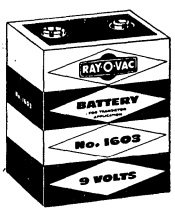
STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	O.A.H.	COMPARATIVE GUIDE E	B	RCA	LIST PRICE
15M	1 1/2	9/16	—	1-31/32	E9	H69	VS313	.75
1600M	9	31/32	—	1-31/32	226	P6M	VS300A	1.50
1604M	9	1	19/32	1-31/32	E146	2U6	VS323	1.50
1611M	9	11/16	—	2	206	—	VS321	.98
1810M	12	31/32	—	2-25/64		—	—	2.45

941

LIGHTING AND IGNITION BATTERIES

7R

STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
1LP (NEDA 14)	1 1/2	1 1/32 Diam.	—	1 31/32	Flashlight	935	1	VS035	.20
2LP	1 1/2	1 1/32 Diam.	—	2 13/32	Flashlight	950	2R	VS036	.20
3LP	1 1/2	1 1/32 Diam	—	2 13/32	Flashlight	1050	210	—	.25
5LP (NEDA 13)	1 1/2	1 1/32 Diam.	—	2 13/32	Flashlight	D99	—	—	.25
7LP	1 1/2	9/16 Diam.	—	1 31/32	Flashlight	915	Z	VS034	.20
7R (NEDA 15)	1 1/2	9/16 Diam.	—	1 31/32	Flashlight	915	Z	VS034	.15
400 (NEDA 24)	1 1/2	7/16 Diam.	—	1 49/64	Flashlight	912	7	VS074	.15
716 (NEDA 910)	1 1/2	29/64 Diam.	—	1 13/64	Flashlight	W468	N	VS073	.125
941 SP (NEDA 908)	6	2 11/16	2 11/16	4 7/8	2 Coil Spring	509	F4H	VS040C	1.19
941 SCREW (NEDA 915)	6	2 11/16	2 11/16	4 7/8	Screw	510S	F4BP	—	1.19
941 CLIP (NEDA 917)	6	2 11/16	2 11/16	4 7/8	Clip	510F	F4SC	—	1.19
941 RR (NEDA 916)	6	2 11/16	2 11/16	4 7/8	Spring	409	—	—	1.19
918	6	5 3/8	2 13/16	4 7/8	2 Screw	731	TW1	—	2.75
900	1 1/2	2 11/16	2 11/16	4 3/16	2 Screw	735	4FH	VS106	1.25
6 Ign. SC. (NEDA 905)	1 1/2	2 5/8 Diam.	—	6 9/16	2 Screw	6 Ign.	6 Ign.	VS006S	1.25
6 Ign. Clip (NEDA 914)	1 1/2	2 5/8 Diam.	—	6 5/8	2 Spring Clip	6 Ign. Clip	6 Ign. Cl.	VS006C	1.25
6 Tel CLIP (NEDA 906)	1 1/2	2 5/8 Diam.	—	6 5/8	2 Spring Clip	6 GL	6 Tel.	VS042C	1.25
641 (NEDA 907)	6	10 3/8	2 13/16	7 3/8	2 Screw	1461	S461	VS039	4.98
903	7 1/2	7 1/4	4	6 5/16	2 Screw	715	4F5H	VS139	7.25
904	9	8 3/16	4	6 17/32	2 Screw	716	4F6H	VS140	8.25



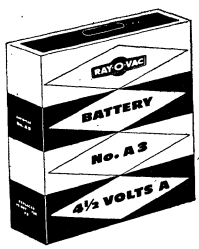
1603

1600

A BATTERIES

STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
A1*	6	3 7/8	2 3/4	5 1/2	RMA 104	718	2F4	VS010	3.90
A2*	6	1 5/32	1 5/32	2 11/32	Flashlight	724	Z4	VS068	1.00
A3*	4 1/2	4	1 3/8	4 1/8	RMA 103	736	F3	VS067	1.35
A4*	1 1/2	2 5/8	2 5/8	4	RMA 101	742	4F	VS004	1.65
A6*	6	2 5/8	2 5/8	4	RMA 104	744	F4PI	VS009	1.65
A7*	4 1/2	4	1 3/8	4 11/16	RMA 103	746	G3	VS002	1.50
8	7 1/2	4 1/16	15/16	3	RMA 105	713	B5	VS129	2.25
9	7 1/2	2 5/16	2	3 1/16	RMA 105	717	C5	VS065	1.65
11	1 1/2	2 5/16	1 5/16	4 1/4	RMA 101	W353	2F	VS141	1.10
12	1 1/2	3 3/4	1 3/8	5 11/16	RMA 101	—	4FL	VS005	1.86
13	1 1/2	1 1/32 Diam.	—	2 13/32	Flashlight	A100	230/2R	—	.25
14	1 1/2	1 1/32 Diam.	—	2 13/32	Flashlight	635	130	—	.25
15	1 1/2	9/16 Diam.	—	2 13/16	Flashlight	1015	930	—	.25
16	6	3 7/8	1 7/16	10 3/4	RMA 104	747	2F4L	VS011	3.95
18	1 1/2	2 5/16	1 5/16	1 31/32	RMA 101	720	2D	VS069	1.20
19	4 1/2	3 7/8	1 3/8	3	RMA 103	726	D3	VS072	1.35
20	1 1/2	1 3/8 Diam.	—	4 11/64	Flashlight	964	21R	VS236	.45
23	1 1/2	1 5/16 Diam.	—	4 1/16	RMA 101	960P	8R	VS070	.85
400 (NEDA 24)	1 1/2	7/16 Diam.	—	1 49/64	Flashlight	912	7	VS074	.15
26	7 1/2	2 19/32	2 1/16	2 7/8	2 Snap Fasteners	707	D5	VS315	1.50
27	6	3 7/8	2 3/4	5 1/2	RMA 105	—	2F4S	—	2.90

20



A3*

† Over-all height. * Prefix A added to NEDA number to eliminate duplication of existing Ray-O-Vac number.

RAY-O-VAC FIRST WITH NEDA NUMBERING

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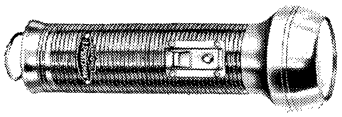
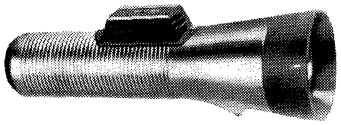
WORLD-FAMOUS FLASHLIGHTS
LANTERNS . . . HEADLIGHTS



S22F

303



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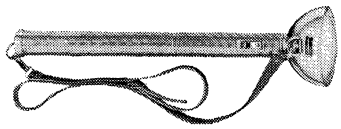

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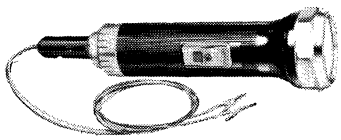

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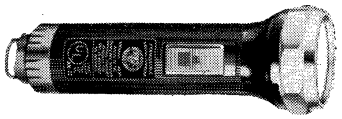

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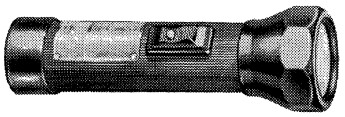
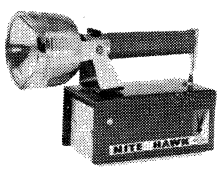


BM32

L298 and L19



L202

STOCK No.	DESCRIPTION	LIST PRICE
SPORTSMAN® LINE		
S21F	2-cell chrome knurled baby spotlight, ring hanger	$ 1.85
S22F	2-cell chrome knurled regular spotlight, ring hanger	1.95
S32F	3-cell chrome knurled spotlight, ring hanger	2.35
S33F	3-cell chrome searchlight with ring hanger	2.95
S367F	7 cell searchlight — converts to 3, 4, 6 cell.	7.95
S53F	5-cell chrome searchlight with ring hanger	3.95
S62F	6-cell chrome spotlight — converts to 3-cell	4.95
301	Sealed beam SPORTSMAN® lantern, knurled barrel grip — price includes battery	10.50
303	Sealed beam SPORTSMAN® lantern has shock absorber and red signal flasher — price includes battery	12.95
304	SPORTSMAN® lantern with swivel head — allows diffused glow or piercing beam — price includes battery	9.95
RAY-O-VAC MAGNET LIGHTS		
ML12	2-cell baby, magnet independent of switch	1.89
ML22	2-cell regular, magnet independent of switch	1.99
RAY-O-VAC PENLIGHTS		
P20	2-cell pen size	.98
Z21P	2-cell size "AA"	.98
HEAVY-DUTY FLASHLIGHTS Rubber End Caps		
BR22	2-cell prefocused spotlight with 3-position switch	1.85
G22	2-cell prefocused spotlight with replaceable switch	2.60
G32	3-cell prefocused spotlight with replaceable switch	2.67
HEAVY-DUTY WORKMAN® FLASHLIGHTS		
N22	2-cell prefocused spotlight, replaceable lock switch	3.25
N22T	2-cell prefocused spotlight, continuity tester built into removable end cap	6.75
N32	3-cell prefocused spotlight, replaceable lock switch	3.65
UNDERWRITER-APPROVED SAFETY LIGHTS		
AN22	2-cell prefocused spotlight with safety head	3.98
AN32	3-cell prefocused spotlight with safety head	4.40
BM22	2-cell prefocused spotlight with safety head	3.45
BM32	3-cell prefocused spotlight with safety head	4.20
HUNTER® LANTERN		
398	Versatile HUNTER® lantern with 3" reflector for piercing beam. Signal button on switch.	4.95
NITE HAWK® LINE		
L298	Headlight	3.29
L19	Battery pouch for headlight	.69
L202	Prefocused lantern with red signal flasher handle	8.98

RAY-O-VAC COMPANY, MADISON, WISCONSIN

A DIVISION OF THE ELECTRIC STORAGE BATTERY COMPANY

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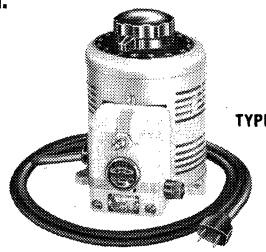
POWERSTAT® *Variable Transformers*

POWERSTAT variable transformers feature excellent regulation, high efficiency, conservative ratings, zero waveform distortion and rugged construction.

POWERSTATS of the 21, 116-216, 117-217, 126-226, 136-236, LW136 and 1156C-1256C Series are also available with motor-drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel except on 4P, 4PS, 4D, 6P, 6PS, 6D and 6Y models which do not have the 5 second speed. 117-217, 126-226 and 136-236 Series units are also available with 2- or 3-wire cord-plug sets. 1156C-1256C Series types are available for requirements up to 217 KVA.



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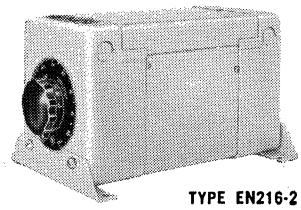

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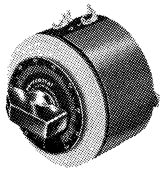

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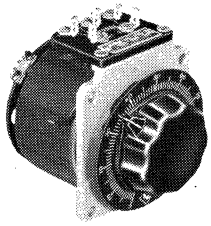

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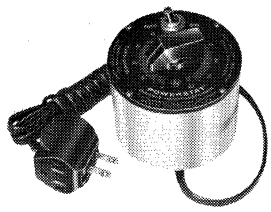

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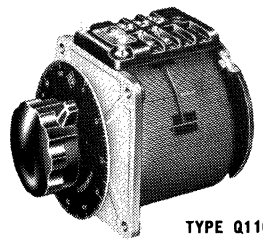

TYPE Q116U

RATINGS AND SPECIFICATIONS

10B SERIES

INPUT		OUTPUT					TYPE	Ship. Wt. Lbs.
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA		
Single Phase								
120	60	0-132	1.0	0.132	1.0	.132	2PF10	3.3
120	50/60	0-120	1.75*	0.21	2.5	.30	10B	2.4
120	60	0-132	1.75*	0.23	1.75*	.23		
240	50/60	0-240	1.75	0.42	2.5	.60	10B-2	5.6
240	60	0-264	1.75	0.46	1.75	.46		
Three Phase								
120	50/60	0-120	1.75	0.36	2.5	.52	10B-2	5.6
120	60	0-132	1.75	0.40	1.75	.40		
240	60	0-240	1.75	0.73	2.5	1.0	10B-3	8.3

21 SERIES

Single Phase								
120	50/60	0-120	3.75	0.45	5.5	0.66	21	6
120	50/60	0-140	3.75	0.53	3.75	0.53		
240	50/60	0-240	3.75	0.90	5.5	1.3	21-2	12
240	50/60	0-280	3.75	1.0	3.75	1.0		
Three Phase								
120	50/60	0-120	3.75	0.78	5.5	1.1	21-2	12
120	50/60	0-140	3.75	0.91	3.75	0.91		
240	50/60	0-240	3.75	1.6	5.5	2.3	21-3	17
240	60	0-280	3.75	1.8	3.75	1.8		

116-216 and 117-217 SERIES†

Single Phase								
120	50/60	0-120	7.5	0.90	10.0	1.2	116	12
120	50/60	0-140	7.5	1.0	7.5	1.0		
120	60	0-120	10.0	1.2	13.0	1.6	117T	12
240	50/60	0-240	3.0	0.72	4.5	1.1	216	12
240	50/60	0-280	3.0	0.84	3.0	.84		
240	60	0-240	4.0	1.0	6.3	1.5	217T	12
240	50/60	0-240	7.5	1.8	10.0	2.4	116T-2	24
240	50/60	0-280	7.5	2.1	7.5	2.1		
240	60	0-240	10.0	2.4	13.0	3.1	117T-2	24
480	50/60	0-480	3.0	1.4	4.5	2.2	216T-2	24
480	50/60	0-560	3.0	1.7	3.0	1.7		
480	60	0-480	4.0	1.9	6.3	3.0	217T-2	24

116-216 and 117-217 SERIES† (contd.)

INPUT		OUTPUT					TYPE	Ship. Wt. Lbs.
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA		
Three Phase								
120	50/60	0-120	7.5	1.6	10.0	2.1	116T-2	24
120	50/60	0-140	7.5	1.8	7.5	1.8		
120	60	0-120	10.0	2.1	13.0	2.7	117T-2	24
240	50/60	0-240	3.0	1.2	4.5	1.9	216T-2	24
240	50/60	0-280	3.0	1.5	3.0	1.5		
240	60	0-240	4.0	1.7	6.3	2.6	217T-2	24
240	50/60	0-240	7.5	3.1	10.0	4.2	116T-3	36
240	60	0-280	7.5	3.6	7.5	3.6		
240	60	0-240	10.0	4.2	13.0	5.4	117T-3	36
480	50/60	0-480	3.0	2.5	4.5	3.7	216T-3	36
480	60	0-560	3.0	2.9	3.0	2.9		
480	60	0-480	4.0	3.3	6.3	5.2	217T-3	36

EN116-EN216 and EN117-EN217 SERIES

Single Phase								
120	50/60	0-120	6.5	.78	10.0	1.2	EN116	15
120	50/60	0-140	6.5	.91	6.5	.91		
120	60	0-120	8.5	1.0	12.5	1.5	EN117	15
240	50/60	0-240	2.6	.62	4.0	.96	EN216	15
240	50/60	0-280	2.6	.73	2.6	.73		
240	60	0-240	3.5	.84	5.2	1.2	EN217	15
240	50/60	0-240	6.5	1.6	10.0	2.4	EN116-2	28
240	50/60	0-280	6.5	1.8	6.5	1.8		
240	60	0-240	8.5	2.0	12.5	3.0	EN117-2	28
480	50/60	0-480	2.6	1.2	4.0	1.9	EN216-2	28
480	50/60	0-560	2.6	1.5	2.6	1.5		
480	60	0-480	3.5	1.7	5.2	2.5	EN217-2	28
Three Phase								
120	50/60	0-120	6.5	1.4	10.0	2.1	EN116-2	28
120	50/60	0-140	6.5	1.6	6.5	1.6		
120	60	0-120	8.5	1.8	12.5	2.6	EN117-2	28
240	50/60	0-240	2.6	1.1	4.0	1.7	EN216-2	28
240	50/60	0-280	2.6	1.3	2.6	1.3		
240	60	0-240	3.5	1.5	5.2	2.2	EN217-2	28
240	50/60	0-240	6.5	2.7	10.0	4.2	EN116-3	39
240	60	0-280	6.5	3.2	6.5	3.2		
240	60	0-240	8.5	3.5	12.5	5.2	EN117-3	39
480	50/60	0-480	2.6	2.2	4.0	3.3	EN216-3	39
480	60	0-560	2.6	2.5	2.6	2.5		
480	60	0-480	3.5	2.9	5.2	4.3	EN217-3	39

FOOTNOTES *Rating is 2.0 amperes when mounted on a metal panel.
†Also available with open construction for back-of-panel mounting (suffix U when ordering). Prefix Q if square frame is desired instead of round frame on open construction (U) types.

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
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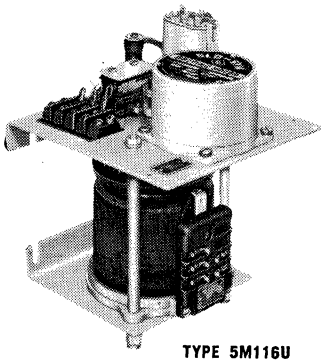
POWERSTAT® *Variable Transformers*



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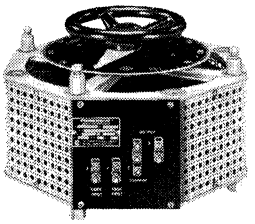

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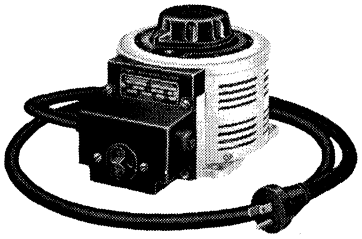

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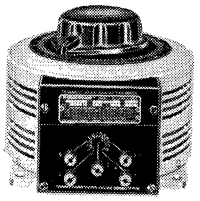

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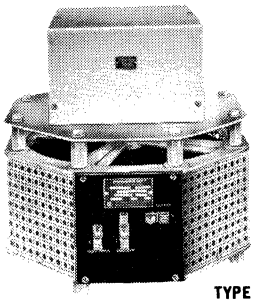

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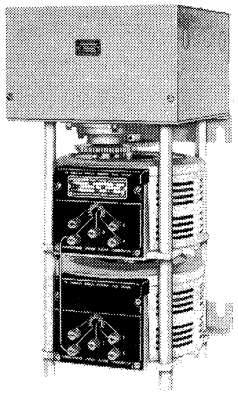


TYPE 15MB136-2

126-226 SERIES**

INPUT		OUTPUT						
			Const. Current Load		Const. Impedance Load			
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	12.5	1.5	18.0	2.2	126	17
120	50/60	0-140	12.5	1.8	12.5	1.8		
240	50/60	0-240	6.0	1.4	9.0	2.2	226	17
240	50/60	0-280	6.0	1.7	6.0	1.7		
240	50/60	0-240	12.5	3.0	18.0	4.3	126-2	32
240	50/60	0-280	12.5	3.5	12.5	3.5		
480	50/60	0-480	6.0	2.9	9.0	4.3	226-2	32
480	50/60	0-560	6.0	3.4	6.0	3.4		
Three Phase								
120	50/60	0-120	12.5	2.6	18.0	3.7	126-2	32
120	50/60	0-140	12.5	3.0	12.5	3.0		
240	50/60	0-240	6.0	2.5	9.0	3.7	226-2	32
240	50/60	0-280	6.0	2.9	6.0	2.9		
240	50/60	0-240	12.5	5.2	18.0	7.5	126-3	49
240	60	0-280	12.5	6.1	12.5	6.1		
480	50/60	0-480	6.0	5.0	9.0	7.5	226-3	49
480	60	0-560	6.0	5.8	6.0	5.8		

136-236 SERIES**

Single Phase								
120	50/60	0-120	20.0	2.4	25.0	3.0	136	25
120	50/60	0-140	20.0	2.8	20.0	2.8		
120	50/60	0-120	40.0	4.8	50.0	6.0	136-2§	52
120	50/60	0-140	40.0	5.6	40.0	5.6		
240	50/60	0-240	9.0	2.2	12.5	3.0	236	25
240	50/60	0-280	9.0	2.5	9.0	2.5		
240	50/60	0-240	20.0	4.8	25.0	6.0	136-2	52
240	50/60	0-280	20.0	5.6	20.0	5.6		
480	50/60	0-480	9.0	4.3	12.5	6.0	236-2	52
480	50/60	0-560	9.0	5.0	9.0	5.0		
Three Phase								
120	50/60	0-120	20.0	4.2	25.0	5.2	136-2	52
120	50/60	0-140	20.0	4.8	20.0	4.8		
240	50/60	0-240	9.0	3.7	12.5	5.2	236-2	52
240	50/60	0-280	9.0	4.4	9.0	4.4		
240	50/60	0-240	20.0	8.3	25.0	10.4	136-3	76
240	60	0-280	20.0	9.7	20.0	9.7		
480	50/60	0-480	9.0	7.5	12.5	10.4	236-3	76
480	60	0-560	9.0	8.7	9.0	8.7		

LW136 SERIES††

INPUT		OUTPUT				
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase						
120/240	50/60	15-0-15	35.0	.52	LW136	25
120/240/480	50/60	30-0-30	35.0	1.0	LW136-2	52
120/240	50/60	45-0-45	35.0	1.6	LW136-3	76
120/240	50/60	0-30	25.0	.75	LW136	25
120/240/480	50/60	0-60	25.0	1.5	LW136-2	52
120/240	50/60	0-90	25.0	2.2	LW136-3	76
Three Phase						
120/240	50/60	0-30	25.0	1.3	LW136-2	52
120/240	50/60	0-30	43.3	2.2	LW136-3	76
120/240	50/60	0-52	25.0	2.2	LW136-3	76
240/480	60	0-35	43.3	2.6	LW136-3	76
240/480	60	0-60	25.0	2.6	LW136-3	76

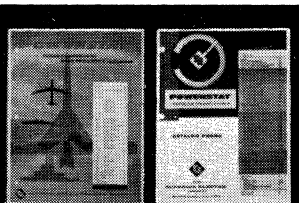
1156C—1256C SERIES §§

Single Phase						
120	50/60	0-140	45.0	6.3	1156C	79
120	50/60	0-140	90.0	12.6	1156C-2P	160
120	50/60	0-140	135.0	18.9	1156C-3P	280
120	50/60	0-140	180.0	25.2	1156C-4P	410
120	50/60	0-140	270.0	37.8	1156C-6P	615
240	50/60	0-280	28.0	7.8	1256C	79
240	50/60	0-280	45.0	12.6	1156C-2S	152
240	50/60	0-280	56.0	15.7	1256C-2P	160
240	50/60	0-280	84.0	23.5	1256C-3P	280
240	50/60	0-280	90.0	25.2	1156C-4PS	390
240	50/60	0-280	112.0	31.4	1256C-4P	410
240	50/60	0-280	135.0	37.8	1156C-6PS	595
240	50/60	0-280	168.0	47.0	1256C-6P	600
480	50/60	0-560	28.0	15.7	1256C-2S	152
480	50/60	0-560	56.0	31.4	1256C-4PS	390
480	50/60	0-560	84.0	47.0	1256C-6PS	595
Three Phase						
120	50/60	0-140	45.0	10.9	1156C-2D	152
120	50/60	0-140	90.0	21.8	1156C-4D	390
120	50/60	0-140	135.0	32.7	1156C-6D	595
240	50/60	0-280	28.0	13.6	1256C-2D	152
240	60	0-280	45.0	21.8	1156C-3Y	225
240	50/60	0-280	56.0	27.2	1256C-4D	390
240	50/60	0-280	84.0	40.7	1256C-6D	595
240	60	0-280	90.0	43.6	1156C-6Y	575
480	60	0-560	28.0	27.2	1256C-3Y	225
480	60	0-560	56.0	54.3	1256C-6Y	575

FOOTNOTES

§Requires also one paralleling choke type T5000.
**126-226 and 136-236 Series also available with open construction for back-of-panel mounting (suffix U when ordering).
††LW136 Series ratings are for use as low voltage isolated output transformer. Also permits connection for use as limited range transformer or as a line corrector. Full connections and ratings in Catalog P258G.
§§1156C and 1256C Series also available with maximum output voltage equal to line voltage (suffix L when ordering).

COMPLETE LITERATURE
containing full product information, engineering data, outline drawings, connections, ratings, charts and illustrations on all standard and special use POWERSTATS is available on request. Specify whether 50/60 cycle, 400/800 cycle or complete file is desired.



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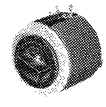
POWERSTAT® *Variable Transformers*

40-VOLT SERIES

Designed to meet the high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. For single phase operation.



TYPE 10B-40

TYPE 116U-40

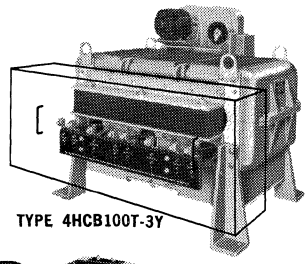
TYPE 21-40

40-VOLT SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
40	60	0-40	6.0	0.24	10B-40	3.3
			15.0	0.6	21-40	6
			25.0	1.0	116U-40	11

H-C SERIES

High current, high efficiency types featuring a new variable transformer design concept with helical coils and patented re-entry rings. Extremely fine voltage division. 3 phase only.



TYPE 4HCB100T-3Y

H-C SERIES

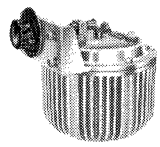
INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
240	60	0-270	200	93.5	2HC200T-3Y*	1800
240	50/60	0-240	200	83	2HC200LT-3Y*	
240	60	0-270	360	168	2HCB200T-3Y†	
240	50/60	0-240	360	149	2HCB200LT-3Y†	
480	60	0-540	100	93.5	4HC100T-3Y*	
480	50/60	0-480	100	83	4HC100LT-3Y*	
480	60	0-540	200	187	4HCB100T-3Y†	
480	50/60	0-480	200	166	4HCB100LT-3Y†	

*Convection cooled †Forced-air cooled

LINE CORRECTORS, OIL-COOLED, EXPLOSION-PROOF

Special use types to meet the requirements of a wide range of applications.

LINE CORRECTOR TYPE LC2106C



OIL-COOLED TYPE 0-116

EXPLOSION-PROOF TYPE X-116

LINE CORRECTOR SERIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Used as Line Correctors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102C	55
95-135	50/60	115	52.0	6.0	LC2106C	80
95-135	50/60	115	130.0	15.0	LC2115C	200
195-255	50/60	230	32.5	7.5	LC2207C	85
205-250	50/60	230	120.0	27.5	LC2228C	205
400-520	50/60	460	15.0	6.6	LC2407C	85
400-520	50/60	460	40.0	17.6	LC2418C	205
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25.0	10.0	LC3210YC	211
195-255	50/60	230	38.0	15.0	LC3215YC	226
195-255	50/60	230	50.0	20.0	LC3220YC	241
195-255	50/60	230	113.0	45.0	LC3245YC	615
195-255	50/60	230	175.0	70.0	LC3270DC	795
400-520	50/60	460	16.0	12.5	LC3412YC	200
400-520	50/60	460	22.0	17.5	LC3417YC	215
400-520	50/60	460	33.0	25.0	LC3425YC	230
400-520	50/60	460	66.0	50.0	LC3450YC	580
400-520	50/60	460	100.0	75.0	LC3475YC	630
420-500	50/60	460	131.0	100.0	LC34100YC	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

OIL-COOLED

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	15.0	1.8	0-116	32
120	50/60	0-140	15.0	2.1		
120	50/60	0-140	30.0	4.2	0-1126	100
240	50/60	0-240	6.0	1.4	0-216	32
240	50/60	0-280	6.0	1.7		
240	50/60	0-280	18.0	5.0	0-1226	105

OTHER TYPES AVAILABLE ON SPECIAL ORDER

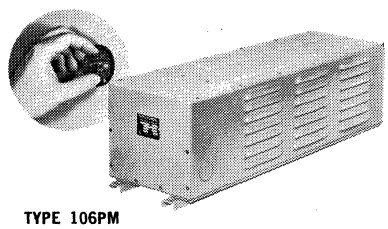
EXPLOSION-PROOF

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	7.5	0.90	X-116	47
120	50/60	0-140	7.5	1.0		
120	50/60	0-140	12.0	1.7	X-1126	142
240	50/60	0-240	3.0	0.72	X-216	47
240	50/60	0-280	3.0	0.84		
240	50/60	0-280	6.0	1.7	X-1226	142

other variable voltage controls

STATROL Magnetic Amplifiers

Essentially a two-stage magnetic amplifier remotely controlled by a small indicating potentiometer. Completely static device containing no moving parts, relays or tubes.



TYPE 106PM

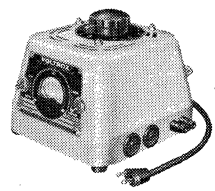
STATROL MAGNETIC AMPLIFIERS

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
120	60	0*-120	25	3.0	103PM	92
			50	6.0	106PM	142
			83	10.0	110PM	202
			125	15.0	115PM	260

*Nominal zero (12 volts maximum)

VOLTBOX® A-C Power Supplies

Compact, versatile instruments containing all the necessary components necessary for tests involving a-c voltage.



TYPE UC1M

VOLTBOX® A-C POWER SUPPLIES

INPUT VOLTS	INPUT CYCLES	OUTPUT VOLTS	OUTPUT MAX. AMPS.	OUTPUT MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-140	7.5	1.0	UC1M	17
240	50/60	0-280	3.0	0.84	UC2M	17

OTHER TYPES AVAILABLE ON SPECIAL ORDER

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100 AND 3500

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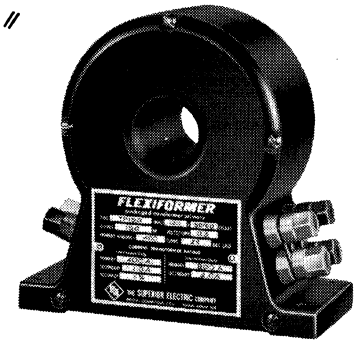
FLEXIFORMER®

Packaged Transformer Primary

"Do-it-yourself" THE TRANSFORMER

- A SOURCE OF A-C VOLTAGE
- A CURRENT TRANSFORMER
- 150 VA AND 1000 VA TYPES



TYPE TP150

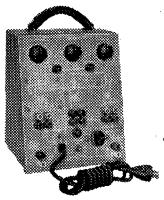
A FLEXIFORMER Packaged Transformer Primary is a self-contained toroidal primary coil encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening. Can be portable or fastened permanently

AS A SOURCE OF A-C VOLTAGE					AS A CURRENT TRANSFORMER					
NOMINAL PRIMARY VOLTS*	CYCLES	MAX. VA	VOLTS PER SECONDARY TURN	REG. AT MAX. OUTPUT	INPUT/ OUTPUT RATIO	MAX. PRIMARY AMPS.†	MAX. SECONDARY AMPS.†	ACCURACY AT 60 CYCLES	TYPE	SHIP. WT. LBS.
120	50/60	150	0.3	25%	400/1	400	1.0	1%	TP150	6
120	50/60	1000	0.75	10%	160/1	800	5.0	1%	TP1000	24

*Maximum 175 volts at 60 cycles, 145 volts at 50 cycles.
†Ratings for continuous duty. Double for intermittent duty but with reduced accuracy.

POWERSTAT®

Decade Line Corrector



Type DLC1005

INPUT: 120 v., 50/60 cycles, single phase
OUTPUT: 5.0 amperes maximum

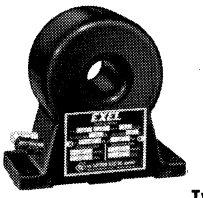
	OUTPUT RANGE		
	DIAL #1	DIAL #2	DIAL #3
LINE CORRECTOR*	90%-110%	99%-101%	99.9%-100.1%
VARIABLE LOW VOLTAGE SUPPLY*	10%-0-10%	1.0%-0-1.0%	0.1%-0-0.1%

*Percent of line voltage.

Can be used as either a variable low voltage supply or as a line corrector. Essentially consists of three POWERSTAT variable transformers individually connected to three buck-boost fixed-ratio transformers. SUPERIOR 5-WAY binding posts with jumpers are provided and arranged so that outputs can be inserted in the line or removed as desired. The output voltage adjustments can be made in any combination or individually as desired.

EXEL

Loading Reactor



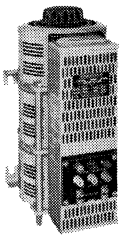
Type LR2

120 volts, 60 cycles
2.0 amperes at 120 volts
Inductive reactance 60 ohms
D-C resistance 4.0 ohms
Inductance 0.16 henrys

Designed to provide a convenient inductive load which can be made adjustable when used in conjunction with a POWERSTAT variable transformer. Used primarily for testing apparatus at various lagging power factors, i.e., to simulate an inductive load. Essentially consists of a gapped, strip-wound silicon steel toroid core, wire-wound and imbedded in epoxy compound. Entire assembly enclosed in a self-contained, durable, high grade phenolic case having two SUPERIOR 5-WAY binding posts for connections. At 60 cycles, the EXEL has essentially a linear current curve from 0 to nominal 2.0 amperes for continuous duty and up to 3.0 amperes for intermittent duty.

VARICELL®

adjustable
A-C/D-C Power Supply



Type V4050-3

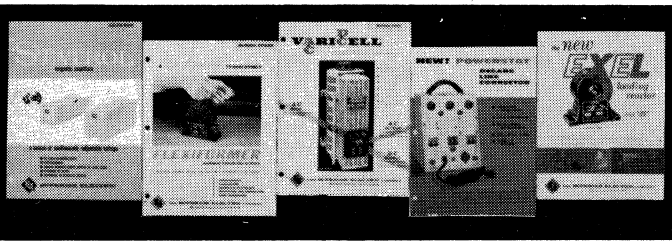
A-C INPUT: 240 v., 50/60 cycles, 3-phase (Primary delta connected) / 480 v., 50/60 cycles, 3-phase (Primary wye connected)

A-C OUTPUT: 0-25 v., 40 amps., 3-phase (Secondary delta connected) / 0-50 v., 25 amps., 3-phase (Secondary wye connected)

D-C OUTPUT: 0-35 v., 50 amps. (Secondary delta connected) / 0-60 v., 30 amps. (Secondary wye connected)

Provides a source of adjustable low a-c or d-c voltage from a-c power lines. Essentially consists of a 3-phase, low voltage POWERSTAT variable transformer combined with a static d-c power supply. Power supply uses highly efficient silicon rectifier cells connected for full-wave 3-phase operation. The a-c and d-c outputs cannot be simultaneously loaded or externally interconnected. The a-c output can be used either single or three-phase.

REQUEST BULLETINS AND DATA SHEETS giving complete information on STATROL magnetic amplifiers, FLEXIFORMER packaged transformer primaries, VARICELL adjustable A-C/D-C power supply, POWERSTAT decade line corrector and EXEL loading reactor.



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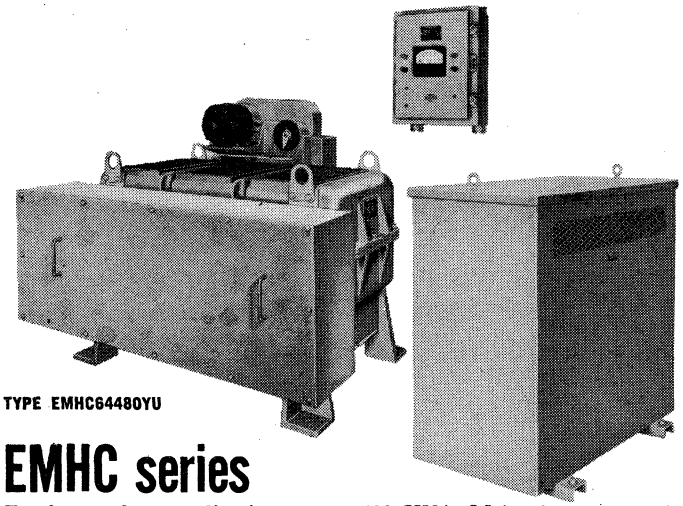
STABILINE® automatic VOLTAGE REGULATORS



TYPE EMHC64480YU

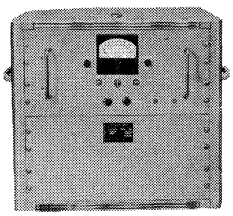
EMHC series

For heavy duty applications up to 480 KVA. Maintain a constant output voltage regardless of line or load changes. Feature zero waveform distortion, efficiency as high as 99%, rapid correction of output voltage variations, wide input range of 380-520 volts, insensitivity to magnitude and power factor of load, no effect on system power factor, full control circuit protection. Patented re-entry rings and helical coils on H-C Series POWERSTAT Variable Transformer component permit extremely fine, stepless voltage adjustment with very low voltage drop.

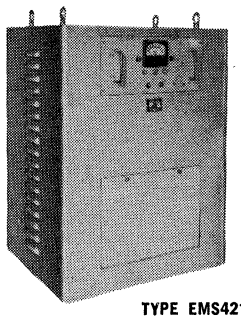
NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Three Phase Operation						
460	380-520	440-480	300	240	.28	EMHC64240YU
			600	480	.28	EMHC64480YU

EMT series

Electro Mechanical Transistorized types in ratings from 2 to 100 KVA. Control circuit is completely transistorized. Speed of response sufficiently fast for most applications.



TYPE EMT4115



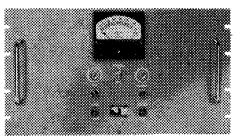
TYPE EMS42100

EMS series

Electro Mechanical Transistorized types for single or three phase duty with ratings from 25 to 275 KVA. Several types available with individual line control for greater application flexibility.

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy ±1.0% of nominal output voltage.



TYPE EMK4105R

RATINGS AND SPECIFICATIONS

EMT SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	17.5	2.0	.075	EMT4102†
	95-135	110-120	52.0	6.0	.075	EMT4106B§
	105-125	110-120	104.0	12.0	.15	EMT4112B*§
	95-135	110-120	130.0	15.0	.125	EMT4115
120	108-137	110-120	35.0	4.2	0.1	EMT4104
						EMT4104U
						EMT4104UT
230‡	195-255	220-240	32.5	7.5	.083	EMT4207
	205-250	220-240	120.0	27.5	.111	EMT4228B
240‡	228-256	220-240	35.0	8.4	0.1	EMT4104
						EMT4104U
						EMT4104UT
460	400-520	440-480	15.0	6.6	.041	EMT4407
	400-520	440-480	40.0	17.6	.041	EMT4418
For 50/60 Cycle, Three Phase Operation						
230‡	195-255	220-240	25.0	10.0	.083	EMT6210Y
			38.0	15.0	.083	EMT6215Y
			50.0	20.0	.083	EMT6220Y
			113.0	45.0	.25	EMT6245Y
			175.0	70.0	.25	EMT6270D
460	400-520	440-480	16.0	12.5	.041	EMT6412Y
			22.0	17.5	.041	EMT6417Y
			33.0	25.0	.041	EMT6425Y
			66.0	50.0	.125	EMT6450Y
			100.0	75.0	.125	EMT6475Y
460	420-500	440-480	131.0	100.0	.188	EMT64100Y

EMS SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 60 Cycle, Single Phase, 2 Wire, Single Control Operation						
115	103.5-126.5	110-120	833	100	.65	EMS41100
230**	218.5-241.5	220-240	435	100	.22	EMS42100**
For 50/60 Cycle, Single Phase, 3 Wire, Individual Line Control Operation						
240/120	204-276/102-138	230-250/115-125	104	25	.06/.03	EMSI4225
	204-276/102-138	230-250/115-125	250	60	.06/.03	EMSI4260
	228-252/114-126	220-240/110-120	417	100	.21/.10	EMSI42100††
For 50/60 Cycle, Three Phase, Single Control Operation						
230**	203-257	220-240	339	135	.28	EMS62135Y**
460	445-495	440-480	230	180	.30	EMS64180Y
			347	275	.30	EMS64275Y
For 50/60 Cycle, Three Phase, Individual Line Control Operation						
208/120	177-239/102-138	191-217/115-125	250	90	.08/.14	EMSI6290Y
	165-233/95-135	191-217/115-125	525	190	.22/.37	EMSI62190Y††

EMK SERIES

For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	21.5	2.5	.02	EMK4105†
	105-125	110-120	43.0	5.0	.04	

See Footnotes on Facing Page

THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.
SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100 AND 3500

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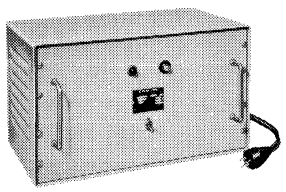
STABILINE® automatic VOLTAGE REGULATORS

IE series

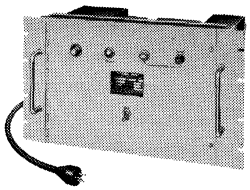
Instantaneous Electronic types have no moving parts. Hold output voltage to within ±0.1% for wide line variations, within ±0.15% for any load current change or power factor change from .5 lagging to unity.



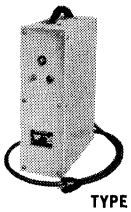
TYPE IE5101

TM series

Tubeless Magnetic types have no tubes, transistors or moving parts. Response time for ordinary line and/or load changes is within ½ second; accuracy is within a 1.0 volt bandwidth. Waveform distortion is 4% or less.



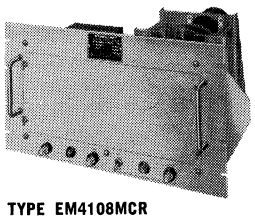
TYPE TM7101R



TYPE IET51002

IET series

Instantaneous Electronic Transistorized types in ratings from 0.25 to 1.0 KVA. Output voltage remains within a 0.5 volt bandwidth for any and all variations in line voltage, load current and load power factor.



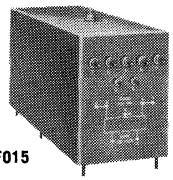
TYPE EM4108MCR

MILITARIZED

1.0 KVA Instantaneous Electronic and 8.0 KVA Electro Mechanical types meet requirements of specification MIL-E-4158B. All fit standard 19″ relay rack.

MR series

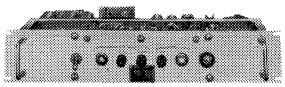
Provide the constant RMS voltage required to maintain proper tube filament temperature. Response time will not exceed 0.6 second under most adverse line or load changes.



TYPE MR6F015

400 CYCLE

Instantaneous Electronic types in ratings of 1.0 and 5.0 KVA. Maximum waveform distortion is 3.5% under all input line and most load conditions. Other 400 cycle types listed under MR Series and Militarized types.



TYPE IEH5101R

RATINGS AND SPECIFICATIONS

IE SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 60 ± 10% Cycle Operation					
115	95-135	110-120	2.2	0.25	IE51002†
			4.5	0.5	IE51005†
			8.5	1.0	IE5101†
			22.0	2.5	IE5102†
			43.5	5.0	IE5105†
			87.0	10.0	IE5110
230	195-255	220-240	1.1	0.25	IE52002†
			2.2	0.5	IE52005†
			4.5	1.0	IE5201†
			11.0	2.5	IE5202†
			22.0	5.0	IE5205†
			43.5	10.0	IE5210
For 50 ± 10% Cycle Operation					
115	95-135	110-120	4.5	0.5	IEL51005†
			8.5	1.0	IEL5101†
			43.5	5.0	IEL5105†
230	195-255	220-240	2.2	0.5	IEL52005†
			4.5	1.0	IEL5201†
			11.0	2.5	IEL5202†
			22.0	5.0	IEL5205†

IET SERIES

For 60 ± 5% Cycle Operation					
115	95-135	110-120	2.2	0.25	IET51002†
			4.5	0.5	IET51005†
			8.5	1.0	IET5101†

TM SERIES

For 60 ± 5% Cycle Operation					
115	95-135	110-120	8.5	1.0	TM7101†
			43.5	5.0	TM7105B†

MR SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	FREQUENCY (cycles)	LOAD RANGE IN AMPERES	RATED OUTPUT	TYPE
6.3	120V. RMS ± 10%	6.0-6.5	60 ± 10%	8.0-25.0	150 VA	MR6F015
6.3	120V. RMS ± 10%	6.0-6.5	400 ± 5%	2.5- 8.2	50 VA	MRH6F005

IEH 400 CYCLE TYPES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 400 ± 5% Cycle Operation					
115	95-130	110-120	8.5	1.0	IEH5101R
			43.5	5.0	IEH5105†

MILITARIZED TYPES IE5101MR AND IEH5101MR

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 60 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IE5101MR
For 400 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IEH5101MR

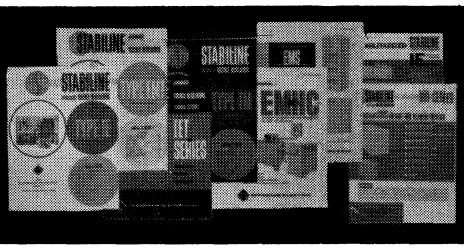
MILITARIZED TYPE EM4108MCR

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 45-66 Cycle, Single Phase Operation						
120	105-135‡‡	115-125	66.6	8.0	0.1	EM4108MCR

FOOTNOTES (all charts)

†Also available as rack models (suffix R when ordering). ††For 60 cycle operation only.
*Can also be operated on an input range of 95 to 135 volts with a rating of 52.0 amperes, 6.0 KVA and a correction rate of .075 seconds per volt.
**Can also be operated at nominal 208 volts output with proportional changes in input and output voltage ranges.
‡Units can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change in proportion.
‡‡At 120 volt input. Shifts proportionally with output voltage setting.
§Also available as rack (suffix R when ordering) or wall mounted (suffix W when ordering) models.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on STABILINE automatic voltage regulators, request either the complete STABILINE literature file or individual bulletins describing the series that meet your particular requirements.



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SPELLMAN HIGH VOLTAGE RF TYPE - DC POWER SUPPLIES

MODEL RG-30

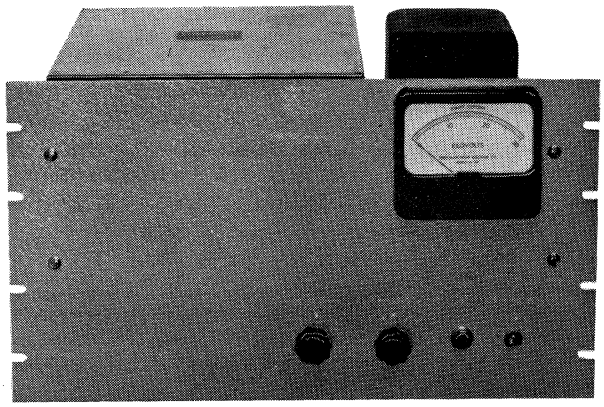
CONTINUOUSLY VARIABLE 15-30 KV REGULATED DC POWER SUPPLY WITH REGULATED FOCUS VOLTAGE TAP

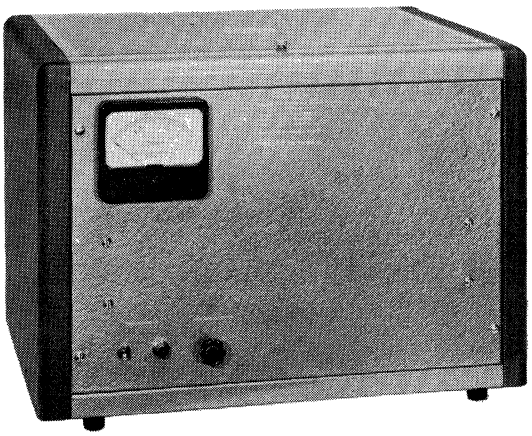
A continuous duty DC supply with highly filtered outputs and regulations better than 0.5% at 1 ma. — no load to full load. A variable focus tap 4-6 KV for use with 5WP11, 5TP4 and flying spot tubes. Dimensions: 19" wide x 10½" high x 13" deep.

With HV meter $375 Net **Less meter $325 Net**

MODEL RG-40 is a 20-40 KV unit with focus tap designed for use with 5AZP4 projection tube. In wide use in projection television systems. Same specifications as RG-30 except .7 ma. at 40 KV.

With meter $375 Net **Less meter $325 Net**





MODEL LAB-30PN

DC POWER SUPPLY REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 30 KV

Regulated DC Power Supply with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel.

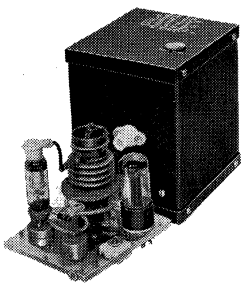
Standard Rack Model — 19" wide x 12" high x 13" deep.
Standard Bench Model — 21" wide x 14" high x 15" deep.

With HV meter $645 Net **Less Meter $595 Net**

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter $545 Net **Less meter $495 Net**

MODEL 4575



5 KV — 1 ma. DC POWER SUPPLY

For an output voltage of 5 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7½ KV. Dimensions: 5⅝" high x 5" deep x 4¼" wide. In completely enclosed metal housing.

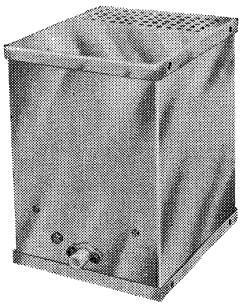
$32.50 net

MODEL 4575-2 — same as above with 2 ma. output at 5 KV ..... **$42.50 net**

MODEL 4575PN — Reversible polarity. High voltage secondary floating or can be grounded. 1 ma. at 5 KV ..... **$42.50 net**

MODEL 4575-2PN — Reversible polarity. 2 ma. at 5 KV ..... **$52.50 net**

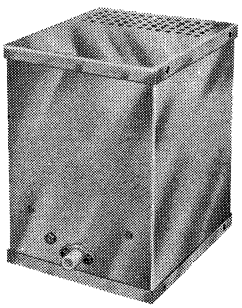
MODEL 7512



12KV — 1 ma. DC Power Supply — Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5¾" W., 8¼" H., 6¾" D. ..... **$42.50 net**

MODEL 7516 — Same as above with output of 16 KV at .5 ma. ..... **$48.50 net**

MODEL 7516



20 KV — .5 ma. DC POWER SUPPLY

Voltage output of approx. 10 to 20 KV. To obtain output voltage of 10 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. Maximum input voltage of 425 V at 100 ma. will give an output of 20 KV at .5 ma. 5¾" W., x 8¼" H., x 6¾" D.

$48.50 net

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Net

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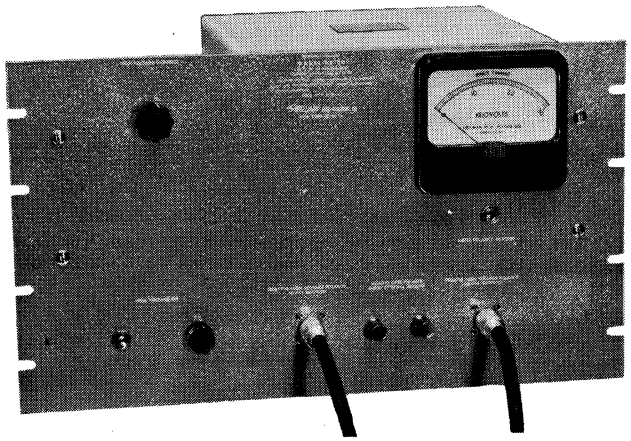
SPELLMAN

HIGH VOLTAGE RF TYPE - DC POWER SUPPLIES



MODEL PN-30

REVERSIBLE POLARITY
Continuously Variable 1-30 KV
Unregulated DC Power Supply

A light, compact unit in wide use for insulation testing, condenser charging, precipitators and laboratory research. Polarity reversible from front panel. Current output — 2 milliamperes at 20 KV: 1 ma. at 30 KV. Input — 117V AC 60 cycles. Dimensions: 19" x 10½" x 13". ..... **$275 net**
Less meter ..... **$225 Net**

MODEL PN-30C — Same as above except automatic overload and reset button provided. Adjustable sensitivity 0.5 ma. to 2.5 ma.

With meter ..... **$325 net**
Less meter ..... **$275 net**

MODEL 2040

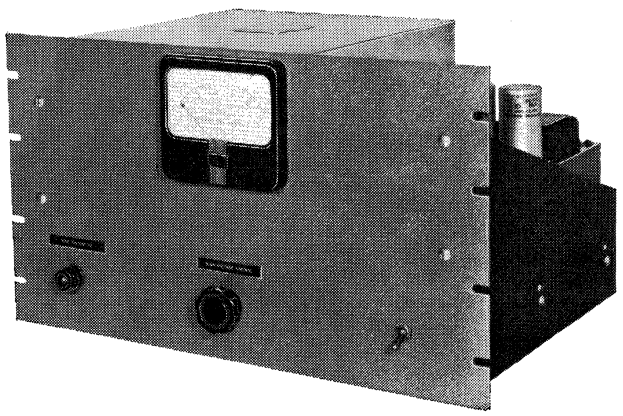
40 KV DC POWER SUPPLY

A ruggedly built RF type power supply which is in constant use in laboratories and industrial plants throughout the world for condenser charging, electrostatic paint spraying and insulation testing, electrostatic flocking, etc. In wide use for spot knocking by TV tube manufacturers. Designed for constant use and will stand severe abuse. Available with either positive or negative 40 KV output. Voltage range is approx. 12 to 40 KV continuously variable. The 12 to 40 KV variance in voltage is controlled through a knob on the front panel. Voltage supplied through a 6 ft. HV Safety Cable. Specify desired polarity when ordering. Specifications: Continuously variable 12 to 40 KV. 1 ma. at 30 KV Input: 117V — 60 cycles. 19" wide x 12¼" high x 13" deep.

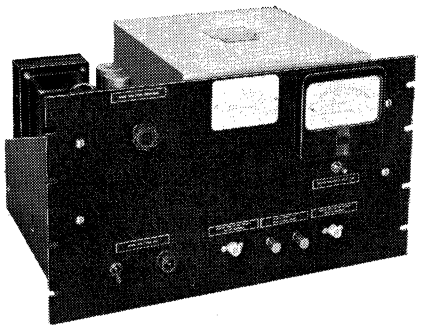
With meter on front panel ..... **$215 net**
Less meter ..... **$165 net**

MODEL 2040C — Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity 0.5 ma. to 2 ma.

With meter ..... **$265 net**
Less meter ..... **$215 net**



MODEL PN-15

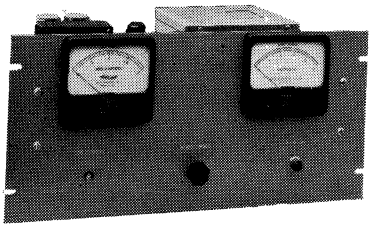


FLOATING REVERSIBLE POLARITY
CONTINUOUSLY VARIABLE
1 TO 15 KV
UNREGULATED
DC POWER SUPPLY

The high voltage output available through Alden HV connectors on front panel. Reversible and floating secondary — either positive or negative can be grounded or left floating. Current output 2 ma. at 15 KV. Voltage continuously variable through knob on front panel. Dimensions 8¾" high x 19" wide x 11" deep.

Complete with meter ..... **$250 net**

MODEL LAB-10



CONTINUOUSLY VARIABLE 0-10 KV
REGULATED DC SUPPLY

Output current 2 ma. Regulations better than 1%. Complete with HV and current meters 19" W x 8¾" H x 13" D .... **$275 net**

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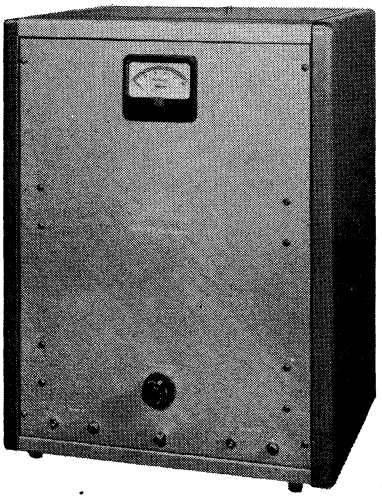
SPELLMAN HIGH VOLTAGE RF TYPE - DC POWER SUPPLIES



MODEL LAB-90
0-90 KV REGULATED DC POWER SUPPLY

Continuously variable 0 to 90 KV DC Power Supply. Ideal for kinematic electron diffraction equipment and high voltage condenser charging. Output current .7 ma. at 90 KV. 1 ma. at 80 KV. 2 ma. from 40 KV down. Voltage regulations better than 1% throughout entire range. Dimensions in cabinet: 28" high x 21¾" wide x 18" deep.

LAB-90 Complete with HV meter ..... **$900 Net**
Specify polarity output — positive or negative.

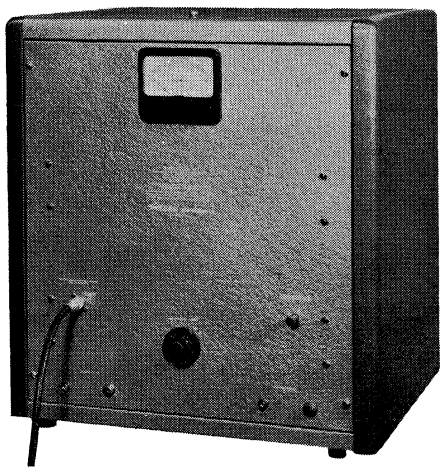
MODEL LAB-90C—Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity. .5 ma. to 2.5 ma. ..... **$950 Net**

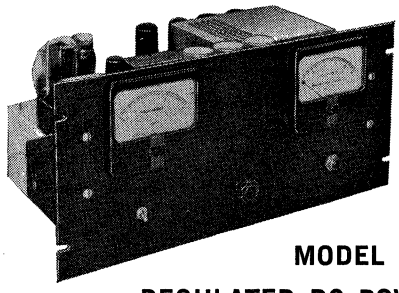
MODEL LAB-60PN
REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 0-60 KV DC REGULATED POWER SUPPLY

Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 1% at 1 ma. 21¾" wide x 22¾" high x 18" deep. Dimensions in cabinet: 22¾" high x 21" wide x 18" deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. ..... **$820 Net**

LAB-60 — Same as above not reversible. Specify polarity when ordering..... **$765 Net**





MODEL RG-10, 10 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 8 to 12 KV.

Complete with Current and Volt Meters ..... **$260 Net**

MODEL RG-5, 5 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 4 to 6 KV.

Complete with Current and Volt Meters ..... **$250 Net**

MODEL RG-15, 15 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 13 to 17 KV.

Complete with Current and Volt Meters ..... **$275 Net**

DIMENSIONS: Panel Height 8¾", Width 19", Depth 11".

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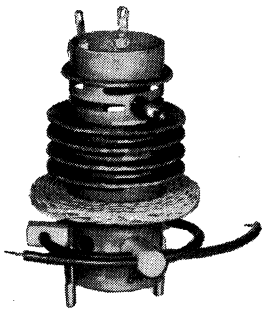
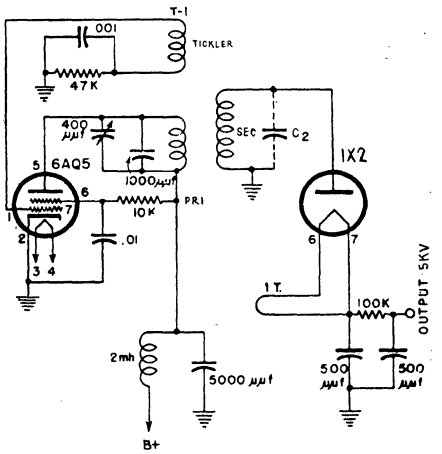
SPELLMAN HIGH VOLTAGE STEP-UP COILS

FOR RF POWER SUPPLIES

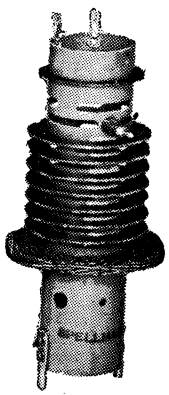


COIL MODEL 5 KV

Secondary Height	3½"
Secondary Windings	1¾"
Consisting of 4 Pie Windings	
Primary Diameter	2¼"
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	**$7.00 Net**

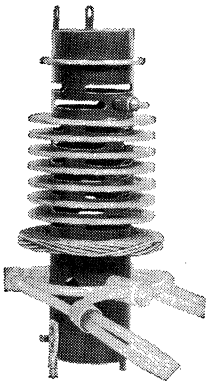


COIL MODEL 10-15 KV

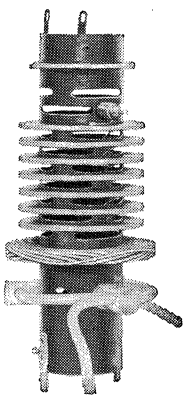


10-15 KV
$12.00 Net

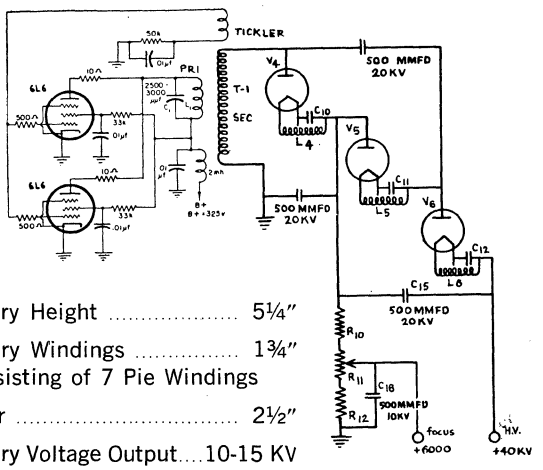
COIL MODEL 10-15 KV-1



COIL MODEL 10-15 KV-2

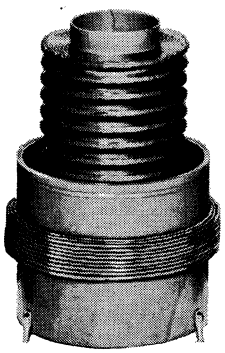


10-15 KV-1 with filament winding for single LB3 rectifier ..... **$12.50 Net**
10-15 KV-2 with 2 filament windings for two 1B3 rectifiers ..... **$13.00 Net**



Secondary Height	5¼"
Secondary Windings	1¾"
Consisting of 7 Pie Windings	
Diameter	2½"
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

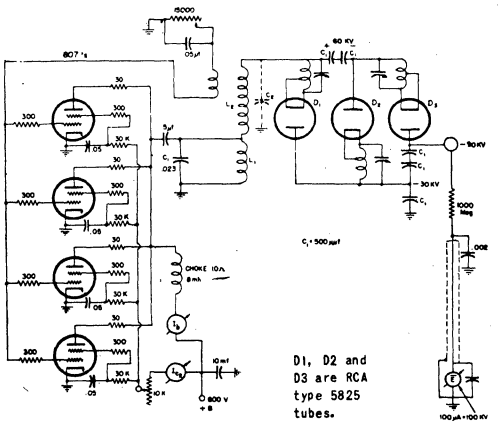
L4, L5, L6 are Spellman RF Filament Transformers



COIL MODEL 35 KV

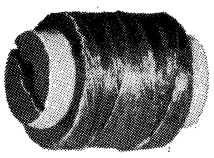
Secondary Height	7"
Secondary Windings	3" dia.
Consisting of 10 Pie Windings	
Primary (separate from secondary)	
Height	4"
Diameter	4¼"
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	**$42.00 Net**
25KV—Same as 35 KV except	
Secondary Height	6"
25KV Coil	**$36.00 Net**

TECHNICAL INFORMATION AND CIRCUIT DIAGRAMS FURNISHED WITH EACH COIL



D1, D2 and D3 are RCA type 5825 tubes.

L4, L5, L6 are Spellman RF Filament Transformers



RF FILAMENT TRANSFORMERS

A self-resonant auto transformer for use with type 1B3 Rectifier tube. Complete with instructions.

Will operate with Spellman HV coils **$1.50**

Tuning Padder for Filament Transformer.. **.58**

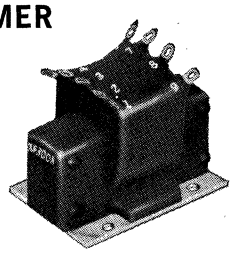
SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

© U.C.P., Inc.

Net

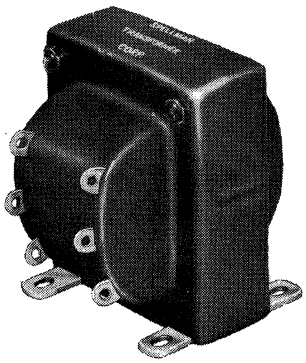
SPELLMAN HIGH VOLTAGE TRANSFORMERS

HIGH VOLTAGE TRANSFORMER FOR TRANSISTORIZED 7KV DC POWER SUPPLY



For a transistorized full wave DC to DC Converter. For 25 Volt DC input. Output voltage 7KV DC at .5 ma. may be obtained. Supplied with operating circuit diagram. Completely encapsulated. 2" H x 2¾" W x 1¾" D.

MODEL T-7A .....**$24.00 Net**

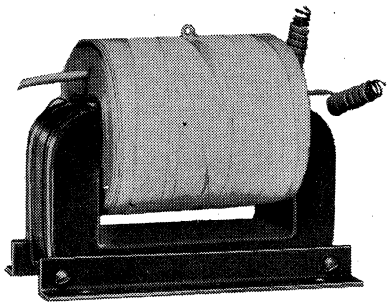


TRANSISTORIZED HIGH VOLTAGE TRANSFORMER

Designed for input voltage from 11 to 15 Volts DC. Input current from 2 to 10 amps. Output voltage from single rectifier stage 10 KV at 2 ma. Supplied with operating circuit diagram showing transistors and rectifier for an operational power supply. Completely encapsulated. 4"H x 3¼" W x 4" D.

MODEL T-10 .....**$28.00 Net**

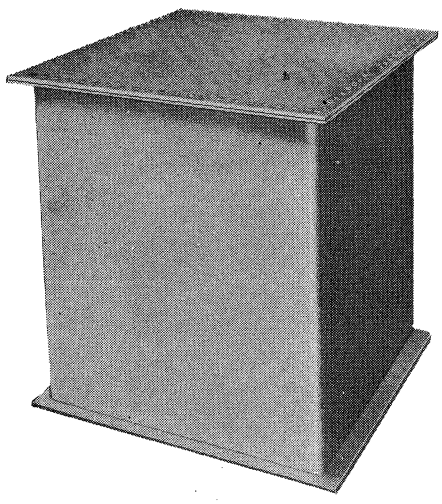
HYPERSIL CORE OIL INSULATED HIGH VOLTAGE TRANSFORMER



Voltage input 110 Volts AC. Output 20 KV Rms. Suitable for use in 50 KV DC 10 ma. Power Supply.

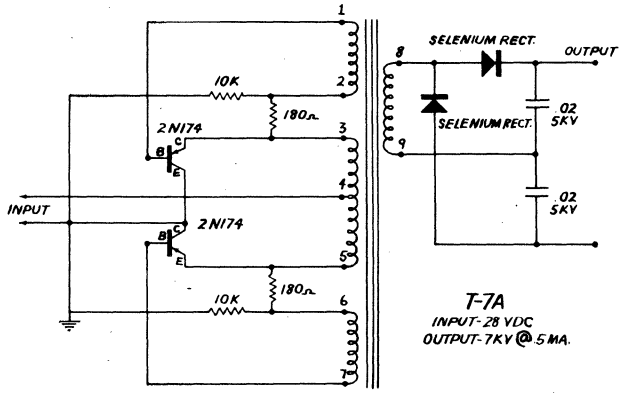
MODEL HV-20 .....**$51.00 Net**

OIL FILLED TANK FOR 100 KV HIGH VOLTAGE UNIT AT LOW CURRENT

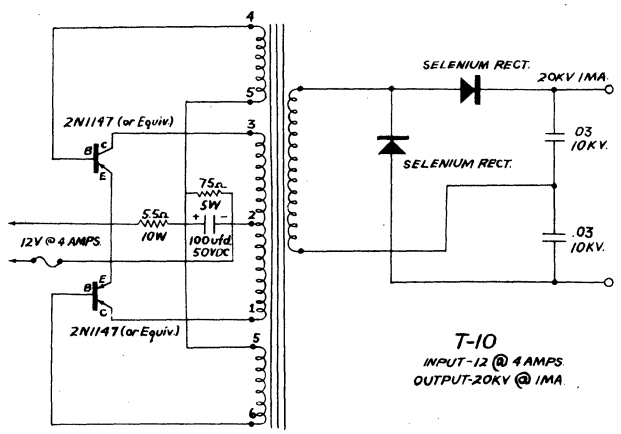


Designed for use with electrostatic paint spray systems. Dimensions: 18½" high x 15¼" wide x 15¼" deep.

SEND FOR COMPLETE INFORMATION

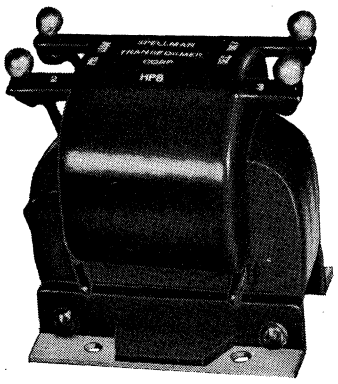


T-7A
INPUT-28 VDC
OUTPUT-7KV @ .5 MA.



T-10
INPUT-12 @ 4 AMPS.
OUTPUT-20KV @ 1MA.

HIGH VOLTAGE TRANSFORMER



Voltage input 110 volts 60 cycles.
Output 8 KV Rms. 10 ma.
Dimensions: 5" wide x 5" high x 4¼" deep.
Suitable for use in 20 KV doubler circuit.

MODEL HP-8 .....**$30.00 Net**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N.Y.

Net

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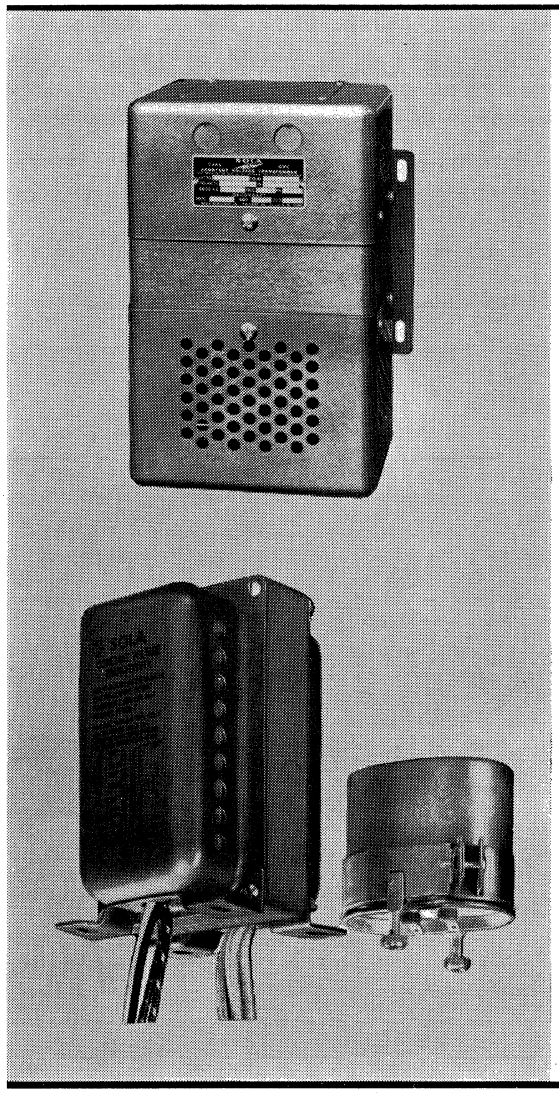
SOLA

Circular CV170MA
Prices and specifications subject to change without notice.
June, 1961

Constant Voltage Transformers

automatic, instantaneous voltage regulators



Sola Constant Voltage Transformers are static-magnetic voltage regulators. They are designed to provide a stabilized output voltage even though the input voltage varies over a considerable range. They have nine distinct advantages over electronic-type regulators or regulators which depend solely upon saturation of core materials for their regulating action:

1. Completely automatic, continuous regulation.
2. Virtually instantaneous response time of 1½ cycles or 25 milliseconds at 60 cycles.
3. Mechanically rugged — as resistant to mechanical shock as a conventional power transformer.
4. No moving or renewable parts — no manual adjustment or maintenance is necessary.
5. Type CVS units have the ability to improve a poor voltage wave-form applied to input terminals.
6. Self-protecting against short circuits on output or load circuit.
7. Inherently incapable of producing an output over-voltage.
8. Current-limiting characteristic protects load equipment from excessive fault currents. Inrush current is held within manufacturers' tolerance, eliminating the need for starting relays.
9. Available in step-up or step-down ratios, permitting substitution in place of conventional, non-regulating transformers.
10. Capable of serving a wide range of electrical devices. Standard catalog items available in 29 different primary-secondary voltage combinations from 60 to 7500 volt-amperes.
11. High degree of isolation between input and output circuit usually eliminates the need for electrostatic shielding. Input and output are isolated both physically and electrically.
12. Relatively compact compared to other equipment for a-c voltage regulation.

Sola static-magnetic transformers are supplied for a number of voltage-regulating requirements. They supply constant voltage in nominal line values, in filament and combination plate-and-filament values, and in variable voltage outputs.

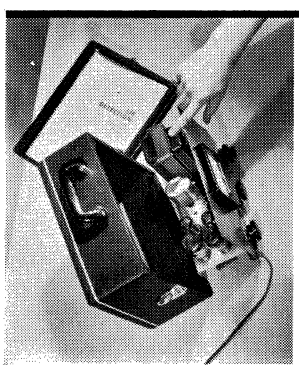
The following pages list the widest range of stock ratings and types offered by any manufacturer of static-magnetic voltage regulators.

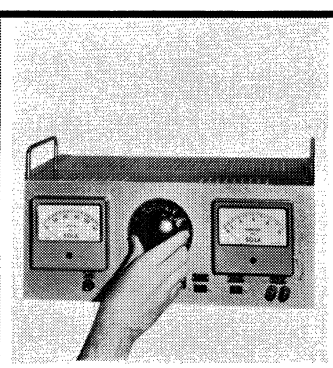
Manufactured by:

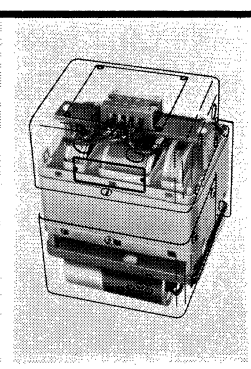
SOLA ELECTRIC CO. A Division of Basic Products Corporation

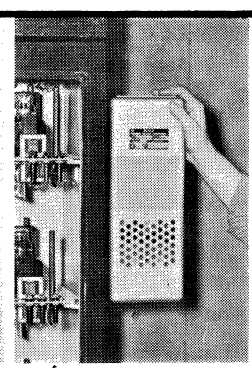
Elk Grove Village, Illinois

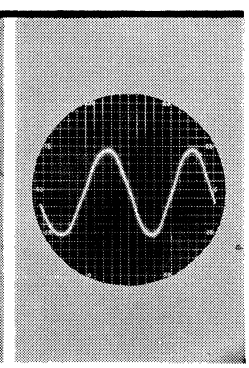
BPC











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Standard Sinusoidal Type (CVS)

± 1% regulation of AC line input for electrical and electronic equipment

Sola Standard Sinusoidal Constant Voltage Transformers regulate voltage within ±1% regardless of input voltage variations as great as ±15%. Displaying fast regulating action, their response time is usually 1.5 cycles or less. With less than 3% total rms harmonic content in their output voltage wave, they are particularly suitable for use with rectifiers or other equipment which is sensitive to, or is affected by, harmonics in the supply voltage. Nine stock ratings are listed. Special designs are available in production quantities.

Electrical specifications 60 cycle single phase					Mechanical specifications			
Voltage Rating		Output Rating in Va	Catalog Number	Approx. net price each to industrial users	Nominal Dimensions (Inches)		Approx. Shipping Weight lbs.	* Structure code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	60	23-13-060(a)	$30.00	6 1⁵⁄₁₆ x 4 x 5 3⁄16	3 x 3 1⁄2	10	W
	95-130X 190-260	120	23-22-112(a)	38.00	8 x 4 x 5 3⁄16	3 x 3 1⁄2	14	W
		250	23-22-125(b)	52.00	9 3⁄4 x 5 3⁄8 x 7 7⁄16	4 1⁄8 x 4 3⁄4	28	W
		500	23-22-150(c)	81.00	12 5⁄8 x 9 x 6 7⁄16	5 5⁄8 x 8 1⁄8	47	W
		1000	23-22-210(c)	135.00	17 1⁵⁄₁₆ x 9 x 6 7⁄16	5 5⁄8 x 8 1⁄8	80	W
118 x 236	95-130X 175-235X 190-260	2000	23-25-220	245.00	19 15⁄16 x 12 3⁄4 x 10 11⁄16	4 1⁄2 x 11 3⁄4	183	W
		3000	23-25-230	330.00	21 7⁄8 x 12 3⁄4 x 10 11⁄16	6 7⁄16 x 11 3⁄4	270	W
	190-260X 380-520	5000	23-26-250	515.00	20 7⁄8 x 25 13⁄16 x 10 11⁄16	5 7⁄16 x 24 13⁄16	475	Y
		7500	23-28-275	900.00	20 9⁄16 x 38 1⁄4 x 11 1⁄16	5 7⁄16 x 37 1⁄4	710	Z
#1 115 (fixed) #2 0-130 (adjustable)	100-130	500	*23-90-150	275.00	9 x 19 x 12 1⁄2	relay rack mounting or bench top use	83	P

*portable, fully adjustable unit.

Letter in parentheses after catalog number designates unit sizes which may be converted for cord input, and receptacle or jack output. See adapter kit tabulation at bottom of next page.

Outline dimensions are the outside cubic dimensions of the unit, not including capacitor where furnished separately. Figures are nominal, subject to manufacturing tolerance of ±1/32 to ±1/8 inch.

Normal-Harmonic Type (CVN) — for built-in component use

These units provide the same ±1% regulation as the standard sinusoidal models on Page 2. They have an average of 14% total rms harmonic content in their output voltage. Along with the sinusoidal type, they offer simplicity, reliability and freedom from maintenance. They are reliable sources of voltage for most electrical loads such as filaments, relays, solenoids, other transformers serving ac loads — in fact, all loads not affected by harmonics in the supply voltage. This series includes those mechanical designs specially engineered for use as built-in components. Special designs are available in production quantities.

Electrical specifications 60 cycle single phase					Mechanical specifications			
Voltage Rating		Output Capacity in VA	Catalog Number	Approx. Net Price Each to Industrial, Commercial or Govt. Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	15	20-10-015	$15.00	5 5⁄16 x 2 5⁄8 x 3 1⁄2	5 1⁄16 x 1 1⁄8	4	D
			20-11-015	20.00	5 1⁄2 x 3 1⁄2 x 2 1⁄4	3 x 1 1⁄2	4	S
			20-14-015	14.00	4 5⁄16 x 2 3⁄8 x 2 7⁄16	1 7⁄8 x 1 3⁄4	3	E
		30	20-14-030	16.00	4 1⁵⁄₁₆ x 2 5⁄8 x 3 5⁄16	1 7⁄8 x 2 5⁄8	5	E
			20-13-030(a)	20.00	6 x 4 x 5 3⁄16	3 x 3 1⁄2	7	W
		60	20-13-060(a)	25.00	6 1³⁄₁₆ x 4 x 5 3⁄16	3 x 3 1⁄2	10	W
			20-14-060	21.00	4 1³⁄₁₆ x 3 1⁄8 x 3 7⁄8	2 1⁄2 x 3 7⁄8	8	E
118	95-130	120	20-14-112	29.00	4 1³⁄₁₆ x 3 1⁄8 x 4 1⁵⁄₁₆	2 1⁄2 x 3 7⁄8	11	E
			20-13-112(a)	33.00	7 3⁄8 x 4 x 5 3⁄16	3 x 3 1⁄2	13	W
236	190-260	120	20-21-112	33.00	7 7⁄8 x 4 x 5 3⁄16	3 x 3 1⁄2	13	W
118	95-130	150	20-13-115(b)	40.00	8 7⁄8 x 5 3⁄8 x 7 7⁄16	4 1⁄8 x 4 3⁄4	22	W
		250	20-13-125(c)	49.00	11 1⁄8 x 6 1⁵⁄₁₆ x 6 7⁄16	4 5⁄8 x 6 1⁄8	25	W
	190-260x 380-520		20-23-125	49.00	11 1⁄8 x 6 1⁵⁄₁₆ x 6 7⁄16	4 5⁄8 x 6 1⁄8	25	W
	95-130	500	20-13-150(c)	77.00	12 5⁄16 x 6 15⁄16 x 6 7⁄16	4 5⁄8 x 6 1⁄8	36	W
	190-260x 380-520		20-23-150	77.00				
236			20-24-150	77.00	12 1⁄2 x 6 15⁄16 x 6 7⁄16			
118	95-130	1000	20-13-210	128.00	15 1⁄8 x 6 1⁵⁄₁₆ x 6 7⁄16	4 5⁄8 x 6 1⁄8	54	W
	190-260		20-20-210	128.00				
118x 236	95-130x 175-235x 190-260	2000	20-25-220	232.00	20 x 10 1⁄2 x 10 11⁄16	4 9⁄16 x 9 1⁄2	166	W
		3000	20-25-230	315.00	22 x 10 1⁄2 x 10 11⁄16	6 9⁄16 x 9 1⁄2	230	W
	190-260x 380-520	5000	20-27-250	490.00	21 x 14 1⁄2 x 14 3⁄8	7 x 13	279	W
		10000	20-26-310	925.00	21 x 29 7⁄16 x 14 3⁄8	7 x 27 15⁄16	590	Y

Letter in parentheses after catalog number designates unit sizes which may be converted for cord input, and receptacle or jack output. See adapter kit tabulation at bottom of this page.

Outline dimensions are the outside cubic dimensions of the unit, not including capacitor where furnished separately. Figures are nominal, subject to manufacturing tolerance of ±1/32 to ±1/8 inch.

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Electronic Power Type

±1% regulation for filament voltage; ±3% regulation of plate-filament supply

Sola Electronic Power Type Constant Voltage Transformers are designed as components for simple assembly into electronic manufacturers' own product. The filament type provides 6.0 or 6.3 volts output, regulated within ±1% over line voltage variations as great as ±15%. The combination plate-and-filament type provides voltage regulated within ±3% for line voltages varying up to ±15%. Both types provide filaments with stabilized voltage supply, and thus contribute to reliable operation, long life, and reduced service expense for load equipment. Thirteen stock units are listed. Special designs available in production quantities.

For Filament Service (Type CVF)

Electrical specifications 60 cycle single phase				Mechanical specifications			
Voltage Rating		Output			Nominal Dimensions (Inches)		
Regulated ±1% Output	Input Range	Capacity in Amps.	Catalog Number	Approx. Net Price Each to Industrial Users	Outline	Mounting	Approx. Ship Wt. in Lbs.	* Structure Code
6.0	95-130	2.50	20-01-015	$15.00	5 9/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-06-015	14.00	4 5/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
6.3	95-130	2.38	20-02-015	15.00	5 9/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	6	D
			20-03-015	20.00	4 15/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	S
			20-04-015	14.00	4 15/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	4	E
	95-130X 190-260	5.0	20-04-030	16.00	4 13/16 x 3 1/8 x 3 1/8	2 1/2 x 2 1/16	6	E
		10.0	20-04-065	20.00	4 13/16 x 3 1/8 x 3 3/4	2 1/2 x 2 11/16	7	E
		15.0	20-04-095	24.00	4 13/16 x 3 1/8 x 4 11/16	2 1/2 x 3 5/8	11	E
		20.0	20-04-113	31.00	7 x 4 1/2 x 5 1/8	3 5/8 x 3 9/16	20	E
		25.0	20-04-116	35.00	7 x 4 1/2 x 5 11/16	3 5/8 x 4 1/8	23	E
6.3	95-130	5	20-05-030	25.00	6 1/16 x 4 13/16 x 4 3/4	portable, for bench-top use	8	F

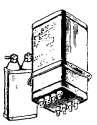
For Plate-Filament Service (Type CVE)

Electrical specifications 60 cycle single phase				Input range, 100-130 volts	Mechanical specifications			
Typical Rectifier Tube	Average D.C. Input Volts to Filter*	Filament Windings		Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
		6.3 Volts	5.0 Volts			Outline	Mounting		
5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	7104	$12.00	4 13/16 x 3 1/8 x 3 3/16	2 1/2 x 2 1/8	6	E
5Y3	385v D.C. @ 100 M.A.	3.0 amps C.T.	2.0 amps	7106	15.00	4 13/16 x 3 1/8 x 3 15/16	2 1/2 x 2 7/8	8	E
5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7107	27.00	7 x 4 1/2 x 4 7/8	3 5/8 x 3 3/8	19	E

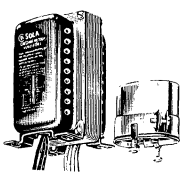
**Voltage values are taken at output of 5Y3GT rectifier for No. 7104 and No. 7106 transformers and at output of 5U4GA-GB for No. 7107. Guaranteed regulation of ±3% on plate voltage output is contingent on the use of Sola-regulated 5.0v filament supply winding for the rectifier tube.*

*Mechanical structures "Structure code" letter refers to one of these general types of mechanical assemblies:

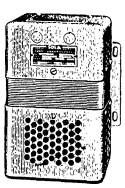
D—Drawn case; integral capacitor unit; flex leads.



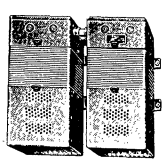
S—Hermetically-sealed case; separate capacitor; solder lugs.



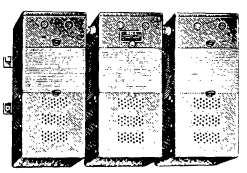
E—Exposed core; end bells; separate capacitor; flex leads.



W—Exposed core; end housings; screw-type terminals in outlet box.

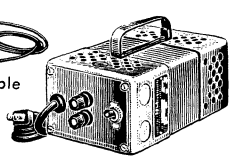


Y—Same as W, but duplex assembly.



Z—Same as W, but triplex assembly.

P—Portable adjustable a-c supply.

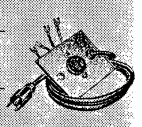


F—Portable filament transformer.

Cord/receptacle adapter kits

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing. See footnote 1 and accompanying chart.

Code	Adapter Kit Catalog No.	Input Cord	Output Connections	Net price each to industrial users
(a)	999-004	2-wire	2-wire receptacle	$1.75
	999-018	3 wire	3-wire receptacle	2.50
	999-015	3-wire	2 jacks	3.00
(b)	999-005	2 wire	2-wire receptacle	1.75
	999-019	3-wire	3-wire receptacle	2.50
	999-016	3-wire	2 jacks	3.00
(c)	999-009	2-wire	2-wire receptacle	2.00
	999-020	3-wire	3-wire receptacle	2.50
	999-017	3-wire	2 jacks	3.00

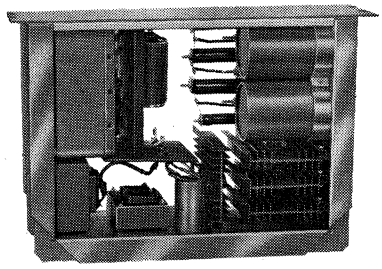


The transformers described in this folder are manufactured under one or more of the following United States Patents: Nos. 2,694,177; 2,753,513; 2,806,199, and patents pending.

© U.C.P., Inc.

Sola "CVQ": transistorized d-c power supply

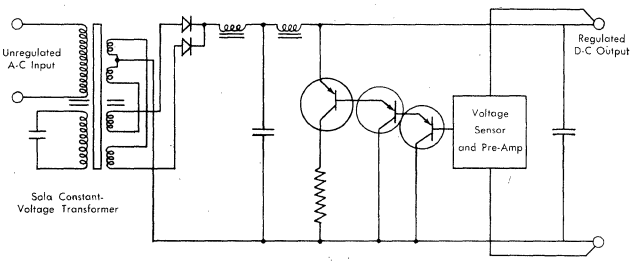
CVQ offers fast, reliable voltage regulation with this relatively simple, low-cost d-c source, suitable for computers and other voltage-sensitive equipment. Rated for the 120-watt range, this transistorized power supply retains all fundamental advantages of existing SOLA static-magnetic d-c supplies, and adds *shunt-type* transistor control for closer regulation of output voltage. New, unique shunt-circuit design — fully fail-safe and short-circuit proof. Use of Sola static magnetic regulation allows much better efficiency than would be possible with conventional shunt regulated design.



ELECTRICAL AND MECHANICAL SPECIFICATIONS, STOCK UNITS

Catalog Number	Output Volts	Output Amperes	Static Line Regulation	Maximum Static Load Regulation	Maximum Ripple (Peak To Peak)	Net Price Each
281401	5.0	22	±0.04%	0.4%	0.04%	$350
281402	6.0	20	±0.04%	0.4%	0.04%	350
281403	10.0	12	±0.02%	0.2%	0.02%	335
281404	12.0	10	±0.02%	0.2%	0.02%	335
281512	18.0	6	±0.02%	0.2%	0.02%	335

DIMENSIONS (nominal): Width 19", height 5¼", depth 12¼". INPUT VOLTAGE: 100-130/180-235/200-260 v, 60 cy. MAXIMUM ALLOWABLE AMBIENT TEMPERATURE: 40° C. WEIGHT: 53 lbs.



Simplicity of CVQ shunt-circuit regulation cuts down on bulk, weight and cost.

Sola DC power supplies: compact, regulated, for high-amp loads

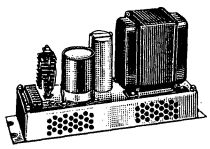
This combination of a special Sola Constant Voltage Transformer, semi-conductor rectifier, and high-capacitance filter yields a dc power supply compact in size, low in weight, and with other important advantages.

1. Output regulation of ±1% or less with ±10% line voltage variations.
2. Minimum output voltage change with wide, rapid load changes.
3. Low input power, with resultant good efficiency.
4. Ability to withstand high, short-time overloads without damage to components.
5. Ripple voltage of approximately 1% (rms) or less.
6. High overall economy by eliminating overload capacity needed in other types of power supplies for certain applications.
7. Low ratio of size and weight to power output.
8. Freedom from routine adjustment and maintenance.
9. Exceedingly low output impedance.

In addition to its important function of correcting line voltage variations, the Sola CV's inherent current-limiting action permits safe, economical use of the efficient semiconductor rectifier with its low forward voltage drop and other advantages. This same current-limiting action also permits use of high-capacitance filter sections by controlling excessive charging currents which might damage rectifier junctions. The high-capacitance filter yields very low ripple voltage without need for heavy, bulky choke components, with their substantial and often-varying load voltage drops.

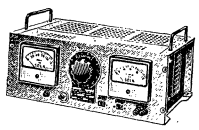
Fixed Designs

For intermittent, variable, or pulse loads



Adjustable Designs

Give all the advantages of fixed designs plus an output adjustable over a considerable range of voltages.



Specifications All Inputs 100-130 volts, 60 cps

Current Catalog Number	Former Catalog Number	Output Rating Watts	Volts	Amps	Efficiency Approx. %	Ripple Voltage (rms)— % of Total	Approx. Shipping Weight Each— Pounds	Approx. Net Price Each
281024	28156	144	24	6.0	72	Less than 1%	45	$145.00
281048	28120	192	48	4.0	77	Less than 1%	45	135.00
281125	28152	250	125	2.0	82	Less than 1%	55	145.00
281150	28106	300	150	2.0	80	Less than 1%	50	145.00
281200	28193	200	200	1.0	76	Less than ½%	45	140.00
281250	28192	250	250	1.0	81	Less than ½%	55	150.00

DIMENSIONS — Above six stock units have identical dimensions; overall length, 19"; overall width, 5¼"; overall height, 9¾". All supplies furnished with drilling for standard relay rack mounting.

Specifications All Inputs 100-130 volts, 60 cps

Current Catalog Number	Former Catalog Number	Adjustable Output Voltage Range	Rated Loadings in Amperes At max. Voltage Setting	At min. Voltage Setting	Ripple* Voltage— % of Total Output	Approx. Shipping Weight Each— Pounds	Approx. Net Price Each
285110	28510	5-35	7.0	7.0	0.10	80	$325.00
285120	28520	25-60	4.0	6.0	0.05	80	325.00
285130	28530	30-90	2.8	4.0	0.04	80	295.00
285140	28540	60-180	1.4	2.0	0.03	80	295.00
285150	28550	150-250	1.0	1.5	0.02	80	295.00
285160	28560	250-400	0.6	0.75	0.02	80	295.00

*Figures in this column are ripple voltages measured at full rated load and input of 115 volts.

DIMENSIONS — Above six stock units are for relay rack mounting on standard, 19" frame. Front panel is 7" high and chassis is 12¼" deep. Removable handles, for portability, are available as an accessory.

SOLA ELECTRIC CO.

Elk Grove Village, Illinois

In Canada, Sola Electric (Canada) Ltd. 377 Evans Avenue, Toronto 18, Ontario

A Division of Basic Products Corporation

Net

© U.C.P., Inc.

Terado DC-AC Converters, Chargers, Relays

CHANGES BATTERY CURRENT TO 110 VOLT AC, 60 CYCLE

CONVERTERS

TRANSISTORIZED CONTINENTAL

Converts 12 v. DC to AC; power output, 275-300 watts. Complete with wire for installation and remote control. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Filtered for use with tape recorders. Steel case. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. wt., 30 lbs.
Terado No. 50191—Net Each **$116.34**

SUPREME

Converts 12 v. DC to AC; power output, 175-200 watts. Complete with wire for installation and remote control. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Filtered for use with tape recorders. Steel case. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 25 lbs.
Terado No. 50153—Net Each **$73.34**

RECORDER

Same case as "Supreme" less remote control. Input, 12 v. DC; output, 150-175 w. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper output voltage. Filtered for use with tape recorders and portable TV. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 21 lbs.
Terado No. 50175—Net Each **$66.37**

CHIEF

Operates tape recorders, power tools, dictation machines, mixers, blenders, etc. Two models available. Direct connection to battery. Front AC receptacle. Toggle switch output control. Ventilated steel case. Easy to mount. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 8 lbs.
Terado No. 50137—Voltage input, 6 v.
AC Power Output, 75-100 watts. Net **$46.66**
Terado No. 50138—Voltage input, 12 v.
AC Power Output, 100-125 watts. Net **$46.66**

AUTOMATIC

Operates automatically from 6 or 12 v. DC without vibrator change or switching (6 v., 55-75 watts; 12 v., 85-110 watts). Easy installation into cigarette lighter. For dictation machines, radios, tape recorders, phonographs, heating pads, etc. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shpg. Wt., 8 lbs.
Terado No. 50134—Net Each **$38.65**

SUPER

Operates dictation machine, radios, phonograph, tape recorders, massaging equipment, etc. Two compact, lightweight models available. Simple installation into cigarette lighter. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 8 lbs.
Terado No. 50126—Voltage input, 6 v.
AC Power Output, 60-75 watts. Net **$33.32**
Terado No. 50127—Voltage input, 12 v.
AC Power Output, 75-100 watts. Net **$33.32**

MASTER

Operates some dictation machines and tape recorders, radios and phonographs, emergency lighting, etc. Easy to install into cigarette lighter. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 6 lbs.
Terado No. 50121—Voltage input, 6 v.
AC Power Output, 50-60 watts. Net **$27.68**
Terado No. 50122—Voltage input, 12 v.
AC Power Output, 60-75 watts. Net **$27.68**

ELECTRAL

Glove compartment size converters, available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Operates De Jur Stenorette, Geloso, G.B.C., Stenocord, Norelco dictation machines, radios, etc. Vinyl coated steel case with leatherette appearance. **Size:** 3" w. x 2¼" d. x 5½" h. Shipping Weight, 2 lbs.
Terado No. 50174—Voltage input, 6 v.
AC Power Output, 32-42 watts. Net $17.98
Terado No. 50167—Voltage input, 12 v.
AC Power Output, 42-52 watts. Net $17.98

SENIOR

Operates radios, lights, phonographs and small tape recorders. Available in 6 v. or 12 v. input. Simple to install into cigarette lighter. Aluminum case. Seal brown baked enamel. **Size:** 2½" w. x 4½" d. x 2¾" h. Shipping Weight, 3 lbs.
Terado No. 50115—Voltage input, 6 v.
AC Power Output, 35-40 watts. Net $15.98
Terado No. 50116—Voltage input, 12 v.
AC Power Output, 40-50 watts. Net $15.98

DYNAMO

Converts any small table radio to a car radio. Changes your car DC current to 110 volts AC, 60 cycles. Pocket-sized. Operates from any 12 volt car. No installation—just plug into cigar lighter. Needs no outside aerial (Radio built-in only). Also operates all electric shavers. Complete with generator condenser and ignition noise suppressor. **Size:** 2" x 2" x 3¾". Shpg. Wt.; 1½ lbs.
Terado No. 50196—Net Each **$8.62**

AUTO SHAVER

Operates all electric shavers by plugging into AC receptacle provided. Available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Polyethylene non-breakable case. **Size:** 3⅝" w. x 2¼" d. x 4¼" h. Shipping Weight, 2 lbs.
Terado No. 50102—Voltage input, 6 v.
AC Power Output, 10-15 watts, Net Ea. **$9.31**
Terado No. 50103—Voltage input, 12 v.
AC Power Output, 15-20 watts, Net Each. **$9.31**

QUIK SHAVE

Speeds up electric shaver; cuts shaving time in half. Changes AC to DC.
Terado No. 50184—Net Each **$3.93**

BATTERY CHARGERS

Electronically engineered full wave silicon rectifier chargers. Miniaturization with full power charge rate.

DYN-A-MITE

Baked seal brown paint over aluminum case. Charge rate 1 amp, both 6 and 12 volts. **Size:** 1¾" x 1¾" x 3¼". Wt., 1 lb.
Terado No. 50186—Net Each **$5.90**

TINY GIANT

Copper clad steel case. Charge rate 1½ amps, both 6 and 12 volts. Warning buzzer for improper connection. Size: 2-1/16" x 3" x 5½". Weight, 1½ lbs.
Terado No. 50185—Net Each **$7.66**

LEADER

Copper clad steel case. Charge rate 3 amps, 12 volts only. Warning buzzer for improper connection. **Size:** 2¼" x 3" x 5½". Weight, 2 lbs.
Terado No. 50187—Net Each **$10.47**

HI-WAY CHARGER

Charge your boat battery while travelling! For any American 12 volt car. Charges 6 or 12 volt batteries without removing battery from boat. Charges up to 10 amps. No installation—just plug into cigar lighter. Large dial indicator shows state of charge. 30 ft. extension cord with battery clamps.
Terado No. 50193—Net Each **$12.57**

CHAMPION

Copper clad steel case. Charge rate 4 amps, both 6 and 12 volts. Automatic circuit breaker protection. **Size:** 2¼" x 3" x 5½". Weight, 2 lbs.
Terado No. 50188—Net Each **$13.27**

HI-POWER

Copper clad steel case. Charge rate 5 amps, 12 volts only. Cigarette lighter plug-in. Charge indicator light shows condition of battery. **Size:** 2¼" x 3" x 5½". Weight, 3 lbs.
Terado No. 50180—Net Each **$13.97**

CHALLENGER

Brown baked enamel, ventilated steel case. Charge rate 6 amps, both 6 and 12 volts. Charge rate meter. Brackets for coiling wire provided. **Size:** 4" x 5" x 6". Weight, 5 lbs.
Terado No. 50189—Net Each **$20.27**

SUPER CHARGER

Brown baked enamel, ventilated steel case. Charge rate 10 amps, both 6 and 12 volts. Color coded meter shows condition of battery and charge rate. **Size:** 4" x 5" x 6". Weight, 7½ lbs.
Terado No. 50181—Net Each $25.87

POWERHOUSE

Heavy duty, heavy copper clad, ventilated steel case with handle. Full fast 20 amp charge rate on either 6 or 12 volt batteries, plus trickle charge. Full wave type with 4 silicon rectifiers. Complete with charge rate meter and 6 ft. cable with battery clamps. **Size:** 11" x 6" x 6". Ship. Wt., 20 lbs.
Terado No. 50183—Net Each $48.97

SERIES 6000 MICRO-RELAYS

60 MILLIWATT OPERATING POWER

Hermetically sealed, single pole double throw (Form C) silver contacts, rated at 1 amp at 24 v. non-inductive load. Operating temperature range —55°C to +85° C. Insulation: 500 v. at any terminal to ground. Excellent vibration characteristics due to short armature. Base fits 7-pin miniature tube socket. **Size:** ¾" x 1-11/16" long.

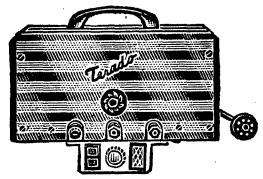
STOCK RELAYS

Terado No.	Coil Resistance	Operating Volts DC	Net Each*
B1330	24 ohms	1.5	$8.42
B1331	300 ohms	6	8.55
B1332	2,000 ohms	12	8.94
B1333	5,000 ohms	24	9.71
B1249†	8,000 ohms	20	10.55
B1334	8,000 ohms	24-28	10.55
B1335	10,000 ohms	32	10.91

*Write for quantity prices. †Used in most TV cameras.

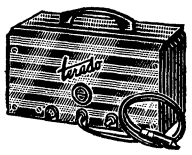
SPECIAL RELAYS AVAILABLE
WRITE FOR QUOTATIONS
292X-60B

BATTERY CHARGERS


SUPREME AND CONTINENTAL

DYN-A-MITE

HI-WAY CHARGER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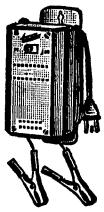

TINY GIANT

CHIEF

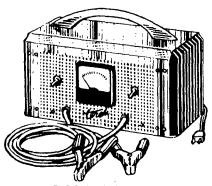
LEADER

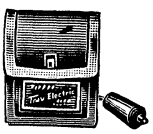
AUTOMATIC, SUPER, AND MASTER

CHAMPION

HI-POWER

ELECTRAL


POWERHOUSE


AUTO-SHAVER

CHALLENGER

SENIOR AND DYNAMO

QUIK SHAVE

SUPER CHARGER

Export Sales Division
MORHAN EXPORTING CORP.
458 Broadway
New York 13, N. Y.

TERADO COMPANY

St. Paul, Minnesota

In Canada, Write
ATLAS RADIO CORP., LTD.
50 Wingold Ave.
Toronto 19, Ontario

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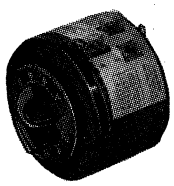
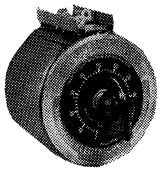
STACO® *Adjust-A-Volt*® Variable Auto-Transformers

Bench and Panel Mounted Units for Control of AC lines, Power, Heat, Speed and Light. Adjust-A-Volts feature smooth, continuous control, zero waveform distortion, excellent regulation and high efficiency.



100BU



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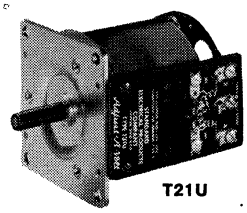
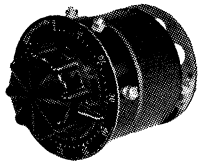
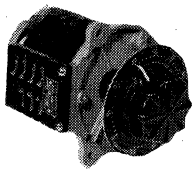


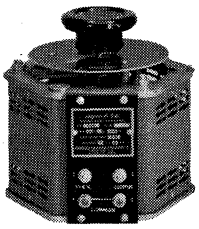
T21U



300BU



500BU



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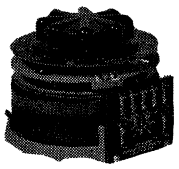

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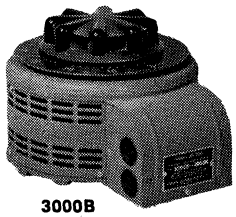

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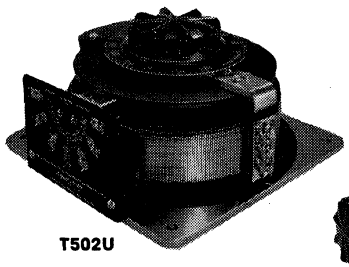
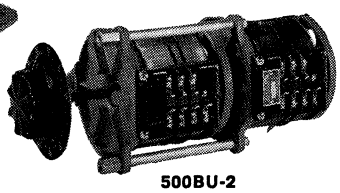


T502U



500BU-2

Uncased Units or Cased with Bare Conduit or Terminal Box

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	Kva Max	Shipping Wgt. Lbs.	Net Price
100BU	120	0-132	60	1.25	.165	2.2	$ 8.50
250BU	120	0-132	60	2.5	.33	2.5	$ 9.50
T21U	120	0-140	50/60	2.4	.33	4	$ 13.50
300BU	120	0-140	60	3.0	.42	5	$ 12.50
T51U	120	0-140	50/60	6.0	.84	8	$ 17.00
500BU	120	0-140	50/60	7.5	1.05	10	$ 18.00
1500B	120	0-140	50/60	15	2.1	20	$ 46.00
3000BU	120	0-140	50/60	*30	*4.2	22	$ 49.00
3000B	120	0-140	50/60	*30	*4.2	23	$ 55.00
T502U	240	0-280	50/60	25	7	60	$120.00

All of the above units may be easily connected by user to attain 0-120 volt line voltage output for either 50 or 60 cycle current.

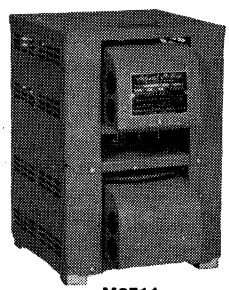
*These ratings are permitted only if the brush position is changed frequently, if ample cooling is provided and the atmosphere is relatively dust free. Otherwise the unit should be derated to approx. 25 amps.

Cased Units with Line Cord, Receptacle, Fuse, Switch and Pilot Light

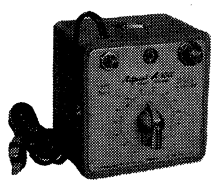
PA-1 PA-1L	120	0-132 0-120	60 50/60	1.25	.165	3 3	$ 13.50
PA-3 PA-3L	120	0-140 0-120	60 50/60	3.0	.42	7 7	$ 18.75
500B	120	0-140 0-120	50/60	7.5	1.05	11	$ 23.00

*Note: 0-120 line voltage is attained by connections made by user.

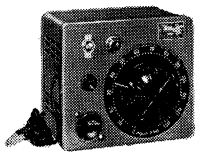
Ganged assemblies and motorized units available. Write for General Catalog 61.



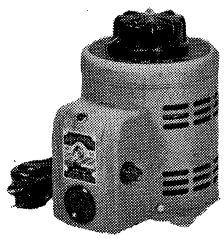
M2511



PA-1



PA-3



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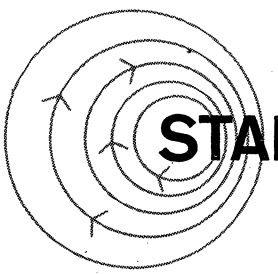

STANDARD electrical products company, Dayton, Ohio

A Subsidiary of General Electronic Control, Inc., Minneapolis, Minnesota

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STACO® *Adjust-A-Volt*® ISOLATED TRANSFORMERS

These units provide a means for smooth control of an electrically isolated AC voltage output. Uncased models give the design engineer a wide variety of circuit arrangements for both original equipment and custom-built lab applications. Cased units have line cord, input switch, pilot light, output receptacle, output voltmeter and thermal circuit breaker.

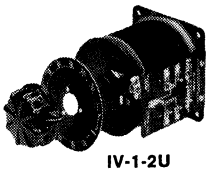
Uncased IV Series for Panel Mounting

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Connection	Shipping Wgt. lbs.
IV-1-2U	120	0-140	50/60	2	.28	Isolated	8
	120	0-120N	50/60	5	.60	Non-Isolated	8
	120	120-260N	50/60	4.5-2	.52VD	Voltage Doubler	8
	240	110-240N	50/60	4.5	1.08	Series	8
IV-1-9U	120	0-140	50/60	9	1.26	Isolated	28
	120	0-120N	50/60	25	3	Non-Isolated	28
	120	120-260N	50/60	20-9	2.34VD	Voltage Doubler	28
	240	110-240N	50/60	20	4.8	Series	28

Cased IV Series for Bench Use

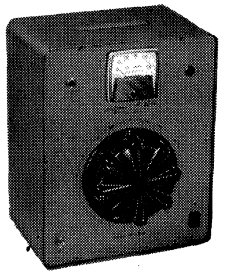
Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Connection	Shipping Wgt. lbs.
IV-1-2M	120	0-140	50/60	2	.28		13
IV-1-4M	120	0-140	50/60	4	.56		20
IV-1-9M	120	0-140	50/60	9	1.26		32
Deluxe Cased Units with Panel Switches & Dual Range Voltmeter							
IV-1-2D	120	0-140	50/60	2	.28		14
	120	0-120N	50/60	4	.48	NON ISOLATED	14
	120	120-160N	50/60	4-2	.52VD	VOLTAGE DOUBLER	14
IV-1-4D	120	0-140	50/60	4	.56		21
	120	0-120N	50/60	8	.96	NON ISOLATED	21
	120	120-260N	50/60	8-4	1.04VD	VOLTAGE DOUBLER	21

N on Voltage means Non-Isolated

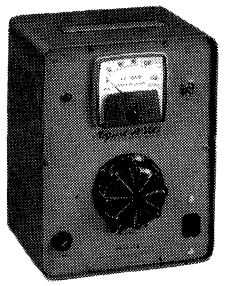


IV-1-2U

IV-1-9U



IV-1-9M



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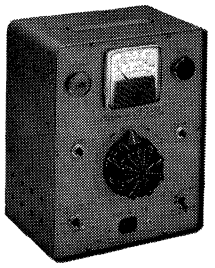

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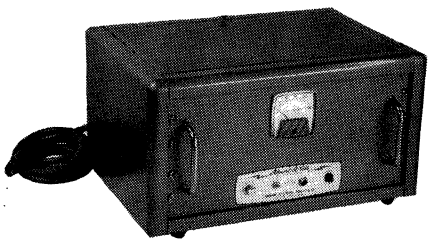


IVR-1-10C

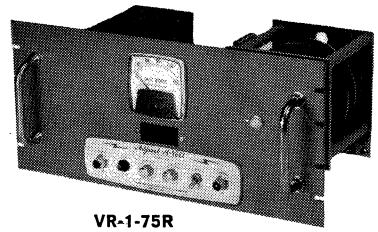
ADJUST-A-VOLT AC AUTOMATIC VOLTAGE REGULATORS

	IVR Series Instantaneous	VR Series Electro-Mechanical
Reg. Accuracy	± 0.10%	± 0.5%
Time Constant	100 Milliseconds	
Speed of Correction		.05 sec/volt
Output Voltage	110-120	110-120
Input Voltage	95-130 1 Ph.	95-135 1 Ph.
Frequency	60 cycle	60 cycle
Load Range	0 — Full Load	0 — Full Load
EFF @ Full Load	90% @ Unity P.F.	97% VR-1-50 / 97.5% VR-1-75
Power Factor Range	1.0 to 0.7%	Any
Wave Form Distortion	3% Max.	None
Amb. Temp. Oper. Range	−0°C — +40°C	−20°C — +40°C

0—150 Volts AC Output Meter on all Models

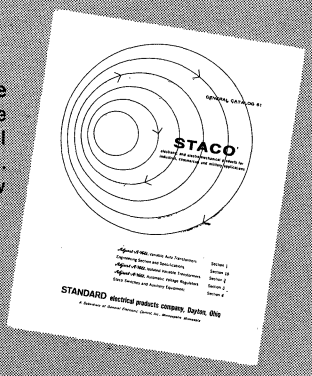
Type	KVA	Rated Amps.	Shipping Wgt. lbs. Rack	Shipping Wgt. lbs. Cabinet	Net Price Rack	Net Price Cabinet
IVR-1-10	1	8.7	95	115	$405	$435
IVR-1-25	2.5	22.0	195	220	$610	$665
VR-1-50	5	44	90	110	$495	$525
VR-1-75	7.5	66	100	122	$545	$575

R = Rack Type C = Cabinet Type—add letter to Type No. when ordering i.e. IVR-10R



VR-1-75R

All Adjust-A-Volt Variable Transformers and Voltage Regulator Models and Full Specifications with Eng. data are Covered in New Gen. Cat. No. 61



STANDARD electrical products company
Dayton, Ohio

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TECHNICAL APPARATUS BUILDERS

"TABTRON" "SILTAB"® RECTIFIERS

Engineered for Industry

FOR ALL YOUR DC POWER REQUIREMENTS

"TECHNICAL APPARATUS BUILDERS" mfgr. Power Rectifiers to your specs. From one amp up to and above 1000 amps, convection or fan cooled, single or 3 phase. "NEMA" & Jan. Specs.

SILTAB

"SILTAB"® SILICON JUNCTION FINNED STACKS —65°C TO +150°C CONVECTION COOLED*

Single Phase — Dated and Guaranteed — Single Phase

Full Wave Bridge

Max. DC Amps	36VAC 32VDC		70VAC 62VDC		140VAC 125VDC		280VAC 250VDC		840VAC 750VDC		1120VAC 1000VDC		1400VAC 1250VDC		2800VAC 2500VDC	
1	JA35	$3.45	JA70	$4.20	JA140	$4.90	JA280	$5.75	JA840	$16.30	JA1120	$24.15	JA1400	$30.00	JA2800	$59.75
2	JE35	5.30	JE70	6.75	JE140	7.60	JE280	9.90	JE840	36.70	JE1120	42.85	JE1400	48.75	JE2800	97.00
3	JF35	8.00	JF70	15.40	JF140	17.10	JF280	20.80	JF840	74.30	JF1120	89.00	JF1400	99.45	JF2800	188.00
6	JJ35	9.75	JJ70	27.00	JJ140	24.90	JJ280	35.00	JJ840	99.45	JJ1120	129.75	JJ1400	161.90	JJ2800	336.00
10	JK35	15.00	JK70	23.60	JK140	28.45	JK280	40.75								
24	JN35	22.00	JN70	27.75	JN140	33.45	JN280	47.15								
36	JR35	24.90	JR70	32.75	JR140	79.60	JR280	102.45								
50	JS35	32.00	JS70	54.75	JS140	111.60	JS280	162.90								
75	JU35	59.90	JU70	87.30	JU140	121.00										
100	JT35	84.15	JT70	110.30	JT140	130.60	JT280	174.75								
150	JO35	95.45	JO70	136.75	JO140	180.30	JO280	321.90								
200	JY35	149.00	JY70	170.00	JY140	306.00	JY280	350.00								
400	JV35	241.00	JV70	261.00	JV140	495.00	JV280	561.00								

— 3ø — THREE PHASE FULL WAVE BRIDGE — 3ø —

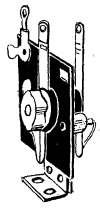
DC Amps	36VAC 48VDC		105VAC 144VDC		185VAC 248VDC		280VAC 375VDC	
2	YE36	$9.30	YE105	$11.45	YE185	$14.75	YE280	$16.90
6	YJ36	23.60	YJ105	28.45	YJ185	39.90	YJ280	49.75
60	YS36	57.45	YS105	84.75	YS185	108.60	YS280	144.90
100	YT36	117.15	YT105	153.75	YT185	216.60	YT280	220.90
200	YY36	189.45	YY105	243.75	YY185	299.15	YY280	522.60
400	YV36	274.90	YV105	479.45	YV185	585.75	YV280	990.30
600	YX36	522.90	YX105	721.75	YX185	849.60	YX280	Query

Full-Wave Center Tap

Max. DC Amps	36VCT 18-0-18 16VDC		72VCT 36-0-36 32VDC	
1	SA36	$2.90	SA72	$3.45
2	SE36	3.60	SE72	4.30
3	SF36	4.75	SF72	8.10
6	SJ36	6.00	SJ72	15.00

DC Amps	C.T.3ø Star 18V to CT 24VDC		H.W.3øWYE 36VAC/ 42VDC	
2	FE36	$9.00	HE36	$4.75
6	FJ36	23.00	HJ36	11.90
60	FS36	57.00	HS36	28.60
100	FT36	117.00	HT36	58.15
200	FY36	189.00	HY36	94.60
400	FV36	274.00	HV36	137.30

*Forced Air Cooling 2000LFM Increase Amp Rating Silicon 2X. Capacitive, battery & motor loads derate 20% Fuse Input AC & Output DC to protect Silicon Rectifiers — USE FAST ACTING "AMTRAP" FUSES AVAILABLE FROM US.



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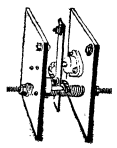


#R2

"TEKSEL" SELENIUM RECTIFIER STACKS

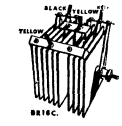
Full Wave Bridge — Single Phase — Full Wave Bridge Dated and One Year Guaranteed

Max. DC Amps	18VAC 14VDC		36VAC 28VDC		54VAC 42VDC		72VAC 56VDC		130VAC 100VDC		144VAC 118VDC		266VAC 217VDC		DC Amps Max.
0.5	BV18	$1.00	BV36	$1.90	BV54	$2.90	BV72	$3.85	BV130	$5.00	BV144	$6.75	BV266	$9.75	0.5
1	BA18	1.40	BA36	2.30	BA54	3.45	BA72	4.90	BA130	5.45	BA144	10.65	BA266	16.00	1
2	BE18	2.30	BE36	3.00	BE54	5.25	BE72	6.25	BE130	7.60	BE144	14.00	BE266	21.90	2
3	BF18	2.90	BF36	4.15	BF54	6.40	BF72	8.60	BF130	9.00	BF144	17.25	BF266	39.75	3
4	BG18	3.65	BG36	7.35	BG54	11.40	BG72	16.00	BG130	19.90	BG144	28.50	BG266	47.60	4
6	BJ18	4.40	BJ36	7.90	BJ54	12.75	BJ72	18.75	BJ130	32.60	BJ144	36.00	BJ266	63.45	6
10	BK18	6.35	BK36	12.60	BK54	19.50	BK72	26.30	BK130	35.60	BK144	48.75	BK266	95.00	10
12	BL18	8.00	BL36	15.75	BL54	21.95	BL72	30.95	BL130	45.00	BL144	52.50	BL266	103.60	12
15	BW18	10.30	BW36	20.90	BW54	29.30	BW72	40.00	BW130	48.15	BW144	64.45	BW266	108.15	15
20	BM18	12.90	BM36	25.30	BM54	37.45	BM72	49.90	BM130	78.75	BM144	90.00	BM266	169.00	20
24	BN18	16.00	BN36	32.00	BN54	44.60	BN72	57.50	BN130	85.00	BN144	96.50	BN266	188.75	24
30	BQ18	19.45	BQ36	37.30	BQ54	56.00	BQ72	74.75	BQ130	117.30	BQ144	136.75	BQ266	249.60	30
36	BR18	24.75	BR36	42.90	BR54	69.30	BR72	89.90	BR130	142.90	BR144	188.00	BR266	299.45	36
50	BS18	33.45	BS36	63.75	BS54	121.50	BS72	135.75	BS130	192.75	BS144	227.00	BS266	398.90	50

#R3

Three Phase 3ø — Full Wave Bridge — Dated & One Year Guaranteed

Max. DC Amps	16VAC 20VDC		30VAC 36VDC		120VAC 150VDC		208VAC 256VDC		240VAC 300VDC		420VAC 460VDC		Center Tap Full Wave 30VAC 12VDC		Max. DC Amps
1	PA16	$3.75	PA30	$4.90	PA120	$17.90	PA208	$33.75	PA240	$36.00	PA420	$63.20	CA30	$2.40	1
2	PE16	5.95	PE30	7.45	PE120	21.75	PE208	39.90	PE240	42.00	PE420	66.90	CE30	2.90	2
4	PG16	8.60	PG30	9.90	PG120	33.15	PG208	62.15	PG240	65.00	PG420	99.75	CG30	3.60	4
6	PJ16	9.90	PJ30	12.90	PJ120	46.90	PJ208	81.75	PJ240	85.00	PJ420	108.60	CJ30	4.70	6
10	PK16	12.75	PK30	16.60	PK120	62.45	PK208	116.00	PK240	122.00	PK420	197.45	CK30	6.45	10
12	PL16	15.90	PL30	18.45	PL120	66.60	PL208	132.15	PL240	139.00	PL420	212.60	CL30	7.60	12
20	PM16	21.30	PM30	28.75	PM120	120.75	PM208	163.90	PM240	174.00	PM420	239.15	CM30	9.45	20
24	PN16	24.90	PN30	29.75	PN120	139.30	PN208	269.75	PN240	280.00	PN420	362.00	CN30	12.75	24
30	PQ16	30.60	PQ30	41.45	PQ120	185.90	PQ208	348.30	PQ240	366.00	PQ420	517.00	CQ30	14.90	30
36	PR16	40.15	PR30	46.90	PR120	216.45	PR208	379.60	PR240	Query	PR420	Query	CR30	Query	36
50	PS16	66.30	PS30	72.60	PS120	268.15	PS208	411.00	PS240	Query	PS420	Query	CS30	Query	50
100	PT16	133.60	PT30	99.00	PT120	374.00	PT208	Query	PT240	Query	PT420	Query	CT30	Query	100



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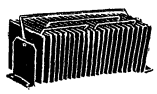

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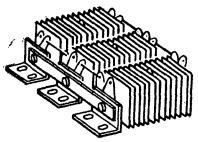

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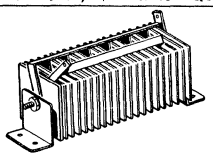

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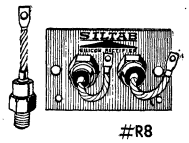

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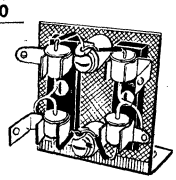

#R9

"TABTRAN" RECTIFIER TRANSFORMERS AND CHOKES

Transformer Number	Secondaries	Second AC Amps	Primary Volts	Net Price	Wgt. Lbs.	L	W	A	B	E	V
TR4000R	Dual (2) Sec'd each 0-16V.	1	115	$ 3.75	1-1/2"	3-1/8"	—	2-3/4"	2-5/16"	2"	3-1/6"
TR4001	Dual (2) Sec'd each 0-9-15-18	1	115	4.75	2"	2-1/2"	1-3/4"	3"	2-1/2"	2-5/16"	7/32"
TR4002	Volts at rated current per	2	115	6.60	3-1/4"	2-1/2"	2-9/16"	3"	2-1/2"	3-1/8"	7/32"
TR4003	each winding. Secondary series connected.	5	115	8.70	6-1/4"	3-1/2"	2-9/16"	4-1/8"	3-1/2"	3-1/2"	7/32"
TR4005	Taps give 0-3-6-9-12-15-18-21-	12	115	18.00	12-1/2"	3-3/4"	4"	4-1/2"	3-3/4"	5-1/2"	9/32"
TR4006	24-27-30-33-36 Volts	24	115	33.75	20-1/2"	4-3/8"	4-1/16"	5-1/4"	4-3/8"	6"	5/16"
TR4007	Secondary parallel. 0-9-15-18	50	115 & 220	54.00	39-1/2	5-3/8"	5-7/16"	6-3/8"	5-3/8"	7"	5/16"
TR4008	Volts at twice (2X) the current.	100	115 & 220	125.00	112	7-1/8"	9"	8-5/8"	7-1/4"	12-1/2"	3/8"
TR4009	165V. Tap 160, 150, 125	5	115 & 220	49.00	30	4-1/2"	4-1/2"	6-3/4"	6"	6-1/2"	9/32"
TR4010	165V. Tap 160, 150, 125	10	115 & 220	84.75	33-1/4	5-7/8"	4-1/2"	7"	6"	6-3/4"	5/16"
TR4011	330V. Tap 320, 300, 250	5	115 & 220	72.00	33	5-7/8"	5"	7"	6-1/8"	6-1/4"	5/16"
TR4012	330V. Tap 320, 300, 250	10	115 & 220	120.00	49	8-3/8"	3-3/4"	9-5/8"	7-1/8"	6"	

#R10

Choke Number	Inductance Henries	AC Amps	Resistance Ohms	IR Drop Volts	Net Price	Wgt. Lbs.	L	W	A	B	E	V
CR6001	0.1	1	1.4	1.4	$ 3.75	1-1/2	3-1/8"	—	2-3/4"	2-5/16"	2"	3/16"
CR6002	0.1	2	0.67	1.34	5.60	3-1/2	3-3/16"	2"	3-3/4"	3-1/8"	2-5/8"	7/32"
CR6007	0.01	4	0.1	0.04	5.95	3-1/2	2-3/4"	2-5/16"	3-3/8"	2-7/8"	3"	3/16"
CR6003	0.07	5	0.6	3.00	9.99	8-1/4	3-7/16"	3-1/16"	4-1/8"	3-1/2"	3-3/4"	7/32"
CR6004	0.015	12	0.1	1.2	12.75	8-1/4	3-1/2"	3-1/8"	4-1/8"	3-1/2"	3-7/8"	3/16"
CR6005	0.005	24	0.025	0.60	14.90	12	3-3/4"	3-3/8"	4-1/2"	3-7/8"	4-3/4"	9/32"
CR6006	0.001	50	0.001	0.05	45.00	17	4-15/16"	3-3/8"	5-3/4"	4-3/8"	5-1/2"	9/32"

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE

ALL PRICES AND SPECIFICATIONS SUBJECT TO CHANGE.

"TABTRAN" ISOLATION AND CONTROL TRANSFORMERS — ENCLOSED POWER TYPE ELECTRO-STATIC-SHIELDED

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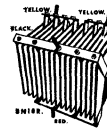

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Fig. 1
(7¾H x 6½W x 12D)

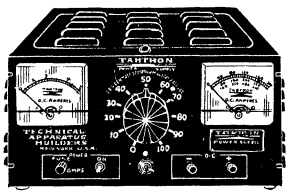

Fig. 2 9H x 15W x 7D
Fig. 2A Rack Mtd. & Cab.
10½H x 21½ W x 15D

Fig. 9

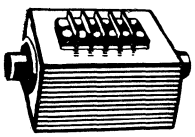

Fig. 10

Fig. 3

19¼H x 21½W x 15D

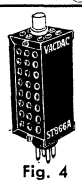

Fig. 4

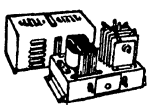

Fig. 5

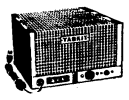

Fig. 6

Fig. 7

Fig. 8

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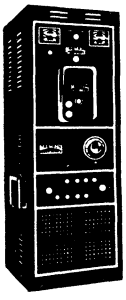

Fig. 11

Fig. 12

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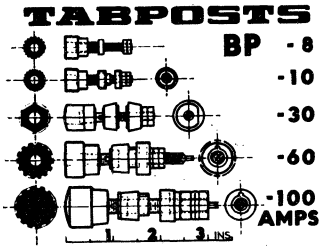

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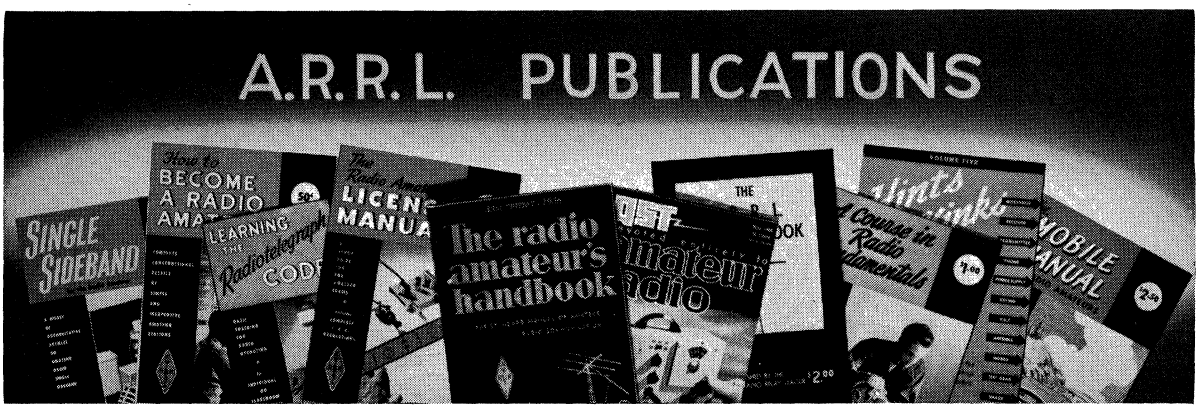

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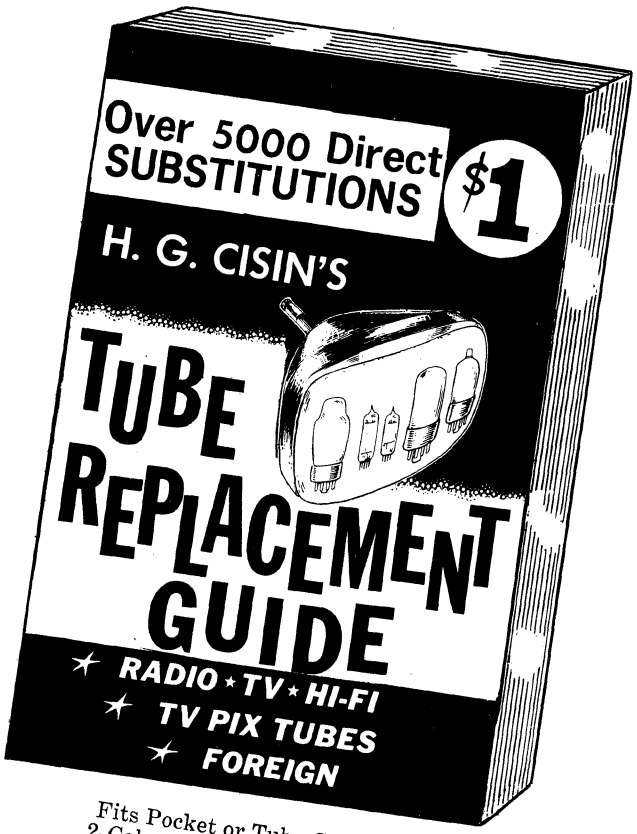

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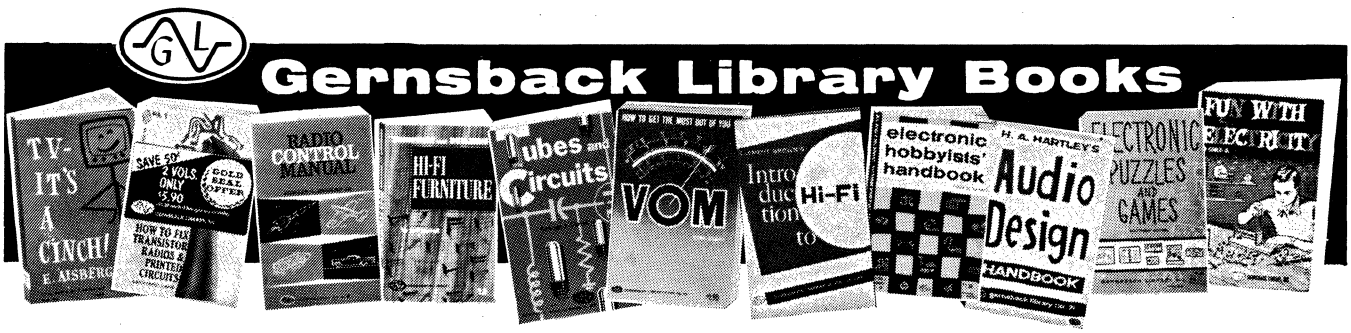

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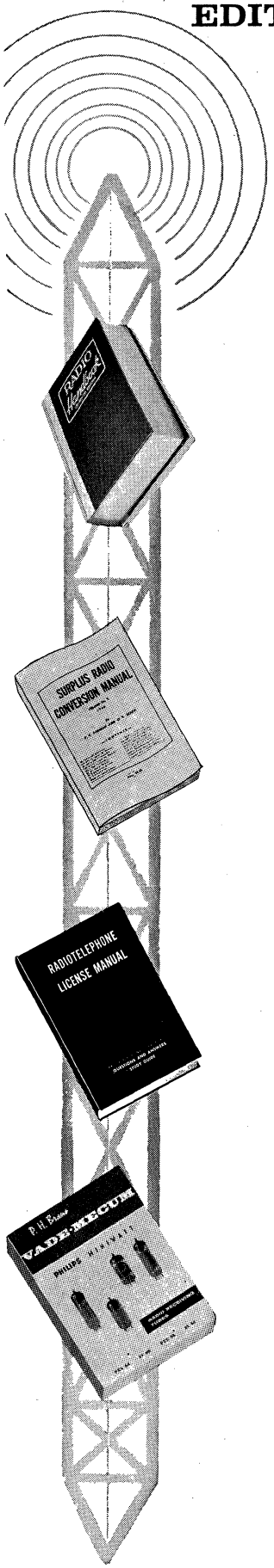

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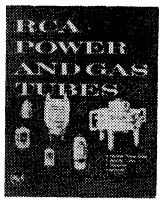

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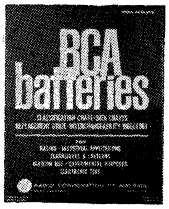

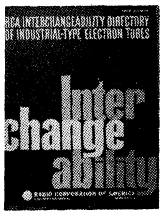

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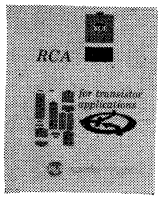

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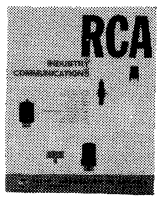

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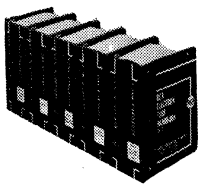

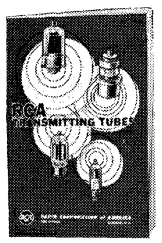

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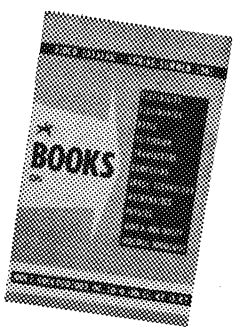

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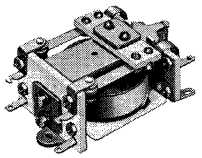
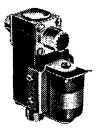
INDUSTRIAL RELAYS



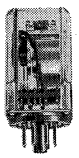
ANTENNA TYPE

AC or DC coils
DPDT contacts plus SPDT aux.
10 amp res. contacts
7-9 VA AC, 2 watts DC nominal power
1.468″ x 2.812″ x 1.656″, 5.7 oz.



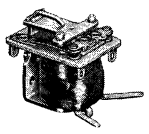
COAXIAL

AC or DC coils
SPDT contacts plus DPDT aux.
5 amp res. contacts
8-10 VA AC, 2 watts DC nominal power
2.031″ x 4.062″ x 3.281″, 11.1 oz.



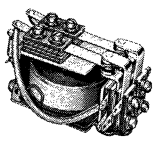
GENERAL PURPOSE

AC or DC coils
SPDT, DPDT or 3PDT contacts
5 and 10 amp res. May be operated as voltage for current sensitive
2-3 VA AC, 1-2 watts DC nominal power
Open relays have solder lugs or printed circuit tabs
Dustite relays have 8-pin plug (SPDT, DPDT) and 11-pin plug (3PDT)
5 and 10 amp SPDT and DPDT open are UL approved
2.687″ x 1.406″ x 1.406″, 3 oz.



MINIATURE

DC coils, SPDT or DPDT contacts
1 amp res. contacts
0.75-1 watt nominal power
Open relays have solder lugs
Hermetically sealed relays have 8-pin plug or hooks
0.796″ x 0.968″ x 0.625″, 11 grams



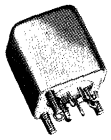
POWER TYPE

AC or DC coils
SPST, SPDT, DPST, DPDT, 3PST, 3PDT, 4PST or 4PDT contacts
15, 20 or 30 amp res. contacts
9-12 VA AC, 2-3 watts DC nominal power
Open relays have lugs and binding posts
Hermetically sealed relays have 8-pin plugs, hooks, pins, and screw terminals
1.906″ x 3.500″ x 2.593″, 8 oz., open

SENSITIVE

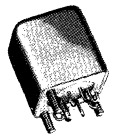
DC coils, SPST contacts
1 amp res. contacts
5 MW pull-in power
Exterior screw adjusts 5 MW sensitivity
1.562″ x 2.625″ x 2.062″, 6.5 oz.

MILITARY RELAYS (HERMETICALLY SEALED)



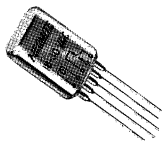
MINIATURE

DC coils, DPDT contacts
5 amp res. contacts
340 MW pull-in power
0.875″ x 0.875″ x 1.125″, 1.5 oz.



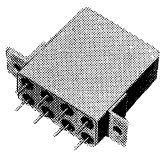
MINIATURE SENSITIVE

DC coils, DPDT contacts
5 amp res. contacts
100 MW pull-in power
0.875″ x 0.875″ x 1.125″, 1.5 oz.



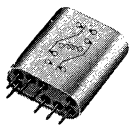
TRANSISTOR-CAN-SIZE SENSITIVE

DC coils, SPDT contacts
0.25 amp res. contacts
100 MW pull-in power
0.531″ x 0.392″ x 0.196″, 0.09 oz.



0.2″ GRID SPACED CRYSTAL-CAN-SIZE SENSITIVE

DC coils, DPDT contacts
1 and 2 amp res. contacts
50, 100, 250 MW pull-in power
3″ leads, plug-in pins or hook connectors
Top studs, side studs and bracket mounting
0.875″ x 0.800″ x 0.396″, 0.6 oz.



CRYSTAL-CAN-SIZE

DC coils, DPDT contacts
2 amp res. contacts
250 MW pull-in power
3″ leads, plug-in pins or hook connectors
Top studs, side studs and bracket mounting
0.875″ x 0.797″ x 0.359″, 0.45 oz.

ELGIN advance RELAYS

THE ELECTRONICS DIVISION OF ELGIN NATIONAL WATCH CO.

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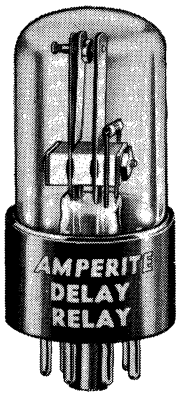
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



STANDARD

AMPERITE THERMOSTATIC DELAY RELAYS

Amperite Thermostatic Delay Relays are actuated by a heater . . can therefore be used on A.C., D.C., or pulsating current. Being hermetically sealed, Amperite Relays are not affected by altitude, moisture, or other atmospheric conditions. **REPLACED AS EASILY AS A RADIO TUBE.**

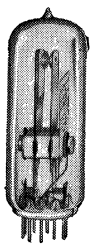
CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 50, 115V.
For 220V use a 6500 ohm-5 watt resistor in series with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may be operated continuously. Heaters will not be damaged by a 50% voltage overload for duration of 1 hour or less.

FLASHERS: 1 watt prox.

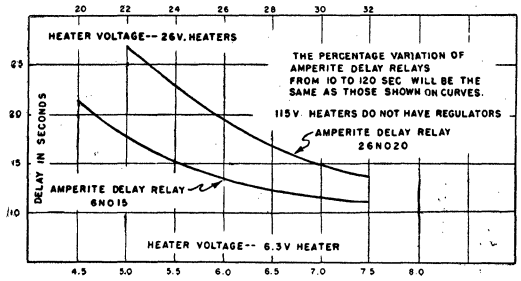
VARIATION OF DELAY WITH HEATER VOLTAGE



MINIATURE

FIGURE 1 — Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in this diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.



Figure

CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Breakdown Contact-to-Contact	Heater-to-Contact
STANDARD	2 to 10 Sec.	115V — 3a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 3a AC	800V	800V
		220V — 1a AC	800V	800V
MINIATURE	2 to 10 Sec.	115V — 2a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 2a AC	800V	800V
		220V — 1a AC	800V	800V
FLASHERS		— ½a AC	250V	500V

CONTACT DROP: —0.1V — Prox. at 1A.

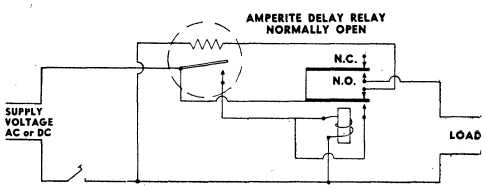
AMBIENT TEMPERATURES: Relays are compensated for temperatures of — 55° to + 80°C. (Relays can be operated from — 80°C to + 125°C without damage). Tolerances given are for 20°C. Ambient temperature tolerances depend on type. Low voltage heaters 26V or less have better ambient compensation than high voltage **heaters.**

DELAYS AVAILABLE: From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay can be increased up to 50% by using a resistor in series with the heater. Relays with short delays such as 2 to 5 seconds can be increased 100%.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115 V. — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations.

SHELF LIFE of Amperite Delay Relays is over 10 years. The relay will keep within specification even after being held for 10 years or more.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd. across contacts.



INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a DPDT Magnetic Relay as shown at left. If normally closed is required — use a **normally open** Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG RECYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 8 seconds. After heater is disconnected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

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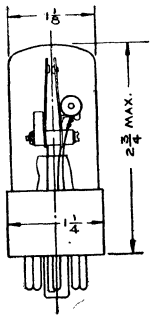
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT

BREAKING D.C. CURRENT: When Relay contacts open D.C. Current above 50 volts, a condenser with a resistor in series with the condenser must be connected across the contacts. The following condenser values are approximate.

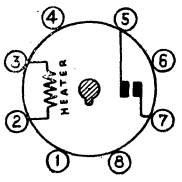
	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amps.....	None	.1 MF	.25 MF
.5 to 1.5 Amps.....	"	.25 "	.25 "
1.5 to 3 Amps.....	.25 MF	1 "	.5 "



Standard Octal Base

BASE WIRING:

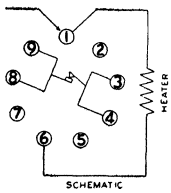
STANDARD



Bottom View
Schematic Diagram

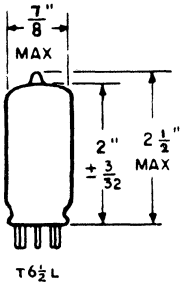
Standard Radio Octal:
Prongs 2-3-heater;
Prongs 5-7-contacts.

MINIATURE



Bottom View
Schematic Diagram

9-Pin Miniature:
Prongs 1-6 heater;
Prongs 3-4, 1 contact;
Prongs 8-9, 2nd contact

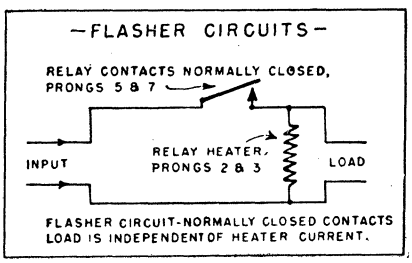


9-Pin Miniature Base

STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS... Net $2.40 each

MINIATURE TYPES: Designated by letter T. (e.g. 6N05T). Types shown in Bold Type are the more popular types, and are more readily available. Miniature type relays available in 2-120 Seconds Delay, EXCEPT those with a 6.3V Heater which are available in 2-180 Seconds. All Standard Octal Base Types are available in 2-180 Seconds Delay.

Delay-Seconds	Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS — HEATER VOLTAGES						NORMALLY CLOSED CONTACTS — HEATER VOLTAGES					
		2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	115 V.
2	± 1	2N02	5N02	6N02	12N02	26N02	115N02	2C2	5C2	6C2	12C2	26C2	115C2
3	± 1	2N03	5N03	**6N03**	12N03	**26N03**	**115N03**	2C3	5C3	**6C3**	12C3	**26C3**	**115C3**
5	± 2	2N05	5N05	**6N05**	12N05	**26N05**	**115N05**	2C5	5C5	**6C5**	12C5	**26C5**	**115C5**
8	± 3	2N08	5N08	**6N08**	12N08	**26N08**	**115N08**	2C8	5C8	**6C8**	12C8	**26C8**	**115C8**
10	± 3	2N010	5N010	**6N010**	12N010	**26N010**	**115N010**	2C10	5C10	**6C10**	12C10	**26C10**	**115C10**
15	± 3	2N015	5N015	**6N015**	12N015	**26N015**	**115N015**	2C15	5C15	**6C15**	12C15	**26C15**	**115C15**
20	± 4	2N020	5N020	**6N020**	12N020	**26N020**	**115N020**	2C20	5C20	**6C20**	12C20	**26C20**	**115C20**
30	± 8	**2N030**	**5N030**	6N030	**12N030**	26N030	115N030	2C30	5C30	**6C30**	12C30	**26C30**	**115C30**
45	± 10	2N045	5N045	**6N045**	12N045	**26N045**	**115N045**	2C45	5C45	**6C45**	12C45	**26C45**	**115C45**
60	± 12	**2N060**	5N060	**6N060**	12N060	**26N060**	**115N060**	2C60	5C60	**6C60**	12C60	**26C60**	**115C60**
75	± 15	2N075	5N075	**6N075**	12N075	**26N075**	**115N075**	2C75	5C75	**6C75**	12C75	**26C75**	**115C75**
90	± 15	2N090	5N090	**6N090**	12N090	**26N090**	**115N090**	2C90	5C90	**6C90**	12C90	**26C90**	**115C90**
120	± 30	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	**115N0120**	2C120	5C120	**6C120**	12C120	**26C120**	**115C120**
150	± 30	2N0150	5N0150	**6N0150**	12N0150	**26N0150**	**115N0150**	2C150	5C150	**6C150**	12C150	**26C150**	**115C150**
180	± 40	2N0180	5N0180	**6N0180**	12N0180	**26N0180**	**115N0180**	2C180	5C180	**6C180**	12C180	**26C180**	**115C180**



Flashers operate approximately ⅓ on, ⅔ off. The percentage time on can be increased by reducing the voltage of the heater.

Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. *For example a 6F30 flasher,* has 6.3V heater, normally closed 30 FPM with a ± 10 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pin miniature. Flashers are available from *30 to 90 Flashes per minute* with tolerances as shown in the chart below:

FLASHERS have contact rating of ½a AC, non-inductive.

Tolerance FPM — 20°C	Standard Flashers Available		
10 ± 5	6F10	26F10	115F10
30 ± 10	6F30	26F30	115F30
45 ± 12	6F45	26F45	115F45
60 ± 15	6F60	26F60	115F60
75 ± 15	6F75	26F75	115F75
90 ± 20	6F90	26F90	115F90

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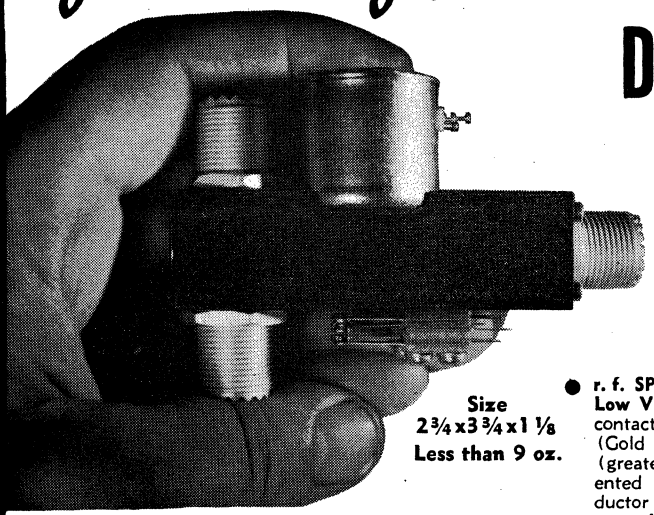
Net

favorite of Amateur & Industrials!

DOW-KEY DK-60 SERIES COAXIAL RELAYS



Size
2¾x3¾x1⅛
Less than 9 oz.

4 VERSATILE MODELS, A.C. or D.C.

(And Types C, TNC, BNC, N, UHF Connectors)

UNCONDITIONAL GUARANTEE
(We will repair if faulty within 1 year)

STANDARD RELAYS, WITH TYPE UHF CONNECTORS, INCLUDE:

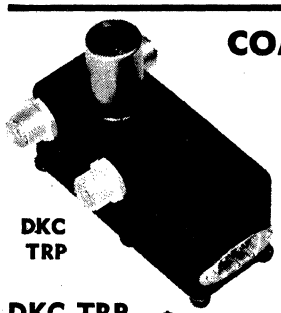
- **DK60** — SPDT r.f. switch **each $12.45**
- **DK60-G** — SPDT r.f. switch with special "isolated" connector in de energized position **each $13.70**
- **DK60-2C** — SPDT r.f. switch with DPDT auxiliary contacts **each $14.35**
- **DK60-G2C** — SPDT r.f. switch with DPDT auxiliary contacts and special "isolated" connector in de-energized position **each $15.65**

Weather proof model available for exterior installation.

- **r. f. SPECIFICATIONS:**
Low VSWR: less than 1.15:1 from 0 to 500 mc — **Low Losses:** Pure silver contacts. All other parts used in crucial positions are plated with fine silver. (Gold plating available at extra cost, special order.) — **Low Cross-Talk:** (greater than 80 db) in DK60-G and DK60-G2C through the use of a patented "isolated connector" arrangement which opens the disconnected conductor and simultaneously provides an electrostatic shield between it and the rest of the circuit — **High Power Rating:** (a) one kilowatt through straight connectors (b) to 10 watts through "isolated connector" — excellent for video switching — **Single Pole Double Throw r.f. contacts:** r.f. leakage — extremely low, below leakage of typical r.f. connectors. A wide variety of connectors available. Example: UHF, N, C, and others in both straight and "isolated" models.

- **MECHANICAL SPECIFICATIONS:**
High Contact Pressures: Long-Life Expectancy greater than one million operations — **Continuous Duty.** Teflon feed-through terminals used on coil to provide connection ease — **Small, Compact:** only 2¾"x3¾"x1⅛" — **Lightweight:** less than 9 ounces — Dow designed UHF (standard) or type N (slight additional cost) r.f. connectors available. Specify if type N connector required.

- **ELECTRICAL SPECIFICATIONS:**
Wide variety of coil voltages: 6, 12, 24, 28, 32, 48, 110, 220 D.C. volts at 2.0 watts; 6, 12, 24, 110, 220 A.C. volts at 6 volt-amps 50-60 cps. (Special voltage or resistances available on request.) — **Less than 50°C temperature rise above ambient:** maximum operating temperature is 100°C except on special order — Auxiliary contacts available for power control — DPDT at 5a. 110 v a.c. on DK60-2C and DK60-G2C.



DKC TRP

COAXIAL ELECTRONIC TR SWITCH with Built-in Power Supply

DKC-TRP each..... **$27.75**
FACTORY WARRANTY

Designed to operate in 1.8 to 30 mc. range. NO EXTERNAL D.C. POWER SUPPLY NEEDED! Just plug into any regular 120 v. A.C. outlet! About 15 watts of power required.

A vacuum tube T-R switch utilizes grid-blocking scheme when in transmit mode. In receive mode, circuit provides a small amount of gain between the antenna and receiver. Employs circuitry with large signal handling capabilities to reduce locally-generated cross-modulation types of interference.

DKC-TRP features include: Rated maximum legal power. Low VSWR. Cast aluminum construction makes DKC-TRP TVI proof. Switch allows break-in operation with a single antenna system. Has standard UHF coaxial connectors; type "N" connectors available at small, additional cost.

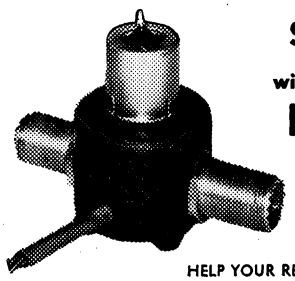
DOW-KEY DKC-TRP-C

Electronic antenna switch with built-in power supply, 1 KW average, 1.5 through 30 mc, UHF connectors with built-in direction coupler (patent applied for) to preclude possibility of loss in receiver signal strength through coupling to transmitter Complete with 115V A.C. cord. **Each $37.95**

DKC-TRM-1C Same as DKC-TRP-C without built-in power supply. **Each $22.70**

DKC-TRM-1 Electronic antenna change-over switch, UHF connectors 6-volt filament, 125 to 150 V B+, 1 KW. **Each $12.50**

DKC-TR-2A Same as DKC-TRM-1 but for operation 144-148 mc. **Each $12.50**



Compact
1⅜"x1⅜"x2¼"
Wt. 10 oz.

DKC-RFB
only **$10.75**

Signals 'pop out'

with DOW-KEYS DKC-RFB

PREAMPLIFIER

Amateurs will hear signals they didn't hear before!

HELP YOUR RECEIVER! The DKC-RFB Booster is a 50 to 70 ohm impedance matching "broadband preamplifier" guaranteed to increase the over-all gain by 1 to 6 "S" units on all bands (1.5 to 30mc). Worth dollars and dollars more to the amateur with low cost equipment desiring to improve sensitivity, work with DX, and bring up weak unintelligible signals. Designed for receivers up to the $300 class.

Not a gimmick ... but a highly successful, tested and proven accessory, precision made, fully backed by Dow-Key's traditional Factory Warranty.

DOW-KEY UHF CONNECTORS

DK60-P

PANEL MOUNT
Durable, silver plated, precision made. Only ⅝" hole is needed, no screws.
ea. 70

DOUBLE MALE
Favorite everywhere. Precision made, rugged locking type. Silver. plated.
ea. . . . 1.25

DKF-2

DOW-KEY products available at your local distributor or write:

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

Net

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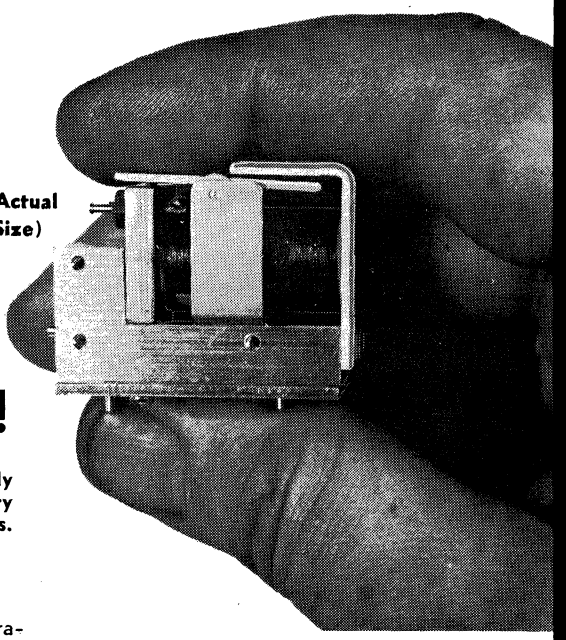
Do You have a Relay Problem?

Investigate . . . this Tested, Proven

DOW-KEY DKC-61 COAXIAL RELAY

FOR

INDUSTRIAL AND MILITARY APPLICATION!



(Actual Size)

A compact superb new DOW-KEY relay specifically designed, thoroughly tested and proven, for the rugged requirements of industrial and military application. Connectors supplied adaptable to most smaller coaxial cables. Now in production!

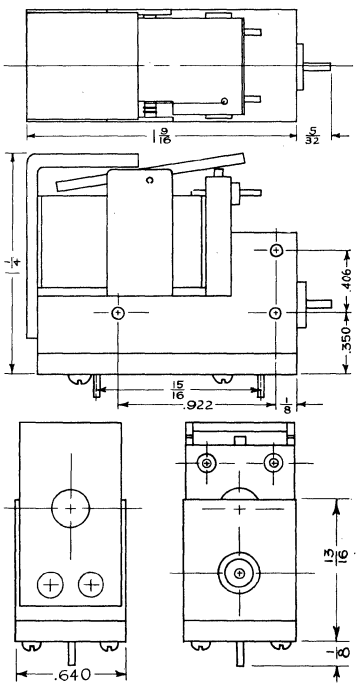
1.0 CONTACT DATA:
- 1.1 Contact Rating: 30 watts R.F., power 50 ohms.
- 1.2 Contact Pressure: ≧35 grams over the ambient operating temperature range.
- 1.3 Overtravel: .005" (min.) when steel shim is inserted between the armature and pole piece.

2.0 COIL DATA:
- 2.1 Nominal Coil Voltage: 28VDC.
- 2.2 Pull-in Voltage: ≦20 VDC over the temperature range.
- 2.3 Maximum Voltage: 32 Volts D.C.
- 2.4 Drop-out Voltage: ≦6 Volts D.C.
- 2.5 Coil Resistance: 275 ohms ±20%.
- 2.6 Coil Temp. Rise: ≦40 C.
  (Other ST. D.C. voltages available).

3.0 ELECTRICAL DATA:
- 3.1 Frequency Range: 0 to 400 mc.
- 3.2 Standing Wave Ratio: 1.1 to 1 over the frequency range.
- 3.3 Insertion Loss: ≦.05 db. over the frequency range.
- 3.4 Cross Talk: ≧40 db. over the frequency range.
- 3.5 Voltage Breakdown: Withstands 500 Volts RMS, between open contacts, contacts and case, contacts and coil, and coil and case.

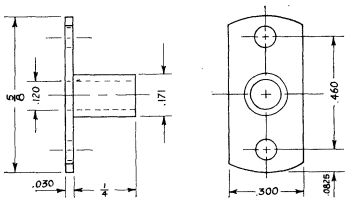
4.0 MATERIAL AND FINISHES (Mechanical):
- 4.1 All material fungus resistant.
- 4.2 Withstands salt spray test in accordance with the latest version of MIL-STD-202, Method 101.
- 4.3 Humidity: Withstands humidity test conducted in accordance with the latest version of MIL-STD-202 B, Method 106A.
- 4.4 Fixed contacts withstand a pull of 5 lbs.
- 4.5 Weight: Less than 3.0 ounces.
- 4.6 Operating time: Less than 15 ms.

5.0 ENVIRONMENTAL DATA:
- 5.1 Ambient operating temperature range without impairment of the unit's performance: −55°C to +125°C.
- 5.2 Duty Cycle: Continuous.
- 5.3 Life Expectancy: ≧100,000 operation at rated load throughout the temperature range.
- 5.4 Vibration: Withstands a simple harmonic motion having an amplitude of 0.03 inch (0.06 inch maximum total excursion), with the frequency varied uniformly between 10 and 55 cycles per second and 15 G's with the frequency varied uniformly between 55 and 2000 cycles per second in each of the 3 mutually perpendicular directions without any sign of contact breakage, or mechanical fatigue.



DOW-KEY DKC-61

CONNECTOR FOR DKC-61



SERVICE AND DELIVERY

Our engineering staff, completely equipped plant, and technicians invite the opportunity to serve you in developing, designing or building your specific relay requirements. Try Us!

DOW-KEY products available at your local distributor or write:

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

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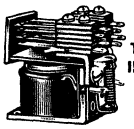
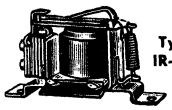
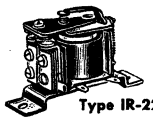
GUARDIAN *Highest Quality* Industrial Controls.....


Type IR-500 -505

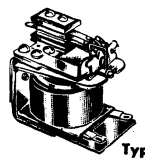

Type IR-120

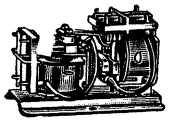

Type IR-220

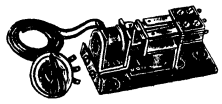
IR-500-505 Compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality, available in a variety of AC and DC voltages with a selection of contact combinations. Contact rated 10 amps., 60 cy., 115 V. non-inductive. Size, 1 11/16" x 1 1/2" x 1". Shpg. wt. 4 oz. **IR-120** An economical unit for requirements not exceeding S.P.D.T. combinations. Armature carries the contact blade and both are common to the field piece. Contacts rated 8 amps., 60 cy., 115 V. non-inductive load. Size, 3" x 1 7/8" x 1 1/2". Shpg. wt. 4.5 oz. **IR-220** Rugged unit breaks up to 20 amperes. Armature is equipped with bakelite contact mounting block carrying 5/16" dual contacts. Bakelite is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Available in S.P.S.T.N.O. contact combination only. Contact rated 20 amp., 60 cy., 230 V. non-inductive load. Size, 3" x 1 7/8" x 1 3/4". Shpg. wt. 5.5 oz.

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
IR-500-A6	6-AC	SPST*	$2.50	$2.25	$2.13	$2.00
IR-500-C6	6-AC	SPDT	2.80	2.52	2.38	2.24
IR-500-G6	6-AC	DPDT	3.10	2.79	2.64	2.48
IR-500-GG6	6-AC	4PDT	4.30	3.87	3.66	3.44
IR-500-A24	24-AC	SPST*	2.50	2.25	2.13	2.00
IR-500-C24	24-AC	SPDT	2.80	2.52	2.38	2.24
IR-500-G24	24-AC	DPDT	3.10	2.79	2.64	2.48
IR-500-GG24	24-AC	4PDT	4.30	3.87	3.66	3.44
IR-500-A115	115-AC	SPST*	2.50	2.25	2.13	2.00
IR-500-C115	115-AC	SPDT	2.80	2.52	2.38	2.24
IR-500-G115	115-AC	DPDT	3.10	2.79	2.64	2.48
IR-500-GG115	115-AC	4PDT	4.30	3.87	3.66	3.44
IR-500-G230	230-AC	DPDT	3.70	3.33	3.15	2.96
IR-505-A6	6-DC	SPST*	2.50	2.25	2.13	2.00
IR-505-C6	6-DC	SPDT	2.80	2.52	2.38	2.24
IR-505-G6	6-DC	DPDT	3.10	2.79	2.64	2.48
IR-505-GG6	6-DC	4PDT	4.30	3.87	3.66	3.44
IR-505-A12	12-DC	SPST*	2.50	2.25	2.13	2.00
IR-505-C12	12-DC	SPDT	2.80	2.52	2.38	2.24
IR-505-G12	12-DC	DPDT	3.10	2.79	2.64	2.48
IR-505-GG12	12-DC	4PDT	4.30	3.87	3.66	3.44
IR-505-A24	24-DC	SPST*	2.50	2.25	2.13	2.00
IR-505-C24	24-DC	SPDT	2.80	2.52	2.38	2.24
IR-505-G24	24-DC	DPDT	3.10	2.79	2.64	2.48
IR-505-GG24	24-DC	4PDT	4.30	3.87	3.66	3.44
IR-505-A110	110-DC	SPST*	3.05	2.75	2.59	2.44
IR-505-C110	110-DC	SPDT	3.15	2.84	2.68	2.52
IR-505-G110	110-DC	DPDT	3.50	3.15	2.98	2.80
IR-505-GG110	110-DC	4PDT	4.70	4.23	4.00	3.76
IR-120-C24	24-AC	SPDT	3.05	2.75	2.59	2.44
IR-120-C115	115-AC	SPDT	3.50	3.15	2.98	2.80
IR-120-C230	230-AC	SPDT	5.30	4.77	4.51	4.24
IR-220-A24	24-AC	SPST*	3.95	3.56	3.36	3.16
IR-220-A115	115-AC	SPST*	4.45	4.01	3.78	3.56
IR-220-A230	230-AC	SPST*	4.95	4.46	4.21	3.96

*Normally Open

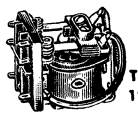

Type IR-610L


Type IR-1200/1200


Type X-300-ER

IR-610L Single coil and 5 ampere contact rating for S.P.S.T., or S.P.D.T., contact combinations. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits, etc. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Size: 2 1/16" L. x 1 1/8" W. x 1 5/8" H. Shpg. wt. 4 oz. **IR-1200/1200** Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated at 8 amps., 60 cps, non-inductive. Size, 1 13/16" x 1 3/4" x 2 7/8". Shpg. wt. 5.5 oz. **X-300-ER** Applicable for use in industrial panel installation, provides precise protection from current surges and continuous overloads. Remote panel installation of control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 milliamperes. Auxiliary for pilot light indication of "overload" or "clear" position. Reset relay can be operated from any point convenient to operator. Insulation between coil and ground rated 3,000 v. Shpg. wt. 13 oz. Size, 4 3/4" x 2 x 1 15/16"

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
IR-610L-A115	115 AC	SPST	$3.80	$3.42	$3.23	$3.04
IR-610L-C115	115 AC	SPDT	3.95	3.56	3.36	3.16
IR-1200/1200GG	115 AC	4PDT	10.25	9.23	8.71	8.20
X-300-ER			8.85	7.97	7.52	7.08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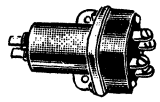
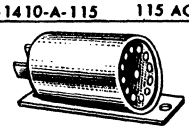

Type IR-1410-A

1200 Rated at 8 amps. 60 cycles, 115 V. non-inductive load. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation, built to meet U/L specifications. Applicable to automation, communications, remote control, selectors, switching devices and experimental uses. Size, 1 5/8" x 1" x 1 1/4". Shpg. wt. 2.5 oz. **IR-1410-A** Rugged, totally enclosed control with contact rating, 3 H.P. U/L motor load at 230 volts, or 8,000 watts resistive heater load. This unique unit is a solenoid operated heavy duty relay. A.M.P. terminals on coil; screw-type terminals on contacts. Contacts, S.P.S.T.N.O.D.B., Size, 3 5/8" x 2 1/32" x 2". Shpg. wt. 5.5 oz.

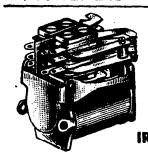
Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
1200-G6	6 AC	DPDT	$3.60	$3.24	$3.06	$2.88
1200-GC6	6 AC	3PDT	4.00	3.60	3.40	3.20
1200-G24	24 AC	DPDT	3.60	3.24	3.06	2.88
1200-GC24	24 AC	3PDT	4.00	3.60	3.40	3.20
1200-G115	115 AC	DPDT	3.60	3.24	3.06	2.88
1200-GC115	115 AC	3PDT	4.00	3.60	3.40	3.20
1205-G6	6 DC	DPDT	3.30	2.97	2.81	2.64
1205-GC6	6 DC	3PDT	3.70	3.33	3.15	2.96
1205-G24	24 DC	DPDT	3.30	2.97	2.81	2.64
1205-GC24	24 DC	3PDT	3.70	3.33	3.15	2.96
IR-1410-A-115	115 AC	SPST DB	4.30	3.87	3.66	3.44

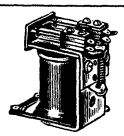


ROTOMITE STEPPER—DC
12 Positions
Continuous Rotation
Type 1R-705-12P

An entirely new concept in stepper design. The Guardian Rotomite enables engineers to apply the stepping relay principle over a wide range of applications. Stepping mechanism, coils and contacts completely (metal) enclosed. Continuous rotation on 12 positions up to 20 steps per second. High contact rating 3 amps resistive, 1 amp inductive (50% P.F.). DC coils are continuous duty for 6, 12 or 24 VDC. Tests well over 1,000,000 operations. Applications include business machines, computer circuits, automated devices, counting, lighting, sorting, model trains, among others. Size: 2" L. x 1 3/16" Dia. Shipping Wt. approx. 5 oz.

Mfg. No.	No. Pts.	Volts	Quantities 1-24	25-49	50-99	100-Up
IR-705-12P-6D	12	6 DC	$5.40	$4.86	$4.59	$4.32
IR-705-12P-12D	12	12 DC	5.40	4.86	4.59	4.32
IR-705-12P-24D	12	24 DC	5.40	4.86	4.59	4.32


Type IR-590


Type IR-625

Type IR-805-S

IR-590 Small size, lightweight communications relay. Armature is formed outward, away from coil permitting use of longer coil without increasing length of unit. Contacts rated for 1 1/2 amperes. Armature releases when current is reduced approx. 50% of attract value. Size, 1 5/16" x 1 11/32" x 1". Shpg. wt. 3.5 oz. **IR-625** with extra long coil for greater sensitivity. Adaptable to voltage operating as well as sensitive plate circuit control installations. Coil impregnated for reliability and longer life. Average power requirement, 0.2 watts. Contacts, 8 amps. Size, 2 1/8" x 2" x 1 1/2". Shpg. wt. 5.5 oz. **IR-805-S** Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermoseting phenolic. All contact members completely enclosed. Phenolic plunger housing, 32 poles made common upon energization. Size, 2 7/32" x 1 17/32" x 2 1/8". Shpg. wt. 6 oz.

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
IR-590-C115	115 AC	SPDT	$4.25	$3.83	$3.61	$3.40
IR-590-G115	115 AC	DPDT	4.75	4.28	4.04	3.80
IR-595-GG24	24 DC	4PDT	5.65	5.09	4.80	4.52
IR-595-GG115	115 DC	4PDT	6.35	5.72	5.40	5.08
IR-625-2.5	2,500 Ohms	DPDT	3.85	3.47	3.27	3.08
IR-625-5	5,000 Ohms	DPDT	4.25	3.83	3.61	3.40
IR-625-10	10,000 Ohms	DPDT	5.25	4.73	4.46	4.20
IR-805-S	24 DC	32 P Shorting	4.30	3.87	3.66	3.44

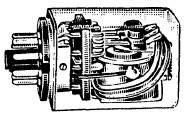
ENGINEER'S CONTACT SWITCH KIT

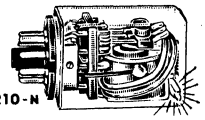
Guardian Contact Switch Kit is indispensable to experimental engineers and those who design, plan, build, repair or test electrically operated controls. All materials are standard high-quality Guardian production items.

Stock No. 79P610 Net Ea. $10.95

© U.C.P., Inc.

.....Available NOW from your STOCKING DISTRIBUTOR


Type-1210


Type-1210-N

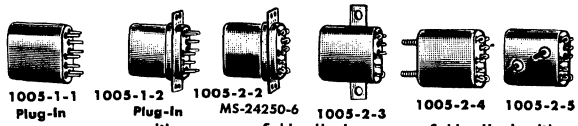
1210 Small sized relay in Lucite enclosure for efficient, dust-free, and trouble-free operation. This transparent, lightweight Lucite case has high impact strength, unaffected by weather, and is resistant to temperatures of 200° F. Relay is powerful and economical. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contacts rated for 8 amperes, 60 cycles, 115 V. AC non-inductive. **1210-N** Plug-in relay utilizes a miniature neon lamp connected across coil terminals. The lamp lights each time the coil is energized, or indicates a circuit fault when lamp is "dark." Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Available with 8 pin octal plug for DPDT and 11 pin for 3 PDT. Contact rated 8 amperes at 115 VAC, 60 c., non-inductive load. Size 1210 and 1210-N: 2 23/32" x 1 3/8" x 1 3/8". Shpg. wt. 3.5 oz. each.

ENCLOSED PLUG-IN RELAY AC–DC

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
1210-N-G115	115 AC	DPDT	$6.30	$5.67	$5.36	$5.04
1210-N-GC115	115 AC	3PDT	7.70	6.93	6.55	6.16
1210-G6	6-AC	DPDT	5.70	5.13	4.85	4.56
1210-GC6	6-AC	3PDT	7.10	6.39	6.04	5.68
1210-G24	24-AC	DPDT	5.70	5.13	4.85	4.56
1210-GC24	24-AC	3PDT	7.10	6.39	6.04	5.68
1210-G115	115-AC	DPDT	5.70	5.13	4.85	4.56
1210-GC115	115-AC	3PDT	7.10	6.39	6.04	5.68
1215-G6	6-DC	DPDT	5.80	5.22	4.93	4.64
1215-GC6	6-DC	3PDT	7.25	6.53	6.16	5.80
1215-G24	24-DC	DPDT	5.80	5.22	4.93	4.64
1215-GC24	24-DC	3PDT	7.25	6.53	6.16	5.80

ENCLOSED PLATE CIRCUIT PLUG-IN RELAY-DC

Mfg. No.	Coil Res.	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
1215-G2.5	2500	DPDT	$6.00	$5.40	$5.10	$4.80
1215-G5	5000	DPDT	6.10	5.49	5.19	4.88
1215-G10	10000	DPDT	6.40	5.76	5.44	5.12
1215-GC2.5	2500	3PDT	7.00	6.30	5.95	5.60
1215-GC5	5000	3PDT	7.20	6.48	6.12	5.76
1215-GC10	10000	3PDT	7.50	6.75	6.38	6.00



1005-1-1 Plug-In | **1005-1-2** Plug-In with Mtg. Bracket | **1005-2-2** MS-24250-6 Solder Hook with Mtg. Bracket | **1005-2-3** Solder Hook | **1005-2-4** Solder Hook with 4-40 Mtg. Studs | **1005-2-5**

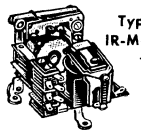
1005 MICRO-MINIATURE DC RELAYS This leader in micro-miniature controls concentrates maximum power in minimum space. A few of the outstanding features are:

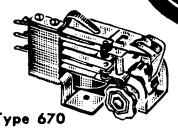
- Standard contact rating 3 amperes @ 125° C.
- Applicable specifications MS-24250-6 and MIL-R-5757-D.
- Switches currents as low as 10 microamps at 30 millivolts.
- "Fluxless Solder" sealing eliminates possibilities of internal contamination.
- With the exception of coil lead splices (which are soldered) all internal electrical connections are welded.
- All production is 100% Mass Spectrometer leak tested.
- Complete Certified Test Reports are available.
- Unit is available in a variety of mounting arrangements and header terminations.

SPECIFICATIONS: Contact Arrangement: DPDT. **Contact Rating:** 3 amps non-inductive load at 28 volts dc @ +125° C. **Operating Voltage:** 26.5 volts dc nominal, 32 volts dc maximum. **Pull-In:** 18 volts dc maximum. **Release:** 8 volts dc maximum, 1 volt dc minimum. **Operate and Release Time:** 6 milliseconds maximum. **Rated Duty:** continuous. **Operating Temperature:** −65° C to +125° C. **Coil Resistance:** 600 ohms ± 10%. **Insulation Resistance:** 10,000 megohms minimum at 100 volts dc @ 25° C. **Dielectric Strength:** 1000 volts RMS (750 volts RMS across contacts) at sea level. **Seal:** hermetic (dry nitrogen). **Vibration Resistance:** 20 G's minimum to 2000 CPS. **Shock:** 50 G's minimum for 11 milliseconds. **Life Test:** 100,000 operations minimum at rated contact load at +125° C. **Weight:** 0.35 ounces (type 1005-1-1) 0.41 ounces (type 1005-2-2). **Size:** .800" max. w., x .875" max. l., x .359" max. d. **Applicable Specifications:** MS-24250-6—MIL-R-5757-D.

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
IR-1005-1-1	26.5 DC	DPDT	$13.80	$12.42	$11.73	$11.04
IR-1005-1-2	26.5 DC	DPDT	13.80	12.42	11.73	11.04
IR-1005-2-2	26.5 DC	DPDT	13.80	12.42	11.73	11.04
IR-1005-2-3	26.5 DC	DPDT	13.80	12.42	11.73	11.04
IR-1005-2-4	26.5 DC	DPDT	13.80	12.42	11.73	11.04
IR-1005-2-5	26.5 DC	DPDT	13.80	12.42	11.73	11.04

RATCHET RELAYS–AC

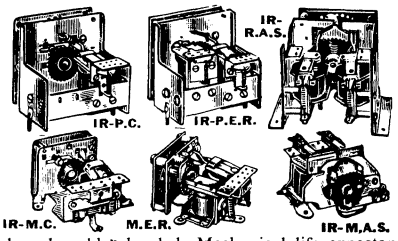

Type IR-M-120 -115


Type 670

IR-M-120-115 Small but rugged 4 PDT stepper with 3-position switch operation, center position "off." Large cam assures precision "step" action. 24 pt. ratchet. Fine silver contacts rated for 10 amps., 115 volts, 60 cps. Unit rated at intermittent duty. Size, 3" x 2¼" x 2 5/16". Shpg. wt. 10 oz. **670** For on/off control of lighting, motors, appliances and speaker applications, among others. Highly reliable operation over 1,000,000 steps. Each impulse (up to 10 steps per second) reverses contacts. Contact arrangements to DPDT and ratings to 12½ amperes resistive load at 115 v., 60 c. Intermittent duty coil with voltages of 115 VAC. 60 cycles. Size, 3" x 1¾" x 2 1/16". Shpg. wt. 7.5 ounces.

Mfg. No.	Volts	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
IR-M-120-115	115 AC	4PDT	$11.75	$10.58	$9.99	$9.40
670-C115	115 AC	SPDT	5.75	5.18	4.89	4.60
670-G-115	115 AC	DPDT	5.85	5.27	4.97	4.68

STEPPING RELAYS



For accurate sequence selecting, pulse multiplying/dividing, circuit selecting, automatic/remote homing, counting and latching.

CONTINUOUS ROTATION

IR-P.C. Micro-finished shaft and Oilite shaft bearing. Beryllium copper pawl control shutter. Selection contacts terminated on phenolic board; solder beaded. Mechanical life expectancy estimated 4,000,000 steps. Will operate satisfactorily at 15% below or 10% above rated voltage. **IR-M.C.** is a smaller continuous rotation operation stepper similar to the P.C. with life expectancy of 2,000,000 steps.

ELECTRICAL RESET

IR-P.E.R. Micro-finished shaft and Oilite shaft bearing. Positive mechanical stops limit total number of steps in any single unit. Returns automatically to start position when reset coil is energized. **M.E.R.** Direct drive (steps on energization) with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. Positive reset on a pulse as short as 1/100 sec. By interconnecting 2 or more units, count can be increased to any desired total. Will control a sequence of operation and then automatically reset to starting position.

ADD AND SUBTRACT

IR-R.A.S. Non-ferrous shutters control motion of the pawl to extend life of unit and prevent skipping of the ratchet. Steps one step at a time in either direction, depending upon which one of two coils may be energized. **IR-M.A.S.** Midget Add and Subtract Stepper is similar to the R.A.S. in general operation. A zero position switch is opened at home position.

Guardian Steppers are *intermittent duty units* rated at 10% duty cycle (out of each hour), maximum energization single period, 5 minutes. See Chart. Auxiliary switches connected in series with the commutator of the selecting finger may be added to the step and/or reset magnet to increase the normal contact rating.

DATA CHART FOR STEPPING RELAYS

Mfg. No.	Coil* Voltage	Volt Amperes	Watts	Number of Points	No. of Active Contacts ***	Max. Steps Per Second
IR-PC-115	115 AC	70	45	40	40	20
IR-MC-115	115 AC	30	18	24	24	20
IR-PER-115	115 AC	70-25**	45-15**	40	36	20
MER-115	115 AC	30-9**	18-7**	24	22	20
IR-RAS-115	115 AC	100	45	40	38	10
IR-MAS-115	115 AC	15	10	30	****	10

Mfg. No.	SIZE Length	Width	Height	Shpg. Wt.	Net Each 1-24	25-49	50-99	100-up
IR-PC-115	3⅜	3	3 7/16	17 oz.	$18.15	$16.34	$15.43	$14.52
IR-MC-115	2¾	3	3¼	9½ oz.	13.00	11.70	11.05	10.40
IR-PER-115	3	3⅜	3 7/16	22 oz.	24.20	21.78	20.57	19.36
MER-115	3¼	2¾	3¼	11½ oz.	14.00	12.60	11.90	11.20
IR-RAS-115	3¼	4⅛	3¾	29½ oz.	25.30	22.77	21.51	20.24
IR-MAS-115	1 13/16	3⅛	3	11 oz.	15.95	14.36	13.56	12.76

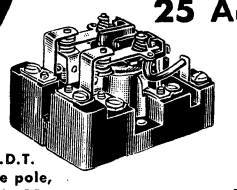
*Steppers will operate satisfactorily at 15% below or 10% above rated voltage.
**Listings are for stepping coil and reset coil, respectively.
***Includes Zero (0) position. ****Zero (0) position switch only.

GUARDIAN ELECTRIC
MANUFACTURING COMPANY

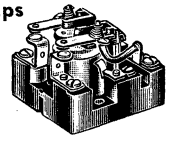
GUARDIAN POWER RELAYS *with*

Interchangeable Coil Assemblies

25 Amps



Series 2200 D.P.D.T. Contacts: double pole, double throw. Wt. 11 oz. Size: 3⅜" x 2½" x 2³⁄₁₆".



Series 2210 D.P.S.T.N.O. Contacts: double pole, single throw, normally open. Wt. 10 oz. Size: 2¹¹⁄₁₆" x 2½" x 2³⁄₁₆".

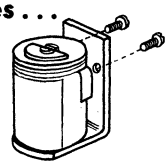
The Guardian Series 2200, D.P.D.T., and the Series 2210, D.P.S.T.N.O., power relays have 25-ampere contacts and *interchangeable* coil assemblies for either relay. Replaceable contact switch parts available for Series 2200, only. These power relays provide a much wider latitude of control for a variety of heavy duty industrial applications including motor starting and heater loads. Series 2200 and 2210 power relays are rated at 25 amperes, continuous duty at 230 volts A.C., with 75% power factor. Operating power requirement for A.C. is 9.5 volt amperes, 60 cycles. Coil drain approximately .080 amperes at 115 volts, 60 cycles. Approximate weight of replacement coil assemblies is 6 ounces.

MOUNTING: 2 holes .196"dia on 1⅞" centers.

Interchangeable Coil Assemblies . . .

(No Solder Connections)

By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils.



Replacement Coils for Either Relay

Mfg. No.	Volts AC	Quantities 1-24	25-49	50-99	100-Up
2200-6A	6	$2.25	$2.03	$1.91	$1.80
2200-24A	24	2.25	2.03	1.91	1.80
2200-115A	115	2.25	2.03	1.91	1.80
2200-230A	230	2.50	2.25	2.13	2.00

2200 and 2210 Power Relays

Mfg. No.	Volts AC	Quantities 1-24	25-49	50-99	100-Up
2200-DPDT-6	6	$6.10	$5.49	$5.19	$4.88
2200-DPDT-24	24	6.10	5.49	5.19	4.88
2200-DPDT-115	115	6.10	5.49	5.19	4.88
2200-DPDT-230	230	6.50	5.85	5.53	5.20
2210-DPST-N.O.-6	6	5.25	4.73	4.46	4.20
2210-DPST-N.O.-24	24	5.25	4.73	4.46	4.20
2210-DPST-N.O.-115	115	5.25	4.73	4.46	4.20
2210-DPST-N.O.-230	230	5.60	5.04	4.76	4.48

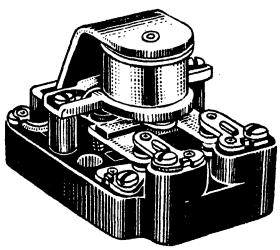
POWER RELAY REPLACEMENT CONTACT SWITCH PARTS

Available for Series 2200, only—Replacement Contact Switch Parts for easy right or left S.P.D.T. assembly. No solder needed. Package contains one normally open and one normally closed contact bracket, complete moving blade and one terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up.

REPLACEMENT CONTACT SWITCH PARTS

Mfg. No.	Quantities 1-24	25-49	50-99	100-Up
CS-2200—LEFT	$ 1.85	$1.67	$1.57	$1.48
CS-2200—RIGHT	1.85	1.67	1.57	1.48

New Guardian Series 2400 POWER RELAY



15
Amperes

Size: 3⅝" x 2½" x 2¹⁄₁₆".

Shipping Wt: 8 ounces.

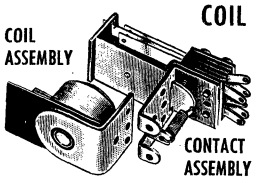
Mounting: Two .196" Dia. holes on 1⅞" centers.

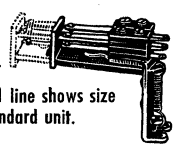
The new Guardian Series 2400 Power Relay provides unique advantages. Has 15-ampere contacts preferred for innumerable applications where heavy duty 25-ampere contacts are not required. Inverted coil construction protects armature and contacts to insure long life reliable operation. Contacts (D.P.D.T.) U/L rated for 15 amperes at 115 V.A.C. non-inductive, or 1 H.P. at 115/230 volts, 60 cycles. Screw type terminals easily accessible for top or bottom connections. Armature extension permits manual circuit testing. Easy to mount S.P.D.T. Auxiliary Switch rated at 10 amperes. 115 V.A.C., 60 cycles, is available as a separate unit.

Mfg. No.	Volts	Rating	Quantities 1-24	25-49	50-99	100-Up
2400-DPDT-6	6	15 Amps.	5.40	4.86	4.59	4.32
2400-DPDT-24	24	15 Amps.	5.40	4.86	4.59	4.32
2400-DPDT-115	115	15 Amps.	5.40	4.86	4.59	4.32
2400-DPDT-230	230	15 Amps.	5.70	5.13	4.85	4.56
2400-SPDT-AUX Auxiliary Switch		10 Amps	1.35	1.21	1.15	1.08

GUARDIAN

SERIES 200 RELAY with completely interchangeable COIL and CONTACT ASSEMBLIES





MIDGET CONTACT ASSEMBLY. Dotted line shows size of standard unit.

Two basic parts—a coil assembly and a contact switch assembly—comprise this simple, yet versatile Guardian relay. The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is *interchangeable* with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4 PDT contact switch assemblies, each *interchangeable* with all A.C. or D.C. coils.

CONTACT SWITCH PARTS Use contact switch parts 200-3 for adding poles to contact switch assemblies 200-1 and 200-2. Use midget contact switch parts 200-M3 to add poles to midget contact switch assemblies 200-M1 and 200-M2.

Mfg No.	Net Each 1-24	25-49	50-99	100-Up
200-3	$1.50	$1.35	$1.28	$1.20
200-M3	$1.50	$1.35	$1.28	1.20

SERIES 200 RELAY

Mfg. No.	Volts	Coils	Net Each 1-24	25-49	50-99	100-Up
200-6A	6	A.C.	$1.75	$1.58	$1.49	$1.40
200-12A	12	A.C.	1.75	1.58	1.49	1.40
200-24A	24	A.C.	1.75	1.58	1.49	1.40
200-115A	115	A.C.	2.05	1.85	1.74	1.64
200-230A	230	A.C.	2.70	2.43	2.30	2.16
200-6D	6	D.C.	1.90	1.71	1.62	1.52
200-12D	12	D.C.	1.90	1.71	1.62	1.52
200-24D	24	D.C.	1.90	1.71	1.62	1.52
200-32D	32	D.C.	1.90	1.71	1.62	1.52
200-110D	110	D.C.	2.50	2.25	2.13	2.00
200-5,000D		PLATE COIL	2.20	1.98	1.87	1.76

CONTACT SWITCH ASSEMBLIES

Mfg. No.	Type	Contact Amps.	Cont. Comb.	Net Each 1-24	25-49	50-99	100-Up
200-1	STANDARD	8	SPDT	$1.50	$1.35	$1.28	$1.20
200-2	STANDARD	8	DPDT	2.00	1.80	1.70	1.60
200-4	STANDARD	12.5	DPDT	2.25	2.03	1.91	1.80
200-5	STANDARD	8	4PDT	3.50	3.15	2.98	2.80
200-M1	MIDGET	10	SPDT	1.40	1.26	1.19	1.12
200-M2	MIDGET	10	DPDT	1.75	1.58	1.49	1.40
200-M5	MIDGET	8	4PDT	2.85	2.57	2.42	2.28

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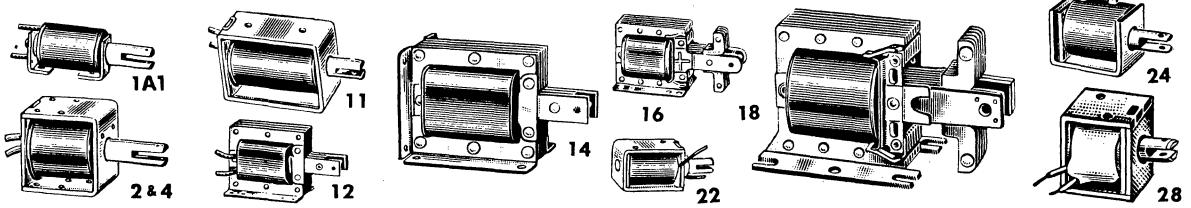
GUARDIAN®

A.C. INDUSTRIAL SOLENOIDS D.C.

INTERMITTENT AND CONTINUOUS

A Complete Line for Every Industrial Application



Intermittent duty solenoids may be specified when the cycle of operations does not require energization of the solenoid coil for more than five consecutive minutes with a sufficient time lapse between operations to permit cooling of the coil to approximately the 24° C. (72° F.) ambient temperature. If energized more frequently and for shorter periods, the cycle should be such that the temperature rise of the coil is not greater than 85° C. (185° F.) at 24° C. ambient temperature. **Continuous duty** solenoids are constructed that they will not exceed a maximum temperature rise of 85° C. above 24° C. ambient temperature under continuous operation, at rated load. Ambient temperature for temperature rise tests on these solenoids has been fixed at 24° C. (72° F.).

Mfg. No.	Duty		Volts	Ohms	Amps	Power Req.	Max. *Lift (Oz.)	Adj. Stroke Inches	Size Shipping Weight	Net Each 1-24	25-49	50-99	100-Up
1A1-Int-115A	AC	Inter.	115AC	300	.17	20VA.	8.0	⅛"-½"	1 1/16" H. x 1¾" L. x 15/16" W.	$2.80	$2.52	$2.38	$2.24
1A1-Cont-115A		Cont.	115AC	675	.076	9VA	3.0	⅛"-⅜"	Shipping Wt. 4.5 ounces	2.80	2.52	2.38	2.24
1A1-Int-24D		Inter.	24DC	42.6	.56	14.70W	5.0	⅛"-⅜"		2.50	2.25	2.13	2.00
1A1-Cont-24D	DC	Cont.	24DC	74.4	.32	7.01W	2.0	⅛"-¼"	1 1/16" H. x 1¾" L. x 15/16" W.	2.50	2.25	2.13	2.00
1A1-Int-115D		Inter.	115DC	803	.14	14.70W	5.0	⅛"-⅜"	Shipping Wt. 4.5 ounces	3.00	2.70	2.55	2.40
1A1-Cont-115D		Cont.	115DC	2070	.05	7.01W	2.0	⅛"-¼"		3.00	2.70	2.55	2.40
2-Int-115A	AC	Inter.	115AC	60	.50	61VA	27.0	⅛"-⅞"	1⅝" H. x 1 9/16" L. x 1 7/16" W.	3.20	2.88	2.72	2.56
2-Cont-115A		Cont.	115AC	166	.155	18VA	10.5	⅛"-⅞"	Shipping Wt. 10 ounces	3.20	2.88	2.72	2.56
4-Int-115A	AC	Inter.	115AC	37	.64	75VA	24.0	⅛"-1"	1⅝" H. x 2" L. x 1 7/16" W.	3.80	3.42	3.23	3.04
4-Cont-115A		Cont.	115AC	133	.14	16VA	6.0	⅛"-½"	Shipping Wt. 14.5 ounces	3.80	3.42	3.23	3.04
4-Int-24D		Inter.	24DC	15	1.6	37.4W	57.0	⅛"-1"		3.80	3.42	3.23	3.04
4-Cont-24D	DC	Cont.	24DC	50	.48	10.8W	20.0	⅛"-⅞"	1⅝" H. x 2" L. x 1 7/16" W.	3.80	3.42	3.23	3.04
4-Int-115D		Inter.	115DC	346	.33	37.4W	57.0	⅛"-1"	Shipping Wt. 14.5 ounces	4.00	3.60	3.40	3.20
4-Cont-115D		Cont.	115DC	1210	.09	10.8W	20.0	⅛"-⅞"		4.00	3.60	3.40	3.20
11-Int-24A	AC	Inter.	24AC	5.1	1.10	26.4VA	20.0	⅛"-1"		2.70	2.43	2.30	2.16
11-Cont-24A		Cont.	24AC	12	.33	7.9VA	8.0	⅛"-1"	1 3/16" H. x 1 5/16" L. x 1 27/32" W.	2.70	2.43	2.30	2.16
11-Int-115A		Inter.	115AC	125	.225	26.0VA	20.0	⅛"-1"	Shipping Wt. 7.5 ounces	2.70	2.43	2.30	2.16
11-Cont-115A		Cont.	115AC	300	.072	8.0VA	8.0	⅛"-1"		2.70	2.43	2.30	2.16
11-Int-6D		Inter.	6DC	2	3.00	18.0W	39.0	⅛"-⅞"		2.70	2.43	2.30	2.16
11-Cont-6D	DC	Cont.	6DC	5	1.2	7.2W	21.0	⅛"-⅝"	1 3/16" H. x 1 5/16" L. x 1 27/32" W.	2.70	2.43	2.30	2.16
11-Int-24D		Inter.	24DC	32	.750	18.0W	39.0	⅛"-⅞"	Shipping Wt. 7.5 ounces	2.70	2.43	2.30	2.16
11-Cont-24D		Cont.	24DC	72	.333	8.0W	21.0	⅛"-⅝"		2.70	2.43	2.30	2.16
12-Int-115A	AC	Inter.	115AC	100	.27	32VA	32.0	⅛"-1"	1 7/16" H. x 1⅝" L. x 1 3/16" W.	4.15	3.74	3.53	3.32
12-Cont-115A		Cont.	115AC	150	.155	18VA	22.0	⅛"-⅞"	Shipping Wt. 6 ounces	4.15	3.74	3.53	3.32
14-Int-115A	AC	Inter.	115AC	11	1.4	164VA	110.0	⅛"-1½"	2 1/16" H. x 2 7/16" L. x 1 7/16" W.	5.50	4.95	4.68	4.40
14-Cont-115A		Cont.	115AC	18	.52	61VA	65.0	⅛"-1½"	Shipping Wt. 19 ounces	5.50	4.95	4.68	4.40
16-Int-115A	AC	Inter.	115AC	41	.54	62VA	96.0	⅛"-¾"		3.20	2.88	2.72	2.56
16-Cont-115A		Cont.	115AC	85	.19	23VA	55.0	⅛"-⅝"	1 7/16" H. x 1⅝" L. x 1⅛" W.	3.20	2.88	2.72	2.56
16-Int-230A		Inter.	230AC	224	.230	49VA	96.0	⅛"-¾"	Shipping Wt. 7.5 ounces	3.40	3.06	2.89	2.72
16-Cont-230A		Cont.	230AC	350	.110	25VA	55.0	⅛"-⅝"		3.40	3.06	2.89	2.72
18-Int-115A	AC	Inter.	115AC	8.8	1.45	170VA	304.0	⅛"-1"		4.50	4.05	3.83	3.60
18-Cont-115A		Cont.	115AC	19.7	.39	45VA	145.0	⅛"-1"	2 1/16" H. x 2½" L. x 1 13/16" W.	4.50	4.05	3.83	3.60
18-Int-230A		Inter.	230AC	45	.59	136VA	304.0	⅛"-1"	Shipping Wt. 16.5 ounces	4.70	4.23	4.00	3.76
18-Cont-230A		Cont.	230AC	78	.20	46VA	145.0	⅛"-1"		4.70	4.23	4.00	3.76
22-Int-6D	DC	Inter.	6DC	4.7	1.27		24.0	1/16"-⅜"		2.60	2.34	2.21	2.08
22-Cont-6D		Cont.	6DC	9	.667		13.0	1/16"-¼"	¾" H. x 1⅛" L. x ¾" W.	2.60	2.34	2.21	2.08
22-Int-24D		Inter.	24DC	60	.4		24.0	1/16"-⅜"	Shipping Wt. 2.5 ounces	2.60	2.34	2.21	2.08
22-Cont-24D		Cont.	24DC	144	.167		13.0	1/16"-¼"		2.60	2.34	2.21	2.08
24-Int-115A	AC	Inter.	115AC	310	.13		19.0	1/16"-⅝"	5/64" H. x 1¼" L. x 2 27/32" W.	2.95	2.66	2.51	2.36
24-Cont-115A		Cont.	115AC	500	.07		12.0	1/16"-⅝"	Shipping Wt. 3 ounces	2.95	2.66	2.51	2.36
28-Int-24A	AC	Inter.	24AC	7.5	.900		35.0	1/16"-½"		2.70	2.43	2.30	2.16
28-Cont-24A		Cont.	24AC	17.4	.340		20.0	1/16"-½"	1 3/16" H. 1⅛" L. x 15/16" W.	2.70	2.43	2.30	2.16
28-Int-115A		Inter.	115AC	220	.160		35.0	1/16"-½"	Shipping Wt. 3.5 ounces	2.90	2.61	2.46	2.32
28-Cont-115A		Cont.	115AC	400	.077		20.0	1/16"-½"		2.90	2.61	2.46	2.32
28-Int-6D	DC	Inter.	6DC	3.3	1.80		41.0	1/16"-½"		2.60	2.34	2.21	2.08
28-Cont-6D		Cont.	6DC	7.7	.78		35.0	1/16"-⅜"		2.60	2.34	2.21	2.08
28-Int-12D		Inter.	12DC	13	.92		41.0	1/16"-½"	1 3/16" H. 1⅛" L. x 15/16" W.	2.60	2.34	2.21	2.08
28-Cont-12D		Cont.	12DC	27	.45		35.0	1/16"-⅜"	Shipping Wt. 3.5 ounces	2.60	2.34	2.21	2.08
28-Int-24D		Inter.	24DC	50	.48		41.0	1/16"-½"		2.60	2.34	2.21	2.08
28-Cont-24D		Cont.	24DC	104	.23		35.0	1/16"-⅜"		2.60	2.34	2.21	2.08

*Pull Data Obtained During "Cold" Operation, when plunger is down.

GUARDIAN ELECTRIC
MANUFACTURING COMPANY

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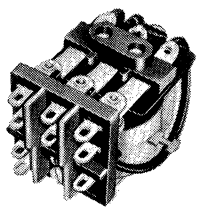
LINE ELECTRIC CO.

RELAYS

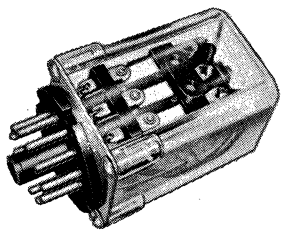
FOOTSWITCHES, BUZZERS, COILS

is the shortest distance between you and RELIABILITY!



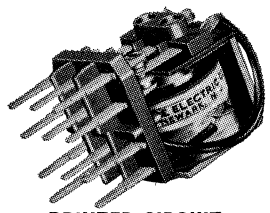
GENERAL PURPOSE-OPEN

MK — General purpose, open type relay up to 3 PDT. 5 or 10 amp. contact rating. Voltages up to 230 volts, AC or DC. Details in Bulletin 10.



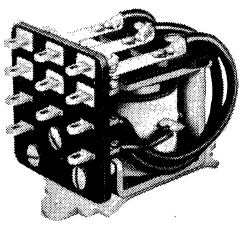
GENERAL PURPOSE-PLUG-IN

MKP — General purpose, plug-in relay. Contact arrangements to 3 PDT. 5 or 10 amp. contact rating. Voltages to 230. AC or DC. Details in Bulletin 10.



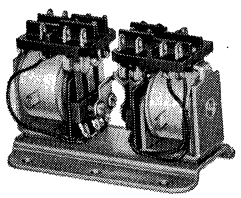
PRINTED CIRCUIT

MKT — Open type relay up to 3 PDT. 5 or 10 amp. contact rating. Voltages up to 230 volts, AC or DC. Details in Bulletin 11.



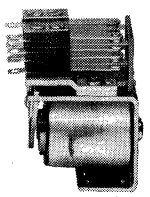
HEAVY DUTY

LG — Open and plug-in (LGP) types available, up to 3 PDT. 15 amp. contact rating. Voltages up to 230 volts, AC or DC. Details in Bulletin 30.



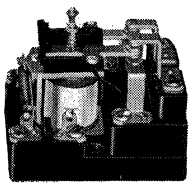
MECHANICAL LATCH

RL — Open type and plug-in (RLP) available. Up to 6 PDT, 5 or 10 amp. contact rating. Voltages up to 230 volts, AC or DC. Details in Bulletin 40.



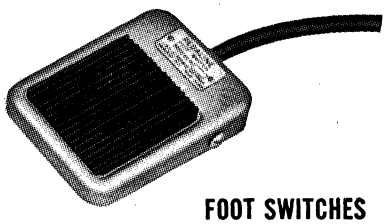
TELEPHONE TYPE

TW — Medium duty relay for fast action in compact space. Contact arrangements up to 4 PDT, and 5 amp. load contacts. For communications, computers, programmers, controls, etc.



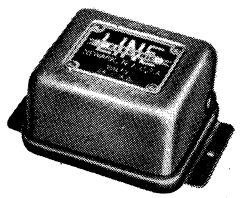
POWER RELAY

ST—Power relay, heavy duty DPDT. 15 amp. 1 HP contact rating. Voltages up to 440 VAC, 230 DC. Details in Bulletin 90.



FOOT SWITCHES

Pedaline switch, with or without line cord. Several switching arrangements. 5 to 15 amp. contact rating. Voltages 6 to 230 AC, DC. Details in Bulletin 210.



BUZZERS

All types of AC and DC buzzers, OEM and general purpose. Contact and non-contact. Details in Bulletin 200, 201.

Information on this page is condensed. You are invited to send for complete catalog with prices.

LINE ELECTRIC COMPANY

Orange, N. J.

division of INDUSTRIAL TIMER CORPORATION

Industrial Relays, Foot Switches, Buzzers, Coils

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KURMAN RELAYS

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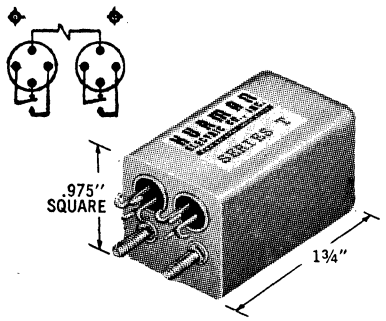
SENSITIVE RELAYS

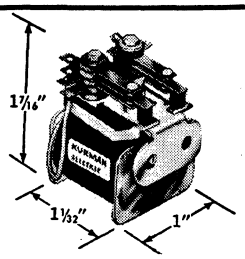


SERIES T002

SUB-MINIATURE — DC

Highest quality sensitive relay meeting both military and commercial DC requirements. Sensitivity—40 milliwatts—DPDT. Wide range of coil resistances up to 20,000 ohms. Special versions as low as 10 milliwatts. Mounting: 2 #4-40 screws on ½" centers.

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	Net Ea. 1-10
T002-2000	2000	4.5 MA	DPDT	2	$15.10
T002-5000	5000	2.8 MA	DPDT	2	16.25
T002-8000	8000	2.2 MA	DPDT	2	16.75

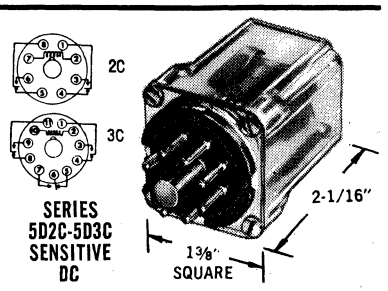


SERIES 52C-54C SENSITIVE DC

The 52C, DPDT and 54C, 4PDT are the smallest, lightest plate circuit relays offering self-wiping contacts. Either of three adjustments can be specified—25 milliwatts per pole (2 amp contacts); 50 milliwatts per pole (5 amp contacts) and "OFF THE SHELF" 100 milliwatts per pole (5 amp contacts). Coil resistances ar e available up to 20,000 ohms. Variations can be supplied up to 4PDT including hermetic sealing. Mounting: two No. 6/32 tapped holes on 0.437" centers.

100 MILLIWATTS PER POLE

Relay No.	(Ohms) Coil Resistance	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
52C-500	500	DPDT	5	$5.30
52C-2500	2500	DPDT	5	5.30
52C-5000	5000	DPDT	5	5.70
52C-8000	8000	DPDT	5	5.90
52C-10000	10000	DPDT	5	6.00
54C-500	500	4PDT	5	6.70
54C-2500	2500	4PDT	5	6.70
54C-5000	5000	4PDT	5	6.90
54C-8000	8000	4PDT	5	7.20
54C-10000	10000	4PDT	5	7.40



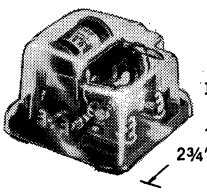
SERIES 5D2C-5D3C SENSITIVE DC

All standard operating characteristics of Series 52C are available in this new polystyrene high heat cover. Three adjustment ranges are provided—25 milliwatts per pole; 50 milliwatts per pole and "OFF THE SHELF" 100 milliwatts per pole. Variations can be supplied with contact arrangements up to 3PDT only. Mounting 8 pin octal plug for 5D2C; 11 pin for 5D3C.

100 MILLIWATTS PER POLE

Relay No.	(Ohms) Coil Resistance	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
5D2C-500	500	DPDT	5	$6.30
5D2C-2500	2500	DPDT	5	6.30
5D2C-5000	5000	DPDT	5	6.60
5D2C-8000	8000	DPDT	5	6.90
5D2C-10000	10000	DPDT	5	7.00
5D3C-500	500	3PDT	5	7.50
5D3C-2500	2500	3PDT	5	7.50
5D3C-5000	5000	3PDT	5	7.80
5D3C-8000	8000	3PDT	5	8.10
5D3C-10000	10000	3PDT	5	8.20

SEE COMPLETE ENGINEERING SPECIFICATIONS ON PAGES 1065-1067



SERIES 310 MICROAMP DC SERIES 321 MICROAMP AC

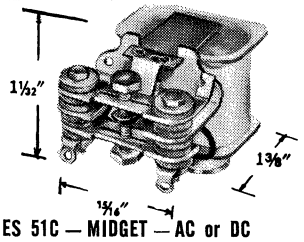
High sensitivity relay—2 milliwatts. Ideal for all low power in-put circuits where available current is at a premium. Typical applications include high speed keying, remote control, or battery operated devices. May be field adjusted to handle currents up to 3 amps at reduced sensitivity. Transparent plastic dust cover. Mounting: Two .196" clearance holes on 2⅛" x 2⅛" centers.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
310DC35	470	2.1 MA	SPDT	1	$8.85
310DC37	1200	1.3 MA	SPDT	1	8.85
310DC40	4680	0.7 MA	SPDT	1	8.85
310DC42	11700	0.4 MA	SPDT	1	10.75
310DC44	29250	0.25 MA	SPDT	1	12.40

AC RELAYS

Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps)	1-10 Net Ea.
321DC78	6 V	SPDT	2	$9.25
321DC81	12 V	SPDT	2	9.25
321DC84	24 V	SPDT	2	9.25
321DC91	110 V	SPDT	2	9.50



SERIES 51C — MIDGET — AC or DC

Smallest, lightest plate circuit relay offering self-wiping contacts. Standard adjustment—10 milliwatts* DC operation; 0.3 VA AC operation. Adjustable 2 amp. SPDT screw contacts. New rigid front pile-up.

Variations—including 5 amp contacts, H. S. military relays, coils to 20,000 ohms available. Mounting: 2 #6-32 tapped holes on 0.437" centers.

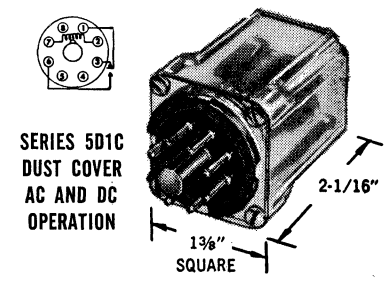
*51CB44D factory adjusted for 5 milliwatt operation — others can be field adjusted — 1 amp contact rating.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps.)	1-10 Net Ea.
51CA37D	500	4.5 MA	SPDT	2	$4.95
51CA40D	2000	2.3 MA	SPDT	2	4.95
51CA42D	5000	1.4 MA	SPDT	2	5.50
51CA43D	8000	1.2 MA	SPDT	2	5.50
51CB44D	13000	0.6 MA	SPDT	1	5.95

AC RELAYS

Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps.)	1-10 Net Ea.
51C83A	6 V	SPDT	2	$5.35
51C86A	12 V	SPDT	2	5.35
51C89A	24 V	SPDT	2	5.35



SERIES 5D1C DUST COVER AC AND DC OPERATION

All standard operating characteristics of series 51C available in this new polystyrene enclosed plug in unit. Easily removable case permits field adjustment without special equipment. Mounting: 8 pin octal plug in.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
5D1CA37D	500	4.5 MA	SPDT	2	$5.95
5D1CA40D	2000	2.3 MA	SPDT	2	5.95
5D1CA42D	5000	1.4 MA	SPDT	2	6.50
5D1CA43D	8000	1.2 MA	SPDT	2	6.50
5D1CB44D	13000	0.6 MA	SPDT	1	6.95

AC RELAYS

Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps)	1-10 Net Ea.
5D1C83A	6 V	SPDT	2	$6.35
5D1C86A	12 V	SPDT	2	6.35
5D1C89A	24 V	SPDT	2	6.35

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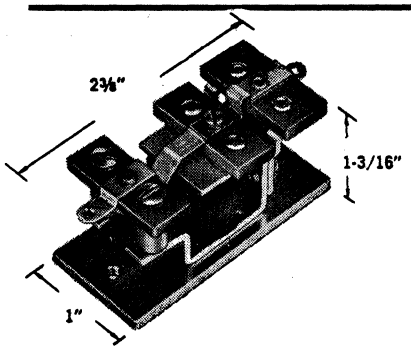
IMMEDIATE DELIVERY

of stock relays at factory prices will save you engineering and purchasing time

POWER AND ANTENNA RELAYS



SERIES 261C—ECONOMY POWER

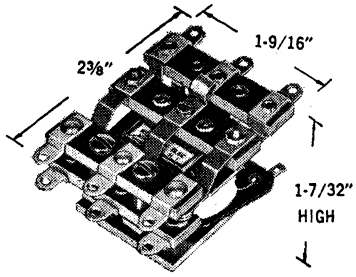
Both space and cost economy have been carefully balanced in the design of this heavy duty power relay. SPDT contacts rated at carrying continuous loads of 20 amps are standard. AC or DC operation. Mounting: 2 #6-32 tapped holes on 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
261C	SPDT	20	$5.45	$6.00

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
261C	SPDT	20	$5.45	$6.00



SERIES 262C-263C—MEDIUM POWER

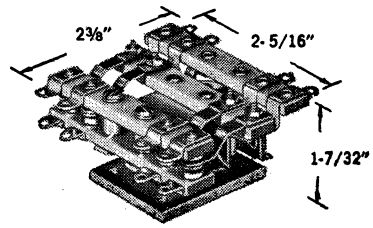
The DPDT and 3PDT relays feature self-wiping contacts, which will continuously handle 20 amp loads. AC or DC coils. This high speed relay will handle the majority of all power applications. Standard operating power; 1 watt—DPDT; 1½ watts—3PDT. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
262C	DPDT	20	$6.45	$7.00
263C	3PDT	20	6.95	7.50

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
262C	DPDT	20	$6.45	$7.00
263C	3PDT	20	6.95	7.50

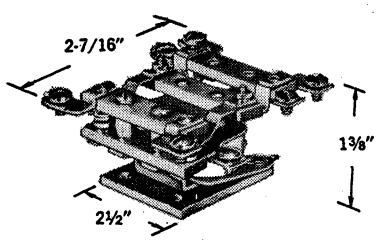


SERIES 264C—MEDIUM POWER—DC

Special version of Series 26 for DC application only. Available as 4PDT. With a minimum of operating power, it is now possible to handle up to 4 power control circuits at one time. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
264C	4PDT	10	$8.55	$9.15

SEE COMPLETE ENGINEERING SPECIFICATIONS ON PAGES 1065-1067



SERIES 26L—SCREW TERMINALS

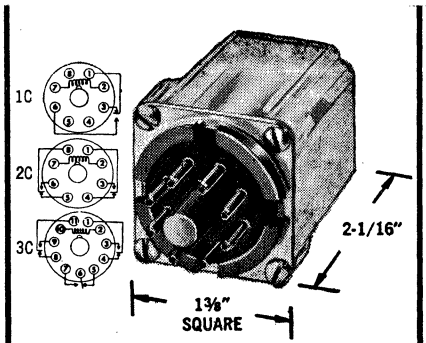
Heavy duty industrial control relay for all applications requiring high speed operation, long life and reliable high current contacts. All contacts rated at 30 amp. Heavy duty screw terminals. Mounting: two 3/16" diameter holes on 1⅞" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
26L2C	DPDT	30	$6.95	$7.50

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
26L2C	DPDT	30	$6.95	$7.50



SERIES 26D—DUST COVER

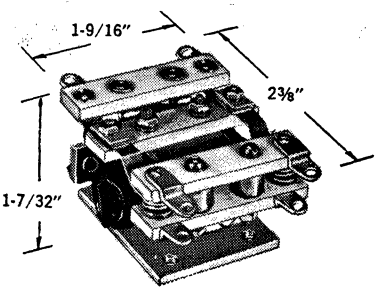
Midget version of standard Series 26 in clear polystyrene enclosure. Available up to 3PDT with standard contacts rated at 10 amps. Mounting: 8 pin octal plug in for standard DPDT; 11 pin octal type plug in for 3PDT.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
26D1C	SPDT	10	$5.45	$5.95
26D2C	DPDT	10	6.45	7.00
26D3C	3PDT	10	7.95	8.50

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
26D1C	SPDT	10	$5.45	$6.15
26D2C	DPDT	10	6.45	8.00
26D3C	3PDT	10	7.95	8.50



SERIES 252C-253C—ANTENNA

Powerful antenna change-over relay, capable of transferring up to 1500 watts RF load. High speed DPDT self-wiping contacts, AC or DC operation. Low loss handling of RF energy is insured by the use of G-7 insulating bridges. Present use includes the 450 megacycle range. Standard operating power—1 watt. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
252C	DPDT	1.5 KW RF	$7.50	$8.10
253C	3PDT	1.5 KW RF (2C) 20 amp (1C)	8.50	8.60

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V 115 V Net
252C	DPDT	1.5 KW RF	$7.50
253C	3PDT	1.5 KW RF (2C) 20 amp (1C)	8.00

All prices are for orders from 1-10 relays. Write for quantity discounts.

Net

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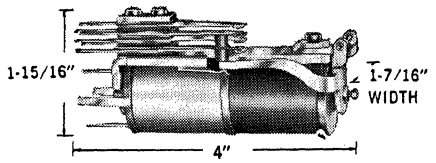
KURMAN RELAYS

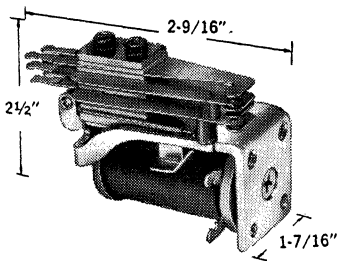
MICRO-MINIATURE AND TELEPHONE TYPE RELAYS



SERIES A — LONG FORM — DC

Designed for applications requiring rapid opening and closing of up to 15 individual circuits (forms A-E). Single or double wound coils with resistances up to 75,000 ohms. The heavy duty armature hinge with a non-loosening knurled armature pin provides an extra long operational life. Tinned solder terminals for rear of panel wiring. For sensitivity, ruggedness, reliability, multiple switching and economy, the Series A has no equal. Mounting: 2 #8-32 tapped holes on ¾" centers.

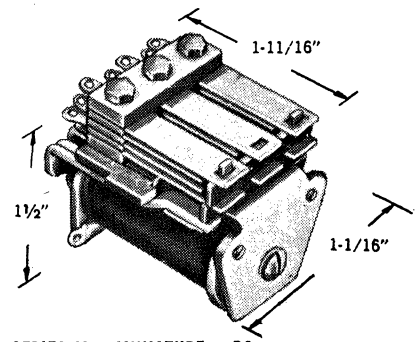
Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
A004-6	4PDT	6	40	3	$8.65
A004-12	4PDT	12	140	3	9.10
A004-24	4PDT	24	600	3	9.20
A004-110	4PDT	110	10,000	3	10.30



SERIES E — SHORT FORM — DC

Featuring all the benefits of the long form relay, and incorporating a shortened coil and heel piece, this relay is desired where space economy is a factor. Extremely fast contact switching — ideal for computer applications. High reliability—designed for hundreds of millions of operations. Sensitive versions as low as 100 milliwatt per pole. Mounting: 4 #8-32 tapped mounting holes on ⅝" x ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
E004-6	4PDT	6	40	3	$7.65
E004-12	4PDT	12	145	3	8.10
E004-24	4PDT	24	590	3	8.20
E004-110	4PDT	110	10,000	3	9.30

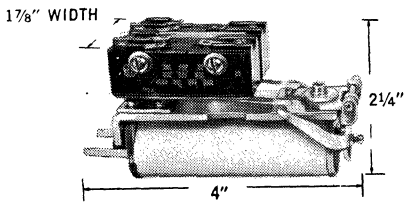


SERIES M — MINIATURE — DC

Ideal for all applications where space, weight and economy are factors. Short springs and light-weight armature provide fast action, reliability and long life. Up to 18 contact arms, forms (A-D). Good shock and vibration characteristics. DC operation only. Mounting: 2 #4-40 tapped holes on ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
M004-6	4PDT	6	30	3	$6.30
M004-12	4PDT	12	120	3	6.30
M004-24	4PDT	24	480	3	6.30
M004-110	4PDT	110	12,000	3	7.25

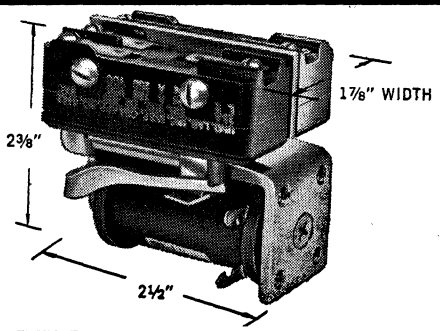
SEE COMPLETE ENGINEERING SPECIFICATIONS ON PAGES 1065-1067



SERIES AS — SNAP ACTION — DC

Special version of Series A shown above, offered with either one or two snap action switches. For sensitive switching of power control circuits, carrying currents of up to 15 amps per pole. Mounting: 2 #8-32 tapped holes on ¾" centers.

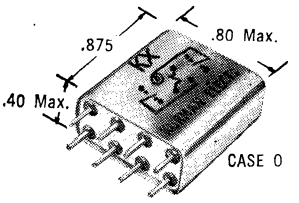
Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
AS2-6	DPDT	6	40	15	$12.00
AS2-12	DPDT	12	140	15	12.45
AS2-24	DPDT	24	600	15	12.55
AS2-110	DPDT	110	10,000	15	13.70



SERIES ES — SNAP ACTION — DC

Either one or two snap action switches mounted on standard Series E frame, offering sensitive operation, handling high currents in ⅝ of the volume of the Series AS. Mounting: 4 #8-32 tapped holes on ⅝" x ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
ES2-6	DPDT	6	23	15	$11.50
ES2-12	DPDT	12	92	15	11.95
ES2-24	DPDT	24	370	15	12.05
ES2-110	DPDT	110	8,250	15	13.20



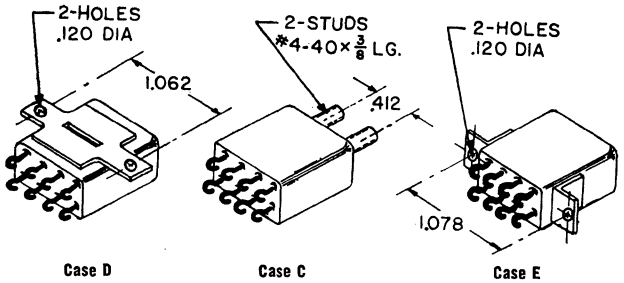
SERIES KX1 — MICRO-MINIATURE — DC

Equipped with special DPDT 2 amp contacts rated to carry any load from dry circuit to full rating. Features at 1/10" grid spaced header. Nominal operating power—250 milliwatts.

New torsional rotation balanced armature offers 20G, 2,000 cycle vibration and 50G shock immunity. Proven reliability under all environmental conditions. A frictionless bearing assures repeatability and long life.

MICRO-MINIATURE RELAYS—DC

Relay No.	Case Style	Header	Cont. Arr.	Contact Rating (Amps)	6, 12, 24 VDC Net 1-10
KX1P2O	O	Plug-in	DPDT	2 amp	$15.95
KX1H2D	D	Solder	DPDT	2 amp	16.20
KX1H2C	C	Solder	DPDT	2 amp	16.20
KX1H2E	E	Solder	DPDT	2 amp	16.20



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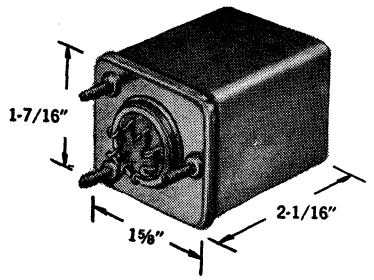
IMMEDIATE DELIVERY

of stock relays at factory prices will save you engineering and purchasing time

At KURMAN SALES AGENCIES, yesterday's SPECIALS are today's STANDARDS . . . stocked in your own backyard at Factory Prices!

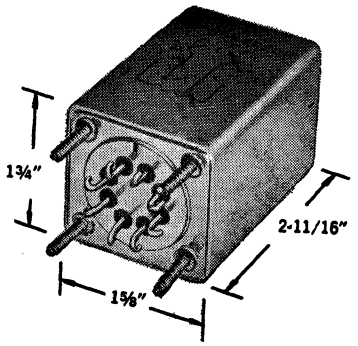
HERMETICALLY SEALED



SM004E — MINIATURE TELEPHONE

Hermetically sealed version of Series M. This relay equipped with 4PDT contacts rated at 3 amp. Operating from a 26.5 V DC nominal input source. Solder lug terminals. Hermetic enclosure makes the relay impervious to all detrimental atmospheric conditions, including contaminating gases, dust salt, etc. Mounting: 3 #6-32 studs on 15/16" x 1-3/16" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
SM004E	4PDT	3	26.5 V DC	$11.60 Net

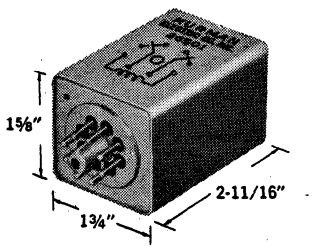


≠ 26S20 — HEAVY DUTY

Hermetically sealed version of Series 26, equipped with heavy duty construction, offering contacts rated at 25 amps. Relay operates at 115 V AC nominal, and offers a standard DPDT construction. Can be externally wired for double-make or break arrangements. Excellent for all industrial and other remote power controls. Mounting: 4 #6-32 studs on 1¼" x 1⅛" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
26S20	DPDT	25	115 V AC	$14.80 Net

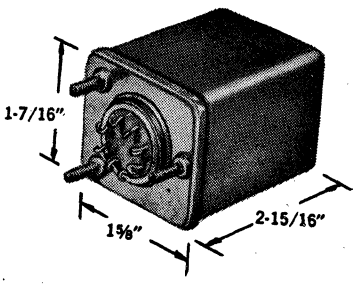
SEE COMPLETE ENGINEERING SPECIFICATIONS ON PAGES 1065-1067



#26S01 — MEDIUM POWER

Hermetically sealed Series 26 relay. DPDT contacts—rated at 10 amps. 115 V AC nominal coil operation. Equipped with octal plug-in. Small enclosures. Mounting: 8 pin octal plug-in.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
26S01	DPDT	10	115 V AC	$12.85 Net



SM004F — 400 CYCLE

Special version of Series M relay equipped with internal rectifiers. Nominal operation—110 V AC, 400 cycle (this relay can be used on frequencies as low as 60 cps). 4PDT contacts rated at 3 amp. Excellent vibration and shock characteristics. Solder lug terminals. Mounting: 3 #6-32 studs on 15/16" x 1-3/16" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
SM004F	4PDT	3	115 V AC-400 cps	$13.60 Net

All prices and specifications are subject to change without notice. Prices shown are for quantities of 1-10. Consult a Kurman Sales Agency for discounts on larger quantities.

Net

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KURMAN relays-engineering specifications

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

SENSITIVE DC RELAYS

(See Illustrations and Dimensions on Preceeding Pages)

Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper. time† (milli-secs)		Contact rating+ (amp)		Coil Impreg.
			Current (ma)			Approx. Voltage * (volts)							
			Pull In	Max.	Drop out	At Pull In I	at Max. I	at Drop Out I	at †† Nom. I	at Max. I	28 VDC	115 VAC	
T002-2000	2000	DPDT	4.5	35	1.5	9	70	3.0	20-40	5	2	2	no
T002-5000	5000	DPDT	2.8	22	1.0	14	100	5	20-40	5	2	2	no
T002-8000	8000	DPDT	2.3	18	0.8	18	128	6.4	20-40	5	2	2	no
310DC35	470	SPDT	2.1	65	0.2	1.0	31	0.09	10-20	2-3	0.5	1	no
310DC37	1200	SPDT	1.3	41	0.13	1.56	49	0.15	10-20	2-3	0.5	1	no
310DC40	4680	SPDT	0.65	20	0.06	3.0	98	0.3	10-20	2-3	0.5	1	yes
310DC42	11700	SPDT	0.41	13	0.04	4.8	152	0.48	10-20	2-3	0.5	1	yes
310DC44	29250	SPDT	0.26	8	0.02	7.6	243	0.7	10-20	2-3	0.5	1	yes
51CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no
51CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes
51CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes
51CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes
51CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes
52C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no
52C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes
52C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes
52C-8000	8000	DPDT	5.0	16	0.30	40	128	2.4	8-16	3-8	5	5	yes
52C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes
54C-500	500	4PDT	28.2	63	2.8	14.2	32	1.4	8-16	3-8	5	5	no
54C-2500	2500	4PDT	12.6	28	1.3	32	70	3.2	8-16	3-8	5	5	yes
54C-5000	5000	4PDT	8.9	20	0.9	45	100	4.5	8-16	3-8	5	5	yes
54C-8000	8000	4PDT	7.0	16	0.7	56	128	5.6	8-16	3-8	5	5	yes
54C-10000	10000	4PDT	6.3	14	0.6	63	140	6.3	8-16	3-8	5	5	yes
5D1CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no
5D1CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes
5D1CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes
5D1CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes
5D1CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes
5D2C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no
5D2C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes
5D2C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes
5D2C-8000	8000	DPDT	5.0	16	0.30	40	128	2.4	8-16	3-8	5	5	yes
5D2C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes
5D3C-500	500	3PDT	24.4	63	2.5	12.2	32	1.2	8-16	3-8	5	5	no
5D3C-2500	2500	3PDT	10.9	28	1.1	27.2	70	2.8	8-16	3-8	5	5	yes
5D3C-5000	5000	3PDT	7.7	20	0.7	39	100	3.9	8-16	3-8	5	5	yes
5D3C-8000	8000	3PDT	6.0	16	0.6	48	128	4.8	8-16	3-8	5	5	yes
5D3C-10000	10000	3PDT	5.4	14	0.5	54	140	5.4	8-16	3-8	5	5	yes

NOTES:

* Voltage rating of current operated relays is specified at nominal resistance and may vary directly with actual resistance

** Current rating of voltage operated relays is specified at nominal resistance and may vary inversely with actual resistance

† When energized from a high impedance power source.

†† For timing purposes, nominal current is considered 5% above pull-in current

\+ All ratings are for 100,000 operations minimum, with resistive load.

++ Not specified uses two internal rectifiers. Varies with source frequency ranging 47-440 CPS

All figures are based on 20°C. ambient temperature operation.

ALL SHADED AREAS ARE APPROXIMATE VALUES

See preceding pages for symbol descriptions

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KURMAN relays-engineering specifications (continued)

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

DC RELAYS

(See Illustrations and Dimensions on Preceeding Pages)

Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS: Approx DC Current** (ma) at Pull In V	at Nom. V	at Drop Out V	Approx DC Voltage (volts) Pull In	Nom.	Max.	Drop Out	Oper. time† (milli-secs) Nom. V	Max. V	Contact Rating+ (amps) 28 VDC	115 VAC	Coil Impreg.
DC MEDIUM POWER AND ANTENNA RELAYS														
26D1C6DC	27	SPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no
26D1C12DC	108	SPDT	84	112	8.8	9	12	18	1.0	10-15	5-10	10	10	no
26D1C24DC	428	SPDT	42	56	4.2	18	24	36	2.0	10-15	5-10	10	10	no
26D1C110DC	6800	SPDT	11	16	1.1	75	110	140	10	10-15	5-10	10	10	yes
26D2C6DC	27	DPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no
26D2C12DC	108	DPDT	88	112	8.8	9.5	12	18	1.0	10-15	5-10	10	10	no
26D2C24DC	428	DPDT	47	56	4.7	20	24	36	2.0	10-15	5-10	10	10	no
26D2C110DC	6800	DPDT	12	16	1.2	80	110	140	10	10-15	5-10	10	10	yes
26D3C6DC	17	3PDT	294	350	29	5	6	7	0.5	10-15	5-10	10	10	no
26D3C12DC	68	3PDT	147	176	15	10	12	14	1.0	10-15	5-10	10	10	no
26D3C24DC	270	3PDT	74	89	7.4	20	24	28	2.0	10-15	5-10	10	10	no
26D3C110DC	6800	3PDT	13	16	1.3	90	110	140	10	10-15	5-10	10	10	yes
261C6DC	43	SPDT	108	140	10.8	5	6	13	0.5	10-15	5-10	20	20	no
261C12DC	170	SPDT	56	71	5.6	9.5	12	26	1.0	10-15	5-10	20	20	no
261C24DC	680	SPDT	26	35	2.6	18	24	52	2.0	10-15	5-10	20	20	no
261C110DC	6800	SPDT	10.4	16	1.0	70	110	165	10	10-15	5-10	20	20	yes
262C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	20	20	no
262C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	20	20	no
262C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10	20	20	no
262C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10	20	20	yes
263C6DC	17	3PDT	265	350	29	4.5	6	8	0.5	10-15	5-10	20	20	no
263C12DC	68	3PDT	147	176	14.7	9.5	12	16	1.0	10-15	5-10	20	20	no
263C24DC	270	3PDT	78	89	7.8	20	24	33	2.0	10-15	5-10	20	20	no
263C110DC	6800	3PDT	12.5	16	1.25	85	110	165	10	10-15	5-10	20	20	yes
26L2C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	20	30	no
26L2C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	20	30	no
26L2C24DC	428	DPDT	48	56	4.8	20	24	41	2.0	10-15	5-10	20	30	no
26L2C110DC	6800	DPDT	12	16	1.2	80	110	165	10	10-15	5-10	20	30	yes
252C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10			no
252C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10			no
252C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10	1.5 KW RF		no
252C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10			yes
253C6DC	17	3PDT	265	350	29	4.5	6	8	0.5	10-15	5-10			no
253C12DC	68	3PDT	140	176	14.7	9.5	12	16	1.0	10-15	5-10	1C-20 amp		no
253C24DC	270	3PDT	74	89	7.4	20	24	33	2.0	10-15	5-10	2C-1.5 KW RF		no
253C110DC	6800	3PDT	12.7	16	1.3	85	110	165	10	10-15	5-10			yes
DC TELEPHONE RELAYS														
A004-6	40	4PDT	125	150	25	5	6	20	1.0	15-20	5-10	3	3	no
A004-12	140	4PDT	68	86	14	9.5	12	37	1.9	15-20	5-10	3	3	no
A004-24	600	4PDT	33	40	6.6	20	24	77	4	15-20	5-10	3	3	no
A004-110	10K	4PDT	9.5	11	1.9	95	110	300	19	15-20	5-10	3	3	no
E004-6	40	4PDT	125	150	25	5	6	15	1.0	15-20	5-10	3	3	no
E004-12	145	4PDT	65	83	13	9.5	12	30	1.9	15-20	5-10	3	3	no
E004-24	590	4PDT	34	41	6.8	20	24	60	4	15-20	5-10	3	3	no
E004-110	10K	4PDT	9.5	11	1.9	95	110	240	19	15-20	5-10	3	3	no
M004-6	30	4PDT	166	200	33	5	6	11	1.0	15-20	5-10	3	3	no
M004-12	120	4PDT	79	100	16	9.5	12	22	1.9	15-20	5-10	3	3	no
M004-24	480	4PDT	42	50	8.4	20	24	44	4	15-20	5-10	3	3	no
M004-110	12K	4PDT	8	9.2	1.6	95	110	220	19	15-20	5-10	3	3	yes
AS2-6	40	DPDT	125	150	12.5	5	6	20	0.5	15-20	5-10	6	15	no
AS2-12	140	DPDT	68	203	6.8	9.5	12	37	0.9	15-20	5-10	6	15	no
AS2-24	600	DPDT	33	40	3.3	20	24	77	2.0	15-20	5-10	6	15	no
AS2-110	10K	DPDT	9.5	11	0.95	95	110	300	9.5	15-20	5-10	6	15	no
ES2-6	23	DPDT	218	260	22	5	6	12	0.5	15-20	5-10	6	15	no
ES2-12	92	DPDT	98	130	10	9.5	12	24	0.9	15-20	5-10	6	15	no
ES2-24	370	DPDT	54	65	5.4	20	24	47	2.0	15-20	5-10	6	15	no
ES2-110	8250	DPDT	10.5	13.4	1.1	95	110	220	9.5	15-20	5-10	6	15	no
DC MICRO-MINIATURE AND HERMETICALLY SEALED RELAYS														
KX1P20 / KX1H2C / KX1H2D / KX1H2E -6	35	DPDT	92		9.2	3.4	6	7.2	0.3	5	3-5	2	2	no
KX1P20 / KX1H2C / KX1H2D / KX1H2E -12	150	DPDT	45		4.5	6.7	12	14.5	0.7	5	3-5	2	2	no
KX1P20 / KX1H2C / KX1H2D / KX1H2E -24	600	DPDT	21		2.1	13	24	30	1.3	5	3-5	2	2	no
SM004E	300	4PDT	60	89	10	18	26.5	35	3	15-20	10-15	3	3	no

NOTES:
- * Voltage rating of current operated relays is specified at nominal resistance and may vary directly with actual resistance
- ** Current rating of voltage operated relays is specified at nominal resistance and may vary inversely with actual resistance
- † When energized from a high impedance power source.
- †† For timing purposes, nominal current is considered 5% above pull-in current
- \+ All ratings are for 100,000 operations minimum, with resistive load
- ++ Not specified uses two internal rectifiers. Varies with source frequency ranging 47-440CPS

All figures are based on 20° C. ambient temperature operation

ALL SHADED AREAS ARE APPROXIMATE VALUES

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KURMAN relays-engineering specifications (continued)

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

AC RELAYS

(For Illustrations and Dimensions of Sensitive Relays see Preceeding Pages)

Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS: Approx. AC Current (ma) at nom. voltage	AC Voltage (in volts): min.	nom.	max.	Oper. Time† (milli-secs): Nom. V	Max. V	Contact rating+ (amps): 28 VDC	115 VAC	Coil Impregnation
AC SENSITIVE RELAYS											
321DC78	19	SPDT	59	5.2	6	17	16	16	2	2	no
321DC81	73	SPDT	29	10	12	33	16	16	2	2	no
321DC84	292	SPDT	15	20	24	66	16	16	2	2	no
321DC91	7300	SPDT	3.2	95	115	300	16	16	2	2	yes
51C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no
51C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no
51C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no
5D1C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no
5D1C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no
5D1C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no
AC MEDIUM POWER RELAYS											
26D1C6AC	3	SPDT	675	5.5	6	6.8	16	16	10	10	no
26D1C12AC	12	SPDT	335	9.5	12	13.5	16	16	10	10	no
26D1C24AC	49	SPDT	170	21	24	27	16	16	10	10	no
26D1C115AC	1200	SPDT	35	90	115	130	16	16	10	10	no
26D1C230AC	4900	SPDT	17	190	230	260	16	16	10	10	yes
26D2C6AC	3	DPDT	675	5.5	6	6.8	16	16	10	10	no
26D2C12AC	12	DPDT	335	9.5	12	13.5	16	16	10	10	no
26D2C24AC	49	DPDT	170	21	24	27	16	16	10	10	no
26D2C115AC	1200	DPDT	35	95	115	130	16	16	10	10	no
26D2C230AC	4900	DPDT	17	190	230	260	16	16	10	10	yes
26D3C6AC	3	3PDT	675	5.5	6	6.8	16	16	10	10	no
26D3C12AC	12	3DPT	335	10.5	12	13.5	16	16	10	10	no
26D3C24AC	49	3PDT	170	22	24	27	16	16	10	10	no
26D3C115AC	1200	3PDT	35	95	115	130	16	16	10	10	no
26D3C230AC	4900	3PDT	17	195	230	260	16	16	10	10	yes
261C6AC	2.7	SPDT	835	5.2	6	7	16	16	20	20	no
261C12AC	11	SPDT	417	9.5	12	14	16	16	20	20	no
261C24AC	43	SPDT	208	20	24	28	16	16	20	20	no
261C115AC	1080	SPDT	44	95	115	130	16	16	20	20	no
261C230AC	4280	SPDT	22	190	230	260	16	16	20	20	yes
262C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	20	20	no
262C12AC	10	DPDT	335	10	12	14	16	16	20	20	no
262C24AC	39	DPDT	170	21	24	27	16	16	20	20	no
262C115AC	980	DPDT	35	95	115	130	16	16	20	20	no
262C230AC	3900	DPDT	17	195	230	270	16	16	20	20	yes
263C6AC	2.5	3PDT	675	5.5	6	6.9	16	16	20	20	no
263C12AC	10	3PDT	335	10.5	12	14	16	16	20	20	no
263C24AC	39	3PDT	170	21	24	27	16	16	20	20	no
263C115AC	980	3PDT	35	95	115	130	16	16	20	20	no
263C230AC	3900	3PDT	17	190	230	270	16	16	20	20	yes
26L2C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	30	30	no
26L2C12AC	10	DPDT	335	10	12	14	16	16	30	30	no
26L2C24AC	39	DPDT	170	21	24	27	16	16	30	30	no
26L2C115AC	980	DPDT	35	95	115	130	16	16	30	30	no
26L2C230AC	3900	DPDT	17	190	230	270	16	16	30	30	yes
252C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	1.5 KW RF		no
252C12AC	10	DPDT	335	10	12	14	16	16	↓		no
252C24AC	39	DPDT	170	21	24	27	16	16	↓		no
252C115AC	980	DPDT	35	95	115	130	16	16	↓		no
253C6AC	2.5	3PDT	675	5.5	6	6.9	16	16	1C–20 amp		no
253C12AC	10	3PDT	335	10.5	12	14	16	16	2C–1.5 KW, RF		no
253C24AC	39	3PDT	170	21	24	27	16	16	↓		no
253C115AC	980	3PDT	35	95	115	130	16	16	↓		no
AC HERMETICALLY SEALED RELAYS											
26S01	980	DPDT	35	95	115	130	16	16	10	10	no
26S20	980	DPDT	35	95	115	130	16	16	25	25	no
SM004F	++	4PDT	++		115	130	20	20	3	3	no

ORDERING INFORMATION: Relays PREVIOUSLY ORDERED are readily identified by the Kurman type number, which is placed on the relay. Please include this number when re-ordering.

Relays shown on these pages are STANDARD relays in stock for immediate shipment. From these pages a relay can be chosen meeting the needs of most electrical or electronic applications.

VARIATIONS of these relays, are available, as shown in our GS catalog, with slightly extended delivery schedules.

Please SPECIFY the Kurman relay type and coil voltage or resistance, AC or DC.

CONTACT LEGEND; S–Single; D–Double; P–Pole; T–Throw; N–Normally; O–Open; C–Closed.

All prices and specifications are subject to change without notice.

See preceding pages for symbol descriptions

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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

MAGNECRAFT RELAYS

Immediate Delivery from STOCKING DISTRIBUTORS

All prices and specifications effective June 1, 1961 and subject to change without notice.

All contact ratings are based on 115 volts, 60 cycles, non-inductive load.

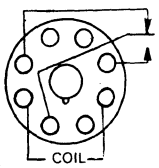
ORDER BY CATALOG NUMBER. All Stock Relay Carton Labels carry Catalog Number; Contact Combination and Rating; Coil Voltage or Current.

All enclosed relays are identified by catalog number and wiring diagram.

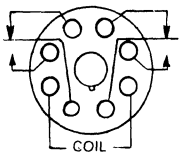
NOTE: Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their supplies are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.

All Purpose MAGNECRAFT RELAYS

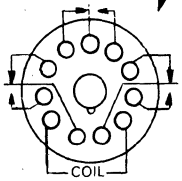
†Wiring Diagrams for small AC-DC Plug-in Relays with Enc. 40-279 "see-thru" plastic cover.



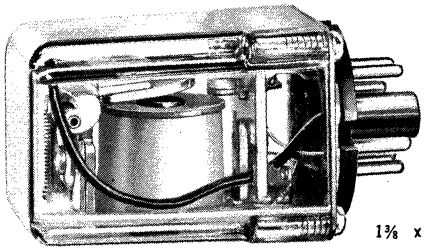
†WD-1 SPDT, 8-pin



WD-2 DPDT, 8-pin



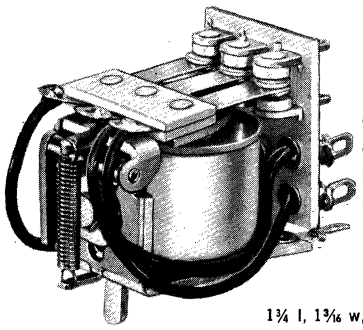
WD-3 3PDT, 11-pin



Small AC-DC Plug-in Relay with "see-thru" plastic cover

1⅜ x 1⅜ x 2⅛ h*

Enc. **40-279** polystyrene dust cover housing Class **88** all purpose relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.



Small AC-DC General Purpose Relay

Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight, 2 ounces.

1¾ l, 1⅜ w, 1¼ h.

contact arrangement	COIL volt. or current	COIL res. ohms	COIL nominal power	10 ampere silver alloy contacts OPEN RELAY Cat. No.	OPEN RELAY NET	WITH ENCLOSURE 40-279 Cat. No.	WITH ENCLOSURE 40-279 Plug	WITH ENCLOSURE 40-279 NET
alternating current voltage actuated								
	6VAC			W88AX1	3.35	W88ACPX1		5.50
	12VAC			W88AX2	3.35	W88ACPX2		5.50
SPDT	24VAC	—	3 VA	W88AX3	3.40	W88ACPX3	8-pin	5.55
†WD-1	115VAC			W88AX4	3.55	W88ACPX4		5.70
	6VAC			W88AX5	3.95	W88ACPX5		6.24
	12VAC			W88AX6	3.95	W88ACPX6		6.24
DPDT	24VAC	—	3 VA	W88AX7	4.00	W88ACPX7	8-pin	6.29
WD-2	115VAC			W88AX8	4.15	W88ACPX8		6.44
	6VAC			W88AX9	4.35	W88ACPX9		7.66
	12VAC			W88AX10	4.35	W88ACPX10		7.66
3PDT	24VAC	—	3 VA	W88AX11	4.40	W88ACPX11	11-pin	7.81
WD-3	115VAC			W88AX12	4.55	W88ACPX12		7.96
direct current voltage actuated								
	6VDC	25		W88X2	3.20	W88CPX1		5.35
	12VDC	100		W88X3	3.20	W88CPX2		5.35
SPDT	24VDC	400	1.5W	W88X4	3.25	W88CPX3	8-pin	5.40
†WD-1	110VDC	8000		W88X5	3.80	W88CPX4		5.95
	6VDC	25		W88X6	3.55	W88CPX5		5.84
	12VDC	100		W88X7	3.55	W88CPX6		5.84
DPDT	24VDC	400	1.5W	W88X8	3.60	W88CPX7	8-pin	5.89
WD-2	110VDC	8000		W88X9	4.15	W88CPX8		6.44
	6VDC	25		W88X10	3.95	W88CPX9		7.21
	12VDC	100		W88X11	3.95	W88CPX10		7.21
3PDT	24VDC	400	1.5W	W88X12	4.00	W88CPX11	11-pin	7.26
WD-3	110VDC	8000		W88X13	4.55	W88CPX12		7.81
DC current actuated for plate circuit operation								
	7.2 MA	2500		W88X14	3.75	W88CPX13		5.90
SPDT	5.0 MA	5000	125MW	W88X15	3.85	W88CPX14	8-pin	6.00
†WD-1	3.6 MA	10000		W88X16	4.25	W88CPX15		6.40
	10 MA	2500		W88X17	4.01	W88CPX16		6.30
DPDT	7.2 MA	5000	250MW	W88X18	4.11	W88CPX17	8-pin	6.40
WD-2	5 MA	10000		W88X19	4.51	W88CPX18		6.80
	12.3 MA	2500		W88X20	4.44	W88CPX19		7.70
3PDT	8.7 MA	5000	375MW	W88X21	4.54	W88CPX20	11-pin	7.80
WD-3	6.1 MA	10000		W88X22	4.94	W88CPX21		8.20

Class **88** is basically a clapper type relay that is similar to and interchangeable with many relays made by others. The BIG DIFFERENCE is the Class 88 has been developed to maintain the high standards of reliability users have learned to expect from MAGNECRAFT Telephone Type Relays. The result is reliability, stability of adjustment and long life at reduced cost for a great range of application.

For the first time in a relay of this type, the MAGNECRAFT Class 88 has a rugged, pin type armature hinge with centerless ground stainless steel pin and heavy duty yoke with precision reamed bearing surfaces; this is the hinge design used on the finest telephone type relays to stabilize adjustment through long wear life, reduce friction and improve contact effectiveness. Other features include fiber glass melamine insulation to provide high di-electric strength and greater resistance to humidity and temperature change; independently riveted; ruggedized coil terminals; riveted contacts with built-in contact wipe.

The many refinements plus MAGNECRAFT quality control and inspection standards produce relays so outstanding you can see the difference.

†WD is abbreviation for Wiring Diagram

h* is overall dimension above socket

MAGNECRAFT ELECTRIC CO., Chicago 30, Illinois

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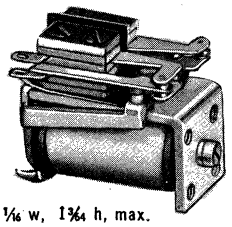
MAGNECRAFT Telephone Type Relays

Sub-miniature—DC—3 amps.



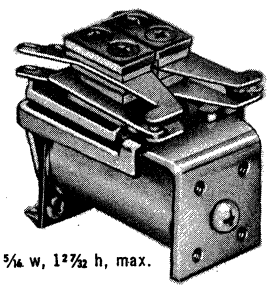
1 11/32 l, 1 1/16 w, 1 3/64 h, max.

Class **33** midget sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential.

Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on 3/8 x 3/8 centers. Weight, 1 ounce.

contacts 3 amps.	voltage DC	res. ohms	nominal power	Cat. No.	NET
DPDT	6VDC	17	2.0W	W33X237	4.87
	12VDC	75		W33X238	4.87
	24VDC	280		W33X239	4.92
	110VDC	6500		W33X240	5.50
4DPT	6VDC	17	2.0W	W33X241	6.58
	12VDC	75		W33X242	6.58
	24VDC	280		W33X243	6.63
	110VDC	6500		W33X244	7.23

Miniature—DC—5 amps.



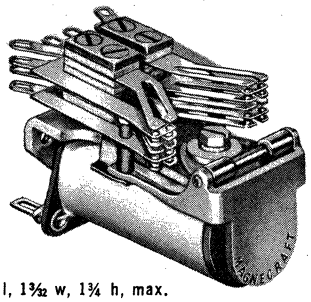
1 5/8 l, 1 5/16 w, 1 27/32 h, max.

Class **11** miniature telephone type MAGNECRAFT Relay is a small, fast acting space saving relay that has BIG relay reliability, accuracy and long life. The Class 11 is extensively used to replace larger relays with completely satisfactory results where space is limited or weight saving is needed.

Silver alloy contacts; 5 ampere rating. Tinned solder terminals with easy-to-wire spacing. Four 4-40 tapped mounting holes on 3/8 x 7/16 centers. Weight, 3 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
4PDT	6VDC	25	1.5W	W11X505	6.78
	12VDC	100		W11X506	6.83
	24VDC	400		W11X507	6.83
	110VDC	9000		W11X508	8.07
6PDT	6VDC	13	2.5W	W11X509	9.49
	12VDC	56		W11X510	9.49
	24VDC	280		W11X511	9.54
	110VDC	5000		W11X512	10.12
DPDT	DC current actuated for plate circuit operation 5 MA	10000	250MW	W11X513	6.16

Small—AC-DC—Twin Contacts



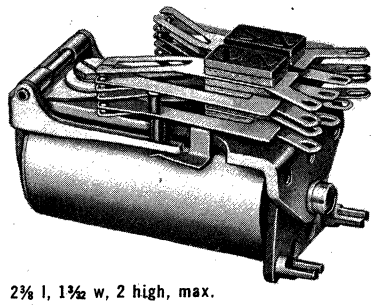
2 1/16 l, 1 3/32 w, 1 3/4 h, max.

Class **22T** —miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on 3/4 centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
DPDT	115VAC	500	5VA	W22ATX12	5.94
	direct current voltage actuated				
4PDT	6VDC	20	2.0W	W22TX267	8.44
	12VDC	80	2.0W	W22TX268	8.44
	24VDC	375	1.5W	W22TX269	8.49
	110VDC	8000	1.5W	W22TX270	9.97
6PDT	6VDC	12	3.0W	W22TX271	11.87
	12VDC	50		W22TX272	11.87
	24VDC	225		W22TX273	11.92
	110VDC	5000		W22TX274	12.91
	DC current actuated for plate circuit operation				
SPDT	4.5 MA	5000	100MW	W22TX276	5.91
	6.0 MA	2700		W22TX277	5.24
	3.2 MA	10000		W22TX278	6.18
DPDT	4.5 MA	10000	200MW	W22TX275	6.93

Medium—AC-DC—Twin Contacts

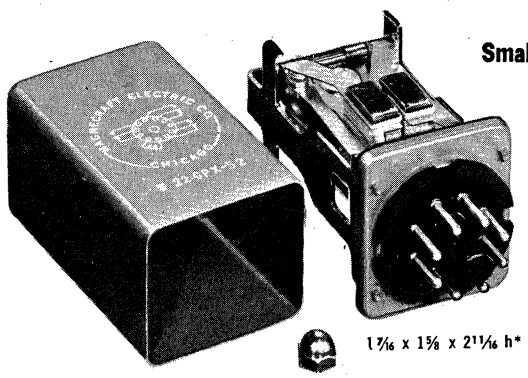


2 3/8 l, 1 3/32 w, 2 high, max.

Class **66T** —similiar to 22T except has larger coil for greater sensitivity and/or effective switching of more circuits. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on 3/4 centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
4PDT	115VAC	300	6VA	W66ATX2	7.72
	direct current voltage actuated				
4PDT	6VDC	30	1.0W	W66TX23	7.59
	12VDC	135		W66TX24	7.59
	24VDC	540		W66TX25	7.64
8PDT	6VDC	20	2.0W	W66TX29	13.21
	12VDC	85		W66TX30	13.21
	24VDC	250		W66TX31	13.26
	110VDC	5750		W66TX32	13.84
	DC current actuated for plate circuit operation				
4PDT	5.3 MA	11000	300MW	W66TX26	8.96
6PDT	6.75 MA	11000	500MW	W66TX27	12.64
8PDT	8.5 MA	11000	800MW	W66T2X8	14.25



1 7/16 x 1 5/8 x 2 11/16 h*

Small—AC-DC—Plug-in with removable dust cover

40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
DPDT WD-5	115VAC	500	5VA	W22CPX60	10.23
	direct current voltage actuated				
SPDT †WD-4	6VDC	20	2.0W	W22CPX44	8.73
	12VDC	80	2.0W	W22CPX45	8.73
	24VDC	375	1.5W	W22CPX46	8.78
	110VDC	8000	1.5W	W22CPX47	10.02
DPDT WD-5	6VDC	20	2.0W	W22CPX48	9.85
	12VDC	80	2.0W	W22CPX49	9.85
	24VDC	375	1.5W	W22CPX50	9.90
	110VDC	8000	1.5W	W22CPX51	11.14

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	direct current voltage actuated				
3PDT WD-6	6VDC	20	2.0W	W22CPX52	11.87
	12VDC	80	2.0W	W22CPX53	11.87
	24VDC	375	1.5W	W22CPX54	11.92
	110VDC	8000	1.5W	W22CPX55	13.16
	DC current actuated for plate circuit operation				
SPDT †WD-4	4.5 MA	5000	100MW	W22CPX57	9.36
	6.0 MA	2700		W22CPX58	9.02
	3.2 MA	10000		W22CPX59	10.02
DPDT WD-5	4.5 MA	10000	200MW	W22CPX56	11.14

Net

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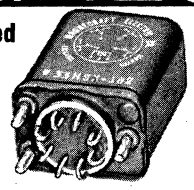
MAGNECRAFT Sealed and Dustcover Enclosed Telephone Type Relays

Hermetically Sealed Sub-miniature DC 5 amps.

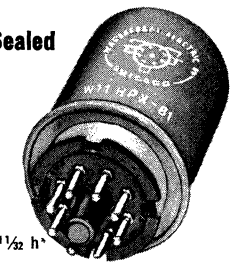


3½2 x 1 11½2 x 1 41¼4 h*

40-157 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on ½ x 1 centers. Weight, 3 ounces.

contacts 5 amps.	voltage DC	res. ohms	nominal power	Cat. No.	NET
	6VDC	17		W33HSX177	13.21
	12VDC	75		W33HSX178	13.21
DPDT	24VDC	280	2.0W	W33HSX179	13.26
†WD-8	110VDC	6500		W33HSX180	13.87
	6VDC	17		W33HSX181	16.65
	12VDC	75		W33HSX182	16.65
4PDT	24VDC	280	2.0W	W33HSX183	16.70
WD-9	110VDC	6500		W33HSX184	17.36

Hermetically Sealed Miniature DC 4 amps.

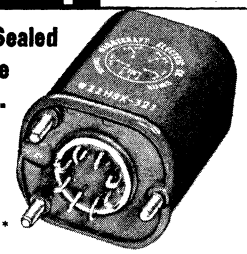


1 21½2 diameter x 2 11½2 h*

40-101 enclosure, hermetically sealed, housing Class 11 miniature relay with standard 8-pin octal plug. Silver alloy contacts, 4 ampere rating. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	6VDC	25		W11HPX81	9.86
	12VDC	100		W11HPX82	9.91
DPDT	24VDC	400	1.5W	W11HPX83	9.91
WD-5	110VDC	9000		W11HPX84	11.15
DC current actuated for plate circuit operation					
DPDT WD-5	5 MA	10000	250MW	W11HPX85	11.15

Hermetically Sealed Miniature DC 5 amps.

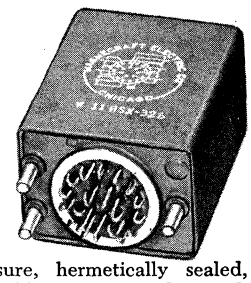


1 5⁄8 x 1¾ x 2 1⁄16 h*

40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 14-pin, high compression, glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on 15⁄16 x 1 3⁄16 centers. Weight, 6 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	6VDC	25		W11HSX321	15.92
	12VDC	100		W11HSX322	15.97
4PDT	24VDC	400	1.5W	W11HSX323	15.97
WD-9	110VDC	9000		W11HSX324	17.06
DC current actuated for plate circuit operation					
DPDT WD-8	5 MA	10000	250MW	W11HXS325	13.70

Hermetically Sealed Miniature DC 5 amps.

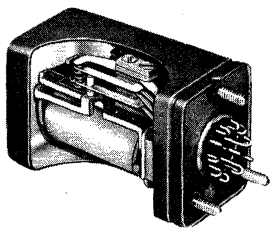


1 15⁄64 x 1 47⁄64 x 2 3⁄8 h*

40-188 enclosure, hermetically sealed, housing Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½ x 1 13⁄32 centers. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
	6VDC	13		W11HSX326	19.91
	12VDC	56		W11HSX327	19.91
6PDT	24VDC	280	2.5W	W11HSX328	19.96
WD-10	110VDC	5000		W11HSX329	20.18

Hermetically Sealed MAGNECRAFT RELAYS



The purpose of hermetic sealing is to provide complete protection against moisture, fungus, corrosive elements, explosive fumes, dust, grit and tampering.

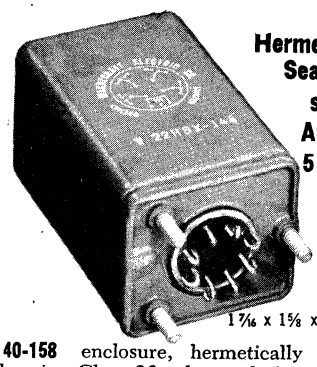
MAGNECRAFT Hermetically Sealed Relays are manufactured to most rigid processing standards, under conditions of cleanliness and sterility that approach the high standards of modern hospitals.

The sealed assemblies are evacuated, purged, evacuated again and then filled with a dry, inert gas to proper working pressures.

When processing is complete each Hermetically Sealed Relay is checked for leaks with a mass spectrometer.

MAGNECRAFT Sealed Relays are permanently labeled with proper identification and wiring diagrams.

Hermetically Sealed small AC-DC 5 amps.

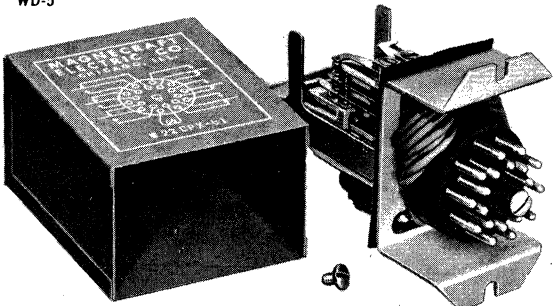


1 7⁄16 x 1 5⁄8 x 2 11⁄16 h*

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on 15⁄16 x 1 3⁄16 centers. Weight, 7 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
4PDT WD-9	115VAC	500	5VA	W22AHSX32	17.30
direct current voltage actuated					
	6VDC	20	2.0W	W22HSX144	17.00
4PDT	12VDC	80	2.0W	W22HSX145	17.00
WD-9	24VDC	375	1.5W	W22HSX146	17.05
	110VDC	8000	1.5W	W22HSX147	18.03

Small—DC—Plug-in with removable dust cover

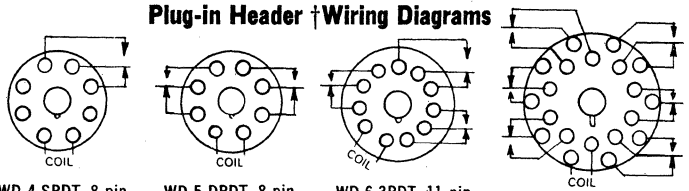


45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on 2 21⁄32 centers. Weight, 8 ounces.

1 5⁄16 x 2 11⁄16 x 3 13⁄32 h*

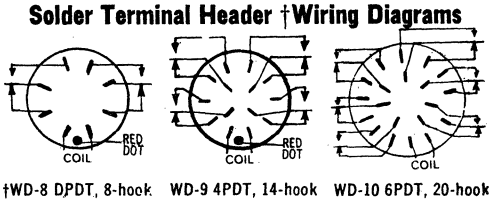
contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
	6VDC	12		W22CPX61	16.72
6PDT	12VDC	50	3.0W	W22CPX62	16.72
WD-7	24VDC	225		W22CPX63	16.77
	110VDC	5000		W22CPX64	17.35

Plug-in Header †Wiring Diagrams



†WD-4 SPDT, 8-pin | WD-5 DPDT, 8-pin | WD-6 3PDT, 11-pin | WD-7 6PDT, 20-pin

Solder Terminal Header †Wiring Diagrams

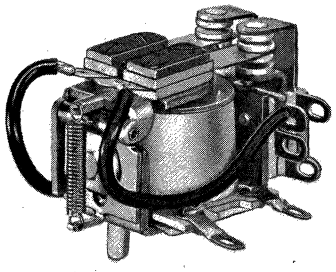


†WD-8 DPDT, 8-hook | WD-9 4PDT, 14-hook | WD-10 6PDT, 20-hook

MAGNECRAFT

Power, Latch-in and Special Purpose Relays

Small—Power—AC-DC—15 amps.

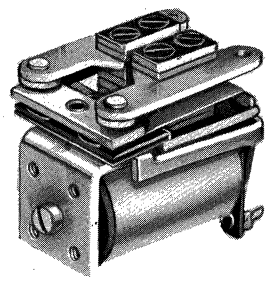


1⅞ l, 1 15/32 w, 1 5/32 high

Class **88R** extra quality, high reliability clapper type relay with 15 ampere heavy duty silver alloy contacts for industrial control applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One #6-32 tapped mounting hole and locating boss. Weight 3 ounces.

contacts 15 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
DPDT	6VAC	—	3VA	W88ARX1	5.97
	12VAC	—		W88ARX2	5.97
	24VAC	—		W88ARX3	6.02
	115VAC	—		W88ARX4	6.17
DPDT	6VDC	25	1.5W	W88RX1	5.90
	12VDC	100		W88RX2	5.90
	24VDC	400		W88RX3	5.95
	110VDC	8000		W88RX4	6.40

Miniature—Power—DC—50 amps.



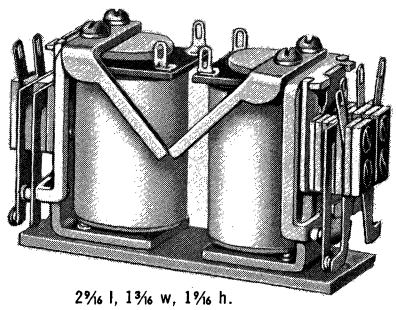
1⅝ l, 15/16 w, 1 7/16 h.

Class **11D** miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability, accuracy and long life.

Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on ⅜ x 7/16 centers. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPST NO double break	6VDC	25	1.5W	W11DX38	5.39
	12VDC	100		W11DX39	5.45
	24VDC	400		W11DX40	5.45
	110VDC	9000		W11DX41	6.08

Latch-in—Miniature—DC

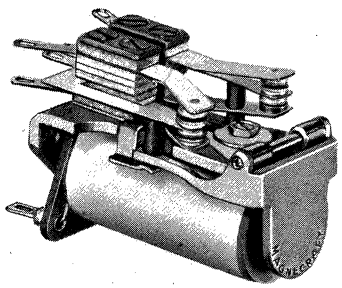


2 9/16 l, 1 3/16 w, 1 1/16 h.

Two Class **11** Miniature Telephone Type Relays mounted on a common base with armatures mechanicaly interlocked. Each armature latches when pulled in. Energizing one armature resets (releases) the other. Each relay is complete with DPDT 5-ampere silver alloy contacts. The latching levers are alloy steel, heat treated and hard chrome plated for reliability and long wear. Tinned solder terminals. Two #6-32 tapped mounting holes. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
two DPDT	6VDC	13	2.7	W11LX100	14.74
	12VDC	56	2.7	W11LX101	14.74
	24VDC	280	2.0	W11LX102	14.87
	110VDC	5000	2.0	W11LX103	15.96

Small—Power—AC-DC—10 amps.



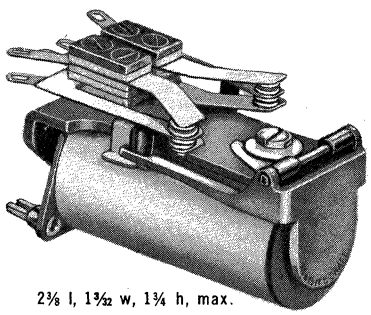
2 1/16 l, 1 3/32 w, 1¾ high, max.

Class **22R** small size, high reliability, long life relay with heavy duty 10 ampere silver alloy contacts and same pin type armature hinge as Class 66AR.

All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
DPDT	6VAC	2.0	5VA	W22ARX38	6.25
	24VAC	20		W22ARX39	6.25
	115VAC	500		W22ARX40	6.30
DPDT	6VDC	20	2.5W	W22RX67	6.00
	12VDC	88		W22RX68	6.00
	24VDC	225		W22RX69	6.05
	110VDC	5000		W22RX70	6.63
4PDT	6VDC	20	2.5W	W22RX71	8.79
	12VDC	80		W22RX72	8.79
	24VDC	225		W22RX73	8.84
	110VDC	5000		W22RX74	9.42

Medium—Power—AC—10 amps.



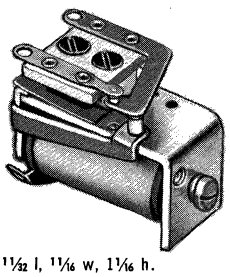
2⅜ l, 1 3/32 w, 1¼ h, max.

Class **66AR** high reliability, long life relay with heavy duty 10 ampere silver alloy contacts for industrial control applications. Resembles the Class 22R except has larger coil. A unique pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through long life and the positive contact pressure needed for switching heavy loads.

All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms.	nominal power	Cat. No.	NET
4PDT	24VAC	15	6VA	W66ARX10	8.79
	115VAC	300		W66ARX11	9.04

RF Switching — Sub-miniature



1 11/32 l, 1 1/16 w, 1 1/16 h.

Class **33F**—Class 33 sub-miniature telephone type relay designed especially to afford lowest possible capacitance between springs and to minimize losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating.

Tinned solder terminals. Four #4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 2 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPDT	6VDC	28	1.5W	W33FX20	4.06
	12VDC	100		W33FX21	4.11
	24VDC	500		W33FX22	4.16
	110VDC	6500		W33FX23	4.69

Net

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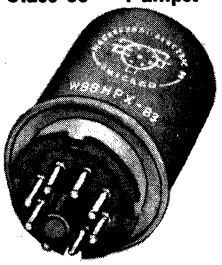
MAGNECRAFT

Enclosed, Micro-miniature Latch-in and Magnereed Relays

Hermetically Sealed—Plug-In Mounted Small—AC and DC—

40-101 enclosure, hermetically sealed, housing Class **88** high reliability relay (see page 1) with standard 8-pin octal plug. Silver alloy contacts, 4 ampere rating. Weight, 5 ounces.

Class 88—4 amps.



1-21/32 diameter x 2-11/32 h*

contacts 4 amps.	voltage	res. ohms	nominal power	catalog number	NET
	alternating current voltage actuated				
DPDT	6VAC	—		W88AHPX-4	8.59
WD-2	12VAC	—		W88AHPX-5	8.59
See	24VAC	—	3VA	W88AHPX-6	8.64
page 1	115VAC	—		W88AHPX-7	8.79
	direct current voltage actuated				
DPDT	6VDC	25		W88HPX-3	8.19
WD-2	12VDC	100		W88HPX-4	8.19
See	24VDC	400	1.5W	W88HPX-5	8.24
page 1	110VDC	8000		W88HPX-6	9.29

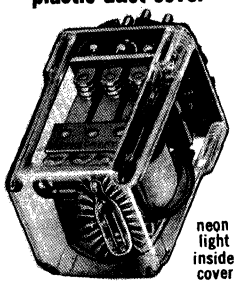
Small AC 10 amp. plug-in relay with neon "ON" light

Enc. 40-279 polystyrene dust cover with 8- or 11-pin standard octal plug housing Class **88** high reliability relay (see page 1) *with built-in neon circuit indicator light.* Indicator light comes on when coil is energized.

- *Eliminates need for expensive pilot lamp assemblies*
- *Saves panel space*
- *Circuit condition can be seen at a glance*

Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

plastic dust cover



1⅜ x 1⅜ x 2⅛ h*

contacts 10 amps.	wiring diagrams	volt. AC	nominal power	catalog number	NET
SPDT	WD-1*	115		W88ANCPX-1	6.64
DPDT	WD-2*	115	3VA	W88ANCPX-2	7.29
3PDT	WD-3*	115		W88ANCPX-3	8.81

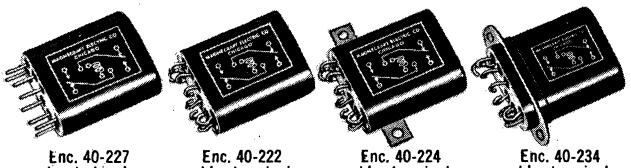
*See page 1.

Micro-Miniature Rotary Relays

MAGNECRAFT Class 44 Rotary Relays have been developed to provide increased reliability in the crystal can size. Here are a few of many areas in which improvement has been made:

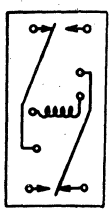
1. Frame and header assembly of rugged bridge-type construction—assures greatly increased resistance to distortion from shock, vibration and temperature—to military specification requirements
2. Balanced armature—minimizes the effect of gravity, shock and vibration on operating reliability.
3. Hinge design—oversize, instrument type bearings at *BOTH* ends.
   a. Minimizes friction for increased sensitivity and greater contact pressure.
   b. Increases operating reliability and life.
4. The latest and finest developments in high temperature insulation.
5. Hermetically sealed in inert gas for maximum protection against severe ambient conditions.

Contact combination: Double Pole, Double Throw
Contact rating: 2 amperes at 28 VDC or 115 VAC, non-inductive.
Operate Time: 5 milliseconds maximum with nominal voltage
Release Time: 3 milliseconds maximum.



Enc. 40-227 plug-in header no bracket | Enc. 40-222 solder terminals no bracket | Enc. 40-224 solder terminals side bracket | Enc. 40-234 solder terminals flange bracket

Case – .875 x .797 x .359

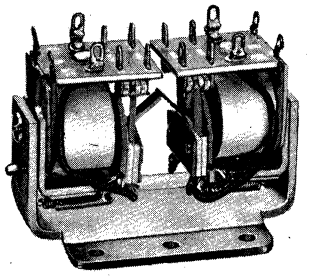


Standard wiring diagram for Class 44 Relays

DC voltage	res. ohms	nominal power	catalog number	NET	catalog number	NET
			Enc. 40-227		Enc. 40-222	
6.5	34		W44HPX-34	17.60	W44HSX-103	17.60
11	92		W44HPX-35	17.60	W44HSX-104	17.60
26.5	552	1.2W	W44HPX-36	17.60	W44HSX-105	17.60
38.5	1278		W44HPX-37	18.00	W44HSX-106	18.00
76	5000		W44HPX-38	19.90	W44HSX-107	19.90
			Enc. 40-224		Enc. 40-234	
6.5	34		W44HSX-108	17.95	W44HSX-113	17.95
11	92		W44HSX-109	17.95	W44HSX-114	17.95
26.5	552	1.2W	W44HSX-110	17.95	W44HSX-115	17.95
38.5	1278		W44HSX-111	18.35	W44HSX-116	18.35
76	5000		W44HSX-112	20.25	W44HSX-117	20.25

Small AC and DC Latch-in Relays

Two class **88** relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (resets) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6½ ounces.



2-11/16 max. x 1¼ x 1-15/16 high max.

Class 88L Latch-in Relays are used in circuits requiring sustained contact function, regardless of change in coil power. A momentary electric pulse pulls in and latches one relay which releases the other. These relays have wide application in

- Memory Circuits
- Protective Circuits
- Overload Devices
- Limit Controls
- Automatic Controls

contacts 10 amps.	voltage	res. ohms	nominal power	catalog number	NET
	alternating current voltage actuated				
	6VAC	—		W88ALX-2	10.90
4PDT	24VAC	—	6VA	W88ALX-3	11.00
	115VAC	—	prox.	W88ALX-4	11.30
	6VAC	—		W88ALX-5	12.55
6PDT	24VAC	—	6VA	W88ALX-6	12.65
	115VAC	—	prox.	W88ALX-7	12.95
	direct current voltage actuated				
	6VDC	12		W88LX-1	9.85
4PDT	12VDC	50		W88LX-2	9.85
	24VDC	200	3W	W88LX-3	9.95
	110VDC	4000		W88LX-4	11.05
	6VDC	12		W88LX-5	11.75
6PDT	12VDC	50		W88LX-6	11.75
	24VDC	200	3W	W88LX-7	11.85
	110VDC	4000		W88LX-8	12.90

MAGNEREED RELAYS

In this new approach to enduring relay reliability pre-adjusted gold contacts are hermetically sealed inside a glass capsule in an atmosphere of inert gas. The contacts are actuated magnetically by a coil around the hermetically sealed capsule.

Magnereed Relays have many valuable features:

- Contacts are permanently sealed from dust, contamination and tampering.
- Contact resistance is stabilized over long life.
- Operation is sensitive
- Switching is fast.
- Construction is simple. Magnereed Relays are easily adaptable to mounting configurations as well as grouping to meet multi-pole switching requirements.

Class 101—Miniature MAGNEREED Relays

Contact Combination: Single pole, single throw, normally open
Contacts: Gold—rated 12VA at .250 amp. max. or 100 VAC max.
Operate time: less than 1 millisecond.
Release time: less than ½ millisecond.
Nominal power, 200MW
Life Expectancy:
At max. rating, 5 million cycles
½ max. rating, 20 million cycles
Weight: 2 ounces
Overall length, 1½, glass length, ¾, outside diameter, 7/16.

operate current	operate volts	res. ohms	catalog number	NET each
46MA	6V	100	W101X-1	7.80
30MA	12V	250	W101X-2	8.14
20MA	24V	500	W101X-3	8.80
9MA	—	2500	W101X-4	9.71

Class 102—Standard MAGNEREED Relays

Contact Combination: Single pole, single throw, normally open.
Contacts: Gold—rated 15VA at 1 amp. max. or 250 VAC max.
Operate time: less than 1 millisecond. Release Time: less than ½ millisecond.
Nominal pwer, 100MW
Life Expectancy:
At max. rating, 20 million cycles
½ max. rating, 100 million cycles
Low load (1/10 amp. at 12V.) 200 million cycles.
Weight: 3 ounces
Overall length 3¼, glass length 1-15/16, outside diameter ⅜.

operate current	operate volts	res. ohms	catalog number	NET each
32MA		100	W102X-1	5.94
23MA	6V	200	W102X-2	6.05
14.5MA	12V	500	W102X-3	6.39
10MA	24V	2000	W102X-4	7.71
4.6MA		5000	W102X-5	7.96

OHMITE® RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

SERIES GR GENERAL PURPOSE RELAYS

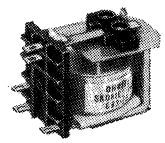
Includes Plate and Latching Versions

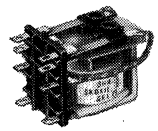
Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making connections and mounting. Includes versatile enclosures, also plate and latching versions. Wide commercial & industrial use. **BASIC RELAY ("GR")** All connections terminate on barrier type terminal panel on combination solder-quick-connect (push-on) lugs which accept AMP 110 female connectors. Fixed contacts are integral silver inlay on terminal itself. **CONTACT RATING:** 5 amps at 115 VAC or 32VDC. Terminal panel design permits use of relay in printed circuit assemblies. **CONTACT COMBINATIONS:** 1, 2 or 3 pole, single or double throw (see "Latching Relay" also). Dimensions, $1\frac{5}{16}$ x $1\frac{25}{32}$ x $1\frac{3}{16}$" not including 6-32 threaded mounting stud on relay underside for mtg. on up to ¼" panel. **INSULATION** tested at 1000 VAC. **COIL DRAIN:** DC Relays, 1.4 watts; AC Relays, 2.0 volt-amperes.

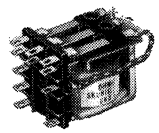
ENCLOSED RELAYS (GRTA_, GRTT_, GRTP_) Three types of clear plastic enclosures. Two types are chassis mtg.; one plug-in type. **CHASSIS MOUNTING TYPES: "GRTA"**—("Terminals-Above-Chassis" type) $2\frac{21}{64}$ x $2\frac{1}{4}$ x $1\frac{13}{32}$" overall, has terminal panel opposite to mtg. flange; **"GRTT"**—("Terminals-Through-chassis" type) $2\frac{1}{4}$ x $1\frac{3}{8}$", extends $1\frac{15}{16}$" above chassis, has terminal panel on same end as mtg. flange, requires chassis cutout. **PLUG MTG. TYPE: "GRTP"**—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The special octal plug base is integral with relay for rigidity—pins meet UL spacing requirements (150V). $2\frac{1}{8}$ x $1\frac{3}{8}$ x $1\frac{3}{8}$" not incl. plug.

PLATE RELAYS—Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit controls, for example, in the plate circuits of vacuum tubes.

LATCHING RELAY—Consists of two GR relays with armatures linked so that the n.o. contacts of one are mechanically latched in closed position when, and after, this relay is energized. When 2nd relay is energized, first relay restores and latches 2nd. Permits switching of twice the number of circuits and holding without current. Unenclosed type "GRLE", $2\frac{7}{8}$ x $2\frac{1}{32}$ x $1\frac{7}{8}$" overall. Enclosed type "GRLETP" in clear plastic case with Jones plug P-324-SB, $3\frac{11}{16}$ x 3 x $1\frac{1}{2}$" not incl. plug. Plug fits Jones Ser. 324 socket.

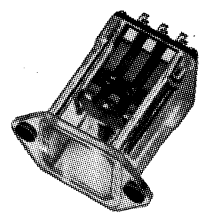

SPDT

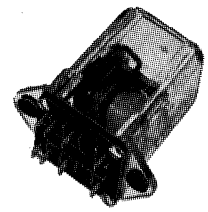

DPDT


3PDT

STOCK "GR" RELAYS

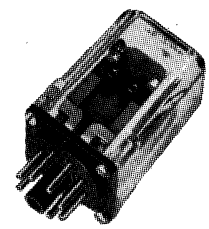
Contacts	COIL DATA Volts	Amps	Ohms	Basic GR Relay	Net $ 1-24	Enclosed Above-Chassis "GRTA"	Net $ 1-24	Enclosed Thru-Chassis "GRTT"	Net $ 1-24	Enclosed Plug-Base "GRTP"	Net $ 1-24
SPDT	6VAC	.334	4.2	**GRX-3T**	3.19	**GRTAX-3T**	4.57	**GRTTX-3T**	4.57	**GRTPX-3T**	5.02
DPDT	6VAC	.334	4.2	**GRX-6T**	3.71	**GRTAX-6T**	5.13	**GRTTX-6T**	5.13	**GRTPX-6T**	5.61
3PDT	6VAC	.334	4.2	**GRX-9T**	4.20	**GRTAX-9T**	5.73	**GRTTX-9T**	5.73	**GRTPX-9T**	7.05
DPDT	12VAC	.167	17	**GRX-15T**	3.71	**GRTAX-15T**	5.13	**GRTTX-15T**	5.13	**GRTPX-15T**	5.61
3PDT	12VAC	.167	17	**GRX-18T**	4.20	**GRTAX-18T**	5.73	**GRTTX-18T**	5.73	**GRTPX-18T**	7.05
DPDT	24VAC	.084	65	**GRX-24T**	3.71	**GRTAX-24T**	5.13	**GRTTX-24T**	5.13	**GRTPX-24T**	5.61
3PDT	24VAC	.084	65	**GRX-27T**	4.20	**GRTAX-27T**	5.73	**GRTTX-27T**	5.73	**GRTPX-27T**	7.05
SPDT	115VAC	.0174	1,600	**GRX-30T**	3.19	**GRTAX-30T**	4.57	**GRTTX-30T**	4.57	**GRTPX-30T**	5.02
DPDT	115VAC	.0174	1,600	**GRX-33T**	3.71	**GRTAX-33T**	5.13	**GRTTX-33T**	5.13	**GRTPX-33T**	5.61
3PDT	115VAC	.0174	1,600	**GRX-36T**	4.20	**GRTAX-36T**	5.73	**GRTTX-36T**	5.73	**GRTPX-36T**	7.05
SPDT	230VAC	.0087	7,000	**GRX-39T**	3.59	**GRTAX-39T**	4.97	**GRTTX-39T**	4.97	**GRTPX-39T**	5.42
DPDT	230VAC	.0087	7,000	**GRX-42T**	4.11	**GRTAX-42T**	5.53	**GRTTX-42T**	5.53	**GRTPX-42T**	6.01
3PDT	230VAC	.0087	7,000	**GRX-45T**	4.60	**GRTAX-45T**	6.13	**GRTTX-45T**	6.13	**GRTPX-45T**	7.45
SPDT	6VDC	.23	26	**GRX-48T**	3.02	**GRTAX-48T**	4.40	**GRTTX-48T**	4.40	**GRTPX-48T**	4.85
DPDT	6VDC	.23	26	**GRX-51T**	3.35	**GRTAX-51T**	4.77	**GRTTX-51T**	4.77	**GRTPX-51T**	5.25
3PDT	6VDC	.23	26	**GRX-54T**	3.75	**GRTAX-54T**	5.28	**GRTTX-54T**	5.28	**GRTPX-54T**	6.60
DPDT	12VDC	.114	105	**GRX-60T**	3.35	**GRTAX-60T**	4.77	**GRTTX-60T**	4.77	**GRTPX-60T**	5.25
3PDT	12VDC	.114	105	**GRX-63T**	3.75	**GRTAX-63T**	5.28	**GRTTX-63T**	5.28	**GRTPX-63T**	6.60
SPDT	24VDC	.060	400	**GRX-66T**	3.02	**GRTAX-66T**	4.40	**GRTTX-66T**	4.40	**GRTPX-66T**	4.85
DPDT	24VDC	.060	400	**GRX-69T**	3.35	**GRTAX-69T**	4.77	**GRTTX-69T**	4.77	**GRTPX-69T**	5.25
3PDT	24VDC	.060	400	**GRX-72T**	3.75	**GRTAX-72T**	5.28	**GRTTX-72T**	5.28	**GRTPX-72T**	6.60
SPDT	115VDC	.0115	10,000	**GRX-75T**	3.62	**GRTAX-75T**	5.00	**GRTTX-75T**	5.00	**GRTPX-75T**	5.45
DPDT	115VDC	.0115	10,000	**GRX-78T**	3.95	**GRTAX-78T**	5.37	**GRTTX-78T**	5.37	**GRTPX-78T**	5.85
3PDT	115VDC	.0115	10,000	**GRX-81T**	4.35	**GRTAX-81T**	5.88	**GRTTX-81T**	5.88	**GRTPX-81T**	7.20


Above-Chassis Mtg. (GRTA)


Through-Chassis Mtg. (GRTT)

STOCK "GR" PLATE CIRCUIT RELAYS

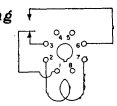
Contacts	COIL DATA Ohms	Pull-in Max. ma.	Basic Relay "GR"	Net $ 1-24	Enclosed Above-Chassis "GRTA"	Net $ 1-24	Enclosed Thru-Chassis "GRTT"	Net $ 1-24	Enclosed Plug-Base "GRTP"	Net $ 1-24
SPDT	2,500	7.2	**GRX-82T**	3.62	**GRTAX-82T**	5.00	**GRTTX-82T**	5.00	**GRTPX-82T**	5.45
DPDT	2,500	10	**GRX-83T**	4.15	**GRTAX-83T**	5.57	**GRTTX-83T**	5.57	**GRTPX-83T**	6.05
3PDT	2,500	12.3	**GRX-84T**	4.75	**GRTAX-84T**	6.28	**GRTTX-84T**	6.28	**GRTPX-84T**	7.60
SPDT	5,000	5	**GRX-85T**	3.82	**GRTAX-85T**	5.20	**GRTTX-85T**	5.20	**GRTPX-85T**	5.65
DPDT	5,000	7.2	**GRX-86T**	4.35	**GRTAX-86T**	5.77	**GRTTX-86T**	5.77	**GRTPX-86T**	6.25
3PDT	5,000	8.7	**GRX-87T**	4.95	**GRTAX-87T**	6.48	**GRTTX-87T**	6.48	**GRTPX-87T**	7.80
SPDT	10,000	3.6	**GRX-88T**	4.02	**GRTAX-88T**	5.40	**GRTTX-88T**	5.40	**GRTPX-88T**	5.85
DPDT	10,000	5	**GRX-89T**	4.55	**GRTAX-89T**	5.97	**GRTTX-89T**	5.97	**GRTPX-89T**	6.45
3PDT	10,000	6.1	**GRX-90T**	5.15	**GRTAX-90T**	6.68	**GRTTX-90T**	6.68	**GRTPX-90T**	8.00


Plug-Base Mtg. (GRTP)

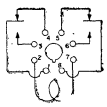
STOCK "GR" LATCHING RELAYS

Total Contacts	COIL DATA (Each Coil) Volts	Amps	Ohms	Unenclosed "GRLE"	Net $ 1-24	Enclosed Plug-Base "GRLETP"	Net $ 1-24
4PDT	6VAC	.334	4.2	**GRLEX-1T**	9.96	**GRLETPX-1T**	15.84
6PDT	6VAC	.334	4.2	**GRLEX-2T**	12.04	**GRLETPX-2T**	18.73
4PDT	12VAC	.167	17	**GRLEX-3T**	9.96	**GRLETPX-3T**	15.84
6PDT	12VAC	.167	17	**GRLEX-4T**	12.04	**GRLETPX-4T**	18.73
4PDT	24VAC	.084	65	**GRLEX-5T**	9.96	**GRLETPX-5T**	15.84
6PDT	24VAC	.084	65	**GRLEX-6T**	12.04	**GRLETPX-6T**	18.73
4PDT	115VAC	.0174	1,600	**GRLEX-7T**	9.96	**GRLETPX-7T**	15.84
6PDT	115VAC	.0174	1,600	**GRLEX-8T**	12.04	**GRLETPX-8T**	18.73
4PDT	230VAC	.0087	7,000	**GRLEX-9T**	10.76	**GRLETPX-9T**	16.64
6PDT	230VAC	.0087	7,000	**GRLEX-10T**	12.84	**GRLETPX-10T**	19.53
4PDT	6VDC	.23	26	**GRLEX-11T**	8.96	**GRLETPX-11T**	14.84
6PDT	6VDC	.23	26	**GRLEX-12T**	10.74	**GRLETPX-12T**	17.43
4PDT	12VDC	.114	105	**GRLEX-13T**	8.96	**GRLETPX-13T**	14.84
6PDT	12VDC	.114	105	**GRLEX-14T**	10.74	**GRLETPX-14T**	17.43
4PDT	24VDC	.060	400	**GRLEX-15T**	8.96	**GRLETPX-15T**	14.84
6PDT	24VDC	.060	400	**GRLEX-16T**	10.74	**GRLETPX-16T**	17.43
4PDT	115VDC	.0115	10,000	**GRLEX-17T**	10.16	**GRLETPX-17T**	16.04
6PDT	115VDC	.0115	10,000	**GRLEX-18T**	11.94	**GRLETPX-18T**	18.63

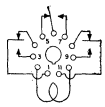
Plug Wiring SPDT Relay



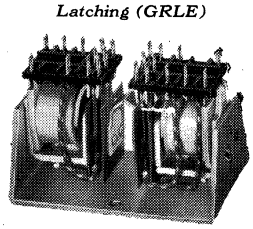
Plug Wiring DPDT Relay

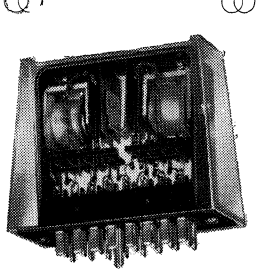


Plug Wiring 3PDT Relay



Latching (GRLE)




Enclosed Latching (GRLETP)

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OHMITE® RESISTORS • RHEOSTATS • TAP SWITCHES RELAYS • TANTALUM CAPACITORS VARIABLE TRANSFORMERS • RF CHOKES

OHMITE ALL-PURPOSE RELAYS

Also see Model GR Relays

MODEL DO RELAY

AC or DC OPERATION

Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC non-inductive load. Insulation tested at 1500 v. AC. Size, (4 pole) 2¼ x 2$\frac{1}{16}$ x 1$\frac{13}{16}$"; (3 pole) 2¼ x 1⅝ x 1$\frac{3}{16}$".

Stock No.	Type	Coil Data †V.A.C.	Coil Data Amps.	Net 1-24	Stock No.	Type	Coil Data V.D.C.	Coil Data Amps.	Net 1-24
DOX-50T	3PDT	6	2.10	$7.87	**DOX-145T**	3PDT	6	.487	$6.80
DOX-183T	4PDT	6	2.10	8.96	**DOX-186T**	4PDT	6	.487	7.87
DOX-49T	3PDT	12	1.13	7.86	**DOX-51T**	3PDT	12	.231	6.80
DOX-184T	4PDT	12	1.13	8.96	**DOX-102T**	4PDT	12	.231	7.87
DOX-181T	3PDT	24	.57	7.86	**DOX-141T**	3PDT	24	.105	6.80
DOX-185T	4PDT	24	.57	8.96	**DOX-137T**	4PDT	24	.105	7.87
DOX-226T	‡DPST*	115	.110	7.83	**DOX-93T**	3PDT	110	.022	6.80
DOX-227T	‡3PST	115	.110	7.13	**DOX-187T**	4PDT	110	.022	7.87
DOX-46T	3PDT	115	.110	7.87	**DOX-182T**	3PDT	220	.014	7.42
DOX-228T	‡4PST	115	.110	8.01	**DOX-188T**	4PDT	220	.014	8.49
DOX-53T	4PDT	115	.110	8.96					
DOX-61T	3PDT	230	.060	7.87					
DOX-130T	4PDT	230	.060	8.96					

‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts

MODEL DOSY RELAY

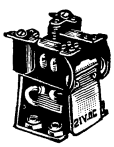
FOR PLATE CIRCUIT OPERATION

The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc. Other industrial applications may be as an overload or underload control where the relay would be used in a DC circuit in which it is desirable to obtain a signal indication when the control current increases above a predetermined maximum or drops below a predetermined minimum.

The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC, non-inductive load, Model DOSY relay has a contact rating of 15 amperes.

There are two DPDT types, one having 10,000 ohms coil resistance (maximum pull-in current of 8 ma. DC); the other having 5,000 ohms coil resistance.

Stock No.	Type	Coil Data D.C. Ohms	Coil Data Max. Pull-in Current	Net Each 1-24
DOSYX-67T	DPDT	10,000	8 MA	$5.54
DOSYX-68T	DPDT	5,000	11 MA	5.54
DOSYX-69T	SPDT	10,000	5 MA	5.11
DOSYX-70T	SPDT	5,000	7 MA	5.11



MODEL DOS RELAY

AC or DC OPERATION

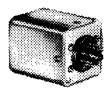
Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 2.5 watts DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32v. DC non-inductive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. 1⅞ x 1⅝ x 1$\frac{13}{32}$".

Stock No.	Type	Coil Data †V.A.C.	Coil Data Amps.	Net 1-24	Stock No.	Type	Coil Data V.D.C.	Coil Data Amps.	Net 1-24
DOSX-229T	‡SPST*	6	.650	$4.40	**DOSX-158T**	DPDT	6	.550	$4.51
DOSX-230T	‡DPST	6	.650	4.50	**DOSX-66T**	DPDT	12	.210	4.51
DOSX-30T	DPDT	6	.650	4.97	**DOSX-9T**	DPDT	24	.105	4.51
DOSX-16T	DPDT	12	.380	4.97	**DOSX-237T**	‡SPST*	110	.022	3.99
DOSX-231T	‡SPST*	24	.166	4.40	**DOSX-238T**	‡DPST	110	.022	4.09
DOSX-232T	‡DPST	24	.166	4.50	**DOSX-59T**	DPDT	110	.022	4.51
DOSX-162T	DPDT	24	.166	4.97	**DOSX-177T**	DPDT	220	.013	5.04
DOSX-233T	‡SPST*	115	.043	4.40					
DOSX-234T	‡DPST	115	.043	4.50					
DOSX-7T	DPDT	115	.043	4.97					
DOSX-235T	‡SPST*	230	.030	4.40					
DOSX-236T	‡DPST	230	.030	4.50					
DOSX-12T	DPDT	230	.030	4.97					

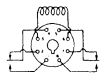
‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts

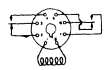
MODEL DOS PLUG-IN & ENCL. TYPES

DOSPX-1T



DOSEPX-5T





Model DOS, DPDT relay with standard octal plug base, unenclosed or enclosed types. Enclosed dust-proof type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T — 1⅝ x 2 x 1$\frac{15}{16}$"; DOSEPX-5T — 2⅛ x 2½ x 2⅛". Contacts — 15 amps. Similar to DOSX-7T shown under "DOS Relays" below, left.

Stock No.	Type	Coil Vac.	Coil Amps.	Net 1-24
DOSPX-1T Unenclosed	DPDT	115	.043	**$6.61**
DOSEPX-5T Enclosed	DPDT	115	.043	**7.34**

MODEL CRU RELAY

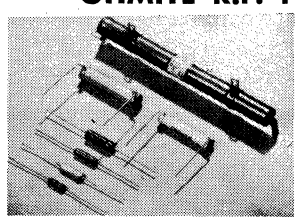
AC or DC OPERATION

Precision-engineered, general-application relays. Used in recorders, vending machines, etc. Features small size and extremely rugged construction. Designed for long life performance. Has nickel-silver springs and pure silver contacts. Coil drain: 2.75 watts DC, 5.6 watts 60 cycle AC. Contact ratings: 5 amps. at 115 v. AC; 32 v. DC non-inductive load. Insulation tested at 750 v. AC between all insulated metal parts and between insulated metal parts and ground. 2$\frac{7}{16}$ x 2 x 1$\frac{3}{32}$".

Stock No.	Type	Coil Data †V.A.C.	Coil Data Amps.	Net 1-24	Stock No.	Type	Coil Data V.D.C.	Coil Data Amps.	Ne 1-24
CRUX-192T	SPDT	6	1.20	$2.75	**CRUX-198T**	SPDT	6	.40	$2.57
CRUX-193T	DPDT	6	1.20	3.23	**CRUX-199T**	DPDT	6	.40	3.03
CRUX-171T	4PDT	6	1.20	4.20	**CRUX-133T**	4PDT	6	.40	3.95
CRUX-194T	SPDT	24	.38	2.75	**CRUX-200T**	SPDT	24	.10	2.57
CRUX-195T	DPDT	24	.38	3.23	**CRUX-201T**	DPDT	24	.10	3.03
CRUX-196T	4PDT	24	.38	4.20	**CRUX-165T**	4PDT	24	.10	3.95
CRUX-197T	SPDT	115	.075	2.75	**CRUX-202T**	SPDT	110	.022	3.33
CRUX-175T	DPDT	115	.075	3.23	**CRUX-145T**	DPDT	110	.022	3.79
CRUX-163T	4PDT	115	.075	4.20	**CRUX-137T**	4PDT	110	.022	4.71

†AC Voltage is 60 cycle

OHMITE R.F. PLATE CHOKES



This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-9
Z-7	3 to 20 Mc.	84.0	6" x $\frac{9}{16}$"	**$1.37**
Z-14	7 to 35 Mc.	44.0	2" x $\frac{7}{16}$"	**.68**
Z-28	20 to 60 Mc.	21.0	1¾" x $\frac{5}{16}$"	**.57**
Z-50	35 to 110 Mc.	7.0	⅞" x $\frac{9}{32}$"	**.46**
Z-144	80 to 200 Mc.	1.8	¾" x $\frac{5}{16}$"	**.43**
Z-235	160 to 350 Mc.	0.84	¾" x $\frac{5}{16}$"	**.43**
Z-460	320 to 520 Mc.	0.20	½" x $\frac{5}{32}$"	**.43**

Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

POTTER & BRUMFIELD RELAYS

FILE-O-MATIC Sec. 23

STOCK CATALOG 100
ISSUED MAY 1961

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IN STOCK AT LEADING ELECTRONIC PARTS DISTRIBUTORS

INDEX BY TYPE

TELEPHONE Relay	Page	PLATE CIR. & SENSITIVE Relay	Page	POWER Relay	Page	GEN. PURPOSE Relay	Page	SPE. PURPOSE Relay	Page	SPE. PURPOSE Relay	Page
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LT	1	LB	3	GF	4	GP Kit	5	KB	6	BS Cover	1
MB	2	LM	3	MR	4	KA	5	KM	7	MS/MR	
MC	2	PW	3	PM	4	KHP	5	KT	7	Cover	7
MG	2	RS	3	PR	4	KL	5	PC	7	"P" Case	6
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ML	2	SS	3			KRP-N	6	SA	7	Spring	6
								FL	8	PR Cover	4

ALPHABETICAL INDEX

Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page
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ABC	4	GF	4	KRP	6	MG	2	PR	4	SS	3
AP	6	GP	5	KRP-N	6	MH	2	PR			
BS	1	GP Kit	5	KT	7	ML	2	Cover	4	"P" Case	6
BS		KA	5	LB	3	MR	4	PW	3	Hold Down	
Cover	1	KB	6	LM	3	MS	7	RS	3	Spring	6
BU	6	KCP	3	LS	1	MS/MR		SA	7		
FL	8	KHP	5	LT	1	Cover	7	SC/SCG	8		
GA	5	KL	5	MB	2	PC	7	SL/SLG	8		

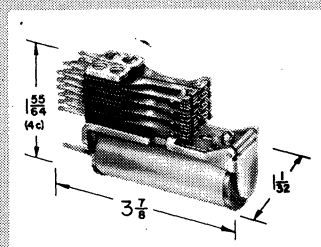
KEY TO SUFFIXES

SUFFIX	STANDS FOR	EXAMPLE	SUFFIX	STANDS FOR	EXAMPLE
A	— Alternating Current	BS17**A**	**N**	— Neon Light	KRP11**AN**
D	— Direct Current	BS17**D**	**P**	— Enclosed in Plastic Dust Cover	MG11**DP**
DD	— DC in a sealed "D" can	MH23**DD**	**R**	— With Built-in Rectifier	MH17AM**R**
G	— Silver Cad.-Oxide Contacts	KRP5A**G**	**S**	— Sealed in can	PW5**DS**, SM5**DS**
L	— Plate Circuit	SM5**L**	**T**	— Sealed in "T" can	MG11**DT**
M	— Sealed in "M" can	MH17**DM**	**Y**	— U/L Listed	AB11**AY**

See ordering information on page 7.

TELEPHONE TYPE RELAYS

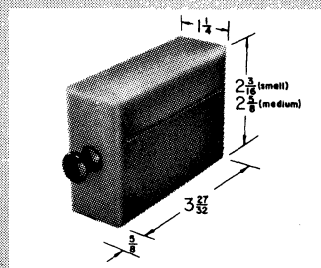
BS SERIES Long coil telephone type. Suited for computer and automatic test equipment applications requiring large numbers of poles. Tinned, pierced solder type terminals for rear panel wiring. Mounting: Two No. 8-32 NC 2B tapped holes on ¾" centers. Contacts arms: Bifurcated with 1/16" dia. twin palladium contacts. Weight: Approximately 9 ozs.



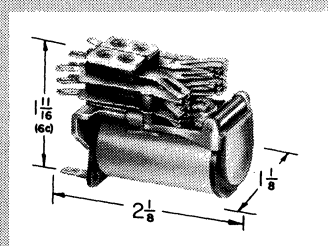
TYPE	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate in Amps	NET
BS17A	**115V**	**71**	**17.9VA**	**4PDT**	**4**	**$ 9.00**
BS17D	24V	1,000	576MW	4PDT	4	7.40
BS17D	48V	1,600	1.4W	4PDT	4	7.75
BS17D	110V	6,500	1.8W	4PDT	4	8.00
BS17L	5.5MA	10,000	300MW	4PDT	4	8.00
BS23A	115V	71	17.9VA	6PDT	4	10.50
BS23D	24V	1,000	576MW	6PDT	4	8.95
BS23D	48V	1,600	1.4W	6PDT	4	9.30
BS23D	110V	6,500	1.8W	6PDT	4	9.50
BS23L	7.6MA	10,000	600MW	6PDT	4	9.50

BS DUST COVER Built of sheet steel for protection against dust, dirt, mechanical damage. Also provides magnetic and electrostatic shielding. Cover can be removed for relay inspection. For BS series only. Two sizes: Small, will accept up to 6 form C (6PDT, BS23); medium, will accept up to 10 form C relay. Both sizes come complete with cover, knob attached, relay bracket, two screws and lockwashers. Weight: Small 6.5 ozs., medium 7 ozs.

35D188, Small NET $1.80
35D189, Medium NET $1.80

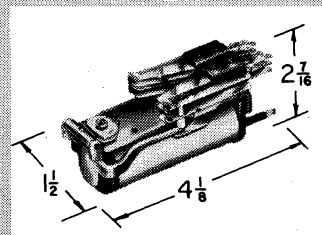


LS SERIES Short springs and light weight armature provide fast action without sacrificing reliability and long life. Stainless steel hinge bearing designed to give 100 million operations. Tinned, pierced solder type terminals. Mounting: Two No. 6-32 tapped holes on ¾" centers. Bifurcated contact arms with 1/16" dia. twin palladium contacts. Weight: Approximately 4 ozs.



LS17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	**5.60**
LS17D	48V	1,300	1.8W	4PDT	4	5.75
LS17D	110V	8,000	1.8W	4PDT	4	6.00
LS23D	24V	300	1.8W	6PDT	4	6.80
LS23D	48V	1,300	1.8W	6PDT	4	6.95
LS23D	110V	8,000	1.8W	6PDT	4	7.20

LT SERIES A fast acting, inherently reliable telephone type relay with a long coil. Armature has a full width hinge bearing capable of 50 million mechanical operations. Has single contact arms with 5/64" dia. palladium contacts rated at 3 amps. DC coils only. Mounting: Two 8-32 tapped holes on ¾" centers. Weight: 12 ozs., max.



LT17D	**24V**	**300**	**1.92**	**4PDT**	**3**	**6.40**
LT17D	48V	1,300	1.77	4PDT	3	6.75
LT17D	110V	11,300	1.07	4PDT	3	7.00
LT23D	24V	300	1.92	6PDT	3	7.75
LT23D	48V	1,300	1.77	6PDT	3	8.10
LT23D	110V	6,500	1.86	6PDT	3	8.35

POTTER & BRUMFIELD DIVISION OF AMERICAN MACHINE & FOUNDRY COMPANY
PRINCETON, INDIANA

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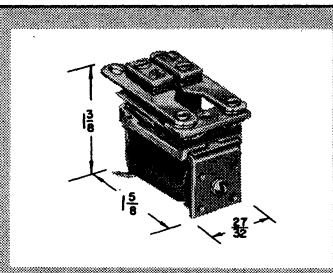
Potter & Brumfield Relays

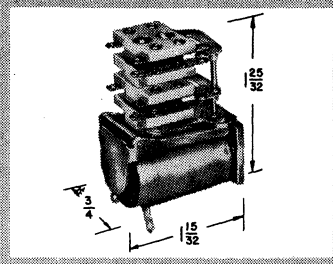
TELEPHONE TYPE RELAYS

MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, ¼" dia. silver contacts pierced solder terminals. Movable, ¼" x 1 3/16" silver bar contact. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Weight: 2 ozs.



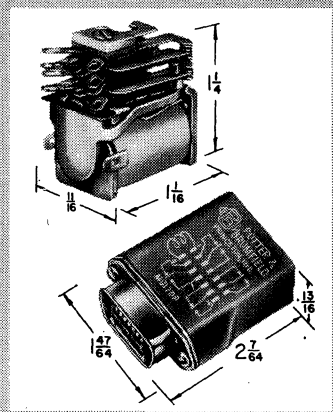
TYPE	COILS: Voltage or Current	COILS: Resistance in Ohms	COILS: Nominal Power	CONTACTS: Arrangement	CONTACTS: Rate in Amps	NET
MB3D	**6V**	**13.3**	**2.7W**	**SPST-NO-DB**	**60**	**$ 5.40**
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	5.50
MB3D	24V	245	2.7W	SPST-NO-DB	60	5.50
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	5.90

MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Contacts: 3/32" dia. palladium. Weight: 2 ozs.



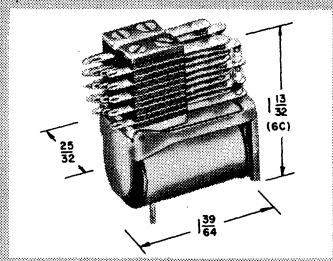
MC5A	**6V**	**2.5**	**4.6VA**	**SPDT**	**1**	**5.00**
MC5A	115V	800	4.6VA	SPDT	1	5.00
MC5D	6V	23	1.6W	SPDT	1	4.40
MC5D	12V	96	1.6W	SPDT	1	4.40
MC5D	24V	365	1.6W	SPDT	1	4.40
MC11A	6V	2.5	4.6VA	DPDT	1	6.90
MC11A	115V	800	4.6VA	DPDT	1	6.90
MC11D	6V	23	1.6W	DPDT	1	6.35
MC11D	12V	96	1.6W	DPDT	1	6.35
MC11D	24V	365	1.6W	DPDT	1	6.35
MC11D	110V	6,200	1.6W	DPDT	1	6.85

MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on ⅜" x ⅜" centers. Sealed model has three No. 4-40 threaded studs on 1" x ½" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.



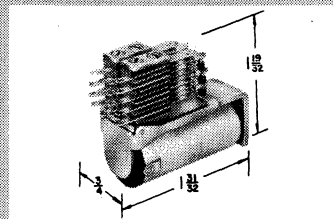
MG11D	**6V**	**23**	**1.6W**	**DPDT**	**2**	**5.20**
MG11D	12V	90	1.6W	DPDT	2	5.20
MG11D	24V	365	1.6W	DPDT	2	5.20
MG11D	110V	7,560	1.6W	DPDT	2	5.65
MG11DP§	24V	365	1.6W	DPDT	2	9.45
MG11DP§	110V	7,560	1.6W	DPDT	2	10.05
MG11DT†	24V	365	1.6W	DPDT	2	10.50
MG17D	6V	23	1.6W	4PDT	2	6.95
MG17D	12V	90	1.6W	4PDT	2	6.95
MG17D	24V	365	1.6W	4PDT	2	6.95
MG17D	110V	7,560	1.6W	4PDT	2	7.40
MG17DP§	6V	23	1.6W	4PDT	2	11.55
MG17DP§	12V	90	1.6W	4PDT	2	11.55
MG17DP§	24V	365	1.6W	4PDT	2	11.55
MG17DP§	110V	7,560	1.6W	4PDT	2	12.15
MG17DT†	24V	365	1.6W	4PDT	2	12.60
MG17DT†	110V	7,560	1.6W	4PDT	2	13.20

MH SERIES MINIATURE TYPE
Ideal for miniature program applications where space and weight are factors. Sealed AC MH17AMR operates with a built-in rectifier. Mounting: Open model, MH11L, one No. 6-32 threaded stud 11/32" long plus locating boss. All other open models have four No. 3-48 holes on ⅜" x ⅜" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1¼" x ½" centers. D enclosures, three 6-32 threaded studs on 1 3/16" x 15/16" centers. All sealed models have hook end solder terminals. All models have ⅛" dia. gold-flashed silver contacts. Weight: Open models 2½ oz. max. Sealed models 5 ozs. max.



MH11L	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	**5.45**
MH11LM†	4.5MA	10,000	200MW	DPDT	3	9.20
MH17AMR†	24V	365	2VA	4PDT	5	23.60
MH17AMR†	115V	6,200	2VA	4PDT	5	17.95
MH17D	6V	23	1.6W	4PDT	5	5.45
MH17D	12V	96	1.6W	4PDT	5	5.45
MH17D	24V	365	1.6W	4PDT	5	5.45
MH17DM†	6V	23	1.6W	4PDT	5	11.00
MH17DM†	12V	96	1.6W	4PDT	5	11.00
MH17DM†	24V	365	1.6W	4PDT	5	11.00
MH23D	6V	13.3	2.5W	6PDT	5	6.85
MH23D	12V	62.3	2.5W	6PDT	5	6.85
MH23D	24V	245	2.5W	6PDT	5	6.85
MH23D	110V	5,000	2.5W	6PDT	5	7.30
MH23DD†	6V	13.3	2.5W	6PDT	5	14.60
MH23DD†	12V	62.3	2.5W	6PDT	5	14.60
MH23DD†	24V	245	2.5W	6PDT	5	14.60
MH23DD†	110V	5,000	2.5W	6PDT	5	15.15

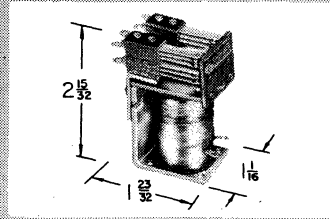
ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computor networks, telephone systems and battery powered communications equipment. Single contact arms have ⅛" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on ⅜" centers. Weight: 2.5 ozs.



ML11D	**4.0MA**	**2,500**	**40MW**	**DPDT**	**3**	**6.05**
ML11D	2.83MA	5,000	40MW	DPDT	3	6.20
ML11D	2.0MA	10,000	40MW	DPDT	3	6.50
ML17D	5.65MA	2,500	80MW	4PDT	3	7.20
ML17D	4.0MA	5,000	80MW	4PDT	3	7.35
ML17D	2.83MA	10,000	80MW	4PDT	3	7.65
ML23D	6.93MA	2,500	120MW	6PDT	3	8.15
ML23D	4.9MA	5,000	120MW	6PDT	3	8.30
ML23D	3.46MA	10,000	120MW	6PDT	3	8.60

PLATE CIRCUIT and SENSITIVE RELAYS

GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in is not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



GB5D	**6.8MA**	**2,500**	**115MW**	**SPDT**	**5**	**3.45**
GB5D	4.8MA	5,000	115MW	SPDT	5	3.60
GB5D	3.4MA	10,000	115MW	SPDT	5	4.10
GB11D	7MA	2,500	125MW	DPDT	5	4.85
GB11D	5MA	5,000	125MW	DPDT	5	4.95
GB11D	3.53MA	10,000	125MW	DPDT	5	5.50
GB17D	10.5MA	2,500	275MW	4PDT	5	5.80
GB17D	7.4MA	5,000	275MW	4PDT	5	5.95
GB17D	5.25MA	10,000	275MW	4PDT	5	6.40

†Sealed Relay
§Enclosed Relay

See ordering information on Potter & Brumfield page 7

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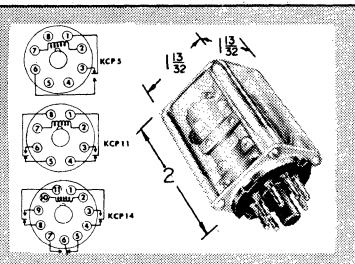
Potter & Brumfield Relays

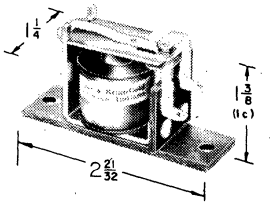
PLATE CIRCUIT and SENSITIVE RELAYS

KCP SERIES Low cost plate circuit relay enclosed in clear cellulose acetate cover. Sensitivity 125 mw single pole; 250 mw double pole; 375 mw three pole. Mounting: Standard octal plug-in type. Eight pin for KCP5 and KCP11. Eleven pin for KCP14. Contacts: ⅛" dia. gold-flashed silver. Weight: Approximately 3 ozs. See KCP-KRP hold down spring when vibration, inverted or horizontal mounting are factors.



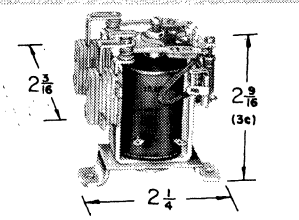
TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5§	**7.2MA**	**2,500**	**125MW**	**SPDT**	**2**	**$ 5.90**
KCP5§	5MA	5,000	125MW	SPDT	2	6.00
KCP5§	3.6MA	10,000	125MW	SPDT	2	6.40
KCP11§	10MA	2,500	250MW	DPDT	2	6.30
KCP11§	7.2MA	5,000	250MW	DPDT	2	6.40
KCP11§	5MA	10,000	250MW	DPDT	2	6.80
KCP14§	12.3MA	2,500	375MW	3PDT	2	7.75
KCP14§	8.7MA	5,000	375MW	3PDT	2	7.85
KCP14§	6.1MA	10,000	375MW	3PDT	2	8.25

LB SERIES Designed for top performance, long life at an unusually low cost. Each coil is wound with a given coil resistance and factory adjusted to operate on minimum current requirements. Mounting: Two 3/16" dia. holes on 2 7/32" centers. Contacts: ⅛" dia. silver. Weight: Approximately 2 ozs.



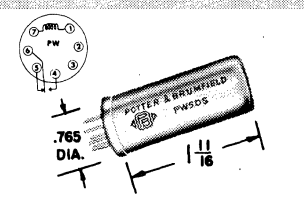
LB5	**9MA**	**2,500**	**200MW**	**SPDT**	**5**	**2.45**
LB5	6.3MA	5,000	200MW	SPDT	5	2.65
LB5	4.5MA	10,000	200MW	SPDT	5	2.85

LM SERIES (See KL for similar voltage actuated relays.) Sensitivity 100 milliwatts for single pole and 200 milliwatts for double pole. Medium cost, high quality relay with 7/32" dia. silver contacts. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 tapped holes on 1 13/16" centers. Weight: Approximately 5 ozs. DC Coils only.



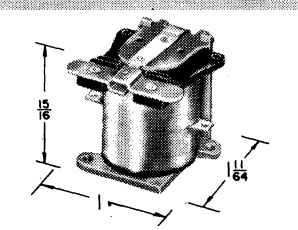
LM5	**6.3MA**	**2,500**	**100MW**	**SPDT**	**5**	**3.90**
LM5	4.5MA	5,000	100MW	SPDT	5	4.10
LM5	3.2MA	10,000	100MW	SPDT	5	4.40
LM11	9MA	2,500	200MW	DPDT	5	5.55
LM11	6.3MA	5,000	200MW	DPDT	5	5.75
LM11	4.5MA	10,000	200MW	DPDT	5	6.30

PW SERIES (In both voltage and current actuated models.) Sensitivity 40 mw for current actuated models. 180 mw for voltage actuated models. Precision, light weight, hermeticaly sealed relay for aircraft and missile applications. Will withstand 10G vibration to 500 cps. Mounting: Standard 7-pin miniature tube base. Weight: Approx. 1 oz.



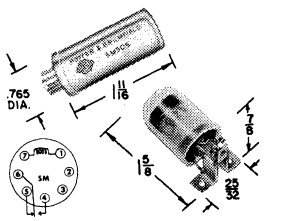
PW5DS†	**6V**	**202**	**180MW**	**SPDT**	**2**	**10.25**
PW5DS†	12V	810	180MW	SPDT	2	10.25
PW5DS†	24V	3,240	180MW	SPDT	2	10.25
PW5LS†	2.8MA	5,000	40MW	SPDT	2	10.60
PW5LS†	2.0MA	10,000	40MW	SPDT	2	11.00

RS SERIES (In both voltage and current actuated models.) 60 mw. sensitivity. Low-cost, small, light weight, sensitive relay for radio-sonde, light dimmer and model applications. Mounting: Two No. 4-40 tapped holes on diagonal ¾" x 5/8" centers. Contacts: Bar palladium. Weight: 1½ ozs.



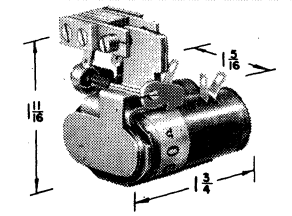
RS5D	**6V**	**335**	**110MW**	**SPDT**	**2**	**2.60**
RS5D	12V	1,350	110MW	SPDT	2	2.75
RS5D	5MA	2,500	60MW	SPDT	2	2.85
RS5D	3.5MA	5,000	60MW	SPDT	2	3.15
RS5D	2.5MA	10,000	60MW	SPDT	2	3.60

SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads found in computers, model airplanes and similar applications. Extremely long mechanical life because of reed armature. Mounting: Sealed, standard 7-pin miniature tube socket; dust cover, two 3/32" dia. holes on 17/32" centers. Contacts: Stationary silver; movable rhodium. Weight: 1 oz. max.



SM5D§	**6V**	**80**	**500MW**	**SPDT**	**.25**	**5.10**
SM5D§	12V	360	500MW	SPDT	.25	5.10
SM5D§	24V	900	500MW	SPDT	.25	5.10
SM5DS†	6V	80	500MW	SPDT	.25	6.25
SM5DS†	12V	360	500MW	SPDT	.25	6.25
SM5DS†	24V	900	500MW	SPDT	.25	6.25
SM5L§	3.9MA	5,000	75MW	SPDT	.25	5.40
SM5L§	2.7MA	10,000	75MW	SPDT	.25	5.95
SM5LS†	3.9MA	5,000	75MW	SPDT	.25	6.55
SM5LS†	2.7MA	10,000	75MW	SPDT	.25	7.00

SS SERIES Ultra sensitive precision relay. 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point bearings for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting the two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on 23/32" centers. Contacts: ⅛" dia. silver. Weight: Approx. 3½ ozs.



SS5D	**1MA**	**10,000**	**10A W**	**SPDT**	**2**	**12.60**

†Sealed Relay
§Enclosed Relay

See ordering information on Potter & Brumfield page 7

Net

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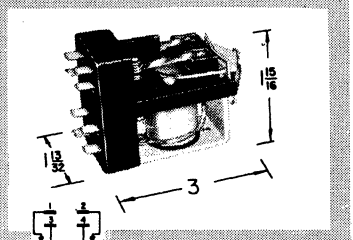
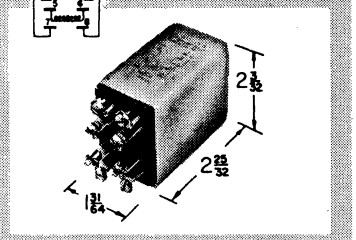
Potter & Brumfield Relays

POWER TYPE RELAYS

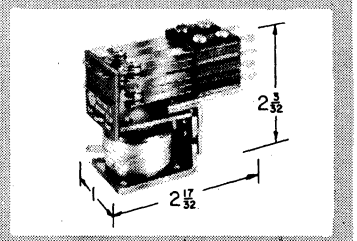
AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA° labels. Mounting: Two No. 8-32 tapped holes, on 1¼" centers. Weight: Approx. 5 ozs. Silver contacts.



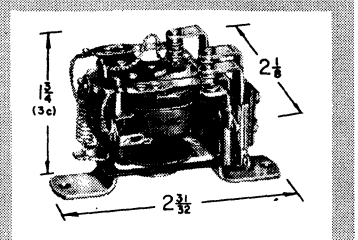
ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA° labels. Mounting: One No. 8-32 threaded stud ⅜" long and locating tab on 9/16" centers. Contacts: ¼" dia. silver. Weight: Approx. 7 ozs.



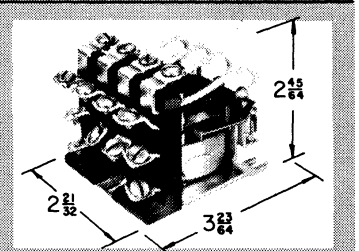
GF SERIES Medium duty power relay for industrial control applications. Long contact arms have ¼" dia. silver contacts rated at 15 amps at 115V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)



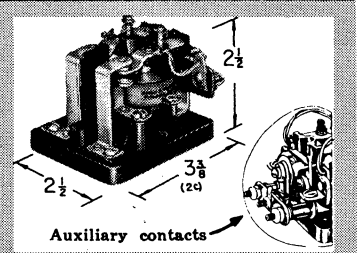
MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two 5/32" dia. holes on 2¼" centers for MR3 and 11, 2⅝" centers for MR2, 5 and 14. Contacts: 7/32" dia. silver. Weight: 4 ozs. Enclosure: See MS/MR dust cover.



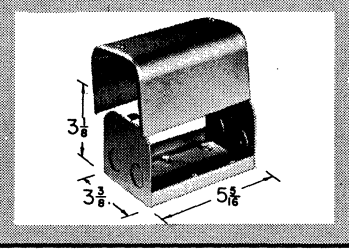
PM SERIES A compact, heavy-duty 4PDT power relay designed for long life and dependability in polyphase and heavy-duty switching applications. Screw type terminals staked to phenolic front section. Has ¼" dia. silver-cadmium-oxide contacts rated at 16 amps at 115V., 8 amps at 220 volts 50/60 cycle resistive AC, 1 HP per movable arm at 115 or 220V AC single phase. Life at rated load: 100,000 cycles. Meets U/L creepage and spacing requirements for motor controllers of 1 HP, or less. Mounts by one front key-hole and two rear channel slots for 8-32 screws on 2" x 2½" triangular centers. Weight: 14 ozs.



PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC models except PR11AL5 carry U/L and CSA° labels. Mounting: Two 3/16" dia. holes on 1⅞" centers. Weight: 11 ozs. max. Contacts: 5/16" dia. silver. Enclosure: See "PR" cover. The PR11AL5 relay is equipped with 3/16" dia. silver SPDT auxiliary contacts rated at 5 amps.



PR DUST COVER This dust cover has a sheet steel base with knockouts for ½" dia. conduit and an aluminum cover fitted with two screws. The cover fits tightly in place to provide maximum protection against dust, dirt and other foreign matter. Cover can be easily removed for relay maintenance. Fits all PR relays. Finished in gray baked enamel. Mounting: Three No. 10 holes on 1⅞" x 4⅛" centers. Weight: 1 lb.
35D013 NET $3.00



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
AB11AY	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**$5.30**
AB11AY	24V	23	6.4VA	DPDT	10	5.30
AB11AY	115V	510	6.4VA	DPDT	10	5.30
AB11AY	230V	2,050	6.4VA	DPDT	10	5.70
AB11D	12V	72	2.0W	DPDT	10	5.20
AB11D	24V	288	2.0W	DPDT	10	5.20
AB11D	110V	6,050	2.0W	DPDT	10	5.70
ABC11AY§	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**6.40**
ABC11AY§	24V	23	6.4VA	DPDT	10	6.40
ABC11AY§	115V	510	6.4VA	DPDT	10	6.40
ABC11AY§	230V	2,050	6.4VA	DPDT	10	6.80
ABC11D§	6V	18	2.0W	DPDT	10	6.30
ABC11D§	12V	72	2.0W	DPDT	10	6.30
ABC11D§	24V	288	2.0W	DPDT	10	6.30
ABC11D§	110V	6,050	2.0W	DPDT	10	6.80
GF5A	**6V**	**1.7**	**3.25VA**	**SPDT**	**15**	**3.40**
GF5A	12V	6.8	3.25VA	SPDT	15	3.40
GF5A	24V	24	3.25VA	SPDT	15	3.40
GF5A	115V	725	3.25VA	SPDT	15	3.40
GF11A	6V	1.7	3.25VA	DPDT	15	4.25
GF11A	12V	6.8	3.25VA	DPDT	15	4.25
GF11A	24V	24	3.25VA	DPDT	15	4.25
GF11A	115V	725	3.25VA	DPDT	15	4.25
GF17A	6V	1.7	3.25VA	4PDT	15	6.65
GF17A	12V	6.8	3.25VA	4PDT	15	6.65
GF17A	24V	24	3.25VA	4PDT	15	6.65
GF17A	115V	725	3.25VA	4PDT	15	6.65
GF17A	230V	2,950	3.25VA	4PDT	15	7.05
GF5D	6V	18	1.6W	SPDT	15	3.40
GF5D	12V	72	1.6W	SPDT	15	3.40
GF5D	24V	288	1.6W	SPDT	15	3.40
GF5D	110V	6,050	1.6W	SPDT	15	3.85
GF11D	6V	18	1.6W	DPDT	15	4.25
GF11D	12V	72	1.6W	DPDT	15	4.25
GF11D	24V	288	1.6W	DPDT	15	4.25
GF11D	110V	6,050	1.6W	DPDT	15	4.70
GF17D	6V	18	1.6W	4PDT	15	6.65
GF17D	12V	72	1.6W	4PDT	15	6.65
GF17D	24V	288	1.6W	4PDT	15	6.65
GF17D	110V	6,050	1.6W	4PDT	15	7.10
MR2A	**24V**	**50**	**3.25VA**	**SPST-NC**	**8**	**3.30**
MR3A	6V	2.75	3.25VA	SPST-NO-DB	10	3.85
MR3A	24V	50	3.25VA	SPST-NO-DB	10	3.85
MR3A	115V	1,250	3.25VA	SPST-NO-DB	10	3.85
MR3D	6V	24	1.6W	SPST-NO-DB	10	3.50
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.50
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.50
MR5A	6V	2.75	3.25VA	SPDT	8	3.45
MR5A	12V	13.25	3.25VA	SPDT	8	3.45
MR5A	24V	50	3.25VA	SPDT	8	3.45
MR5A	115V	1,250	3.25VA	SPDT	8	3.45
MR5A	230V	4,600	3.25VA	SPDT	8	3.85
MR5D	6V	24	1.6W	SPDT	8	3.20
MR5D	12V	96	1.6W	SPDT	8	3.20
MR5D	24V	360	1.6W	SPDT	8	3.20
MR5D	110V	8,000	1.6W	SPDT	8	3.70
MR11A	6V	2.75	3.25VA	DPDT	8	4.85
MR11A	12V	13.25	3.25VA	DPDT	8	4.85
MR11A	24V	50	3.25VA	DPDT	8	4.85
MR11A	115V	1,250	3.25VA	DPDT	8	4.85
MR11A	230V	4,600	3.25VA	DPDT	8	5.25
MR11D	6V	24	1.6W	DPDT	8	4.60
MR11D	12V	96	1.6W	DPDT	8	4.60
MR11D	24V	360	1.6W	DPDT	8	4.60
MR11D	110V	8,000	1.6W	DPDT	8	5.10
MR14A	6V	2.75	3.25VA	3PDT	8	5.80
MR14A	12V	13.25	3.25VA	3PDT	8	5.80
MR14A	24V	50	3.25VA	3PDT	8	5.80
MR14A	115V	1,250	3.25VA	3PDT	8	5.80
MR14A	230V	4,600	3.25VA	3PDT	8	6.20
MR14D	6V	24	1.6W	3PDT	8	5.45
MR14D	12V	96	1.6W	3PDT	8	5.45
MR14D	24V	360	1.6W	3PDT	8	5.45
MR14D	110V	8,000	1.6W	3PDT	8	5.95
PM17A	**6V**	**423**	**14**	**4PDT**	**16**	**12.35**
PM17A	12V	1.6	14	4PDT	16	12.35
PM17A	24V	6.3	14	4PDT	16	12.35
PM17A	115V	120	14	4PDT	16	12.35
PM17A	230V	587	14	4PDT	16	12.75
PR1AY	**24V**	**12**	**9.8VA**	**SPST-NO**	**25**	**4.05**
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.15
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.15
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.15
PR3AY	115V	290	9.8VA	SPST-NO-DB	25	4.15
PR3AY	230V	1,200	9.8VA	SPST-NO-DB	25	4.50
PR3D	6V	18	2.0W	SPST-NO-DB	25	4.15
PR3D	12V	71	2.0W	SPST-NO-DB	25	4.15
PR3D	24V	288	2.0W	SPST-NO-DB	25	4.15
PR3D	110V	6,050	2.0W	SPST-NO-DB	25	4.75
PR5AY	6V	0.86	9.8VA	SPDT	25	4.35
PR5AY	12V	3.2	9.8VA	SPDT	25	4.35
PR5AY	24V	12	9.8VA	SPDT	25	4.35
PR5AY	115V	290	9.8VA	SPDT	25	4.35
PR5AY	230V	1,200	9.8VA	SPDT	25	4.75
PR5D	6V	18	2.0W	SPDT	25	4.35
PR5D	12V	71	2.0W	SPDT	25	4.35
PR5D	24V	288	2.0W	SPDT	25	4.35
PR5D	110V	6,050	2.0W	SPDT	25	4.95
PR7AY	6V	0.86	9.8VA	DPST	25	4.90
PR7AY	12V	3.2	9.8VA	DPST	25	4.90
PR7AY	24V	12	9.8VA	DPST	25	4.90
PR7AY	115V	290	9.8VA	DPST	25	4.90
PR7AY	230V	1,200	9.8VA	DPST	25	5.35
PR7D	6V	18	2.0W	DPST	25	4.90
PR7D	12V	71	2.0W	DPST	25	4.90
PR7D	24V	288	2.0W	DPST	25	4.90
PR7D	110V	6,050	2.0W	DPST	25	5.50
PR11AY	6V	0.86	9.8VA	DPDT	25	6.45
PR11AY	12V	3.2	9.8VA	DPDT	25	6.45
PR11AY	24V	12	9.8VA	DPDT	25	6.45
PR11AY	115V	290	9.8VA	DPDT	25	6.45
PR11AY	230V	1,200	9.8VA	DPDT	25	6.95
PR11AL5	6V	0.86	9.8VA	DPDT	20	8.15
PR11AL5	12V	3.2	9.8VA	DPDT	20	8.15
PR11AL5	24V	12	9.8VA	DPDT	20	8.15
PR11AL5	115V	290	9.8VA	DPDT	20	8.15
PR11AL5	230V	1,200	9.8VA	DPDT	20	8.55
PR11D	6V	18	2.0W	DPDT	25	6.45
PR11D	12V	71	2.0W	DPDT	25	6.45
PR11D	24V	288	2.0W	DPDT	25	6.45
PR11D	110V	6,050	2.0W	DPDT	25	7.05

°Canadian Standards Association

§Enclosed Relay

Potter & Brumfield Page 4

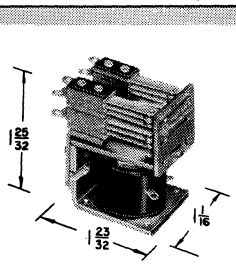
See ordering information on Potter & Brumfield page 7

Potter & Brumfield Relays

GENERAL PURPOSE RELAYS

GA SERIES Low cost, all purpose, multiple contact, voltage switching relay. Used for many industrial control applications. Tinned, pierced solder type terminals. Contacts: 3/16" dia. silver, designed for maximum self-cleaning action. Mounting: No. 8-32 tapped core with locating boss. Weight: 3½ ozs.

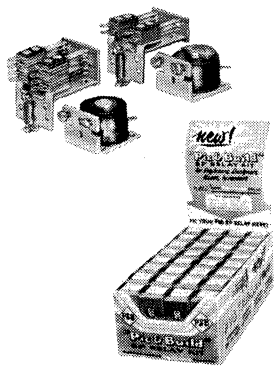
See GF series for similar voltage actuated relays.



GP SERIES Separate AC and DC coils to match with 2PDT or 4PDT switches. AC coils (GPA) available in 6, 12, 24, 115 and 230 volts. DC coils (GPD) available in 6, 12, 24 and 110 volts; current coils: 2,500, 5,000 and 10,000 ohms. Contacts: 3/16" dia. silver.

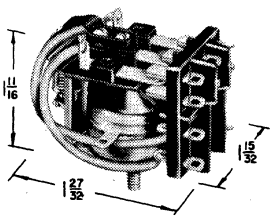
GP-100 A complete kit of GP Series coils and switches consisting of the following: AC coils: Two 6 V., two 12 V., four 24 V., six 115 V., two 230 V. DC coils: Two 6 V., two 12 V., two 24 V., four 110 V. Also two 2,500 and four 10,000 ohm coils; eighteen DPDT switch assemblies. Fourteen 4PDT switch assemblies. The complete kit is ideal for experimenters, school and industrial laboratories.

NET $133.65



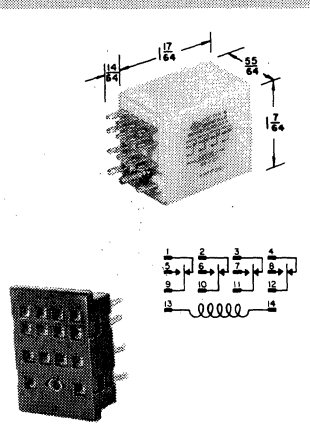
KA SERIES A small, low cost, highly efficient general purpose relay for handling light power loads such as small motors, solenoids and other relays, and general automation work. All AC models carry U/L labels. Mounting: One No. 6-32 threaded stud and locating tab. Contacts: Movable, 1/8" dia. gold-flashed silver; stationary, 5/32" dia. wide silver overlay. Weight 2 ozs.

"G" suffix indicates silver-cadmium-oxide contacts on movables rated 10 amps.

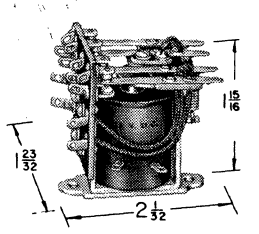


KHP SERIES Small, rugged, 4PDT relay designed to meet the exacting requirements of data processing, computer and process control applications. All have a nylon dust cover. 3/32" dia. silver contacts are rated at 3 amps at 30V DC or 115V AC resistive for 100,000 operations. Mounting: Solder terminals with a 3-48 stud 2 3/16" long. Can be adapted to sockets below for plug-in or printed circuit applications. Weight: 2¼ ozs.

9KH1 Box of 10 solder terminal sockets and retainers.
9KH2 Box of 10 printed circuit terminal sockets
Weight per box: 4 ozs.
Net per box (either type) $6.00



KL SERIES Multiple contact relay. Varied contact combinations and high dielectric phenolic insulation affords extreme versatility and utility. Widely used in such applications as industrial controls, elevator controls, communications equipment and electronic measuring devices. Mounting: All models—Two No. 6-32 tapped holes on 1 7/16" centers. Contacts: 1/8" dia. gold-flashed silver. Weight: 5 ozs.



TYPE	COILS: Voltage or Current	COILS: Resistance in Ohms	COILS: Nominal Power	CONTACTS: Arrangement	CONTACTS: Rate in Amps	NET
GA11A	**6V**	**1.7**	**6VA**	**DPDT**	**5**	**$ 3.35**
GA11A	12V	6.8	6VA	DPDT	5	3.35
GA11A	24V	24	6VA	DPDT	5	3.35
GA11A	115V	725	6VA	DPDT	5	3.35
GA11D	6V	18	2.0W	DPDT	5	3.35
GA11D	12V	72	2.0W	DPDT	5	3.35
GA11D	24V	288	2.0W	DPDT	5	3.35
GA11D	110V	6,050	2.0W	DPDT	5	3.80
GA14A	6V	1.7	6VA	3PDT	5	4.05
GA14A	12V	6.8	6VA	3PDT	5	4.05
GA14A	24V	24	6VA	3PDT	5	4.05
GA14A	115V	725	6VA	3PDT	5	4.05
GA14D	12V	72	2.0W	3PDT	5	4.05
GA14D	24V	288	2.0W	3PDT	5	4.05
GA17A	6V	1.7	6VA	4PDT	5	4.85
GA17A	12V	6.8	6VA	4PDT	5	4.85
GA17A	24V	24	6VA	4PDT	5	4.85
GA17A	115V	725	6VA	4PDT	5	4.85
GA17A	230V	2,950	6VA	4PDT	5	5.25
GA17D	6V	18	2.0W	4PDT	5	4.85
GA17D	12V	72	2.0W	4PDT	5	4.85
GA17D	24V	288	2.0W	4PDT	5	4.85
GA17D	110V	6,050	2.0W	4PDT	5	5.30
GPA	**6V**	**1.7**	**6VA**	**None**	**-**	**1.65**
GPA	12V	6.8	6VA	None	-	1.65
GPA	24V	24	6VA	None	-	1.65
GPA	115V	725	6VA	None	-	1.65
GPA	230V	2,950	6VA	None	-	2.10
GPD	**—**	**2,500**	**—**	**None**	**-**	**1.50**
GPD	—	5,000	—	None	-	1.75
GPD	—	10,000	—	None	-	2.10
GPD	6V	18	2.0W	None	-	2.10
GPD	12V	72	2.0W	None	-	2.10
GPD	24V	288	2.0W	None	-	2.10
GPD	110V	6,050	2.0W	None	-	3.15
GP11		**Switch Assembly**		**DPDT**	**5**	**1.70**
GP17		Switch Assembly		4PDT	5	2.95
KA5AY	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**3.20**
KA5AY	12V	21	2VA	SPDT	5	3.20
KA5AY	24V	75	2VA	SPDT	5	3.20
KA5AY	115V	2,250	2VA	SPDT	5	3.20
KA5AY	230V	9,110	2VA	SPDT	5	3.60
KA5AG	6V	5.1	2VA	SPDT	10	3.25
KA5AG	12V	21	2VA	SPDT	10	3.25
KA5AG	24V	75	2VA	SPDT	10	3.25
KA5AG	115V	2,250	2VA	SPDT	10	3.25
KA5AG	230V	9,110	2VA	SPDT	10	3.65
KA5D	6V	32.1	1.2W	SPDT	5	3.05
KA5D	12V	120	1.2W	SPDT	5	3.05
KA5D	24V	472	1.2W	SPDT	5	3.05
KA5D	110V	10,000	1.2W	SPDT	5	3.65
KA11AY	6V	5.1	2VA	DPDT	5	3.85
KA11AY	12V	21	2VA	DPDT	5	3.85
KA11AY	24V	75	2VA	DPDT	5	3.85
KA11AY	115V	2,250	2VA	DPDT	5	3.85
KA11AY	230V	9,110	2VA	DPDT	5	4.25
KA11AG	6V	5.1	2VA	DPDT	10	3.95
KA11AG	12V	21	2VA	DPDT	10	3.95
KA11AG	24V	75	2VA	DPDT	10	3.95
KA11AG	115V	2,250	2VA	DPDT	10	3.95
KA11AG	230V	9,110	2VA	DPDT	10	4.35
KA11D	6V	32.1	1.2W	DPDT	5	3.40
KA11D	12V	120	1.2W	DPDT	5	3.40
KA11D	24V	472	1.2W	DPDT	5	3.40
KA11D	110V	10,000	1.2W	DPDT	5	4.00
KA14AY	6V	5.1	2VA	3PDT	5	4.25
KA14AY	12V	21	2VA	3PDT	5	4.25
KA14AY	24V	75	2VA	3PDT	5	4.25
KA14AY	115V	2,250	2VA	3PDT	5	4.25
KA14AY	230V	9,110	2VA	3PDT	5	4.65
KA14AG	6V	5.1	2VA	3PDT	10	4.40
KA14AG	12V	21	2VA	3PDT	10	4.40
KA14AG	24V	75	2VA	3PDT	10	4.40
KA14AG	115V	2,250	2VA	3PDT	10	4.40
KA14AG	230V	9,110	2VA	3PDT	10	4.80
KA14D	6V	32.1	1.2W	3PDT	5	3.85
KA14D	12V	120	1.2W	3PDT	5	3.85
KA14D	24V	472	1.2W	3PDT	5	3.85
KA14D	110V	10,000	1.2W	3PDT	5	4.45
KHP17D11	**6V**	**40**	**900MW**	**4PDT**	**3**	**4.80**
KHP17D11	12V	160	900MW	4PDT	3	4.80
KHP17D11	24V	650	900MW	4PDT	3	4.80
KHP17D11	48V	2,600	900MW	4PDT	3	5.00
KHP17D11	90V	9,000	900MW	4PDT	3	5.60
KHP17D11	110V	11,000	900MW	4PDT	3	5.60
KL5A	**6V**	**2.25**	**2.9VA**	**SPDT**	**5**	**3.85**
KL5A	115V	760	2.9VA	SPDT	5	3.85
KL5D	6V	36	1.1W	SPDT	5	3.60
KL5D	12V	140	1.1W	SPDT	5	3.60
KL5D	24V	600	1.1W	SPDT	5	3.60
KL11A	6V	2.25	2.9VA	DPDT	5	4.80
KL11A	12V	7.8	2.9VA	DPDT	5	4.80
KL11A	24V	33	2.9VA	DPDT	5	4.80
KL11A	115V	760	2.9VA	DPDT	5	4.80
KL11D	6V	36	1.1W	DPDT	5	4.60
KL11D	12V	140	1.1W	DPDT	5	4.60
KL14A	6V	2.25	2.9VA	3PDT	5	5.35
KL14A	24V	33	2.9VA	3PDT	5	5.35
KL14A	115V	760	2.9VA	3PDT	5	5.35
KL14D	6V	36	1.1W	3PDT	5	5.15
KL14D	24V	600	1.1W	3PDT	5	5.15
KL14D	110V	10,000	1.1W	3PDT	5	5.75
KL17A	6V	2.25	2.9VA	4PDT	5	6.30
KL17A	24V	33	2.9VA	4PDT	5	6.30
KL17A	115V	760	2.9VA	4PDT	5	6.30
KL17D	6V	36	1.1W	4PDT	5	6.00
KL17D	12V	140	1.1W	4PDT	5	6.00
KL17D	24V	600	1.1W	4PDT	5	6.00
KL17D	110V	10,000	1.1W	4PDT	5	6.60

*Canadian Standards Association

See ordering information on Potter & Brumfield page 7

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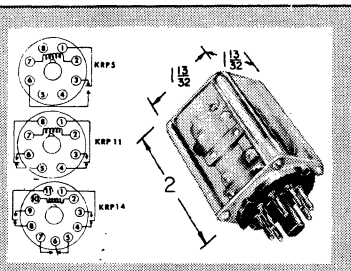
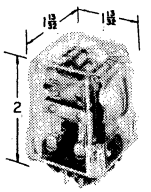
Potter & Brumfield Relays

KRP SERIES Versatile, multi-contact arrangement. Enclosed in a clear cellulose acetate dust cover. Standard 8-pin octal-type plug for KRP5 and KRP11, 11-pin for KRP14. Weight: Approx. 3 ozs. Contacts: 5 amp, 3/16" dia. gold-flashed silver. 10 amp 3/16" dia. silver cadmium-oxide. See KCP-KRP hold down spring for special mounting applications. See KRP indicator lamp relay for current monitoring applications.

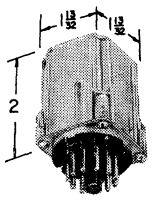


KRP-N INDICATOR LAMP RELAY A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 3/16" dia. silver cadmium-oxide. Enclosure: Clear cellulose acetate dust cover. Mounting: Standard octal plug. Weight: Approx. 3 ozs. See KCP-KRP Hold Down Spring for special mountings.



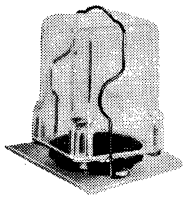
"P"— CASE A clear cellulose acetate case for mounting rectifiers, capacitors, resistors or a combination of these. Available with octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. each. See KCP-KRP Hold Down Spring for special mounting applications.

35DO70 Case (8-pin plug) NET $.55
35DO72 Case (11-pin plug) NET $.70

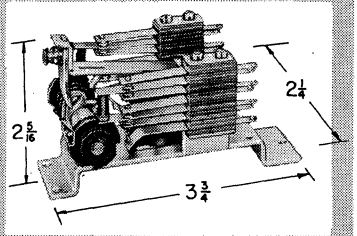


KCP-KRP HOLD DOWN SPRING
Designed to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be moved aside for relay removal or installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers; will accommodate machine screws or rivets. Available in quantities of 50 per box. Weight: 3 ozs. per box.

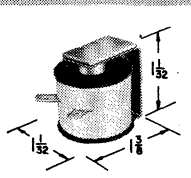
9-KR-15 NET $5.00



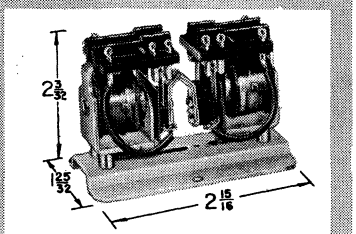
AP SERIES RATCHET, IMPULSE
A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three 5/32" dia. holes on 3 3/8" x 7/8" triangular centers. Contacts: 3/16" dia. silver. Weight: 7 ozs.



BU BUZZER AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1 5/8 ozs. Mounting: No. 6-32 tapped core.



KB SERIES LATCHING RELAY
Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two 5/32" dia. holes on 1 3/8" centers. Weight: 6 ozs. Contacts: 1/8" dia. silver rated 5 amps; "G" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. contacts carry U/L and CSA° labels.



GENERAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KRP5A§	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**$ 5.45**
KRP5A§	24V	75	2VA	SPDT	5	5.45
KRP5A§	115V	2,250	2VA	SPDT	5	5.45
KRP5AG§	6V	5.1	2VA	SPDT	10	5.55
KRP5AG§	24V	75	2VA	SPDT	10	5.55
KRP5AG§	115V	2,250	2VA	SPDT	10	5.55
KRP5D§	6V	32.1	1.2W	SPDT	5	5.40
KRP5D§	12V	120	1.2W	SPDT	5	5.40
KRP5D§	24V	472	1.2W	SPDT	5	5.40
KRP5D§	110V	10,000	1.2W	SPDT	5	6.00
KRP5DG§	6V	32.1	1.2W	SPDT	10	5.50
KRP5DG§	12V	120	1.2W	SPDT	10	5.50
KRP5DG§	24V	472	1.2W	SPDT	10	5.50
KRP5DG§	110V	10,000	1.2W	SPDT	10	6.10
KRP11A§	6V	5.1	2VA	DPDT	5	6.05
KRP11A§	12V	21	2VA	DPDT	5	6.05
KRP11A§	24V	75	2VA	DPDT	5	6.05
KRP11A§	115V	2,250	2VA	DPDT	5	6.05
KRP11A§	230V	9,110	2VA	DPDT	5	6.45
KRP11AG§	6V	5.1	2VA	DPDT	10	6.25
KRP11AG§	12V	21	2VA	DPDT	10	6.25
KRP11AG§	24V	75	2VA	DPDT	10	6.25
KRP11AG§	115V	2,250	2VA	DPDT	10	6.25
KRP11AG§	230V	9,100	2VA	DPDT	10	6.65
KRP11AN	**6V**	**5.1**	**2VA**	**DPDT**	**10**	**7.15**
KRP11AN	12V	21	2VA	DPDT	10	7.15
KRP11AN	24V	75	2VA	DPDT	10	7.15
KRP11AN	115V	2,250	2VA	DPDT	10	7.15
KRP11AN	230V	9,110	2VA	DPDT	10	7.55
KRP11DN	6V	32.1	1.2W	DPDT	10	7.10
KRP11DN	12V	120	1.2W	DPDT	10	7.10
KRP11DN	24V	472	1.2W	DPDT	10	7.10
KRP11DN	110V	10,000	1.2W	DPDT	10	7.70
KRP11D§	6V	32.1	1.2W	DPDT	5	6.00
KRP11D§	12V	120	1.2W	DPDT	5	6.00
KRP11D§	24V	472	1.2W	DPDT	5	6.00
KRP11D§	110V	10,000	1.2W	DPDT	5	6.60
KRP11DG§	6V	32.1	1.2W	DPDT	10	6.20
KRP11DG§	12V	120	1.2W	DPDT	10	6.20
KRP11DG§	24V	472	1.2W	DPDT	10	6.20
KRP11DG§	110V	10,000	1.2W	DPDT	10	6.80
KRP14A§	6V	5.1	2VA	3PDT	5	7.50
KRP14A§	12V	21	2VA	3PDT	5	7.50
KRP14A§	24V	75	2VA	3PDT	5	7.50
KRP14A§	115V	2,250	2VA	3PDT	5	7.50
KRP14A§	230V	9,110	2VA	3PDT	5	7.90
KRP14AG§	6V	5.1	2VA	3PDT	10	7.80
KRP14AG§	12V	21	2VA	3PDT	10	7.80
KRP14AG§	24V	75	2VA	3PDT	10	7.80
KRP14AG§	115V	2,250	2VA	3PDT	10	7.80
KRP14AG§	230V	9,100	2VA	3PDT	10	8.20
KRP14D§	6V	32.1	1.2W	3PDT	5	7.45
KRP14D§	12V	120	1.2W	3PDT	5	7.45
KRP14D§	24V	472	1.2W	3PDT	5	7.45
KRP14D§	110V	10,000	1.2W	3PDT	5	8.05
KRP14DG§	6V	32.1	1.2W	3PDT	10	7.75
KRP14DG§	12V	120	1.2W	3PDT	10	7.75
KRP14DG§	24V	472	1.2W	3PDT	10	7.75
KRP14DG§	110V	10,000	1.2W	3PDT	10	8.35

SPECIAL PURPOSE RELAYS

AP11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**5**	**8.70**
AP11A	12V	2.28	18.5VA	DPDT	5	8.70
AP11A	24V	8.8	18.5VA	DPDT	5	8.70
AP11A	115V	240	18.5VA	DPDT	5	8.70
AP11A	230V	900	18.5VA	DPDT	5	9.15
AP11D	6V	4.0	9.0W	DPDT	5	8.70
AP11D	24V	65	9.0W	DPDT	5	8.70
AP11D	110V	1,350	9.0W	DPDT	5	9.35
AP17A	6V	0.6	18.5VA	4PDT	5	10.50
AP17A	24V	8.8	18.5VA	4PDT	5	10.50
AP17A	115V	240	18.5VA	4PDT	5	10.50
AP17A	230V	900	18.5VA	4PDT	5	10.95
AP17D	6V	4.0	9.0W	4PDT	5	10.50
AP17D	12V	15.5	9.0W	4PDT	5	10.50
AP17D	24V	65	9.0W	4PDT	5	10.50
AP17D	110V	1,350	9.0W	4PDT	5	11.15
BU	**6V**	**2.75**	**4.6VA**	**-**	**-**	**1.70**
BU	12V	13.25	4.6VA	-	-	1.70
BU	24V	50	4.6VA	-	-	1.70
BU	115V	1,250	4.6VA	-	-	1.70
KB17AY	**6V**	**2.3**	**5VA**	**4PDT**	**5**	**10.50**
KB17AY	12V	10	5VA	4PDT	5	10.50
KB17AY	24V	42	5VA	4PDT	5	10.50
KB17AY	115V	1,030	5VA	4PDT	5	10.50
KB17AY	230V	4,100	5VA	4PDT	5	11.30
KB17AG	6V	2.3	5VA	4PDT	10	10.60
KB17AG	12V	10	5VA	4PDT	10	10.60
KB17AG	24V	42	5VA	4PDT	10	10.60
KB17AG	115V	1,030	5VA	4PDT	10	10.60
KB17AG	230V	4,100	5VA	4PDT	10	11.40
KB17D	6V	13.1	2.7W	4PDT	5	9.45
KB17D	12V	52.0	2.7W	4PDT	5	9.45
KB17D	24V	230	2.7W	4PDT	5	9.45
KB17D	110V	4,560	2.7W	4PDT	5	10.65
KB17DG	6V	13.1	2.7W	4PDT	10	9.65
KB17DG	12V	52.0	2.7W	4PDT	10	9.65
KB17DG	24V	230	2.7W	4PDT	10	9.65
KB17DG	110V	4,560	2.7W	4PDT	10	10.85
KB23AY	6V	1.8	7.8VA	6PDT	5	12.60
KB23AY	24V	27	7.8VA	6PDT	5	12.60
KB23AY	115V	700	7.8VA	6PDT	5	12.60
KB23AY	230V	2,750	7.8VA	6PDT	5	13.40
KB23AG	6V	1.8	7.8VA	6PDT	10	12.80
KB23AG	12V	7.2	7.8VA	6PDT	10	12.80
KB23AG	24V	27	7.8VA	6PDT	10	12.80
KB23AG	115V	700	7.8VA	6PDT	10	12.80
KB23AG	230V	2,750	7.8VA	6PDT	10	13.60
KB23D	6V	13.1	2.7W	6PDT	5	11.45
KB23D	12V	52.0	2.7W	6PDT	5	11.45
KB23D	24V	230	2.7W	6PDT	5	11.45
KB23D	110V	4,560	2.7W	6PDT	5	12.65
KB23DG	6V	13.1	2.7W	6PDT	10	11.75
KB23DG	12V	52.0	2.7W	6PDT	10	11.75
KB23DG	24V	230	2.7W	6PDT	10	11.75
KB23DG	110V	4,560	2.7W	6PDT	10	12.95

°Canadian Standards Association

§Enclosed Relay

Potter & Brumfield Page 6

See ordering information on Potter & Brumfield page 7

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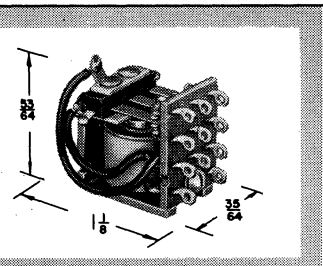
Potter & Brumfield Relays

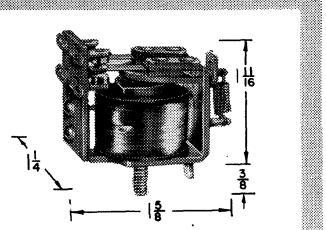
SPECIAL PURPOSE RELAYS

KM SERIES Subminiature relay for applications requiring unusually small relays with up to 3-poles. 3/32" dia. silver contacts. Withstands 30g mechanical shock and .06" excursion 10 to 55 cps mechanical vibration. Used extensively in small business machines, alarm systems, automatic toys and communications systems. Mounting: One 2-56 tapped core and locating half-punch. Solder terminals. Weight: .58 ozs.



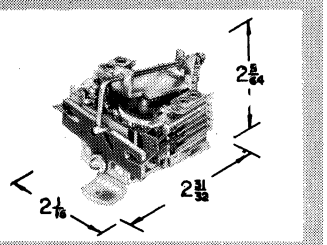
TYPE	COILS Voltage or Current	Resistance in Ohms	Nominal Power	CONTACTS Arrangement	Rate in Amps	NET
KM5D	**6V**	**36**	**1.1W**	**SPDT**	**2**	**$ 3.35**
KM5D	12V	144	1.1W	SPDT	2	3.35
KM5D	24V	500	1.1W	SPDT	2	3.35
KM11D	6V	36	1.1W	DPDT	2	3.70
KM11D	12V	144	1.1W	DPDT	2	3.70
KM11D	24V	500	1.1W	DPDT	2	3.70
KM14D	6V	36	1.1W	3PDT	2	4.25
KM14D	12V	144	1.1W	3PDT	2	4.25
KM14D	24V	500	1.1W	3PDT	2	4.25

KT SERIES ANTENNA SWITCHING RELAY Glass base insulation for minimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: 1/8" dia. gold-flashed silver. Weight: 1½" ozs.



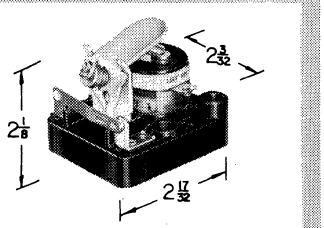
KT11A	**6V**	**5.1**	**2VA**	**DPDT**	**5**	**3.70**
KT11A	115V	2,250	2VA	DPDT	5	3.70
KT11D	6V	32.1	1.2W	DPDT	5	3.70
KT11D	12V	120	1.2W	DPDT	5	3.70

PC SERIES Single coil impulse latching relay for on-off and current reversal switching on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two 5/32" dia. holes on 2⅝" centers. Weight: 5 ozs. Contacts: ⅛" dia. gold-flashed silver cadmium -oxide .



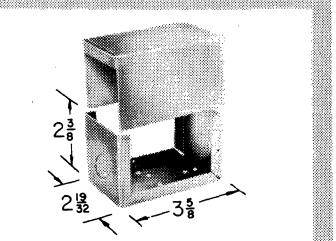
PC11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**7.5**	**5.50**
PC11A	12V	2.28	18.5VA	DPDT	7.5	5.50
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.50
PC11A	115V	240	18.5VA	DPDT	7.5	5.50
PC11A	230V	900	18.5VA	DPDT	7.5	5.90
PC11D	6V	4.0	9.0W	DPDT	7.5	5.35
PC11D	12V	15.5	9.0W	DPDT	7.5	5.35
PC11D	24V	65.0	9.0W	DPDT	7.5	5.35
PC11D	110V	1,350	9.0W	DPDT	7.5	5.85
PC17A	12V	2.28	18.5VA	4PDT	7.5	7.60
PC17A	24V	8.8	18.5VA	4PDT	7.5	7.60
PC17A	115V	240	18.5VA	4PDT	7.5	7.60
PC17A	230V	900	18.5VA	4PDT	7.5	8.00
PC17D	24V	65	9.0W	4PDT	7.5	7.45

MS SERIES MOTOR STARTING RELAYS For starting capacitor start, induction-run motors. Operates on back EMF of start winding. Armature gap can be altered to change pull-in. Meets all U/L spacing requirements. Mounting: Two 5/32" dia. holes on 1 9/16" centers. Contacts: ¾ HP, 7/32" dia. fine silver. 3 HP, 7/32" dia. silver cadmium. Weight: 5 ozs. max. Enclosure: See "MS/MR" cover.



MS2AY	**115V**	**530**	**5.9VA**	**SPST-NC**	**¾HP**	**3.55**
MS2AY	230V	2,100	5.9VA	SPST-NC	¾HP	3.95
MS4AY	115V	530	5.9VA	SPST-NC-DB	3HP	4.15
MS4AY	230V	2,100	5.9VA	SPST-NC-DB	3HP	4.55

"MS/MR" COVER Provides neater installation, easier maintenance; minimizes broken leads, protects against dust, dirt, solder shorts and accidental jars. Sealed knockout holes for standard conduit fittings. Relay mounts on pre-drilled base. Fits MS and MR relays. Weight: 7.5 ozs.
35D130 NET $1.90

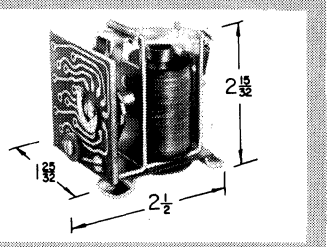


POTTER & BRUMFIELD

IS A MEMBER OF THE

NATIONAL ASSOCIATION OF RELAY MANUFACTURERS

SA SERIES STEPPING SWITCH A twelve position stepping relay with printed circuit strips to switch currents up to 250 milliamps. Armature-driven pawl operates a ratchet wheel to drive the movable contact in steps of 30 degrees over 12 positions. Used widely for audio-level switching in TV remote control units, scoreboards and process controls. Mounting: Two 6-32 holes on 1 13/16" centers. Weight: 4 ozs.



SA-1N-12A	**115V**	**140**	**20VA**	**12-steps**	**.25**	**6.60**

ORDERING INSTRUCTIONS —— File-O-Matic Sec. 23

All relay contacts are rated at 115 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 115 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

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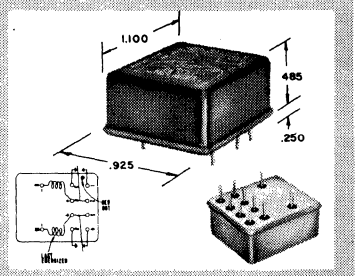
Potter & Brumfield Relays

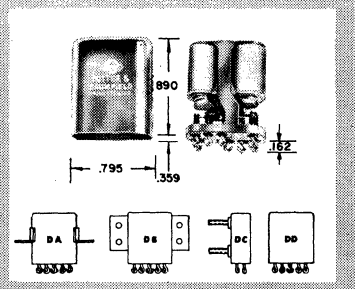
SPECIAL PURPOSE RELAYS

FL SERIES Dual coil, micro-miniature latching relay that lies flat on a printed circuit board. Withstands 100g shock, 400g linear acceleration, .195" excursion from 10 to 55 cps and 30g from 55 to 2,000 cps with no contact openings. Ambient temperature range: −65° to +125°C. Operates by: Pulsing each coil alternately (observing coil polarity); or connecting the coils in series from a reversing (polarized) source. Remains latched without coil power to reduce power drains. Hermetically sealed. DPDT bifurcated silver-magnesium-nickel contacts for 100,000 operations at 3 amps. Plug-in terminals on a .2" grid. Meets applicable sections of MIL-R-5757D, MIL-R-6106C and ABMA #PD-R-187. Weight: .75 ozs.



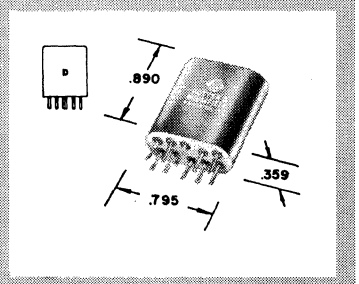
SC SERIES Micro-miniature permanent magnet relay for low power, high shock/vibration applications. 100g shock, 30g vibration to 2000cps with no contact openings. Ambient temperature range: −65°C. to +125°C. Features single coil action and conforms to standard micro-miniature coil operation except polarized connections because of magnetic circuit. Positive terminal marked with red dot. Mounting: SC11D°°, SCG11D −DA, −DB, DC and DD correspond to similarly designed SL mountings. Weight: ¾ oz.

°°Cinch No. 54A20730 and Armel No. HRK-1, 8-pin receptacles available from distributors for plug-in applications.



SL SERIES Dual coil micro-miniature magnetic latching relay with same shock/vibration, resistance and ambient temperature range as SC. Coils may be connected in series for polar operation. Mounting: SL11D° for plug-in applications: −DA has shoulder flangers with two .104" x .136" holes on a 1.062" center; −DB has a welded bracket with four .125" dia. holes on 1.062" x .281" centers; −DC has two No. 4-40 NC 2A threaded studs on .488" x .220" diagonal centers; −DD has plain case with hook end solder terminals. SCG-SLG11D have plug-in terminals on .2" grid.

°Viking No. P/N VB10/3DV 1 10-pin receptacles available from distributors for plug-in applications.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
FL11D	**6V**	**67.5**	**.5W**	**DPDT**	**3***	**$18.00**
FL11D	12V	230	.5W	DPDT	3	18.00
FL11D	24V	1,000	.5W	DPDT	3	18.00
SC11D†	**6V**	**35**	**1W**	**DPDT**	**2***	**15.75**
SC11D†	12V	135	1W	DPDT	2	15.75
SC11D†	24V	550	1W	DPDT	2	15.75
SC11DA†	6V	35	1W	DPDT	2	15.75
SC11DA†	12V	135	1W	DPDT	2	15.75
SC11DA†	24V	550	1W	DPDT	2	15.75
SC11DB†	6V	35	1W	DPDT	2	15.75
SC11DB†	12V	135	1W	DPDT	2	15.75
SC11DB†	24V	550	1W	DPDT	2	15.75
SC11DC†	24V	550	1W	DPDT	2	15.75
SC11DD†	24V	550	1W	DPDT	2	15.75
SCG11D	**24V**	**550**	**1W**	**DPDT**	**2**	**15.75**
SL11D†	**6V**	**40**	**1W**	**DPDT**	**2***	**17.25**
SL11D†	12V	160	1W	DPDT	2	17.25
SL11D†	24V	630	1W	DPDT	2	17.25
SL11DA†	6V	40	1W	DPDT	2	17.25
SL11DA†	12V	160	1W	DPDT	2	17.25
SL11DA†	24V	630	1W	DPDT	2	17.25
SL11DB†	6V	40	1W	DPDT	2	17.25
SL11DB†	12V	160	1W	DPDT	2	17.25
SL11DB†	24V	630	1W	DPDT	2	17.25
SL11DC†	24V	630	1W	DPDT	2	17.25
SL11DD†	24V	630	1W	DPDT	2	17.25
SLG11D	**24V**	**630**	**1W**	**DPDT**	**2**	**17.25**

†Sealed Relay

* @28VDC

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AEROVOX Resistors

±1% PRECISION ®CARBOFILM AND ®CARBOMOLD RESISTORS

CARBOFILM PRECISION RESISTORS

Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

NOISE: Noise level will not exceed .2 microvolts per volt.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOMOLD PRECISION RESISTORS

A superior molded carbon-deposited resistor manufactured under the most exacting quality control standards and specifications assuring excellent performance under the most adverse operating conditions. Resistors are encapsulated in a strong reinforced moisture and heat resistant plastic for added stability, precision and reliability. Rated for full load operation at 70°C and linearly derated to zero load at 150°C. Will meet or exceed insulation resistance requirements of MIL-R-10509C.

CARBOMOLD CHARACTERISTICS

TESTING: All tests conducted in accordance with MIL-R-10509C requirements.

TEMPERATURE COEFFICIENT: Extends from approximately 200 ppm per degree C in the lower resistance ranges to and not exceeding 500 ppm per degree C at the highest values specified by MIL-R-10509C.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509C.

LOAD LIFE: When tested for more than 1000 hours at full load operation in 70°C ambient temperature, maximum changes less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C.

AGING: Average change in resistance for self-aging, approximately 0.2% in a year.

NOISE: Noise level will not exceed .2 microvolts per volt.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOFILM

††TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	Availability: Comm. Value	Availability: MIL-BELL Value	MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B: Type	Equiv. to MIL-R-10509B: Char.	Equiv. to MIL-R-10509B: Tol.	MARKING
CPSX½	.203 x 1⅜₂	10	2.0	✓	✓	350	RN20	X	1%	RN20 Number
‡CPX½	.260 x 2⅜₂	2,200,000**	5.0	✓		350	----	--	---	Type, Value, Tolerance
CPLX½	.260 x 1	5,100,000	7.5	✓		500	----	--	---	Type, Value, Tolerance
CPX 1	.328 x 1⅝₆	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance and RN25 Number
CPX 2	.328 x 2⅛₆	50	100†	✓		750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
‡ To be supplied as CP½ until present stocks are depleted.
** For values from 3 to 10 ohms in CPX½ check factory for price and availability.

††As noted in bulletin NPJ116 dated 5/15/60 the Aeroglaze coating —designated by X in part number-is replacing W65 coating as inventories are depleted.

CARBOMOLD

Carbomold Stocked In Mil-Bell Values Only

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	MIL-R-10509 C Max. DC Volt.	Equiv. to MIL-R-10509C: Type	Equiv. to MIL-R-10509C: Char.	Equiv. to MIL-R-10509C: Tol.	MARKING
*CPM-⅛	.135 x .400	10	1.0	250	RN60	B	F	RN60 Number
CPM-¼	.220 x .590	10	2.0	300	RN65	B	F	RN65 Number
CPM½	.250 x .745	10	2.49	350	RN70	B	F	Type, Value, Tolerance, RN70 Number
CPM-1	.375 x 1¼	10	5.11	500	RN75	B	F	Type, Value, Tolerance, RN75 Number
CPM-2	.375 x 2⅜₂	30	10.0	750	RN80	B	F	Type, Value, Tolerance, RN80 Number

* CPM ⅛ will be supplied in .150 diameter until present stocks are depleted.

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AEROVOX Resistors

±1% PRECISION ® CARBOFILM AND ® CARBOMOLD RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
11.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
12.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
12.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
13.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
14.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
15.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
16.0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
17.5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
18.0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
20.0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	MEGOHMS	3.9	10.0	
22.0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
22.5	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
24.0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
25.0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
27.0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
29.5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
30.0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
33.0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
35	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

†Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
For values from 3 to 10 ohms in CPX½ check factory for price and availability.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
10.0	23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04
10.2	23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19
10.5	24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34
10.7	24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49
11.0	25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65
11.3	26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81
11.5	26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98
11.8	27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15
12.1	28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32
12.4	28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50
12.7	29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68
13.0	30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87
13.3	30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.06
13.7	31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.25
14.0	32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45
14.3	33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66
14.7	34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87
15.0	34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09
15.4	35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31
15.8	36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53
16.2	37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76
16.5	38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0
16.9	39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42	
17.4	40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53	
17.8	41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64	
18.2	42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75	
18.7	43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87	
19.1	44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	MEGOHMS	2.15	4.99	
19.6	45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11	
20.0	46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23	
20.5	47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000	1.00	2.32	5.36	
21.0	48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000	1.02	2.37	5.49	
21.5	49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000	1.05	2.43	5.62	
22.1	51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000	1.07	2.49	5.76	
22.6	52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000	1.10	2.55	5.90	

PACKAGING:

Commercial Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities, protected by paper sleeves and packed in bulk.

Mil Bell Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities packed in bulk.

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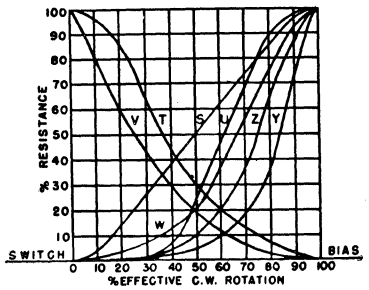
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

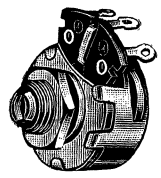
COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
Taper S—Straight or uniform resistance change with rotation.
Taper T — Right-hand 30% resistance at 50% of C.C.W. rotation.
Taper U — Left-hand 1% resistance at 33⅓% of C.W. rotation.
Taper V — Right-hand 20% resistance at 50% of C.C.W. rotation.
Taper W—Left-hand 20% resistance at 50% of C.W. rotation.
Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
Taper Y — Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" ½-WATT CONTROLS

Composition-element controls in the popular 15/16" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-¼ shaft.



SERIES A47
(INDUSTRIAL)
SERIES 47

CAT No.	OHMS	TAPER	CAT No.	OHMS	TAPER
A47-500-S	500	S	A47-75K-V	75K	V
A47-750-S	750	S	A47-100K-S	100K	S
A47-1000-S	1000	S	A47-100K-Z	100K	Z
A47-1500-S	1500	S	A47-150K-S	150K	S
A47-2000-S	2000	S	A47-200K-S	200K	S
A47-2500-S	2500	S	A47-250K-S	250K	S
A47-3000-S	3000	S	A47-250K-Z	250K	Z
A47-4000-S	4000	S	A47-300K-S	300K	S
A47-5000-S	5000	S	A47-500K-S	500K	S
A47-7500-S	7500	S	A47-500K-Z	500K	Z
A47-10K-S	10K	S	A47-750K-S	750K	S
A47-10K-V	10K	V	A47-750K-Z	750K	Z
A47-10K-W	10K	W	A47-1 Meg-S	1 Meg.	S
A47-10K-Z	10K	Z	A47-1 Meg-Z	1 Meg.	Z
A47-15K-S	15K	S	A47-1.5 Meg-S	1.5 Meg.	S
A47-15K-V	15K	V	A47-2 Meg-Z	2 Meg.	Z
A47-15K-W	15K	W	A47-2 Meg-S	2 Meg.	S
A47-20K-S	20K	S	A47-2.5 Meg-S	2.5 Meg.	S
A47-25K-S	25K	S	A47-3 Meg-S	3 Meg.	S
A47-25K-W	25K	W	A47-3-Meg.-Z	3 Meg.	Z
A47-25K-V	25K	V	A47-4 Meg-S	4 Meg.	S
A47-30K-S	30K	S	A47-4 Meg-Z	4 Meg.	Z
A47-40K-S	40K	S	A47-5 Meg-Z	5 Meg.	Z
A47-50K-S	50K	S	A47-5 Meg-S	5 Meg.	S
A47-50K-W	50K	W	A47-7.5 Meg-S	7.5 Meg.	S
A47-50K-Z	50K	Z	A47-10 Meg-S	10 Meg.	S
A47-75K-S	75K	S			

NET PRICE $.93 Standard Packing—10 per Carton.

SERIES "AD47" ½-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg.-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg.-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg.-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg.-V	2 Meg.	V	2 Meg.	V
AD47-5 Meg.-S	5 Meg.	S	5 Meg.	S

NET PRICE $2.25 Standard Packing — Individual Carton.

SERIES "C47S" ½-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.	Cat. No.
C47S-250K-S	C47S-750K-Z
C47S-250K-Z	C47S-1 Meg.-S
C47S-500K-S	C47S-1 Meg.-Z
C47S-500K-Z	C47S-2 Meg.-S
C47S-750K-S	C47S-2 Meg.-Z

Price $1.53 Standard Packing—10 per Carton.

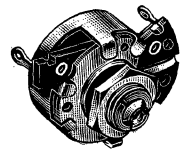
SERIES "C47SF" (TAPPED)

Cat. No.	
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF-1 Meg.	Tap 500K
C47SF1-1 Meg.	Tap 250K

Price $1.95 Standard Packing—10 per Carton.

SERIES "A47F"

These are the popular 15/16" dia. composition-element controls which are replacing the larger 1-⅛" dia. units, without sacrifice in rating or performance. Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. "A47F" controls have taps 1, 2, 3 located at 30%, 50% and 70% of rotation, respectively. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

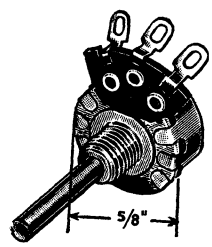


SERIES A47F
(INDUSTRIAL)
SERIES 47F

Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-50K	50K		25K	
A47F-200K	200K			100K
A47F-250K	250K			50K
A47F1-250K	250K		125K	
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		
A47F2-500K	500K			200K
A47F3-500K	500K		100K	
A47F4-500K	500K		50K	
A47F5-500K	500K		250K	
A47F-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.			200K
A47F2-1 Meg.	1 Meg.		50K	
A47F3-1 Meg.	1 Meg.		100K	
A47F4-1 Meg.	1 Meg.		225K	
A47F5-1 Meg.	1 Meg.		500K	
A47F-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F-3 Meg.	3 Meg.		250K	

NET PRICE $1.35. Standard Packing—10 per Carton. *Reg. U.S. Pat. Off.

SERIES 44 — 0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

Without Switch Cat No.

44-5K-W	44-100K-W
44-10K-W	44-250K-W
44-25K-W	44-500K-W

NET PRICE $.93

With DPST Switch Cat. No.

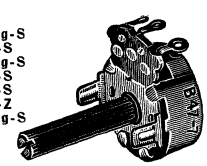
44S-5K-W	44S-100K-W
44S-10K-W	44S-250K-W
44S-25K-W	44S-500K-W

NET PRICE $1.35
Standard Packing — 10 Per Carton

SERIES B47 ½-WATT TAB-MOUNT

Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation if control is used on a "hot" chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.	Cat. No.	Cat. No.	Cat. No.
B47-500-S	B47-10K-S	B47-250K-S	B47-1.5 Meg-S
B47-750-S	B47-25K-S	B47-330K-Z	B47-2 Meg-S
B47-1500-S	B47-50K-S	B47-500K-S	B47-2.5 Meg-S
B47-2500-S	B47-100K-S	B47-500K-Z	B47-3 Meg-S
B47-3000-S	B47-150K-S	B47-1 Meg-S	B47-5 Meg-S
B47-5000-S	B47-200K-S	B47-1 Meg-Z	B47-5 Meg-Z
			B47-7.5 Meg-S



NET PRICE $.60
Standard Packing—10 per Carton.

SERIES B47S ½-WATT TAB MOUNT WITH SWITCH

Cat. No.	Cat. No.
B47S-250K-S	B47S-500K-Z
B47S-250K-Z	B47S-1 Meg-S
B47S-500K-S	B47S-1 Meg-Z
	B47S-2 Meg-S
	B47S-2 Meg-Z

Price $1.20
Standard Packing—10 per Carton.

Net
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PRODUCTS OF
THE HOUSE OF RESISTORS®

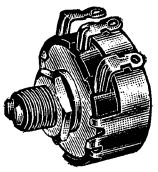
CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

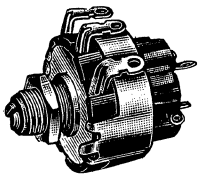
WIRE-WOUND CONTROLS

These are "Pick-A-Shaft"* controls which take any one of 12 shaftstolerance of plus/minus 10% for all values. All controls are linear. listed on page R-24 including High Voltage Coupler and insulatedAvailable with factory-assembled shafts at no extra charge, by omitshaft. Your choice of any one of the 12 shafts listed (this does notting the prefix "A" from the catalog number and designating the include insulated shaft) with each control. Tolerances of these con-type of shaft desired when ordering. Example: 43-500 with FKS-¼ trols are in accordance with RETMA standards. Overall resistanceshaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



SERIES A43
(INDUSTRIAL)
SERIES 43



SERIES A43S
(INDUSTRIAL)
SERIES 43S

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5
A43-10	A43S-10	10
A43-20	A43S-20	20
A43-25	A43S-25	25
A43-30	A43S-30	30
A43-40	A43S-40	40
A43-50	A43S-50	50
A43-75	A43S-75	75
A43-100	A43S-100	100
A43-150	A43S-150	150
A43-200	A43S-200	200
A43-300	A43S-300	300
A43-400	A43S-400	400
A43-500	A43S-500	500
A43-750	A43S-750	750

Standard Packing: 10 per Carton.

Without Switch Cat No	With SPST Switch Cat. No.	Res. Ohms
A43-1,000	A43S-1,000	1,000
A43-1,500	A43S-1,500	1,500
A43-2,000	A43S-2,000	2,000
A43-2,500	A43S-2,500	2,500
A43-3,000	A43S-3,000	3,000
A43-4,000	A43S-4,000	4,000
A43-5,000	A43S-5,000	5,000
A43-7,500	A43S-7,500	7,500
A43-10K	A43S-10K	10K
A43-15K		
A43-20K		
A43-25K		
A43-30K		
A43-40K		
A43-50K		

NET PRICES: (Without Switch)
5 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**
(With Switch)
5 to 10KΩ **$1.47**

SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-3 shaft, or 58S-25K with RS-3 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.

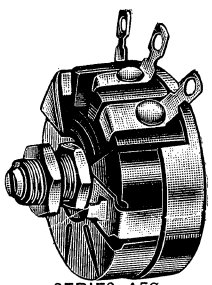
Without Switch Cat. No.	Res. Ohms
A58-1	1
A58-2	2
A58-4	4
A58-6	6
A58-10	10
A58-15	15
A58-20	20
A58-25	25
A58-30	30
A58-40	40
A58-50	50
A58-60	60
A58-75	75
A58-100	100
A58-200	200
A58-300	300
A58-400	400
A58-500	500
A58-750	750
A58-1,000	1,000
A58-1,500	1,500
A58-2,000	2,000
A58-2,500	2,500
A58-3,000	3,000
A58-4000	4,000
A58-5,000	5,000

Standard Packing: 10 per Carton.

Without Switch Cat. No.	Res. Ohms
A58-7,500	7,500
A58-10K	10K
A58-15K	15K
A58-20K	20K
A58-25K	25K
A58-30K	30K
A58-40K	40K
A58-50K	50K

NET PRICES:
1 to 10KΩ ..... **$ .93**
15K to 25KΩ **1.20**
30K to 50KΩ **1.62**

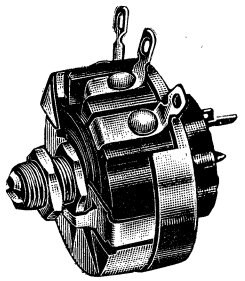
With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40



SERIES A58
(INDUSTRIAL)
SERIES 58

With SPST Switch Cat. No.	Res. Ohms
A58S-50	50
A58S-60	60
A58S-75	75
A58S-100	100
A58S-200	200
A58S-300	300
A58S-400	400
A58S-500	500
A58S-750	750
A58S-1,000	1,000
A58S-1,500	1,500
A58S-30K	30K
A58S-40K	40K
A58S-50K	50K

Standard Packing: 10 per Carton.



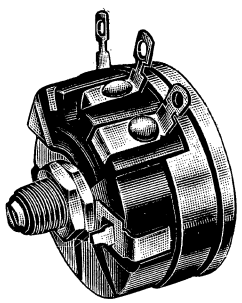
SERIES A58S
(INDUSTRIAL)
SERIES 58S

A58S-2,000	2,000
A58S-2,500	2,500
A58S-3,000	3,000
A58S-4,000	4,000
A58S-5,000	5,000
A58S-7,500	7,500
A58S-10K	10K
A58S-15K	15K
A58S-20K	20K
A58S-25K	25K

NET PRICES:
1 to 10KΩ **$1.47**
15K to 25KΩ **1.71**
30K to 50KΩ **2.16**

SERIES "A10" and "A10S" 4-WATT CONTROLS

"A10" is without switch, while "A10S" has factory-attached SPST switch. Also available with factory-assembled shaft at no extra charge, by omitting prefix "A" from catalog number. See above for examples. Controls with other than SPST switch are special. Price and information on request.



SERIES A10
(INDUSTRIAL)
SERIES 10

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A10-1	A10S-1	1
A10-2	A10S-2	2
A10-4	A10S-4	4
A10-6	A10S-6	6
A10-10	A10S-10	10
A10-15	A10S-15	15
A10-20	A10S-20	20
A10-25	A10S-25	25
A10-30	A10S-30	30
A10-40	A10S-40	40
A10-50	A10S-50	50
A10-60	A10S-60	60
A10-75	A10S-75	75
A10-100	A10S-100	100
A10-200	A10S-200	200
A10-300	A10S-300	300
A10-400	A10S-400	400
A10-500	A10S-500	500

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A10-750	A10S-750	750
A10-1,000	A10S-1,000	1,000
A10-1,500	A10S-1,500	1,500
A10-2,000	A10S-2,000	2,000
A10-2,250		2,250
A10-2,500	A10S-2,500	2,500
A10-3,000	A10S-3,000	3,000
A10-4,000	A10S-4,000	4,000
A10-5,000	A10S-5,000	5,000
A10-7,500	A10S-7,500	7,000
A10-10K	A10S-10K	10K
A10-15K	A10S-15K	15K
A10-20K	A10S-20K	20K
A10-25K	A10S-25K	25K
A10-30K	A10S-30K	30K
A10-40K	A10S-40K	40K
A10-50K	A10S-50K	50K
A10-75K	A10S-75K	75K
A10-100K	A10S-100K	100K

NET PRICES

(Without Switch)
1 to 10KΩ **$1.35**
15K to 25KΩ **1.59**
30K to 50KΩ **2.01**
75K to 100KΩ **2.46**

(With SPST Switch)
1 to 10KΩ **$1.89**
15K to 25KΩ **2.10**
30K to 50KΩ **2.55**
75K to 100KΩ **2.97**

*Reg. U. S. Pat. Off.

Standard Packing: 10 per Carton.

PRODUCTS OF
THE HOUSE OF RESISTORS®

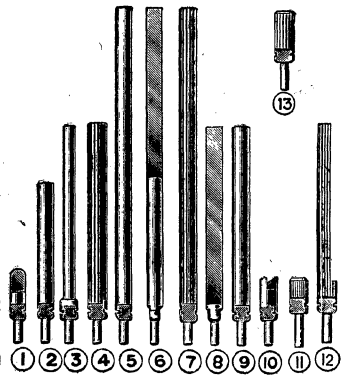
CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

SHAFTS FOR "PICK-A-SHAFT"* CONTROLS

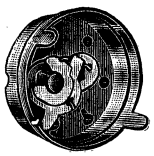
For use with all Clarostat "Pick - A - Shaft"* controls, either carbon or wire-wound. Your choice of shaft furnished with each control.

(1) SS-⅜" length—(Male) to take female fitting.
(2) RS-2—Round shaft, 2" long.
(3) RS-⅛—Round shaft ⅛" dia., 3" long.
(4) KSS-3—Knurled, split shaft, 3" long.
(5) RS-5—Round shaft, 5" long.
(6) FS-5—Flatted shaft, 5" long.
(7) KSS-5—Knurled, split shaft, 5" long.
(8) FS-3—Flatted shaft, 3" long.
(9) RS-3—Round shaft, 3" long.
(10) DFS-½—Double flatted Philco Type, ½" long.
(11) FKS-¼—Fine knurled slotted shaft, ¼" long.
(12) KFS-3—Knurled flatted shaft, 3" long.
(13) FKS-½—Fine knurled slotted shaft, ½" long.



Net Price, Each Shaft $0.33

SERIES "SWE" SWITCHES FOR "AD-A-SWITCH"* CONTROLS



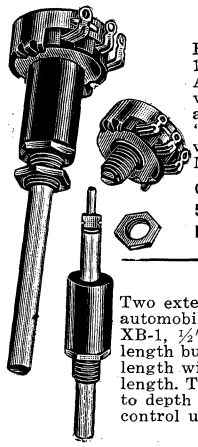
U. S. Pat. 2,642,506

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A.-125V. A.C.	$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A.-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A.-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A.-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A.-10V. D.C.	.66

(Mod. DPST has one pole "on", one pole "off" or with Jumper it is SPDT.)

Standard Packing: 10 per Carton.



HIGH VOLTAGE COUPLER

High-voltage shaft unit for operation up to 10K volts. Attaches to any Clarostat "Pick-A-Shaft" control, composition-element or wire-wound. Also available as a factory-attached unit on order. For example: "47-500K-S" unit with factory-attached high voltage coupler, order as a "47-500K-S-HVC." Manufacturers Series 47 - ½ meg.-S-HVC.

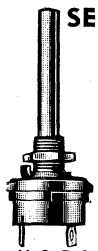
Cat. No.		Net Price
59-186	Spacer and Bushing Assembly	$ .84
RN-3	Non-Metallic Shaft, Round, 3" long	.84

BUSHINGS

Two extension bushings for the make-up of automobile replacement controls. Series XB-1, ½" d. x 2¼" l.; Series XB-2, same length but 7/16" d. Threaded on outside full length with 28 thread; 1/32" flat milled full length. Threaded ⅜" x 32 on inside, one end, to depth of ½". Adaptable to any Clarostat control using ⅜" x 32 bushing.

Net Price $0.39

SERIES "BE" 15/16" ROTARY SWITCH



U. S. Pat. 2,642,506

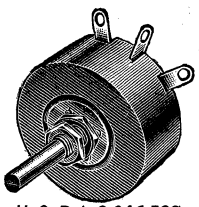
Underwriters' Laboratories Inc. approved

Cat. No.	Wiring	Net Price
BE-12 SPST	— Single-Pole Single-Throw, 5A-125 V. A.C.	$0.75
BE-20 DPST	— Double-Pole Single-Throw, 3A-125 V. A.C.	.81
BE-21 (Mod.) DPST	— Double-Pole Single-Throw 3A-125 V. A.C. or D.C.	.81

Mod. DPST has one pole "on," one pole "off"; or, with Jumper it is SPDT).

Standard Packing—Individual Carton.

*Reg. U. S. Pat. Off.



U. S. Pat. 2,346,598

POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

The metal cored winding is embedded in a cold-setting, inorganic cement and is thereby bonded to the ceramic body. Unit mounts through a single hole. A locking pin is provided for rear panel mounting.

SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Max. Cur. at Total Res. Amps.	Max. Cur. Up to ⅓ Res. Amps.	Net Price
25-1	1	5.000	7.500	$3.87
25-2	2	3.536	5.304	3.42
25-3	3	2.887	4.330	3.42
25-6	6	2.041	3.062	3.42
25-8	8	1.768	2.652	3.42
25-10	10	1.581	2.372	3.42
25-15	15	1.291	1.936	3.42
25-25	25	1.000	1.500	3.42
25-35	35	.845	1.268	3.42
25-50	50	.707	1.061	3.42
25-75	75	.577	.866	3.42
25-100	100	.500	.750	3.42
25-125	125	.447	.671	3.42
25-175	175	.378	.567	3.42
25-250	250	.316	.474	3.42
25-350	350	.267	.401	3.42
25-500	500	.224	.335	3.42
25-750	750	.183	.274	3.42
25-1,000	1,000	.158	.237	3.87
25-1,500	1,500	.129	.194	3.87
25-2,500	2,500	.100	.150	3.87
25-3,500	3,500	.085	.127	4.08
25-5,000	5,000	.071	.107	4.29

Standard Packing: Individual Carton.

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Max. Cur. at Total Res. Amps.	Max. Cur. Up to ⅓ Res. Amps.	Net Price
50-0.5	0.5	10.000	15.000	$4.25
50-1	1	7.071	10.607	4.25
50-2	2	5.000	7.500	4.25
50-4	4	3.536	5.304	3.87
50-6	6	2.887	4.330	3.87
50-8	8	2.500	3.750	3.87
50-12	12	2.041	3.062	3.87
50-16	16	1.768	2.652	3.87
50-22	22	1.508	2.261	3.87
50-35	35	1.195	1.793	3.87
50-50	50	1.000	1.500	3.87
50-80	80	.791	1.186	3.87
50-125	125	.632	.949	3.87
50-150	150	.577	.866	3.87
50-225	225	.471	.707	3.87
50-300	300	.408	.612	3.87
50-500	500	.316	.474	3.87
50-800	800	.250	.375	4.08
50-1,000	1,000	.224	.335	4.08
50-1,600	1,600	.177	.265	4.08
50-2,500	2,500	.141	.212	4.08
50-3,500	3,500	.120	.179	4.29
50-5,000	5,000	.100	.150	4.29
50-8,000	8,000	.079	.118	5.16
50-10K	10K	.071	.106	5.16

Standard Packing: Individual Carton.

Net

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PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

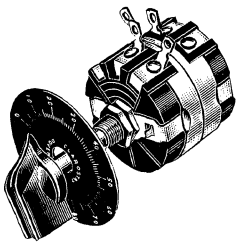
RESISTORS • CONTROLS
RESISTANCE DEVICES

®

SOUND-SYSTEM CONTROLS

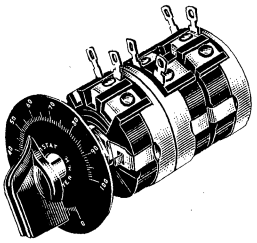
For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations. These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.

CONSTANT-IMPEDANCE CONTROLS



Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.

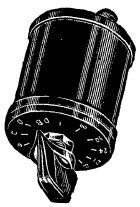
CIT Cat. No.	CIL Cat. No.	Res. Ohms	CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4	CIT-200	CIL-200	200
CIT-6	CIL-6	6	CIT-250	CIL-250	250
CIT-8	CIL-8	8	CIT-500	CIL-500	500
CIT-15	CIL-15	15	CIT-600	CIL-600	600
CIT-50	CIL-50	50	CIT-1,000	CIL-1,000	1,000
CIT-100	CIL-100	100	CIT-2,000	CIL-2,000	2,000



U. S. Pat. 2,434,248

CIT—NET PRICE $3.13 **CIL—NET PRICE $2.79** Standard Packing: Individual Carton.

CONSTANT IMPEDANCE OUTPUT ATTENUATORS



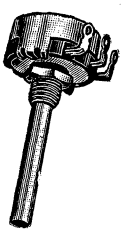
Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

NET PRICE $7.70 Standard Packing: Individual Carton.

SPECIAL DRIVE-IN THEATRE L-PAD

To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have ⅜-32 bushing ¾" long, and 1½" round shaft.



Cat. No. CM8727-1 8 ohm L-Pad **Price $1.80**

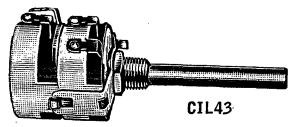
Cat. No. CM17083 50 ohm linear rheostat **Price $1.32**

Cat. No. CM17084 35 ohm tapered rheostat **Net Price $1.32**

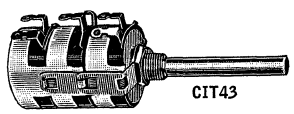
SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

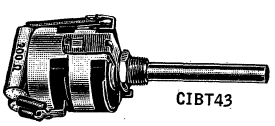
These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).



CIL43



CIT43



CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms

NET PRICE CIL43 $2.79 NET PRICE CIT43 $3.13

NET PRICE CIBT43 $3.63

Standard Packing — Individual Carton

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.
- Insertion loss less than 0.5 db.
- Input impedance within plus/ minus 20%.
- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.
- Shafts and bushings are insulated from the circuit elements.
- Pads have ⅜-32 x ⅜" long bushing.
- ¼" dia. round shafts 1½" long beyond bushing.
- All pads supplied with bar knob and dial plates, as shown above.
- Dia. 1⅛". Depth of body from mounting surface: CIL43 — 1⅝"; CIT43 — 1¾"; CIBT43 — 1½".

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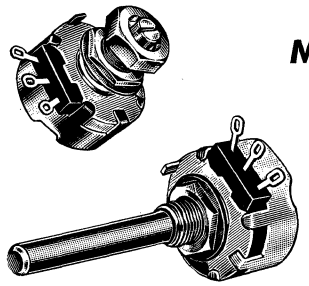
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES



MOLDED COMPOSITION-ELEMENT POTENTIOMETERS

A new 2-watt Molded Composition Element Potentiometer totally enclosed and sealed against moisture and other environmentals. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices.

1 1/16" diameter and 9/16" deep, wiper assembly of one piece construction. Carbon to carbon contact insures exceptionally low noise level. Stainless steel shaft. Gold plated terminals.

Electrical tolerances are plus/minus 10% for all values up to 1 meg. 1 meg. and above plus/minus 20%.

Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper
53C1-50-S	53C2-50-S	50	S
53C1-100-S	53C2-100-S	100	S
53C1-250-S	53C2-250-S	250	S
53C1-500-S	53C2-500-S	500	S
53C1-750-S	53C2-750-S	750	S
53C1-1000-S	53C2-1000-S	1000	S
53C1-1500-S	53C2-1500-S	1500	S
53C1-2000-S	53C2-2000-S	2000	S
53C2-2500-S	53C2-2500-S	2500	S
53C1-5000-S	53C2-5000-S	5000	S
53C1-7500-S	53C2-7500-S	7500	S
53C1-10K-S	53C2-10K-S	10K	S
53C1-15K-S	53C2-15K-S	15K	S
53C1-20K-S	53C2-20K-S	20K	S
53C1-25K-S	53C2-25K-S	25K	S
53C1-50K-S	53C2-50K-S	50K	S

53C1 NET PRICE $2.01 53C2 NET PRICE $2.55

Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper
53C1-75K-S	53C2-75K-S	75K	S
53C1-100K-S	53C2-100K-S	100K	S
53C1-150K-S	53C2-150K-S	150K	S
53C1-200K-S	53C2-200K-S	200K	S
53C1-250K-S	53C2-250K-S	250K	S
53C1-500K-S	53C2-500K-S	500K	S
53C1-750K-S	53C2-750K-S	750K	S
53C1-1 Meg-S	53C2-1 Meg-S	1 Meg	S
53C1-1.5 Meg-S	53C2-1.5 Meg-S	1.5 Meg	S
53C1-2 Meg-S	53C2-2 Meg-S	2 Meg	S
53C1-2.5 Meg-S	53C2-2.5 Meg-S	2.5 Meg	S
53C1-3 Meg-S	53C2-3 Meg-S	3 Meg	S
53C1-4 Meg-S	53C2-4 Meg-S	4 Meg	S
53C1-5 Meg-S	53C2-5 Meg-S	5 Meg	S
53C1-10 Meg-S	53C2-10 Meg-S	10 Meg	S

Standard Packing — Individual Carton.

"Z" TAPER

53C1-100K-Z	100K
53C1-250K-Z	250K
53C1-500K-Z	500K
53C1-1 Meg-Z	1 Meg-Z
53C1-2.5 Meg-Z	2.5 Meg-Z

NET PRICE $2.25

REVERSED "Z" TAPER

53C1-10K-RZ	10K
53C1-25K-RZ	25K
53C1-50K-RZ	50K

NET PRICE $2.25

DUAL POTENTIOMETERS

D53C1 10K-S	D53C1 250K-S	
D53C1 25K-S	D53C1 500K-S	
D53C1 50K-S	D53C1 1 Meg-S	
D53C1 100K-S		

NET PRICE $5.85
Standard Packing—Ind. Carton.

Items not listed are special. Prices and information supplied upon request.

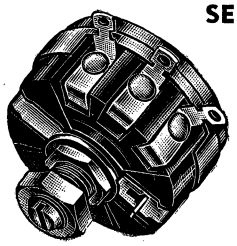
SERIES "43C1" and "43C2" 2-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms			
43C1-5	43C2-5	5	43C1-100	43C2-100	100	43C1-1500	43C2-1500	1500	43C1-15K	43C2-15K	15K
43C1-10	43C2-10	10	43C1-150	43C2-150	150	43C1-2000	43C2-2000	2000	43C1-20K	43C2-20K	20K
43C1-20	43C2-20	20	43C1-200	43C2-200	200	43C1-2500	43C2-2500	2500	43C1-25K	43C2-25K	25K
43C1-25	43C2-25	25	43C1-300	43C2-300	300	43C1-3000	43C2-3000	3000	43C1-30K	43C2-30K	30K
43C1-30	43C2-30	30	43C1-400	43C2-400	400	43C1-4000	43C2-4000	4000	43C1-40K	43C2-40K	40K
43C1-40	43C2-40	40	43C1-500	43C2-500	500	43C1-5000	43C2-5000	5000	43C1-50K	43C2-50K	50K
43C1-50	43C2-50	50	43C1-750	43C2-750	750	43C1-7500	43C2-7500	7500			
43C1-75	43C2-75	75	43C1-1000	43C2-1000	1000	43C1-10K	43C2-10K	10K			

NET PRICES

43C1-5 to 43C1-10K $1.35	43C1-30K to 43C1-50K $2.01	43C2-15K to 43C2-25K $2.55
43C1-15K to 43C1-25K 1.80	43C2-5 to 43C2-10K 2.25	43C2-30K to 43C2-50K 3.00



SERIES 58C1 AND 58C2 3-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 1%. All controls rated 3 watts.

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms	58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1	58C1-500	58C2-500	500
58C1-2	58C2-2	2	58C1-750	58C2-750	750
58C1-4	58C2-4	4	58C1-1000	58C2-1000	1000
58C1-6	58C2-6	6	58C1-1500	58C2-1500	1500
58C1-10	58C2-10	10	58C1-2000	58C2-2000	2000
58C1-15	58C2-15	15	58C1-2500	58C2-2500	2500
58C1-20	58C2-20	20	58C1-3000	58C2-3000	3000
58C1-25	58C2-25	25	58C1-5000	58C2-5000	5000
58C1-30	58C2-30	30	58C1-7500	58C2-7500	7500
58C1-40	58C2-40	40	58C1-10K	58C2-10K	10K
58C1-50	58C2-50	50	58C1-15K	58C2-15K	15K
58C1-60	58C2-60	60	58C1-20K	58C2-20K	20K
58C1-75	58C2-75	75	58C1-25K	58C2-25K	25K
58C1-100	58C2-100	100	58C1-30K	58C2-30K	30K
58C1-200	58C2-200	200	58C1-40K	58C2-40K	40K
58C1-300	58C2-300	300	58C1-50K	58C2-50K	50K
58C1-400	58C2-400	400			

NET PRICES

58C1-1 to 58C1-10K $1.35	58C2-1 to 58C2-10K $2.25
58C1-15K to 58C1-25K 1.80	58C2-15K to 58C2-25K 2.55
58C1-30K to 58C1-50K 2.01	58C2-30K to 58C2-50K 3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity to plus/minus 1%. All controls rated 4 watts.

1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1 ..... 2.75 10C2 ..... 3.60

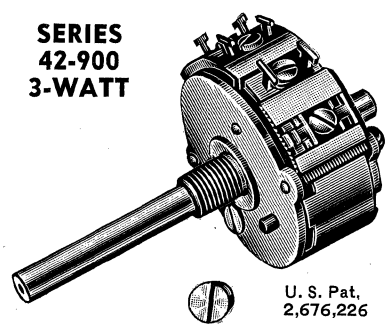
WIRE-WOUND PRECISION POTENTIOMETERS

Series 42-900 is a superlative-grade precision potentiometer with such features as selection of either limited or continuous rotation by simple manipulation; gold-plated bushings, terminals, secrews; front and rear plates of green anodized aluminum; rear shaft extension for coupling to other potentiometers, switch, servoes, etc. Wiring diagram on rear plate indicates terminal connections. Especially intended to meet the needs of your prototypes, laboratory testing, instrument-grade assemblies, etc.

Exceeds MIL-R-19 specifications where applicable.

	*Net Price
42-900—100K ohms	$19.00
42-900— 50K ohms	19.00
42-900— 20K ohms	16.00
42-900— 10K ohms	16.00
42-900—5000 ohms	14.00
42-900—2500 ohms	14.00
42-900—1000 ohms	14.00
42-900— 500 ohms	14.00
42-900— 100 ohms	14.00
42-900— 50 ohms	14.00

SERIES 42-900 3-WATT



U. S. Pat. 2,676,226

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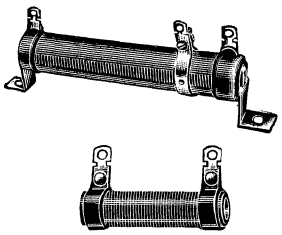
PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

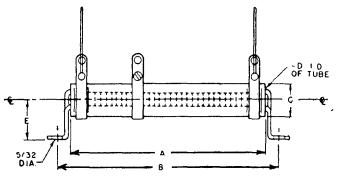
"GREENOHM"* WIRE-WOUND RESISTORS



FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without alterating resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with RETMA standards, overall tolerances are ± 5% for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are ± 10%.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with RETMA standards, overall tolerances are ± 10%.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1-7/16	5/16	3/16	7/16
PR-10-F	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-10-FA	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-20-K	20	2	2-1/2	9/16	3/8	9/16
P-25-K	25	2-1/2	3	9/16	3/8	9/16
P-25-KA	25	2-1/2	3	9/16	3/8	9/16
K-40-N	40	3-1/2	4-1/8	3/4	1/2	7/8
K-50-N	50	4-1/2	5-1/8	3/4	1/2	7/8
K-50-NA	50	4-1/2	5-1/8	3/4	1/2	7/8
K-80-N	80	6-1/2	7-1/8	3/4	1/2	7/8
K-80-NA	80	6-1/2	7-1/8	3/4	1/2	7/8
K-100-W	100	6-1/2	7-1/8	1-1/8	3/4	1-1/8
K-100-WA	100	6-1/2	7-1/8	1-1/8	3/4	1-1/8
K-160-W	160	8-1/2	9-1/8	1-1/8	3/4	1-1/8
K-160-WA	160	8-1/2	9-1/8	1-1/8	3/4	1-1/8
K-200W	200	10-1/2	11-1/8	1-1/8	3/4	1-1/8
K-200-WA	200	10-1/2	11-1/2	1-1/8	3/4	1-1/8

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to E1A specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3,000	
35	600	3,500	
40	700	**4,000**	
50	750	4,500	

NET PRICE $0.33
Standard Packing — 10 per Carton.
Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
5	1,250	20K	
7.5	1,500	25K	
10	2,000	30K	
15	2,250	35K	
20	2,500	40K	
25	3,000	45K	
50	3,500	50K	
75	4,000	60K	
100	4,500	70K	
150	5,000	75K	
200	6,000	80K	
250	7,000	85K	
300	7,500	90K	
400	8,000	100K	
500	9,000		

NET PRICES:

1 ohm to 5,000	**$0.51**
6,000 to 15K ohms	**.57**
20K to 50K ohms	**.66**
60K ohms	**.75**
70K ohms	**.84**
75K ohms	**.87**
80K ohms	**.90**
85K ohms	**.99**
90K ohms	**1.05**
100K ohms	**1.17**

Mounting brackets at no extra cost.
Standard Packing — Individually Boxed.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and E1A type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE $0.36

Mounting brackets supplied at extra cost.
Standard Packing — 10 per Carton.

40-WATT SERIES K-40-N

These resistors conform to E1A specification for type RRW-131.

Res.	Res.	Res.	Res.
5	250	5,000	40K
10	300	6,000	50K
15	400	7,500	60K
20	500	8,500	70K
25	750	10K	80K
50	1,000	12.5K	90K
75	1,500	15K	100K
100	2,000	20K	125K
125	2,500	25K	150K
150	3,000	30K	175K
200	4,000	35K	200K

NET PRICES:

5 ohms to 5,000 ohms	**$0.60**
6,000 to 25K ohms	**.66**
30K to 100K ohms	**.78**
125K to 150K ohms	**.93**
175K ohms	**.99**
200K ohms	**1.05**

Mounting brackets at no extra cost.
Standard Packing — Individually Boxed.

20-WATT SERIES PR-20-K

These resistors conform to E1A specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
25	1,200	8,000	80K
50	1,250	9,000	85K
75	1,500	10K	90K
100	1,750	12.5K	95K
150	1,850	15K	100K
200	2,000	20K	
250	2,250	25K	
300	2,500	30K	
350	2,750	35K	
400	3,000	40K	
500	3,500	45K	
650	4,000	50K	
700	4,500	55K	
750	5,000	60K	
800	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	**$0.42**
20K to 50K ohms	**.57**
55K to 100K ohms	**.72**

Mounting brackets supplied at extra cost.
Standard Packing — 5 per Carton.

50-WATT SERIES K-50-N

These resistors conform to E1A specification for type RRW-132.

Res.	Res.	Res.	Res.
1	500	5,000	35K
5	750	6,000	40K
10	1,000	7,500	50K
25	1,250	8,000	60K
50	1,500	9,000	70K
75	2,000	10K	75K
100	2,250	12K	80K
150	2,500	12.5K	100K
200	3,000	15K	125K
250	3,500	20K	150K
300	4,000	25K	175K
400	4,500	30K	200K

NET PRICES:

1 ohm to 5,000	**$0.72**
6,000 to 25K ohms	**.90**
30K to 100K ohms	**1.11**
125K ohms	**1.32**
150K to 175K ohms	**1.50**
200K ohms	**1.98**

Mounting brackets supplied at no extra cost.
Standard Packing — Individually Boxed.

PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT®

RESISTORS · CONTROLS
RESISTANCE DEVICES

ADJUSTABLE RESISTORS

80-WATT SERIES K-80-N

Res.	Res.	Res.	Res.
5	500	4,500	25K
10	750	5,000	30K
25	1,000	6,000	35K
50	1,250	7,500	40K
75	1,500	8,000	50K
100	2,000	9,000	60K
150	2,250	10K	70K
200	2,500	12K	75K
250	3,000	12.5K	80K
300	3,500	15K	100K
400	4,000	20K	

NET PRICES:

5 ohms to 5,000 ohms	$0.84
6,000 to 25K ohms	.99
30K to 50K ohms	1.17
60K to 75K ohms	1.32
80K ohms	1.38
100K ohms	1.50

100-WATT SERIES K-100-W

Res.	Res.	Res.	Res.
1	750	7,500	60K
5	1,000	8,000	70K
10	1,250	9,000	75K
25	1,500	10K	80K
50	2,000	12K	100K
75	2,250	12.5K	125K
100	2,500	15K	150K
150	3,000	20K	175K
200	3,500	25K	200K
250	4,000	30K	
300	4,500	35K	
400	5,000	40K	
500	6,000	50K	

NET PRICES:

1 ohm to 2,500 ohms	$1.17
3,000 to 4,000 ohms	1.23
4,500 to 25K ohms	1.29
30K to 50K ohms	1.65
60K to 75K ohms	1.83
80K ohms	1.89
100K ohms	1.98
125K ohms	2.04
150K ohms	2.16
175K ohms	2.22
200K ohms	2.49

160-WATT SERIES K-160-W

Res.	Res.	Res.	Res.
5	500	4,500	25K
10	750	5,000	30K
25	1,000	6,000	35K
50	1,250	7,500	40K
75	1,500	8,000	50K
100	2,000	9,000	60K
150	2,250	10K	70K
200	2,500	12K	75K
250	3,000	12.5K	80K
300	3,500	15K	100K
400	4,000	20K	125K
			150K

NET PRICES:

5 ohms to 10K ohms	$1.50
12K ohms	1.53
12.5K ohms	1.56
15K to 50K ohms	1.74
60K to 100K ohms	1.98
125K ohms	2.10
150K ohms	2.31

200-WATT SERIES K-200-W

Res.	Res.	Res.	Res.
5	500	4,500	25K
10	750	5,000	30K
25	1,000	6,000	35K
50	1,250	7,500	40K
75	1,500	8,000	50K
100	2,000	9,000	60K
150	2,250	10K	70K
200	2,500	12K	75K
250	3,000	12.5K	80K
300	3,500	15K	100K
400	4,000	20K	125K
			150K

NET PRICES:

5 ohms to 10K ohms	$1.65
12K ohms	1.83
12.5K ohms	1.89
15K to 100K ohms	1.98
125K to 150K ohms	2.49

10-WATT SERIES PR-10-FA

These resistors conform to military specification for type RW-29 and EIA specification for type RRW-226.

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE $0.57

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

NET PRICES:

1 ohm to 5,000 ohms	$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

50-WATT SERIES K-50-NA

These resistors conform to EIA specification for type RRW-232.

Res.	Res.	Res.	Res.
1	250	4,000	20K
5	300	4,500	25K
10	400	5,000	30K
15	500	6,000	35K
20	750	7,000	40K
25	1,000	7,500	45K
50	1,250	8,000	50K
75	1,500	9,000	60K
100	2,000	10K	75K
150	2,500	12K	80K
200	3,500	15K	100K

NET PRICES:

1 ohm to 5,000 ohms	$0.99
6,000 to 25K ohms	1.17
30K to 50K ohms	1.32
60K to 100K ohms	1.65

80-WATT SERIES K-80-NA

These resistors conform to EIA specification for type RRW-233.

Res.	Res.	Res.	Res.
5	300	4,500	20K
10	400	5,000	25K
15	500	6,000	30K
20	750	7,000	35K
25	1,000	7,500	40K
50	1,250	8,000	45K
75	1,500	9,000	50K
100	2,000	10K	60K
150	2,500	12K	75K
250	4,000		100K

NET PRICES:

5 ohms to 5,000 ohms	$1.17
6,000 to 25K ohms	1.32
30K to 50K ohms	1.50
60K to 100K ohms	1.83

100-WATT SERIES K-100-WA

These resistors conform to EIA specification for type RRW-234.

Res.	Res.	Res.	Res.
1	300	5,000	35K
5	400	6,000	40K
10	500	7,000	45K
15	750	7,500	50K
20	1,000	8,000	60K
25	1,250	9,000	75K
50	1,500	10K	80K
75	2,000	12K	100K
100	2,500	15K	125K
150	3,500	20K	150K
200	4,000	25K	
250	4,500	30K	

NET PRICES:

1 ohm to 2,500 ohms	$1.32
3,500 to 25K ohms	1.50
30K to 50K ohms	1.83
60K to 75K ohms	1.98
80K to 125K ohms	2.31
150K ohms	2.49

160-WATT SERIES K-160-WA

These resistors conform to EIA specification for type RRW-235.

Res.	Res.	Res.	Res.
5	300	4,500	25K
10	400	5,000	30K
15	500	6,000	35K
20	750	7,000	40K
25	1,000	7,500	45K
50	1,250	8,000	50K
75	1,500	9,000	60K
100	2,000	10K	75K
150	2,500	12K	80K
200	3,500	15K	100K
250	4,000	20K	125K
			150K

NET PRICES:

5 ohms to 4,500	$1.65
5,000 to 10K ohms	1.74
12K ohms	1.92
15K to 60K ohms	2.16
75K to 100K ohms	2.49
125K to 150K ohms	2.82

200-WATT SERIES K-200-WA

These resistors conform to military specification for type RW-47 and EIA specification for type RRW-236.

Res.	Res.	Res.	Res.
5	300	4,500	20K
10	400	5,000	25K
15	500	6,000	30K
20	750	7,000	35K
25	1,000	7,500	40K
50	1,250	8,000	45K
75	1,500	9,000	50K
100	2,000	10K	60K
150	2,500	12K	75K
200	3,500	15K	80K
250	4,000		100K

NET PRICES:

5 ohms to 4,500	$1.98
5,000 ohms to 10K	2.16
12K ohms	2.31
15K ohms to 75K	2.49
80K ohms to 100K	2.82

Above adjustable resistors are supplied with mounting brackets at no extra cost.

Extra Slider Bands — **$0.30** each.

Standard Packing — Individually Boxed.

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PRODUCTS OF
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CLAROSTAT®

RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, *plus* a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- ± 5% tolerance, 50 ohms and over. ± 10% tolerance, 49.9 ohms and under. ± 10% for adjustable.

"GREENOHM V"™ FIXED RESISTORS (ENAMEL VITREOUS)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

1	30	350	1250	7000
1.5	35	400	1500	7500
2	40	450	1750	8000
3	50	500	2000	9000
4	75	600	2250	10K
5	100	700	2500	12.5K
7.5	125	750	3000	15K
10	150	800	3500	17.5K
12	200	900	4000	20K
15	225	1000	4500	22.5K
20	250	1100	5000	25K
25	300	1200	6000	

NET PRICES:

1 to 1K	$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1¾" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	30	500	3000	13.5K
1	35	600	3500	14.3K
1.2	40	700	4000	15K
1.3	50	750	4500	16K
1.5	75	800	5000	17.5K
2	100	900	6000	18K
3	125	1000	7000	20K
4	150	1100	7500	22.5K
5	200	1200	8000	25K
7.5	225	1250	8500	30K
10	250	1500	9000	35K
12	300	1750	10K	40K
15	350	2000	11K	45K
20	400	2250	12K	50K
25	450	2500	12.5K	

Standard Packaging — 10 per Carton

NET PRICES:

0.4 to 1K	$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

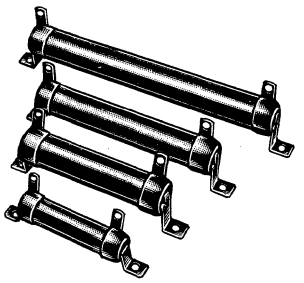
Core: 6½" x ¾"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 3	$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	350	1850	7500	55K
0.6	400	2000	8000	60K
0.8	500	2250	9000	65K
5	650	2400	10K	70K
10	700	2500	12.5K	75K
25	750	2750	15K	80K
50	800	3000	20K	85K
75	850	3500	25K	90K
100	1000	4000	30K	95K
150	1200	4500	35K	100K
200	1250	5000	40K	
250	1500	6000	45K	
300	1750	7000	50K	

Standard Packing — 5 per Carton

NET PRICES:

0.4 to 1K	$0.66
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
85K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 5	$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	800	5000	30K
2	75	1000	6000	35K
3	100	1500	7500	40K
4	150	2000	10K	50K
5	200	2500	12K	60K
10	250	3000	15K	70K
15	500	3500	20K	80K
25	750	4000	25K	100K

Standard Packing — Individually Boxed

NET PRICES:

1 to 1K	$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	75	1000	8000	75K
2	100	1500	10K	100K
3	150	2000	12K	125K
4	200	2500	15K	150K
5	250	3000	20K	175K
10	500	4000	25K	200K
25	750	5000	35K	225K
50	800	7500	50K	250K

Standard Packing — Individually Boxed

NET PRICES:

1	$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	1000	10K	60K
2	75	1500	15K	75K
3	100	2000	20K	100K
4	150	2500	25K	
5	250	3000	30K	
10	500	5000	40K	
25	750	7500	50K	

NET PRICES:

1 to 5	$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

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RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1¾" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	$1.14
1250 to 5K	1.17
6000 to 10K	1.26

Standard Packing — 10 per Carton

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

Lug terminals — Mtg. brackets furnished

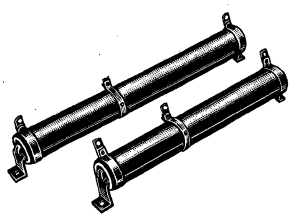
Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59

Standard Packing — Individually Boxed



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

Standard Packing — Individually Boxed

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

Standard Packaging — Individually Boxed

100-WATT SERIES VK-100-NA

Core: 6½" x ¾"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

Standard Packing — Individually Boxed

160-WATT SERIES VK-160-WA

Core: 8½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

Standard Packing — Individually Boxed

200-WATT SERIES VK-200-WA

Core: 10½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

Standard Packing — Individually Boxed

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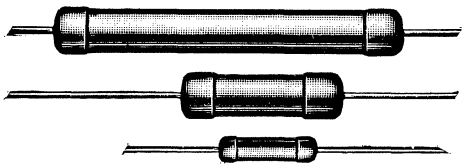
"FIXTOHM*" PRECISION RESISTORS



± 1% TOLERANCE

SERIES CVF **MIL Style RN20X** **½ WATT**	50 ohms to 2 megohms. Net Price: $.60 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVC **MIL Style RN25X** **1 WATT**	100 ohms to 4.99 megohms. Net Price: $.90 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVD **MIL Style RN30X** **2 WATT**	200 ohms to 10 megohms. Net Price: $1.08 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CML **MIL Style RN60B** **⅛ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Net Price: $1.35 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMH **MIL Style RN65B** **¼ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Net Price: $1.35 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMF **MIL Style RN70B** **½ WATT** **(MOLDED BODY)**	50 ohms to 2.2 megohms. Net Price: $.90 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMD **MIL Style RN80B** **2 WATT** **(MOLDED BODY)**	200 ohms to 10 megohms. Net Price: $1.80 ea.* Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.

Resistance tolerances available from ½ to 10%.
Hermetically sealed resistors available on special order.
Also available—Series CEL ⅛ watt and Series CEH ¼ watt.
Prices and information on request.

MILITARY DECADE VALUES

10.0	13.3	17.8	23.7	31.6	42.2	56.2	75.0
10.2	13.7	18.2	24.3	32.4	43.2	57.6	76.8
10.5	14.0	18.7	24.9	33.2	44.2	59.0	78.7
10.7	14.3	19.1	25.5	34.0	45.3	60.4	80.6
11.0	14.7	19.6	26.1	34.8	46.4	61.9	82.5
11.3	15.0	20.0	26.7	35.7	47.5	63.4	84.5
11.5	15.4	20.5	27.4	36.5	48.7	64.9	86.6
11.8	15.8	21.0	28.0	37.4	49.9	66.5	88.7
12.1	16.2	21.5	28.7	38.3	51.1	68.1	90.9
12.4	16.5	22.1	29.4	39.2	52.3	69.8	93.1
12.7	16.9	22.6	30.1	40.2	53.6	71.5	95.3
13.0	17.4	23.2	30.9	41.2	54.9	73.2	97.6

Other values may be found by using proper decade multiplier.

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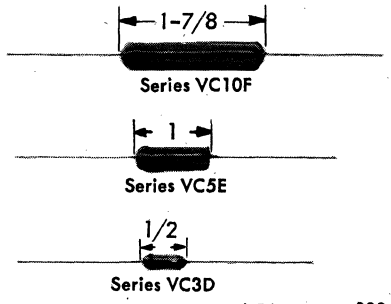
RESISTORS · CONTROLS
RESISTANCE DEVICES

AXIAL LEAD VITREOUS RESISTORS

Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ± 5% for 1 ohm and higher and tolerance below 1 ohm is ± 10%. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



Lead Length: 1½" Lead Diameter: .032

SERIES VC3D

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	K
4	40	350	1.1K	4K	K
5	50	400	1.2K	4.5K	K
7.5	75	450	1.25K	5K	K
10	100	500	1.5K	6K	K
12	125	600	1.75K	7K	K
15	150	700	2K	7.5K	K

Net Prices

1	to 1K	$ .51
1.1K	to 5K	.54
6K	to 10K	.95

Standard Packing—10 per Carton.

SERIES VC5E

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	12.5K
4	40	350	1.1K	4K	15K
5	50	400	1.2K	4.5K	17.5K
7.5	75	450	1.25K	5K	18K
10	100	500	1.5K	6K	20K
12	125	600	1.75K	7K	22.5K
15	150	700	2K	7.5K	25K

Net Prices

1	to 1K	$ .54
1.1K	to 5K	.57
6K	to 10K	.60
12.5K	to 20K	.72
22.5K	to 25K	.75

Standard Packing—10 per Carton.

SERIES VC10F

RESISTANCE OHMS

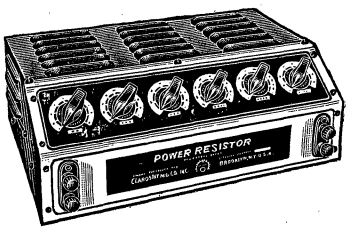
1	20	200	750	2.25K	8K	17.5K
1.5	25	225	800	2.5K	8.5K	18K
2	30	250	900	3K	9K	20K
3	35	300	1K	3.5K	10K	22.5K
4	40	350	1.1K	4K	11K	25K
5	50	400	1.2K	4.5K	12K	30K
7.5	75	450	1.25K	5K	12.5K	35K
10	100	500	1.3K	6K	13.5K	40K
12	125	600	1.75K	7K	15K	45K
15	150	700	2K	7.5K	16K	50K

Net Prices

1	to 1K	$ .60
1.1K	to 5K	.63
6K	to 10K	.72
11K	to 20K	.81
22.5K	to 40K	.84
45K	to 50K	.96

Standard Packing—10 per Carton.

POWER RESISTOR DECADE BOX



The Resistance Decade Box Model No. 240C allows changing resistance at a flip of the switch in a working circuit. Any value obtainable from 1 ohm to 999,999 in steps of one ohm and at a maximum power rating of 225 watts using a maximum of 1000 volts D.C. or 660 volts A.C.

Resistance changing switches are of the type that prevents a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Pointer knobs indicate at a glance the resistance value being used.

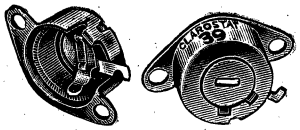
Clarostat "Greenohm" resistors are used throughout. These are inorganic-cement-coated wire-wound power resistors. The resistors are mounted on rigid metal supports. A baffle plate separating the resistor bank from the switch assembly protects the latter against heat.

The heavy-gauge metal case is finished in frosted gray wrinkle, with an etched black-and-aluminum front panel. 13 in. long; 8½ in. deep; 5¾ in. high. Weight, 11 lbs.

SUGGESTED USES: Resistance determination. Load Resistance. Meter Multiplier. Calibrating Meters. Providing any desired ohmage as a universal power resistor.

	Maximum Current Ratings:	Resistance Tolerance		Maximum Current Ratings:	Resistance Tolerance
Decade No. 1	5 amp.	5%	Decade No. 4	.15 amp.	2%
Decade No. 2	1.5 amp.	2%	Decade No. 5	.05 amp.	2%
Decade No. 3	.5 amp.	2%	Decade No 6	.005 amp.	2%

NET PRICE **$110.00**



Compact. Inexpensive. 2-watt rating. Screwdriver adjusted by slot in drive plate. Mounting ears. For hum balance, centering, hold and locking, linearity, AGC sensitivity, etc.

NET PRICE $0.42

Standard Packing: 10 per Carton.

SERIES 39 "HUMDINGER"* WIRE-WOUND CONTROLS

Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min Res. Ohms
39-5	5	——	39-500	500	——	39-1000-100	1,000	100
39-8	8	——	39-500-100	500	100	39-1500	1,500	——
39-50	50	——	39-600	600	——	39-2000	2,000	——
39-75	75	——	39-650	650	——	39-2000-100	2,000	100
39-100	100	——	39-700	700	——	39-3000	3,000	——
39-125	125	——	39-700-200	700	200	39-3000-700	3,000	700
39-150	150	——	39-800	800	——	39-4000	4,000	——
39-200	200	——	39-800-50	800	50	39-4000-350	4,000	350
39-300	300	——	39-1000	1,000	——	39-4000-1000	4,000	1,000
						39-5000	5,000	——

*Reg. U. S. Pat. Off.

Net

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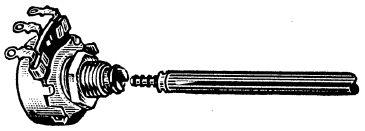
Centralab Controls and Accessories

UNIVERSAL SHAFT AND ADASHAFT® CONTROLS

"B" Control


"AB" and Shaft

"TT"

"KR"

MODELS "B" AND "AB" CONTROLS

Model B and AB controls are rated at ½ watt. **Size:** 15/16" diameter, 7/16" deep. **Breakdown:** 900 v. AC rms to ground. **Mounting:** 3/8" long 3/8"-32 thread bushing; equipped with mounting nut. Any model converts easily to switch type by merely snapping on "KR" switch. **Model B Shaft:** 1/4" diam. x 3 3/8" long from mtg. surface. Universal fluted knurled type; fits split knurl, shallow flat, deep flat, slotted, or round applications. **Model AB Shaft:** Patented stub, screwdriver slot shaft 9/16" long from mtg. surface. Use as is, or extended, using AK shafts.

CRL Type "B" Plain Control—Any model. Net Each..... **93c**

CRL Type "AB" Plain Control—Any model. Net Each..... **84c**

PLAIN "B" AND "AB" CONTROLS

Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-
100	C-1	1	100,000	C-1	40
200	C-1	2	100,000	C-2	41
500	C-1	4	150,000	C-1	43
750	C-5	415	150,000	C-2	44
1,000	C-1	5	200,000	C-1	46
1,000	C-5	505	250,000	C-1	50
1,500	C-5	515	250,000	C-2	51
2,000	C-1	6	250,000	C-5	52
2,500	C-1	7	500,000	C-1	59
2,500	C-2	702	500,000	C-2	60
2,500	C-5	705	500,000	C-3	613
3,000	C-1	8	500,000	C-4	58
4,000	C-1	9	500,000	C-5	61
5,000	C-1	10	500,000	C-6	616
5,000	C-2	11	500,000	C-7	617
5,000	C-5	12	750,000	C-1	66
7,500	C-1	13	1 meg.	C-1	69
10,000	C-1	14	1 meg.	C-2	70
10,000	C-2	15	1 meg.	C-4	744
10,000	C-4	18	1 meg.	C-5	68
10,000	C-5	17	1 meg.	C-7	697
10,000	C-6	16	1.5 meg.	C-1	742
15,000	C-5	19	2 meg.	C-1	75
15,000	C-6	20	2 meg.	C-2	76
20,000	C-1	22	2 meg.	C-5	77
20,000	C-5	23	2.5 meg.	C-1	83
20,000	C-6	24	3 meg.	C-1	84
25,000	C-1	26	3 meg.	C-2	85
25,000	C-2	25	3 meg.	C-5	855
25,000	C-4	29	4 meg.	C-1	86
25,000	C-5	27	4 meg.	C-2	862
25,000	C-6	28	5 meg.	C-1	87
50,000	C-1	31	5 meg.	C-2	88
50,000	C-2	32	7 meg.	C-7	89
50,000	C-5	34	7.5 meg.	C-1	90
75,000	C-1	35	10 meg.	C-1	98
75,000	C-5	36			

MODEL "B" SWITCH-TYPE CONTROLS

Universal DPST switch type units.

CRL No.	Max. Ohms	Taper	Use For	Net Ea.
B-60-S	½ Meg.	C2	SPST, DPST or 3-wire	$1.35
B-70-S	1 Meg.	C2	SPST, DPST or 3-wire	1.35

SINGLE TAPPED "B" CONTROLS

Ohms	Taper	Tap	CRL No.	Net Each
50,000	C-11	25K	BT-33	$1.35
100,000	C-11	50K	BT-39	1.35
200,000	C-11	100K	BT-47	1.35
250,000	C-11	125K	BT-53	1.35
250,000	C-12	50K	BT-54	1.35
250,000	C-13	75K	BT-55	1.35
250,000	C-16	125K*	BT-56	1.35
350,000	C-12	70K	BT-57	1.35
½ meg.	C-11	250K	BT-65	1.35
½ meg.	C-12	100K	BT-66	1.35
½ meg.	C-13	150K	BT-67	1.35
½ meg.	C-15	50K†	BT-63	1.35
½ meg.	C-16	250K*	BT-64	1.35
½ meg.	C-17	50K‡	BT-62	1.35
1 meg.	C-11	500K	BT-71	1.35
1 meg.	C-12	200K	BT-72	1.35
1 meg.	C-13	300K	BT-73	1.35
1 meg.	C-16	500K*	BT-74	1.35
1 meg.	C-17	100K	BT-7417	1.35
2 meg.	C-11	1 meg.	BT-78	1.35
2 meg.	C-12	400K	BT-79	1.35
2 meg.	C-13	600K	BT-80	1.35
2 meg.	C-15	200K	BT-81	1.35
2 meg.	C-16	1 meg.*	BT-82	1.35
3 meg.	C-15	300K†	BT-8515	1.35
3 meg.	C-17	300K‡	BT-8517	1.35

*62½% rotation. †50% rotation. ‡37½% rotation.

SINGLE TAPPED "AB" CONTROLS

Ohms	Taper	Tap	CRL No.	Net Each
50,000	C-11	25K	ABT-33	$1.26
100,000	C-11	50K	ABT-39	1.26
200,000	C-11	100K	ABT-47	1.26
250,000	C-11	125K	ABT-53	1.26
250,000	C-12	50K	ABT-54	1.26
250,000	C-13	75K	ABT-55	1.26
250,000	C-16	125K*	ABT-56	1.26
350,000	C-12	70K	ABT-57	1.26
½ meg.	C-11	250K	ABT-65	1.26
½ meg.	C-12	100K	ABT-66	1.26
½ meg.	C-13	150K	ABT-67	1.26
½ meg.	C-15	50K†	ABT-63	1.26
½ meg.	C-16	250K*	ABT-64	1.26
½ meg.	C-17	50K‡	ABT-62	1.26
1 meg.	C-11	500K	ABT-71	1.26
1 meg.	C-12	200K	ABT-72	1.26
1 meg.	C-13	300K	ABT-73	1.26
1 meg.	C-16	500K*	ABT-74	1.26
1 meg.	C-17	100K	ABT-7417	1.26
2 meg.	C-11	1 meg.	ABT-78	1.26
2 meg.	C-12	400K	ABT-79	1.26
2 meg.	C-13	600K	ABT-80	1.26
2 meg.	C-15	200K	ABT-81	1.26
2 meg.	C-16	1 meg.*	ABT-82	1.26
3 meg.	C-15	300K†	ABT-8515	1.26
3 meg.	C-17	300K‡	ABT-8517	1.26

*62½% rotation. †50% rotation. ‡37½% rotation.

DUAL TAPPED "B" AND "AB" CONTROLS

Ohms	Taps	Type B CRL No.	Type B Net Ea.	Type AB CRL No.	Type AB Net Ea.
15,000	Taps 5K and 10K	BT-154	$1.35	ABT-154	$1.26
250,000	Taps 50K and 125K	BT-155	1.35	ABT-155	1.26
250,000	Taps 41K and 82K	BT-156	1.35	ABT-156	1.26
½ Meg.	Taps 82K and 165K	BT-159	1.35	ABT-159	1.26
½ Meg.	Taps 100K and 250K	BT-160	1.35	ABT-160	1.26
1 Meg.	Taps 165K and 330K	BT-164	1.35	ABT-164	1.26
1 Meg.	Taps 200K and 500K	BT-165	1.35	ABT-165	1.26
1.5 Meg.	Taps 250K and 500K	BT-167	1.35	ABT-167	1.26
2 Meg.	Taps 250K and 500K	BT-174	1.35	ABT-174	1.26
2 Meg.	Taps 400K and 1 Meg.	BT-175	1.35	ABT-175	1.26
2.5 Meg.	Taps 300K and 625K	BT-176	1.35	ABT-176	1.26
3.3 Meg.	Taps 330K and 1650K	BT-180	1.35	ABT-180	1.26

MODEL "TT" TWIST TAB CONTROLS

Ideal for rear service adjust TV controls and other shock hazard uses. Features U/L Approved phenolic shaft, 3/8" long from mtg. surface, knuried full length; screwdriver slotted end. Composition element rated ½ watt; 15/16" dia. x 7/16" d. Breakdown, 900 v. AC rms to ground. Includes 2" polyethylene shaft extension. Shipping Weight, 2 oz.

CRL No.	Ohms	Taper	Net Each	CRL No.	Ohms	Taper	Net Each
TT-2	200	C-1	60c	TT-59	500K	C-1	60c
TT-4	500	C-1	60c	TT-60	500K	C-2	60c
TT-411	750	C-1	60c	TT-66	750K	C-1	60c
TT-511	1500	C-1	60c	TT-69	1 meg.	C-1	60c
TT-8	3000	C-1	60c	TT-70	1 meg.	C-2	60c
TT-10	5000	C-1	60c	TT-742	1.5 meg.	C-1	60c
TT-14	10K	C-1	60c	TT-75	2 meg.	C-1	60c
TT-26	25K	C-1	60c	TT-83	2.5 meg.	C-1	60c
TT-31	50K	C-1	60c	TT-84	3 meg.	C-1	60c
TT-35	75K	C-1	60c	TT-86	4 meg.	C-1	60c
TT-40	100K	C-1	60c	TT-87	5 meg.	C-1	60c
TT-46	200K	C-1	60c	TT-90	7.5 meg.	C-1	60c
TT-50	250K	C-1	60c				

TYPE "KR" FASTATCH® SWITCHES

For use with Models A, AB and SR controls.

125 v. AC Switches				10 v. DC Switches			
CRL No.	Use	Amps	Net Ea.	CRL No.	Use	Amps	Net Ea.
KR-1	SPST	5	42c	KR-4	SPST	15	66c
KR-2	DPST	3	51c	KR-6†	SPST	15	66c
KR-3	DP*	3	51c	KR-7	DPST	15	66c

*One pole "off", one "on"; jumper for SPDT. †With dummy lug.

SWITCH SHIELDS

For use with switch type units only where AC shielding is needed or specified by Underwriter's Lab.

CRL No. KR-5—Net Package of 5..... **72c**

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Centralab Controls

MODELS "SR" AND "STR" ADD-ON CONTROLS

Snap-on rear units added to "B" or "AB" controls provide ganged twin controls for stereo applications. Convert to switch type by using snap-on "KR" Fastatch switches.

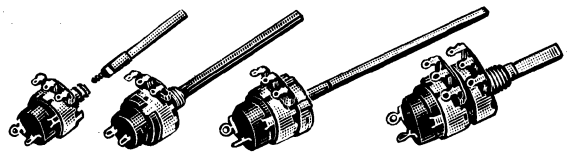
MODEL SR PLAIN CONTROLS

CRL No.	Ohms	Taper	Net Each	CRL No.	Ohms	Taper	Net Each
SR-4	500	C-1	$1.14	SR-59	500K	C-1	$1.14
SR-6	2000	C-1	1.14	SR-60	500K	C-2	1.14
SR-13	7500	C-1	1.14	SR-613	500K	C-3	1.14
SR-26	25K	C-1	1.14	SR-58	500K	C-4	1.14
SR-25	25K	C-2	1.14	SR-617	500K	C-7	1.14
SR-31	50K	C-1	1.14	SR-69	1 meg.	C-1	1.14
SR-32	50K	C-2	1.14	SR-70	1 meg.	C-2	1.14
SR-323	50K	C-3	1.14	SR-68	1 meg.	C-5	1.14
SR-40	100K	C-1	1.14	SR-75	2 meg.	C-1	1.14
SR-41	100K	C-2	1.14	SR-76	2 meg.	C-2	1.14
SR-42	100K	C-3	1.14	SR-84	3 meg.	C-1	1.14
SR-50	250K	C-1	1.14	SR-85	3 meg.	C-2	1.14
SR-51	250K	C-2	1.14	SR-87	5 meg.	C-1	1.14
SR-513	250K	C-3	1.14	SR-88	5 meg.	C-2	1.14

MODEL STR TAPPED CONTROLS

CRL No.	Ohms	Taper, Tap	CRL No.	Ohms	Taper, Tap	Net Each
STR-53	250K	C-11, 125K	STR-82	2 meg.	C-16, 1 meg.	$1.14
STR-56	250K	C-16, 125K	STR-159	500K	82K & 165K	1.14
STR-65	500K	C-11, 250K	STR-160	500K	100K & 250K	1.14
STR-66	500K	C-12, 100K	STR-167	1.5 meg.	250K & 500K	1.14
STR-64	500K	C-16, 250K	STR-174	2 meg.	250K & 500K	1.14
STR-71	1 meg.	C-11, 500K	STR-175	2 meg.	400K & 1 meg.	1.14
STR-74	1 meg.	C-16, 500K	STR-180	3.3 meg.	330K & 1650K	1.14

PUSH-PULL, PUSH-PUSH SWITCH CONTROLS



APL, APS BPL, BPS RPL, RPS TPL

Switch type controls for radio, TV and hi-fi applications. Rated ½ watt; breakdown 900 v. AC rms to ground. Switch rated 3 amps, 125 v. AC; SPST type. Size: 15/16" dia. x 29/64" deep, push-push type; 13/16" deep, push-pull type. Mount using 3/8" l. x 3/8"-32 threaded bushing with mounting nut except Fastatch types RPL and RPS.

ADASHAFT® TYPE

Any Model **$1.44**

Resis., Ohms	Taper	CRL Number Push-Pull	Push-Push
2500	C2	APL-702	.....
250K	C2	.....	APS-51
500K	C1	APL-59	.....
500K	C2	APL-60	.....
500K	*	APL-91	.....
500K	†	APL-64	.....
500K	‡	APL-159	.....
1 meg.	C2	APL-70	.....
1 meg.	C7	APL-697	APS-697
1 meg.	*	APL-72	.....
1 meg.	§	APL-74	.....
2 meg.	C2	APL-76	APS-76
2 meg.	#	APL-82	.....

UNIVERSAL SHAFT

Any Model—Net Each **$1.53**

Resis., Ohms	Taper	CRL Number Push-Pull	Push-Push
2500	C2	BPL-702	.....
250K	C2	.....	BPS-51
500K	C1	BPL-59	.....
500K	C2	BPL-60	.....
500K	*	BPL-91	.....
500K	†	BPL-64	.....
500K	‡	BPL-159	.....
1 meg.	C2	BPL-70	.....
1 meg.	C7	BPL-697	BPS-697
1 meg.	*	BPL-72	.....
1 meg.	§	BPL-74	.....
2 meg.	C2	BPL-76	BPS-76
2 meg.	#	BPL-82	.....

*37% tap, 200K. †62% tap, 250K. ‡37% tap, 82K; 62% tap, 165K. §62% tap, 500K. #62% tap, 1 meg.

FASTATCH® TYPE

Any Model—Net Each **$1.74**

Resis., Ohms	Taper	CRL Number Push-Pull	Push-Push
500K	C2	RPL-41	.....
500K	†	RPL-44	.....
500K	‡	RPL-46	.....
1 meg.	C2	RPL-52	RPS-52
1 meg.	§	RPL-57	RPS-57
2 meg.	C1	RPL-67	RPS-67
2 meg.	C2	RPL-68	RPS-68
2 meg.	#	RPL-75	RPS-75
3 meg.	•	RPL-80	.....

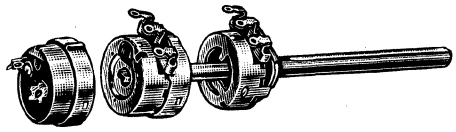
TWIN TYPE

Any Model—Net Each **$2.67**

Resis., Ohms	Taper	Taps	CRL No. Push-Pull
250K	...	88K, 155K	TPL-101
500K	C1	.....	TPL-102
500K	...	82K, 165K	TPL-103
1 meg.	C1	.....	TPL-104
1 meg.	C2	.....	TPL-105
5 meg.	C2	.....	TPL-106
500K	*	.....	TPL-107

*Front, C2; rear, C3. †37% tap, 100K. ‡62% tap, 250K. §37% tap, 200K. #62% tap, 1 meg. •62% tap, 1.5 meg.

FASTATCH® DUAL CONTROLS



No tools needed . . . just snap them together. Saves stocking and availability headaches for radio and TV controls. Ideal also for labs and manufacturers that need special dual concentric controls. Nothing to bend. Fastatch Duals are completely assembled, tested and guaranteed front and rear units. Closely held tolerances insure perfect fit and operation. Front and rear units are stocked separately; just 134 cover all current and FUTURE dual concentric specifications.

FASTATCH® DUAL, FRONT UNIT

Outer shaft is 3 5/16" long from mounting surface, with double flat mill . . . brass for quick cutting to proper length. Use for single or double flat or round shaft. Scores make easy cutting for single or double slot. With mounting nut.

FASTATCH® DUAL, REAR UNIT

Distinctive blue aluminum inner shaft is 3¾" long from mounting surface. Easily cut to proper length. Diameter .187" with .156" flat. Fits .187" to .202" flat shaft knob—spring adapter furnished for other knob types convert to switch type with type KR switches.

CRL Fastatch® Dual Controls—Front or Rear Unit **$1.14** (Carbon). Net Each .....

CRL No. Front Unit	CRL No. Rear Unit	Max. Ohms	Taper or Tap	CRL No. Front Unit	CRL No. Rear Unit	Max. Ohms	Taper or Tap
F1-0	.....	300	C1	F1-42	R2-42	500K	C4
F1-1	R2-1	500	C1	F3-42	R4-42	500K	C11, 250K
F1-2	.....	750	C1	F1-44	R2-44	500K	C12, 100K
F3-2	.....	750	C5	.....	R2-45	500K	C14, 150K
F1-3	.....	750	500	.....	R2-46	500K	C16, 250K
F1-4	R2-4	1000	C1	F1-47	R2-47	500K	C17, 50K
F1-5	R2-5	1000	C5	.....	R2-48	500K	150K
F1-6	R2-6	1500	C1	F1-49	.....	750K	C2
F1-7	R2-7	1500	C5	F1-50	.....	850K	C1
F1-8	.....	1500	187, 375	F1-51	R2-51	1 Meg	C1
F1-9	R2-9	2000	C1	F1-52	R2-52	1 Meg	C2
F1-10	R2-10	2000	C5	F1-53	R2-53	1 Meg	C3
F1-11	.....	2000	1500	F1-54	R2-54	1 Meg	C4
F3-11	.....	2000	250-500	F1-55	.....	1 Meg	C7
F1-12	R2-12	2500	C1	F1-56	R2-56	1 Meg	C11, 500K
.....	R2-13	2500	C2	.....	R2-57	1 Meg	C12, 200K
.....	R2-14	2500	C3	.....	R2-58	1 Meg	C13, 250K
F1-15	.....	2500	C5	F1-59	R2-59	1 Meg	C14, 300K
F1-16	.....	2500	500	.....	R2-60	1 Meg	C16, 500K
F1-17	.....	2500	625	.....	R2-61	1 Meg	C17, 100K
.....	R2-18	3500	C5	.....	R2-62	1 Meg	300K
F1-19	R2-19	5000	C1	F1-63	.....	1 Meg	*
F1-20	.....	5000	C3	F1-64	R2-64	1½ Megs	C1
F1-21	.....	5000	C5	F1-65	.....	1½ Megs	C7
.....	R2-22	7500	C1	.....	R2-66	1½ Megs	**
F1-23	R2-23	10K	C1	F1-67	R2-67	2 Megs	C1
F1-24	.....	10K	C2	F1-68	R2-68	2 Megs	C2
F1-25	R2-25	10K	C5	F1-69	.....	2 Megs	C4
F1-26	.....	15K	5K-10K	.....	R2-70	2 Megs	C5
F1-27	R2-27	25K	C1	F1-71	.....	2 Megs	C7
F1-28	.....	35K	C1	.....	R2-72	2 Megs	C11, 1 Meg
F1-29	R2-29	50K	C1	F1-73	R2-73	2 Megs	C12, 400K
F1-30	R2-30	75K	C1	F1-74	R2-74	2 Megs	C13, 200K
F1-31	R2-31	100K	C1	.....	R4-74	2 Megs	C14, 600K
F1-32	R2-32	125K	C1	F1-75	R2-75	2 Megs	C16, 1 Meg
F1-33	R2-33	200K	C1	F1-76	R2-76	2½ Megs	C1
F1-34	R2-34	250K	C1	F1-77	R2-77	2½ Megs	C7
F1-35	R2-35	250K	C2	F1-78	R2-78	3 Megs	C1
.....	R2-36	250K	C4	F1-79	R2-79	3 Megs	C2
F1-37	R2-37	250K	C5	.....	R2-80	3 Megs	C16,
F3-37	R4-37	250K	C14,75K				1½ Megs
.....	R2-38	330K	C12,66K	F1-81	R2-81	3 Megs	900K
F1-39	.....	350K	C2	F1-82	.....	4 Megs	C7
F1-40	R2-40	500K	C1	F1-83	R2-83	5 Megs	C7
F1-41	R2-41	500K	C2	.....	R2-84	5 Megs	C3

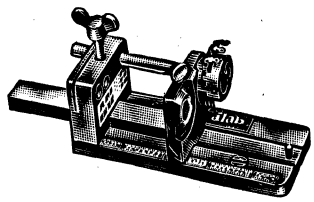
*200K and 500K. **250K and 500K.

5-WATT WIRE-WOUND FRONT SECTION CONTROLS

5-Watt WW Fastatch Front Units—Taper, C-1, 1 5/16" diameter. Net Each **$1.35**

CRL No.	Max. Ohms	CRL No.	Max. Ohms	CRL No.	Max. Ohms
F7-50	250	F7-68	1000	F7-82	2500
F7-53	300	F7-72	1500	F7-85	3000
F7-59	500	F7-75	2000	F7-90	5000
F7-65	750	F7-78	2250	F7-96	10000

MODEL SK-2 SHAFT-KUT TOOL



Precision instrument makes cutting shafts to exact size a simple job. Cuts any standard solid or hollow shaft accurately to 1/64". Constructed of case hardened steel; designed to last a lifetime. Complete with mounting screws and operating instructions.

CRL No. SK-2— **$4.95** Net Each .....

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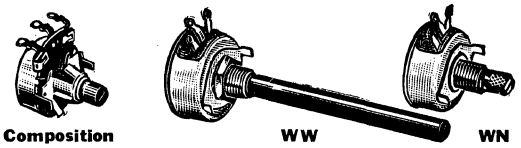
Centralab® Controls and Accessories



Composition WW WN

SNAP-TITE* COMPOSITION CONTROLS

For hidden or rear TV controls, rated ½ watt. Installs simply: Push into mounting hole, turn until locating lugs fit in holes provided; may be used where no locating lugs are needed. Size: 5/16" diam. x 7/16" deep. ¼" diam. molded plastic shaft ½" long, knurled and slotted. *Trade Mark.

CRL No.	Max. Ohms	Taper	Net Each	CRL No.	Max. Ohms	Taper	Net Each
BX-10	5,000	C1	51c	BX-69	1 meg.	C1	51c
BX-31	50K	C1	51c	BX-742	1.5 meg.	C1	51c
BX-40	100K	C1	51c	BX-75	2 meg.	C1	51c
BX-46	200K	C1	51c	BX-83	2.5 meg.	C1	51c
BX-59	500K	C1	51c	BX-84	3 meg.	C1	51c

5-WATT WIRE-WOUND CONTROLS

New design packs 5-watt capacity into a 2-watt size unit: 1 3/32" dia. x 9/16" deep. Model WW has full round aluminum shaft ¼" dia. x 3" long. Model WN has fingertip knurled, slotted shaft ¼" dia. x ¾" long. Specify by using WN or WW as prefix.

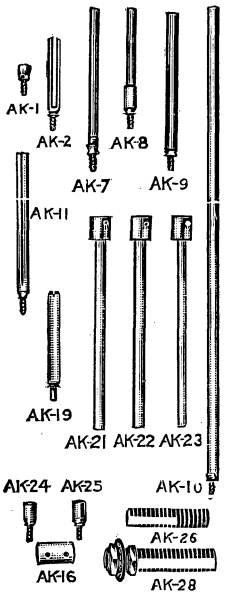
CRL Type WW or WN—Any model 1 through 15K ohms. Net Each **$1.14**
CRL Type WW or WN—20K through 30K ohms. Net... **$1.50**
CRL Type WW or WN—40K or 50K ohms Net Each... **1.80**
CRL Type WW or WN—75K or 100K ohms. Net Each.. **2.46**

Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-
1	010	25	250	400	401	7500	752
2	020	30	300	500	501	10K	103
3	030	40	400	750	751	15K	153
4	040	50	500	1000	102	20K	203
5	050	60	600	1500	152	25K	253
6	060	75	750	2000	202	30K	303
8	080	100	101	2500	252	40K	403
10	100	200	201	3000	302	50K	503
15	150	250	251	4000	402	75K	753
20	200	300	301	5000	502	100K	104

ADASHAFT® SHAFTS, COUPLERS, EXTENSIONS

CRL No.	Description	Net Pkge. 5
AK-1	3/8" L., screw slot	$0.45
AK-2	1 1/16" L., slot .078" W.	.45
AK-7	3" L., flat side .156"	.45
AK-8	2 1/8" L. x 3/16" round	.45
AK-9	3 1/4" L. x ¼" round	.45
AK-10	10" L., flat mill .216" x 4 5/16" long	.45
AK-11	Universal, 4" long; slot, knurl and flat side	.45
AK-16	¼" to ¼" or 3/16" shaft coupler	.45
AK-19	Insul. nylon 2 1/16" L.	.45
AK-21	4" x ¼" Dia. Exten., flat .218" wide	.45
AK-22	4" x ¼" Dia. Exten., flat .154" wide	.45
AK-23	4" x 3/16" Dia. Exten., flat .172" wide	.45
AK-24	3/8" L. x ¼" full round	.45
AK-25	3/8" L. x ¼", flat .218"	.45
AK-26	Auto adapt bush, 3/8"-7/16"	.45*
AK-28	Auto bush., 3/8"-½"	.45*
AK-29	2 1/16" L. x .235" full rd.	.45
AK-30	Ground Lug	.45†
AK-31	3/8"-32 bush. adj. to 1"	.45*
AK-32	Adapter spring for F and R dual controls	.18
AK-33	.187" dia. alum. double-grooved shaft.	.45
AK-37	3/8"-32 phenolic bushing adjusts to 1".	.45*

*Net Each. †Net per dozen.



DESCRIPTION OF TAPERS

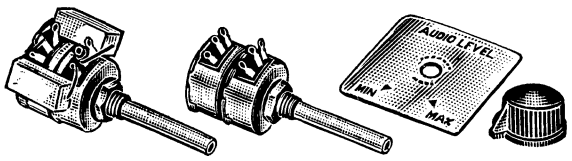
C-1—Linear; uniform resistance change from either end. **C-2**—Semi-log, (audio) 10% center. **C-3**—Right hand semi-log. Reversed C-2. **C-4**—Modified log, 20% center. **C-5**—Right hand mod. log, 20% center. **C-6**—Mod. log., 40% center. **C-7**—Symet. straight line; slow change. **C-11**—Tapped 50% rotation, 50% resis. **C-12**—Tapped 37½% rotation, 20% resis. **C-13**—Tapped 50% rotation, 30% resistance. **C-14**—Tapped 62% rotation, 30% resistance. **C-15**—Tapped 50% rotation, 10% resistance. **C-16**—Tapped 62% rotation, 50% resistance. **C-17**—Tapped 37½% rotation, 10% resistance.

WALL PLATES

Chrome plated; for mounting speaker controls. Complete with mounting screws. Size, 2¾" x 4½".

CRL No. P-223 (⅜" center hole) **or P-224** (Blank plate)— Net Each **63c**

L-PAD AND BRIDGED T-PAD ATTENUATORS



Bridged T-Pad L-Pad AK-36 KC-10

Constant impedance L-pads and bridged T-pads provide optimum sound reproduction quality without altering frequency response. Rated 20 watts, audio; 5 watts DC and sine-wave. Breakdown, 900 volts AC rms to ground. Anti-backlash construction features force-fit shaft interlock; prevents relative motion between contact springs of front and rear units; assures smooth attenuation in either direction without deterioration. Full round brass shaft, ¼" dia. x 1 7/16" long from mounting surface. Bushing ⅜" long x ⅜-32 thread with nut and lockwasher; can be extended up to 1" by adding AK-31 or AK-37 adapter bushing. Control size only 1 3/32" case dia. x 1 5/32" deep. Comes complete with AK-36 brushed gold-anodized dial plate and KC-10 black pointer knob with set screw.

L-PAD ATTENUATORS

Controls audio level of speakers in PA, intercom and hi-fi sound systems.

Impedance	Centralab Number	Net Each
4 ohms	WL-4	$2.97
8 ohms	WL-8	2.97
16 ohms	WL-16	2.97
500 ohms	WL-500	2.97
600 ohms	WL-600	2.97

BRIDGED T-PAD ATTENUATORS

Speaker audio level control and sound mixer control for mikes and other circuits where constant impedance between input and output circuits must be maintained.

Impedance	Centralab Number	Net Each
4 ohms	WDT-4	$3.57
8 ohms	WDT-8	3.57
16 ohms	WDT-16	3.57
500 ohms	WDT-500	3.57
600 ohms	WDT-600	3.57

ACCESSORIES

CRL No.	Description	Net Each
KC-10	Pkge. 5 black set-screw pointer knobs	$0.90
AK-34	4½" x 2¾" brushed gold wall-plate	.90
AK-35	4½" x 2¾" brushed aluminum wall-plate	.90
AK-36	2" x 2" brushed gold dial plate; pkge. 5	1.44

1/10 WATT CONTROLS

Model B16 can be reduced to ⅝" diam. by removing knob; with knob is 23/32". Plain type is stud mounted, using two 1-72NF-2 thd. x .140" on .427" centers. Switch type is bracket mounted. **Model SM** measures 19/32" with knob, reduces to .502" without knob. Mount is standard 0-80NF-2A thd. x .134" long brass studs on .285" centers. Switch type only. **$1.50**

CRL Model B16 Plain—Net Each.....
CRL Model B16 Switch—Net Each..... **$2.40**

TYPE B16 SERIES

CRL No. Plain	CRL No. Switch	Max. Ohms	Taper	CRL No. Plain	CRL No. Switch	Max. Plain	Taper
B16-107	.....	500	C1	B16-119	.....	50K	C1
B16-109	.....	1000	C1	B16-121	.....	100K	C1
B16-111	.....	2500	C1	B16-123	.....	250K	C1
B16-112	B16-212	2500	C2	B16-118	B16-218	½ Meg.	C2
B16-113	.....	5000	C1	B16-120	B16-220	1 Meg.	C2
B16-114	B16-214	5000	C2	B16-122	B16-222	2 Meg.	C2
B16-115	.....	10000	C1	B16-124	B16-224	3 Meg.	C2
B16-116	B16-216	10000	C2	B16-128	B16-228	5 Meg.	C2
B16-117	B16-217	25000	C2				

TYPE SM SERIES

CRL No.	Max. Ohms	Taper	CRL No.	Max. Ohms	Taper	Net Each
SM2-252-S	2500	C2	SM2-103-S	10000	C2	$3.75
SM2-502-S	5000	C2	SM2-253-S	25000	C2	3.75

FOR THE LATEST ADVANCES IN COMPONENT ENGINEERING—CONTROLS, CAPACITORS AND SWITCHES—ALWAYS SPECIFY CENTRALAB.

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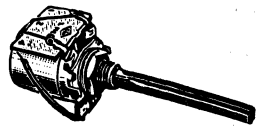
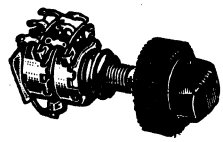
Centralab® Special Controls, Kits

CENTRALAB COMPENTROLS®



C1-70-S



C2-100

JUNIOR COMPENTROLS

Volume control and special Packaged Electronic Circuit network improves apparent bass and treble of amplifiers, radios, etc., when volume is at a low level. Does not introduce noticeable signal loss. Switched units have SPST switch with insulated shield to prevent hum. Universal shaft 3" long. Control, 15/16" dia. Shipping Weight, 5 oz.
CRL No. C1-60 (½ Meg.) or **C1-70** (1 Meg.)—Plain. Net..
CRL No. C1-60-S (½ Meg.) or **C1-70-S** (1 Meg.)—Switched. Net Each..... **$2.85**

SENIOR COMPENTROLS

Dual concentric; incorporates level set to adjust amount of compensation. Universal replacement for any value. Dual knobs supplied. Shipping Weight, 6 oz. **$3.30**
CRL No. C2-100—Net Each..... **$3.30**
CRL No. 200—Same but Fastatch design with separate front and rear units. Includes special boost plates. Net Each..... **$3.30**

STEREO-TWIN COMPENTROLS

Twin compensated volume control provides synchronized compensation for dual-channel stereo systems. Shipping Wt., 6 oz.
CRL No. C2-60 (½-meg) or **C2-70** (1 meg)—Without switch. Net Each..... **$3.30**

COMPENSATED TONE CONTROL

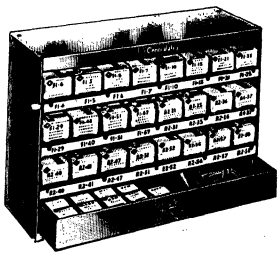
A compensated tone control as used in Baxandall circuit—not to be confused with two other Senior Compentrols above, which are compensated volume controls. Shipping Weight, 5 oz. **$3.30**
CRL No. C3-300—Net Each..... **$3.30**

DUAL SPEAKER CONTROL KIT

Primarily designed for rear seat radio speaker uses. Provides for gradual reduction of volume of one speaker while increasing volume of the other; or, balances both speakers. Includes 5-watt control, combination mounting bracket and dial plate, black and chrome knob, mounting screws and installation instructions. Shipping Weight, 5 oz. **$1.80**
CRL No. WK-300 Kit—Net Each..... **$1.80**

SERVICE TECHNICIAN CONTROL KITS

FDK-100 FASTATCH® DUAL CONCENTRIC CONTROL KIT



Provides a handy stock of the 12 most popular front units and the 12 most popular rear units in the Fastatch control system; plus, a stock of switches and adapters. Over 720 different dual concentric control combinations, including switched types, may be assembled from this compact stock. Controls and switches can be snapped together in a jiffy. In sturdy steel shelf cabinet, labeled and ready for use.
CRL No. FDK-100 Kit—Net Each.... **$32.70**

FRONT AND REAR UNITS

Quan. Each	CRL No. Front Unit	Ohms	Taper	CRL No. Rear Unit	Ohms	Taper
1	F1-4	1000	C1	R2-31	100K	C1
1	F1-5	1000	C5	R2-35	250K	C2
1	F1-6	1500	C1	R2-36	250K	C4
1	F1-7	1500	C5	R4-37	250K	C14*
1	F1-10	2000	C5	R2-40	500K	C1
1	F1-15	2500	C5	R2-41	500K	C2
1	F1-21	5000	C5	R2-47	500K	C17†
1	F1-25	10K	C5	R2-51	1 Meg.	C1
1	F1-29	50K	C1	R2-52	1 Meg.	C2
1	F1-40	500K	C1	R2-56	1 Meg.	C11‡
1	F1-51	1 Meg.	C1	R2-57	1 Meg.	C12§
1	F1-67	2 Meg.	C1	R2-58	1 Meg.	C13#

Taps: *75K. †50K. ‡500K. §200K. #250K.

TYPE KR FASTATCH® SWITCHES

125 v. AC Switches				10 v. DC Switches			
Quan. Each	CRL No.	Amps	Type	Quan. Each	CRL No.	Amps	Type
5	KR-1	5	SPST	1	KR-4	15	SPST
2	KR-2	3	DPST	1	KR-7	15	DPST
1	KR-3	3	DP*				

*One pole "on", one "off".

ADAPTER BUSHINGS

Quan.	CRL No.	Description
1	AK-26	Auto Radio; 7/16"-28 thread; nuts, lockwashers
1	AK-28	Auto Radio; ½"-28 thread; nuts, lockwashers

WWK-100 5-WATT WIRE-WOUND KIT

Contains 24 controls in the 14 best selling 5-watt wire-wound line plus extra drawer space for expansion. Cabinet is sturdy, steel shelf type, labeled and set up, ready for use. **$27.36**
CRL No. WWK-100 Kit—Net Each.....

Quan. Each	CRL Number	Ohms	Quan. Each	CRL Number	Ohms
1	WW-100	10	2	WW-152	1500
1	WW-500	50	1	WW-202	2000
3	WW-101	100	2	WW-252	2500
1	WW-201	200	1	WW-302	3000
1	WW-501	500	3	WW-502	5000
1	WW-751	750	3	WW-103	10K
3	WW-102	1000	1	WW-153	15K

BK-100 UNIVERSAL SHAFT CONTROL KIT

Contains 24 type "B" controls in the 12 fastest moving values. Controls plus 10 "KR" Fastatch switches for all service needs. Sturdy steel cabinet, labeled, ready for use. **$26.88**
CRL No. BK-100 Kit—Net Each.....

CONTENTS: CONTROLS

Quan. Each	CRL No.	Ohms	Taper	Quan. Each	CRL No.	Ohms	Taper
1	B-5	1,000	C1	6	B-60	500K	C2
1	B-10	5,000	C1	2	B-69	1 Meg.	C1
1	B-14	10,000	C1	4	B-70	1 Meg.	C2
2	B-31	50,000	C1	1	B-75	2 Meg.	C1
2	B-40	100K	C1	1	B-76	2 Meg.	C2
2	B-59	500K	C1	1	B-87	5 Meg.	C1

TYPE KR FASTATCH® SWITCHES

Quan. Each	CRL No.	Amps at 125 v. AC	Type	Quan. Each	CRL No.	Amps at 125 v. AC	Type
6	KR-1	5	SPST	1	KR-3	3	DP
3	KR-2	3	DPST		1 pole "on", 1 "off"		

ABK-100 ADASHAFT® CONTROL KIT

Contains 24 type "AB" Adashaft controls in 10 popular values. Combined with Fastatch switches and assorted shafts, kit provides flexible stock of replacement controls. Sturdy, steel shelf cabinet, labeled and ready for use.
CRL No. ABK-100 Kit—Contents as listed, plus 21 assorted shafts and couplers. Net Each..... **$25.68**

CONTENTS: CONTROLS

Quan. Each	CRL No.	Ohms	Taper	Quan. Each	CRL No.	Ohms	Taper
1	AB-5	1000	C1	6	AB-60	500K	C2
2	AB-10	5000	C1	2	AB-69	1 Meg.	C1
2	AB-31	50K	C1	4	AB-70	1 Meg.	C2
2	AB-40	100K	C1	1	AB-75	2 Meg.	C1
2	AB-59	500K	C1	2	AB-87	5 Meg.	C1

TYPE KR FASTATCH® SWITCHES

Quan. Each	CRL No.	Amps at 125 v. AC	Type	Quan. Each	CRL No.	Amps at 125 v. AC	Type
5	KR-1	5	SPST	1	KR-3	3	DP
2	KR-2	3	DPST		1 pole "on", 1 "off"		

ACK-100 AUTO RADIO CONTROL KIT

Handy kit contains the 24 most popular auto radio control replacements. Covers 90% of your replacement requirements for standard U.S. automobiles and some foreign cars. Packed in heavy steel cabinet and clearly labeled for easy selection. **$49.75**
CRL No. ACK-100 Kit—Net Each.....

QUANTITY: 1 EACH

A/U-1	CD-58-B	FB-56	FM-56
A/U-2	CD-59/0-A	FB-57	M/U-4
CD-51-A	FB-51	FB-58	M/U-8
CD-53/4-A	FB-52/3	FB-59	PP-57
CD-55/6-B	FB-54	FM-52/3	PP-58
CD-57-B	FB-55	FM-54	PP-59

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Centralab Auto Radio Controls

CONTROL REPLACEMENTS FOR BUICK AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	42, 46-53	Motorola	BK2A, BK3A6	18B512084	$2.13
BD-50/3	50-53	Delco	980868, 980899, 980847, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119	2.52
BD-54/5	54	Delco	981550, 981551	7264309	2.52
BD-54/5	55	Delco	981651, 981652	7265742	2.52
BD-56	56	Delco	981707, 981708	7266996	2.52
BD-57	57	Delco	981813, 981814	7268944	2.52
BD-58	58	Delco	981902, 981903	7271329	2.52
BD-59	59	Delco	981968	7273993	2.52
BD-60	60	Delco	980051, 980052	7275219	2.52

FOR CHEVROLET AUTO AND TRUCK RADIOS

CD-49/0-A	49-50	Delco	986389, 986241	1218641	$2.52
CD-51-A	51-52	Delco	986516	1219708	2.52
M/U-3	51-52	Motorola	CT2A, CT2M, CT2A6, CT52M6	18B512084	2.13
CD-53/4-A	53-54	Delco	986669, 986771*	7264211	2.52
CD-55	55	Delco	987087	7265265	2.52
CD-55/6-B	55-56	Delco	987088, 987366	7265220	2.52
CD-55/6-A	55-56	Delco	987086, 987364, 3725156 (Corvette)	7265302 1220909	2.52
CD-56	56	Delco	987368	7266842	2.52
CD-57-A	57	Delco	987577	7269211 1220961	2.52
CD-57-C	57	Delco	987575, 987693	7269199 1220963	2.52
CD-57-B	57	Delco	987573	7269186 1220962	2.52
M/U-6	57	Motorola	CTA7X, CTM7X	18K541128	2.13
CD-58-B	58	Delco	987724	7270450	2.52
CD-58-A	58	Delco	987727	7270479 1221118	2.52
M/U-7	58	Motorola	CTA8X, CTM8X	18B542657	2.13
CD-59-B	59	Delco	987891	7273367	2.52
M/U-9	59	Motorola	CTA9X, CTM9X	18C543337	2.13
CD-59/0-A	59-60	Delco	987888, 988275	7273302 1221260	2.52
CD-60-A	60	Delco	988276	7275710	2.52
CD-60-B	60	Delco	988062 (Corvair)	7274920	2.52
M/U-7	60	Motorola	CRA60X, CRM60X (Corvair)	18K544235	2.13
M/U-3	48-53	Motorola	GMT2A*,-2M*, -3A6*	18B512084	2.13
CD-60-T	60	Delco	988080*	7275629	2.52

FOR DESOTO AUTO RADIOS

DEM-57/8	57-58	Motorola	MOPAR 846,919, 919HR, 923	18B539819	$2.13
DEM-59	59	Motorola	MOPAR 857	18K561733	2.13

FOR DODGE AUTO AND TRUCK RADIOS

DOM-57	57	Motorola	MOPAR 845,918	18K539820	$2.13
DOM-58	58	Motorola	MOPAR 852	18K560417	2.13
DOM-59	59	Motorola	MOPAR 856	18B561732	2.13
DOM-60	60	Motorola	MOPAR 102	18C563115	2.13
M/U-1	53	Motorola	610T*	18K512740	2.13

FOR EDSEL AUTO RADIOS

FB-59	59	Bendix	94BE	2090035-3	$2.13

FOR FORD AUTO AND TRUCK RADIOS

FB-49/0	49-50	Bendix	M1, M1A, M1A1	L222808	$2.13
FM-50	50	Motorola	OMF	18B591266	2.13
FB-51	51	Bendix	M2	L219586-2	2.13
FM-51	51	Motorola	1MF	18B501153	2.13
FB-52/3	52-53	Bendix	M4, M4A	L219586-3	2.13
FM-52/3	52-53	Motorola	2MF, 3MF	18B511635	2.13
FB-54	54	Bendix	M4B, M4BA, M4BP	L219586-7	2.13
FM-54	54	Motorola	4MF	18B530018	2.13
FB-55	55	Bendix	5BF	L219656-1	1.41
FM-55	55	Motorola	5MF, 5MF8	18B531299	1.41
FB-56	56	Bendix	6BF	L219681-1	2.13
FM-56	56	Motorola	66MF, 66MFP, 69MF	18B534483	2.13
A/U-3	57	Automat.	FT-227, FTP-37	80A618C	2.52
FB-57	57	Bendix	75BF	2090035-1	2.13
FM-57	57	Motorola	75MF	18K539059	2.13
FB-58	57-58	Bendix	74BF, 84BF	2090035-2	2.13
FM-57/8	57-58	Motorola	74MF, 84MF, 84MFM	18B541819	2.13
A/U-3	58	Automat.	F-128, -C, FP-238, -C	80A618C	2.52
FB-59	59	Bendix	94BF	2090035-3	2.13
FM-59	59	Motorola	94MF, 94MFM	18B561597	2.13
A/U-3	59	Automat.	F-139, FP-249	80A618C	2.52
FB-60	60	Bendix	O4BF	2090405-1	2.13
FM-60	60	Motorola	O4MF, O4MFM, O4MD (Falcon)	18C562768	2.13
A/U-3	59	Automat.	F-139*, FP-249*	80A618C	2.52
FB-57/8-T	57-58	Bendix	74BT*, 84BT*	2090253-1	1.41
FB-59-T	59	Bendix	94BT*	2090253-2	1.41
FB-60-T	60	Bendix	O4BT*	2090253-3	1.41

FOR GMC TRUCK RADIOS

M/U-3	48-53	Motorola	GMT2A, -2M, -3A6	18B512084	$2.13
CD-53/4-A	54-59	Delco	2233396, 2233398	7264211	2.52
CD-58-B	58	Delco	2233745	7270450 1223113	2.52
CD-60-T	60	Delco	2233850	7275629	2.52

FOR HENRY J AUTO RADIOS

M/U-1	51-53	Motorola	HJ2A, HJ2M, HJ3A6	18K512740	$2.13
CD-53/4-A	56	Delco	694866	7264211	2.52

FOR HUDSON AUTO RADIOS

M/U-3	51-53	Motorola	HT3A6	18B512084	$2.13

*Truck radio.

FOR KAISER AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	51-53	Motorola	KR2A, KR2M, KR3A6	18B512084	$2.13

FOR OLDSMOBILE AUTO RADIOS

OD-51-A	51	Delco	982700	7260294	$2.52
M/U-3	51-52	Motorola	OE2A, OE2M, OE2A6	18B512084	2.13
OD-53-A	53	Delco	983004	7263540	2.52
OD-54/6	54-56	Delco	983091, 983205, 983336	7264128	2.52
OD-57-B	57	Delco	989002	7268847	2.52
OD-57-A	57	Delco	989001	7269055	2.52
OD-58	58	Delco	989127, 989129	7270679	2.52
OD-59	59	Delco	989170, 989171	7272855	2.52
OD-60	60	Delco	989276, 989277	7275269	2.52

FOR PACKARD AUTO RADIOS

M/U-3	51-53	Motorola	PD2A, PD2M, -3A6	18B512084	$2.13

FOR PLYMOUTH AUTO RADIOS

PM-56	56	Motorola	MOPAR 916, 916HR	18B536704	$2.13
PM-57	57	Motorola	MOPAR 849	18B540376	1.41
PP-57	57	Philco	P5701, MOPAR 848	33-5580-12	1.41
PM-58	58	Motorola	MOPAR 854	18B560415	1.41
PP-58	58	Philco	P-5801, MOPAR 848	33-5580-21	1.41
PP-59	59	Philco	P-5901, MOPAR 855	33-5580-27	2.13

FOR PONTIAC AUTO RADIOS

M/U-1	46-52	Motorola	PC2A, PC2A6, PC2M	18K512740	$2.13
POD-56	56	Delco	988623	7268308	2.52
A/U-1	57	Automat.	CTR-6A	80-69	2.52
POD-57	57	Delco	988671	7270189	2.52
POD-58-A	58	Delco	988823	7270939	2.52
POD-58-B	58	Delco	988822	7271446	2.52
POD-59	59	Delco	988976, 988977	7273623	2.52
POD-60	60	Delco	989614, 989615	7275708	2.52

FOR RAMBLER AUTO RADIOS

A/U-1	58-59	Automat.	RAP-89, RP-519	80-69	$2.52
RM-58/59	58-59	Motorola	83MR (8990543), 93MR (8990582)	18B560804	2.13
RM-59	59	Motorola	94MA (8990576)	18B561728	2.13
RM-60-A	60	Motorola	8990811	18B564229	2.13
RM-60-B	60	Motorola	O4MA (8990706)	18K563154	2.13

FOR RIVERSIDE AUTO RADIOS

A/U-3	58-59	Automat.	FJB-6679A, FJB-6684, FJB-6687	80A618C	$2.52

FOR STUDEBAKER AUTO RADIOS

M/U-1	50-52	Motorola	SR2A, SR2A6, SR2M	18K512740	$2.31
M/U-3	53	Motorola	SR3A6	18B512084	2.13
M/U-7	59	Motorola	AC2971 (SM9T)	17B542657	2.13

FOR WILLYS JEEP RADIOS

CD-53/4-A	56-58	Delco	694866, 815395	7264211	$2.52

FOR MOTOROLA UNIVERSAL RADIOS

Used in many autos and trucks.

Centralab Number	Year Auto	Radio Model Number	Original Part No.	Net Each
M/U-2	55-57	395, -12; 396, -12; 397; 404	18B531560	$1.41
M/U-4	55-58	5M, 5M-12, 6M, 6M-12, 7M, 8M	18K533457	2.13
M/U-5	57	7MX	18B540768	2.13
M/U-8	58, 60	8MX, 600X, 10M, 10MX	18K542446	2.13

FOR AUTOMATIC UNIVERSAL AUTO RADIOS

AMERICAN-MADE AUTOMOBILES

CRL No.	Radio Model Number, Year and Auto Model	Net Each
A/U-1*	**MP-69, MP-126** 42, 46-58 Buick; 49-59 Cadillac; 53-54 Chevrolet & Chev. Truck; 49-54, 56 Chrys.; 49-56 DeSoto; 42, 46-54 Ford; 42, 46-58 Ford Tr.; 48-59 GMC Truck; 42, 46-58 Mercury; 49-58 Olds; 51-54 Plymouth	$2.52
A/U-2†	**MU-34, R-54, RT-7** for 42, 46-59 Buick; 49-59 Cadillac; 51-59 Chevrolet; 48-59 Chev. Truck; 49-59 Chrysler, DeSoto & Dodge; 58-59 Edsel; 42, 46-59 Ford, Ford Truck & Mercury; 48-59 GMC Truck; 59 Lark; 49-58 Olds; 56-59 Plymouth; 57-59 Pontiac; 58-59 Rambler	1.41

FOREIGN-MADE AUTOMOBILES

A/U-1‡	**VP-12** Alfa-Romeo; **MP-126** Austin-Healy, Austin "A-40", Jaguar "XK-120", MG "Magnette", Triumph "TR-2", Vauxhall; **W-716** Opel, Porsche "1600", Taunus, Volkswagen, Volvo; **MP-69** Porsche; **W-76** Volkswagen	$2.52
A/U-2†	**R-54** Alfa-Romeo, Austin-Healy, Austin "A-40", English Ford, Fiat, Hillman, Jaguar "XK-140", Mercedes-Benz, MG, Morris, Renault, Riley "1.5" Saab, Simca, Triumph "TR-2", Vauxhall; **MU-34** Borgward, Citroen, DKW, Karmann Ghia, Lloyd, Opel, Porsche "Speedster", Renault "4CV" & Dauphine, Volkswagen; **RT-7** Fiat	1.41

Original Part Number: *80-69, RV-69; †80-57D; ‡80-69.

AUTO RADIO ON/OFF SWITCH REPLACEMENTS

CRL No. SP-1 Switch—Replacement for 1951-1954 Plymouth, Dodge, DeSoto and Chrysler. Net Each **60c**

CRL No. SP-4 Switch—Replacement for 1946-1956 Ford, Lincoln, Mercury, Plymouth, Dodge, DeSoto and Chrysler auto radios. Net Each **60c**

CRL No. SP-6 Switch—Replacement for 1955-56 Lincoln & Mercury, 1956-57 Ford Thunderbird, 1957-58 Ford and 1958 Mercury auto radios. Net Each **60c**

CRL No. SP-8 Switch—Replacement for 1956-57 Mercury and 1957 Lincoln auto radios. Net Each **60c**

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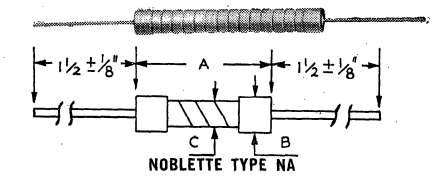
FIXED, ADJUSTABLE, VARIABLE and COMPOSITION RESISTORS CARBON SPECIALTIES

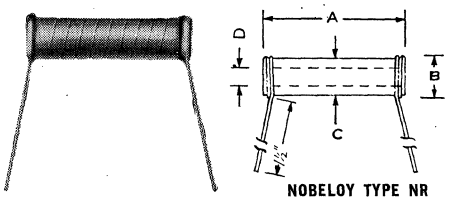
CONTINENTAL WIRT

CONTINENTAL-WIRT ELECTRONICS CORP., Phila., Pa.

PYROLYTIC METAL FILM



NOBLETTE TYPE NA



NOBELOY TYPE NR

A metallic resistance element is deposited on a low loss ceramic carrier using a pyrochemic process developed and patented by Continental Wirt. A layer of vitreous enamel protects metal film against unusual atmospheric conditions. They are calibrated to value by means of spiralled grooves cut into the film to increase the resistance path. Leads are securely affixed to an extremely low resistance metal contact film, assuring positive contact.

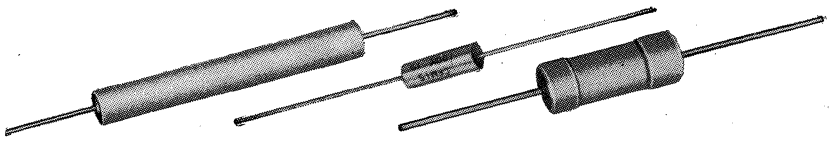
Type	Wattage	Voltage	Resistance Range	Dimensions A	B	C	D	List Prices ±1%
NA15	½	350	½ ohm to 1 meg.	17/32" ± 1/16"	5/32" ± .010	.130"		$.80
NA25	1	500	½ ohm to 5 meg.	15/16" ± 1/16"	5/32" ± .010	.250"		$1.00 to $1.25
NA30	2	750	2 ohms to 10 meg.	2 1/16" ± 1/16"	5/32" ± .010	.250"		$1.25 to $1.70
NR20	½	350	½ ohm to 3 meg.	5/8" ± 1/16"	11/32" ± .010	.250"	.156"	$ .85 to $1.00
NR25	1	500	½ ohm to 5 meg.	7/8" ± 1/16"	11/32" ± .010	.250"	.156"	$1.00 to $1.25
NR30	2	750	1 ohm to 10 meg.	2" ± 1/16"	11/32" ± .010	.250"	.156"	$1.25 to $1.65
NR50	5	1000	2 ohms to 15 meg.	2" ± 1/16"	19/32" ± .010	.500"	.312"	$1.50 to $2.00

STANDARD STOCK RESISTANCE VALUES FOR 1 TO 10 DECADE ±1%

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	1.5	2.2	3.0	3.9	4.7	6.0	7.0	8.5
1.1	1.6	2.4	3.3	4.0	5.0	6.2	7.5	9.0
1.2	1.8	2.5	3.5	4.3	5.1	6.5	8.0	9.1
1.3	2.0	2.7	3.6	4.5	5.6	6.8	8.2	9.5

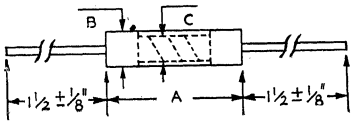
NOTE: In addition to above table, resistance values conforming to EIA Standards for composition resistors are also available.

DEPOSITED CARBON FILM



Hermetically Sealed—Conform to MIL-R-10509. Fully insulated for hi-frequency use. Carbon deposited on ceramic and encased in non-hygroscopic ceramic tube. High temperature solder sealed ±½, 1, or 5%. ¼, ½, 1 or 2 watts. Type CHF

Molded—Conform to MIL-R-10509. Rugged construction for high production handling and excellent moisture protection. ±½%, 1 or 5%. ⅛, ¼, ½ and 1 watt sizes. Type CFM

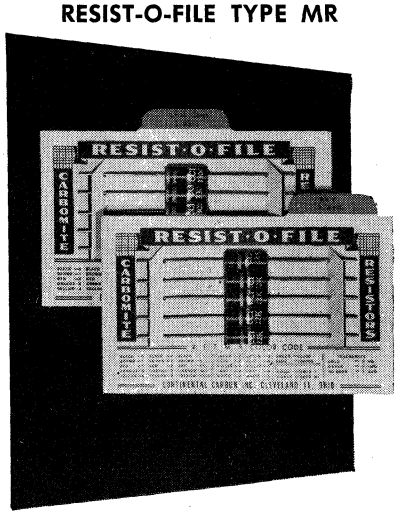


Coated—Low cost precision. Highly recommended for test equipment, meters or hi-frequency circuits. ±1, 2, or 5%. ¼, ½, 1 or 2 watt sizes. Type CF

Type	Watts	Voltage	Resistance Range	Dimensions A	B	C	List Price ±1%
CF10	¼	300	10 ohms to 1 meg.	½" ± 1/16"	3/32" ± .010"	.062"	$1.13
CF15	½	350	10 ohms to 10 meg.	9/16" ± 1/16"	5/32" ± .010"	.125"	$ .60 to $1.20
CF25	1	500	50 ohms to 50 meg.	15/16" ± 1/16"	9/32" ± .010"	.250"	$ .90 to $1.66
CF30	2	1000	100 ohms to 100 meg.	2 1/16" ± 1/16"	9/32" ± .010"	.250"	$1.13 to $2.63
CFM5	⅛	250	10.0 ohms to 1.0 meg.	.410" ± .010"	.140" ± .010"		$ .78 to $1.50
CFM10	¼	300	10.0 ohms to 2.0 meg.	.600" ± .010"	.215" ± .010"		$ .72 to $ .75
CFM15	½	350	10 ohms to 10 meg.	½			$ .97 to $1.51
CFM25	1	500	50 ohms to 50 meg.	1			$1.36 to $2.10
CFH15	½	350	10 ohms to 10 meg.	.687" ± .062"	.250" ± .031"		$2.03 to $2.66
CFH25	1	500	50 ohms to 50 meg.	1.062" ± .062"	.375" ± .062"		$2.40 to $2.93

CARBOMITE RESISTORS

RESIST-O-FILE TYPE MR



Insulated fixed composition resistors for replacement and service applications. Available as Type "M" packaged in bulk. Also, Type "MR" consisting of five Type "M" resistors of one resistance value and tolerance mounted on one 3 x 5 index card, ten cards per package, are available. See illustration. Identified, staggered-tab card file system adds to storage and handling convenience. File drawers and storage cabinets for Type "MR" resistors can be obtained. Contact factory for complete details.

TYPE M

Type	Watts	Resistance Range	Dimensions Length & Dia. in inches	List Price Each ±5%	±10%
M20	½	10 ohms to 22 meg.	⅜ x 3/64	$.34	$.17
M25	1	10 ohms to 22 meg	9/16 x 1/32	.50	.25
M30	2	10 ohms to 22 meg.	11/16 x 5/16	.68	.34

Standard Packages:—50 and 250 per box.

TYPE MR

Type	Watts	List Price ±5%	±10%
MR20	½	$.34	$.17
MR25	1	.50	.25
MR30	2	.68	.34

Standard Package:—50 resistors

Trade Discount Applies to List Prices Only

© U.C.P., Inc.

RESISTORS, RHEOSTATS SUPPRESSORS and CONDENSERS

CONTINENTAL WIRT

CONTINENTAL-WIRT ELECTRONICS CORP., Phila., Pa.

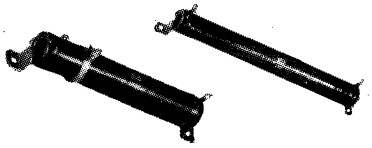
WIRE WOUND RESISTORS

TABLE OF SIZES AND RATINGS

Fixed Type No.	Adjustable Type No.	Wattage	Dimensions Length	Dia.	Resistance Min.	Range Max.	Wt. (oz.) Fixed	Wt. (oz.) Adjust.
VFR-1		5	1"	5/16"	1 ohm	10K	0.4	
VFR-3	VAR-3	10	1 3/4"	5/16"	1 ohm	25K	0.44	0.88
VFR-4	VAR-4	20	2"	1/2"	1 ohm	100K	0.8	1.2
VFR-7	VAR-7	25	2"	3/4"	1 ohm	100K	1.2	1.5
VFR-12	VAR-12	50	4"	3/4"	5 ohms	100K	2.0	2.6
VFR-15	VAR-15	75	6"	3/4"	5 ohms	100K	3.0	4.0
VFR-19	VAR-19	100	6 1/2"	1 1/8"	5 ohms	100K	4.9	5.8
VFR-22	VAR-22	160	8 1/2"	1 1/8"	5 ohms	100K	11.6	12.5
VFR-23	VAR-23	200	10 1/2"	1 1/8"	5 ohms	100K	15.0	16.0

STANDARD TOLERANCE: Fixed Types (50 ohms and higher) ±5%; below 50 ohms ±10%; Adjustable Types ±10%.

RESISTANCE VALUES: All resistors available in resistance values as listed in EIA Standards.



WIRE WOUND FIXED and ADJUSTABLE (POWER TYPE)

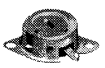
Ceramic core, vitreous enamel coated. All standard values 3 to 200 watts, ±5% standard. Special types also available.

METAL HOUSED MINIATURE CONTROLS

These 1½-watt metal housed, miniature controls fill the need for an economical, sturdy, compact and fully reliable control for balancing and trimming of circuits.

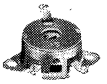
STANDARD 1½-WATT CONTINENTAL-WIRT CONTROLS

Model No.	Type	Mounting	Rotor
WC-807A	Rheostat	Rivet	Grounded
WC-808A	Rheostat	Rivet	Insulated
WC-816B	Rheostat	Print. Cir.	Grounded
WC-816D	Pot	Print. Cir.	Grounded
WC-817A	Pot	Rivet	Grounded
WC-818A	Pot	Rivet	Insulated



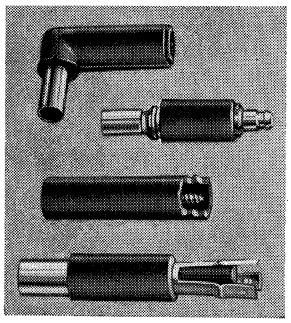
WC 807A
Rheostat
Grounded Rotor

WC 816B
Rheostat
Printed Circuit



WC 808A
Rheostat
Insulated Rotor

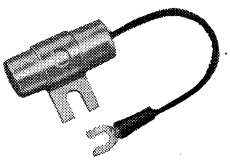
SUPPRESSORS AND CONDENSERS

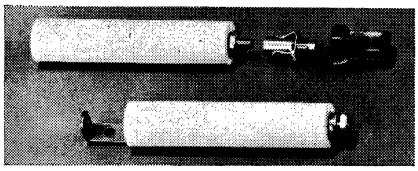


Distributor and Spark Plug Suppressors . . . Easy to Install . . . Fit All Cars, Including 12-volt. Continental Suppressors are exactingly engineered to effectively remove radio noise from ignition spark discharge at the plugs and high-tension distributor.

Type	Application	Dimensions Length & Dia.	Mounting	List Price
S20A	Sparkplug	1½ x ½	Angle	$.61
S19	Sparkplug	1 27/32 x ½	Vertical	.50
S21	Sparkplug	1 27/32 x ½	Vertical	.59
S23	Sparkplug	1 21/32 x ½	Angle	.53
S27	Sparkplug	1⅛ x ½	Vertical-Screw	.55
C11	Distributor	1½ x ½	Cable	.42
T24	Distributor	1½ x ½	Angle-Snap	.67
T20	Distributor	2⅜ x ½	Vertical-Snap	.70

Net Unit Weight:—Approx. .033 Oz.





OIL BURNER SUPPRESSORS
Eliminate uncomfortable radio-TV interference due to ignition discharge action of oil burner igniting coil.

GENERATOR CONDENSERS
FIT ALL CARS . . . UNIVERSAL TYPES

Type	Application	CAP. MFD.	Dimensions Length & Dia. in inches	List Price
GB 025	Universal	.25	1⅝ x ⅝	$.75
GB 05	Universal	.5	1⅝ x ⅝	.80

Net Unit Weight:—Approx. 1.0 Oz.

OIL BURNER SUPPRESSORS

Type	Dimensions Length & Dia. in inches	Terminals	List Price
OB15	3½ x ¾	Rajah	$3.10
OB15A	3½ x ¾	U-Bracket	2.80

Net Unit Weight:—Approx. 1.8 Oz.

OTHER C-W COMPONENTS — POTENTIOMETERS and RHEOSTATS • LOW POWER RESISTORS • SLIDE SWITCHES

For complete technical literature, engineering assistance, or information about special adaptations write to the factory. List your specifications and requirements in detail. Your inquiry will receive prompt attention.

CONTINENTAL-WIRT ELECTRONICS CORP.
PHILA., PA.

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from DALE
Better Things in
Smaller Packages

WIRE WOUND
Miniature Power Resistors

Carefully designed, precision made under stringent quality controls for critical electronic circuits where space is at a premium.

Types RS - HS - PRS - RLS - RSE

(Available with Weldable Leads)

Resistance range from .05 ohm to 175K ohms, depending on type; tolerance range from .05% to .3%

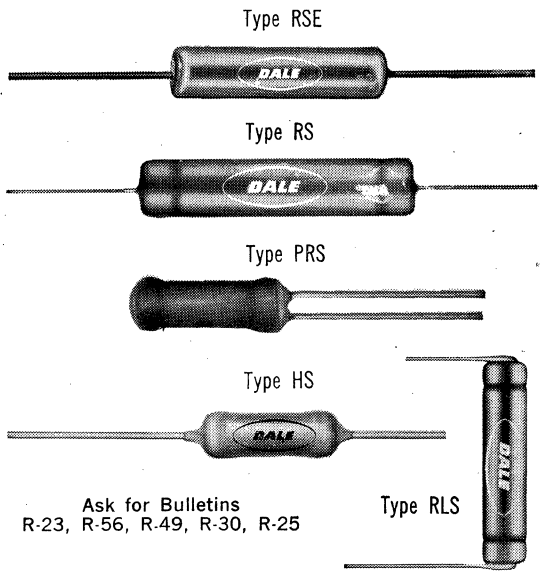
TYPE RS with axial leads in eight wattages—½, 1, 2, 2.5, 3, 5, 7, 10; ten sizes.

TYPE HS with axial leads in eight wattages -1.25, 3.75, 3, 3.25, 4.25, 6.5, 9, 13; nine sizes.

TYPE PRS with parallel leads in four wattages—3, 5, 7, 10; five sizes.

TYPE RLS with radial leads in six wattages —1, 2, 3, 5, 7, 10; eight sizes.

TYPE RSE in metal housing for clip mounting; five wattages—2, 3, 5, 7, 10; seven sizes.



Ask for Bulletins
R-23, R-56, R-49, R-30, R-25

Types NS - NLS

Non-inductive characteristics. Five wattages —2, 3, 5, 7, 10; six sizes. Resistance range from 1 ohm to 37K ohms, depending on size and type; tolerance range from .05% to 3%.

TYPE NS with axial leads; TYPE NLS with radial leads.

Ask for Bulletin R-34

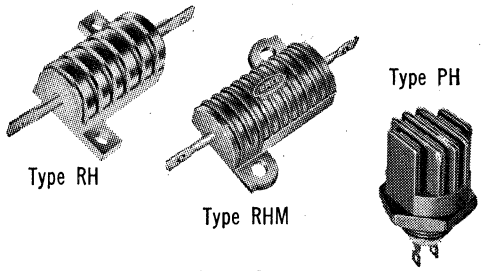
Types RH - RHM - PH

Silicone sealed in aluminum metal housing. TYPE RH and RHM have tabs for mounting to heat sink; TYPE PH designed for mounting through hole in chassis or heat sink.

TYPE RH six wattages—5, 10, 25, 50, 100, 250; resistance range from 0.1 ohm to 175K ohms.

TYPE RHM-25—25 watts for unprecedented reliability.

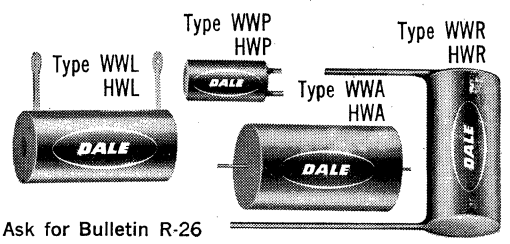
TYPE PH three wattages—10, 25, 100; resistance range from 0.1 ohm to 60K ohms. Tolerance range from .05% to 3%.



Ask for Bulletins R-21, R-36

Types WW - HW

Precision, encapsulated, bobbin-type, non-inductive. HW prefix denotes high temperature characteristics. Rated at .1 watt to 2.5 watts, depending on size and type; resistance range from .1 ohm to 6 megohms; tolerance range from .02% to 3%. Available with axial leads, lugs, radial leads and parallel leads.



Ask for Bulletin R-26

DALE ELECTRONICS, INC.

Columbus, Nebraska

A subsidiary of **Hathaway Instruments, Inc.**

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from DALE
Better Things in Smaller Packages

Deposited Carbon and Metal Film Resistors

(Available with Weldable Leads)

Carefully designed, precision made under stringent quality controls to assure stability and accurate, dependable performance in high frequency applications.

Type DC

Resistance range from 1 ohm to 200 megohms; tolerance 1% or higher as specified. TYPE DC in seven wattages—1/10, 1/8, 1/4, 1/2, 1, 2, 5; ten sizes.

Type DC

Ask for Bulletin R-24

Types MC - DCF - DCH
(Insulated)

TYPE MC is a deposited carbon resistor completely insulated and protected from environmental and mechanical damage by molded housing; resistance range from 1 ohm to 50 megohms. Available in five wattages—1/8, 1/4, 1/2, 1, 2; five sizes in standard tolerance of 1%.

TYPE DCF has a new coating material which provides a completely insulated resistor, yet maintains sub-miniature size. Resistance range from 1 ohm to 50 megohms; six wattages—1/10, 1/8, 1/4, 1/2, 1, 2; nine sizes in standard tolerance of 1%.

TYPE DCH hermetically sealed in non-hygroscopic ceramic envelopes; seven wattages—1/10, 1/8, 1/4, 1/2, 1, 2, 5; ten sizes.

Type MC

Type DCF

Type DCH

Ask for Bulletins R-35, R-42, R-27

Type MF

Combines advantages of Dale's molding techniques with advanced high vacuum metal film procedures. It has inherently good R.F. characteristics, low noise levels, high stability, complete insulation. Resistance range from 100 ohms to 4 megohms, depending on size; tolerance 1%. Five wattages—1/8, 1/4, 1/2, 1, 2; five sizes. Temperature coefficient ±50 and ±100 P.P.M.

Type MF

Ask for Bulletin R-43

WIRE WOUND Trimmer Potentiometers

Series 1200 - 1100 - 900 - 600 - 1500 - 5000

Produced under stringently controlled conditions to assure highest quality and reliability. Welded construction throughout; sealed to protect against moisture and potting compounds.

SERIES 1200—A truly outstanding miniature T-Pot; three terminal configurations for standard or printed circuit mounting; 10 to 50K ohms; 5% tolerance; 1 watt.

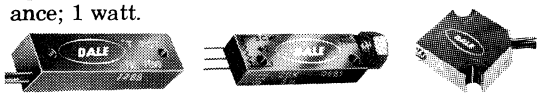
SERIES 1100—Miniature, high temperature; three terminal configurations for standard mounting; 10 to 100K ohms; 10% tolerance; 1 watt.

SERIES 900—Sub-miniature, three terminal configurations for standard or printed circuit mounting; 10 to 30K ohms; 5% tolerance; 1 watt.

SERIES 600—Sub-miniature; eight terminal configurations for standard, panel or printed circuit mounting; 10 to 30K ohms; 5% tolerance; 1 watt.

SERIES 1500—Miniature, nine terminal configurations for standard, panel or printed circuit mounting; 10 to 50K ohms; 5% tolerance, 1 watt.

SERIES 5000—New sub-miniature space saving, square configuration; 100 to 50K ohms; 5% tolerance; 1 watt.



Ask for Bulletins R-51, R-50, R-59, R-60, R-61

Series 100 - 200 - 300

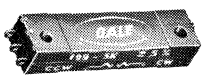
Designed to give excellent performance for normal circuit problems where economy is of prime importance, yet dependable performance is a necessity.

SERIES 100—Five terminal configurations; 10 to 50K ohms; 5% tolerance; rated at .8 watt.

SERIES 200—Five terminal configurations; 10 to 50K ohms; 10% tolerance; rated at .5 watt.

SERIES 300—Two terminal configurations; 100 to 20 K ohms; 15% tolerance; rated at .25 watt.

Ask for Bulletins R-53, R-54, R-55



DALE ELECTRONICS, INC.

Columbus, Nebraska

A subsidiary of **Hathaway Instruments, Inc.**

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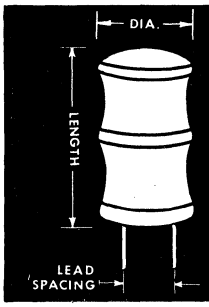
FROM DAVEN — The most complete line of Military and Commercial Wire Wound Resistors

Plug-In "Lollypop" Resistors

Daven has kept pace with the increased use of printed circuit subassemblies by providing a variety of precision wire wound resistor types for use in this type of construction. The most popular sizes of Daven printed circuit "plug-in" resistors are listed below. Special designs to satisfy individual customer specifications can be furnished on special order.



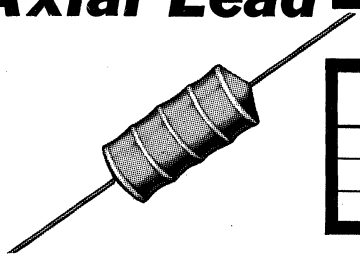
Daven Type	Mil Type	Dia. (± 1/64)	Length (± 1/32)	Max. Res.	AWG	Wattage	Standard Lead Spacing (± .015)
1350*	RB-71	1/4	5/16	68 K	#22	.250	.200
1351		1/4	3/8	93 K	#22	.250	.200
1352		1/4	7/16	1.1 Meg.	#20	.250	.200
1355	RB-70	3/8	1/2	2.88 Meg.	#20	.333	.200
1358		7/16	1/2	3.6 Meg.	#20	.400	.300
1359		1/2	1/2	3.6 Meg.	#20	.500	.300

*formerly 1273

Miniature Axial Lead — Typical Types

Type	Diameter Inches	Length Inches	Maximum Watts*	Maximum Volts	Max. Res.	Non Inductive	Lead Length 2" ± 1/8"
1274	3/16	3/8	.125	200	418 K	No***	#22AWG
1283	1/4	5/16	0.25	200	71 K	No***	#20AWG
1250	1/4	1/2	0.33	400	1.4 Meg.	Yes	#20AWG

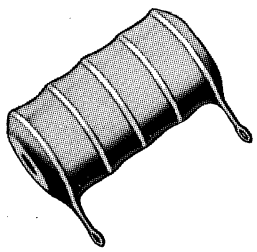
Axial Lead — Typical Types



Lead Length: 2" ± 1/8" #20AWG, Non-Inductive Winding

Type	Diameter Inches	Length Inches	Maximum Watts	Maximum Volts	Max. Res.
1195	1/4	3/4	0.50	400	2.2 Meg.
1252	3/8	1	1.00	800	6.4 Meg.
1172	1/2	1	1.25	800	10 Meg.

Lug Terminal — Typical Types



Non-Inductive Winding

Type	Diameter Inches	Length Inches	Maximum Watts	Maximum Volts	Max. Res.
1173	1/2	1/2	0.50	400	4 Meg.
1174	1/2	5/8	0.60	400	6 Meg.
1269	5/8	5/8	0.75	400	6.6 Meg.
1270	5/8	1	1.25	800	13.2 Meg.

Available from your local Daven distributor

THE DAVEN COMPANY
RESISTORS
Livingston, New Jersey

A SUBSIDIARY OF GENERAL MILLS — General Mills

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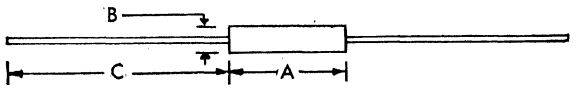
Now, one source — offers you all these precision resistors

ELECTRA



All Electra resistors are designed to meet or exceed Mil-R-10509C. For complete details, see your local representative, or write for catalog and price schedules. Your request will bring complete specifications and charactertistics on any or all types by return mail.

DEPOSITED CARBON "R" COAT

Electra Part No.	Mil Style	Wattage	Mil Resistance Range	Manufactured Resistance Range	Maximum Rated Voltage	Length A ±1/32	Dia. B ±1/32	Leads Dia.	Lead Length C ±1/8
DC 1/10		1/10		10 ohms to 300 K	250	1/4	3/32	#22	1-1/2
DC 1/8		1/8		5 ohms 800 K	250	5/16	3/32	#26	1-1/2
DC 1/8X		1/8		100 ohms 1 meg	250	5/16	3/32	#22 capless	1-1/2
DC 1/4A	RN10X	1/4	5 ohms 1 meg	5 ohms 2 meg	300	15/32	3/32	#22	1-1/2
DC 1/4X		1/4		100 ohms 2 meg	300	7/16	1/8	#22 capless	1-1/2
DC 1/2C		1/2		3 ohms 4 meg	350	1/2	11/64	#20	1-1/2
DC 1/2A	RN20X	1/2	10 ohms 2.0 meg	4 ohms 5 meg	350	5/8	11/64	#20	1-1/2
DC 1/2B		1/2		10 ohms 5 meg	350	23/32	7/32	#20	1-1/2
DC 1/2		1/2		10 ohms 5 meg	500	13/16	11/64	#20	1-1/2
DC 1	RN25X	1	10 ohms 4.99 meg	8 ohms 26 meg	500	*15/16	19/64	#20	1-1/2
DC 2	RN30X	2	30 ohms 10 meg	15 ohms 90 meg	750	*2-1/16	19/64	#20	1-1/2
				*Tol. ± 1/16					

DEPOSITED CARBON MOLDED JACKET

						± .001	± .010		±1/8
DCM 1/10		1/10		10 ohms to 300 K	250	.260	.125	#22	1-1/2
DCM 1/8	RN60B	1/8	10 ohms 1 meg	4 ohms 3 meg	250	.410	.142	#22	1-1/2
DCM 1/4	RN65B	1/4	10 ohms 2 meg	5 ohms 7 meg	300	.600	.225	#22	1-1/2
DCM 1/2	RN70B	1/2	10 ohms 2.5 meg	4 ohms 8 meg	350	.755	.270	#20	1-1/2
DCM 1	RN75B	1	10 ohms 5.11 meg	5 ohms 28 meg	500	1.115	.400	#20	1-1/2
DCM 2	RN80B	2	30 ohms 10 meg	10 ohms 100 meg	750	*2.240	.400	#20	1-1/2
				*Tol. ± .030					

DEPOSITED CARBON HERMETICALLY SEALED

						± .001	± .010		±1/8
HC 40		1/8		8 ohms 1 meg	150	*.281	.160	#22	1-1/2
HC 10	RN60B	1/8	10 ohms 1 meg	8 ohms 1 meg	250	.427	.155	#22	1-1/2
HC 8	RN65B	1/4	10 ohms 2 meg	8 ohms 5 meg	300	**.640	.240	#22	1-1/2
HC 12	RN70B	1/2	10 ohms 2.5 meg	10 ohms 10 meg	350	.833	.250	#20	1-1/2
HC 6	RN75B	1	10 ohms 5.11 meg	8 ohms 25 meg	500	1.115	.400	#20	1-1/2
HC 7	RN80B	2	30 ohms 10 meg	20 ohms 50 meg	750	*2.240	.400	#20	1-1/2
				*Tol. ±1/32		** ± .015			

PRECISION CARBON FILM (HIGH TEMPERATURE) "R-5" COAT

CF 1/10		1/10		10 ohms 300 K	250	.250	.093	#22	1-1/2 ±1/8
CF 1/8	RN60B	1/8	10 ohms 1 meg	10 ohms 4 meg	250	.375 +1/16 −1/32	.125 +.040 −.010	#22	1-1/2 ±1/8
CF 1/4	RN65B	1/4	10 ohms 2 meg	5 ohms 12 meg	300	.625 +1/32 −1/16	.1875 +1/16 −1/32	#22	1-1/2 ±1/8
CF 1/2	RN70B	1/2	10 ohms 2.5 meg	5 ohms 12 meg	350	.750 +3/32 −1/16	.250 +1/32 −1/32	#20	1-1/2 ±1/8

PRECISION MOLDED AND "R-5" COAT METAL FILM

MF 1/10 MFS 1/10		1/10		30 ohms 200 K	250	.260±.015 .265±.015	.125 ±.010 .085 ±.010	#22	1-1/2 ±1/8
MF 1/8 MFS 1/8	RN60C	1/8	100 ohms 301 K	30 ohms 500 K	250	.406 ±.015	.135 ±.010	#22	1-1/2 ±1/8
MF 1/4 MFS 1/8	RN65C	1/4	100 ohms 499 K	50 ohms 1 meg	300	.594 ±.015	.210 ±.015	#22	1-1/2 ±1/8
MF 1/2 MFS 1/2	RN70C	1/2	100 ohms 1 meg	50 ohms 1.5 meg	350	.750 ±.020	.265 ±.015	#20	1-1/2 ±1/8
MF 1 MFS 1	RN75C	1	100 ohms 2 meg	50 ohms 4 meg	500	1.105 ±.020	.395 ±.020	#20	1-1/2 ±1/8
MF 2 MFS 2		2		100 ohms 10 meg	750	2.239 ±.020	.400 ±.020	#20	1-1/2 ±1/8

ELECTRA

ELECTRA MANUFACTURING COMPANY—ELECTRONICS DIVISION

Sales Office—Kansas City, Mo. FACTORY—Independence, Kansas

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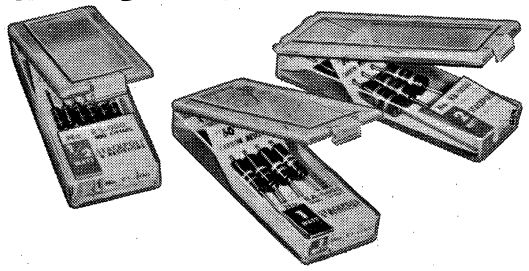
GC ELECTRONICS G-C STACKPOLE RESISTORS



RED ½ WATT

BLUE 1 WATT

GREEN 2 WATT

Packed in the exclusive self-service packs scientifically packaged to prevent bent leads. All popular sizes packed in handy storage re-usable clear plastic boxes. Boxes color coded for ease in selecting wattage. Also available in bulk quantities.

½ WATT PLASTIC BOX OF 6 $.72 Dealer Net (BULK 10% TOL.)

OHM Value	Box of 6 Part No.	ORDER NUMBERS Box of 6 IBM Code No.	Bulk Part No.	Bulk IBM Code No.
10	GS10	26-000	BS10	26-000BU
12	GS12	26-002	BS12	26-002BU
15	GS15	26-004	BS15	26-004BU
18	GS18	26-006	BS18	26-006BU
22	GS22	26-008	BS22	26-008BU
27	GS27	26-010	BS27	26-010BU
33	GS33	26-012	BS33	26-012BU
39	GS39	26-014	BS39	26-014BU
47	GS47	26-016	BS47	26-016BU
56	GS56	26-018	BS56	26-018BU
68	GS68	26-020	BS68	26-020BU
82	GS82	26-022	BS82	26-022BU
100	GS100	26-024	BS100	26-024BU
120	GS120	26-026	BS120	26-026BU
150	GS150	26-028	BS150	26-028BU
180	GS180	26-030	BS180	26-030BU
220	GS220	26-032	BS220	26-032BU
270	GS270	26-034	BS270	26-034BU
330	GS330	26-036	BS330	26-036BU
390	GS390	26-038	BS390	26-038BU
470	GS470	26-040	BS470	26-040BU
560	GS560	26-042	BS560	26-042BU
680	GS680	26-044	BS680	26-044BU
820	GS820	26-046	BS820	26-046BU
1000	GS1000	26-048	BS1000	26-048BU
1200	GS1200	26-050	BS1200	26-050BU
1500	GS1500	26-052	BS1500	26-052BU
1800	GS1800	26-054	BS1800	26-054BU
2200	GS2200	26-056	BS2200	26-056BU
2700	GS2700	26-058	BS2700	26-058BU
3300	GS3300	26-060	BS3300	26-060BU
3900	GS3900	26-062	BS3900	26-062BU
4700	GS4700	26-064	BS4700	26-064BU
5600	GS5600	26-066	BS5600	26-066BU
6800	GS6800	26-068	BS6800	26-068BU
8200	GS8200	26-070	BS8200	26-070BU
10000	GS10000	26-072	BS10000	26-072BU
12000	GS12000	26-074	BS12000	26-074BU
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220000	GS220000	26-104	BS220000	26-104BU
270000	GS270000	26-106	BS270000	26-106BU
330000	GS330000	26-108	BS330000	26-108BU
390000	GS390000	26-110	BS390000	26-110BU
470000	GS470000	26-112	BS470000	26-112BU
560000	GS560000	26-114	BS560000	26-114BU
680000	GS680000	26-116	BS680000	26-116BU
820000	GS820000	26-118	BS820000	26-118BU
1.0 Meg.	GS 1.0 Meg.	26-120	BS 1.0 Meg.	26-120BU
1.2 Meg.	GS 1.2 Meg.	26-122	BS 1.2 Meg.	26-122BU
1.5 Meg.	GS 1.5 Meg.	26-124	BS 1.5 Meg.	26-124BU
1.8 Meg.	GS 1.8 Meg.	26-126	BS 1.8 Meg.	26-126BU
2.2 Meg.	GS 2.2 Meg.	26-128	BS 2.2 Meg.	26-128BU
2.7 Meg.	GS 2.7 Meg.	26-130	BS 2.7 Meg.	26-130BU
3.3 Meg.	GS 3.3 Meg.	26-132	BS 3.3 Meg.	26-132BU
3.9 Meg.	GS 3.9 Meg.	26-134	BS 3.9 Meg.	26-134BU
4.7 Meg.	GS 4.7 Meg.	26-136	BS 4.7 Meg.	26-136BU
5.6 Meg.	GS 5.6 Meg.	26-138	BS 5.6 Meg.	26-138BU
6.8 Meg.	GS 6.8 Meg.	26-140	BS 6.8 Meg.	26-140BU
8.2 Meg.	GS 8.2 Meg.	26-142	BS 8.2 Meg.	26-142BU
10.0 Meg.	GS 10.0 Meg.	26-144	BS 10.0 Meg.	26-144BU
12.0 Meg.	GS 12.0 Meg.	26-146	BS 12.0 Meg.	26-146BU
15.0 Meg.	GS 15.0 Meg.	26-148	BS 15.0 Meg.	26-148BU
18.0 Meg.	GS 18.0 Meg.	26-150	BS 18.0 Meg.	26-150BU
22.0 Meg.	GS 22.0 Meg.	26-152	BS 22.0 Meg.	26-152BU

1 WATT PLASTIC BOX OF 4 $.72 Dealer Net (BULK 10% TOL.)

OHM Value	Box of 4 Part No.	ORDER NUMBERS Box of 4 IBM Code No.	Bulk Part No.	Bulk IBM Code No.
10	GA10	26-200	BA10	26-200BU
12	GA12	26-202	BA12	26-202BU
15	GA15	26-204	BA15	26-204BU
18	GA18	26-206	BA18	26-206BU
22	GA22	26-208	BA22	26-208BU
27	GA27	26-210	BA27	26-210BU
33	GA33	26-212	BA33	26-212BU
39	GA39	26-214	BA39	26-214BU
47	GA47	26-216	BA47	26-216BU
56	GA56	26-218	BA56	26-218BU
68	GA68	26-220	BA68	26-220BU
82	GA82	26-222	BA82	26-222BU
100	GA100	26-224	BA100	26-224BU
120	GA120	26-226	BA120	26-226BU
150	GA150	26-228	BA150	26-228BU
180	GA180	26-230	BA180	26-230BU
220	GA220	26-232	BA220	26-232BU
270	GA270	26-234	BA270	26-234BU
330	GA330	26-236	BA330	26-236BU
390	GA390	26-238	BA390	26-238BU
470	GA470	26-240	BA470	26-240BU
560	GA560	26-242	BA560	26-242BU
680	GA680	26-244	BA680	26-244BU
820	GA820	26-246	BA820	26-246BU
1000	GA1000	26-248	BA1000	26-248BU
1200	GA1200	26-250	BA1200	26-250BU
1500	GA1500	26-252	BA1500	26-252BU
1800	GA1800	26-254	BA1800	26-254BU
2200	GA2200	26-256	BA2200	26-256BU
2700	GA2700	26-258	BA2700	26-258BU
3300	GA3300	26-260	BA3300	26-260BU
3900	GA3900	26-262	BA3900	26-262BU
4700	GA4700	26-264	BA4700	26-264BU
5600	GA5600	26-266	BA5600	26-266BU
6800	GA6800	26-268	BA6800	26-268BU
8200	GA8200	26-270	BA8200	26-270BU
10000	GA10000	26-272	BA10000	26-272BU
12000	GA12000	26-274	BA12000	26-274BU
15000	GA15000	26-276	BA15000	26-276BU
18000	GA18000	26-278	BA18000	26-278BU
22000	GA22000	26-280	BA22000	26-280BU
27000	GA27000	26-282	BA27000	26-282BU
33000	GA33000	26-284	BA33000	26-284BU
39000	GA39000	26-286	BA39000	26-286BU
47000	GA47000	26-288	BA47000	26-288BU
56000	GA56000	26-290	BA56000	26-290BU
68000	GA68000	26-292	BA68000	26-292BU
82000	GA82000	26-294	BA82000	26-294BU
100000	GA100000	26-296	BA100000	26-296BU
120000	GA120000	26-298	BA120000	26-298BU
150000	GA150000	26-300	BA150000	26-300BU
180000	GA180000	26-302	BA180000	26-302BU
220000	GA220000	26-304	BA220000	26-304BU
270000	GA270000	26-306	BA270000	26-306BU
330000	GA330000	26-308	BA330000	26-308BU
390000	GA390000	26-310	BA390000	26-310BU
470000	GA470000	26-312	BA470000	26-312BU
560000	GA560000	26-314	BA560000	26-314BU
680000	GA680000	26-316	BA680000	26-316BU
820000	GA820000	26-318	BA820000	26-318BU
1.0 Meg.	GA 1.0 Meg.	26-320	BA 1.0 Meg.	26-320BU
1.2 Meg.	GA 1.2 Meg.	26-322	BA 1.2 Meg.	26-322BU
1.5 Meg.	GA 1.5 Meg.	26-324	BA 1.5 Meg.	26-324BU
1.8 Meg.	GA 1.8 Meg.	26-326	BA 1.8 Meg.	26-326BU
2.2 Meg.	GA 2.2 Meg.	26-328	BA 2.2 Meg.	26-328BU
2.7 Meg.	GA 2.7 Meg.	26-330	BA 2.7 Meg.	26-330BU
3.3 Meg.	GA 3.3 Meg.	26-332	BA 3.3 Meg.	26-332BU
3.9 Meg.	GA 3.9 Meg.	26-334	BA 3.9 Meg.	26-334BU
4.7 Meg.	GA 4.7 Meg.	26-336	BA 4.7 Meg.	26-336BU
5.6 Meg.	GA 5.6 Meg.	26-338	BA 5.6 Meg.	26-338BU
6.8 Meg.	GA 6.8 Meg.	26-340	BA 6.8 Meg.	26-340BU
8.2 Meg.	GA 8.2 Meg.	26-342	BA 8.2 Meg.	26-342BU
10.0 Meg.	GA 10.0 Meg.	26-344	BA 10.0 Meg.	26-344BU
12.0 Meg.	GA 12.0 Meg.	26-346	BA 12.0 Meg.	26-346BU
15.0 Meg.	GA 15.0 Meg.	26-348	BA 15.0 Meg.	26-348BU
18.0 Meg.	GA 18.0 Meg.	26-350	BA 18.0 Meg.	26-350BU
22.0 Meg.	GA 22.0 Meg.	26-352	BA 22.0 Meg.	26-352BU

Net

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G-C STACKPOLE RESISTORS

ELECTRONICS

2 Watt PLASTIC BOX OF 3 DEALER NET (BULK 10% TOL.) **.72**

ORDER NUMBERS

OHM Value	Box of 3 Part No.	Box of 3 IBM Code No.	Bulk Part No.	Bulk IBM Code No.
10	GB10	26-400	BB10	26-400BU
12	GB12	26-402	BB12	26-402BU
15	GB15	26-404	BB15	26-404BU
18	GB18	26-406	BB18	26-406BU
22	GB22	26-408	BB22	26-408BU
27	GB27	26-410	BB27	26-410BU
33	GB33	26-412	BB33	26-412BU
39	GB39	26-414	BB39	26-414BU
47	GB47	26-416	BB47	26-416BU
56	GB56	26-418	BB56	26-418BU
68	GB68	26-420	BB68	26-420BU
82	GB82	26-422	BB82	26-422BU
100	GB100	26-424	BB100	26-424BU
120	GB120	26-426	BB120	26-426BU
150	GB150	26-428	BB150	26-428BU
180	GB180	26-430	BB180	26-430BU
220	GB220	26-432	BB220	26-432BU
270	GB270	26-434	BB270	26-434BU
330	GB330	26-436	BB330	26-436BU
390	GB390	26-438	BB390	26-438BU
470	GB470	26-440	BB470	26-440BU
560	GB560	26-442	BB560	26-442BU
680	GB680	26-444	BB680	26-444BU
820	GB820	26-446	BB820	26-446BU
1000	GB1000	26-448	BB1000	26-448BU
1200	GB1200	26-450	BB1200	26-450BU
1500	GB1500	26-452	BB1500	26-452BU
1800	GB1800	26-454	BB1800	26-454BU
2200	GB2200	26-456	BB2200	26-456BU
2700	GB2700	26-458	BB2700	26-458BU
3300	GB3300	26-460	BB3300	26-460BU
3900	GB3900	26-462	BB3900	26-462BU
4700	GB4700	26-464	BB4700	26-464BU
5600	GB5600	26-466	BB5600	26-466BU
6800	GB6800	26-468	BB6800	26-468BU
8200	GB8200	26-470	BB8200	26-470BU
10000	GB10000	26-472	BB10000	26-472BU
12000	GB12000	26-474	BB12000	26-474BU
15000	GB15000	26-476	BB15000	26-476BU
18000	GB18000	26-478	BB18000	26-478BU
22000	GB22000	26-480	BB22000	26-480BU
27000	GB27000	26-482	BB27000	26-482BU
33000	GB33000	26-484	BB33000	26-484BU
39000	GB39000	26-486	BB39000	26-486BU
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220000	GB220000	26-504	BB220000	26-504BU
270000	GB270000	26-506	BB270000	26-506BU
330000	GB330000	26-508	BB330000	26-508BU
390000	GB390000	26-510	BB390000	26-510BU
470000	GB470000	26-512	BB470000	26-512BU
560000	GB560000	26-514	BB560000	26-514BU
680000	GB680000	26-516	BB680000	26-516BU
820000	GB820000	26-518	BB820000	26-518BU
1.0 Meg.	GB 1.0 Meg.	26-520	BB 1.0 Meg.	26-520BU
1.2 Meg.	GB 1.2 Meg.	26-522	BB 1.2 Meg.	26-522BU
1.5 Meg.	GB 1.5 Meg.	26-524	BB 1.5 Meg.	26-524BU
1.8 Meg.	GB 1.8 Meg.	26-526	BB 1.8 Meg.	26-526BU
2.2 Meg.	GB 2.2 Meg.	26-528	BB 2.2 Meg.	26-528BU
2.7 Meg.	GB 2.7 Meg.	26-530	BB 2.7 Meg.	26-530BU
3.3 Meg.	GB 3.3 Meg.	26-532	BB 3.3 Meg.	26-532BU
3.9 Meg.	GB 3.9 Meg.	26-534	BB 3.9 Meg.	26-534BU
4.7 Meg.	GB 4.7 Meg.	26-536	BB 4.7 Meg.	26-536BU
5.6 Meg.	GB 5.6 Meg.	26-538	BB 5.6 Meg.	26-538BU
6.8 Meg.	GB 6.8 Meg.	26-540	BB 6.8 Meg.	26-540BU
8.2 Meg.	GB 8.2 Meg.	26-542	BB 8.2 Meg.	26-542BU
10.0 Meg.	GB 10.0 Meg.	26-544	BB 10.0 Meg.	26-544BU
12.0 Meg.	GB 12.0 Meg.	26-546	BB 12.0 Meg.	26-546BU
15.0 Meg.	GB 15.0 Meg.	26-548	BB 15.0 Meg.	26-548BU
18.0 Meg.	GB 18.0 Meg.	26-550	BB 18.0 Meg.	26-550BU
22.0 Meg.	GB 22.0 Meg.	26-552	BB 22.0 Meg.	26-552BU

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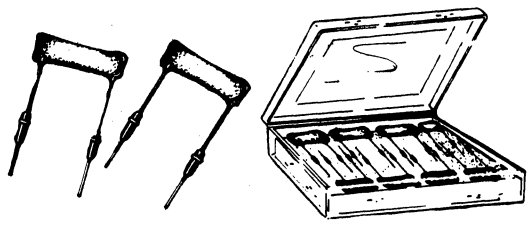
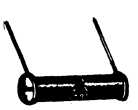


GC 5 WATT FUSE RESISTORS

INDIVIDUALLY PACKED OR HANDY KITS

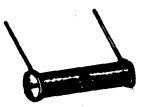
Replacement For	Part Number		DEALER NET
RCA, Philco, Truetone, Westinghouse, Western Auto, Gamble-Skogmo	25-980 25-980-D 25-996-1	4.7 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 4.7 ohm fuse resistors in plastic box	.39 1.99
Magnavox, Muntz, Sears, Travler, Hallicrafters, Motorola	25-982 25-982-D 25-996-2	5 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 5 ohm fuse resistors in plastic box	.39 1.99
Arvin, Western Auto, Bendix, Muntz, Montgomery Ward, Sylvania, Sonora, RCA, Philco, Raytheon	25-984 25-984-D 25-996-3	5.6 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 5 ohm fuse resistors in plastic box	.39 1.99
Zenith	25-986 25-986-D 25-996-4	6 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 6 ohm fuse resistors in plastic box	.39 1.99
Admiral, Crosley, Zenith, Sears, Westinghouse, Sylvania, Sentinel, Philco, Emerson, Olympic, Hallicrafters, Motorola, Hoffman, Magnavox, Majestic	25-988 25-988-D 25-996-5	7.5 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 7.5 ohm fuse resistors in plastic box	.39 1.99
Firestone, Western Auto, Muntz, Gamble-Skogmo, Raytheon, Montgomery Ward	25-990 25-990-D 25-996-6	9 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 9 ohm fuse resistors in plastic box	.39 1.99
Admiral	25-992 25-992-D 25-996-7	10 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 10 ohm fuse resistors in plastic box	.39 1.99
Admiral, Motorola, Stromberg-Carlson	25-994 25-994-D 25-996-8	22 ohm fuse resistor Each $ Standard Pack Display of 20 Kit of 10 each of 22 ohm fuse resistors in plastic box	.39 1.99
	25-996	Kit of 10 assorted fuse resistors in plastic box contains: 6 — 7.5 ohm 1 — 5.6 ohm 1 — 4.7 ohm 1 — 9 ohm 1 — 22 ohm	1.99

GC GLO-BAR THERMISTORS



Resistance—Hot—20 ohms at 600 M. A. Cold—250 ohms—No load. Used on G.E. No. RRW051.
Cat. No. 25-912 9214 Net $ .85
25-912-D 9214-D Disp. 20 Std. Pack 20

Resistance—50 ohms—Hot—150 M. A. Used on Philco Part No. 33-1343-3. Used in Over 40 models of Philco AC-DC Radios.
Cat. No. 25-922-9266 Net $ .96
25-922-D 9266-D Disp. 20 Std. Pack 20



6 ohms—Hot. Used on Motorola Part 6B 744326.
Cat. No. 25-932 None. Net $ .95
25-932-D None. Disp. 20 Std. Pack 20

19 ohms—Hot. Used on Motorola Part 6R 720260.
Cat. No. 25-934 None Net $ .85
25-934-D None. Disp. 20 Std. Pack 20

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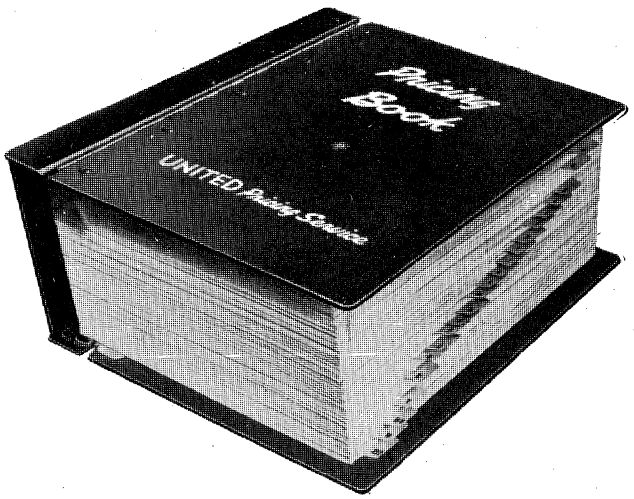

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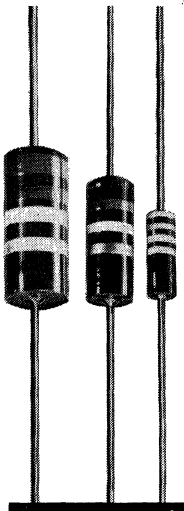
RESISTORS

HIGH QUALITY
FIXED COMPOSITION

CAPACITORS

MYLAR*—PAPER
CUSTOM-MANUFACTURED



2W 1W 1/2W (ACTUAL SIZE)

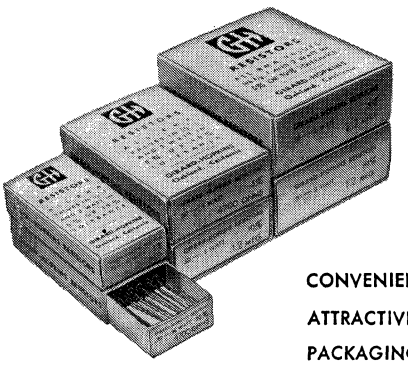
5% and 10% TOLERANCE, ½, 1 and 2 WATT RATINGS

G-H, fixed composition resistors of highest quality, feature permanent electrical characteristics, small physical size for a given wattage rating, great mechanical strength. Leads are differentially tempered--prevent sharp bends near the resistor body while still permitting easy forming to fit a particular wiring arrangement.

Resistor bodies are molded brown phenolic with coding in brilliant colors.

G-H resistors are now supplied in attractive new containers. Three convenient sizes with pull-out sections accommodate standard quantities of ½, 1 and 2 watt resistors.

A G-H innovation, Gold and Silver container ends, permits instant identification of 5% or 10% tolerance units. Quantity, wattage and resistance values are also clearly printed on these ends. These attractive black and green containers with Gold and Silver ends provide a space-saving, functional shelf display.



CONVENIENT
ATTRACTIVE
PACKAGING

ONE-HALF, ONE AND TWO WATT RATINGS

5% Tolerance

10	82	680	5600	47,000	390,000	3.3 meg.
11	91	750	6200	51,000	430,000	3.6 "
12	100	820	6800	56,000	470,000	3.9 "
13	110	910	7500	62,000	510,000	4.3 "
15	120	1000	8200	68,000	560,000	4.7 "
16	130	1100	9100	75,000	620,000	5.1 "
18	150	1200	10,000	82,000	680,000	5.6 "
20	160	1300	11,000	91,000	750,000	6.2 "
22	180	1500	12,000	100,000	820,000	6.8 "
24	200	1600	13,000	110,000	910,000	7.5 "
27	220	1800	15,000	120,000	1.0 meg.	8.2 "
30	240	2000	16,000	130,000	1.1 "	9.1 "
33	270	2200	18,000	150,000	1.2 "	10.0 "
36	300	2400	20,000	160,000	1.3 "	11.0 "
39	330	2700	22,000	180,000	1.5 "	12.0 "
43	360	3000	24,000	200,000	1.6 "	13.0 "
47	390	3300	27,000	220,000	1.8 "	15.0 "
51	430	3600	30,000	240,000	2.0 "	16.0 "
56	470	3900	33,000	270,000	2.2 "	18.0 "
62	510	4300	36,000	300,000	2.4 "	20.0 "
68	560	4700	39,000	330,000	2.7 "	22.0 "
75	620	5100	43,000	360,000	3.0 "	

Available in 1 watt only

2.7 ohms
3.0 ohms
3.3 ohms
3.6 ohms
3.9 ohms
4.3 ohms
4.7 ohms
5.1 ohms
5.6 ohms
6.2 ohms
6.8 ohms
7.5 ohms
8.2 ohms
9.1 ohms

Standard packages, 50 resistors.

All Standard RTMA Values

ONE-HALF, ONE AND TWO WATT RATINGS

10% Tolerance

10	120	1500	18,000	220,000	2.7 meg.
12	150	1800	22,000	270,000	3.3 "
15	180	2200	27,000	330,000	3.9 "
18	220	2700	33,000	390,000	4.7 "
22	270	3300	39,000	470,000	5.6 "
27	330	3900	47,000	560,000	6.8 "
33	390	4700	56,000	680,000	8.2 "
39	470	5600	68,000	820,000	10.0 "
47	560	6800	82,000	1.0 meg.	12.0 "
56	680	8200	100,000	1.2 "	15.0 "
68	820	10,000	120,000	1.5 "	18.0 "
82	1000	12,000	150,000	1.8 "	22.0 "
100	1200	15,000	180,000	2.2 "	

Available in 1 watt only

2.7 ohms.
3.3 ohms.
3.9 ohms.
4.7 ohms.
5.6 ohms.
6.8 ohms.
8.2 ohms.

Standard packages, 50 resistors

CUSTOM MANUFACTURED CAPACITORS

PAPER DIELECTRIC

Custom manufactured in any practical capacity, working voltage and tolerance to customers specifications. Containers and terminal arrangements in accord with customers drawings. Capacitors can be manufactured for AC or DC operation—impregnated with Wax, Tensoil, or the stable, highly superior oil impregnant, G-H PERMANOL.

MYLAR* DIELECTRIC

G-H Mylar capacitors are widely used in filters, timing circuits, precision instruments and many other applications where stability and high insulation resistance are requirements. Units can be supplied in film-wrapped types with high grade plastic end-fill or in hermetically sealed tubes or in bathtubs. Standard units are available in 200, 400 and 600 volt types. Intermediate and higher voltage ratings available on special order.

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GIRARD-HOPKINS

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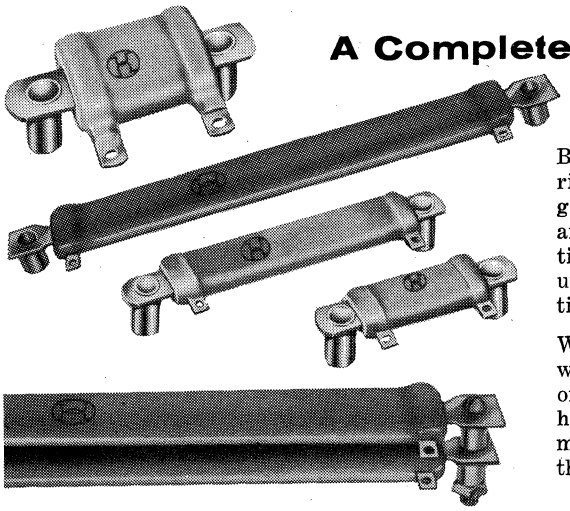
"Gray Line"

HARDWICK, HINDLE · INC
BLUE RIBBON RESISTORS



A Complete Line of Flat and Stack Mounting Power Resistors

Blue Ribbon wire-wound power resistors are made of quality materials with matched coefficients of expansion and are covered by H-H gray vitreous enamel for complete protection against environment and overload. The aluminum through bracket improves heat dissipation, minimizes hot spots, and allows a higher wattage rating per unit of space. Bracket construction facilitates stacking and adds additional space saving.

When BR resistors are stack mounted they must be derated to keep within rated operating temperatures. Watt ratings shown are based on the use of a steel panel 10 inches square x .040 thick supported horizontally. For non-metallic panels reduce rating 15%. When mounted as described in an ambient temperature not exceeding 40°C the maximum temperature rise of the resistor will not exceed 300°C.

10 WATT Type ¾ BRS-53B Mounting Centers 1"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B350	5	1.41	$ .92
B351	10	1.00	.92
B352	15	.82	.92
B353	25	.63	.92
B354	50	.45	.92
B355	100	.32	.92
B356	150	.26	.92
B357	250	.20	.92
B358	500	.14	.92
B359	1000	.10	.92
B360	1500	.081	.92
B361	2500	.063	.92
B362	5000	.045	.98
B363	10000	.032	1.03
B364	15000	.026	1.05

15 WATT Type 1 BRS-53B Mounting Centers 1¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B401	5	1.73	$ .97
B402	10	1.22	.97
B403	15	1.00	.97
B404	25	.78	.97
B405	50	.55	.97
B406	100	.39	.97
B407	150	.32	.97
B408	250	.25	.97
B409	500	.17	.97
B410	1000	.12	.97
B411	1500	.10	.97
B412	2500	.078	.97
B413	5000	.055	1.00
B414	10000	.039	1.04
B415	15000	.032	1.11
B416	20000	.027	1.15
B417	25000	.025	1.20

20 WATT Type 2 BRS-53B Mounting Centers 2⅝"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B450	5	2.00	$ .99
B451	10	1.41	.99
B452	15	1.16	.99
B453	25	.89	.99
B454	50	.63	.99
B455	100	.45	.99
B456	150	.36	.99
B457	250	.28	.99
B458	500	.20	.99
B459	1000	.14	.99
B460	1500	.12	.99
B461	2500	.089	.99
B462	5000	.063	1.04
B463	10000	.045	1.16
B464	15000	.036	1.20
B465	20000	.032	1.26
B466	25000	.028	1.33
B467	50000	.020	1.44

20 WATT Type BRM-37 Mounting Center 1⅝"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B501	5	2.00	$ .96
B502	10	1.41	.96
B503	15	1.16	.96
B504	25	.89	.96
B505	50	.63	.96
B506	100	.45	.96
B507	150	.36	.96
B508	250	.28	.96
B509	500	.20	.96
B510	1000	.14	.96
B511	1500	.12	.96
B512	2500	.089	.96
B513	5000	.063	.98
B514	8000	.050	1.04

30 WATT Type 1½ BRM-37 Mounting Centers 1⅞"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B550	5	2.46	$ .98
B551	10	1.73	.98
B552	15	1.42	.98
B553	25	1.10	.98
B554	50	.77	.98
B555	100	.55	.98
B556	150	.45	.98
B557	250	.35	.98
B558	500	.25	.98
B559	1000	.17	.98
B560	1500	.14	.98
B561	2500	.11	.98
B562	5000	.076	1.04
B563	10000	.049	1.15
B564	15000	.045	1.19

When Resistors are mounted on a non-metallic base the nominal watt rating should be reduced by approximately 15%.

30 WATT Type 1¼" BR-37 Mounting Centers 2"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B101	5	2.46	$1.28
B102	10	1.73	1.28
B103	15	1.42	1.28
B104	25	1.10	1.28
B105	50	.77	1.28
B106	100	.55	1.28
B107	150	.45	1.28
B108	250	.35	1.28
B109	500	.25	1.28
B110	1000	.17	1.28
B111	1500	.14	1.28
B112	2500	.11	1.28
B113	5000	.076	1.37
B114	10000	.049	1.48

40 WATT Type 2" BR-37 Mounting Centers 2¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B201	5	2.83	$1.32
B202	10	2.00	1.32
B203	15	1.63	1.32
B204	25	1.26	1.32
B205	50	.89	1.32
B206	100	.63	1.32
B207	150	.52	1.32
B208	250	.40	1.32
B209	500	.28	1.32
B210	1000	.20	1.32
B211	1500	.16	1.32
B212	2500	.13	1.32
B213	5000	.089	1.43
B214	10000	.063	1.60
B215	15000	.045	1.67

55 WATT Type 3½" BR-37 Mounting Centers 4¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B301	5	3.32	$1.53
B302	10	2.34	1.53
B303	15	1.92	1.53
B304	25	1.48	1.53
B305	50	1.05	1.53
B306	100	.74	1.53
B307	150	.61	1.53
B308	250	.47	1.53
B309	500	.33	1.53
B310	1000	.23	1.53
B311	1500	.19	1.53
B312	2500	.15	1.53
B313	5000	.10	1.63
B314	10000	.074	1.79
B315	15000	.061	1.87
B316	25000	.047	2.05

75 WATT Type 6" BR-37 Mounting Centers 6¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B601	5	3.87	$1.93
B602	10	2.74	1.93
B603	15	2.24	1.93
B604	25	1.73	1.93
B605	50	1.22	1.93
B606	100	.86	1.93
B607	150	.71	1.93
B608	250	.55	1.93
B609	500	.39	1.93
B610	1000	.27	1.93
B611	1500	.22	1.93
B612	2500	.17	1.93
B613	5000	.12	2.00
B614	10000	.086	2.16
B615	15000	.070	2.24
B616	25000	.054	2.43
B617	50000	.033	2.60

Adjustable resistors with a bare edge can be furnished for obtaining intermediate resistance values. Standard tolerance ±5% on all stock units. Tapped units and closer tolerances to 1% available.

Specify short stud on BRS for unit mounting if height is at a premium.

Packaged one unit per box. Made in accordance with MIL-R-26C.

Net

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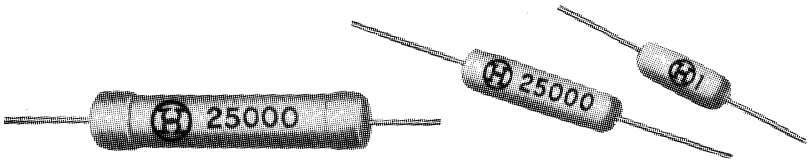
HARDWICK, HINDLE · INC
AXIAL-LEAD RESISTORS

The Quality INDUSTRIAL LINE since 1924



The "free air" wattage ratings of these axial lead resistors are based on a hot spot temperature rise of 300°C. (540°F.) in an ambient temperature not exceeding 40°C. (104°F.). These are the finest quality vitreous enameled wire-wound resistors made with application-tested parts and employing precision assembly. Since parts have matched heat expansion, crazing and cracks are eliminated. All welded construction.

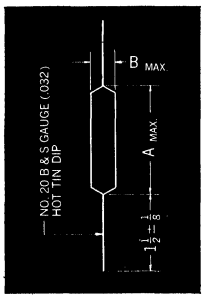
Standard Sizes:

Resistor Type	Tube Dimensions A	Tube Dimensions B	Watt Rating Nominal	Recommended Resist. Range Min. ohms	Recommended Resist. Range Max. ohms
5/16 GA	5/16"	1/4"	3 Watts	1	10,000
1 WA	1"	11/32"	5 Watts	1	25,000
1¾ ZA	1¾"	13/32"	10 Watts	1	50,000

Standard tolerance is ±5% for all stock units.

3 WATT SIZE — Type 5/16 EA — 5/16" long x 1/4" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
701	1.0	1.73	$ .59	719	125	.155	$ .59	737	1250	.049	$ .62
702	1.5	1.41	.59	720	150	.141	.59	738	1500	.045	.62
703	2.0	1.22	.59	721	200	.122	.59	739	1750	.041	.62
704	3.0	1.00	.59	722	225	.115	.59	740	2000	.039	.62
705	4.0	.86	.59	723	250	.109	.59	741	2250	.036	.62
706	5.0	.78	.59	724	300	.1	.59	742	2500	.035	.62
707	7.5	.63	.59	725	350	.093	.59	743	3000	.032	.62
708	10	.55	.59	726	400	.087	.59	744	3500	.029	.62
709	12	.50	.59	727	450	.082	.59	745	4000	.027	.62
710	15	.45	.59	728	500	.078	.59	746	4500	.026	.62
711	20	.39	.59	729	600	.071	.59	747	5000	.025	.62
712	25	.35	.59	730	700	.065	.59	748	6000	.022	.66
713	30	.32	.59	731	750	.063	.59	749	7000	.020	.66
714	35	.285	.59	732	800	.061	.59	750	7500	.020	.66
715	40	.274	.59	733	900	.058	.59	751	8000	.019	.66
716	50	.245	.59	734	1000	.055	.59	752	9000	.018	.66
717	75	.200	.59	735	1100	.052	.62	753	10000	.017	.66
718	100	.173	.59	736	1200	.050	.62				



Made in accordance with MIL-R-26. Packaged 10 units per box.

5 WATT SIZE — Type 1 WA — 1" long x 11/32" o.d.

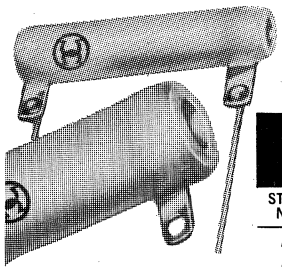
STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
801	1.0	2.23	$ .62	816	50	.316	$ .62	831	750	.081	$ .62	846	4500	.033	$ .66
802	1.5	1.82	.62	817	75	.258	.62	832	800	.079	.62	847	5000	.032	.66
803	2.0	1.58	.62	818	100	.224	.62	833	900	.074	.62	848	6000	.029	.70
804	3.0	1.29	.62	819	125	.200	.62	834	1000	.070	.62	849	7000	.027	.70
805	4.0	1.12	.62	820	150	.182	.62	835	1100	.067	.66	850	7500	.026	.70
806	5.0	1.0	.62	821	200	.158	.62	836	1200	.064	.66	851	8000	.025	.70
807	7.5	.818	.62	822	225	.149	.62	837	1250	.063	.66	852	9000	.024	.70
808	10	.7	.62	823	250	.141	.62	838	1500	.057	.66	853	10000	.022	.70
809	12	.645	.62	824	300	.129	.62	839	1750	.053	.66	854	12500	.020	.78
810	15	.575	.62	825	350	.120	.62	840	2000	.050	.66	855	15000	.018	.78
811	20	.500	.62	826	400	.112	.62	841	2250	.047	.66	856	17500	.017	.78
812	25	.447	.62	827	450	.105	.62	842	2500	.045	.66	857	18000	.017	.78
813	30	.408	.62	828	500	.100	.62	843	3000	.041	.66	858	20000	.016	.78
814	35	.378	.62	829	600	.091	.62	844	3500	.037	.66	859	22500	.015	.82
815	40	.353	.62	830	700	.084	.62	845	4000	.035	.66	860	25000	.014	.82

10 WATT SIZE — Type 1¾ ZA — 1¾" long x 13/32" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
901	1.0	3.16	$ .95	915	40	.5	$ .68	929	600	.129	$ .68	943	3000	.057	$ .73	957	12500	.028	$ .95
902	1.5	2.58	.95	916	50	.447	.68	930	700	.119	.68	944	3500	.053	.73	958	13500	.027	.95
903	2.0	2.235	.95	917	75	.365	.68	931	750	.115	.68	945	4000	.050	.73	959	15000	.026	.95
904	3.0	1.825	.68	918	100	.316	.68	932	800	.111	.68	946	4500	.047	.73	960	16000	.025	.95
905	4.0	1.58	.68	919	125	.283	.68	933	900	.105	.68	947	5000	.045	.73	961	17500	.024	.95
906	5.0	1.414	.68	920	150	.258	.68	934	1000	.100	.68	948	6000	.041	.84	962	18000	.023	.95
907	7.5	1.155	.68	921	200	.223	.68	935	1100	.095	.73	949	7000	.038	.84	963	20000	.022	.95
908	10	1	.68	922	225	.217	.68	936	1200	.091	.73	950	7500	.036	.84	964	22500	.021	1.00
909	12	.910	.68	923	250	.200	.68	937	1250	.089	.73	951	8000	.035	.84	965	25000	.020	1.00
910	15	.816	.68	924	300	.182	.68	938	1500	.081	.73	952	8500	.034	.84	966	30000	.018	1.00
911	20	.707	.68	925	350	.169	.68	939	1750	.075	.73	953	9000	.033	.84	967	35000	.017	1.00
912	25	.632	.68	926	400	.158	.68	940	2000	.071	.73	954	10000	.032	.84	968	40000	.016	1.00
913	30	.575	.68	927	450	.149	.68	941	2250	.066	.73	955	11000	.030	.95	969	45000	.015	1.12
914	35	.535	.68	928	500	.141	.68	942	2500	.063	.73	956	12000	.029	.95	970	50000	.014	1.12

"Gray Line"

HARDWICK, HINDLE · INC
FIXED RESISTORS



Vitreous Enameled Construction

Eight stock sizes of Hardwick, Hindle fixed resistors provide an exceptionally wide choice of resistance values to meet varied applications. Ratings are in accordance with NEMA standards, being based on a temperature rise of 300°C in free air. Data on types, sizes and values not included here, and on fixed resistors with intermediate taps, special mountings, modified terminals, etc. will be furnished on request. All stock sizes are supplied complete with mounting brackets.

5 WATT
Type 1Z-34
1" long x 5/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A1	1	2.23	$ .57
A2	3	1.29	.57
A3	5	1.00	.57
A4	7.5	.81	.57
A5	10	.71	.57
A6	15	.58	.57
A7	25	.45	.57
A8	50	.32	.57
A9	75	.26	.57
A10	100	.22	.57
A11	150	.18	.57
A12	200	.16	.57
A13	250	.14	.57
A14	400	.11	.57
A15	500	.10	.57
A16	750	.082	.57
A17	1000	.070	.57
A18	1250	.063	.61
A19	1500	.057	.61
A20	2000	.050	.61
A21	2500	.045	.61
A22	3000	.041	.61
A23	4000	.035	.61
A24	5000	.032	.61
A25	7500	.026	.58
A26	10000	.022	.58
A27	12500	.020	.65
A28	15000	.018	.65
A29	20000	.016	.65
A30	25000	.013	.68

10 WATT
Type 1¾Z-34
1¾" long x 5/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A101	1	3.16	$ .57
A102	3	1.83	.57
A103	5	1.41	.57
A104	7.5	1.16	.57
A105	10	1.00	.57
A106	15	.82	.57
A107	25	.63	.57
A108	50	.45	.57
A109	75	.37	.57
A110	100	.32	.57
A111	150	.26	.57
A112	200	.22	.57
A113	250	.20	.57
A114	400	.16	.57
A115	500	.14	.57
A116	750	.12	.57
A117	1000	.10	.57
A118	1250	.089	.61
A119	1500	.081	.61
A120	2000	.071	.61
A121	2500	.063	.61
A122	3000	.057	.61
A123	4000	.050	.61
A124	5000	.045	.61
A125	7500	.036	.70
A126	10000	.032	.70
A127	12500	.028	.79
A128	15000	.026	.79
A129	20000	.022	.79
A130	25000	.020	.83

20 WATT
Type 2H-34
2" long x 7/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A201	5	2.00	$ .68
A202	10	1.41	.68
A203	25	.89	.68
A204	50	.63	.68
A205	75	.52	.68
A206	100	.45	.68
A207	150	.36	.68
A208	200	.32	.68
A209	250	.28	.68
A210	400	.22	.68
A211	500	.20	.68
A212	750	.16	.68
A213	1000	.14	.68
A214	1250	.13	.70
A215	1500	.12	.70
A216	2000	.10	.70
A217	2500	.089	.70
A218	3000	.081	.70
A219	4000	.070	.70
A220	5000	.063	.70
A221	6000	.057	.83
A222	7500	.051	.83
A223	10000	.043	.83
A224	12500	.035	.85
A225	15000	.032	.85
A226	25000	.024	.99
A227	35000	.021	.99
A228	40000	.019	.99
A229	50000	.017	1.15

25 WATT
Type 2JX-35
2" long x 9/16" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
1001	5	2.24	$ .72
1002	10	1.58	.72
1003	25	1.00	.72
1004	50	.71	.72
1005	75	.58	.72
1006	100	.50	.72
1007	150	.41	.72
1008	200	.35	.72
1009	250	.32	.72
1010	500	.22	.72
1011	750	.18	.72
1012	1000	.16	.72
1013	1500	.13	.75
1014	2000	.12	.75
1015	2500	.10	.75
1016	3000	.091	.75
1017	3500	.084	.75
1018	4000	.079	.75
1019	5000	.070	.75
1020	6000	.064	.85
1021	7500	.057	.85
1022	10000	.050	.85
1023	12000	.042	.90
1024	15000	.036	.90
1025	20000	.031	.90
1026	25000	.028	1.04

Standard tolerance is ±5% for all stock units.

5, 10 and 20 watts sizes packaged 10 units per box;
25 through 200 watt sizes packaged one unit per box.

50 WATT
Type 4JX-35
4" long x 9/16" o.d.
Mounting Centers 4¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
2000	1	7.07	$1.55
2001	5	3.16	1.11
2002	10	2.23	1.11
2003	25	1.41	1.11
2004	50	1.00	1.11
2005	75	.82	1.11
2006	100	.71	1.11
2007	150	.58	1.11
2008	200	.50	1.11
2009	250	.45	1.11
2010	500	.32	1.11
2011	750	.26	1.11
2012	1000	.22	1.11
2013	1500	.18	1.14
2014	2000	.16	1.14
2015	2500	.14	1.14
2016	3000	.13	1.14
2017	4000	.11	1.14
2018	5000	.10	1.14
2019	7500	.081	1.23
2020	10000	.071	1.23
2021	12000	.064	1.35
2022	15000	.057	1.35
2023	20000	.050	1.35
2024	25000	.045	1.54
2025	35000	.032	1.54
2026	50000	.026	1.72

100 WATT
Type 6½L-35
6½" long x 3¼" o.d.
Mounting Centers 7⅜"

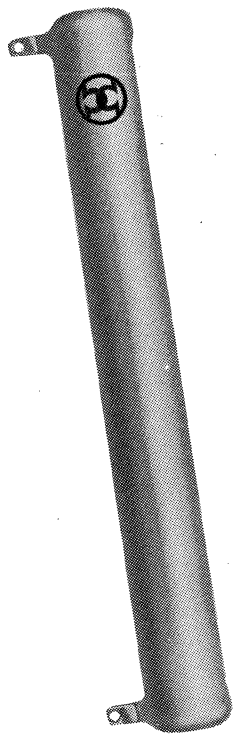
STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
3000	1	10.00	$2.16
3001	3	5.77	2.16
3002	5	4.47	1.54
3003	10	3.16	1.54
3004	25	2.00	1.54
3005	50	1.41	1.54
3006	75	1.15	1.54
3007	100	1.00	1.54
3008	250	.63	1.54
3009	500	.45	1.54
3010	1000	.32	1.54
3011	1500	.26	1.60
3012	2000	.22	1.60
3013	2500	.20	1.60
3014	3000	.18	1.60
3015	4000	.16	1.60
3016	5000	.14	1.60
3017	7500	.12	1.73
3018	10000	.10	1.73
3019	15000	.081	1.87
3020	20000	.071	1.87
3021	25000	.063	2.13
3022	30000	.058	2.13
3023	35000	.054	2.13
3024	40000	.050	2.13
3025	50000	.045	2.21
3026	60000	.041	2.21
3027	75000	.032	2.45

160 WATT
Type 8½FX-57
8½" long x 1⅛" o.d.
Mounting Centers 9⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
4001	5	5.66	$3.19
4002	10	4.00	2.28
4003	25	2.53	2.28
4004	50	1.79	2.28
4005	75	1.46	2.28
4006	100	1.26	2.28
4007	150	1.03	2.28
4008	250	.80	2.28
4009	500	.57	2.28
4010	750	.46	2.28
4011	1000	.40	2.28
4012	1500	.33	2.32
4013	2000	.28	2.32
4014	2500	.25	2.32
4015	3000	.23	2.32
4016	5000	.18	2.32
4017	7500	.15	2.53
4018	10000	.13	2.53
4019	15000	.10	2.71
4020	20000	.089	2.71
4021	25000	.080	2.80
4022	30000	.073	2.80
4023	40000	.063	2.80
4024	50000	.057	2.89
4025	75000	.046	3.08
4026	100000	.040	3.26

200 WATT
Type 10½FX-57
10½" long x 1⅛" o.d.
Mounting Centers 11⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
5001	5	6.32	$3.44
5002	10	4.47	2.46
5003	25	2.83	2.46
5004	50	2.00	2.46
5005	75	1.64	2.46
5006	100	1.41	2.46
5007	150	1.15	2.46
5008	250	.89	2.46
5009	500	.63	2.46
5010	750	.52	2.46
5011	1000	.45	2.46
5012	1500	.37	2.53
5013	2000	.32	2.53
5014	2500	.28	2.53
5015	3000	.26	2.53
5016	5000	.20	2.53
5017	7500	.16	2.71
5018	10000	.14	2.71
5019	15000	.12	2.89
5020	20000	.10	2.89
5021	25000	.089	2.98
5022	30000	.082	2.98
5023	40000	.071	2.98
5024	50000	.063	3.08
5025	75000	.052	3.26
5026	100000	.045	3.46



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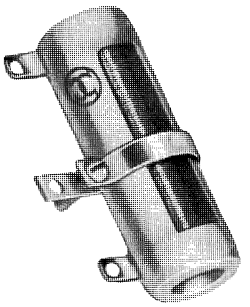
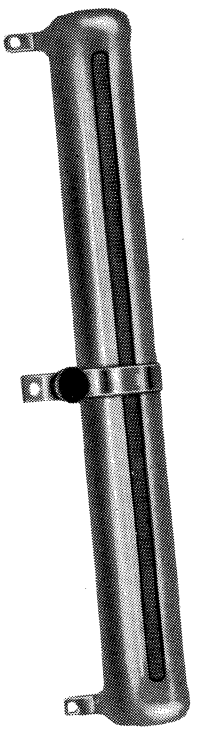
HARDWICK, HINDLE · INC
ADJUSTABLE RESISTORS

The Quality INDUSTRIAL LINE since 1924

This resistor, embodying features originated by Hardwick, Hindle possesses the many advantages of Vitreous Enamel Construction, plus an adjustable feature. The winding is closely and evenly spaced, assuring ample insulation between turns. Where winding is exposed in the track, its underside is tightly embedded in the enamel, the upper surface only being exposed for contact with adjustable band.





10 WATT—Type K-10
1¾" long x 5/16" o.d.
Mounting Centers 2 5/16"
Terminal 37

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
C10	1	3.16	$1.14
C11	3	1.83	1.14
C12	5	1.41	1.14
C13	7.5	1.16	1.14
C14	10	1.00	1.14
C15	25	.82	1.14
C16	50	.63	1.14
C17	75	.45	1.14
C18	100	.32	1.14
C19	150	.26	1.14
C20	200	.22	1.14
C21	250	.20	1.14
C22	400	.16	1.14
C23	500	.14	1.14
C24	750	.12	1.14
C25	1000	.10	1.14
C26	1250	.089	1.18
C27	1500	.081	1.18
C28	2000	.071	1.18
C29	2500	.063	1.18
C30	3000	.057	1.18
C31	4000	.050	1.18
C32	5000	.045	1.18
C33	7500	.036	1.27
C34	10000	.032	1.27

25 WATT—Type K-25
2" long x 5/16" o.d.
Mounting Center 2¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
6001	1	5.00	$1.29
6002	2	3.54	1.29
6003	3	2.88	1.29
6004	5	2.24	1.29
6005	10	1.58	1.29
6006	20	1.12	1.29
6007	25	1.00	1.29
6008	50	.71	1.29
6009	75	.58	1.29
6010	100	.50	1.29
6011	200	.35	1.29
6012	300	.29	1.29
6013	400	.25	1.29
6014	500	.22	1.29
6015	750	.18	1.29
6016	800	.17	1.29
6017	1000	.16	1.29
6018	1250	.14	1.32
6019	1500	.13	1.32
6020	2000	.12	1.32
6021	2500	.10	1.32
6022	3000	.091	1.32
6023	3500	.084	1.32
6024	4000	.079	1.32
6025	5000	.070	1.32
6026	6000	.064	1.42
6027	7000	.060	1.42
6028	8000	.055	1.42
6029	10000	.050	1.42
6030	15000	.036	1.47
6031	20000	.031	1.47
6032	25000	.028	1.61

50 WATT—Type K-50
4" long x 5/16" o.d.
Mounting Center 4¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
7001	5	3.16	$1.68
7002	10	2.23	1.68
7003	25	1.41	1.68
7004	50	1.00	1.68
7005	75	.82	1.68
7006	100	.71	1.68
7007	200	.50	1.68
7008	250	.45	1.68
7009	300	.41	1.68
7010	400	.35	1.68
7011	500	.32	1.68
7012	750	.26	1.68
7013	800	.25	1.68
7014	1000	.22	1.68
7015	1500	.18	1.71
7016	2000	.16	1.71
7017	2500	.14	1.71
7018	3000	.13	1.71
7019	4000	.11	1.71
7020	5000	.10	1.71
7021	6000	.091	1.80
7022	7000	.084	1.80
7023	7500	.081	1.80
7024	8000	.079	1.80
7025	9000	.074	1.80
7026	10000	.071	1.80
7027	12000	.064	1.92
7028	15000	.057	1.92
7029	20000	.050	1.92
7030	25000	.045	2.11
7031	30000	.036	2.11
7032	40000	.029	2.11
7033	50000	.026	2.29

75 WATT—Type K-75
6" long x 5/16" o.d.
Mounting Centers 6¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
8001	5	3.87	$1.87
8002	10	2.74	1.87
8003	15	2.24	1.87
8004	25	1.73	1.87
8005	50	1.22	1.87
8006	100	.86	1.87
8007	200	.61	1.87
8008	300	.50	1.87
8009	400	.43	1.87
8010	500	.39	1.87
8011	750	.32	1.87
8012	1000	.27	1.87
8013	1500	.22	1.92
8014	2000	.19	1.92
8015	2500	.17	1.92
8016	3000	.16	1.92
8017	4000	.14	1.92
8018	5000	.12	1.92
8019	6000	.11	2.01
8020	7000	.10	2.01
8021	7500	.10	2.01
8022	10000	.086	2.01
8023	15000	.070	2.13
8024	20000	.061	2.13
8025	25000	.054	2.32
8026	30000	.050	2.32
8027	40000	.043	2.32
8028	50000	.033	2.52
8029	60000	.030	2.52
8030	80000	.026	2.78
8031	100000	.023	2.93

100 WATT—Type K-100
6½" long x ¾" o.d.
Mounting Centers 7⅜"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9001	5	4.47	$2.11
9002	10	3.16	2.11
9003	25	2.00	2.11
9004	50	1.41	2.11
9005	100	1.00	2.11
9006	250	.63	2.11
9007	500	.45	2.11
9008	1000	.32	2.11
9009	1500	.26	2.17
9010	2500	.20	2.17
9011	5000	.14	2.17
9012	10000	.10	2.30
9013	15000	.081	2.44
9014	20000	.071	2.44
9015	25000	.063	2.70
9016	30000	.058	2.70
9017	40000	.050	2.70
9018	50000	.045	2.78
9019	75000	.032	3.02
9020	100000	.028	3.32

160 WATT—Type K-160
8½" long x 1⅛" o.d.
Mounting Centers 9⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9030	5	5.66	$4.07
9031	10	4.00	3.16
9032	25	2.53	3.16
9033	50	1.79	3.16
9034	100	1.26	3.16
9035	250	.80	3.16
9036	500	.57	3.16
9037	1000	.40	3.16
9038	1500	.33	3.20
9039	2500	.25	3.20
9040	5000	.18	3.20
9041	10000	.13	3.41
9042	15000	.10	3.59
9043	20000	.089	3.59
9044	25000	.080	3.68
9045	30000	.073	3.68
9046	40000	.063	3.68
9047	50000	.057	3.77
9048	75000	.046	3.96
9049	100000	.040	4.14

200 WATT—Type K-200
10½" long x 1⅛" o.d.
Mounting Centers 11⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9060	5	6.32	$4.32
9061	10	4.47	3.34
9062	25	2.83	3.34
9063	50	2.00	3.34
9064	100	1.41	3.34
9065	250	.89	3.34
9066	500	.63	3.34
9067	1000	.45	3.34
9068	2500	.28	3.41
9069	5000	.20	3.41
9070	10000	.14	3.59
9071	15000	.12	3.77
9072	20000	.10	3.77
9073	25000	.089	3.77
9074	30000	.082	3.77
9075	40000	.071	3.77
9076	50000	.063	3.96
9077	75000	.052	4.14
9078	100000	.045	4.34

All sizes of Adjustable Resistors listed are furnished complete with mounting brackets and one adjustable contact band.

Tolerance of ±10% measured without the adjustable band.

Adjustable Contact Bands

RESISTOR O.D.	TERMINAL TYPE	STOCK NO.	
		SCREW DRIVER	BAKELITE KNOB*
5/16"	K	1791-2	1791-2-X
9/16"	K	1791-8	1791-8-X
3/4"	341	1793-2	1793-2-X
1-1/8"	341	1793-4	1793-4-X

*Available on request at extra cost.

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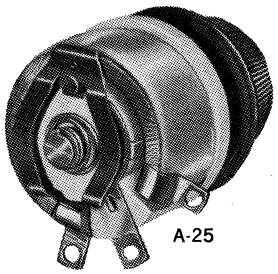
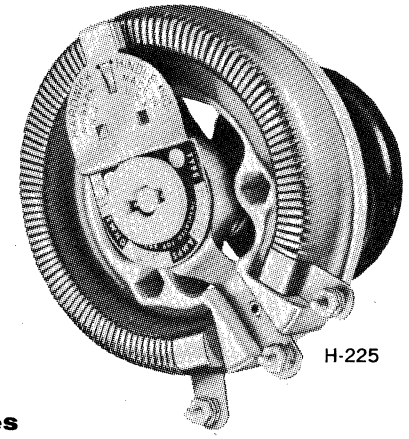
Net

"Gray Line" HARDWICK, HINDLE · INC RHEOSTATS—





Outstanding Features

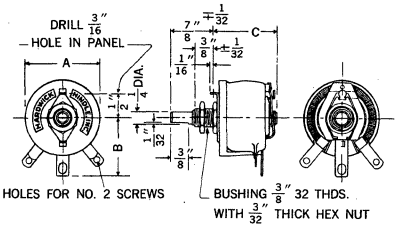
- **Highly perfected "bus bar" brush construction— affording minimum resistance to collector ring.**
- **Contact arm tension automatically adjusting for continuous pressure over winding surface.**
- **Greater safety factor due to high temperature enamel.**
- **Higher terminal strength with strong corrosion resistant alloy.**
- **Minimum number of parts in new trouble free design.**
- **Designed to comply with current standards of:**

(a) Military Specifications MIL-R-22
(b) E.I.A.
(c) N.E.M.A.
(d) Listed by Underwriters Laboratories, Inc. (Types H-50 through and including H-150)

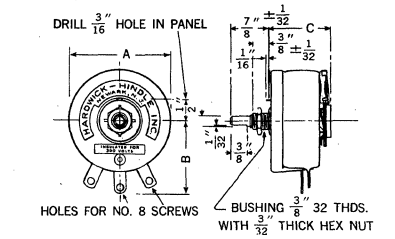
Hardwick, Hindle rheostats are exceptionally rugged without being over-designed or dependent on untried principles of construction. They exhibit "market quality" characteristics to meet the most exacting specifications, and special design features assure long life and protection under extremes of humidity and abnormal atmospheric conditions. The "buss bar" contact arm automatically adjusts for complete, continuous contact, and smooth, flexible control. Our blue-gray, high temperature enamel—thermo shock proof—gives increased service life with an extreme factor of safety.

In addition to the complete standard line of rheostats listed at the right, Hardwick, Hindle, Inc. welcomes the opportunity to work with you in the development of rheostats or potentiometers to your specifications. Tapered windings, tandem assemblies, special resistances, and many other electrical or mechanical modifications can be supplied.

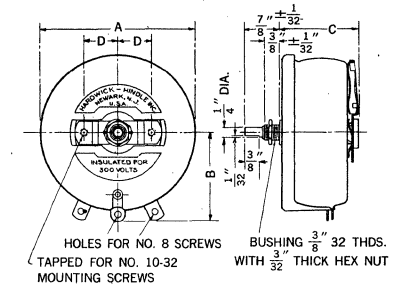
Hardwick, Hindle rheostats are packaged one unit per box.



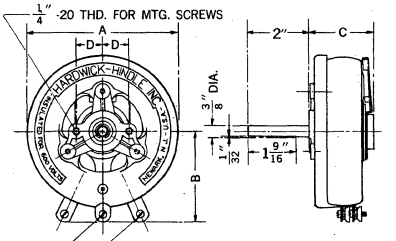
A-25



H-50, 75, 100



H-150

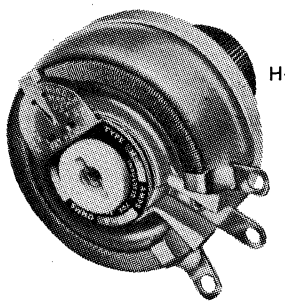


H-225, 300, 500, 750, 1000

Sizes and Ratings

TYPE & WATTAGE	OHM RANGE MIN.	OHM RANGE MAX.	MAX. AMPS. MIN. OHMS	MAX. AMPS. MAX. OHMS	DIMENSIONS (INCHES) A	B	C	D	ROTATION
A–25	0.50	5000	7.06	.07	1 9/16	1	1 1/32	—	285°
H–50	0.50	10000	10.00	.07	2 3/8	1 9/16	1 7/16	—	300°
H–75	0.50	10000	12.30	.09	2 3/4	1 3/4	1 21/32	—	300°
H–100	0.50	10000	14.20	0.10	3 1/8	1 29/32	1 23/32	—	300°
H–150	0.50	10000	17.30	0.12	4	2 7/16	1 31/32	7/8	300°
H–225	1.0	2500	15.00	0.30	5	2 15/16	2 3/32	7/8	310 ± 5°
H–300	1.0	2500	17.25	0.35	6	3 13/32	2 1/4	1 3/16	315 ± 5°
H–500	1.0	2500	22.30	0.45	8	4 7/32	2 3/32	1 1/2	325 ± 3°
H–750	1.0	2500	27.40	0.55	10	5 1/2	2 23/32	1 7/8	330 ± 3°
H–1000	1.0	2500	31.60	0.63	12	6 5/16	2 3/4	3	335 ± 3°

*Free air ratings thru all or any part of winding; reduce by 50% for enclosed units.



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25 WATTS TO 1000 WATTS

The Quality INDUSTRIAL LINE since 1924

TYPE A-25 — 25 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0201	0.50	7.06	17	$4.63
0202	0.75	5.77	17	4.63
0203	1.0	5.00	17	4.63
0204	1.5	4.08	34	4.63
0205	2.5	3.16	34	4.11
0206	5.0	2.22	34	4.11
0207	7.5	1.82	34	4.11
0208	10	1.58	90	4.11
0209	15	1.29	90	4.11
0210	25	1.00	100	4.11
0211	50	.706	100	4.11
0212	75	.577	135	4.11
0213	100	.500	112	4.11
0214	150	.408	146	4.11
0215	250	.316	146	4.11
0216	500	.222	180	4.11
0217	750	.182	214	4.11
0218	1000	.158	248	4.63
0219	1500	.129	292	4.63
0220	2500	.100	303	4.99
0221	3500	.084	336	4.99
0222	5000	.070	387	4.99

TYPE H-50 — 50 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0301	0.50	10.0	25	$5.15
0302	0.75	8.16	25	5.15
0303	1.0	7.06	52	5.15
0304	1.5	5.77	52	5.15
0305	2.5	4.48	52	5.15
0306	5.0	3.16	52	5.15
0307	7.5	2.58	52	5.15
0308	10	2.22	98	4.63
0309	15	1.82	98	4.63
0310	25	1.41	98	4.63
0311	50	1.00	129	4.63
0312	75	.816	153	4.63
0313	100	.706	157	4.63
0314	150	.577	187	4.63
0315	250	.448	258	4.63
0316	500	.316	308	4.63
0317	750	.258	294	4.90
0318	1000	.222	390	4.90
0319	1500	.182	364	4.90
0320	2500	.141	485	4.90
0321	5000	.100	590	5.15
0322	7500	.082	714	5.15
0323	10000	.070	750	5.15

TYPE H-100 — 100 Watt Rheostat

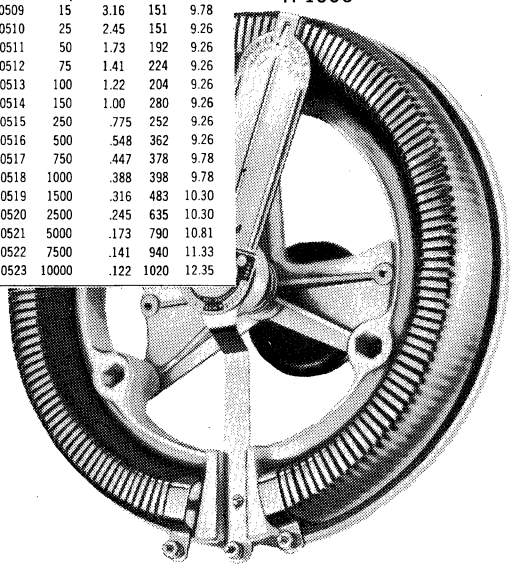
STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0401	0.50	14.2	30	$7.72
0402	0.75	11.6	30	7.72
0403	1.0	10.0	30	7.72
0404	1.5	8.16	30	7.72
0405	2.5	6.34	54	7.72
0406	5.0	4.48	54	7.72
0407	7.5	3.66	54	7.72
0408	10	3.16	54	7.72
0409	15	2.58	112	7.72
0410	25	2.00	108	7.21
0411	50	1.42	127	7.21
0412	75	1.16	151	7.21
0413	100	1.00	160	7.21
0414	150	.816	190	7.21
0415	250	.634	250	7.21
0416	500	.448	302	7.21
0417	750	.366	303	7.21
0418	1000	.316	317	7.72
0419	1500	.258	375	7.72
0420	2500	.200	494	7.72
0421	5000	.141	640	8.24
0422	7500	.115	760	8.76
0423	10000	.100	740	9.26

TYPE H-150 — 150 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0501	0.50	17.30	26	$9.78
0502	0.75	14.10	30	9.78
0503	1.00	12.25	40	9.78
0504	1.5	10.00	37	9.78
0505	2.5	7.75	39	9.78
0506	5.0	5.48	79	9.78
0507	7.5	4.47	75	9.78
0508	10	3.88	77	9.78
0509	15	3.16	151	9.78
0510	25	2.45	151	9.26
0511	50	1.73	192	9.26
0512	75	1.41	224	9.26
0513	100	1.22	204	9.26
0514	150	1.00	280	9.26
0515	250	.775	252	9.26
0516	500	.548	362	9.26
0517	750	.447	378	9.78
0518	1000	.388	398	9.78
0519	1500	.316	483	10.30
0520	2500	.245	635	10.30
0521	5000	.173	790	10.81
0522	7500	.141	940	11.33
0523	10000	.122	1020	12.35

Note: Knobs supplied on stock units upon request at extra charge. Tolerance ±10% on all stock units.

H-1000



H-H RESISTORS, RHEOSTATS and POTENTIOMETERS

EIA ELECTRONIC INDUSTRIES ASSOCIATION MEMBER

MEMBER PACE PRODUCERS OF ASSOCIATED COMPONENTS FOR ELECTRONICS, INC.

—the Reliable Line!

HARDWICK, HINDLE • INC

NEWARK 5, NEW JERSEY

TYPE H-225 — 225 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0530	1	15.00	55	$14.11
0531	1.5	12.30	55	14.11
0532	2	10.60	55	14.11
0533	2.5	9.50	55	14.11
0534	3	8.66	55	14.11
0535	4	7.50	55	14.11
0536	5	6.71	55	14.11
0537	7.5	5.49	115	14.11
0538	10	4.74	115	14.11
0539	15	3.87	115	14.11
0540	25	3.00	115	14.11
0541	50	2.12	256	14.11
0542	75	1.73	306	14.11
0543	100	1.50	315	14.11
0544	150	1.22	385	14.11
0545	200	1.06	357	14.11
0546	250	.950	350	14.11
0547	300	.866	335	14.11
0548	400	.750	448	14.11
0549	500	.671	450	14.11
0550	700	.567	495	14.11
0551	750	.549	533	14.11
0552	900	.500	500	14.11
0553	1000	.474	555	14.11
0554	1200	.433	526	14.11
0555	1500	.387	630	14.11
0556	1750	.358	620	14.11
0557	2500	.300	670	14.11

TYPE H-300 — 300 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0601	1	17.25	49	$15.29
0602	1.5	14.15	47	15.29
0603	2	12.24	49	15.29
0604	2.5	10.95	70	15.29
0605	3	10.00	73	15.29
0606	4	8.66	70	15.29
0607	5	7.75	66	15.29
0608	7.5	6.32	71	15.29
0609	10	5.48	136	15.29
0610	15	4.47	144	15.29
0611	25	3.46	145	15.29
0612	50	2.45	245	15.29
0613	75	2.00	260	15.29
0614	100	1.73	327	15.29
0615	150	1.41	394	15.29
0616	200	1.22	420	15.29
0617	250	1.09	525	15.29
0618	300	1.00	420	15.29
0619	400	.866	440	15.29
0620	500	.775	440	15.29
0621	700	.655	502	15.29
0622	750	.633	540	15.29
0623	900	.578	521	15.29
0624	1000	.548	580	15.29
0625	1200	.500	690	15.29
0626	1500	.449	680	15.29
0627	1750	.414	790	15.29
0628	2500	.346	862	15:29

TYPE H-500 — 500 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0701	1	22.3	70	$22.09
0702	1.5	18.2	64	22.09
0703	2	15.8	68	22.09
0704	2.5	14.1	67	22.09
0705	3	12.9	65	22.09
0706	4	11.2	96	22.09
0707	5	10.0	96	22.09
0708	7.5	8.17	98	22.09
0709	8	7.90	97	22.09
0710	10	7.07	105	22.09
0711	12.5	6.30	103	22.09
0712	15	5.77	202	22.09
0713	16	5.60	192	22.09
0714	25	4.47	195	22.09
0715	40	3.54	205	22.09
0716	50	3.16	200	22.09
0717	75	2.58	395	22.09
0718	80	2.52	382	22.09
0719	100	2.23	450	22.09
0720	125	2.00	505	22.09
0721	150	1.82	544	22.09
0722	175	1.69	500	22.09
0723	250	1.41	570	22.09
0724	325	1.24	515	22.09
0725	500	1.00	620	22.09
0726	750	.817	740	22.09
0727	1000	.707	780	22.09
0728	1500	.577	940	22.09
0729	2000	.500	986	22.09
0730	2500	.447	940	22.09

TYPE H-750 — 750 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0801	1	27.4	85	$31.20
0802	1.5	22.3	85	31.20
0803	2	19.4	81	31.20
0804	2.5	17.3	87	31.20
0805	3	15.8	83	31.20
0806	4	13.6	87	31.20
0807	5	12.2	122	31.20
0808	7.5	10.0	129	31.20
0809	8	9.65	122	31.20
0810	10	8.65	121	31.20
0811	12.5	7.75	120	31.20
0812	15	7.07	127	31.20
0813	16	6.82	120	31.20
0814	25	5.47	240	31.20
0815	50	3.87	238	31.20
0816	75	3.19	250	31.20
0817	80	3.06	266	31.20
0818	100	2.74	265	31.20
0818	150	2.23	500	31.20
0820	160	2.17	485	31.20
0821	200	1.94	472	31.20
0822	250	1.73	470	31.20
0823	300	1.58	500	31.20
0824	400	1.37	472	31.20
0825	500	1.22	565	31.20
0826	600	1.12	677	31.20
0827	750	1.00	670	31.20
0828	1000	.865	715	31.20
0829	1200	.791	860	31.20
0830	1500	.707	840	31.20
0831	1800	.646	1020	31.20
0832	2500	.547	1085	31.20

TYPE H-1000 — 1000 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0901	1	31.60	81	$36.45
0902	1.5	25.80	84	36.45
0903	2	22.40	109	36.45
0904	2.5	20.00	105	36.45
0905	3	18.30	113	36.45
0906	4	15.80	106	36.45
0907	5	14.10	105	36.45
0908	7.5	11.50	158	36.45
0909	8	11.20	168	36.45
0910	10	10.00	166	36.45
0911	12.5	8.95	165	36.45
0912	15	8.16	156	36.45
0913	16	7.90	166	36.45
0914	25	6.33	160	36.45
0915	50	4.47	331	36.45
0916	75	3.65	303	36.45
0917	100	3.16	320	36.45
0918	150	2.58	306	36.45
0919	175	2.39	645	36.45
0920	225	2.11	585	36.45
0921	250	2.00	640	36.45
0922	300	1.83	605	36.45
0923	400	1.58	640	36.45
0924	500	1.41	635	36.45
0925	750	1.15	820	36.45
0926	1000	1.00	862	36.45
0927	1500	.816	1030	36.45
0928	2500	.633	1300	36.45

Note: Knobs supplied on stock units upon request at extra charge.

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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

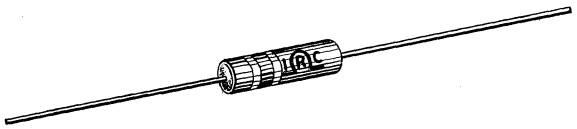
INSULATED RESISTORS

TYPE GBT-SR FIXED COMPOSITION CARBON RESISTORS

More IRC Type GBT-SR Resistors are used in the electronic industry than any other brand of fixed composition resistors. For original equipment, IRC GBT-SR's are by far the leading choice of Electronic Engineers—particularly since the new GBT-½ ½ watt and GBT-1 1 watt give new appearance, new sizes . . . IRC's unsurpassed solderability has been maintained and no wax coating to gum up end equipment. For replacement, Service Technicians favor IRC GBT-SR's over all other brands combined.

IRC's exclusive filament-type resistance element is combined with superior construction features to provide a stable resistor of extremely low operating temperature and excellent power dissipation in a compact, light weight, fully insulated unit.

TYPE BW INSULATED WIRE WOUND RESISTORS

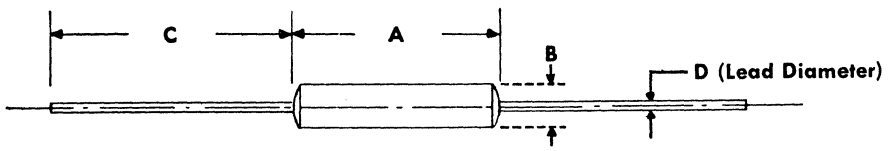


Type BW's are exceptionally stable, inexpensive wire wound resistors for low range requirements. These small, completely insulated units are similar in appearance to insulated composition resistors but are readily identified by the double width of the first color code band.

The wire element is uniformly and tightly wound on an insulated core. Tinned, solid wire leads are keyed to the element by a specially designed terminal. Leads are anchored inside the insulation and cannot turn or pull loose.

IRC TYPE NUMBER	GBT-½	GBT-1	SR-2	BW-½	BW-1	BW-2
Element Style	Carbon Filament	Carbon Filament	Carbon Filament	Wire Wound	Wire Wound	Wire Wound
Equivalent MIL TYPE	RC20	RC32	RC42	RU3 Max. 470 ohms	RU4 Max. 2200 ohms	RU6 Max. 3300 ohms
MIL CHARACTERISTICS	GF	GF	GF	B	B	
Rating in Watts 70° Ambient—GBT-SR 40° Ambient—BW	½	1	2	½	1	2
Minimum Resistance	10 Ohms	10 Ohms	10 Ohms	0.24 Ohm	0.47 Ohm	1.0 Ohm
Maximum Resistance	22 Meg.	22 Meg.	22 Meg.	820 Ohms	5100 Ohms	8200 Ohms
Rated Voltage	350V	500V	500V			
Dimensions (Fig. 1)						
A—Body Length	25/64"	9/16"	11/16"	5/8"	1¼"	1¾"
B—Body Diameter	9/64"	7/32"	5/16"	13/64"	¼"	21/64"
C—Lead Length	1½±⅛"	1½±⅛"	1½±⅛"	1½±⅛"	1½±⅛"	1½±⅛"
D—Lead Diameter	1/32"	1/32"	3/64"	1/32"	1/32"	1/32"

Figure 1
Dimensions



STANDARD STOCK VALUES— ±5% and ± 10% tolerance (±10% tolerance in bold type. All values available in ±5%).

OHM	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEGS	MEGS
—	**1.0**	**10**	**100**	**1,000**	**10K**	**100K**	**1.0**	**10**
—	1.1	11	110	1,100	11K	110K	1.1	11
—	**1.2**	**12**	**120**	**1,200**	**12K**	**120K**	**1.2**	**12**
—	1.3	13	130	1,300	13K	130K	1.3	13
—	**1.5**	**15**	**150**	**1,500**	**15K**	**150K**	**1.5**	**15**
—	1.6	16	160	1,600	16K	160K	1.6	16
—	**1.8**	**18**	**180**	**1,800**	**18K**	**180K**	**1.8**	**18**
—	2.0	20	200	2,000	20K	200K	2.0	20
—	**2.2**	**22**	**220**	**2,200**	**22K**	**220K**	**2.2**	**22**
0.24	2.4	24	240	2,400	24K	240K	2.4	—
0.27	**2.7**	**27**	**270**	**2,700**	**27K**	**270K**	**2.7**	—
0.30	3.0	30	300	3,000	30K	300K	3.0	—
0.33	**3.3**	**33**	**330**	**3,300**	**33K**	**330K**	**3.3**	—
0.36	3.6	36	360	3,600	36K	360K	3.6	—
0.39	**3.9**	**39**	**390**	**3,900**	**39K**	**390K**	**3.9**	—
0.43	4.3	43	430	4,300	43K	430K	4.3	—
0.47	**4.7**	**47**	**470**	**4,700**	**47K**	**470K**	**4.7**	—
0.51	5.1	51	510	5,100	51K	510K	5.1	—
0.56	**5.6**	**56**	**560**	**5,600**	**56K**	**560K**	**5.6**	—
0.62	6.2	62	620	6,200	62K	620K	6.2	—
0.68	**6.8**	**68**	**680**	**6,800**	**68K**	**680K**	**6.8**	—
0.75	7.5	75	750	7,500	75K	750K	7.5	—
0.82	**8.2**	**82**	**820**	**8,200**	**82K**	**820K**	**8.2**	—
0.91	9.1	91	910	9,100	91K	910K	9.1	—

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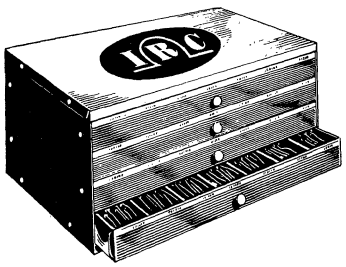
RESIST-O-CABINETS

RESIST-O-CABINETS



IRC RESIST-O-CABINETS are practical assortments of most frequently used IRC Resistors contained in sturdy all-metal cabinets. 4 non-spill drawers—28 compartments. Measure 5⅜" x 5 15/16" x 10⅞".

RESIST-O-CABINETS

2 WATT ASSORTMENT #3A

Contains 120 IRC 2 Watt Resistors as follows:

7 ea. 8200, 10K, 22K, 47K; 5 ea. 1K, 6800, 15K, 0.1 meg.; 4 ea. 100, 330, 470, 1500, 2200, 3300, 4700, 27K, 1.0 meg.; 3 ea. 47, 82, 150, 220, 270, 3900, .22 meg., .47 meg.; 2 ea. 4.7, 10, 22, 68; 1 ea. 15, 27, 33, 39.

½ WATT ASSORTMENT #4A

Contains 150 IRC ½ Watt Resistors as follows: 8 ea. 1K, 47K, 0.1 meg., 27 meg., 470K, 1.0 meg.; 7 ea. 3700, 10K, .22 meg., 2.2 meg.; 5 ea. 3300, 22K, 27K, 33K, .33 meg., 4.7 meg.; 4 ea. 100, 470, 1500, 2200, 2700, 56K, 68K, 3.3 meg.; 3 ea. 47, 220, 270, 10 meg.

1 WATT ASSORTMENT #5A

Contains 125 IRC 1 Watt Resistors as follows: 7 ea. 1K, 10K, 27K, 47K, 0.1 meg., 0.27 meg., 0.47 meg., 1.0 meg.; 5 ea. 2200, 4700, 22K; 4 ea. 33K, 39K, 68K; 3 ea. 47, 100, 150, 220, 270, 470, 1500, 2700, 3300, 15K, .15 meg., .22 meg., 2.2 meg., 4.7 meg.

COMBINATION ASSORTMENT #6A

Contains 139 IRC Insulated Resistors and Type DCF as follows:

½ Watt. 4 ea. 1000, 47K, 100K, 270K, 470K, 1.0 meg.; 3 ea. 4700, 10K, 220K, 2.2 meg.; 2 ea. 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 3300, 15K, 22K, 27K, 33K, 39K, 68K, 150K, 4.7 meg.

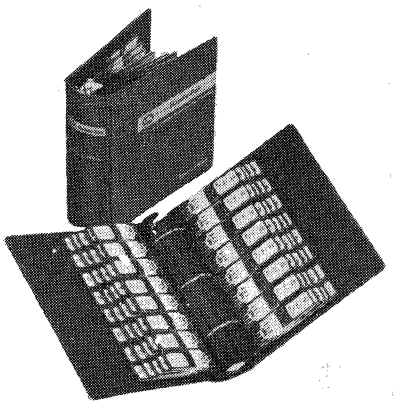
1 Watt. 4 ea. 1000, 10K, 27K, 100K, 1.0 meg.; 3 ea. 47K, 470K, 2.2 meg.; 2 ea. 3300, 15K, 22K, 68K, 150K, 270K; 1 ea. 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 4700, 33K, 39K, 220K, 4.7 meg.

2 Watt. 1 ea. 47, 100, 470, 4700, 10K, 22K, 47K.

DCF. 1 ea. 1000, 10K, 100K, 1.0 meg., 5 meg.

RESIST-O-PEDIA

For technicians, here's a unique convenience for stocking carbon composition resistors. Attractive blue and yellow hardback binder measures 9 x 8¼ x 2⅞". 3-ring "fingered" inserts hold resistor Handy-Paks. Indexed stock saves searching . . . speeds servicing. Complete resistor identification always visible. Choose from these popular assortments (Resist-O-Pedia included in cost of assortments.)



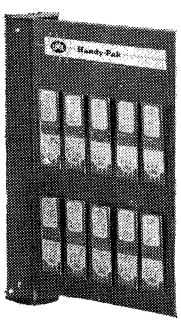
Assortment #44

6 each, Type GBT½ ½-watt (10% tolerance) 462 ½-watt resistors, 77 values

Assortment #48

4 each, Type GBT1 1-watt (10% tolerance) 308 1-watt resistors, 77 values

ohms:										
	10	47	220	1000	4700	22K	100K	470K	2.2 meg	10 meg
	12	56	270	1200	5600	27K	120K	560K	2.7 meg	12 meg
	15	68	330	1500	6800	33K	150K	680K	3.3 meg	15 meg
	18	82	390	1800	8200	39K	180K	820K	3.9 meg	18 meg
	22	100	470	2200	10K	47K	220K	1.0 meg	4.7 meg	22 meg
	27	120	560	2700	12K	56K	270K	1.2 meg	5.6 meg	
	33	150	680	3300	15K	68K	330K	1.5 meg	6.8 meg	
	39	180	820	3900	18K	82K	390K	1.8 meg	8.2 meg	



RESIST-O-PANEL

Swing panel is all-metal 7" wide x 12¼" high, slotted to accommodate Handy-Paks. Wall brackets are supplied. Can be used singly or in sets to provide a visible resistor stock that saves bench space. IRC Resist-O-Panel included with any of 4 popular assortments (at regular price of Assortments)

Assortment #64

6 each, Type GBT½ ½-watt (10% tolerance) 60 ½-watt resistors, 10 values

1000 1500 10K 22K 47K 100K 220K 470K 1 meg 2.2 meg

Assortment #68

4 each, Type GBT1 1-watt (10% tolerance) 40 1-watt resistors, 10 values

Assortment #80

3 each, Type SR2 2-watt (10% tolerance) 30 2-watt resistors, 10 values

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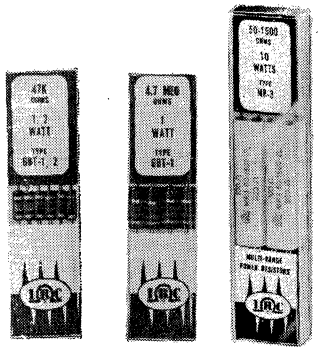
HANDY-PAKS and extra value premium kits



Each IRC Handy-Pak* contains several carbon composition resistors of one type and resistance value . . . to save you unnecessary shopping.

Three types include: 6 ½-watt resistors; 4 1-watt resistors; and 3 2-watt resistors.

*Patent Pending

EASIER TO CHECK INVENTORY!
The actual resistors are clearly visible. You always know what you have. Identification tab tears off conveniently for reordering reminder.

EASIER TO IDENTIFY!
In clear, large letters the type, resistance value and power rating are printed on every Handy-Pak. Correct identification is fast and certain with Handy-Paks.

QUICKER TO FIND!
In any stocking arrangement, Handy-Paks can be quickly indexed by power rating and resistance. Your resistor stock remains orderly from the time you buy it until you use it.

HANDIER TO USE!
IRC Handy-Paks open at both ends. The package slides out of the slimline plastic sleeve. Simply withdraw one or more resistors and slide the package back into the protective shield. Leads are kept straight, and resistors are always factory-clean.

RESIST-O-CADDY

Ideal for in-home servicing. Pliable plastic pouch folds to 6¾ x 3⅜ x 1½" . . . fits easily in tube caddy or tool chest. Individual pockets hold resistor Handy-Paks secure and orderly. Accurate inventory always visible. RESIST-O-CADDY included with these "best-seller" assortments (at regular price of assortments)

Assortment #45 6 each, Type GBT½ ½-watt (10% tolerance) 120 ½-watt resistors, 20 values

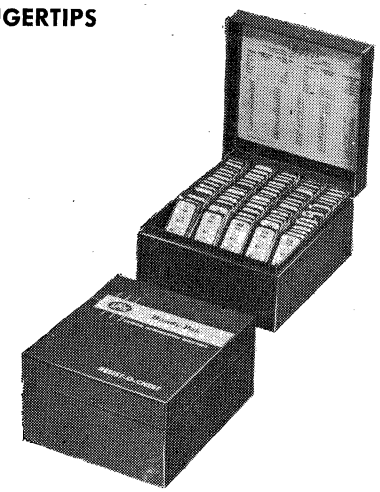
Assortment #41 4 each, Type GBT1 1 watt (10% tolerance) 80 1-watt resistors, 20 values

ohms:						
47	470	2200	22K	100K	470K	4.7 meg
100	1000	4700	27K	220K	1.0 meg	10 meg
150	1500	10K	47K	270K	2.2 meg	

4 PREMIUM KITS TO KEEP THE HANDY-PAKS AT YOUR FINGERTIPS

RESIST-O-CHEST

End "cigar box confusion." Select from 10 popular carbon composition resistor stocks, all in sturdy metal chests. Hinged lid and metal separators keep resistor Handy-Paks in order . . . right at your fingertips. Compact 5⅝ x 3⅜ x 6¼" size takes little bench space. Identification data clearly visible. Included at regular price of these 10 fast-moving assortments —



Assortment No. 42
6 each, Type GBT½ ½-watt (10% tolerance) 204 ½-watt resistors, 34 values

Assortment No. 46
4 each, Type GBT1 1-watt (10% tolerance) 136 1-watt resistors, 34 values

Assortment No. 49A
3 each, Type SR-2 2-watt (10% tolerance) 102 2-watt resistors, 34 values

ohms:						
47	1000	4700	22K	56K	270K	2.2 meg
100	1500	6800	27K	68K	330K	3.3 meg
150	2200	8200	33K	100K	470K	4.7 meg
220	2700	10K	39K	150K	1.0 meg	10 meg
470	3300	15K	47K	220K	1.5 meg	

Assortment No. 43
6 each, Type GBT½ ½-watt (10% tolerance) 462 ½-watt resistors, 77 values

Assortment No. 47
4 each, Type GBT1 1-watt (10% tolerance) 308 1-watt resistors, 77 values

Assortment No. 50A
3 each, Type SR-2 2-watt (10% tolerance) 231 2-watt resistors, 77 values

ohms:									
10	47	220	1000	4700	22K	100K	470K	2.2 meg	10 meg
12	56	270	1200	5600	27K	120K	560K	2.7 meg	12 meg
15	68	330	1500	6800	33K	150K	680K	3.3 meg	15 meg
18	82	390	1800	8200	39K	180K	820K	3.9 meg	18 meg
22	100	470	2200	10K	47K	220K	1.0 meg	4.7 meg	22 meg
27	120	560	2700	12K	56K	270K	1.2 meg	5.6 meg	
33	150	680	3300	15K	68K	330K	1.5 meg	6.8 meg	
39	180	820	3900	18K	82K	390K	1.8 meg	8.2 meg	

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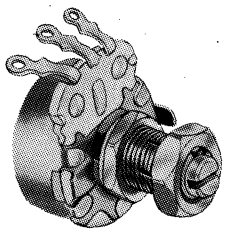
MILITARY VARIABLE RESISTORS



249 variable resistors, in 6 styles cover the latest MIL-R-94B composition and MIL-R-19A wire wound specifications. Each control is available in two shaft styles, plain and locking bushings.

GENERAL SPECIFICATIONS

	MIL-R-19A		MIL-R-94B				
	RA20	RA30	Char.	RV2	RV4	RV5	RV6
Resistance Range (ohms)	3-15K	3-25K	X & Y	100-2.5 megs	100-5 megs	250-2.5 megs	1000-1.0 MEGS
Rotational Life	5% max, 25,000 cycles		X Y	10% max, 15,000 cycles 10% max, 25,000 cycles			
Load Life	3% max, 1,000 hours, rated load, 40°C		X Y	12% max, 1,000 hours, rated load, 70°C 10% max, 1,000 hours, rated load, 70°C			
Moisture Resistance	10% max, Method 106, MIL-STD-202, 3.5 megs min insulation resistance		X Y	10% average, 14% max, Method 106, MIL-STD-202, 50 megs min insulation resistance 6% average, 10% max, Method 106, MIL-STD-202, 100 megs min insulation resistance			
Low Temp. Storage	4% max		X Y	4% max 2% max			
Low Temp. Operation	4% max		X Y	4% max 3% max			
Thermal Cycling	4% max		X Y	10% max 6% max			
Acceleration	3% max		X & Y	3% max			
Shock	2% max		X & Y	2% max			
High Freq. Vibration	2% max		X & Y	2% max			
Temp. Range	—63°C to +105°C		X & Y	—63°C to 150°C			

MILITARY COMPOSITION VARIABLE RESISTORS CERTIFIED TO MIL-R-94B

STYLE RV5 ½ WATT MINIATURE COMPOSITION

Resistance	CTS TYPE 65 ⅞" Slotted Shaft ¼" Long Bushing Linear Resistance Taper		CTS TYPE 65LT ½" Slotted Shaft ⅜" Long Locking Bushing Linear Resistance Taper	
250 ± 10%	RV5NAXSD251A	RV5NAYSD251A	RV5LAXSB251A	RV5LAYSB251A
500 ± 10%	RV5NAXSD501A	RV5NAYSD501A	RV5LAXSB501A	RV5LAYSB501A
1,000 ± 10%	RV5NAXSD102A	RV5NAYSD102A	RV5LAXSB102A	RV5LAYSB102A
2,500 ± 10%	RV5NAXSD252A	RV5NAYSD252A	RV5LAXSB252A	RV5LAYSB252A
5,000 ± 10%	RV5NAXSD502A	RV5NAYSD502A	RV5LAXSB502A	RV5LAYSB502A
10,000 ± 10%	RV5NAXSD103A	RV5NAYSD103A	RV5LAXSB103A	RV5LAYSB103A
25,000 ± 10%	RV5NAXSD253A	RV5NAYSD253A	RV5LAXSB253A	RV5LAYSB253A
50,000 ± 10%	RV5NAXSD503A	RV5NAYSD503A	RV5LAXSB503A	RV5LAYSB503A
100,000 ± 10%	RV5NAXSD104A	RV5NAYSD104A	RV5LAXSB104A	RV5LAYSB104A
250,000 ± 10%	RV5NAXSD254A	RV5NAYSD254A	RV5LAXSB254A	RV5LAYSB254A
500,000 ± 10%	RV5NAXSD504A	RV5NAYSD504A	RV5LAXSB504A	RV5LAYSB504A
1.0 Meg. ± 20%	RV5NAXSD105B	RV5NAYSD105B	RV5LAXSB105B	RV5LAYSB105B
2.5 Meg. ± 20%	RV5NAXSD255B	RV5NAYSD255B	RV5LAXSB255B	RV5LAYSB255B

STYLE RV6 ½ WATT MINIATURE COMPOSITION

Resistance	CTS TYPE 300 ⅞" Slotted Shaft ¼" Long Bushing Linear Resistance Taper	CTS TYPE 300LT 5/8" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
1,000 ± 10%	RV6NAYSD102A	RV6LAYSA102A
2,500 ± 10%	RV6NAYSD252A	RV6LAYSA252A
5,000 ± 10%	RV6NAYSD502A	RV6LAYSA502A
10,000 ± 10%	RV6NAYSD103A	RV6LAYSA103A
25,000 ± 10%	RV6NAYSD253A	RV6LAYSA253A
50,000 ± 10%	RV6NAYSD503A	RV6LAYSA503A
100,000 ± 10%	RV6NAYSD104A	RV6LAYSA104A
250,000 ± 10%	RV6NAYSD254A	RV6LAYSA254A
500,000 ± 10%	RV6NAYSD504A	RV6LAYSA504A
1.0 Meg. ± 20%	RV6NAYSD105B	RV6LAYSA105B
2.0 Meg.		RV6LAYSA205B
2.5 Meg.	RV6NAYSD255B	RV6LAYSA255B

STYLE RV2 1 WATT COMPOSITION

Resistance	CTS TYPE 90 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper		CTS TYPE 90LT 5/8" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	
100 ± 10%	RV2NAXSD101A	RV2NAYSD101A	RV2LAXSA101A	RV2LAYSA101A
250 ± 10%	RV2NAXSD251A	RV2NAYSD251A	RV2LAXSA251A	RV2LAYSA251A
500 ± 10%	RV2NAXSD501A	RV2NAYSD501A	RV2LAXSA501A	RV2LAYSA501A
1,000 ± 10%	RV2NAXSD102A	RV2NAYSD102A	RV2LAXSA102A	RV2LAYSA102A
2,500 ± 10%	RV2NAXSD252A	RV2NAYSD252A	RV2LAXSA252A	RV2LAYSA252A
5,000 ± 10%	RV2NAXSD502A	RV2NAYSD502A	RV2LAXSA502A	RV2LAYSA502A
10,000 ± 10%	RV2NAXSD103A	RV2NAYSD103A	RV2LAXSA103A	RV2LAYSA103A
25,000 ± 10%	RV2NAXSD253A	RV2NAYSD253A	RV2LAXSA253A	RV2LAYSA253A
50,000 ± 10%	RV2NAXSD503A	RV2NAYSD503A	RV2LAXSA503A	RV2LAYSA503A
100,000 ± 10%	RV2NAXSD104A	RV2NAYSD104A	RV2LAXSA104A	RV2LAYSA104A
250,000 ± 10%	RV2NAXSD254A	RV2NAYSD254A	RV2LAXSA254A	RV2LAYSA254A
500,000 ± 10%	RV2NAXSD504A	RV2NAYSD504A	RV2LAXSA504A	RV2LAYSA504A
1.0 Meg. ± 20%	RV2NAXSD105B	RV2NAYSD105B	RV2LAXSA105B	RV2LAYSA105B
2.5 Meg. ± 20%	RV2NAXSD255B	RV2NAYSD255B	RV2LAXSA255B	RV2LAYSA255B

STYLE RV4 2 WATT COMPOSITION

Resistance	CTS TYPE 96 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 96LT 5/8" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	 ⅞" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
100 ± 10%	RV4NAYSD101A	RV4LAYSA101A	RV4LAYSD101A
250 ± 10%	RV4NAYSD251A	RV4LAYSA251A	RV4LAYSD251A
500 ± 10%	RV4NAYSD501A	RV4LAYSA501A	RV4LAYSD501A
1,000 ± 10%	RV4NAYSD102A	RV4LAYSA102A	RV4LAYSD102A
2,500 ± 10%	RV4NAYSD252A	RV4LAYSA252A	RV4LAYSD252A
5,000 ± 10%	RV4NAYSD502A	RV4LAYSA502A	RV4LAYSD502A
10,000 ± 10%	RV4NAYSD103A	RV4LAYSA103A	RV4LAYSD103A
25,000 ± 10%	RV4NAYSD253A	RV4LAYSA253A	RV4LAYSD253A
50,000 ± 10%	RV4NAYSD503A	RV4LAYSA503A	RV4LAYSD503A
100,000 ± 10%	RV4NAYSD104A	RV4LAYSA104A	RV4LAYSD104A
250,000 ± 10%	RV4NAYSD254A	RV4LAYSA254A	RV4LAYSD254A
500,000 ± 10%	RV4NAYSD504A	RV4LAYSA504A	RV4LAYSD504A
1.0 Meg. ± 10%	RV4NAYSD105A	RV4LAYSA105A	RV4LAYSD105A
1.0 Meg. ± 20%	RV4NAYSD105B	RV4LAYSA105B	—
2.5 Meg. ± 20%	RV4NAYSD255B	RV4LAYSA255B	—
5.0 Meg. ± 20%	RV4NAYSD505B	RV4LAYSA505B	—

MILITARY WIRE WOUND VARIABLE RESISTORS CERTIFIED TO MIL-R-19A

STYLE RA20 2 WATT WIRE WOUND

Resistance	CTS TYPE 252 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 252LT 5/8" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper	 ⅞" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
3 ± 10%	RA20NASD3R0A	RA20LASB3R0A	RA20LASD3R0A
10 ± 10%	RA20NASD100A	RA20LASB100A	—
25 ± 10%	RA20NASD250A	RA20LASB250A	RA20LASD250A
50 ± 10%	RA20NASD500A	RA20LASB500A	RA20LASD500A
75 ± 10%	RA20NASD750A	RA20LASB750A	—
100 ± 10%	RA20NASD101A	RA20LASB101A	RA20LASD101A
200 ± 10%	RA20NASD201A	RA20LASB201A	—
250 ± 10%	RA20NASD251A	RA20LASB251A	RA20LASD251A
500 ± 10%	RA20NASD501A	RA20LASB501A	RA20LASD501A
1,000 ± 10%	RA20NASD102A	RA20LASB102A	RA20LASD102A
2,500 ± 10%	RA20NASD252A	RA20LASB252A	RA20LASD252A
5,000 ± 10%	RA20NASD502A	RA20LASB502A	RA20LASD502A
7,500 ± 10%	RA20NASD752A	RA20LASB752A	RA20LASD752A
10,000 ± 10%	RA20NASD103A	RA20LASB103A	RA20LASD103A
15,000 ± 10%	RA20NASD153A	RA20LASB153A	RA20LASD153A

STYLE RA30 4 WATT WIRE WOUND

Resistance	CTS TYPE 25 ⅞" Slotted Shaft ⅜" Long Bushing Linear Resistance Taper	CTS TYPE 25LT 5/8" Slotted Shaft ½" Long Locking Bushing Linear Resistance Taper
10 ± 10%	RA30NASD100A	RA30LASB100A
25 ± 10%	RA30NASD250A	RA30LASB250A
50 ± 10%	RA30NASD500A	RA30LASB500A
100 ± 10%	RA30NASD101A	RA30LASB101A
200 ± 10%	RA30NASD201A	RA30LASB201A
250 ± 10%	RA30NASD251A	RA30LASB251A
500 ± 10%	RA30NASD501A	RA30LASB501A
750 ± 10%	RA30NASD751A	RA30LASB751A
1,000 ± 10%	RA30NASD102A	RA30LASB102A
2,500 ± 10%	RA30NASD252A	RA30LASB252A
5,000 ± 10%	RA30NASD502A	RA30LASB502A
7,500 ± 10%	RA30NASD752A	RA30LASB752A
10,000 ± 10%	RA30NASD103A	RA30LASB103A
15,000 ± 10%	RA30NASD153A	RA30LASB153A
25,000 ± 10%	RA30NASD253A	RA30LASB253A

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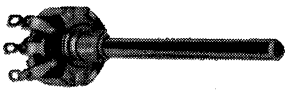
INDUSTRIAL CONTROLS

IRC Distributor Controls for Industry offer commercial users a wide selection of resistance values and two industrial shaft types. Shafts are fixed. This combination of wide selection of values and speedy Distributor delivery holds many advantages for industrial purchasers. These Industrial Controls are adaptations of the new, compact $1\frac{1}{8}$" **Q** Control. Power rating is ½ watt, 500 volts maximum. Electrical rotation is the same with or without switch. ⅜" bushing is brass and held to close tolerance for snug shaft fit.

Terminals are heavily tinned for easy soldering, and may be bent without becoming noisy. Two locating lugs are provided, either or both of which may be bent down if not needed. Molded base. Both Types **PQ** and **RQ** are supplied in standard tapers.

SINGLE CONTROLS



TYPE PQ

TYPE PQ. Full round ¼" shaft, approximately 3" from mounting face, with ⅜" long bushing. Available in 33 stock values as shown. Regular IRC stock numbers are used with prefix **PQ.**

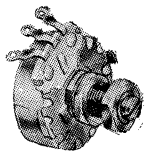
TYPE RQ. Very short screw-driver slot shaft, ¼" diameter and approximately ½" long from mounting face with ⅜" long bushing. Available in 33 values as shown. Regular IRC stock numbers are used with prefix **RQ.**

TYPE RQ

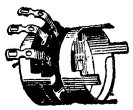
TYPE RQL

TYPE RQL. IRC's new line of 10% tolerance Locking Type Bushing Controls. Screw-driver slot shaft ¼" diameter and approximately ½" long from mounting face, with a ⅜" split type bushing, and locking nut.

2 WATT INDUSTRIAL COMPOSITION MILITARY GRADE VARIABLE RESISTOR

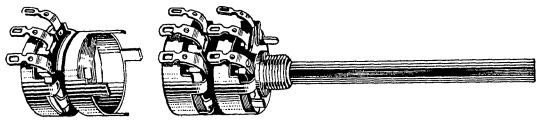


Resistance	Resistance
100 ± 10%	50,000 ± 10%
250 ± 10%	100,000 ± 10%
500 ± 10%	250,000 ± 10%
1,000 ± 10%	500,000 ± 10%
2,500 ± 10%	1.0 Meg ± 20%
5,000 ± 10%	2.5 Meg ± 20%
10,000 ± 10%	5.0 Meg ± 20%
25,000 ± 10%	



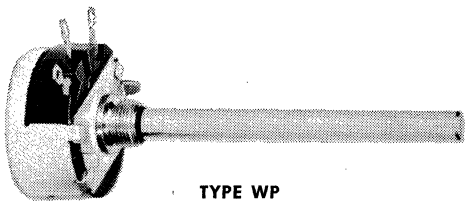
MULTISECTIONS

IRC MULTISECTIONS are complete control sections that can be added like a switch to any **Q**, **PQ**, **RQ** or **RQL** Control. With these units, the Radio Technician or Engineer is provided with an endless variety of dual, triple or even quadruple controls. Duals assembled from IRC MULTISECTIONS will accommodate Type 76 switches. Available in a selection of 25 values, as shown in following table. Each MULTISECTION adds $\frac{1}{32}$" to basic control.



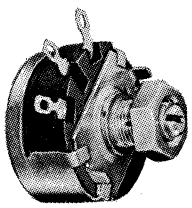
DUALS AND TRIPLES

IRC Type PQ, RQ and RQL Industrial Controls are supplied as single controls. Duel Control and Triple Control combinations are available by adding IRC MULTISECTIONS.



TYPE WP

Constructed with ⅜-32 x ⅜" bushing and ¼" diameter, full round shaft 3" long from mounting face.



TYPE WPRL

A new line of IRC distributor industrial controls with short screw-driver slot shaft ¼" diameter and approximately ½" long from mounting face, with ⅜" locking type bushing and locking nut. 10% resistance tolerance. Linear taper.

STOCK VALUES OF TYPES PQ, RQ, RQL CONTROLS AND MULTISECTIONS

OHMS	TAPER	TYPE PQ	TYPE RQ	TYPE RQL	MULTISECTIONS
500	A	PQ11-103	RQ11-103	RQL11-103	M11-103
1,000	A	PQ11-108	RQ11-108	RQL11-108	M11-108
2,000	A	PQ11-110	RQ11-110	RQL11-110	M11-110
3,000	A	PQ11-112	RQ11-112	RQL11-112	M11-112
5,000	A	PQ11-114	RQ11-114	RQL11-114	M11-114
7,500	A	PQ11-115	RQ11-115	—	—
10K	A	PQ11-116	RQ11-116	RQL11-116	M11-116
10K	C	PQ13-116	RQ13-116	—	—
10K	D	PQ14-116	RQ14-116	—	—
10K	Q	—	—	—	M17-116
20K	A	PQ11-119	RQ11-119	RQL11-119	—
25K	A	PQ11-120	RQ11-120	RQL11-120	M11-120
25K	D	PQ14-120	RQ14-120	—	—
30K	A	PQ11-121	RQ11-121	RQL11-121	M11-121
50K	A	PQ11-123	RQ11-123	RQL11-123	M11-123
50K	C	PQ13-123	RQ13-123	RQL13-123	—
50K	D	PQ14-123	RQ14-123	—	—
100K	A	PQ11-128	RQ11-128	RQL11-128	M11-128
100K	C	PQ13-128	RQ13-128	—	M13-128
200K	A	PQ11-129	RQ11-129	RQL11-129	—
250K	A	PQ11-130	RQ11-130	RQL11-130	M11-130
250K	C	PQ13-130	RQ13-130	RQL13-130	M13-130
500K	A	PQ11-133	RQ11-133	RQL11-133	M11-133
500K	C	PQ13-133	RQ13-133	RQL13-133	M13-133
1.0 Meg.	A	PQ11-137	RQ11-137	RQL11-137	M11-137
1.0 Meg.	C	PQ13-137	RQ13-137	RQL13-137	M13-137
1.5 Meg.	A	PQ11-138	RQ11-138	RQL11-138	—
1.5 Meg.	C	—	—	—	M13-138
2.0 Meg.	A	PQ11-139	RQ11-139	RQL11-139	M11-139
2.0 Meg.	C	PQ13-139	RQ13-139	RQL13-139	M13-139
2.5 Meg.	A	PQ11-239	RQ11-239	RQL11-239	—
3.0 Meg.	A	PQ11-140	RQ11-140	RQL11-140	—
3.0 Meg.	C	PQ13-140	RQ13-140	—	M13-140
3.0 Meg.	Q	—	—	—	M17-140
5.0 Meg.	A	PQ11-141	RQ11-141	RQL11-141	M11-141
10.0 Meg.	A	PQ11-143	RQ11-143	RQL11-143	M11-143

STOCK VALUES OF TYPE WP AND WPRL CONTROLS AND MULTISECTIONS

Ohms	Taper	*MAX. Current in Amps	Type WP	Type WPRL	Multi-sections
2	U (Lin.)	1.414	WP2	WPRL2	—
3	U	1.152	WP3	WPRL3	—
5	U	.895	WP5	WPRL5	—
6	U	.817	WP6	WPRL6	—
8	U	.707	WP8	WPRL8	—
10	U	.633	WP10	WPRL10	—
15	U	.517	WP15	WPRL15	—
20	U	.447	WP20	WPRL20	—
25	U	.400	WP25	WPRL25	—
30	U	.365	WP30	WPRL30	—
40	U	.316	WP40	WPRL40	—
50	U	.283	WP50	WPRL50	WM50
60	U	.258	WP60	WPRL60	—
75	U	.231	WP75	WPRL75	—
100	U	.200	WP100	WPRL100	WM100
200	U	.141	WP200	WPRL200	WM200
250	U	.126	WP250	WPRL250	WM250
300	U	.115	WP300	WPRL300	—
400	U	.100	WP400	WPRL400	—
500	U	.090	WP500	WPRL500	WM500
750	U	.073	WP750	WPRL750	—
1,000	U	.063	WP1000	WPRL1000	WM1000
1,500	U	.052	WP1500	WPRL1500	WM1500
2,000	U	.045	WP2000	WPRL2000	WM2000
2,500	U	.040	WP2500	WPRL2500	WM2500
3,000	U	.036	WP3000	WPRL3000	WM3000
4,000	U	.031	WP4000	WPRL4000	—
5,000	U	.028	WP5000	WPRL5000	WM5000
7,500	U	.023	WP7500	WPRL7500	—
7,500	L (L.H.Log.)	.016	—	—	WM7500L
10,000	U	.020	WP10000	WPRL10000	WM10000
15,000	U	.0163	WP15000	WPRL15000	—
20,000	U	.014	WP20000	WPRL20000	—
25,000	U	.0126	WP25000	WPRL25000	—
30,000	U	.0115	WP30000	WPRL30000	—
40,000	U	.010	WP40000	WPRL40000	—
50,000	U	.0089	WP50000	WPRL50000	—

* Maximum current is given for a single control operating at an ambient temperature of 40°C and mounted on a metal chassis. Multiple controls must be so derated that hot spot temperature (ambient plus temperature rise) will not exceed 110°C on any winding.

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IRC® RESISTEG COATED ADJUSTABLE POWER WIRE WOUND RESISTORS

The adjustable feature of these IRC resistors provides an ideal solution to odd resistance values and to handling a variety of line voltages. For voltage divider applications, one or more adjustable bands may be used.

IRC adjustable power resistors are standard Resisteg coated tubular units with a track of exposed wire to allow for adjustment. Adjustable resistor wattage ratings apply only when all the resistance is in the circuit. Resistor should not be adjusted with voltage applied.

TYPE 2DA 25 watts. Core size: 2" long x 9/16" dia. Terminals: 12A. One adjustable band: type X-2. Resistance tolerance: ±10%. Mounting hardware included: Z-1 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	5000	5.00	1250	141	176
2	3450	7.07	1500	129	193
3	2880	8.66	2000	111	223
5	2236	11.1	2250	105	237
7.5	1825	13.7	2500	100	250
10	1580	15.8	3000	91	274
15	1290	19.4	3500	84	296
20	1118	22.3	4000	79	316
25	1000	25.0	4500	74	335
50	707	35.4	5000	70	353
75	577	43.3	6000	64	387
100	500	50.0	7000	59	418
150	408	61.2	7500	57	434
200	353	70.0	8000	55	447
250	316	79.0	9000	52	474
300	288	86.0	10K	50	500
400	250	100	12K	45	548
500	223	111	15K	40	612
750	185	137	20K	35	707
800	176	141	25K	31	790
1000	158	158			

TYPE 5EA 75 watts. Core size: 5" long x ¾" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	8660	8.6	1500	223	335
2	6120	12.2	2500	173	432
3	5000	15.0	5000	122	611
4	4330	17.3	10K	86	866
5	3870	19.3	15K	70	1060
10	2740	27.4	20K	61	1224
25	1730	43.2	25K	54	1370
50	1225	61.1	30K	50	1500
100	866	86.6	40K	43	1732
250	548	137	50K	38	1936
500	387	193	75K	31	2370
1000	274	274	100K	27	2740

TYPE 8½HA 160-175 watts. Core size: 8½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	13228	13.2	1500	341	512
2	9350	18.7	2500	264	661
3	7640	22.9	5000	187	935
4	6620	26.4	10K	132	1322
5	5920	29.7	15K	108	1620
10	4180	41.8	20K	93	1870
25	2640	66.1	25K	83	2090
50	1870	93.5	30K	76	2291
100	1322	132	40K	66	2645
250	837	209	50K	59	2960
500	592	296	75K	48	3620
1000	418	418	100K	41	4180

TYPE 1¾AA 10-12 watts. Core size: 1¾" long by 5/16" dia. Terminals: 12A. One adjustable band: type A. Resistance tolerance: ±10%. Standard package: 1. Mounting hardware included: Z-0 brackets.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	3470	3.47	750	126	99.8
2	2450	4.90	800	122	97.9
3	2000	6.00	1000	109	109
5	1550	7.75	1250	98	122
7.5	1266	9.49	1500	89	134
10	1095	10.9	2000	77	155
15	895	13.4	2250	73	164
20	775	15.5	2500	69	173
25	693	17.3	3000	63	189
50	490	24.5	3500	58	204
75	400	30.0	4000	54	219
100	346	34.6	4500	51	232
150	283	42.4	5000	49	245
200	245	49.0	6000	44	268
250	219	54.7	7000	41	290
300	200	60.0	7500	40	300
350	185	64.8	8000	38	310
400	173	69.2	8500	37	319
500	155	77.5	9000	36	328
600	141	84.8	10K	34	346

TYPE 4DA 50 watts. Core size: 4" long x 9/16" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	7070	7.07	2500	141	353
2	5000	10.00	3000	129	387
3	4080	12.20	3500	119	417
4	3540	14.10	4000	112	447
5	3160	15.80	4500	105	474
10	2236	22.3	5000	100	500
25	1415	35.3	6000	91	547
50	1000	50.0	7000	84	591
75	816	61.2	7500	81	612
100	707	70.7	8000	79	632
150	578	86.6	9000	74	670
200	500	100	10K	70	707
250	448	111	12K	64	775
300	408	122	15K	57	866
400	353	141	20K	50	1000
500	316	158	25K	44	1118
750	258	193	30K	40	1224
800	250	200	40K	35	1414
1000	224	223	50K	31	1580
1250	200	249	60K	28	1732
1500	182	273	80K	25	2000
2000	158	316	100K	22	2230
2250	149	334			

TYPE 6½EA 100 watts. Core size: 6½" long x ¾" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	10000	10.0	1500	258	387
2	7070	14.1	2500	200	500
3	5770	17.3	5000	141	707
4	5000	20.0	10K	100	1000
5	4470	22.4	15K	81	1224
10	3160	31.6	20K	70	1414
25	2000	50.0	25K	63	1581
50	1414	70.7	30K	57	1732
100	1000	100	40K	50	2000
250	632	158	50K	44	2236
500	447	224	75K	36	2738
1000	316	316	100K	31	3160

TYPE 10½HA 200-225 watts. Core size: 10½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	15000	15.0	1500	387	580
2	10600	21.2	2500	300	750
3	8660	25.9	5000	212	1060
4	7500	30.0	10K	150	1500
5	6708	33.5	15K	122	1830
10	4750	47.4	20K	106	2120
25	3000	75.0	25K	95	2370
50	2120	106	30K	86	2600
100	1500	150	40K	75	3000
250	950	237	50K	67	3350
500	670	335	75K	54	4100
1000	475	474	100K	47	4750

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IRC® RESISTEG COATED FIXED POWER WIRE WOUND RESISTORS

TYPE 1A—5-8 watts. Resisteg coating. Core size: 1" long x 5/16" dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	2830	2.83	200	200	40.0	2250	59	134
1.5	2310	3.47	225	188	42.4	2500	56	141
2	2000	4.00	250	179	44.7	3000	51	155
3	1632	4.90	300	163	49.0	3500	47	167
4	1414	5.66	350	151	52.9	4000	44	179
5	1265	6.32	400	141	56.6	4500	42	189
7.5	1032	7.75	450	133	60.0	5000	40	200
10	894	8.94	500	126	62.2	6000	36	219
12	817	9.80	600	115	69.3	7000	33	236
15	731	10.9	700	107	75.0	7500	32	245
20	633	12.6	750	103	77.5	8000	31	253
25	566	14.1	800	100	80.0	9000	29	268
30	517	15.5	900	94	85.0	10K	28	283
35	478	16.7	1000	89	89.5	12.5K	25	316
40	447	17.9	1100	85	94.0	15K	23	346
50	400	20.0	1200	81	98.0	17.5K*	21	374
75	327	24.5	1250	80	100	20K*	20	400
100	283	28.3	1500	73	109	22.5K*	18	424
125	253	31.6	1750	67	118	25K*	17	447
150	231	34.6	2000	63	126			

*No. 1 Terminal

TYPE 2C 20 watts. Resisteg coating. Core size: 2" long x 7/16" dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	4470	4.47	900	149	134	12.5K	40	500
2	3160	6.32	1000	141	141	15K	36	547
3	2580	7.74	1200	129	155	20K	31	632
4	2236	8.94	1250	126	158	25K	28	707
5	2000	10.0	1500	115	173	30K	25	775
10	1415	14.1	1750	107	187	35K	23	836
25	894	22.3	2000	100	200	40K	22	894
50	633	31.6	2250	94	211	45K	21	948
75	517	38.7	2500	89	222	50K	20	1000
100	447	44.7	2750	85	234	55K	19	1048
150	365	54.8	3000	81	245	60K	18	1095
200	316	63.2	3500	75	264	65K	17	1140
250	282	70.7	4000	70	283	70K	16	1180
300	258	77.4	4500	66	300	75K	16	1224
350	238	83.7	5000	63	316	80K	15	1264
400	223	89.5	6000	57	346	85K*	15	1303
500	200	100	7000	53	374	90K*	14	1340
650	175	114	7500	51	387	95K*	14	1378
700	169	118	8000	50	400	100K*	14	1414
750	163	122	9000	47	424			
800	158	126	10K	44	447			

*No. 1 Terminal

TYPE 4D 50 watts. Resisteg coating. Core size, 4" long x 9/16" dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package—1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	7070	7.07	750	258	193	20K	50	1000
2	5000	10.00	800	250	200	25K	44	1118
3	4080	12.20	1000	224	223	35K	38	1322
4	3540	14.10	1500	182	273	50K	31	1580
5	3160	15.80	2000	158	316	75K	25	1936
10	2236	22.3	2500	141	353	100K	22	2230
25	1415	35.3	3000	129	387	125K	20	2500
50	1000	50.0	4000	112	447	150K	18	2738
75	816	61.2	5000	100	500	175K	16	2958
100	707	70.7	7500	81	612	200K	15	3160
150	578	86.6	8000	79	632	250K	14	3530
200	500	100	10K	70	707			
250	448	111	12K	64	775			
500	316	158	15K	57	866			

TYPE 8½H 160-175 watts. Resisteg coating. Core size: 8½" long x 1⅛" dia. Terminals: 4A. Resistance tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package—1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	13228	13.2	150	1080	162	10K	132	1322
2	9350	18.7	250	837	209	15K	108	1620
3	7640	22.9	500	592	296	20K	93	1870
4	6620	26.4	750	483	362	25K	83	2090
5	5920	29.7	1000	418	418	30K	76	2291
10	4180	41.8	1500	341	512	40K	66	2645
25	2640	66.1	2000	296	591	50K	59	2960
50	1870	93.5	2500	264	661	60K	54	3240
75	1525	114	3000	241	724	75K	48	3620
100	1322	132	5000	187	935	100K	41	4180
125	1180	148	7500	152	1145			

TYPE 1¾A 10-12 watts. Resisteg coating. Core size: 1¾" long x 5/16" dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	3470	3.47	350	185	64.7	7000	41	287
1.5	2830	4.24	400	173	69.2	7500	40	300
2	2450	4.90	450	163	73.3	8000	38	304
3	2000	6.00	500	155	77.5	8500	37	319
4	1732	6.93	600	141	84.6	9000	36	328
5	1550	7.75	700	131	91.7	10K	34	340
7.5	1266	9.49	750	126	94.5	11K	33	363
10	1095	10.9	800	122	97.6	12K	31	372
12	1000	12.0	900	115	103	12.5K	31	387
15	895	13.4	1000	109	109	13.5K	29	391
20	775	15.5	1100	104	114	15K	28	420
25	693	17.3	1200	100	120	16K	27	432
30	633	19.0	1250	98	122	17.5K	26	458
35	586	20.5	1500	89	133	18K	25	464
40	548	21.9	1750	83	145	20K	24	480
50	490	24.5	2000	77	154	22.5K	23	517
75	400	30.0	2250	73	164	25K	21	525
100	346	34.6	2500	69	172	30K	20	600
125	310	38.7	3000	63	189	35K	18	630
150	283	42.4	3500	58	199	40K	17	680
200	245	49.0	4000	54	216	45K	16	720
225	231	51.9	4500	51	229	50K	15	750
250	219	54.7	5000	49	245			
300	200	60.0	6000	44	264			

TYPE 2D 25 watts. Resisteg coating. Core size: 2" long x 9/16" dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package—1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	5000	5.00	500	223	111	12K	45	548
2	3540	7.07	750	185	137	15K	40	612
3	2880	8.66	800	176	141	20K	35	707
4	2500	10.0	1000	158	158	25K	31	790
5	2236	11.1	1500	129	193	30K	28	866
10	1580	15.8	2000	111	223	35K	26	935
15	1290	19.4	2500	100	250	40K	25	1000
25	1000	25.0	3000	91	274	50K	22	1118
50	707	35.4	3500	84	296	60K	20	1224
75	577	43.3	4000	79	316	70K	18	1320
100	500	50.0	5000	70	353	80K	17	1414
150	408	61.2	6000	64	387	100K	15	1580
200	353	70.7	7500	57	434			
250	316	79.0	10K	50	500			

TYPE: 6½E 100 watts. Resisteg coating. Core size: 6½" long x ¾" dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-2 brackets. Standard package—1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	10000	10.0	150	818	122	10K	100	1000
2	7070	14.1	250	632	158	15K	81	1224
3	5770	17.3	500	447	224	20K	70	1414
4	5000	20.0	750	365	274	25K	63	1581
5	4470	22.4	1000	316	316	30K	57	1732
10	3160	31.6	1500	258	387	40K	50	2000
25	2000	50.0	2000	223	447	50K	44	2236
50	1414	70.7	2500	200	500	60K	40	2449
75	1155	86.6	3000	182	547	75K	36	2738
100	1000	100	5000	141	707	100K	31	3160
125	895	111	7500	115	865			

TYPE 10½H 200-225 watts. Resisteg coating. Core size: 10½" long x 1⅛" dia. Terminals: 4A Resistance tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package—1.

Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts	Ohms	Maximum Mils	Maximum Volts
1	15000	15.0	250	950	237	15K	122	1830
2	10600	21.2	500	670	335	20K	106	2120
3	8660	25.9	750	548	410	25K	95	2370
4	7500	30.0	1000	475	474	30K	86	2600
5	6708	33.5	1500	387	580	40K	75	3000
10	4750	47.4	2000	335	670	50K	67	3350
25	3000	75.0	2500	300	750	60K	61	3675
50	2120	106	3000	274	820	75K	54	4100
75	1730	129	5000	212	1060	100K	47	4750
100	1500	150	7500	173	1300			
150	1225	183	10K	150	1500			

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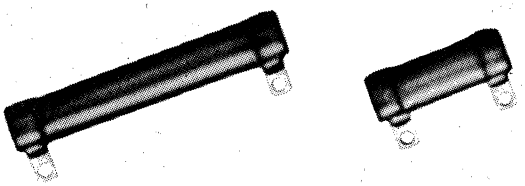
RESISTEG COATED FIXED POWER WIRE WOUND RESISTORS



MILITARY STYLE POWER RESISTORS

IRC's exclusive Resisteg Coating accounts directly for the superior stability of IRC power resistors. This coating is cured at temperatures below 205°F.—1000° less than required for other type coats. With low temperature curing, winding turns do not shift together. The wire is not "work-hardened" since excessive tension is not needed to prevent shifting. There are no failures from arc-over. And, RESISTEG COATED POWER RESISTORS NEED NO DERATING—even at high resistance values they operate at FULL RATED POWER! Low-temperature cured. Resisteg is an exclusive IRC feature.

RW29V 11 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.5	20	90	400	1800
1.1	5.0	22	100	450	2000
1.2	5.6	25	110	500	2200
1.4	6.3	28	120	560	2500
1.6	7.1	31	140	630	2800
1.8	8.0	35	160	710	3100
2.0	9.0	40	180	800	3500
2.2	10	45	200	900	4000
2.5	11	50	220	1000	4500
2.8	12	56	250	1100	5000
3.1	14	63	280	1200	5600
3.5	16	71	310	1400	
4.0	18	80	350	1600	

RW30V 11 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.0	16	63	250	1000
1.1	4.5	18	71	280	1100
1.2	5.0	20	80	310	1200
1.4	5.6	22	90	350	1400
1.6	6.3	25	100	400	1600
1.8	7.1	28	110	450	1800
2.0	8.0	31	120	500	2000
2.2	9.0	35	140	560	2200
2.5	10	40	160	630	2500
2.8	11	45	180	710	
3.1	12	50	200	800	
3.5	14	56	220	900	

RW31V 14 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.5	20	90	400	1800
1.1	5.0	22	100	450	2000
1.2	5.6	25	110	500	2200
1.4	6.3	28	120	560	2500
1.6	7.1	31	140	630	2800
1.8	8.0	35	160	710	3100
2.0	9.0	40	180	800	3500
2.2	10	45	200	900	4000
2.5	11	50	220	1000	4500
2.8	12	56	250	1100	5000
3.1	14	63	280	1200	5600
3.5	16	71	310	1400	6300
4.0	18	80	350	1600	

RW32V 17 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	5.0	25	120	630	3100
1.1	5.6	28	140	710	3500
1.2	6.3	31	160	800	4000
1.4	7.1	35	180	900	4500
1.6	8.0	40	200	1000	5000
1.8	9.0	45	220	1100	5600
2.0	10	50	250	1200	6300
2.2	11	56	280	1400	7100
2.5	12	63	310	1600	8000
2.8	14	71	350	1800	9000
3.1	16	80	400	2000	10K
3.5	18	90	450	2200	
4.0	20	100	500	2500	
4.5	22	110	560	2800	

RW33V 26 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	5.6	31	180	1000	5600
1.1	6.3	35	200	1100	6300
1.2	7.1	40	220	1200	7100
1.4	8.0	45	250	1400	8000
1.6	9.0	50	280	1600	9000
1.8	10	56	310	1800	10K
2.0	11	63	350	2000	11K
2.2	12	71	400	2200	12K
2.5	14	80	450	2500	14K
2.8	16	90	500	2800	16K
3.1	18	100	560	3100	18K
3.5	20	110	630	3500	
4.0	22	120	710	4000	
4.5	25	140	800	4500	
5.0	28	160	900	5000	

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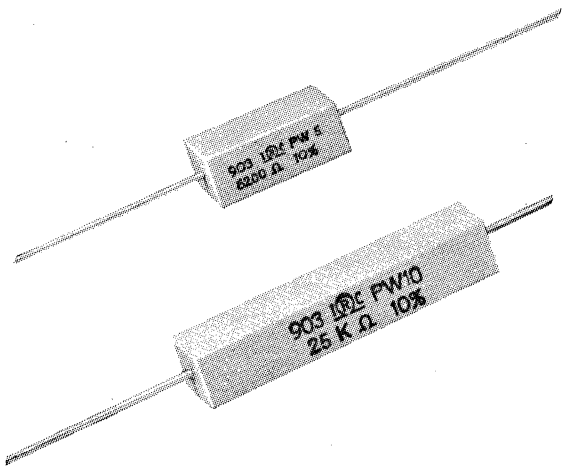
AXIAL LEAD POWER WIRE WOUND RESISTORS



These popular axial lead power resistors are the industry favorites for 5 and 10 watt applications. The compact shape fits among other components more easily. The axial lead design speeds installation. And, the superior solderability of the terminals assures sound connections every time.

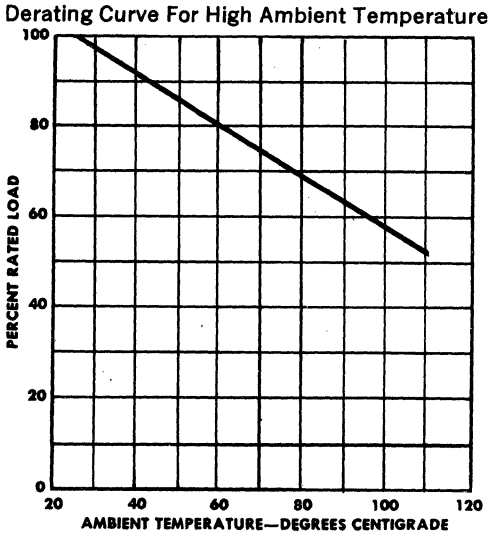
A precisely wound element is sealed in a ceramic case—fully protected and insulated. Conservative rating permits continuous operation at full power. Resistance, wattage and tolerance are permanently marked on resistor body. Standard tolerance is 10%.

Popular Assortment of 20 PW10 resistors is available for handy bench stock. The values are selected on the basis of 10 watt usage. Resistors are mounted on plastic covered card with hole for hanging. Assortment 20A.

STANDARD STOCK VALUES

Ohms:	PW5			PW10			
1	50	600	2250	120	1000	6000	
2	75	700	2500	125	1200	7000	
3	100	750	3000	150	1250	7500	
4	120	800	3300	200	1500	8000	
5	125	820	3500	250	1750	8200	
7.5	150	900	3900	300	2000	8500	
10	200	1000	4000	350	2250	9000	
15	250	1200	4500	400	2500	10,000	
20	300	1250	5000	500	3000	12,000	
25	350	1500	6000	600	3300	12,500	
30	400	1750		700	3500	15,000	
40	500	2000		750	3900	20,000	
				800	4000	25,000	
				820	4500		
				900	5000		

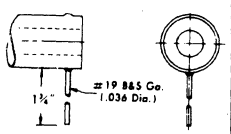
IRC PW5 and PW10
Derating Curve For High Ambient Temperature



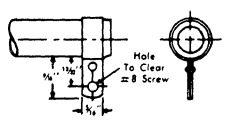
POWER WIRE WOUND RESISTOR HARDWARE

TERMINALS

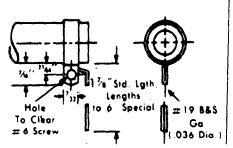
Type 1
Available for some values in Type 1A and 2C



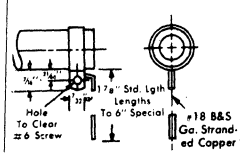
Type 4A
For 8½H, 8½HA, 10½H and 10½HA



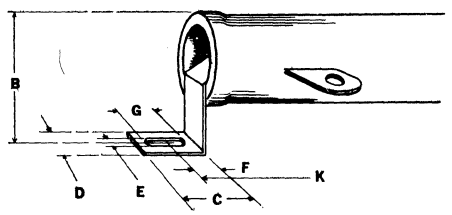
Type 12A
For 1¾AA, 2D, 2DA, 4D, 4DA, 5EA, 6½E and 6½EA



Type 13A
For 1A, 1¾A and 2C



BRACKETS



BRACKET TYPE	USE WITH O.D.	RESISTOR TYPE	B	C	D	E	F	G	K
Z-0	5/16"	A	19/32"	1/2"	5/16"	11/64"	15/64"	17/64"	Core Length + 15/32"
Z-1	5/16"	D	1¼"	9/16"	5/16"	11/64"	5/16"	19/64"	Core Length + 5/8"
Z-2	¾"	E	1 7/16"	5/8"	⅜"	11/64"	11/32"	23/64"	Core Length + 11/16"
Z-3	1⅛"	H	2 1/16"	11/16"	½"	3/16"	13/32"	¼"	Core Length + 13/16"
Z-4	7/16"	C	5/8"	29/64"	¼"	9/64"	¼"	9/64"	Core Length + ½"

ADJUSTABLE BANDS

Resistor	Band	Resistor	Band
1¾AA	A	5EA, 6½EA	E
2DA, 4DA	D	8½HA, 10½HA	H

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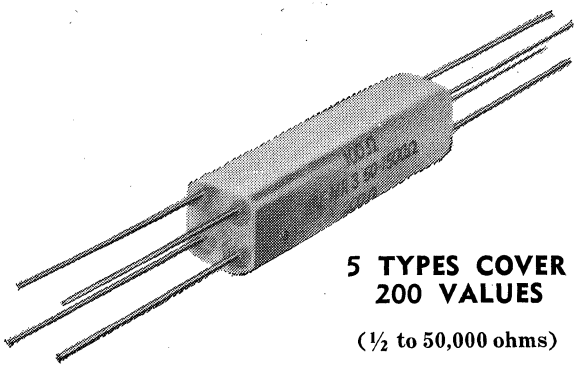
IRC MULTI-RANGE POWER RESISTORS



5 TYPES COVER 200 VALUES

(½ to 50,000 ohms)

IRC TYPE MR1 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 0.5 ohm and 15 ohms. The MR1 Multi-Range Resistor has elements of 1, 2, 4, and 8 ohms.

ohms:					
0.5	0.91	2.2	3.0	4.8	9.1
0.56	1.0	2.4	3.3	5.0	10
0.62	1.1	2.5	3.6	5.6	11
0.68	1.2	2.6	3.9	6.0	12
0.75	1.3	2.7	4.0	7.0	13
0.8	1.5	2.75	4.5	8.0	14
0.82	1.6	2.8	4.6	8.2	15
0.9	2.0	2.9	4.7	9.0	

IRC TYPE MR3 MULTI-RANGE RESISTOR

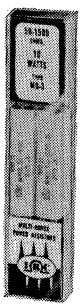
Provides exceptionally broad coverage of ten-watt resistors between 50 ohms and 1500 ohms. The MR3 Multi-Range Resistor has elements of 100, 200, 400, and 800 ohms.

ohms.					
50	91	220	300	480	910
56	100	240	330	500	1000
62	110	250	360	560	1100
68	120	260	390	600	1200
75	130	270	400	700	1300
80	150	275	450	800	1400
82	160	280	460	820	1500
90	200	290	470	900	

IRC TYPE MR5 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 3K and 50K. The MR5 Multi-Range Resistor has elements of 10K, 10K, 15K, and 15K ohms.

ohms:			
3K	7.5K	15K	30K
5K	10K	20K	40K
6K	12.5K	25K	50K



ANOTHER MULTI-RANGE FEATURE . . . EXCLUSIVE IRC HANDY-PAKS!

For greater convenience and ease of stocking and handling, Multi-Range Resistors are supplied in Handy-Paks **only** . . . 2 of a type to a Pak. Slim-line plastic sleeve protects modern, reusable package which opens at both ends.

COMPLETE 10-WATT COVERAGE

This sensational resistor means that never again will technicians or servicemen need to be delayed to order an odd resistance value. 5 Multi-Range Resistors cover all 10-watt needs . . . 200 values, 0.5 to 50,000 ohms! This unit consists of four ten-watt resistance elements sealed in a special steatite housing. Various interconnections of the elements provide replacement for 47 different values, except for the MR5 Multi-Range Resistor. Axial leads speed serving . . . Conservatively rated—10 watts or more.

IRC TYPE MR2 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 5 ohms and 150 ohms. The MR2 Multi-Range Resistor has elements of 10, 20, 40 and 80 ohms.

ohms:					
5.0	9.1	22	30	48	91
5.6	10	24	33	50	100
6.2	11	25	36	56	110
6.8	12	26	39	60	120
7.5	13	27	40	70	130
8.0	15	27.5	45	80	140
8.2	16	28	46	82	150
9.0	20	29	47	90	

IRC TYPE MR4 MULTI-RANGE RESISTOR

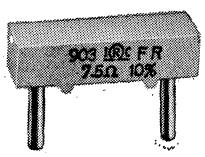
Provides exceptionally broad coverage of ten-watt resistors between 500 ohms and 15K ohms. The MR4 Multi-Range Resistor has elements of 1K, 2K, 4K, and 8K ohms.

ohms:					
500	910	2.2K	3K	4.8K	9.1K
560	1K	2.4K	3.3K	5K	10K
620	1.1K	2.5K	3.6K	5.6K	11K
680	1.2K	2.6K	3.9K	6K	12K
750	1.3K	2.7K	4K	7K	13K
800	1.5K	2.75K	4.5K	8K	14K
820	1.6K	2.8K	4.6K	8.2K	15K
900	2K	2.9K	4.7K	9K	

MULTI-RANGE KIT #55 ASSORTMENT

Complete 10-watt power resistor coverage at your fingertips. Your stock is always visible. Identification of type, value, etc. shows through the plastic case. You always know what you have, and have what is needed with an IRC Multi-Range Resistor Kit. Kit gives complete 10-watt coverage of 200 values. Contains 5 Handy-Paks – 2 of each Type MR resistor . . . 10 Multi-Range units. Rigid, clear-plastic box with hinged lid. Measures only 5¼" x 3½" x 1¼".

NEW FUSE RESISTOR IRC TYPE FR



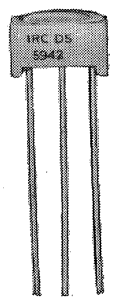
New IRC Fuse-Resistor. Modern design in rectangular ceramic shell. Equipped with plug-in terminals. Available in three popular resistance values. Attractively packaged.

FR5 —Fuse-Resistor 5.0 ohms

FR5.6—Fuse-Resistor 5.6 ohms

FR7.5—Fuse-Resistor 7.5 ohms

IRC DUAL DIODES



New IRC Universal Selenium Dual Diodes for horizontal phase detectors and remote control in TV Receivers. Also used in radio control devices for model planes, and other circuits. Two basic types: (1) common cathode; (2) series diodes. Sealed in plastic housing. Attractively packaged.

D4 (replaces former D1 and D2). Common cathode dual diode to replace the following Mfrs.' Parts: G.E. K115J510-1, -2; Hallicrafter 027-300-226, 27C226; Hoffman 10031, 744002; Motorola 48K741255; Philco 34-8037, -1, -2, -3; Muntz (2) SR-0004, SR-0006.

D5 (replaces former D3). Series connected dual diode to replace the following Mfrs.' Parts; Admiral 93A5-2, 93B5-3, -4, -5; Citizenship Radio 34-8037; Emerson 817062; Magnavox 530045-1, -2; Motorola 48K741752, 48B742698; Silvertone B48-110; Webcor 65P124; Zenith 63-3977.

D6 Common anode dual diode, universal replacement for Mfrs. parts. G.E. 66X1—118J966—2; Motorola 48K751724, Packard Bell 72036; R.C.A. 107628. D7 Common anode six cell dual diode, replacement for Motorola Part No. 48C65831A02.

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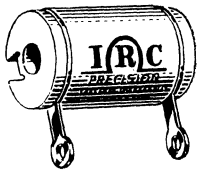
IRC PRECISION WIRE WOUND RESISTORS

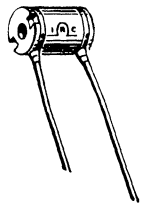


IRC Precision Wire Wound Resistors are designed and manufactured to exacting standards necessary to insure consistent accuracy in critical applications.

The ceramic winding forms have high insulating qualities, high mechanical strength and low coefficient of expansion. Insulation provides greater humidity protection and also contributes to longer trouble-free service.

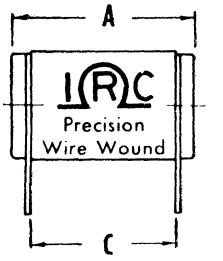
Maximum temperature coefficient of .0027% per degree C is standard on all IRC Precision Wire Wound Resistors at no added cost.

IRC Precision Wire Wound Resistors have either radial lug or radial lead terminal, designed to eliminate any strain on the winding. These terminals offer excellent solderability.



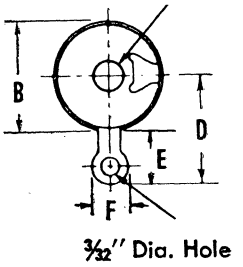
RADIAL LUG TYPE

IRC Type No.	WW2J	WW3J	WW4J	WW5J
Rating in Watts				
65° C. Ambient	2	.50	1	1
Former MIL Rating	1	.35	.50	.50
Maximum Volts	2000	400	700	1000
Dimensions (inches)				
A Dimension	2 1/8	9/16	1	1 1/4
B Dimension	29/32	19/32	19/32	25/32
C Dimension	1 25/32	3/8	25/32	31/32
D Dimension	25/32	5/8	5/8	23/32
E Dimension	5/16	5/16	5/16	5/16
F Dimension	3/16	3/16	3/16	3/16



STANDARD STOCK VALUES: 1% Tolerance (Lugs Only)

Type WW2J	Type WW3J		Type WW4J			Type WW5J
Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
600K	0.1	1,500	30K	0.1	2,000	40K	600K
750K	0.2	2,000	35K	0.2	2,500	50K	750K
900K	0.5	2,500	40K	0.5	3,000	60K	900K
1.0 Meg.	1.0	3,000	50K	1.0	3,500	75K	1.0 Meg.
1.5 Meg.	5	3,500	60K	5	4,000	100K	
2.0 Meg.	10	4,000	75K	10	5,000	125K	
2.5 Meg.	25	5,000	100K	25	7,500	150K	
	50	7,500	125K	50	10K	175K	
	100	10K	150K	100	12.5K	200K	
	200	12.5K	175K	200	15K	225K	
	250	15K	200K	250	20K	250K	
	300	20K	225K	300	22.5K	300K	
	500	22.5K		500	25K	400K	
	1,000	25K		1,000	30K	500K	
				1,500	35K		



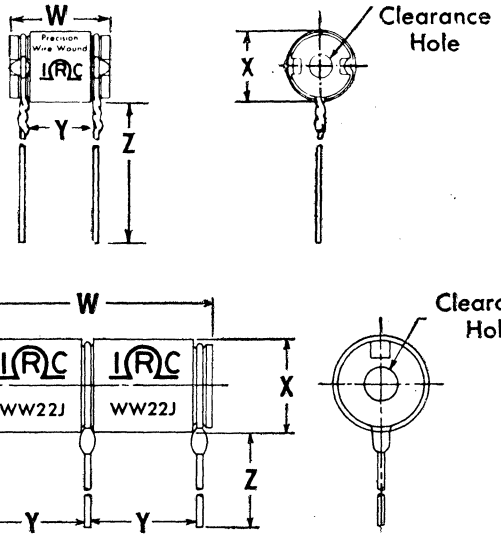
RADIAL LEAD TYPE

IRC TYPE No.	WW10J
Rating in Watts	
65°C. Ambient	.25
Former MIL Rating	.15
Maximum Volts	150
Dimensions	
Lead Diameter (AWG)	#22
W Dimension	13/32"
X Dimension	9/32"
Y Dimension	9/32"
Z Dimension	2*
Clearance hole to fit	#2 Screw

*Lengths shown are standard. 2", 3" and 4" also available upon request.

STANDARD STOCK VALUES: 1% Tolerance (Leads Only)

Type WW10J		
Ohms	Ohms	Ohms
10	2,000	20K
25	2,500	25K
50	3,000	30K
100	3,500	40K
200	4,000	50K
250	5,000	60K
300	7,500	75K
500	10K	100K
1,000	12.5K	
1,500	15K	



Special non-stock types, tolerances and values available on request.

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CLOSE TOLERANCE PRESISTORS

UNMOLDED DEPOSITED CARBON

TYPE DC 1% ACCURACY. ½, & 2 WATTS STYLE RN20X, RN25X, RN30X (MIL-R-10509B)

IRC Deposited Carbon Precision Resistors offer a unique combination of close tolerance, stability and economy. Pure crystalline carbon is bonded to selected ceramic cores to produce a resistor ideally suited to the requirements of instrumentation, advanced electronics and critical television circuits.

Deposited Carbon Presistors provide a combination of characteristics not found in any other resistor type. The wide range of values, accuracy, high stability, low voltage coefficient, excellent frequency characteristics, predictable temperature characteristics, high voltage rating, low noise level and small size of PRESISTORS make them superior to many popular applications.

IRC Type DC Deposited Carbon Presistors are available in three sizes: ½ watt (body size 9/16" x 5/32") M-Coat 1 watt (body size 15/16" x 9/32"), and 2 watts (body size 2 1/16" x 9/32"). Accuracy ±1% (25°C).

MOLDED DEPOSITED CARBON

TYPE MDC 1% ACCURACY. ½ WATT STYLE RN70B (MIL-R-10509C)

IRC's Molded Deposited Carbon Presistor is a precision film type resistor that incorporates the added advantages of a fully insulated unit. The molded insulation provides improved load life characteristics, better insulation resistance and greater resistance to moisture effects. The Molded Deposited Carbon Presistor provides all the advantages of the ceramic solder sealed types without the hazards of seal leakage, breakage and low dielectric strength.

Type MDC Molded Deposited Carbon Presistors are particularly suited for applications where an unmolded deposited carbon unit cannot be used due to the risk of mechanical damage to its coating, insulation breakdown and excessive moisture conditions.

Wattage Rating: ½ watt at 70°C. ambient (per MIL-R-10509B) derated to 0 at 165°C. Dimensions: 23/32" x ¼" (body size).

MILITARY VALUES

TYPE DCC—all values from 10 ohms to 2.0 meg.
TYPE DCF—all values from 27.4 ohms to 4.99 meg.
TYPE DCH—all values from 46.4 ohms to 4.99 meg.
Type MDC—all values from 10 ohms to 2.49 meg.

STANDARD STOCK VALUES

TYPE DCC — DEPOSITED CARBON PRESISTORS — ½ WATT — M COAT — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
51.1	100	196	383	750	1470	2870	5620	11K	21.5K	42.2K	82.5K	162K	316K	619K	1.21 meg.
56.2	110	215	422	825	1620	3160	6190	12.1K	23.7K	46.4K	90.9K	178K	348K	681K	1.33 meg.
61.9	121	237	464	909	1780	3480	6810	13.3K	26.1K	51.1K	100K	196K	383K	750K	1.47 meg.
68.1	133	261	511	1000	1960	3830	7500	14.7K	28.7K	56.2K	110K	215K	422K	825K	1.62 meg.
75.0	147	287	562	1100	2150	4220	8250	16.2K	31.6K	61.9K	121K	237K	464K	909K	1.78 meg.
82.5	162	316	619	1210	2370	4640	9090	17.8K	34.8K	68.1	133K	261K	511K	1.0 meg.	1.96 meg.
90.9	178	348	681	1330	2610	5110	10K	19.6K	38.3K	75.0K	147K	287K	562K	1.1 meg.	

TYPE DCF — DEPOSITED CARBON PRESISTORS — 1 WATT — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
100	215	464	1000	2150	4640	10K	21.5K	46.4K	100K	215K	464K	1.0 meg.	2.15 meg.	4.64 meg.
110	237	511	1100	2370	5110	11K	23.7K	51.1K	110K	237K	511K	1.1 meg.	2.37 meg.	5.11 meg.
121	261	562	1210	2610	5620	12.1K	26.1K	56.2K	121K	261K	562K	1.21 meg.	2.61 meg.	5.62 meg.
133	287	619	1330	2870	6190	13.3K	28.7K	61.9K	133K	287K	619K	1.33 meg.	2.87 meg.	6.19 meg.
147	316	681	1470	3160	6810	14.7K	31.6K	68.1K	147K	316K	681K	1.47 meg.	3.16 meg.	6.81 meg.
162	348	750	1620	3480	7500	16.2K	34.8K	75.0K	162K	348K	750K	1.62 meg.	3.48 meg.	7.50 meg.
178	383	825	1780	3830	8250	17.8K	38.3K	82.5K	178K	383K	825K	1.78 meg.	3.83 meg.	8.25 meg.
196	422	909	1960	4220	9090	19.6K	42.2K	90.9K	196K	422K	909K	1.96 meg.	4.22 meg.	9.09 meg.
														10.0 meg.

TYPE DCH — DEPOSITED CARBON PRESISTORS — 2 WATTS — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
196	619	1960	6190	19.6K	61.9K	196K	619K	1.96 meg.	6.19 meg.
215	681	2150	6810	21.5K	68.1K	215K	681K	2.15 meg.	6.81 meg.
237	750	2370	7500	23.7K	75.0K	237K	750K	2.17 meg.	7.50 meg.
261	825	2610	8250	26.1K	82.5K	261K	825K	2.61 meg.	8.25 meg.
287	909	2870	9090	28.7K	90.9K	287K	909K	2.87 meg.	9.09 meg.
316	1000	3160	10K	31.6K	100K	316K	1.0 meg.	3.16 meg.	10.0 meg.
348	1100	3480	11K	34.8K	110K	348K	1.1 meg.	3.48 meg.	
383	1210	3830	12.1K	38.3K	121K	383K	1.21 meg.	3.83 meg.	
422	1330	4220	13.3K	42.2K	133K	422K	1.33 meg.	4.22 meg.	
464	1470	4640	14.7K	46.4K	147K	464K	1.47 meg	4.64 meg.	
511	1620	5110	16.2K	51.1K	162K	511K	1.62 meg.	5.11 meg.	
562	1780	5620	17.8K	56.2K	178K	562K	1.78 meg.	5.62 meg.	

TYPE MDC — MOLDED DEPOSITED CARBON PRESISTORS — ½ WATT — 1% TOLERANCE

100	191	365	698	1330	2550	4870	9090	17.4K	33.2K	63.4K	121K	232K	442K	845K	1.62 meg.
102	196	374	715	1370	2610	4990	9310	17.8K	34.0K	64.9K	124K	237K	453K	866K	1.65 meg.
105	200	383	732	1400	2670	5110	9530	18.2K	34.8K	66.5K	127K	243K	464K	887K	1.69 meg.
107	205	392	750	1430	2740	5230	9760	18.7K	35.7K	68.1K	130K	249K	475K	909K	1.74 meg.
110	210	402	768	1470	2800	5360	10.0K	19.1K	36.5K	69.8K	133K	255K	487K	931K	1.78 meg.
113	215	412	787	1500	2870	5490	10.2K	19.6K	37.4K	71.5K	137K	261K	499K	953K	1.82 meg.
115	221	422	806	1540	2940	5620	10.5K	20.0K	38.3K	73.2K	140K	267K	511K	976K	1.87 meg.
118	226	432	825	1580	3010	5760	10.7K	20.5K	39.2K	75.0K	143K	274K	523K	1.00 meg.	1.91 meg.
121	232	442	845	1620	3090	5900	11.0K	21.0K	40.2K	76.8K	147K	280K	536K	1.02 meg.	1.96 meg.
124	237	453	866	1650	3160	6040	11.3K	21.5K	41.2K	78.7K	150K	287K	549K	1.05 meg.	2.00 meg.
127	243	464	887	1690	3240	6190	11.5K	22.1K	42.2K	80.6	154K	294K	562K	1.07 meg.	2.05 meg.
130	249	475	909	1740	3320	6340	11.8K	22.6K	43.2K	82.5K	158K	301K	576K	1.10 meg.	2.10 meg.
133	255	487	931	1780	3400	6490	12.1K	23.2K	44.2K	84.5K	162K	309K	590K	1.13 meg.	2.15 meg.
137	261	499	953	1820	3480	6650	12.4K	23.7K	45.3K	86.6K	165K	316K	604K	1.15 meg.	2.21 meg.
140	267	511	976	1870	3570	6810	12.7K	24.3K	46.4K	88.7K	169K	324K	619K	1.18 meg.	2.26 meg.
143	274	523	1000	1910	3650	6980	13.0K	24.9K	47.5K	90.9K	174K	332K	634K	1.21 meg.	2.32 meg.
147	280	536	1020	1960	3740	7150	13.3K	25.5K	48.7K	93.1K	178K	340K	649K	1.24 meg.	2.37 meg.
150	287	549	1050	2000	3830	7320	13.7K	26.1K	49.9K	95.3K	182K	348K	665K	1.27 meg.	2.43 meg.
154	294	562	1070	2050	3920	7500	14.0K	26.7K	51.1K	97.6K	187K	357K	681K	1.30 meg.	2.49 meg.
158	301	576	1100	2100	4020	7680	14.3K	27.4K	52.3K	100K	191K	365K	698K	1.33 meg.	
162	309	590	1130	2150	4120	7870	14.7K	28.0K	53.6K	102K	196K	374K	715K	1.37 meg.	
165	316	604	1150	2210	4220	8060	15.0K	28.7K	54.9K	105K	200K	383K	732K	1.40 meg.	
169	324	619	1180	2260	4320	8250	15.4K	29.4K	56.2K	107K	205K	392K	750K	1.43 meg.	
174	332	634	1210	2320	4420	8450	15.8K	30.1K	57.6K	110K	210K	402K	768K	1.47 meg.	
178	340	649	1240	2370	4530	8660	16.2K	30.9K	59.0K	113K	215K	412K	787K	1.50 meg.	
182	348	665	1270	2430	4640	8870	16.5K	31.6K	60.4K	115K	221K	422K	806K	1.54 meg.	
187	357	681	1300	2490	4750		16.9K	32.4K	61.9K	118K	226K	432K	825K	1.58 meg.	

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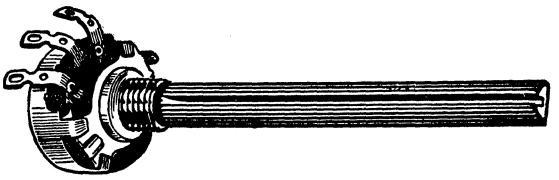
RADIO-TV TECHNICIANS' TYPE Q VOLUME CONTROLS



IRC's Type Q Control is the basic control for servicing all sets. It is carefully engineered to meet most replacement requirements with a minimum stock. The quality appearance and "cushioned turn" of the Q Control assure customer satisfaction. Easier installation and dependable performance provide more profitable servicing.

KNOB MASTER STANDARD FIXED SHAFT

Standard shaft is knurled, flatted and slotted and fits most knobs without alteration. For knurled or spring type push-on knobs, cut to length. For over-size, worn or web type knobs, split shaft slot lengthwise and spread ends. For positioned knobs, bend down control locating pins and rotate control base for correct knob position.

¼" LONG BUSHING

Shorter bushing and compact 15/16" design suit Q Controls to all small sets, yet handle large set needs as well.

Ohms	Taps	Type Q Control	Type Q Base-Element	Taper
250	—	Q11-201	B11-201	A
500	—	Q11-103	B11-103	A
750	—	Q11-105	B11-105	A
750	—	Q17-105	B17-105	P
750	250	Q17-105X	B17-105X	S
1000	—	Q11-108	B11-108	A
1000	—	Q17-108	B17-108	P
1500	—	Q11-109	B11-109	A
1500	—	Q17-109	B17-109	Q
2000	—	Q11-110	B11-110	A
2000	—	Q17-110	B17-110	Q
2000	250 & 500	Q17-110XX	B17-110XX	S
2500	—	Q13-111	B13-111	C
2500	—	Q17-111	B17-111	Q
3000	—	Q11-112	B11-112	A
3000	—	Q17-112	B17-112	Q
5000	—	Q11-114	B11-114	A
5000	—	Q13-114	B13-114	C
5000	—	Q17-114	B17-114	Q
7500	—	Q11-115	B11-115	A
10K	—	Q11-116	B11-116	A
10K	—	Q13-116	B13-116	C
10K	—	Q14-116	B14-116	D
10K	—	Q17-116	B17-116	Q
15K	10K	Q13-118X	B13-118X	S
15K	5000 & 10K	Q13-118XX	B13-118XX	S
15K	5000	Q17-118X	B17-118X	S
15K	5000 & 10K	Q17-118XX	B17-118XX	S
20K	—	Q11-119	B11-119	A
20K	—	Q16-119	B16-119	S
25K	—	Q11-120	B11-120	A
25K	—	Q13-120	B13-120	C
25K	—	Q14-120	B14-120	D
30K	—	Q11-121	B11-121	A
35K	—	Q11-122	B11-122	A
50K	—	Q11-123	B11-123	A
50K	—	Q13-123	B13-123	C
50K	—	Q14-123	B14-123	D
75K	—	Q11-125	B11-125	A
100K	—	Q11-128	B11-128	A
100K	—	Q13-128	B13-128	C
125K	—	Q11-228	B11-228	A
150K	—	Q11-328	B11-328	A
150K	—	Q13-328	B13-328	C
150K	19K & 38K	Q17-328XX	B17-328XX	S
200K	—	Q11-129	B11-129	A
250K	—	Q11-130	B11-130	A
250K	—	Q13-130	B13-130	C
250K	60K	Q18-130X	B18-130X	H
250K	125K	Q13-130X	B13-130X	S

Ohms	Taps	Type Q Control	Type Q Base-Element	Taper
250K	60K & 12K	Q18-130XX	B18-130XX	S
300K	—	Q11-131	B11-131	A
350K	—	Q11-132	B11-132	A
350K	—	Q13-132	B13-132	C
350K	35K	Q17-132X	B17-132X	S
350K	75K	Q18-132X	B18-132X	H
500K	—	Q11-133	B11-133	A
500K	—	Q13-133	B13-133	C
500K	—	Q14-133	B14-133	D
500K	—	Q17-133	B17-133	Q
500K	25K	Q17-133X	B17-133X	S
500K	50K	Q18-133X	B18-133X	S
500K	125K	Q13-133X	B13-133X	H
500K	250K	Q19-133X	B19-133X	S
500K	100K & 200K	Q18-133XX	B18-133XX	S
600K	—	Q11-134	B11-134	A
750K	—	Q11-136	B11-136	A
1.0 Meg.	—	Q11-137	B11-137	A
1.0 Meg.	—	Q13-137	B13-137	C
1.0 Meg.	—	Q14-137	B14-137	D
1.0 Meg.	—	Q17-137	B17-137	Q
1.0 Meg.	35K	Q17-137X	B17-137X	S
1.0 Meg.	100K	Q18-137X	B18-137X	S
1.0 Meg.	250K	Q13-137X	B13-137X	H
1.0 Meg.	500K	Q19-137X	B19-137X	S
1.0 Meg.	500K	QVC-539X	BVC-539X	S
1.0 Meg.	50K & 100K	Q17-137XX	B17-137XX	S
1.0 Meg.	250K & 500K	Q18-137XX	B18-137XX	S
1.5 Meg.	—	Q11-138	B11-138	A
1.5 Meg.	250K	Q13-138X	B13-138X	S
2.0 Meg.	—	Q11-139	B11-139	A
2.0 Meg.	—	Q13-139	B13-139	C
2.0 Meg.	—	Q17-139	B17-139	Q
2.0 Meg.	50K	Q19-139X	B19-139X	S
2.0 Meg.	150K	Q17-139X	B17-139X	S
2.0 Meg.	500K	Q13-139X	B13-139X	H
2.0 Meg.	1.0 Meg.	Q18-139X	B18-139X	S
2.0 Meg.	250K & 500K	Q18-139XX	B18-139XX	S
2.0 Meg.	500K & 1 Meg.	Q13-139XX	B13-139XX	S
2.5 Meg.	—	Q11-239	B11-239	A
3.0 Meg.	—	Q11-140	B11-140	A
3.0 Meg.	—	Q13-140	B13-140	C
3.0 Meg.	—	Q17-140	B17-140	Q
3.0 Meg.	900K	Q13-140X	B13-140X	S
3.0 Meg.	1.5 Meg.	Q18-140X	B18-140X	S
5.0 Meg.	—	Q11-141	B11-141	A
5.0 Meg.	—	Q12-141	B12-141	S
5.0 Meg.	—	Q13-141	B13-141	C
5.0 Meg.	—	Q17-141	B17-141	Q
7.5 Meg.	—	Q11-142	B11-142	A
10.0 Meg.	—	Q11-143	B11-143	A

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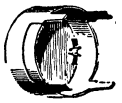
Q CONTROL ACCESSORIES

ASSEMBLE YOUR OWN STANDARD OR SPECIAL IRC Q CONTROLS

For those who would like to use their IRC Base-Element stock for assembly of standard controls, the component parts are available. Plain Q Control assemblies with 1-Base-Element, 1-Interchangeable Fixed Shaft, 1-QCB Bushing and 1-QCC Cover. Switch type Q control assembles with 1-Base-Element, 1-Interchangeable Fixed Shaft, 1-QCB Bushing and 1 of either 76-1 or 76-2 Switch.



QCC-COVER—For plain or tapped controls. Pkg. of 5.

QCB-BUSHING — ⅜-32 thread, ¼" long. Pkg. of 5.

IRC VOLUME CONTROL GROUNDING LUG—Same as supplied with IRC Type Q Controls. Fits ⅜" bushing. Lug length from hole center—1-3/16". Type QCL Grounding Lugs. Pkg. of 5.

STANDARD Q CONTROL LOCKNUT—Hex nut for ⅜-32 thread, 9/16" across flats. Type QCN. Pkg. of 10.

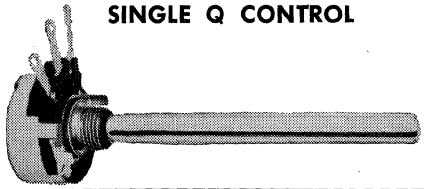
New SK1 (QPK) Kit assembles above standard Q control parts with IRC base elements. Contents: AQ Knob Master Shaft, QCB Ground Plate/Bushing, QCC Universal Cover, R-1 Resilient Retainer Ring, QCN Mounting Nut.

Q CONTROL PARTS KIT

Package of parts for assembly of specific Q Control types. Includes shaft, bushing and cover. Add desired Base-Element.

SK1—Formerly QPK, Includes AQ shaft for Q Control assembly.
SK2—Includes RQ shaft for RQ Control assembly.
SK3—Includes SQ shaft for SQ Control assembly.
SK7—Knob Master Shaft Kit for Pull-Push Switch Assembly
SK8—Same as SK7 except shaft is similar to NQ shaft with 3½" A dimension

SINGLE Q CONTROL



IRC TAB-MOUNT KITS

Since assembly of Tab-Mount Controls is so simple, IRC supplies four 3-Part Tab-Mount Kits which will assemble with any standard plain or tapped IRC Base-Element to provide satisfactory Tab-Mount Controls. Each TM Kit includes a Tab-type Ground Plate, a control cover and a finger-knurled and screw-driver slotted shaft of appropriate length for universal replacement. Packaged with instruction sheet but without necessary Base-Element.

TM-3—IRC Tab-Mount Kit—Shaft 1" long.

TM-4—IRC Tab-Mount Kit—Shaft 1½" long.

TM-1—IRC Tab-Mount Kit ¼" long.

TM-2—IRC Tab-Mount Kit—Shaft ⅝" long.

¼" diameter Knob-Master Shaft

Ohms	Stock No.
500	PPQ 11-103-7
200K	PPQ 11-129-7
1.0 Meg.	PPQ 11-137-7
250K	PPQ 13-130-7
500K	PPQ 13-133-7
1.0 Meg.	PPQ 13-137-7
1.0 Meg.	PPQ 13-137X-7
2.0 Meg.	PPQ 18-139X-7

Can be also made up from Base Element and SK7 Parts Kit.

⅜" diameter shaft flatted and slotted

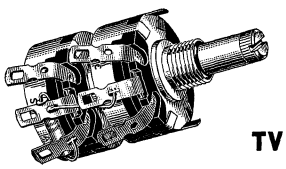
Ohms	Stock No.
1.0 Meg.	PPQ 11-137-8
1.0 Meg.	PPQ 13-137-8
2.0 Meg	PPQ 13-139-8
500K	PPQ 19-133X-8
1.0 Meg.	PPQ 13-137X-8
1.0 Meg.	PPQ 18-137X-8
1.0 Meg.	PPQ 19-137X-8
2.0 Meg.	PPQ 18-139X-8
3.0 Meg.	PPQ 18-140X-8

Can be also made up from Base Element and SK8 Parts Kit.

SWITCHES FOR TYPE Q CONTROLS

Easily attached power switches for Type Q Controls. Attractively finished to match control.
76-1—Single pole, single throw.
76-2—Double pole, single throw
76-4—Single pole, double throw or Make one - Break one Spot Killer Switch.

SPECIAL PURPOSE CONTROLS

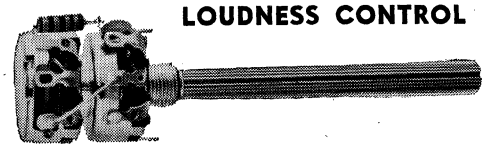


Type QJ-3 TV ATTENUATOR

- Reduces overloading effects on TV sets in strong signal areas.
- Diminishes interstation interference caused by nearby or powerful stations.
- Minimizes buzz due to high signal level in intercarrier systems.
- Permits easy adjustment of signal RIGHT AT SET.
- Frequently prevents mismatch of antenna load to set.

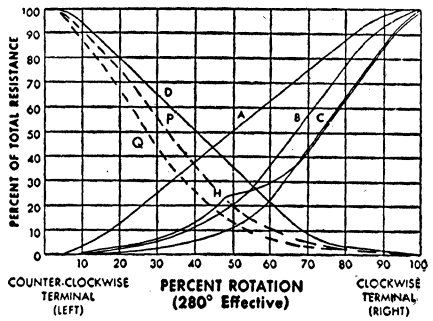
IRC's QJ-3 TV Attenuator permits ready adjustment of signal input to TV sets. In most cases, it corrects or substantially reduces such conditions as:—Adjacent channel interference, background picture on weaker stations, poor definition, picture and sound breakover. Also useful in service work—duplicating fringe area signals when shop is near strong local station.

Type LC-2 LOUDNESS CONTROL



A continuously compensated control that boosts lows and highs as volume is decreased—maintains depth and brilliance even at whisper level. Type LC-2 replaces makeshift compensating units—tapped volume controls, stepped-type loudness controls, bass and treble boost circuits. Automatically maintains proper balance of all frequencies in the audio spectrum at any listening level. Simplicity itself—as easy to wire into an audio circuit as any standard three-terminal volume control. Complete instructions included, showing applications. Type 76-1, 76-2 or 76-4 switch can be added to this control.

STANDARD TAPERS FOR Q CONTROLS



A—For potentiometer or rheostat where uniform resistance change is required.

B—Semi-logarithmic curve for tone control or audio circuit control.

C—Logarithmic curve for audio circuit control or antenna shunt control.

D—Tapered at both ends to provide control of grid bias and antenna circuit. Used where control of grid bias is important in controlling volume.

H—Tapped logarithmic curve for audio level control for automatic bass compensation.

P—Semi-logarithmic curve—reverse taper for use in contrast and picture control circuits in television.

Q—Semi-logarithmic curve—reverse taper for use in contrast and picture control circuits in television.

S—Special taper—based on specific specifications.

TV HEIGHT CONTROLS

Type HLC. Provided for reliable operation in TV—and other B + applications such as AGC, noise gate, focus, fringe lock and sync. Type HLC is a premium quality television height control with a 1 watt rating and small 1 5/16" diameter size. Slotted and knurled shaft is nylon, and can be easily shortened, if required. Control has tab mount design with rear adjustment. Supplied in six high range types with ±30% tolerance.

HLC-1	2.0 megohms	HLC-3	3.0 megohms	HLC-5	5.0 megohms
HLC-2	2.5 megohms	HLC-4	4.0 megohms	HLC-6	7.5 megohms

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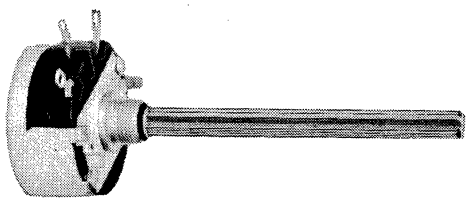
UNIVERSAL WIRE WOUND CONTROLS

4 WATT WIRE WOUNDS

International Resistance Company's new Universal Wire Wound Control, engineered to handle all 2-watt and 4-watt requirements, may be used as a replacement for former types W, WK, 4WK, and 4WS.

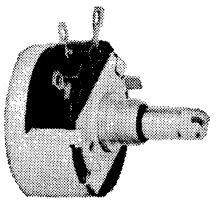
Dimensions: 1¼" in diameter, 45/64" deep behind mounting face without switch; 1-7/32" with switch.

Available in the following types:



TYPE WPK

⅜-32 x ¼" long bushing with popular Q Type Knob Master Shaft 3" long from mounting face.



TYPE WPS

⅜-32 x ¼" long bushing with combination finger knurl and screwdriver slot shaft ¾" long from mounting face.

Switches are available for use with types WPK and WPS. Windings are not compensated and the resistance in approximately 15% rotation will be lost.

Switch type 76-11 SPST

Switch type 76-12 DPST

PARTS KIT FOR WPK-WPS

Package of parts which, with addition of desired WP Base-Element, will assemble WPK or WPS Controls. Includes shaft, bushing, cover and coupling plate.
SK4—Parts kit for WPK Control
SK5—Parts kit for WPS Control

STOCK VALUES OF TYPE WPK AND WPS CONTROLS

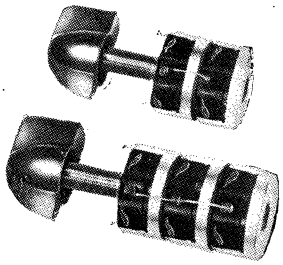
Ohms	Tap	Taper	Type WPK Control	Type WPS Control	Base Elements
10	—	U	WPK10	—	W11-010
10	5.	U	—	WPS10X5	W11-010X
15	7.5	U	—	WPS15X7.5	W11-015X
20	—	U	WPK20	—	W11-020
20	10	U	—	WPS20X10	W11-020X
25	—	U	—	WPS25	W11-025
25	12.5	U	—	WPS25X12.5	W11-025X
30	—	U	WPK30	—	W11-030
30	15	U	—	WPS30X15	W11-030X
40	—	U	—	WPS40	W11-040
40	20	U	—	WPS40X20	W11-040X
50	—	U	WPK50	—	W11-050
50	25	U	—	WPS50X25	W11-050X
60	—	U	—	WPS60	W11-060
80	40	U	—	WPS80X40	W11-080X
100	—	U	WPK100	—	W11-084
100	50	U	—	WPS100X50	W11-084X
140	70	U	—	WPS140X70	W11-092X
150	75	U	—	WPS150X75	W11-094X
200	—	U	WPK200	—	W11-100
200	100	U	—	WPS200X100	W11-100X
250	—	U	WPK250	WPS250	W11-201
300	—	U	WPK300	—	W11-102
400	—	U	WPK400	—	W11-202
500	—	U	WPK500	WPS500	W11-103
500	—	L	—	WPS500L	W13-103
600	—	U	WPK600	—	W11-104
650	—	U	WPK650	—	W11-204
750	—	U	WPK750	—	W11-105
750	—	L	WPK750L	—	W13-105
750	—	R	WPK750R	—	W17-105
750	250	S	—	—	W17-105X
1000	—	U	WPK1000	WPS1000	W11-108
1350	—	U	WPK1350	—	W11-308
1350	—	R	WPK1350R	—	W17-308
1500	—	U	WPK1500	WPS1500	W11-109
1500	—	L	WPK1500L	—	W13-109
1500	500	S	—	—	W17-109X
2000	—	U	WPK2000	WPS2000	W11-110
2000	—	L	WPK2000I	—	W13-110
2250	—	U	—	WPS2250	W11-210
2250	—	L	WPK2250L	WPS2250L	W13-210
2500	—	U	WPK2500	WPS2500	W11-111
2500	—	R	WPK2500R	—	W17-111
3000	—	U	WPK3000	WPS3000	W11-112
3000	—	R	—	—	W17-112
3300	—	L	—	—	W13-212
4000	—	U	—	WPS4000	W11-113
4000	—	L	WPK4000L	WPS4000L	W13-113
5000	—	U	WPK5000	WPS5000	W11-114
5000	—	L	WPK5000L	—	W13-114
5000	—	R	—	—	W17-114
6000	—	U	WPK6000	—	W11-214
6000	—	L	WPK6000L	—	W13-214
7500	—	U	WPK7500	—	W13-115
7500	—	L	WPK7500L	—	W11-115
10000	—	U	WPK10000	WPS10000L	W11-116
12500	—	U	WPK12500	—	W11-217
15000	—	U	WPK15000	—	W11-118
20000	—	U	WPK20000	—	W11-119
25000	—	U	WPK25000	—	W11-120
30000	—	U	WPK30000	—	W11-121
40000	—	U	WPK40000	—	W11-222
50000	—	U	WPK50000	—	W11-123

STANDARD TAPERS

R Taper—Right Hand Taper with approximately 50% rotation when measured from Right Terminal to Center Terminal facing shaft end of control with terminals down.

U Taper—Standard Linear Taper.

L Taper—Left Hand Taper with approximately 15% of total resistance at 50% rotation when measured from Left Terminal to Center Terminal facing shaft end of control with terminals down.



L AND T PAD CONSTANT IMPEDANCE CONTROLS

For use in sound systems and for speaker control. Handle up to 10 watts of audio power (3 watts D.C.) L Pad provides constant input impedance; T Pad provides constant input and output impedances.

IRC L and T Pads provide unusual convenience features small size: Diameter—1¼"; depth behind panel—1$^{9}/_{32}$" (L Pad) and 1$^{27}/_{32}$" (T Pad). ⅞" bushing mounts Pad on panels up to ¾" thick. Interchangeable bushing available for metal panels. Shaft length is correct for knob supplied—no shaft cutting necessary.

Each IRC Pad is individually boxed and includes knob and dial plate.

L PADS		T PADS	
Stock No.	**Impedance**	**Stock No.**	**Impedance**
LP4	4 ohms	TP4	4 ohms
LP8	8 ohms	TP8	8 ohms
LP15	15 ohms	TP15	15 ohms
LP500	500 ohms	TP500	500 ohms

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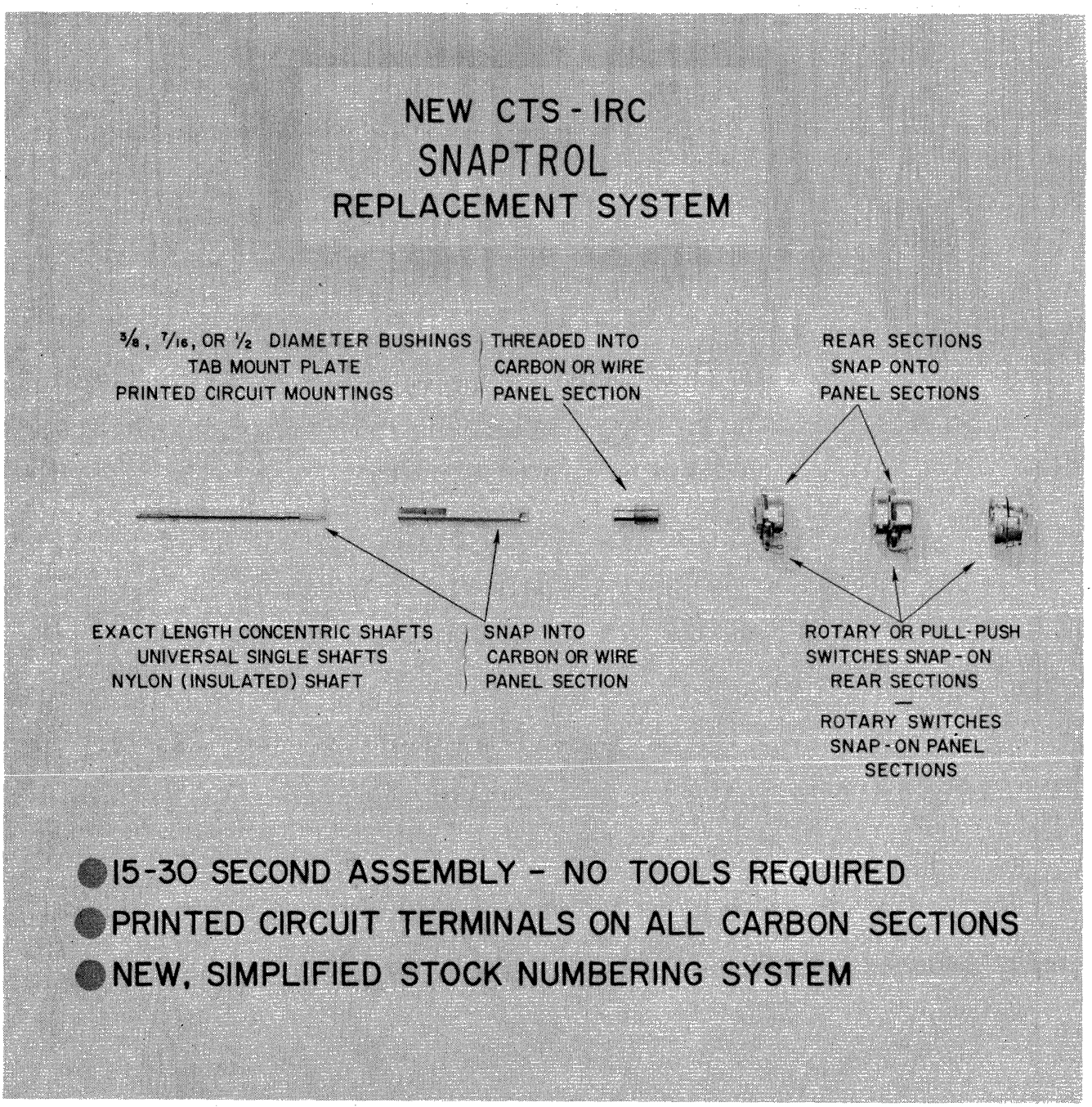
SNAPTROL
CONCENTRIC DUAL REPLACEMENT CONTROL



SNAPTROL — provides individual panel and rear section which snap together quickly and easily and are held permanently by "louver-locks". Special new nylon rotors accept snap-in shafts with a new level of shaft security. Snap-on switches provide 15-30 second assembly. Unique, inventory reducing features provide for greater versatility and coverage than any similar system.

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TELEVISION AND AUTO SET CONTROL ACCESSORIES

IRC offers parts for Volume Controls in a variety of standard assortments to cover a wide range of controls.

#21 Assortment Coverage of 226 QJ Exact Duplicate Controls and 243 different single carbon controls—in 2 Master Stockers.

#21S Assortment A Conversion Unit – changes #21 Parts Stock to #22 (below.) Covers 741 additional manufacturers' part numbers, 194 additional Exact Duplicate Controls, 13 additional values of Q Controls and 195 more variations of single carbon control values; plus 11 Wire-Wound Control values in 39 different items. In 2 Master Stockers.

#22 Assortment Basic Stock Parts for assembling any of 325 Type QJ Exact Duplicate Controls, 445 standard single carbon controls, and 30 standard Wire-Wound Controls. 4 Master Stockers hold parts for complete coverage of 809 different controls.

#22S Assortment Pull-Push Parts Stock. Converts #22 to include pull-push control parts. Includes 17 inner shafts, 10 base elements, 4 K-16 Concentrikits, 2 K-17 Concentrikits, 2 K-18 Concentrikits and 1 TM-4 Tab-Mount Control Kit.

#2A Assortment Contains the 19 best selling Q control elements and in addition gives coverage for 94% of the single carbon push-pull controls.

For those who prefer factory-assembled special controls, IRC provides an exceptionally broad line of over 1250 Exact Duplicate Controls.

The IRC Exact Duplicate Line now includes over 240 concentric dual controls for auto radios. Modern in design, these new controls bring many unique and desirable features to provide convenience, economy and long life. The new IRC Printed-Silver Tone Switch eliminates contact fatigue—assures positive, no bump contact. Simple detent assures positive positioning independent of switch action. Control position feature of 7/16" and 1/2" bushings permits exact duplication of original. Short control depth fits most crowded locations. Power switches amply rated for both TV and Auto Radios. Consult Howard A. Sams Replacement Manual (RGC-2 or later) or S020F Numerical Listing for needed controls.

IRC CONCENTRIKIT ASSEMBLES EXACT DUPLICATE CONTROLS
features quick assembly—no modification of parts.

17 Basic CONCENTRIKITS

IRC Concentrikits are the common parts to various types of Exact Duplicate Controls. When assembled with parts shown in Howard A. Sams Replacement Manual (RGC-2 or later), they will produce any IRC Exact Duplicate TV or Auto Radio Controls. No cutting or filing of shafts or bushings—one minute assembly.

Concentrikit	Control Depth	Panel Section	Rear Section	Bushing	Use
K-2	*	C	C	3/8" x 3/8"	TV & Auto
K-3	*	W	C	3/8" x 3/8"	TV
K-4	*	C	C	3/8" x 3/4"	TV (Motorola)
K-5	*	C	C	3/8" x 1/4"	TV (Hallicrafters)
K-6	**	C	C	3/8" x 3/8"	TV & Auto
K-7	**	C	C	3/8" x 3/4"	TV
K-8	**	C	C	none	Auto
K-9	**	TS	C	none	Auto
K-10	**	W	W	3/8" x 3/8"	TV
K-11	**	W	C	3/8" x 1/4"	TV
K-12	**	C	W	3/8" x 3/8"	TV
K-13	**	W	W	3/8" x 1/4"	TV
K-14	**	W	W	3/8" x 3/4"	TV
K-15	**	C	C	3/8" x 1/4"	TV
K-16	**	C	C	3/8" x 3/8"	Pull-Push
K-17	**	C	C	3/8" x 3/4"	Pull-Push
K-18	**	C	C	3/8" x 1/4"	Pull-Push

*—Standard **—Short C—Carbon W—Wire TS—Tone Switch

IRC Printed-Silver Tone Switch Elements

Sensational new development in concentric tone switch permits assembly of special Exact Duplicate Auto Radio Controls in field. Assemblies like standard IRC Base Elements—no loose parts. Packed with detent-type panel cover.

Stock No.	Description
BS1	4 Position Tone Switch Element for Ford
BS2	4 Position Tone Switch Element for Delco
BS3	3 Position Tone Switch Element for Philco
BS4	4 Position Tone Switch Element for Delco
BS5	4 Position Tone Switch Element for Lincoln and Mercury

IRC EXACT DUPLICATE BUSHINGS
featuring Adjustable Positioning

A wide assortment of Exact Duplicate Bushings provide easy, quick assembly of Auto Radio Controls without cutting, filing or modication. New adjustable ground plate permits positioning of flats or notched mounting face to duplicate original control positioning. Individually packaged.

IRC EXACT DUPLICATE BUSHINGS

Stock No.	Dimensions	Type
S6	7/16" x 15/16"	Double-flat
S7	7/16" x 1 1/32"	Double-flat
S8	7/16" x 1 5/8"	Double-flat
S9	7/16" x 1 7/8"	Double-flat
S10	1/2" x 0.2"	Single-flat
S11	1/2" x 9/16"	Single-flat
S12	1/2" x 15/16"	Single-flat
S13	1/2" x 1"	Single-flat
S14	1/2" x 1 1/4"	Single-flat
S15	1/2" x 1 1/2"	Single-flat
S16	1/2" x 1 5/8"	Single-flat
S17	1/2" x 1 7/8"	Single-flat
S18	1/2" x 2"	Single-flat
S19	1/2" x 2 1/8"	Single-flat
S20	1/2" x 2 1/4"	Single-flat
S21	1/2" x 1 1/8"	Notched
S22	1/2" x 1 3/16"	Notched
S23	1/2" x 1 9/32"	Notched
S24	1/2" x 1 3/8"	Notched
S25	1/2" x 1 7/16"	Notched
S26	1/2" x 1 17/32"	Notched
S27	1/2" x 1 21/32"	Notched
S28	1/2" x 1 3/4"	Notched
S29	1/2" x 1 13/16"	Notched
S30	1/2" x 1 7/8"	Notched
S31	1/2" x 2"	Notched
S32	1/2" x 2 1/8"	Notched
S33	3/8" x 1/4"	—
S34	3/8" x 3/8"	—
S35	1/2" x 13/32"	Single-flat
S36	1/2" x 5/8"	Single-flat
S37	1/2" x 1/2"	Single-flat
S38	1/2" x 27/32"	Single-flat
S39	1/2" x 3/4"	Single-flat
S40	1/2" x 11/16"	Single-flat
S41	1/2" x 13/16"	Notched
S42	1/2" x 19/16"	Single-flat
S43	1/2" x 1 1/8"	Single-flat
S44	3/8" x .590"	—
S45	3/8" x 13/16"	—
S46	7/16" x 5/8"	Double-flat
S47	7/16" x 13/32"	Double-flat
S48	1/2" x 5/16"	Single-flat
S49	1/2" x 1"	Notched
S50	1/2" x 1 11/16"	Single-flat
S51	7/16"x1 1/4"	Double-flat
S52	3/8"x7/8"	—
N1	Mounting Nut for 7/16" Bushings—Pkg. of 10	
N2	Mounting Nut for 1/2" Bushings—Pkg. of 10	
N3	Mounting Nut for 1/2" (9/16" across flats) Bushings—Pkg. of 10	

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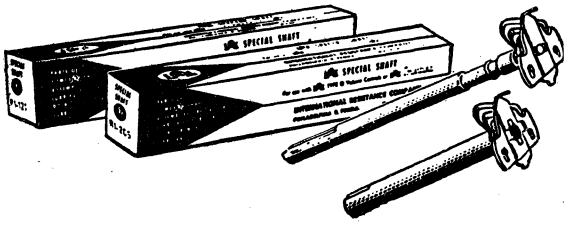
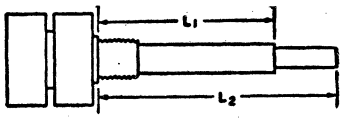
CONCENTRIKIT EXACT DUPLICATE SHAFTS

DEPENDABLE MECHANICAL FIT FOR YOUR TV REPLACEMENTS



Save time—be assured of accurate fit! IRC now provides a complete line of Exact Duplicate Shafts for CONCENTRIKIT—factory-tailored for dependable mechanical fit. No filing, slotting, soldering or cutting required! Many shafts are flatted as well as slotted to provide wider replacement coverage. Each shaft is a complete assembly, including contactor. Factory-lubricated, packaged in cellophase and in individual carton.



Exact Duplicate Shaft Stock Numbers indicate shaft length measured from mounting face when installed in control (L_1 is Outer Shaft length; L_2 is Inner Shaft length). First digit is number of whole inches in shaft length; remaining two digits indicate number of additional 32nds of an inch. Thus, P1-210 has shaft lengths of 2-10/32″ or 2-5/16″. Exception is Inner Shafts when used with K-3 CONCENTRIKIT where 3/32″ should be subtracted to determine shaft length.

EXACT DUPLICATE OUTER SHAFTS

Shaft Type	Slot Width-Depth	Flat Length	Round Knurled Band	Type Base Element	Concentrikit
P1	1/8″ x 3/8″	17/32″	—	Q	K-2, -4, -5
P2	1/16″ x 1/2″	17/32″	—	Q	K-2, -4, -5
P3	1/8″ x 3/8″	17/32″	—	W	K-3, -10, -11, -13, -14
P4	1/8″ x 3/8″	3/4″	—	W	K-3, -10, -11, -13, -14
P5	1/16″ x 3/8″	17/32″	—	W	K-3, -10, -11, -13, -14
P6	1/8″ x 3/8″	11/16″	—	Q	K-2, -4, -5
P7	.120″ x 3/8″	17/32″	—	Q	K-2, -4, -5
P8	—	—	1/8″ wide	W	K-3, -10, -11, -13, -14
P9	—	—	1/8″ wide	Q	K-2, -4, -5
P10	1/8″ x 7/16″	17/32″	—	Q	K-2, -4, -5
P11	3/64″ x 1/16″	—	—	Q	K-2, -4, -5
P12	1/8″ x 3/16″	—	—	Q	K-2, -4, -5
P13	1/8″ x 1/4″	—	—	Q	K-6, -7, -8, -12, -15
P14	1/8″ x 3/16″	—	—	Q	K-6, -7, -8, -12, -15
P15	1/8″ x 1/4″	—	—	Tone SW.	K-9
P16	.132″ x 3/16″	—	—	Q	K-6, -7, -8, -12, -15
P17	1/8″ x 3/8″	5/8″	—	Q	K-6, -7, -8, -12, -15
P18	3/64″ x 1/16″	—	—	W	K-3, -10, -11, -13, -14
P19	3/64″ x 1/16″	—	—	Q	K-6, -7, -8, -12, -15
P20	—	—	1/8″ wide	Q	K-6, -7, -8, -12, -15
P21	1/8″ x 7/16″	5/8″	—	Q	K-6, -7, -8, -12, -15

EXACT DUPLICATE INNER SHAFTS

Shaft Type	Diam.	Slot Width - Depth	Flat Length	Round Knurled Band	Type Base Element	Concentrikit
R1	.187″	1/16″ x 1/2″	1/2″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R2	.202″	1/16″ x 1/2″	1/2″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R3	.190″	20 Tooth Split Knurl (Zenith)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R4	.180″	Round and Slotted (Motorola)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R5	.187″	Rear Extension Type (RCA)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R6	.202″	Rear Extension Type (Dumont)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R7	.189″	18 Tooth Split Knurl (Zenith)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R8	.187″	1/16″ x 1/2″	1/2″	—	W	K-10, -12, -13, -14 only
R9	.187″	1/16″ x 1/2″	5/8″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R10	.187″	—	—	1/8″ wide	W	K-10, -12, -13, -14 only
R11	.187″	—	—	1/8″ wide	Q	All but K-10, -12, -13, -14, -16, -17, -18
R12	.202″	—	—	7/32″	Q	All but K-10, -12, -13, -14, -16, -17, -18
R13	.180″	Round with 5/8″ deep slot (Motorola)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R14	.202″	1/16″ x 1/2″	5/8″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R15	.202″	3/64″ x 1/16″	—	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R16	.187″	1/16″ x 1/2″	25/32″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R17	.202″	1/16″ x 1/2″	11/16″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R18	.202″	1/16″ x 1/2″	1/2″	—	W	K-10, -12, -13, -14 only
R19	.202″	3/64″ x 1/16″	—	—	W	K-10, -12, -13, -14 only
R20	.187″	3/64″ x 1/16″	—	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R21	.180″	1/16″ x 5/8″	(Motorola)		Q	All but K-10, -12, -13, -14, -16, -17, -18
R22	.202″	Rear Extension Type (G.E., Hotpoint)			Q	K13
R23	.187″	.156″ x ½″ (Pull-Push Type)			Q	K-16, -17, -18
R24	.187″	1/16″ x ½″ (Pull-Push Type)			Q	K-16

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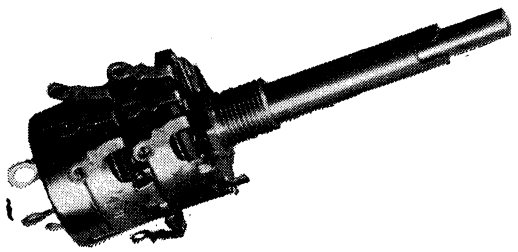
AUTO RADIO CONTROLS



113 CONTROLS FOR 248 DIFFERENT MAKES AND MODELS OF AUTOMOBILES

The finest line of exact replacement auto radio controls . . . 113 controls for 248 different makes and models of automobiles . . . A greater, up-to-date selection for a greater number of applications. All of these factors are yours with the IRC line of Auto Radio Controls.

CTS-IRC Part No.	Car Mfg.	Year	Radio Mfg.	Radio Model No.	Original Part No.
5308	Ford	1948-50	Bendix	M1, M1A, M1A1	L222808
5309	Ford	1950	Motorola	OMF	18B591266
5310	Ford	1951	Bendix	M2	L219586-2
5311	Ford	1951	Motorola	1MF	18B501153
5312	Ford	1952-53	Bendix	M4, M4A	L219586-3
5313	Ford	1952-53	Motorola	2MF, 3MF	18K511635
5314	Ford	1954	Bendix	M4B, M4BA, M4BP	L219586-7
5315	Ford	1954	Motorola	4MF	18B530018
5316	Ford	1955	Bendix	5BF, R5BF	L219656-1
5317	Ford	1955	Motorola	5MF, 5MF8	18B531299
5318	Ford	1956	Bendix	R6BF	L219681-1
5319	Ford	1956	Motorola	66MF, 66MFP, 69MF	18B534483
5320	Ford	1957	Bendix	R75BF	2090035-1
5321	Ford	1957	Motorola	75MF	18K539059
5322	Ford	1957	Motorola	78MF	18B539379
5323	Ford	1957-58	Bendix	R74BF, R84BF	2090035-2
5324	Ford	1957-58	Motorola	74MF, 84MF	18B541819
5325	Ford	1957-58	Motorola	76MF(SR), 86MF	18B542373
5342	Chevrolet	1949-50	Delco	986240, 986388	7258084
5343	Chevrolet	1950	Delco	986389	1218641
5344	Chevrolet	1951-52	Delco	986516	1219708
5345	Chevrolet	1951-52	Delco	986515	7261385
5346	Oldsmobile	1951-52	Motorola	OE2A, OE2M	18B512084
	Buick	1946-53		BK2A, BK3A6	
	Chevrolet	1951-52		CT2A, CT2M	
	GMC & Chevy Truck	1948-53		GMT2A, GMT2M	
	Kaiser	1951-53		KR2A, KR2M	
	Packard	1951-53		PD2A, PD2M	
5347	Chevrolet	1953-54	Delco	986669	7262941
5348	Chevrolet	1953-54	Delco	986669, 986771	7264211
	GMC Truck	1954-58		2233396, 2233398	
	Willys	1956		694866	
5349	Chevrolet	1953-54	Delco	986668	7264210
5350	Universal	1954-56	Motorola	5M, 5M-12	18K33457
	Chevrolet	1953-56		6M	
	Pontiac	1955-56		6M-12	
	Olds & Buick	1954-56		6M-12	
	Volkswagen	1953-56		6M	
	Studebaker	1953-56		6M, 6M-12	
5351	Chevrolet	1955	Delco	987087	7265265
5352	Chevrolet	1955-56	Delco	987088, 987366	7265220
5353	Chevrolet	1955-57	Delco	987086, 987364, 3725156	7265302
5354	Chevrolet	1955-58	Delco	987187	7266193
	GMC Truck	1955-56		2233478, 2233480	
5355	Chevrolet	1956	Delco	987368	7266842
5356	Chevrolet	1957	Delco	987577	7269211
5357	Chevrolet	1957	Delco	987575, 987693	7269199
5358	Chevrolet	1957	Delco	987573	7269186
5359	Chevrolet	1957	Motorola	7MX	18B540768
	Pontiac	1957		7MX	
	Buick	1957		7MX	
	Studebaker	1957		7MX	
5360	Chevrolet	1957	Motorola	CTA7X, CTM7X	18K541128
5361	GMC Truck	1947-52	Delco	2233029, 2233297	7256188
	Chevy Truck	1950-52		986067, 986443	
5362	Chevrolet	1957	Delco		7270202
5373	Plymouth	1952	Motorola	Mopar 606	18A501616
5374	Plymouth	1953	Motorola	Mopar 608	18B521635
5375	Plymouth	1953	Philco	P-5206 Mopar 819	33-5557-11
5376	Plymouth	1954-55	Motorola	Mopar 836	18A533014
5377	Plymouth	1955	Motorola	Mopar 613	18K532909
5378	Plymouth	1955	Philco	P-5506 Mopar 832	33-5557-15
	Chrysler	1955	Philco	C-5509 Mopar 835, C-5609	
5379	Plymouth	1956	Motorola	Mopar 841	18K536152
5380	Plymouth	1956	Motorola	Mopar 916	18B536704
5381	Plymouth	1956	Philco	P-5606 Mopar 840	33-5580-4
5382	Plymouth	1957	Motorola	Mopar 849	18B540376
5383	Plymouth	1957	Philco	P-5701 Mopar 848	33-5580-12
				P-5702 Mopar 848	
5384	Plymouth	1958	Motorola	Mopar 854	18B560415
5385	Plymouth	1958	Philco	P-5801 Mopar 848	33-5580-21
5386	Plymouth	1955	Philco	P-5506	33-5557-14
5398	Mercury	1955-56	Bendix	R6BM	L219660-2
	Lincoln	1955-56		R6BM	
	Continental	1956		6BC	
5399	Mercury	1957	Philco	M-5841, M-5741	33-5570-2
5400	Mercury	1958	Bendix	R84BM, R85BM-5	N219689-4

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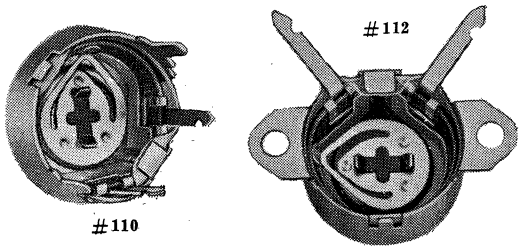
AUTO RADIO CONTROLS

CTS-IRC Part No.	Car Mfg.	Year	Radio Mfg.	Radio Model No.	Original Part No.
5411	Buick	1950-53	Delco	980868, 980899, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119
5412	Buick	1954	Delco	981550, 981551	7264309
5413	Buick	1955	Delco	981651, 981652	7265742
5414	Buick	1956	Delco	981707, 981708	7266996
5415	Buick	1957	Delco	981813, 981814	7268944
5423	Cadillac	1950-52	Delco	7258865, 7260405, 7259825, 7260905, 7260705	7259240
5424	Cadillac	1953	Delco	7262645, 7262695, 7263525, 7263545, 7263835	7263321
5425	Cadillac	1954-55	Delco	7264165, 7264185, 7264195, 7265825, 7265845, 7265855	7264638
5426	Cadillac	1956	Delco	7266505, 7266535, 7266565	7266982
5427	Cadillac	1957	Delco	7268005, 7268035, 7268065	7269443
5435	Chrysler	1953	Philco	C-5109 Mopar 812, C-5209 Mopar 817 C-5110 Mopar 813, C-5211 C-5111 Mopar 815, C-5212 C-5112 Mopar 816	33-5557-10
5436	Chrysler	1953-54	Philco	C-5409 Mopar 824, C-5410 Mopar 830, C-5411	33-5557-13
5437	Chrysler	1955	Philco	C-5595 Mopar 902, C-5596 Mopar 903,	33-5557-16
	Chrysler	1956		C-5696 Mopar 912	
5438	Chrysler	1957	Philco	C-5705 Mopar 847	33-5580-16
5439	Chrysler	1957	Philco	C-5707	33-5580-13
5449	DeSoto	1954	Motorola	Mopar 829	18A530623
5450	DeSoto	1955-56	Motorola	Mopar 901, 911	18B532633
5451	DeSoto	1957	Motorola	Mopar 846, 919, 919 HR	18B539819
	DeSoto	1958		Mopar 923	
5459	Dodge	1953	Motorola	Mopar 609	18B521099
5460	Dodge	1954-55	Motorola	Mopar 833	18K533013
5461	Dodge	1955	Motorola	Mopar 614, 621	18B532519
5462	Dodge	1955-56	Motorola	Mopar 900, 901, 910	18K532955
5463	Dodge	1957	Motorola	Mopar 845, 918	18K539820
5464	Dodge	1958	Motorola	Mopar 502	18B561317
5473	Oldsmobile	1949	Delco	982420	1219582
5474	Oldsmobile	1951	Delco	982700	7260294
5475	Oldsmobile	1953	Delco	983004	7263540
5476	Oldsmobile	1954-55	Delco	983090, 983204	7264242
5477	Oldsmobile	1954-56	Delco	983091, 983205, 983336	7264128
5478	Oldsmobile	1956	Delco	983334	7266887
5479	Oldsmobile	1957	Delco	989002	7268847
5480	Oldsmobile	1957	Delco	989001	7269055
5494	Packard	1956	Delco	480487, 6480487	7267632
5501	Pontiac	1949-50	Delco	984296, 984570	7257708
5502	Pontiac	1951-52	Delco	984592, 984688	7260043
5503	Pontiac	1953-54	Delco	984817	7262482
5504	Pontiac	1955-56	Delco	984961, 988568	7265495
5505	Pontiac	1956	Delco	988623	7268308
5506	Pontiac	1957	Delco	988672	7269149
5507	Pontiac	1957	Delco		7269638
5517	Studebaker	1953	Philco	S-5327-AC-2300, S-5523 S-5323-AC-2301, S-5527 S-5524, S-5528, S-5529	33-5570
5522	Universal	1954	Motorola	397,404	18B531560
	Universal	1955		395,395-12	
	Universal	1956		396,396-12	
5550	Chevrolet	1958	Delco	987724	7270450
5551	Chevrolet	1958	Delco	987727	7270479
5552	Oldsmobile	1958	Delco	989127, 989129	7270679
5553	Buick	1958	Delco	981902	7271329
5554	Pontiac	1958	Delco	988822	7271446
5555	Chevrolet	1959	Delco	987888	7273302
5556	Chevrolet	1959	Delco	987891	7273367
5557	Pontiac	1959	Delco	988976	7273623
5558	Buick	1959	Delco	981968	7273993
5559	Plymouth	1959	Motorola	Mopar 860	
	Chrysler	1959	Motorola	Mopar 861	18B561364
5560	Ford	1959	Motorola	94MF, 94MFM	18B561597
5561	Ford	1959	Motorola	95MF	18B561599
5562	Ford	1959	Bendix	94BF	
	Edsel	1959	Bendix	94BE	2090035-3
5563	American Motors	1959	Motorola	94MA	18B561728
5564	Dodge	1959	Motorola	Mopar 856	18B561732

CTS-IRC BUZZ & BIAS SENSITIVITY CONTROLS



Two new miniature controls for hum balance, centering, hold, locking, etc. Designed for screw driver adjustment. Type 110 available in 5 values; Type 112 available in 21 values.

Type 110

Stock No.	Value
110-60	60 ohms
110-100	100 ohms
110-600	600 ohms
110-1000	1000 ohms
110-3000	3000 ohms

Type 112

Stock No.	Value
112-50	50 ohms
112-100	100 ohms
112-150	150 ohms
112-200	200 ohms
112-300	300 ohms
112-500	500 ohms
112-500-100	500 ohms fixed min. 100 ohms
112-600	600 ohms
112-650	650 ohms

Type 112 (cont'd)

Stock No.	Value
112-800	800 ohms
112-800-50	800 ohms fixed min. 50 ohms
112-1000	1000 ohms
112-1000-100	1000 ohms fixed min. 100 ohms
112-1500	1500 ohms
112-2000	2000 ohms
112-2000-100	2000 ohms fixed min. 100 ohms
112-3000	3000 ohms
112-4000	4000 ohms
112-4000-350	4000 ohms fixed min. 350 ohms
112-4000-1000	4000 ohms fixed min. 1000 ohms
112-5000	5000 ohms

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LECTROHM

INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

Fixed Wire-Wound Types

C5 SERIES — 5 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1"
TERMINALS ..... Pigtail type leads 1½"
MAXIMUM RESISTANCE ..... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	2240	$ .45	600	91	$ .45
2	1580	.45	700	84	.45
3	1290	.45	750	81	.45
4	1110	.45	800	79	.45
5	1000	.45	900	74	.45
10	707	.45	1000	70	.48
15	575	.45	1100	67	.48
20	500	.45	1200	64	.48
25	447	.45	1250	63	.48
30	408	.45	1500	57	.48
35	374	.45	1750	53	.48
40	346	.45	2000	50	.48
50	316	.45	2250	47	.48
75	258	.45	2500	44	.48
100	222	.45	3000	41	.48
125	200	.45	4000	35	.48
150	182	.45	4500	33	.48
200	158	.45	5000	31	.48
225	149	.45	6000	29	.51
250	141	.45	7000	27	.51
300	129	.45	7500	26	.51
350	119	.45	8000	25	.51
400	111	.45	9000	23	.51
500	100	.45	10000	22	.51

C10 SERIES — 10 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1¾"
TERMINALS ..... Pigtail type leads 1½"
MAXIMUM RESISTANCE ..... 50,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .48	1500	79	$ .54
2	2230	.48	1750	74	.54
3	1825	.48	2000	69	.54
5	1415	.48	2250	64	.54
7.5	1155	.48	2500	61	.54
10	1000	.48	3000	58	.54
15	815	.48	3500	53	.54
20	707	.48	4000	50	.54
25	630	.48	4500	47	.54
50	447	.48	5000	44	.54
75	365	.48	6000	41	.60
100	315	.48	7000	38	.60
150	258	.48	7500	36	.60
200	223	.48	8000	35	.60
225	212	.48	8500	34	.60
250	200	.48	9000	33	.60
300	182	.48	10000	32	.60
350	169	.48	12000	29	.66
400	158	.48	12500	28	.66
450	150	.48	13500	27	.66
500	141	.48	15000	25	.66
600	129	.48	16000	25	.66
700	119	.48	17500	24	.66
750	115	.48	18000	23	.66
800	111	.48	20000	22	.66
900	105	.48	22500	21	.72
1000	100	.48	25000	20	.72
1100	95	.54	30000	18	.81
1200	91	.54	40000	15	.81
1250	89	.54	45000	15	.81
			50000	14	.81

C20 or E20 SERIES — 20 WATT

DIMENSIONS ..... 7/16 x 5/16 x 2"
TERMINALS ..... Pigtail type leads 1½"
(C20)
Solder lug type terminal; hole diameter .1718"
(E20)
MOUNTING BRACKET ..... B-33; Centers 2¾"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	2000	$ .63	2500	89	$ .66
10	1414	.63	3000	81	.66
15	1153	.63	4000	70	.66
20	1000	.63	5000	63	.66
25	894	.63	6000	57	.72
40	707	.63	7000	53	.72
50	633	.63	7500	51	.72
60	574	.63	8000	50	.72
75	517	.63	10000	45	.72
100	448	.63	12500	40	.78
125	400	.63	15000	36	.78
150	365	.63	20000	32	.78
200	316	.63	25000	28	.90
250	283	.63	30000	26	.90
300	258	.63	35000	24	.90
350	238	.63	40000	22	.90
400	223	.63	45000	21	1.05
500	200	.63	50000	20	1.05
600	182	.63	55000	18	1.05
700	169	.63	60000	16	1.05
750	163	.63	65000	15	1.20
800	158	.63	70000	14	1.20
1000	141	.63	75000	13	1.20
1100	134	.66	80000	12	1.20
1250	126	.66	90000	11	1.38
1500	115	.66	95000	10.5	1.38
2000	100	.66	100000	10	1.38

E25 SERIES — 25 WATT

DIMENSIONS ..... 5/16 x 5/16 x 2"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-33; Centers 2¾"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$ .66	2500	100	$ .75
3	2890	.66	3000	91	.75
5	2240	.66	3500	84	.75
10	1580	.66	4000	79	.75
15	1290	.66	5000	71	.75
25	1000	.66	6000	64	.75
50	707	.66	7500	57	.75
75	575	.66	10000	50	.75
100	500	.66	12000	46	.75
150	400	.66	15000	41	.78
200	353	.66	20000	35	.78
250	316	.66	25000	32	.90
300	288	.66	30000	29	.90
400	250	.66	35000	27	1.02
500	224	.66	40000	25	1.02
750	182	.66	50000	20	1.20
1000	158	.66	60000	16	1.20
1250	141	.69	70000	14	1.38
1500	129	.69	80000	12	1.38
2000	112	.69	100000	10	1.38

E50 SERIES — 50 WATT

DIMENSIONS ..... 5/16 x 5/16 x 4"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 250,000 ohms
MOUNTING BRACKET ..... B-33; Centers 4¾"

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3165	$1.08	8000	79	$1.26
10	2230	1.08	10000	71	1.26
25	1414	1.08	12000	65	1.38
50	1000	1.08	12500	63	1.38
100	707	1.08	15000	57	1.38
200	500	1.08	20000	50	1.38
250	440	1.08	25000	45	1.53
500	300	1.08	30000	41	1.53
750	250	1.08	40000	35	1.53
1000	215	1.08	50000	32	1.71
1500	180	1.14	60000	29	1.71
2000	155	1.14	75000	26	1.92
2500	140	1.14	100000	19	2.10
3000	125	1.14	125000	15	2.22
4000	110	1.14	150000	13	2.31
5000	100	1.14	175000	11	2.40
6000	90	1.26	200000	9	2.49
7000	85	1.26	225000	8	2.79
7500	80	1.26	250000	7	2.79

E75 SERIES — 75 WATT

DIMENSIONS ..... 5/16 x 5/16 x 6"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms
MOUNTING BRACKET ..... B-33; Centers 6¾"

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	8650	$1.32	2500	171	$1.38
2	6120	1.32	3000	160	1.38
3	5010	1.32	4000	135	1.38
4	4340	1.32	5000	121	1.38
5	3870	1.32	6000	111	1.50
10	2740	1.32	7500	100	1.50
25	1730	1.32	8000	96	1.50
50	1220	1.32	10000	86	1.50
100	865	1.32	12000	80	1.62
150	705	1.32	12500	78	1.62
200	610	1.32	15000	70	1.62
250	550	1.32	20000	61	1.62
300	500	1.32	25000	55	1.83
400	430	1.32	30000	50	1.83
500	385	1.32	35000	46	1.83
750	318	1.32	40000	43	1.83
800	305	1.32	45000	41	1.95
1000	270	1.32	50000	39	1.95
1500	225	1.38	75000	31	2.13
2000	192	1.38	100000	27	2.37

E100 SERIES — 100 WATT

DIMENSIONS ..... ¾ x ½ x 6½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-34; Centers 7⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	10000	$1.59	2000	222	$1.68
2	7070	1.59	2500	200	1.68
3	5770	1.59	3000	181	1.68
4	5000	1.59	5000	141	1.68
5	4470	1.59	7500	114	1.80
10	3160	1.59	10000	100	1.80
25	2000	1.59	15000	81	1.98
50	1414	1.59	20000	70	1.98
75	1153	1.59	25000	63	2.10
100	1000	1.59	30000	58	2.10
150	816	1.59	40000	50	2.10
250	632	1.59	50000	45	2.22
500	447	1.59	60000	41	2.22
750	365	1.59	75000	36	2.37
1000	316	1.59	100000	32	2.52
1500	257	1.68			

E160 SERIES — 160 WATT

DIMENSIONS ..... 1⅛ x ¾ x 8½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-35; Centers 9⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	12650	$2.75	3500	215	$2.01
2	8940	2.75	4000	200	2.01
3	7300	2.75	4500	185	2.01
4	6320	2.75	5000	180	2.01
5	5660	2.75	7500	145	2.16
10	4000	1.98	10000	125	2.16
25	2530	1.98	15000	105	2.34
50	1788	1.98	20000	90	2.34
75	1460	1.98	25000	80	2.40
100	1260	1.98	30000	73	2.40
200	900	1.98	35000	68	2.40
500	570	1.98	40000	64	2.40
1000	400	1.98	50000	57	2.49
1500	330	2.01	60000	52	2.49
2000	280	2.01	70000	48	2.64
2500	250	2.01	80000	45	2.82
3000	230	2.01	100000	40	2.82

E200 SERIES — 200 WATT

DIMENSIONS ..... 1⅛ x ¾ x 10½"
TERMINALS ..... Solder lug type
MOUNTING BRACKET ..... B-35; Centers 11⅜"
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	14140	$3.00	3500	240	$2.16
2	10000	3.00	4000	225	2.16
3	8160	3.00	4500	210	2.34
4	7070	3.00	5000	200	2.34
5	6310	3.00			
10	4470	2.13	7500	165	2.34
25	2830	2.13	10000	140	2.34
50	2000	2.13	15000	115	2.49
75	1635	2.13	20000	100	2.49
100	1400	2.13	25000	90	2.58
250	900	2.13	30000	82	2.58
500	630	2.13	35000	76	2.58
1000	450	2.13	40000	71	2.58
1500	365	2.16	50000	63	2.64
2000	315	2.16	60000	58	2.64
2500	280	2.16	75000	52	2.82
3000	260	2.16	100000	45	3.00

ORDER BY SERIES NUMBER AND RESISTANCE REQUIRED.

LECTROHM

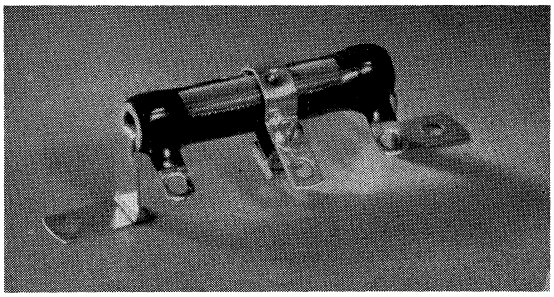
INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

FIXED AND ADJUSTABLE WIRE-WOUND TYPES

Years ahead in manufacturing techniques, LECTROHM Resistors offer absolutely top quality at consistently lower prices. New winding methods and improved enameling processes are the result of continuing research.

Your wire-wound resistor requirements, whether in small or large quantities, are given immediate attention. Large factory stocks of standard types are maintained for your convenience. Special types to fit particular applications are provided quickly and at low cost.



Adjustable Wire-Wound Types

D10 SERIES — 10 WATT

DIMENSIONS ..... 5/16 x 3/16 x 1¾"
MOUNTING BRACKET ..... B-32; Centers 2¼"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .96	750	115	$ .96
2	2230	.96	800	111	.96
3	1825	.96	1000	100	.96
5	1415	.96	1250	89	1.02
7.5	1155	.96	1500	79	1.02
10	1000	.96	2000	69	1.02
15	815	.96	2250	64	1.02
20	707	.96	2500	61	1.02
25	630	.96	3000	58	1.02
50	447	.96	3500	53	1.02
75	365	.96	4000	50	1.02
100	315	.96	4500	47	1.02
150	258	.96	5000	45	1.02
200	223	.96	6000	41	1.08
250	200	.96	7000	38	1.08
300	182	.96	7500	36	1.08
350	169	.96	8000	35	1.08
400	158	.96	8500	34	1.08
500	141	.96	9000	33	1.08
600	129	.96	10000	31	1.08

D25 SERIES — 25 WATT

DIMENSIONS ..... 1/16 x 5/16 x 2"
MOUNTING BRACKET..... B-33; Centers 2¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 25,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$1.23	1250	141	$1.26
2	3535	1.23	1500	129	1.26
3	2890	1.23	2000	112	1.26
5	2240	1.23	2500	100	1.26
7.5	1825	1.23	3000	91	1.26
10	1580	1.23	3500	84	1.26
15	1290	1.23	4000	79	1.26
20	1117	1.23	4500	74	1.26
25	1000	1.23	5000	71	1.26
50	707	1.23	6000	64	1.32
75	575	1.23	7000	60	1.32
100	500	1.23	7500	57	1.32
150	400	1.23	8000	55	1.32
200	353	1.23	8500	54	1.32
250	316	1.23	9000	52	1.32
300	288	1.23	10000	50	1.32
400	250	1.23	12000	46	1.38
500	224	1.23	15000	41	1.38
750	182	1.23	20000	35	1.38
900	177	1.23	25000	32	1.50
1000	158	1.23			

D50 SERIES — 50 WATT

DIMENSIONS ..... 5/16 x 5/16 x 4"
MOUNTING BRACKET ..... B-33; Centers 4¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3160	$1.56	3000	129	$1.62
10	2230	1.56	4000	112	1.62
25	1410	1.56	5000	100	1.62
50	1000	1.56	7500	81	1.74
75	816	1.56	10000	70	1.74
100	707	1.56	12000	64	1.86
150	577	1.56	15000	57	1.86
200	500	1.56	20000	50	1.86
250	447	1.56	25000	44	2.04
300	408	1.56	30000	41	2.04
400	354	1.56	40000	35	2.04
500	316	1.56	50000	32	2.16
750	258	1.56	60000	29	2.16
1000	224	1.56	75000	26	2.43
1500	182	1.62	80000	24	2.43
2000	158	1.62	100000	19	2.58
2500	141	1.62			

D75 SERIES — 75 WATT

DIMENSIONS ..... 5/16 x 5/16 x 6"
MOUNTING BRACKET ..... B-33; Centers 6¾"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3870	$1.80	3500	146	$1.86
10	2740	1.80	5000	121	1.86
15	2236	1.80	7500	100	1.98
25	1730	1.80	10000	86	1.98
50	1220	1.80	15000	70	2.10
100	865	1.80	20000	61	2.34
250	550	1.80	25000	55	2.34
300	500	1.80	30000	50	2.34
400	430	1.80	40000	43	2.34
500	385	1.80	50000	39	2.40
750	318	1.80	60000	35	2.40
1000	270	1.80	75000	31	2.64
1500	225	1.86	80000	30	2.64
2000	192	1.86	100000	27	2.85
2500	171	1.86			

D100 SERIES — 100 WATT

DIMENSIONS ..... ¾ x ½ x 6½"
MOUNTING BRACKET ..... B-34; Centers 7⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	4470	$2.37	2500	200	$2.43
10	3162	2.37	3000	180	2.43
25	2000	2.37	5000	140	2.43
50	1414	2.37	7500	115	2.55
75	1155	2.37	10000	100	2.55
100	1000	2.37	15000	80	2.70
150	815	2.37	20000	70	2.70
250	632	2.37	25000	63	2.88
500	447	2.37	30000	58	2.88
750	365	2.37	40000	50	2.88
1000	315	2.37	50000	45	3.00
1250	280	2.43	60000	41	3.00
1500	250	2.43	75000	36	3.12
2000	220	2.43	100000	32	3.27

D160 SERIES — 160 WATT

DIMENSIONS ..... 1⅛ x ¾ x 8½"
MOUNTING BRACKET ..... B-35; Centers 9⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	5660	$3.51	4500	185	$2.76
10	4000	2.73	5000	180	2.76
25	2530	2.73	7500	145	2.94
50	1788	2.73	10000	125	2.94
75	1460	2.73	15000	105	3.09
100	1260	2.73	20000	90	3.09
200	900	2.73	25000	80	3.18
500	570	2.73	30000	73	3.18
1000	400	2.73	35000	68	3.18
1500	330	2.76	40000	64	3.18
2000	280	2.76	50000	57	3.24
2500	250	2.76	60000	52	3.24
3000	230	2.76	70000	48	3.42
3500	215	2.76	80000	45	3.60
4000	200	2.76	100000	40	3.60

D200 SERIES — 200 WATT

DIMENSIONS ..... 1⅛ x ¾ x 10½"
MOUNTING BRACKET ..... B-35; Centers 11⅜"
TERMINALS ..... Solder lug type
MAXIMUM RESISTANCE ..... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	6310	$3.75	4500	210	$2.94
10	4470	2.88	5000	200	2.94
25	2830	2.88	7500	165	3.12
50	2000	2.88	10000	140	3.12
75	1635	2.88	15000	115	3.24
100	1400	2.88	20000	100	3.24
250	900	2.88	25000	90	3.30
500	630	2.88	30000	82	3.30
1000	450	2.88	35000	76	3.30
1500	365	2.94	40000	71	3.30
2000	315	2.94	50000	63	3.42
2500	280	2.94	60000	58	3.57
3000	260	2.94	75000	52	3.57
3500	240	2.94	100000	45	3.75
4000	225	2.94			

Order by series number and resistance required.

Net

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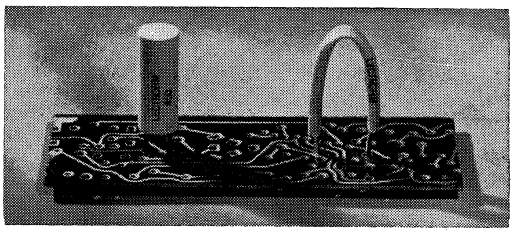
LECTROHM

INCORPORATED • CHICAGO, ILLINOIS

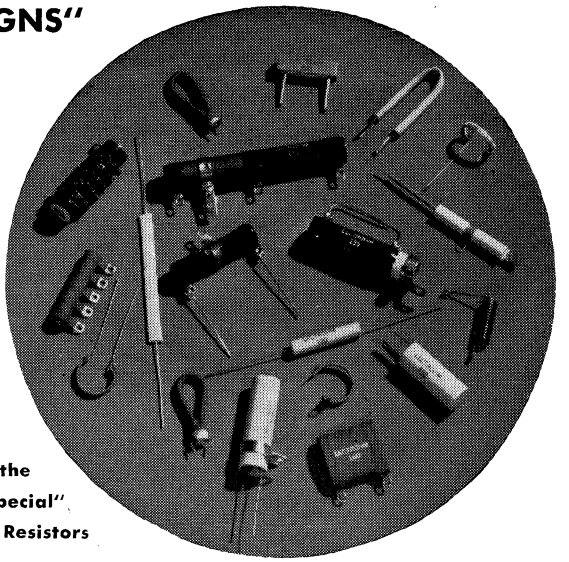
LECTROHM IS CREATING NEW DESIGNS AND MATERIALS IN WIRE WOUND RESISTORS FOR NEW ASSEMBLY METHODS

In addition to supplying the electronics industry with superior vitreous enameled wire-wound power resistors in the familiar sizes and ratings, LECTROHM is producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous enameled types. LECTROHM engineers will fit the resistor size and shape to your design.

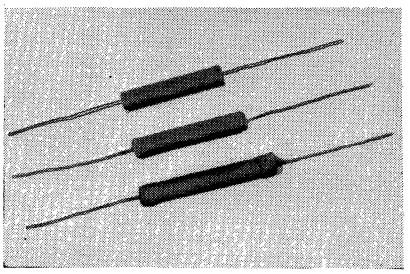
LECTROHM LEADS IN "SPECIAL DESIGNS"



Printed Circuit Upright — Printed Circuit Flexible



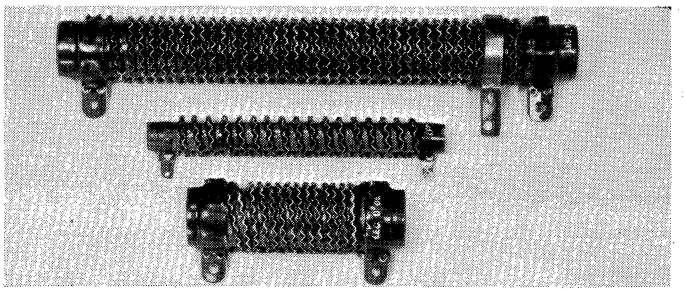
Some of the many "Special" Lectrohm Resistors



LECTROHM AXIAL LEAD WIREWOUNDS

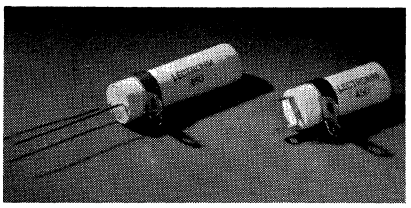
For added convenience in mounting in many types of assembly.

3 to 10 watts. **10 to 50,000 Ohms.**



RIB-ON-EDGE LECTROHM (STANDARD SIZES AND VALUES)

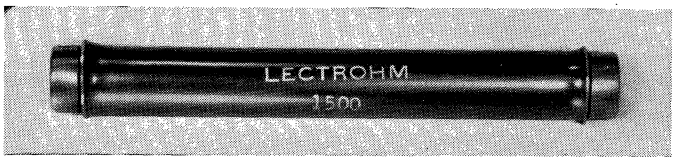
155 to 420 watts. **.06 to 22 Ohms.**



LECTROHM ABOVE-CHASSIS TYPE

More efficient use of space designed to eliminate heat beneath the chassis. Lectrohm engineers will create resistors to fit your available space.

5 to 25 watts. **10 to 15,000 Ohms.**



VITREOUS ENAMELED LECTROHM FERRULE TYPE (STANDARD SIZES AND VALUES)

13 to 190 watts. **To 100,000 Ohms.**

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PRICES

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DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

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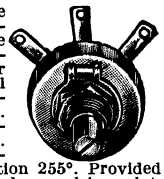
Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

MALLORY WIRE-WOUND CONTROLS
C Series, M Series, K Series

TWO-WATT WIRE-WOUND POTENTIOMETERS



1 1/16" diameter variable resistor that will dissipate 2 watts over the entire element for continuous operation. For use in test and special instruments, bias control and bridge circuits. Linear taper only. Contact arm is grounded. Total rotation 280°; effective electrical rotation 255°. Provided with short shaft, milled screwdriver slot. Will take standard knobs. Furnished with hex. nut. Shipping Weight, 4 ozs.

POTENTIOMETERS

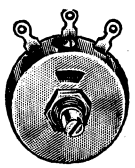
Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6P	6	.58	$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

FOUR-WATT WIRE-WOUND POTENTIOMETERS, RHEOSTATS



Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. Rugged. Rheostats feature "off" position (no connection) type of construction. Insulated contact arm. Pots have three, rheostats have two terminals. Total rotation 294°; effective electrical rotation 275° ±5%. **No. 4 linear taper.** Voltage breakdown 1000 v. DC.
One control (with hex nut) to carton.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M1PK	1	2.00	$1.33
M3PK	3	1.15	1.33
M6PK	6	.82	1.33
M10PK	10	.63	1.33
M15PK	15	.52	1.33
M20PK	20	.45	1.33
M25PK	25	.40	1.33
M30PK	30	.37	1.33
M40PK	40	.32	1.33
M50PK	50	.28	1.33
M60PK	60	.26	1.33
M75PK	75	.23	1.33
M100PK	100	.20	1.33
M200PK	200	.14	1.33
M300PK	300	.116	1.33
M400PK	400	.10	1.33
M500PK	500	.09	1.33
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47

FOUR-WATT POTENTIOMETERS (CONTINUED)

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M50MPK	50K	.009	$1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

MT10PK	10	.63	$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M6RK	6	.82	93c
M10RK	10	.63	93c
M15RK	15	.52	93c
M20RK	20	.45	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

*"Open" or "Off" position counter-clockwise

SEVEN-WATT WIRE-WOUND POTENTIOMETERS

Suitable for precision instruments such as resistance bridges and where a control of medium currents or voltages is required. Supplied with grounded contact arm. 307° total rotation; 295° effective electrical rotation. Will dissipate 7 watts. Provided with short shaft, milled screw-driver slot for easy adjustment. Will take standard knobs. Hex. nut furnished, No. 4 taper.

Mallory No.	Ohms Resistance	Carrying Capacity in Amps	Net Each
E5MP	5K	.042	$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

TYPE "K" VITREOUS WIRE-WOUND POWER RHEOSTATS

Outstanding features are: Hinged-spring contact arm; low contact resistance; low wear; easy cleaning and brush replacement and anti-backlash characteristic. Each rheostat is of porcelain vitreous enamel construction, designed to give adequate ventilation. Precise uniform winding is permanently sealed into position around a high quality ceramic core. All current-carrying parts electrically insulated by dimensionally stable ceramic parts. Values shown below are for continuous operation in free air. **75, 225 and 500-watt "K" Rheostats available in many values.** A knob and dial plate are supplied with each Type K rheostat.

TYPE 25K 25 WATTS
1 1/16" O.D. 295° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	$4.62
25K2P	2	3.540	28	4.08
25K3P	3	2.880	53	4.08
25K6P	6	2.040	51	4.08
25K8P	8	1.770	56	4.08
25K10P	10	1.580	54	4.08
25K15P	15	1.290	88	4.08
25K25P	25	1.000	117	4.08
25K35P	35	.845	129	4.08
25K50P	50	.707	149	4.08
25K75P	75	.575	174	4.08
25K100P	100	.500	184	4.08
25K125P	125	.447	187	4.08
25K175P	175	.378	178	4.08
25K250P	250	.316	200	4.08
25K350P	350	.267	227	4.08
25K500P	500	.222	256	4.08
25K750P	750	.182	303	4.08
25K1000P	1000	.155	318	4.62
25K1500P	1500	.129	310	4.62
25K2500P	2500	.100	405	4.62
25K3500P	3500	.084	432	4.89
25K5000P	5000	.070	471	4.89

TYPE 50K 50 WATTS
2 11/16" O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
50K.5P	.5	10.00	25	$5.16
50K1P	1	7.07	37	5.16
50K2P	2	5.00	42	5.16
50K4P	4	3.54	66	4.62
50K6P	6	2.89	79	4.62
50K8P	8	2.50	84	4.62
50K12P	12	2.04	100	4.62
50K16P	16	1.76	106	4.62
50K22P	22	1.50	145	4.62
50K35P	35	1.19	145	4.62
50K50P	50	1.00	163	4.62
50K80P	80	.79	210	4.62
50K125P	125	.63	204	4.62
50K150P	150	.58	244	4.62
50K225P	225	.47	298	4.62
50K300P	300	.41	268	4.62
50K500P	500	.32	205	4.62
50K800P	800	.25	363	4.89
50K1000P	1000	.22	354	4.89
50K1600P	1600	.176	449	4.89
50K2500P	2500	.14	455	4.89
50K3500P	3500	.12	500	5.16
50K5000P	5000	.10	550	5.16
50K8000P	8000	.08	690	5.16

TYPE 100K 100 WATTS
3 1/8" O.D. 300° angle of rotation.

100K.5P	.5	14.20	30	$7.71
100K1P	1	10.00	40	7.71
100K2P	2	7.07	42	7.71
100K3P	3	5.77	56	7.71
100K5P	5	4.47	59	7.71
100K7.5P	7.5	3.65	96	7.23
100K10P	10	3.16	101	7.23
100K16P	16	2.50	128	7.23
100K25P	25	2.00	160	7.23
100K50P	50	1.41	200	7.23
100K75P	75	1.15	240	7.23
100K100P	100	1.00	250	7.23
100K200P	200	.71	315	7.23
100K300P	300	.58	302	7.23
100K400P	400	.50	316	7.23
100K500P	500	.45	342	7.23
100K750P	750	.37	406	7.23
100K1000P	1000	.32	435	7.71
100K1500P	1500	.26	520	7.71
100K2000P	2000	.22	544	7.71
100K2500P	2500	.20	535	7.71
100K5000P	5000	.14	692	8.22
100K7500P	7500	.12	820	8.76
100K10000P	10000	.10	840	9.24

TYPE 150K 150 WATTS
4 1/2" O.D. 305° angle of rotation.

150K.5P	.5	17.30	31	$9.81
150K1P	1	12.30	38	9.81
150K2P	2	8.66	51	9.81
150K3P	3	7.07	73	9.81
150K5P	5	5.48	77	9.81
150K7.5P	7.5	4.47	70	9.81
150K10P	10	3.87	145	9.24
150K15P	15	3.16	138	9.24
150K25P	25	2.45	142	9.24
150K35P	35	2.07	198	9.24
150K50P	50	1.73	182	9.24
150K75P	75	1.41	218	9.24
150K100P	100	1.22	229	9.24
150K150P	150	1.00	276	9.24
150K200P	200	.87	289	9.24
150K250P	250	.77	360	9.24
150K350P	350	.66	350	9.24
150K500P	500	.55	400	9.24
150K750P	750	.45	460	9.81
150K1250P	1250	.35	490	9.81
150K1800P	1800	.290	555	10.30
150K2250P	2250	.26	547	10.30
150K3000P	3000	.22	729	10.30
150K4500P	4500	.18	689	10.80
150K7500P	7500	.14	930	11.31
150K10000P	10000	.12	980	12.33

TYPE 300K 300 WATTS
6 1/16" O.D. 315° angle of rotation.

300K1P	1	17.30	48	13.89
300K2P	2	12.25	60	13.89
300K3P	3	10.00	64	13.89
300K4P	4	8.66	80	13.89
300K5P	5	7.75	80	13.89
300K7.5P	7.5	6.32	100	13.89
300K10P	10	5.48	139	13.89
300K15P	15	4.47	128	13.89
300K25P	25	3.46	182	13.89
300K50P	50	2.45	228	13.89
300K75P	75	2.00	271	13.89
300K100P	100	1.73	287	13.89
300K150P	150	1.41	338	13.89
300K200P	200	1.22	361	13.89
300K300P	300	1.00	427	13.89
300K400P	400	.87	460	13.89
300K700P	700	.66	555	13.89
300K900P	900	.58	564	13.89
300K1200P	1200	.50	605	13.89
300K1500P	1500	.45	755	13.89
300K1750P	1750	.41	691	13.89
300K2500P	2500	.35	785	13.89

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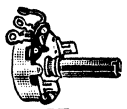
P.R. MALLORY & CO. INC.

MALLORY SPECIAL CONTROLS

P.R. MALLORY & CO. INC.
INDIANAPOLIS, IND.


PTA

FL

PHENOLIC SHAFT CONTROLS

For use as hidden or rear panel controls on monochrome and color TV sets where a bushingless control is needed. Ideal for "hot" chassis where shaft must be insulated. Tab mounting; tabs insert in slots provided in chassis; lock in place with twisting action. Phenolic hex shaft 1" long with screwdriver slot; control 15/16" dia.
Phenolic Shaft Tab Control—Any model. Net Each..... **60c**

Mallory No. PTA-	Resis. Ohms	Taper	Mallory No. PTA-	Resis. Ohms	Taper
52L	500	4	1254L	1.25 meg.	4
751L	750	4	26L	2 meg.	4
152L	1500	4	355L	3.5 meg.	4
252L	2500	4	46A	4 meg.	1
53L	5000	4	56R	5 meg.	2
352L	3500	4	755L	7.5 meg.	4
54L	50K	4	855L	8.5 meg.	4
15L	100K	4	754L	750K	4
35L	300K	4	55L	500K	4
55R	500K	2	56L	5 meg.	4

METAL SHAFT CONTROLS

Same as phenolic shaft types except round tubular brass shaft (2" x ¼" dia.) that can be cut to size. For use as front panel, rear panel or hidden controls. Tab mounting. Three shaft ends supplied; one knurled, one flatted, and one finger knurled.
Metal Shaft Tab Control—Any model. Net Each..... **$1.17**

Mallory No. TA-	Resis. Ohms	Taper	Mallory No. TA-	Resis. Ohms	Taper
52L	500	4	334A	330K	1
751L	750	4	55R	500K	2
13L	1000	4	55A	500K	1
152L	1500	4	55L	500K	4
352L	3500	4	16A	1 meg.	1
53L	5000	4	16L	1 meg.	4
14L	10K	4	155L	1.5 meg.	4
153L	15K	4	26A	2 meg.	1
253L	25K	4	26L	2 meg.	4
54A	50K	1	26T16	2 meg.*	4
54L	50K	4	255L	2.5 meg.	4
15L	100K	4	36L	3 meg.	4
184L	180K	4	56R	5 meg.	2
254L	250K	4	56L	5 meg.	4

*Tap at 1 meg.

TYPE FL SENSITIVITY CONTROLS

Replace sensitivity controls in radios and TV for hum, balance, linearity, AGC, hold, etc. Screwdriver slot for adjustment —no shaft. Rated 2 watts, control is insulated to withstand more than 500 v. AC from terminal to case. Mounting holes in ears take ⅛" bolts or rivets. Single axial terminal can be bent to radial position if required.

FLANGE MOUNT RHEOSTATS

Mallory No. FL-	Resis. Ohms	Net Ea.	Mallory No. FL-	Resis. Ohms	Net Ea.
6	6	42c	600S*	600	42c
15	15	42c	750	750	42c
75	75	42c	1K	1K	42c
100	100	42c	2K	2K	42c
150	150	42c	2KS*	2K	42c
200	200	42c	3K	3K	42c
250	250	42c	4K	4K	42c
500	500	42c	5K	5K	42c
600	600	42c			

*Stops at 100 ohms

FLANGE MOUNT POTENTIOMETERS

40P	40	42c	200P	200	42c
100P	100	42c	250P	250	42c

PRINTED CIRCUIT RHEOSTATS

New tab mount version of above rheostats.

Mallory No. PFL-	Resis. Ohms	Net Ea.	Mallory No. PFL-	Resis. Ohms	Net Ea.
1.5	1.5	60c	3K	3K	60c
15	15	60c	4K	4K	60c
100	100	60c	5K	5K	60c
600	600	60c	60A*	60	60c
1K	1K	60c	100A*	100	60c
1.5K	1.5K	60c			

*Has polyethylene knob.

MLC CARBON CONTROLS

Only ½" diameter, these controls are ideal for most popular transistor radios. Universal ⅛" dia. steel shaft. MLCN types have nylon shaft.
MLC Carbon Controls—Without switch. Net Each..... **$1.35**
With Switch—Net Each..... **$2.25**

Mallory No.	Ohms	Taper	Switch
MLC13L	1000	4	.....
MLC222L-S	2200	4	SPST
MLC252A	2500	1	.....
MLC252A-S	2500	1	SPST
MLC53A	5000	1	.....
MLC53A-S	5000	1	SPST
MLC53L	5000	4	.....
MLC53L-S	5000	4	SPST
MLC14A-S	10K	1	SPST
MLC14L	10K	4	.....
MLC54L	50K	4	.....
MLC15A	100K	1	.....
MLC25L	200K	4	.....
MLC254L	250K	4	.....
MLC55A-S	500K	1	SPST
MLC55L-S	500K	4	SPST
MLCN55L	500K	4	.....
MLC16A-S	1 meg.	1	SPST
MLC16L-S	1 meg.	4	SPST
MLCN16A	1 meg.	1	.....
MLCN16L	1 meg.	4	.....

TYPE PP PUSH-PULL CONTROLS

Carbon element controls with a push-pull type SPST switch permanently attached.

Mallory Number	Resis. Ohms	Tap, Ohms	Taper	Net Each
PP13R	1K	.....	2	$1.35
PP15A	100K	.....	1	1.35
PP16A	1 meg.	.....	1	1.35
PP16L	1 meg.	.....	4	1.35
PP16T15	1 meg.	100K	1	1.35
PP16T25	1 meg.	200K	1	1.77
PP16T55	1 meg.	500K	2	1.77
PP16DT55	1 meg.	250K-500K	4	1.77
PP25L	200K	.....	4	1.35
PP254A	250K	.....	1	1.35
PP254DT154	250K	100K-150K	4	1.77
PP26A	2 meg.	.....	1	1.35
PP26T16	2 meg.	1 meg.	4	1.77
PP26DT16	2 meg.	500K-1 meg.	1	1.77
PP36DT26	3 meg.	1 meg.-2 meg.	4	1.77
PP55T25	500K	200K	4	1.77
PP46T26	4 meg.	2 meg.	4	1.77
PP55A	500K	.....	1	1.35
PP55DT1683	500K	48K-168K	4	1.77
PP55L	500K	.....	4	1.35
PP55T254	500K	250K	1	1.77
PP56L	5 meg.	.....	4	1.35
PP155L	1.5 meg.	.....	4	1.35

THEATER SPEAKER CONTROLS

For use with Motiograph, Simplex, International and other outdoor theater motion picture equipment. Pigtail rotor connections. Corrosion-resistant finish for long, noise-free life. Metal case 1¼" dia. Mechanical rotation 280° (±3°); 255° (±5°), electrical. With mounting nut.

Mallory Number	Description	Net Each
TSA-10	4-ohm L-pad	$1.47
TSA-35	35-ohm potentiometer	1.08
TSA-6	6-ohm potentiometer	1.08

SHAFT EXTENSIONS

Mallory No. DS-36—Extension shaft, ¼" x 3", for U, UT, UDT, TA, R and M controls. Also couples front to rear section for single shaft, dual control. With 1 knurled and slotted and 1 flatted shaft end knob adapters. Net Each..... **33c**
Mallory No. DS-37—5/16" dia. shaft for use with U, UT, UDT, TA, R and M controls. Net Each..... **33c**

TV FOCUS CONTROLS

Replacements for TV focus controls, units are 4-watt wire-wound with special taper. Voltage breakdown, 1000 v. DC; mechanical rotation 294°, ±2°; electrical rotation 275°, ±5°. Have 2" round shaft with screwdriver slot; 1⅝" dia.
Mallory No. TVF140—Max. 1500 ohms resistance. Net Each..... **$1.35**
Mallory No. TVF143—Max. 2500 ohms resistance. Net Each..... **$1.35**

THERE IS A MALLORY CONTROL FOR ALL REPLACEMENT OR O.E.M. REQUIREMENTS.

P2 PRINTED CIRCUIT CARBON CONTROLS

Recommended as original or replacement control in printed circuit applications. 15/16" dia. with special mounting tabs and with a ¼" x 3½" universal shaft.
Without Switch—Net Each..... **99c**
With Switch—Net Each..... **$1.41**

Mallory No.	Ohms Resis.	Tap #1	Tap #2	Taper	Sw.
P2-14A-D	10K	.....	.....	1	DPST
P2-16A	1 meg.	.....	.....	1	.....
P2-16T35	1 meg.	300K	.....	...	.....
P2-16A-D	1 meg.	.....	.....	1	DPST
P2-16A-S	1 meg.	.....	.....	1	SPST
P2-16L-D	1 meg.	.....	.....	4	DPST
P2-26A	2 meg.	.....	.....	1	.....
P2-26A-S	2 meg.	.....	.....	1	SPST
P2-26DT65	2 meg.	300K	600K	1	.....
P2-36L	3 meg.	.....	.....	4	.....
P2-53L-S	5K	.....	.....	4	SPST
P2-55A	500K	.....	.....	1	.....
P2-55A-S	500K	.....	.....	1	SPST
P2-55L-S	500K	.....	.....	4	SPST
P2-55T254	500K	250K	.....	1	.....
P2-153A-D	15K	.....	.....	1	DPST
P2-252A-S	2.5K	.....	.....	1	SPST

T AND L PAD ATTENUATORS

For controlling level of low impedance audio circuits and for volume controls. May be used with audio amplifiers having peak audio rating of 15 watts. Have continuous DC dissipation rating of 4 watts. Bushing, ⅜" dia. x ⅜" long. Shaft, 2", grooved at popular lengths for easy cutting. With bar knob, dial plate with matched rotation, nut and washer.
"T" Pad Attenuators—Net Each..... **$3.09**

Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
T2	2	T200	200
T4	4	T250	250
T6	6	T500	500
T8	8	T600	600
T15	15	T1000	1000
T50	50	T2000	2000
T100	100	T3000	3000

"L" Pad Attenuators—Net Each..... **$2.73**

L2	2	L250	250
L4	4	L500	500
L6	6	L600	600
L8	8	L1000	1000
L15	15	L2000	2000
L50	50	L3000	3000
L100	100	L4000	4000
L200	200		

Tandem LL Pads or LA pads for Hi-Fi.

Mall. No.	Type	Resis. Ohms	Case Size	Net Each
LL8	LL	8	1 5/16" x 2 5/16"	$5.97
LL16	LL	16	1 5/16" x 2 5/16"	5.97
LL50	LL	50	1 5/16" x 2 5/16"	5.97
L8A	LA	8	1 5/16" x 1 1/16"	2.85
L16A	LA	16	1 5/16" x 1 1/16"	2.85

TYPE R WIRE-WOUND POTS

For replacement of TV controls requiring 2 watt unit. Also for V-divider and bias applications. High quality, dust-proof, 1 1/16" overall dia. 900 v. insulation. No. 4 taper. Thumb knurled, screwdriver slotted stub shaft. Bushing, ⅜". One Pal-nut with each control.

Mallory No.	Ohms	Net Each	Mallory No.	Ohms	Net Each
R2L	2	$0.93	R50CT†	50	$1.32
R3L	3	.93	R100L	100	.93
R5L	5	.93	R250L	250	.93
R6L	6	.93	R500L	500	.93
R8L	8	.93	R750L	750	.93
R10L	10	.93	R1000L	1000	.93
R10CT†	10	1.32	R1500L	1500	.93
R15L	15	.93	R2500L	2500	.93
R20L	20	.93	R3000L	3000	.93
R20CT†	20	1.32	R5000L	5000	.93
R25L	25	.93	R7500L	7500	1.08
R30L	30	.93	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.93	R20ML	20000	1.08

†Center-tapped Controls

SWITCHES FOR TYPE R POTS

Mall. No.	Description	Net
US30	Single Pole, Single Throw	42c
US32	Double Pole, Single Throw	54c

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Mallory Page CC-1

P.R. MALLORY & CO Inc

MALLORY CARBON CONTROLS STA-LOC®

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

Designed to serve as quick, easy replacement controls in radio, TV, hi-fi, auto and home electronic equipment. Also serve many industrial uses. Eliminates problems and cost of maintaining large inventories. Permit "on-the-spot" assembly of exact replacements. Two controls plus a switch may be joined when required. Wide selection of shafts are available for full versatility. Units listed permit more than 38,000 combinations of exact replacement controls.

FRONT SECTION CONTROLS

Bushing Size by Prefix: FA, ⅜" dia. x ⅜" l. threaded. **FB,** ⅜" dia. x ¼" l. threaded. **FC,** ⅜" l. threaded with ⅜" dia. x ¼" l. smooth extension bushing. **FD,** Same as FC, except extension bushing is ⅜" l. **All Others Special.**

Front Section Without Taps—Any model. Net Each..... **84c**

Front Section Single or Double Tapped—Any model. Net Each..... **$1.26**

Wire-Wound Front Section Without Taps—Any model. Net Each..... **99c**

Wire-Wound Front Section Single Tapped—Any model. Net Each..... **$1.14**

FRONT SECTIONS WITHOUT TAPS

Mallory Number	Resis., Ohms	Taper	Mallory Number	Resis., Ohms	Taper
FA12L	100	4	FB54A	50K	1
FB12L	100	4	FB54L	50K	4
FC12L	100	4	FC54L	54K	4
FA22L	200	4	FE54A	50K	1
FA251L	250	4	FD54L	50K	4
FB251L	250	4	FF54A	50K	1
FA32L	300	4	FF54L	50K	4
FD32L	300	4	FA753L	75K	4
FA351L	350	4	FA15A	100K	1
FC351L	350	4	FA15L	100K	4
FD351L	350	4	FB15L	100K	4
FA52L	500	4	FC15L	100K	4
FC52L	500	4	FD15L	100K	4
FD52L	500	4	FI15L	100K	4
FA62L	600	4	FB124LS	120K*	4
FA62R	600	2	FA154L	150K	4
FB62L	600	4	FB154L	150K	4
FD62R	600	2	FD154L	150K	4
FA751L	750	4	FA25L	200K	4
FA751R	750	2	FC25L	200K	4
FB751R	750	2	FD25L	200K	4
FC751L	750	4	F125A	200K	1
FC751R	750	2	FD2253L	225K	4
FD751R	750	2	FA254A	250K	1
FA13L	1000	4	FA254L	250K	4
FF13L	1000	4	FD254A	250K	1
FA13R	1000	2	FE254L	250K	4
FB13L	1000	4	FF254A	250K	1
FC13R	1000	2	FG254A	250K	1
FD13L	1000	4	FG254L	250K	4
FD13R	1000	2	FH254A	250K	1
FE13L	1000	4	FI254A	250K	1
FF13R	1000	2	FB35L	300K	4
FA152L	1500	4	FJ35A	300K	1
FA152R	1500	2	FB45L	400K	4
FB152A	1500	1	FA55A	500K	1
FB152R	1500	2	FA55L	500K	4
FC152R	1500	2	FA55R	500K	2
FD152L	1500	4	FB55A	500K	1
FD152R	1500	2	FB55L	500K	4
FF152R	1500	2	FC55A	500K	1
FA33L	2000	4	FC55R	500K	2
FA23R	2000	2	FD55L	500K	4
FB23L	2000	4	FD55R	500K	2
FB23R	2000	2	FE55A	500K	1
FD23R	2000	2	FG55A	500K	1
FF23L	2000	4	FF55A	500K	1
FA252L	2500	4	FF55L	500K	4
FA252R	2500	2	FH55A	500K	1
FB252L	2500	4	FK55A	500K	1
FB252R	2500	2	FL55A	500K	1
FD252R	2500	2	FM55L	500K	4
FF252R	2500	2	FN55A	500K	1
FA33L	3000	4	FO55A	500K	1
FA33R	3000	2	FQ55A	500K	1
FB33R	3000	2	FQ55R	500K	2
FC33L	3000	4	FR55A	500K	1
FD33R	3000	2	FS55A	500K	1
FF33R	3000	2	FB65L	600K	4
FA53L	5000	4	FA754L	750K	4
FA53R	5000	2	FA16A	1 meg	1
FC53R	5000	2	FA16L	1 meg	4
FD53L	5000	4	FA16R	1 meg	2
FD53R	5000	2	FB16A	1 meg	1
FF53A	5000	1	FB16L	1 meg	4
FF53L	5000	4	FC16A	1 meg	1
FA63L	6000	4	FC16L	1 meg	4
FA14A	10K	1	FD16L	1 meg	4
FA14L	10K	4	FF16A	1 meg	1
FA14R	10K	2	FF16L	1 meg	4
FB14L	10K	4	FF16R	1 meg	2
FC14R	10K	2	FG16L	1 meg	4
FD14R	10K	2	FM16L	1 meg	4
FA153L	15K	4	FN16L	1 meg	4
FB153L	15K	4	FO16L	1 meg	4
FA24R	20K	2	FR16L	1 meg	4
FA24L	20K	4	FA1254L	1.25 meg	4
FA253L	25K	4	FA155L	1.5 meg	4
FA253R	25K	2	FA155R	1.5 meg	2
FC253L	25K	4	FB155L	1.5 meg	4
FD253L	25K	4	FC155L	1.5 meg	4
FA34A	30K	1	FD155L	1.5 meg	4
FA34L	30K	4	FF155L	1.5 meg	4
FA353L	35K	4	FH155A	1.5 meg	1
FA54L	50K	4	FH155L	1.5 meg	4

FRONT, WITHOUT TAPS (CONT'D)

Mallory Number	Resis., Ohms	Taper	Mallory Number	Resis., Ohms	Taper
FA26A	2 meg	1	FA255L	2.5 meg	4
FA26L	2 meg	4	FB255L	2.5 meg	4
FA26R	2 meg	2	FF255A	2.5 meg	1
FB26A	2 meg	1	FG255A	2.5 meg	1
FB26L	2 meg	4	FH255A	2.5 meg	1
FC26L	2 meg	4	FA36A	3 meg	1
FC26R	2 meg	2	FA36L	3 meg	4
FD26L	2 meg	4	FA36R	3 meg	2
FE26A	2 meg	1	FB36L	3 meg	4
FF26A	2 meg	1	FB36R	3 meg	2
FE26L	2 meg	4	FC36A	3 meg	1
FF26L	2 meg	4	FA46L	4 meg	1
FG26A	2 meg	1	FA46X	4 meg	†
FH26A	2 meg	1	FE46X	4 meg	†
FI26A	2 meg	1	FB46L	4 meg	4
FJ26A	2 meg	1	FB46R	4 meg	2
FK26A	2 meg	1	FF46X	4 meg	†
FL26A	2 meg	1	FG46L	4 meg	4
FM26A	2 meg	1	FB455L	4.5 meg	4
FN26A	2 meg	1	FA56A	5 meg	1
FO26A	2 meg	1	FA56L	5 meg	4
FQ26A	2 meg	1	FB56A	5 meg	1
FQ26L	2 meg	4	FC56L	5 meg	4
FR26A	2 meg	1	FD56R	5 meg	2
FR26L	2 meg	4	FF56A	5 meg	1
FS26A	2 meg	1	FG56A	5 meg	1
FT26A	2 meg	1	FH56A	5 meg	1
FU26A	2 meg	1	FI56X	5 meg	†
FV26A	2 meg	1	FJ56X	5 meg	†
FW26A	2 meg	1	FK56L	5 meg	4
FX26A	2 meg	1	FB755L	7.5 meg	4
FY26A	2 meg	1	FB17L	10 meg	4

*50K ohm stop. †Split control elements.

SINGLE TAPPED FRONT SECTIONS

Mallory Number	Resis. Ohms	Tap Ohms	Taper
FA12T51	100	50	4
FB52T75	500	75	1
FD52T22S*	500	200	4
FB52T351	500	350	2
FB52T425	500	425	2
FA751T52	750	500	2
FD751T52	750	500	4
FA13T751	1000	750	4
FB152T22	1500	200	2
FC152T142	1500	1400	2
FD23T152	2000	1500	2
FA252T52	2500	500	2
FF252T142	2500	1400	2
FA252T152	2500	1500	2
FA252T23	2500	2000	2
FD252T23	2500	2000	2
FA33T252	3000	2500	2
FA33T2851	3000	2800	2
FA153T14	15K	10K	4
FA254T1253	250K	125K	4
FA55T54	500K	50K	1
FA55T15	500K	100K	1
FA55T35	500K	300K	4
FB55T35	500K	300K	4
FB16T15	1 meg.	100K	4
FC16T254	1 meg.	250K	1
FA16T35	1 meg.	300K	1
FB16T55	1 meg.	500K	4
FA26T55	2 meg.	500K	2
FR26T55	2 meg.	500K	1
FB26T75	2 meg.	700K	1
FA36T95	3 meg.	900K	4
FA46T55	4 meg.	500K	1
FF46T55	4 meg.	500K	4

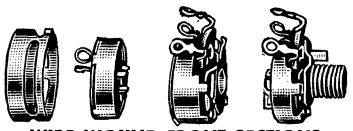
*Stop at 100 ohms.

DOUBLE TAPPED FRONT SECTIONS

Mallory Number	Resis. Ohms	#1 Tap Ohms	#2 Tap Ohms	Taper
FD152DT375	1500	1125	1313	2
FA23DT52	2000	250	500	4
FA23DT1751	2000	1500	1750	2
FA153DT93	15K	4K	9K	4
FC153DT73	15K	4K	7K	4
FB55DT25	500K	100K	200K	4
FA55DT334	500K	125K	330K	4
FC26DT16	2 meg.	500K	1 meg.	4
FA26DT155	2 meg.	750K	1.5 meg.	4

WIRE-WOUND FRONT SECTIONS WITHOUT TAPS

Mallory Number	Resis., Ohms	Taper	Mallory Number	Resis., Ohms	Taper
WW12L	100	4	WW152L	1500	4
WW22L	200	4	WW23L	2000	4
WW251L	250	4	WW252L	2500	4
WW32L	300	4	WW33L	3000	4
WW72L	700	4	WW33R	3000	2
WW751A	750	1	WW53L	5000	4
WW751L	750	4	WW73L	7000	4
WW751R	750	2	WW153L	15K	4
WW13L	1000	4			



WIRE-WOUND FRONT SECTIONS SINGLE TAPPED

Mallory Number	Resis., Ohms	Tap Ohms	Taper
WW12T51	100	50	4
WW751T251	750	250	4
WW751T52	750	500	4
WW152T52	1500	500	4

4-POSITION TONE SWITCH FRONT SECTION

Tone switch front sections are used in many auto radios. Bushing configurations vary according to application. Mallory Form No. 9-162A cross reference available on request. **$1.26**

13 Tone Switches TS1-TS13—Net.

STA-LOC® SHAFTS

Control Shafts—Nos. IU6500 or OU6000, Net Each..**60c** All others, Net....**35c**

Mallory No.	* In.	Mallory No.	* In.	Mallory No.	* In.
IK625	5/8	IS3437	3 7/16	OK2375	2 3/8
IK750	3/4	IS3562	3 9/16	OK2437	2 7/16
IK875	7/8	IS3687	3 11/16	OK2937	2 15/16
IK937	15/16	IS3750	3 3/4	OK3500	3 1/2
IK1000	1	IS3875	3 7/8	OS437	7/16
IK1187	1 3/16	IS3937	3 15/16	OS437A	7/16
IK1250	1 1/4	IS4000	4	OS500	1/2
IK1312	1 5/16	IS4062	4 1/16	OS562	9/16
IK1375	1 3/8	IS4250	4 1/4	OS562A	9/16
IK1437	1 7/16	IS4437	4 7/16	OS625	5/8
IK1500	1 1/2	IS4500	4 1/2	OS687	11/16
IK1625	1 5/8	IS4812	4 13/16	OS750	3/4
IK1750	1 3/4	IS4937	4 15/16	OS750A	3/4
IK1812	1 13/16	IS5625	5 5/8	OS812	13/16
IK1875	1 7/8	IS5750	5 3/4	OS875	7/8
IK2000	2	IU3500	3 1/2	OS875A	7/8
IK2062	2 1/16	IU6500	6 1/2	OS937	15/16
IK2187	2 3/16	OF812	13/16	OS937A	15/16
IK2250	2 1/4	OF875	7/8	OS1000	1
IK2312	2 5/16	OF937	15/16	OS1000A	1
IK2375	2 3/8	OF1000	1	OS1062	1 1/16
IK2437	2 7/16	OF1062	1 1/16	OS1125	1 1/8
IK2500	2 1/2	OF1125	1 1/8	OS1187	1 3/16
IK2625	2 5/8	OF1187	1 3/16	OS1250	1 1/4
IK2687	2 11/16	OF1250	1 1/4	OS1250A	1 1/4
IK2750	2 3/4	OF1312	1 5/16	OS1312	1 5/16
IK3000	3	OF1375	1 3/8	OS1375	1 3/8
IK3125	3 1/8	OF1437	1 7/16	OS1437	1 7/16
IK3250	3 1/4	OF1500	1 1/2	OS1437A	1 7/16
IK3750	3 3/4	OF1562	1 9/16	OS1500	1 1/2
IK4062	4 1/16	OF1625	1 5/8	OS1500A	1 1/2
IK5000	5	OF1687	1 11/16	OS1562	1 9/16
IS437	7/16	OF1750	1 3/4	OS1562A	1 9/16
IS875	7/8	OF1812	1 13/16	OS1625	1 5/8
IS937	15/16	OF1875	1 7/8	OS1687	1 11/16
IS1000	1	OF1937	1 15/16	OS1750	1 3/4
IS1062	1 1/16	OF2000	2	OS1812	1 13/16
IS1125	1 1/8	OF2062	2 1/16	OS1812A	1 13/16
ISA1187	1 3/16	OF2125	2 1/8	OS1875	1 7/8
IS1187	1 3/16	OF2187	2 3/16	OS1875A	1 7/8
IS1250	1 1/4	OF2250	2 1/4	OS1937	1 15/16
IS1312	1 5/16	OF2312	2 5/16	OS2000	2
IS1375	1 3/8	OF2375A	2 3/8	OS2062	2 1/16
IS1437	1 7/16	OF2375	2 3/8	OS2125	2 1/8
IS1500	1 1/2	OF2437	2 7/16	OS2187	2 3/16
IS1562	1 9/16	OF2500	2 1/2	OS2250	2 1/4
IS1625	1 5/8	OF2562	2 9/16	OS2250A	2 1/4
IS1687	1 11/16	OF2625	2 5/8	OS2312	2 5/16
IS1750	1 3/4	OF2687	2 11/16	OS2375	2 3/8
IS1812	1 13/16	OF2750	2 3/4	OS2437	2 7/16
IS1875	1 7/8	OF2812	2 13/16	OS2500	2 1/2
IS1937	1 15/16	OF2875	2 7/8	OS2562	2 9/16
IS2000	2	OF2937	2 15/16	OS2625	2 5/8
IS2062	2 1/16	OF3000	3	OS2687	2 11/16
IS2125	2 1/8	OF3062	3 1/16	OS2687A	2 11/16
IS2187	2 3/16	OF3375	3 3/8	OS2750	2 3/4
IS2250	2 1/4	OF3500	3 1/2	OS2812	2 13/16
IS2312	2 5/16	OF5312	5 5/16	OS2812A	2 13/16
IS2375	2 3/8	OK375	3/8	OS2875	2 7/8
IS2437	2 7/16	OK500	1/2	OS2937	2 15/16
IS2500	2 1/2	OK625	5/8	OS3062	3 1/16
IS2562	2 9/16	OK812	13/16	OS3125	3 1/8
IS2625	2 5/8	OK1000	1	OS3250	3 1/4
IS2687	2 11/16	OK1062	1 1/16	OS3312	3 5/16
IS2750	2 3/4	OK1125	1 1/8	OS3375	3 3/8
IS2812	2 13/16	OK1250	1 1/4	OS3437	3 7/16
IS2875	2 7/8	OK1312	1 5/16	OS3562	3 9/16
IS2937	2 15/16	OK1375	1 3/8	OS3625	3 5/8
IS3000	3	OK1500	1 1/2	OS3750	3 3/4
IS3062	3 1/16	OK1625	1 5/8	OS4000	4
IS3125	3 1/8	OK1687	1 11/16	OS4187	4 3/16
IS3187	3 3/16	OK1750	1 3/4	OS5250	5 1/4
IS3250	3 1/4	OK2125	2 1/8	OU3000	3
IS3312	3 5/16	OK2250	2 1/4	OU6000	6
IS3375	3 3/8	OK2312	2 5/16		

*Shaft length, FMS.

SEE NEXT PAGE FOR OTHER STA-LOC® CONTROLS.

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P R MALLORY & CO INC
MALLORY

P.R. MALLORY & CO. INC.
INDIANAPOLIS 6, IND.

CARBON CONTROLS
STA-LOC® • MIDGETROLS®

MALLORY STA-LOC® CONTROLS (CONTINUED)

REAR SECTION CONTROLS

Rear Section Without Taps—Any model. Net Each..... **54c**

Rear Section Single or Double Tapped—Any model. Net Each.... **96c**

REAR SECTIONS WITHOUT TAPS

Mallory No. RU-	Resis. Ohms	Taper	Mallory No. RU-	Resis. Ohms	Taper
12L	100	4	25L	200K	4
22L	200	4	254A	250K	1
52L	500	4	254L	250K	4
651L	650	4	35A	300K	1
751L	750	4	35L	300K	4
13L	1000	4	334A	330K	1
13R	1000	2	354A	350K	1
122R	1200	2	45L	400K	4
152L	1500	4	55A	500K	1
152R	1500	2	55L	500K	4
23L	2000	4	754L	750K	4
23R	2000	2	16A	1 meg.	1
252A	2500	1	16L	1 meg.	4
252L	2500	4	16R	1 meg.	2
252R	2500	2	155A	1.5 meg.	1
33R	3000	2	155L	1.5 meg.	4
352R	3500	2	1754L	1.75 meg.	4
53A	5000	1	26A	2 meg.	1
53L	5000	4	26L	2 meg.	4
63L	6000	4	26R	2 meg.	2
73A	7000	1	225A	2.5 meg.	1
752L	7500	4	255L	2.5 meg.	4
14L	10K	4	36A	3 meg.	1
14R	10K	2	36L	3 meg.	4
153L	15K	4	36R	3 meg.	2
253L	25K	4	46L	4 meg.	4
34L	30K	4	455A	4.5 meg.	1
54A	50K	1	56A	5 meg.	1
54L	50K	4	56L	5 meg.	4
753L	75K	4	56R	5 meg.	2
15A	100K	1	755A	7.5 meg.	1
15L	100K	4	115LS	1.1 meg.*	4
154L	150K	4	155LS	1.5 meg.†	4
25A	200K	1			

*350K ohm stop. †40K ohm stop.

DOUBLE TAPPED REAR SECTIONS

Mallory Number	Resis. Ohms	#1 Tap Ohms	#2 Tap Ohms	Taper
RU54DT353	50K	20K	35K	4
RU15DT54	100K	25K	50K	4
RU55DT25	500K	100K	200K	4
RU55DT334	500K	150K	330K	4
RU55DT354	500K	200K	350K	4
RU16DT64	1 meg.	40K	60K	1
RU16DT754	1 meg.	400K	750K	4
RU155DT55	1.5 meg.	250K	500K	1
RU26DT75	2 meg.	400K	700K	1
RU26DT125	2 meg.	800K	1.2 meg.	4
RU36DT155	3 meg.	350K	1.5 meg.	1

SINGLE TAPPED REAR SECTIONS

Mallory Number	Resis., Ohms	Tap, Ohms	Taper
RU751T42	750	400	4
RU152T181	1500	180	1
RU154T653	150K	65K	1
RU254T34	250K	30K	1
RU254T64	250K	60K	1
RU254T753	250K	75K	1
RU254T15	250K	100K	1
RU254T1253	250K	125K	4
RU254T154	250K	150K	1
RU254T164	250K	160K	4
RU35T54	300K	50K	1
RU35T553	300K	55K	1
RU35T583	300K	58K	1
RU35T74	300K	70K	1
RU35T94	300K	90K	4
RU334T553	330K	55K	1
RU334T653	330K	65K	1
RU334T663	330K	66K	1
RU334T753	330K	75K	1
RU334T15	330K	100K	4
RU354T64	350K	60K	1
RU364T683	360K	68K	1
RU55T44	500K	40K	1
RU55T423	500K	42K	1
RU55T453	500K	45K	1
RU55T54	500K	50K	1
RU55T64	500K	60K	1
RU55T653	500K	65K	1
RU55T15	500K	100K	4
RU55T124	500K	120K	1
RU55T1353	500K	135K	1
RU55T154	500K	150K	1
RU55T184	500K	180K	4
RU55T224	500K	220K	1
RU55T254	500K	250K	4
RU55T274	500K	270K	4
RU55T35	500K	300K	4
RU754T154	750K	150K	4
RU754T184	750K	180K	1
RU754T25	750K	200K	1
RU16T253	1 meg.	25K	1
RU16T453	1 meg.	45K	1
RU16T54	1 meg.	50K	1
RU16T94	1 meg.	90K	1
RU16T15	1 meg.	100K	1
RU16T1253	1 meg.	125K	4
RU16T164	1 meg.	160K	1
RU16T184	1 meg.	180K	1
RU16T25	1 meg.	200K	1
RU16T224	1 meg.	220K	1
RU16T2253	1 meg.	225K	1
RU16T254	1 meg.	250K	1
RU16T274	1 meg.	270K	1
RU16T35	1 meg.	300K	1
RU16T334	1 meg.	330K	1
RU16T354	1 meg.	350K	1
RU16T45	1 meg.	400K	4
RU16T55	1 meg.	500K	4
RU16T65	1 meg.	600K	4

REAR, SINGLE TAPPED (CONT'D)

Mallory Number	Resis., Ohms	Tap, Ohms	Taper
RU16T654	1 meg.	650K	4
RU16T85	1 meg.	800K	4
RU125T254	1.2 meg.	250K	1
RU155T35	1.5 meg.	300K	1
RU155T354	1.5 meg.	350K	1
RU155T55	1.5 meg.	500K	1
RU155T754	1.5 meg.	750K	4
RU26T95	2 meg.	900K	1
RU26T35	2 meg.	300K	1
RU26T354	2 meg.	350K	1
RU26T45	2 meg.	400K	1
RU26T55	2 meg.	500K	1
RU26T65	2 meg.	600K	4
RU26T75	2 meg.	700K	1
RU26T16	2 meg.	1 meg.	4
RU26T125	2 meg.	1.2 meg.	4
RU36T16	3 meg.	1 meg.	4
RU56T16	5 meg.	1 meg.	1
RU56T26	5 meg.	2 meg.	4

PUSH-PULL REAR SECTION SWITCHES

Combination rear section and push-pull switch.

Rear Section Without Taps—Net **$1.35**

Rear Section Single Tapped—Net **$1.65**

RU751R	750	.....	2
RUP154L	150K	.....	4
RUP55A	500K	.....	1
RUP16A	1 meg.	.....	1
RUP16L	1 meg.	.....	4
RUP255L	2.5 meg.	.....	4
RUP55T154	500K	150K	4
RUP16T54	1 meg.	50K	1
RUP16T254	1 meg.	250K	1
RUP16T1253	1 meg.	125K	4
RUP16T35	1 meg.	300K	4
RUP26T16	2 meg.	1 meg.	4
RUP26T1254	2 meg.	1.25 meg.	4
RUP36T155	3 meg.	1.5 meg.	4

STA-LOC® SWITCHES

Mallory No. US41 (SPST) or **US42** (DPST)—Net Each..... **42c**

Mallory No. US43 (SPDT)—Net Ea. **54c**

ACCESSORIES AND TOOLS

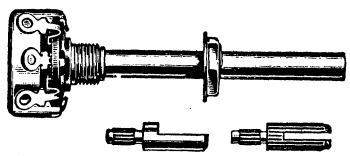
No.	Description	Ea.
SL32	Inner shaft tine slug	6c
SL38	Single rear adapter bushing	33c
SL45	3/16" x 3" tandem dual shaft	39c
CS3500	1/4" x 3 1/2" universal tandem dual shaft	39c
SL3500	1/4" x 3 1/2" universal shaft—use with SL38	39c
SF1000	1/4" x 1" univ. flatted shaft	39c
SK1000	1/4" x 1" univ. knurled shaft	39c
SN1000	Universal nylon shaft	39c
SL100	Control separator tool	51c
SL101	Inner shaft removal tool	51c
SL102	Assembly jig—front	66c
SL103	Assembly jig—rear	66c

MALLORY MIDGETROLS®

METAL SHAFT MIDGETROLS®

A high quality round shaft carbon control 15/16" in dia., designed to fit all applications. Special resistance element has ample safety factor for current-carrying ability. New type contact makes control smooth and quiet. New round shaft is easily cut to any required length. Shaft is machined to exact dimensions to meet replacement requirements. Two steel shaft and knob adapters for knurled or push-on knobs and one hex nut are included. Shipping Weight, 3 oz. Net Each..... **93c**

Mall. No.	Resis. Ohms	Taper	Mall. No.	Resis. Ohms	Taper
U-1	100	4	U-35	50K	4
U-2	500	4	U-36	75K	1
U-52R	500	2	U-39	100K	1
U-751L	750	2	U-40	100K	2
U-3	1K	2	U-41	100K	4
U-4	1K	4	U-415	125K	4
U-5	1500	2	U-42	150K	1
U-5L	1500	4	U-43	200K	4
U-6	2K	4	U-44	250K	1
U-7	2500	2	U-45	250K	2
U-8	3K	4	U-46	250K	4
U-9	3K	2	U-48	500K	1
U-12	5K	1	U-50	500K	4
U-14	5K	4	U-51	750K	1
U-18	10K	1	U-52	1 meg.	2
U-19	10K	2	U-53	1 meg.	1
U-20	10K	4	U-54	1 meg.	4
U-21	15K	1	U-155	1.5 meg.	4
U-22	15K	2	U-55	2 meg.	1
U-24	20K	1	U-56	2 meg.	4
U-26	20K	4	U-255	2.5 meg.	4
U-28	25K	2	U-57	3 meg.	1
U-28A	25K	1	U-59	3 meg.	4
U-29	25K	4	U-63	5 meg.	2
U-30	30K	4	U-65	5 meg.	1
U-33	50K	1	U-67	5 meg.	4
U-34	50K	2	U-82	10 meg.	4



TAPPED MIDGETROLS®

Same as at left but tapped to provide tone compensation where required. Net Each..... **$1.35**

TYPE UT SINGLE TAPPED

No. UT-	Resis. Ohms	Tap At	No. UT-	Resis. Ohms	Tap At
153	15K	10K	440	1 meg.	200K
415	30K	25K	443	1 meg.	450K
420	250K	50K	450	2 meg.	125K
421	250K	150K	448	2 meg.	250K
425	350K	70K	449	2 meg.	600K
427	500K	100K	454	2 meg.	400K
429	500K	50K	451	2 meg.	900K
430	500K	150K	457	3 meg.	900K
431	500K	225K	461	3 1/4 meg.	300K
438	1 meg.	300K			

TYPE UDT DOUBLE TAPPED

Mallory No.	Overall Resistance	Tap Resistance Tap 1	Tap 2
UDT-283	500K	100K	200K
UDT-289	1 meg.	250K	500K
UDT-291	1.5 meg.	225K	500K
UDT-295	2.25 meg.	250K	500K
UDT-296	2.25 meg.	500K	1 meg.
UDT-303	3.3 meg.	300K	1.5 meg.

TV AND SPECIAL MIDGETROLS®

For use as exact replacements. Except for the shaft, these Midgetrols are of the same basic construction as the standard. A fixed, knurled, and slotted bakelite shaft protrudes 1/4" beyond the bushing. Net Each..... **93c**

Mallory No.	Ohms	Taper	Mallory No.	Ohms	Taper
SU-6	1500	4	SU-50	500K	4
SU-8	3K	4	SU-54	1 meg.	4
SU-14	5K	4	SU-56	2 meg.	4
SU-20	10K	4	SU-565	2.5 meg.	4
SU-29	25K	4	SU-59	3 meg.	4
SU-35	50K	4	SU-67	5 meg.	4
SU-41	100K	4	SU-69	7.5 meg.	4
SU-46	250K	4			

MIDGETROL® SWITCHES

Use with U, UT, UDT or TA controls.

Mallory No.	Description	Net Each
US-26	SPST Switch	42c
US-26T	SPST Switch with Dummy Term.	54c
US-27	DPST Switch	42c
US-28	SPDT Switch	54c

EXPLANATION OF TAPERS

Taper No. 1—A modified logarithmic left hand taper. For use in audio or antenna shunt circuits or where only the center and left hand terminals are used.

Taper No. 2—A right hand logarithmic taper. Used in series circuits as in cathode voltage controls or where only the center and right hand terminals are used.

Taper No. 4—A linear taper.

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P R MALLORY & CO Inc
MALLORY

WIRE-WOUND RESISTORS, KITS

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

Type FAL, TAL—Axial lead wire-wound type with rigid resistance for entire operating range. Withstand two times their wattage in free air. Ceramic coated and completely sealed. **Type H (Fixed) and 1A (Adjustable)**—Vitreous enamel coated. Adjustable units come with two mtg. feet and clip. **To Order:** Use type No. from top of column followed by resistance value.

AXIAL LEAD

FIXED TYPE

ADJUSTABLE TYPE

Ohms	Axial Lead Types		Fixed Vitreous Types						Adjustable Vitreous Types				
	5 Watt FAL Net Ea.	10 Watt TAL Net Ea.	5 Watt HHJ Net Ea.	10 Watt 1HJ Net Ea.	20 Watt 2HJ Net Ea.	50 Watt 5HJ Net Ea.	100 Watt 10HJ Net Ea.	200 Watt 20HJ Net Ea.	10 Watt 1AV Net Ea.	25 Watt 2AV Net Ea.	50 Watt 5AV Net Ea.	100 Watt 10AV Net Ea.	200 Watt 20AV Net Ea.
1			$0.44*	$0.50*					$0.97	$1.21			
1.5			.44*										
2			.44*	.50*					.97				
3			.44*	.50*					.97	1.21			
4			.44*	.50*									
5			.44*	.50*	$0.63				.97	1.21	$1.57		
7.5			.44*	.50*					.97				
10	$0.30	$0.36	.44*	.50*	.63	$1.16			.97	1.21	1.57		
12	.30	.36	.44	.50									
15	.30	.36	.44	.50	.63				.97	1.21			
20	.30	.36	.44	.50					.97				
25			.44	.50	.63	1.16	$1.64	$2.17	.97	1.21	1.57		
26	.30	.36											
30	.30	.36	.44	.50									
35	.30	.36	.44	.50									
40	.30	.36	.44	.50									
50	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57	$2.35	$2.89
75	.30	.36	.44	.50	.63			2.17	.97	1.21	1.57		
100	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89
125	.30	.36	.44	.50									
150	.30	.36	.44	.50	.63		1.64		.97	1.21	1.57		
200	.30	.36	.44	.50	.63				.97	1.21	1.57		
225	.30	.36		.50									
250	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57		
300	.30	.36	.44	.50	.63				.97	1.21			
350		.36	.44	.50					.97				
400		.36	.44	.50	.63				.97	1.21	1.57		
450	.30	.36	.44	.50									
500	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89
600	.30	.36	.44	.50					.97				
700	.30	.36	.44	.50									
750	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57		
800	.30	.36	.44	.50					.97				
900	.30	.36	.44	.50									
1,000	.30	.36	.44	.50	.63	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89
1,100			.50	.53									
1,200	.30	.36	.50	.53									
1,250		.36	.50	.53	.64				1.01	1.24			
1,500	.30	.36	.50	.53	.64	1.16	1.67	2.20	1.01	1.24	1.63		2.94
1,750	.30	.36	.50	.53	.64								
2,000	.30	.36	.50	.53	.64	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94
2,250	.30	.36	.50	.53	.64				1.01				
2,500	.30	.36	.50	.53	.64	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94
2,700	.30												
2,750					.64								
3,000	.30	.36	.50	.53	.64			2.20	1.01	1.24	1.63	2.42	
3,300	.30	.36											
3,500	.30	.36	.50	.53	.64				1.01	1.24			
3,800		.36											
4,000	.30	.36	.50	.53	.64				1.01	1.24	1.63	2.42	
4,500		.36	.50	.53	.64				1.01				
4,700	.30												
5,000	.30	.36	.50	.53	.64	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94
5,600		.36											
6,000		.36		.61	.71				1.07	1.34			
6,800		.36											
7,000				.61					1.07				
7,500		.36		.61	.71	1.27	1.78	2.33	1.07	1.34	1.73	2.56	
8,000				.61					1.07				
8,200		.36		.61									
8,500				.61					1.07				
9,000		.36		.61					1.07				
10,000		.36		.61	.71	1.27	1.78	2.33	1.07	1.34	1.73	2.56	3.10
11,000				.68									
12,000				.68						1.37			
12,500				.68	.79	1.40							
13,500				.68									
14,300				.68									
15,000				.68	.79	1.40	1.96			1.37	1.87	2.72	
16,000				.68									
17,500				.68									
18,000				.68									
20,000				.68	.79	1.40	1.96	2.48		1.37	1.87	2.72	3.25
22,500				.72									
25,000				.72	.91	1.54	2.15			1.51	2.03	2.89	3.32
30,000				.72†	.91	1.54	2.15	2.57			2.03	2.89	3.32
35,000				.72†	.91							2.89	
40,000				.72†	.91†	1.54	2.15	2.57			2.03	2.89	
45,000				.72†									
50,000				.72†	.99†	1.70	2.23	2.66			2.18	3.02	3.41
75,000					1.16†	1.93	2.36	2.81				3.14	3.58
100,000					1.16†	2.11	2.51	2.99					

*Tol., ±10%; all others ±5%. †Stocked only in low temperature enamel coating; operating voltage normally encountered rarely exceed values listed.

TUBE SIZES FOR ABOVE RESISTORS

Axial Lead Types: FAL—5/16" x 1". **TAL**—5/16" x 1¾". **Fixed Types: HHJ**—5/16" x 1". **1HJ**—5/16" x 1¾". **2HJ**—7/16" x 2". **5HJ**—9/16" x 4". **10HJ**—¾" x 6½". **20HJ**—1⅛" x 10½". **Adjustable Types: 1AV**—5/16" x 1¾". **2AV**—9/16" x 2". **5AV**—9/16" x 4". **10AV**—¾" x 6½". **20AV**—1⅛" x 10½".

EXTRA MOUNTING FEET

Number	For Resistor Type	Ea.
30V	HHJ, 1HJ, and 1AV	6c
31V	2AV, 5AV and 5HJ	7c
32V	20HJ and 20AV	7c
33V	10HJ and 10AV	7c

EXTRA ADJUSTABLE CLIPS

Number	For Resistor Type	Ea.
1V	10-watt Variohms*	25c
3V	25 and 50-watt Variohms*	25c
4V	10AV 100-watt Variohms*	25c
6V	200-watt, 1⅛" Variohms*	31c

*Registered Trade Mark.

YARD-OHM RESISTANCE KITS

All necessary materials for construction of flexible resistors of wide range. 1 yd. resistance wire, 1 yd. insulated braid, 24 spiral leads.

Dissipation, all types, ½ watt/inch. Yard-Ohm Kit, any value. Net Ea. **51c**

Mail. No.	Ohms/Inch	Amps	Mail. No.	Ohms/Inch	Amps
YO-1	1	.707	YO-50	50	.100
YO-5	5	.315	YO-100	100	.071
YO-10	10	.223	YO-250	250	.044
YO-25	25	.141	YO-500	500	.031

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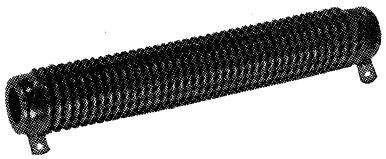
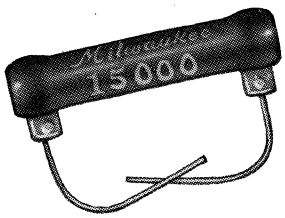
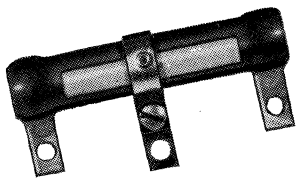
MILWAUKEE RESISTOR COMPANY

MILWAUKEE 4, WISCONSIN







300 WATT RIBWOUND

vitreous enameled

FIXED AND ADJUSTABLE

Core: 1⅛" x 8½"—Mounting Centers 9⅜"

Stock Values

Ohms	Volts	Amps	List Price	
			Fixed	Adj.
.10	5.47	54.7	6.48	7.88
.15	6.71	44.7	6.48	7.88
.20	7.78	38.7	6.48	7.88
.25	8.66	34.6	5.42	6.82
.375	10.6	28.3	5.42	6.82
.50	12.2	24.5	5.42	6.82
.6	13.4	22.3	5.42	6.82
.75	15.0	20.0	5.42	6.82
1	17.3	17.3	5.42	6.82
1.25	19.2	15.5	5.42	6.82
1.5	21.2	14.1	5.42	6.82
1.75	22.9	13.1	5.42	6.82
2.0	24.5	12.2	5.42	6.82
2.5	27.4	10.9	5.42	6.82
3.0	30.0	10.0	5.42	6.82
3.5	32.4	9.3	5.42	6.82
4.0	34.6	8.6	5.42	6.82
5.0	38.7	7.7	5.42	6.82
6.0	42.4	7.1	5.42	6.82
6.75	45.0	6.7	5.42	6.82
8.0	49.0	6.1	5.42	6.82
9	52.0	5.8	5.42	6.82
10	54.8	5.5	5.42	6.82
12	60.0	5.0	5.42	6.82
15	67.0	4.5	5.42	6.82
17	71.4	4.2	5.42	6.82
20	77.4	3.8	5.42	6.82
25	86.5	3.47	5.42	6.82
33	99.5	3.03	5.42	6.82

These Milwaukee Ribwound Resistors are edgewound with ribbon wire on high grade steatite cores. They are coated with top quality vitreous enamel insuring a positive locking of the resistance ribbon wire. They are for applications of low voltage at high current requirements. They can be furnished with steel L type brackets and thrubolt mounting or with spring clips at extra charge. **Ribwound resistors are also available in other wattages.**

FIXED RESISTORS

vitreous enameled

Wound on steatite form inductively or non-inductively. Silver soldered between resistance wire and lug. General use for voltage dropping, current limiting, etc. 5-10-20-25-50-75-100-160-200 watts.

5 WATT—FIXED Core: 5/16" x 1" — Stocked Values

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.23	100	.220	1,500	.057
2	1.58	125	.220	1,750	.053
3	1.29	150	.180	2,000	.050
4	1.12	200	.160	2,250	.047
5	1.00	225	.150	2,500	.045
7.5	.810	250	.140	3,000	.041
10	.710	300	.130	3,500	.037
12.5	.630	350	.120	4,000	.035
15	.580	400	.110	4,500	.033
20	.500	450	.105	5,000	.032
25	.450	500	.100	6,000	.029
30	.410	600	.091	7,000	.027
35	.380	750	.082	7,500	.026
40	.350	800	.079	8,000	.025
50	.320	1000	.070	9,000	.024
75	.260	1250	.063	10,000	.022

	Vitreous Enameled List ea.	B-13 Silicone List ea.
1 thru 1,000 ohms	$.81	$.57
1250 thru 5,000 ohms	.87	.60
6000 thru 10,000 ohms	.92	.63

10 WATT—FIXED Core: 5/16" x 1-3/4" Stocked Values

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	3.16	225	.21	4,500	.047
2	2.24	250	.20	5,000	.045
3	1.83	300	.18	6,000	.041
4	1.58	350	.17	7,000	.038
5	1.41	400	.16	7,500	.036
7.5	1.16	450	.15	8,000	.035
10	1.00	500	.14	9,000	.034
12.5	.91	600	.13	10,000	.032
15	.82	750	.12	12,500	.028
20	.71	800	.11	15,000	.026
25	.63	1000	.100	17,500	.024
30	.58	1250	.089	20,000	.022
35	.53	1500	.081	22,500	.021
40	.50	1750	.075	25,000	.020
50	.45	2000	.071	30,000	.018
75	.37	2250	.066	35,000	.017
100	.32	2500	.063	40,000	.016
125	.28	3000	.057	45,000	.015
150	.26	3500	.053	50,000	.014
200	.22	4000	.050		

	Vitreous Enameled List ea.	B-13 Silicone List ea.
1 thru 1,000 ohms	$ .90	$ .63
1,250 thru 5,000 ohms	.97	.67
6,000 thru 10,000 ohms	1.10	.77
12,500 thru 20,000 ohms	1.25	.87
22,500 thru 40,000 ohms	1.32	.92
45,000 thru 50,000 ohms	1.47	1.02

B-13 SILICONE RESISTORS—These units are coated with a silicone bonded quartz. They are available only in fixed style in 5-10-20 watts.

ADJUSTABLE RESISTORS

vitreous enameled

For use where close or odd resistance values are required. Use of several bands provides for convenient multi-tap use. Invaluable for making fine adjustments in circuits. 10-25-50-75-100-160-200 watts.

Mounting Centers 2¼"

10 WATT—ADJUSTABLE Core: 5/16" x 1-3/4"—Stocked Values

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	3.16	200	.22	2,500	.063
2	2.24	250	.20	3,000	.057
3	1.83	300	.18	3,500	.053
5	1.41	350	.17	4,000	.050
7.5	1.16	400	.16	4,500	.047
10	1.00	500	.14	5,000	.045
15	.82	600	.13	6,000	.041
20	.71	750	.12	7,000	.038
25	.63	800	.11	7,500	.036
50	.45	1000	.10	8,000	.035
75	.37	1250	.089	9,000	.033
100	.32	1500	.081	10,000	.032
150	.26	2000	.071		

	Vitreous Enameled List ea.	B-13 Silicone
1 thru 1,000 ohms	$1.80	Not Available
1,001 thru 5,000 ohms	1.87	Not Available
5,001 thru 10,000 ohms	2.00	Not Available

20 WATT—FIXED Core: 7/16" x 2" — Stocked Values

Ohms	Amps	Ohms	Amps	Ohms	Amps
5	2.00	1,500	.12	15,000	.032
10	1.41	2,000	.10	20,000	.027
25	.89	2,500	.089	25,000	.024
50	.63	3,000	.081	30,000	.022
75	.52	3,500	.075	35,000	.021
100	.45	4,000	.070	40,000	.019
150	.36	4,500	.066	50,000	.017
200	.32	5,000	.063	60,000	.016
250	.28	6,000	.057	65,000	.015
300	.26	7,000	.053	70,000	.014
350	.24	7,500	.051	75,000	.013
400	.22	8,000	.050	80,000	.012
500	.20	9,000	.047	90,000	.011
750	.16	10,000	.043	95,000	.010
1000	.14	12,500	.035	100,000	.010
1250	.12				

	Vitreous Enameled List ea.	B-13 Silicone List ea.
1 thru 1,000 ohms	$1.07	$ .75
1,001 thru 5,000 ohms	1.10	.77
5,001 thru 10,000 ohms	1.32	.92
10,001 thru 20,000 ohms	1.35	.95
20,001 thru 40,000 ohms	1.57	1.10
40,001 thru 60,000 ohms	1.82	1.27
60,001 thru 80,000 ohms	2.17	1.52
80,001 thru 100,000 ohms	2.48	1.74

Trade Discount Applies to List Prices Only

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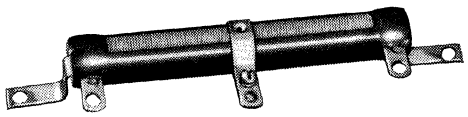
MILWAUKEE RESISTOR COMPANY

MILWAUKEE 4, WISCONSIN



25 WATT VITREOUS ENAMELED

Core: 9/16" x 2"—Mounting Centers 2-3/4"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
1	5.00	$1.13	$2.03
2	3.54	1.13	2.03
3	2.88	1.13	2.03
4	2.56	1.13	2.03
5	2.24	1.13	2.03
10	1.58	1.13	2.03
15	1.29	1.13	2.03
20	1.12	1.13	2.03
25	1.00	1.13	2.03
50	.71	1.13	2.03
75	.58	1.13	2.03
100	.50	1.13	2.03
150	.41	1.13	2.03
200	.35	1.13	2.03
250	.32	1.13	2.03
500	.22	1.13	2.03
750	.18	1.13	2.03
1,000	.16	1.13	2.03
1,250	.14	1.18	2.08
1,500	.13	1.18	2.08
2,000	.12	1.18	2.08
2,500	.10	1.18	2.08
3,000	.091	1.18	2.08
3,500	.084	1.18	2.08
4,000	.079	1.18	2.08
4,500	.074	1.18	2.08
5,000	.070	1.18	2.08
6,000	.064	1.35	2.25
7,000	.060	1.35	2.25
7,500	.058	1.35	2.25
8,000	.055	1.35	2.25
9,000	.052	1.35	2.25
10,000	.050	1.35	2.25
12,500	.040	1.42	2.32
15,000	.036	1.42	2.32
20,000	.031	1.42	2.32
25,000	.028	1.65	2.55
40,000	.022	1.65	
50,000	.020	1.92	
60,000	.018	1.92	
70,000	.016	2.25	
80,000	.014	2.25	
100,000	.010	2.60	

50 WATT VITREOUS ENAMELED

Core: 9/16" x 4"—Mounting Centers 4-3/4"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
1	7.00	2.45	3.35
2	5.00	1.75	3.35
3	4.10	1.75	2.65
4	3.45	1.75	2.65
5	3.16	1.75	2.65
10	2.23	1.75	2.65
25	1.41	1.75	2.65
50	1.00	1.75	2.65
75	.82	1.75	2.65
100	.71	1.75	2.65
150	.58	1.75	2.65
200	.50	1.75	2.65
250	.45	1.75	2.65
300	.41	1.75	2.65
400	.35	.....	2.65
500	.32	1.75	2.65
750	.26	1.75	2.65
1,000	.22	1.75	2.65
1,250	.20	.....	2.70
1,500	.18	1.80	2.70
2,000	.16	1.80	2.70
2,500	.14	1.80	2.70
3,000	.13	1.80	2.70
4,000	.11	1.80	2.70
4,500	.10	.....	2.70
5,000	.10	1.80	2.70
6,000	.091	.....	2.85
7,000	.084	.....	2.85
7,500	.081	1.82	2.85
8,000	.079	1.82	2.85
9,000	.074	.....	2.85
10,000	.071	1.82	2.85
12,500	.063	2.13	3.03
15,000	.057	2.13	3.03
20,000	.050	2.13	3.03
25,000	.045	2.43	3.33
30,000	.036	.....	3.33
35,000	.032	2.43	.....
40,000	.029	2.43	3.33
50,000	.026	2.72	3.62
60,000	.024	.....	3.62
75,000	.021	3.12	4.02
100,000	.018	3.37	4.27

75 WATT VITREOUS ENAMELED

Core: 9/16" x 6"—Mounting Centers 6-3/4"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
5	3.87	2.05	2.95
10	2.74	2.05	2.95
25	1.73	2.05	2.95
50	1.22	2.05	2.95
75	1.00	2.05	2.95
100	.86	2.05	2.95
150	.69	2.05	2.95
200	.61	2.05	2.95
250	.55	2.05	2.95
300	.50	2.05	2.95
400	.43	2.05	2.95
500	.39	2.05	2.95
750	.32	2.05	2.95
1,000	.27	2.05	2.95
1,250	.24	2.13	3.03
1,500	.22	2.13	3.03
2,000	.19	2.13	3.03
2,500	.17	2.13	3.03
3,000	.16	2.13	3.03
3,500	.15	2.13	3.03
4,000	.14	2.13	3.03
5,000	.12	2.13	3.03
6,000	.11	2.28	3.18
7,000	.10	2.28	3.18
7,500	.10	2.28	3.18
8,000	.096	2.28	3.18
9,000	.091	2.28	3.18
10,000	.086	2.28	3.18
12,500	.077	2.47	3.37
15,000	.070	2.47	3.37
20,000	.061	2.47	3.37
25,000	.054	2.77	3.67
30,000	.050	2.77	3.67
35,000	.046	2.77	3.67
40,000	.043	2.77	3.67
50,000	.033	3.08	3.98
60,000	.030	3.08	3.98
75,000	.027	3.50	4.40
100,000	.023	3.73	4.63

100 WATT VITREOUS ENAMELED

Core: ¾" x 6½"—Mounting Centers 7⅜"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
5	4.47	2.45	3.35
10	3.16	2.45	3.35
25	2.00	2.45	3.35
50	1.41	2.45	3.35
75	1.15	2.45	3.35
100	1.00	2.45	3.35
150	.816	2.45	3.35
250	.63	2.45	3.35
500	.45	2.45	3.35
750	.365	2.45	3.35
1,000	.32	2.45	3.35
1,500	.26	2.53	3.43
2,000	.223	2.53	3.43
2,500	.20	2.53	3.43
3,000	.18	2.53	3.43
5,000	.14	2.53	3.43
7,500	.115	2.73	3.63
10,000	.10	2.73	3.63
15,000	.081	2.95	3.85
20,000	.071	2.95	3.85
25,000	.063	3.35	4.25
30,000	.058	3.35	4.25
40,000	.050	3.35	4.25
50,000	.045	3.50	4.40
60,000	.041	3.50	4.40
75,000	.032	3.88	4.78
100,000	.028	4.37	5.27

160 WATT VITREOUS ENAMELED

Core: 1⅛" x 8½"—Mounting Centers 9⅜"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
5	5.66	5.05	6.45
10	4.00	3.62	5.02
25	2.53	3.62	5.02
50	1.79	3.62	5.02
75	1.46	3.62	5.02
100	1.26	3.62	5.02
150	1.03	3.62	5.02
250	.80	3.62	5.02
500	.57	3.62	5.02
750	.46	3.62	5.02
1,000	.40	3.62	5.02
1,500	.33	3.67	5.07
2,000	.28	3.67	5.07
2,500	.25	3.67	5.07
3,000	.23	3.67	5.07
5,000	.18	3.67	5.07
7,500	.15	4.00	5.40
10,000	.13	4.00	5.40
15,000	.10	4.30	5.70
20,000	.089	4.30	5.70
25,000	.080	4.43	5.83
30,000	.073	4.43	5.83
40,000	.063	4.43	5.83
50,000	.057	4.57	5.97
60,000	.051	4.57	5.97
75,000	.046	4.88	6.28
100,000	.040	5.17	6.57

200 WATT VITREOUS ENAMELED

Core: 1⅛" x 10½"—Mounting Centers 11⅜"

Ohms	Max. Amps.	List Price Fixed	List Price Adj.
5	6.32	5.45	6.85
10	4.47	3.90	5.30
25	2.83	3.90	5.30
50	2.00	3.90	5.30
75	1.64	3.90	5.30
100	1.41	3.90	5.30
150	1.15	3.90	5.30
250	.89	3.90	5.30
500	.63	3.90	5.30
750	.52	3.90	5.30
1,000	.45	3.90	5.30
1,500	.37	4.00	5.40
2,000	.32	4.00	5.40
2,500	.28	4.00	5.40
3,000	.258	4.00	5.40
5,000	.20	4.00	5.40
7,500	.16	4.30	5.70
10,000	.14	4.30	5.70
15,000	.12	4.47	5.83
20,000	.10	4.47	5.83
25,000	.089	4.73	6.03
30,000	.082	4.73	6.03
40,000	.071	4.73	6.03
50,000	.063	4.48	6.28
60,000	.058	4.88	6.28
75,000	.052	5.17	6.57
100,000	.045	5.48	6.88

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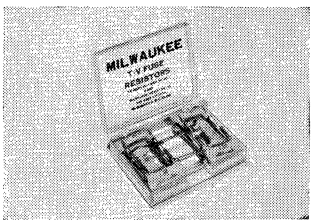
MILWAUKEE RESISTOR COMPANY

MILWAUKEE 4, WISCONSIN

RADIO-TV REPLACEMENT SPECIALTIES



MILWAUKEE COMBINATION FUSE RESISTORS

The only patented fuse resistor — O.E.M. specified

OHMIC VALUES: 4.7, 5, 5.6, 7.5, 9, 18, 22, 33, 47, 100, and 150 ..... $.55 each list

PLASTIC CADDY KITS, 10 EA. OF SINGLE VALUE OR ASSORTED ..... $5.50 list

---

MILWAUKEE "W" SERIES

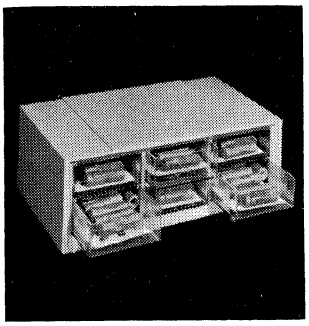
A 15 watt Silicone Coated Resistor at a 5 watt Price.

REDUCE INVENTORY! Stock ONE RESISTOR for Multi-purpose Applications INSTEAD OF THREE!

BULK:
- 1 ohm — 10,000 ohms ..... $ .55 list
- 12,500 — 35,000 ohms ..... .75 list
- 40,000 — 50,000 ohms ..... .98 list

MASTER DISPLAY CARD W-51 (red card). 51 Popular Replacement Value Assortment.
5 ohms through 10,000 ohms ..... $28.05 list

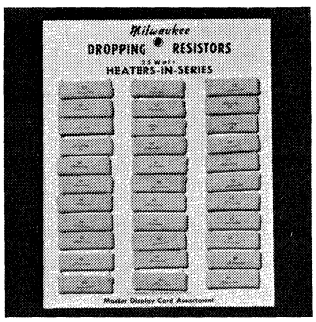
MASTER DISPLAY CARD W-52 (green card). 52 Piece Standard Value Assortment.
5 ohms through 50,000 ohms ..... $28.60 list



MILWAUKEE "W"-75 DEALER CABINET

75 RESISTORS — all popular values from 1 ohm through 50,000 ohms in a 6-drawer high-impact decorator beige styrene cabinet that will stack or stand. "Jam-Proof" — all resistors are insert packed. Drawers can never jam shut. No hunting for hidden values — every resistor can be seen when drawers are open.

"W"-75 DEALER CABINET: ..... $33.30 list

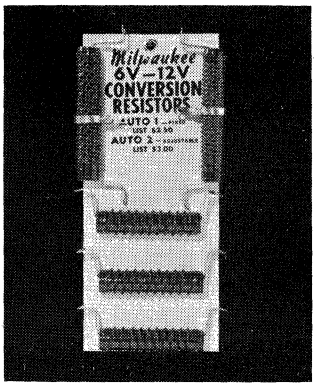


MILWAUKEE HEATER-IN-SERIES DROPPING RESISTORS

Original equipment replacement — 25 watt — for radio — TV — Phono circuits.

OHMAGES: 6.7, 10, 12, 15, 17, 18, 20, 22, 25, 26, 27, 28, 30, 33, 34, 35, 38, 39, 40, 41, 42, 44, 45, 47, 50, 51, 52, 54, 55, 57, 60, 61, 74.

MASTER DISPLAY CARD, ONE EACH ABOVE VALUES: ..... $36.60 list
DISPLAY CARD OF 6 SINGLE VALUE: ..... $ 6.60 list
BOX OF 5 SINGLE VALUE: ..... $ 5.50 list
UNIT PRICE: ..... $ 1.10 list ea.



MILWAUKEE 6V-AUTO-12V CONVERSION RESISTORS

Heavy-duty ribwound — highest quality — vitreous enameled. No burnouts — No variation in resistance — Complete with mounting brackets.

AUTO No. 1 FIXED—For equipment drawing 5-7 amps ..... $ 2.50 list ea.
6 piece display card ..... $15.00 list

AUTO No. 2—ADJ. For perfect balance V-A ..... $ 3.00 list ea.
3 piece display card ..... $ 9.00 list

ALSO 5 PIECE DISPLAY CARD—3 No. 1's and 2 No. 2's ..... $13.50 list

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OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

RITEOHM® PRECISION RESISTORS — ±1% TOLERANCE

"Riteohm" precision resistors are offered from stock in a variety of types. This distinguished line of precision resistors, finds universal application in laboratory and test equipment, in vital military and commercial equipment, in every application demanding high precision and assured stability.

SERIES 85, 86 ENCAPSULATED: Completely enveloped in a special, Ohmite-compounded resin, the encapsulated resistor offers the ultimate in stability, protection against humidity and damage. The specially enameled alloy resistance wire is pie-wound on highest quality steatite or epoxy bobbins. Series 85 features axial lead terminals. Series 86 has lug terminals. Temperaure coefficient of resistance is 0±30ppm/°C.

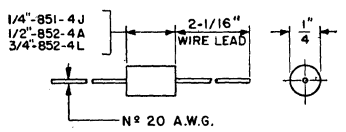
Voltages listed for Series 85 and 86 resistors produce the rated watts up to the established limit of 150 volts per pie. For non-standard values, closer tolerances or special construction, consult factory.

SERIES 77 METAL FILM: Consists of a thin film of special metal alloy permanently bonded to glass. This element is hermetically sealed in a high temperature tubular plastic case with a special resin. Series 77 resistors feature extremely low reactance at high frequencies, and noise level comparable to wirewounds. Useful in high frequency or pulse circuits where wirewounds are unsuitable and in high gain circuits where the noise level of composition types is excessive. Two temperature coefficients of resistance available: 0±25-ppm/°C and 0±50ppm/°C. Resistance values shown are selected from MIL Standard MS-90169, MIL-R-10509 and Bell Tel. Labs.

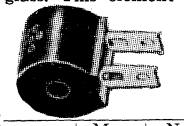
SERIES 85 ENCAPSULATED WIREWOUND — TOL. ±1%

Ohms	Max. Voltage	Net Each 1-24	Ohms	Max. Voltage	Net Each 1-24
Type 851-4J, 1 Pie, ⅛ Watt*			Type 851-4J (Cont.)		
10	1.12	$1.75	22,500	53.2	$1.54
25	1.77	1.75	25,000	56.0	1.54
50	2.60	1.40	30,000	61.3	1.54
100	3.54	1.40	40,000	70.7	1.54
200	5.00	1.40	50,000	79.1	1.54
250	5.60	1.40	60,000	86.8	1.77
300	6.13	1.40	75,000	97.0	1.77
500	7.91	1.40	100,000	112.0	1.89
1,000	11.2	1.40	Type 852-4A, 2 Pie, ¼ Watt*		
1,500	13.7	1.40	125,000	177	2.00
2,000	15.8	1.40	150,000	195	2.00
2,500	17.7	1.40	175,000	210	2.16
3,000	19.4	1.40	200,000	225	2.16
3,500	21.0	1.40	225,000	238	2.53
4,000	22.4	1.40	250,000	250	2.53
5,000	25.0	1.40	300,000	275	2.76
7,500	30.6	1.40	Type 852-4L, 2 Pie, ⅛ Watt*		
10,000	35.4	1.40	400,000	300	3.11
12,500	39.6	1.40	500,000	300	3.61
15,000	43.3	1.40			
20,000	50.0	1.54			

*at 125°C ambient.



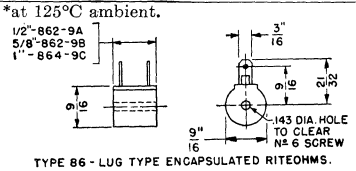
TYPE 85 - AXIAL LEAD ENCAPSULATED RITEOHMS.



SERIES 86 ENCAPSULATED WIREWOUND —TOL. ±1%

Ohms	Max. Voltage	Net Each 1-24	Ohms	Max. Voltage	Net Each 1-24
Type 862-9A, 2 Pie, ¼ Watt*			Type 862-9A (Cont.)		
0.1	.16	$2.72	25,000	79	$1.94
0.2	.22	2.72	30,000	87	1.94
0.5	.35	2.15	40,000	100	1.94
1	.50	2.15	50,000	112	1.94
5	1.15	2.15	60,000	122	2.17
10	1.57	2.15	75,000	137	2.17
25	2.50	2.15	100,000	157	2.29
50	3.50	1.80	125,000	177	2.40
100	5.00	1.80	150,000	195	2.40
200	7.07	1.80	175,000	210	2.56
250	7.90	1.80	200,000	225	2.56
300	8.70	1.80	225,000	237	2.93
500	11.2	1.80	250,000	250	2.93
1,000	15.7	1.80	300,000	275	3.16
1,500	19.5	1.80	400,000	300	3.51
2,000	22.5	1.80	500,000	300	4.01
2,500	25.0	1.80	Type 862-9B, 2 Pie, ½ Watt*		
3,000	27.5	1.80	600,000	300	4.89
3,500	29.5	1.80	750,000	300	5.48
4,000	31.5	1.80	900,000	300	6.20
5,000	35.0	1.80	1 Meg.	300	6.93
7,500	43.0	1.80	Type 864-9C, 4 Pie, 1 Watt*		
10,000	50.0	1.80	1.5 Meg.	600	12.35
12,500	56.0	1.80	2 Meg.	600	15.62
15,000	60.1	1.80	2.5 Meg.	600	18.88
20,000	70.7	1.94			
22,500	75.0	1.94			

*at 125°C ambient.



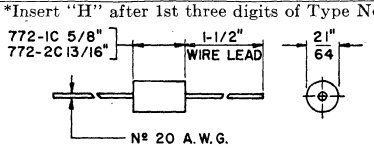
TYPE 86 - LUG TYPE ENCAPSULATED RITEOHMS.

SERIES 77 METAL FILM (½ Watt at 125°C) TOL. ±1%

Net 1-24, Any Value, 0±25ppm/°C T.C. . . **$2.20**
Net 1-24, Any Value. 0±50ppm/°C T.C.*. **1.32**

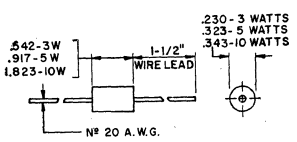
Ohms	Max. Volts	Ohms	Max. Volts	Ohms	Max. Volts
Type 772-1C		Type 772-1C		Type 772-1C	
51.1	5.05	2,610	36.1	34,800	132
75	6.12	2,870	37.9	38,300	138
100	7.07	3,160	39.7	42,200	145
121	7.78	3,480	41.7	46,400	152
147	8.57	3,830	43.7	51,100	160
178	9.42	4,220	45.9	56,200	168
215	10.4	4,640	48.1	61,900	176
261	11.4	5,110	50.5	68,100	185
316	12.6	5,620	53.0	75,000	194
383	13.8	6,190	55.6	82,500	206
464	15.2	6,810	58.3	90,900	216
562	16.8	7,500	61.2	100,000	224
619	17.6	8,250	64.2	110,000	234
681	18.5	9,090	67.4	121,000	246
750	19.4	10,000	70.7	133,000	258
825	20.6	11,000	73.2	147,000	271
909	21.6	12,100	77.8	162,000	285
1,000	22.4	13,300	81.5	178,000	298
1,100	23.4	14,700	85.7	196,000	313
1,210	24.6	16,200	90.0	215,000	328
1,330	25.8	17,800	94.2	237,000	344
1,470	27.1	19,600	99.0	Type 772-2C	
1,620	28.5	21,500	104	261,000	361
1,780	29.8	23,700	109	287,000	379
1,960	31.3	26,100	114	316,000	397
2,150	32.8	28,700	120	348,000	417
2,370	34.4	31,600	126	383,000	437

*Insert "H" after 1st three digits of Type No.



SERIES 77 METAL FILM RESISTORS

Furnished in power ratings of 3, 5 and 10 watts depending upon resistance. Single layer wound on ceramic core, Series 88 units feature a pressure-molded jacket of tough, resilient, silicone-ceramic material. Negligible inductance at audio frequencies. Temperature coefficient of resistance is 0±20ppm/°C. Values shown are selected from MIL Standard MS90169, MIL-R-10509 and Bell Tel. Labs.



SERIES 88 MOLDED WIREWOUND

SERIES 88 MOLDED WIREWOUND RESISTORS — TOL. ±1%

Ohms	Max. Volts	Net 1-24	Ohms	Max. Volts	Net 1-24	Ohms	Max. Volts	Net 1-24	Ohms	Max. Volts	Net 1-24
3 Watt*			3 Watt* (Cont.)			3 Watt* (Cont.)			3 Watt* (Cont.)		
1	1.73	$ .94	38.3	10.7	$ .68	464	37.3	$ .68	5,620	130	$ .78
1.21	1.91	.94	42.2	11.3	.68	511	39.2	.68	6,190	136	.78
1.47	2.10	.94	46.4	11.8	.68	562	41.0	.68	6,810	143	.78
1.78	2.31	.94	51.1	12.4	.68	619	43.0	.68	7,500	150	.78
2.15	2.54	.94	56.2	13.0	.68	681	45.2	.68	8,250	157	.78
2.61	2.80	.94	61.9	13.6	.68	750	47.4	.68	9,090	165	.78
3.16	3.16	.68	68.1	14.3	.68	825	49.7	.68	10,000	173	.78
3.83	3.39	.68	75.0	15.0	.68	909	52.2	.68	5 Watt*		
4.64	3.73	.68	82.5	15.7	.68	1,000	54.8	.68	11,000	234	.80
5.62	4.10	.68	90.9	16.5	.68	1,100	57.4	.75	12,100	246	.80
6.81	4.52	.68	100	17.3	.68	1,210	60.2	.75	13,300	258	.80
8.25	4.97	.68	110	18.2	.68	1,330	63.2	.75	14,700	271	.80
10.0	5.48	.68	121	19.1	.68	1,470	66.4	.75	16,200	285	.84
11.0	5.74	.68	133	20.0	.68	1,620	69.7	.75	17,800	298	.84
12.1	6.02	.68	147	21.0	.68	1,780	73.0	.75	19,600	313	.84
13.3	6.32	.68	162	22.1	.68	1,960	76.6	.75	21,500	328	.89
14.7	6.64	.68	178	23.1	.68	2,150	80.2	.75	23,700	344	.89
16.2	6.97	.68	196	24.3	.68	2,370	84.3	.75	10 Watt*		
17.8	7.30	.68	215	25.4	.68	2,610	88.5	.75	26,100	510	.89
19.6	7.66	.68	237	26.7	.68	2,870	92.8	.75	28,700	536	.89
21.5	8.02	.68	261	28.0	.68	3,160	97.4	.75	31,600	562	.89
23.7	8.43	.68	287	29.3	.68	3,480	102	.75	34,800	590	.89
26.1	8.85	.68	316	31.6	.68	3,830	107	.75	38,300	619	.89
28.7	9.28	.68	348	32.3	.68	4,220	113	.75	42,200	649	.96
31.6	9.74	.68	383	33.9	.68	4,640	118	.75	46,400	680	.96
34.8	10.2	.68	422	35.6	.68	5,110	124	.78	51,100	715	.96

*at 25°C ambient

OHMITE® RESISTORS • RHEOSTATS • TAP SWITCHES
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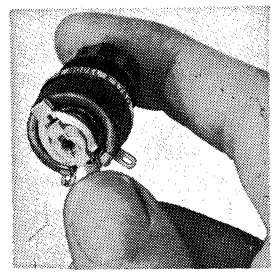
VITREOUS ENAMELED RHEOSTATS

Eleven sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers a range from 12½ to 1000 watts, in ratings that meet the major portion of design, production and emergency needs. Ratings of 12½, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

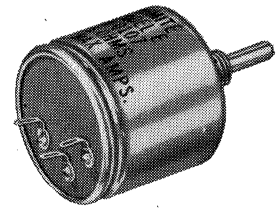
FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel.

The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air;* when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.



Model "E"



Enclosed Model "E"

MODEL "E" — 12.5 WATT

Unenclosed and Enclosed

Diameter 7/8"—Depth behind panel 11/16"—Shaft 1/8" Diameter. Rotation 300°—Mounting for panels up to 1/8" by means of 1/4"-32 Bushing and Hex. Nut—Non-turn lug requires 1/8" hole 1/4" below center of shaft—Stock No. 5151 Knob Recommended.
Enclosure including terminals 1 7/32" long by 1 3/64" diameter.

Total Ohms	Max. Amps.	Unenclosed Stock No.	Unenclosed Net 1-4	Enclosed Stock No.	Enclosed Net 1-4
1	3.53	0101	$4.63	W0101	$6.31
2	2.50	0102	4.63	W0102	6.31
3	2.04	0103	4.63	W0103	6.31
6	1.44	0104	4.63	W0104	6.31
8	1.25	0105	4.63	W0105	6.31
10	1.12	0106	4.63	W0106	6.31
15	.91	0107	4.11	W0107	5.79
25	.71	0108	4.11	W0108	5.79
35	.60	0109	4.11	W0109	5.79
50	.50	0110	4.11	W0110	5.79
75	.41	0111	4.11	W0111	5.79
100	.35	0112	4.11	W0112	5.79
125	.32	0113	4.11	W0113	5.79
175	.27	0114	4.11	W0114	5.79
250	.22	0115	4.11	W0115	5.79
350	.19	0116	4.11	W0116	5.79
500	.16	0117	4.11	W0117	5.79
750	.13	0118	4.11	W0118	5.79
1,000	.11	0119	4.63	W0119	6.31
1,500	.091	0120	4.63	W0120	6.31
2,500	.071	0121	4.63	W0121	6.31
3,500	.060	0122	4.90	W0122	6.58
5,000	.050	0123	4.90	W0123	6.58

MODEL "J", Series A — 50 WATT

Diameter 2 5/16"—Depth behind panel 1 3/8"—Shaft 1/4" Diameter. Rotation 300°—Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex Nut—Non-turn lug requires 5/16" hole 1/2" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	$5.15	0321	150	.575	$4.63
0309	1	7.070	5.15	0322	225	.470	4.63
0310	2	5.000	5.15	0323	300	.408	4.63
0311	4	3.530	5.15	0324	500	.316	4.63
0312	6	2.880	5.15	0325	800	.250	4.90
0313	8	2.500	4.63	0326	1,000	.224	4.90
0314	12	2.040	4.63	0327	1,600	.176	4.90
0315	16	1.760	4.63	0328	2,500	.141	4.90
0316	22	1.500	4.63	0329	3,500	.119	5.15
0317	35	1.190	4.63	0330	5,000	.100	5.15
0318	50	1.000	4.63	0331	8,000	.079	5.15
0319	80	.790	4.63	0332	10,000	.070	5.15
0320	125	.630	4.63				

MODEL "H", Series A — 25 WATT

Diameter 1 5/16"—Depth behind panel 1 3/8"—Shaft 1/4" diameter. Rotation 295°—Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/8" hole 1/2" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	$4.63	0152	125	.445	$4.11
0141	2	3.540	4.63	0153	175	.375	4.11
0142	3	2.880	4.63	0154	250	.316	4.11
0143	6	2.040	4.63	0155	350	.267	4.11
0144	8	1.770	4.63	0156	500	.222	4.11
0145	10	1.580	4.63	0157	750	.182	4.11
0146	15	1.290	4.11	0158	1,000	.155	4.63
0147	25	1.000	4.11	0159	1,500	.129	4.63
0148	35	.845	4.11	0160	2,500	.100	4.63
0149	50	.707	4.11	0161	3,500	.084	4.90
0150	75	.575	4.11	0162	5,000	.070	4.90
0151	100	.500	4.11				

MODEL "G" — 75 WATT

Diameter 2¾"—Depth behind panel 1¾"—Shaft 1/4" Diameter. Rotation 300°—Mounting for panels up to 1/4" by means of 3/8"-32 Bushing and Hex. Nut—Non-turn lug requires 3/8" hole 1/2" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
1100	0.5	12.300	$6.97	1112	200	.612	$6.41
1101	1	8.660	6.97	1113	300	.500	6.41
1102	2	6.120	6.97	1114	400	.433	6.41
1103	3	5.000	6.97	1115	500	.388	6.41
1104	5	3.880	6.97	1116	750	.316	6.97
1105	7.5	3.160	6.97	1117	1,000	.274	6.97
1106	10	2.740	6.97	1118	1,500	.224	6.97
1107	16	2.170	6.41	1119	2,000	.194	6.97
1108	25	1.730	6.41	1120	2,500	.173	6.97
1109	50	1.230	6.41	1121	5,000	.123	7.45
1110	75	1.000	6.41	1122	7,500	.100	8.00
1111	100	.866	6.41	1123	10,000	.087	8.00

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VITREOUS ENAMELED RHEOSTATS

MODEL "K", Series A — 100 WATT

Diameter 3⅛"—Depth behind panel 1¾"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼" by means of ⅜"-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$" hole ½" below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0440	0.5	14.100	$7.72	0452	200	.707	$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.21	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

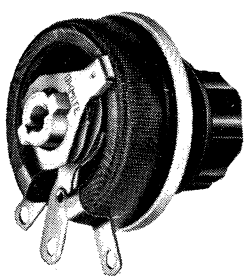
Diameter 4"—Depth behind panel 2"—Shaft ¼" Diameter. Rotation 300°—Mounting for panels up to ¼", ⅜"-32 Bushing and Hex. Nut or two 10-32 x ¾" flat head screws, mounting centers ⅞" each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0524	0.5	17.300	$9.78	0537	150	1.000	$ 9.26
0525	1	12.300	9.78	0538	200	.865	9.26
0526	2	8.650	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.613	9.78	0544	1,800	.288	10.30
0532	25	2.450	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

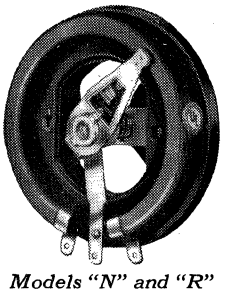
MODEL "P" — 225 WATT

Diameter 5"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 310°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers ⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1250	1	15.000	$14.11	1261	100	1.500	$14.11
1251	2	10.600	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.358	14.11
1260	75	1.730	14.11	1271	2,500	.300	14.11



Models "J", "G" and "K"



Models "N" and "R" ("P", "T" and "U" Similar)

MODEL "N", Series A — 300 WATT

Diameter 6"—Depth behind panel 2⅜"—Shaft ⅜" Diameter. Rotation 315°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers $1\frac{3}{16}$" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0650	1	17.320	$15.29	0661	100	1.730	$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8"—Depth behind panel 2⅛"—Shaft ⅜" Diameter. Rotation 325°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1½" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0849	1.0	22.300	$22.09	0872	50	3.160	$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	750	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10"—Depth behind panel 3"—Shaft ⅜" Diameter. Rotation 330°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 1⅞" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1300	1	27.400	$31.20	1312	50	3.870	$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.300	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.600	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.117	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12" — Depth behind panel 3" — Shaft ⅜" Diameter. Rotation 335°—Mounting for panels up to 1¼", two ¼"-20 x 1½" flat head screws, mounting centers 3" each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1450	1	31.600	$36.45	1462	50	4.470	$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.633	36.45

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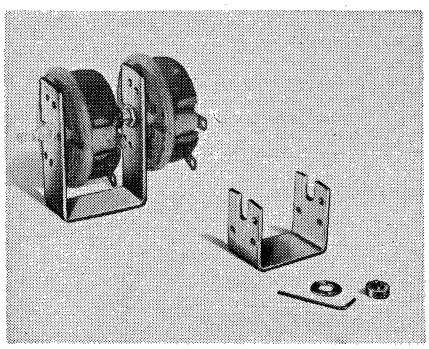
RHEOSTAT TANDEM COUPLING KITS



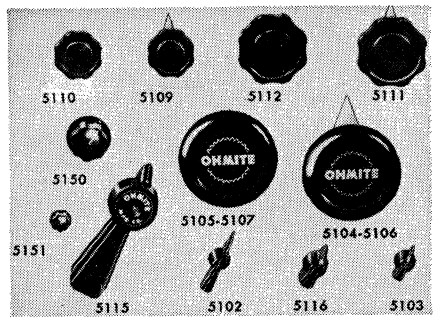
Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assembles only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8"..... **Net Each (1-4) $2.01**
Stock No. 6533 — Max Panel 5/32"..... **Net Each (1-4) 2.51**
Stock No. 6591 — Max Panel 1/16"..... **Net Each (1-4) 2.01**

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2¼" long		¼"	$ .50
5103	Bar Knob, 1¼" long		¼"	.21
5104	Handwheel with Pointer	3¼"	⅜"	1.38
5105	Handwheel without Pointer	3¼"	⅜"	1.16
5106	Handwheel with Pointer	3¼"	¼"	1.38
5107	Handwheel without Pointer	3¼"	¼"	1.16
5109	Finger-Grip with Pointer	1⅝"	¼"	.89
5110	Finger-Grip without Pointer	1⅝"	¼"	.82
5111	Finger-Grip with Pointer	2⅜"	¼"	1.32
5112	Finger-Grip without Pointer	2⅜"	¼"	1.21
*5115	Bar Knob, 4¾" long		⅜"	3.00
5116	Bar Knob, 1½" long		¼"	.50
5150	Skirted Finger-Grip	1½"	¼"	.29
5151	Finger-Grip	¾"	⅛"	.29
5152A	Like 5104 but shorter pointer	3¼"	¼"	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, ½ and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1 5/32" dia., is rated 2 watts at 70°C ambient and is available with ⅞" slotted shaft (CMU), 2" unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit ½" dia. rated ½ watt, is available only with locking type shaft.

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend ⅝" behind panel; dual control 1 17/64". Type AS miniature unit extends 1 1/16" behind panel. An SPST switch for single Type AB units is available. Units are dust and splash proof, fungus and corrosion resistant and meet the latest requirements of MIL-R-94. Styles CMU, CLU and Type AS conform respectively to MIL-R-94 Styles RV4N, RV4L, RV6L.

STOCK "POTS" — MIL Units are Stamped with MIL and Commercial Designations

Resistance Ohms Except As Noted Tol. ±10% except * ±20%	TYPE AB (1 5/32" Dia.) Single Unit ⅞" Slotted Shaft: Style CMU Linear	MIL Designation	Single Unit 2" Shaft: Style CU Linear	Style CA CW log	Style CB CCW log	Locking: Style CLU Linear	MIL Designation	Dual: Style CCU Linear	TYPE AS (½" Dia.) Miniature Locking: Linear	MIL Designation
50	CMU5001	RV4NAYSD500A	CU5001			CLU5001	RV4LAYSA500A			
100	CMU1011	RV4NAYSD101A	CU1011			CLU1011	RV4LAYSA101A		3601	RV6LAYSA101A
150	CMU1511	RV4NAYSD151A	CU1511			CLU1511	RV4LAYSA151A			
250	CMU2511	RV4NAYSD251A	CU2511			CLU2511	RV4LAYSA251A		3602	RV6LAYSA251A
350	CMU3511	RV4NAYSD351A	CU3511			CLU3511	RV4LAYSA351A			
500	CMU5011	RV4NAYSD501A	CU5011			CLU5011	RV4LAYSA501A		3603	RV6LAYSA501A
750	CMU7511	RV4NAYSD751A	CU7511			CLU7511	RV4LAYSA751A			
1,000	CMU1021	RV4NAYSD102A	CU1021			CLU1021	RV4LAYSA102A		3604	RV6LAYSA102A
1,500	CMU1521	RV4NAYSD152A	CU1521			CLU1521	RV4LAYSA152A			
2,500	CMU2521	RV4NAYSD252A	CU2521			CLU2521	RV4LAYSA252A		3605	RV6LAYSA252A
3,500	CMU3521	RV4NAYSD352A	CU3521			CLU3521	RV4LAYSA352A			
5,000	CMU5021	RV4NAYSD502A	CU5021			CLU5021	RV4LAYSA502A		3606	RV6LAYSA502A
7,500	CMU7521	RV4NAYSD752A	CU7521			CLU7521	RV4LAYSA752A			
10,000	CMU1031	RV4NAYSD103A	CU1031		CB1031	CLU1031	RV4LAYSA103A	CCU1031	3607	RV6LAYSA103A
15,000	CMU1531	RV4NAYSD153A	CU1531			CLU1531	RV4LAYSA153A			
25,000	CMU2531	RV4NAYSD253A	CU2531		CB2531	CLU2531	RV4LAYSA253A	CCU2531	3608	RV6LAYSA253A
35,000	CMU3531	RV4NAYSD353A	CU3531			CLU3531	RV4LAYSA353A			
50,000	CMU5031	RV4NAYSD503A	CU5031		CB5031	CLU5031	RV4LAYSA503A	CCU5031	3609	RV6LAYSA503A
75,000	CMU7531	RV4NAYSD753A	CU7531			CLU7531	RV4LAYSA753A			
.1 meg.	CMU1041	RV4NAYSD104A	CU1041	CA1041		CLU1041	RV4LAYSA104A	CCU1041	3610	RV6LAYSA104A
.15 meg.	CMU1541	RV4NAYSD154A	CU1541			CLU1541	RV4LAYSA154A			
.25 meg.	CMU2541	RV4NAYSD254A	CU2541	CA2541		CLU2541	RV4LAYSA254A	CCU2541	3611	RV6LAYSA254A
.35 meg.	CMU3541	RV4NAYSD354A	CU3541			CLU3541	RV4LAYSA354A			
.5 meg.	CMU5041	RV4NAYSD504A	CU5041	CA5041		CLU5041	RV4LAYSA504A	CCU5041	3612	RV6LAYSA504A
.75 meg.*	CMU7542	RV4NAYSD754B	CU7542			CLU7542	RV4LAYSA754B			
1.0 meg.*	CMU1052	RV4NAYSD105B	CU1052	CA1052		CLU1052	RV4LAYSA105B	CCU1052	3613	RV6LAYSA105B
1.5 meg.*	CMU1552	RV4NAYSD155B	CU1552			CLU1552	RV4LAYSA155B			
2.0 meg.*	CMU2052	RV4NAYSD205B	CU2052			CLU2052	RV4LAYSA205B		3684	RV6LAYSA205B
2.5 meg.*	CMU2552	RV4NAYSD255B	CU2552	CA2552		CLU2552	RV4LAYSA255B		3614	RV6LAYSA255B
3.5 meg.*	CMU3552	RV4NAYSD355B	CU3552			CLU3552	RV4LAYSA355B			
5.0 meg.*	CMU5052	RV4NAYSD505B	CU5052			CLU5052	RV4LAYSA505B		3615	RV6LAYSA505B
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.	.017 lb.	
Net Price	$1.95		$1.95	$2.25	$2.25	$2.55		$5.85	$5.10	

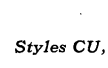
Resistance Shown is for Each Unit

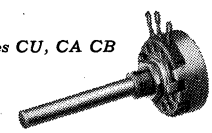
Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU.....Net $.66

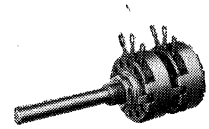
Type AS MIL Style RV6L

Style CMU MIL Style RV4N

Style CLU MIL Style RV4L




Styles CU, CA CB


Style CCU

Net

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OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS

25 WATT FIXED RESISTOR

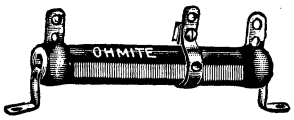
Core: 2" x 9/16" — Mounting Centers 2¾"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
1	5.00	0200J	$0.72	0360	$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1.42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

100 WATT FIXED RESISTOR

Core: 6½" x ¾" — Mounting Centers 7⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	4.47	0600A	$1.54	0956	$2.11
10	3.16	0600B	1.54	0957	2.11
25	2.00	0601	1.54	0958	2.11
50	1.41	0602	1.54	0959	2.11
75	1.15	0603	1.54		
100	1.00	0604	1.54	0960	2.11
150	.816	0605	1.54		
250	.63	0606	1.54	0960B	2.11
500	.45	0607	1.54	0961	2.11
750	.365	0608	1.54		
1,000	.32	0609	1.54	0962	2.11
1,500	.26	0610	1.60	0962B	2.17
2,000	.223	0611	1.60		
2,500	.20	0612	1.60	0963	2.17
3,000	.18	0613	1.60		
5,000	.14	0614	1.60	0964	2.17
7,500	.115	0615	1.73		
10,000	.10	0616	1.73	0965	2.30
15,000	.081	0617	1.87	0966	2.44
20,000	.071	0618	1.87	0967	2.44
25,000	.063	0619	2.13	0968	2.70
30,000	.058	0620	2.13	0969	2.70
40,000	.050	0621	2.13	0970	2.70
50,000	.045	0622	2.21	0971	2.78
60,000	.041	0623	2.21		
75,000	.032	0624	2.45	0972	3.02
100,000	.028	0625	2.75	0973	3.32



50 WATT FIXED RESISTOR

Core: 4" x 9/16" — Mounting Centers 4¾"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	3.16	0400A	$1.11	0560	$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.026	0420	1.72	0588	2.29
60,000	.024			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

160 WATT FIXED RESISTOR

Core: 8½" x 1⅛" — Mounting Centers 9⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	5.66	0700A	$3.19	1156	$4.07
10	4.00	0700B	2.28	1157	3.16
25	2.53	0701	2.28	1158	3.16
50	1.79	0702	2.28	1159	3.16
75	1.46	0703	2.28		
100	1.26	0704	2.28	1160	3.16
150	1.03	0705	2.28		
250	.80	0706	2.28	1160B	3.16
500	.57	0707	2.28	1161	3.16
750	.46	0708	2.28		
1,000	.40	0709	2.28	1162	3.16
1,500	.33	0710	2.32	1162B	3.20
2,000	.28	0711	2.32		
2,500	.25	0712	2.32	1163	3.20
3,000	.23	0713	2.32		
5,000	.18	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.10	0717	2.71	1166	3.59
20,000	.089	0718	2.71	1167	3.59
25,000	.080	0719	2.80	1168	3.68
30,000	.073	0720	2.80	1169	3.68
40,000	.063	0721	2.80	1170	3.68
50,000	.057	0722	2.89	1171	3.77
60,000	.051	0723	2.89		
75,000	.046	0724	3.08	1172	3.96
100,000	.040	0725	3.26	1173	4.14

These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.

75 WATT SIZE — Dividohm

Core: 6" x 9/16" — Mounting Centers 6¾"

Adjustable Res. Res. Ohms	Adjustable Res. Max. Amps.	Adjustable Res. Stock No.	Adjustable Res. Res. Ohms	Adjustable Res. Max. Amps.	Adjustable Res. Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0776	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.27	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.16	0781B	80,000	.026	0795
3,500	.15	0782	100,000	.023	0796
4,000	.14	0782B			

Net (1-9), 5 thru 1,000 ohms..... **$1.87**
Net (1-9), 1,250 thru 5,000 ohms..... **1.92**
Net (1-9), 6,000 thru 10,000 ohms..... **2.01**
Net (1-9), 12,000 thru 20,000 ohms..... **2.13**
Net (1-9), 25,000 thru 40,000 ohms..... **2.32**
Net (1-9), 45,000 thru 60,000 ohms..... **2.52**
Net (1-9), 80,000 ohms..... **2.78**
Net (1-9), 100,000 ohms..... **2.93**

200 WATT FIXED RESISTOR

Core: 10½" x 1⅛"—Mounting Centers 11⅜"

Res. Ohms	Max. Amps.	Fixed Resist. Stock No.	Fixed Resist. Net 1-9	Adj. Resist. Stock No.	Adj. Resist. Net 1-9
5	6.32	0900A	$3.44	1356	$4.32
10	4.47	0900B	2.46	1357	3.34
25	2.83	0901	2.46	1358	3.34
50	2.00	0902	2.46	1359	3.34
75	1.64	0903	2.46		
100	1.41	0904	2.46	1360	3.34
150	1.15	0905	2.46		
250	.89	0906	2.46	1360B	3.34
500	.63	0907	2.46	1361	3.34
750	.52	0908	2.46		
1,000	.45	0909	2.46	1362	3.34
1,500	.37	0910	2.53	1362B	3.41
2,000	.32	0911	2.53		
2,500	.28	0912	2.53	1363	3.41
3,000	.258	0913	2.53		
5,000	.20	0914	2.53	1364	3.41
7,500	.16	0915	2.71		
10,000	.14	0916	2.71	1365	3.59
15,000	.12	0917	2.89	1366	3.77
20,000	.10	0918	2.89	1367	3.77
25,000	.089	0919	2.98	1368	3.86
30,000	.082	0920	2.98	1369	3.86
40,000	.071	0921	2.98	1370	3.86
50,000	.063	0922	3.08	1371	3.96
60,000	.058	0923	3.08		
75,000	.052	0924	3.26	1372	4.14
100,000	.045	0925	3.46	1373	4.34

ADJUSTABLE LUGS

Bakelite Knob Res. Dia.	Bakelite Knob Stock No.	Bakelite Knob Net 1-9	Screw Driver Type Res. Dia.	Screw Driver Type Stock No.	Screw Driver Type Net 1-9
9/16"	0359	$0.31	5/16"	1058	$0.14
3/4"	1959	.31	9/16"	0358	.14
1 1/8"	2159	.40	3/4"	1958	.14
			1 1/8"	2158	.23

OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

OHMITE® STOCK AXIAL-LEAD RESISTORS

Ohmite axial-lead, vitreous-enameled resistors are compact, wire-wound units available in *three stock sizes:* 3-Watt ($\frac{9}{16}$" x ¼"), 5-Watt ($1\frac{1}{16}$" x $\frac{11}{32}$"), and 10-watt ($1\frac{15}{16}$" x $\frac{13}{32}$") . . . The resistance wire and terminal lead are both welded to the end cap, utilizing the patented Ohmite welding technique. All have 1½" tinned wire leads, are simple to mount, and occupy small space.

Axial-lead resistors are especially suited for printed circuits, terminal board, and point-to-point wiring applications.

The standard resistance tolerance is ±5%, 50 ohms and higher; tolerance below 50 ohms is ±10%.

Ohms	Ohms	Ohms	Ohms
1.0	125	1,200	9,000
1.5	150	1,250	10,000
2.0	200	1,500	†11,000
3.0	225	1,750	†12,000
4.0	250	2,000	*12,500
5.0	300	2,250	†13,500
7.5	350	2,500	*15,000
10	400	3,000	†16,000
12	450	3,500	*17,500
15	500	4,000	*18,000
20	600	4,500	*20,000
25	700	5,000	*22,500
30	750	6,000	*25,000
35	800	7,000	†30,000
40	900	7,500	†35,000
50	1,000	8,000	†40,000
75	1,100	†8,500	†45,000
100			†50,000

*5 and 10-watt size only.
†10-watt size only.

3-WATT SIZE

Net (1-9), 1 thru 1,000 ohms **$0.59**
Net (1-9), 1,100 thru 5,000 ohms . . . . . **.62**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.66**

5-WATT SIZE

Net (1-9), 1 thru 1,000 ohms **$0.62**
Net (1-9), 1,100 thru 5,000 ohms . . . . . **.66**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.70**
Net (1-9), 12,500 thru 20,000 ohms . . . . . **.78**
Net (1-9), 22,500 and 25,000 ohms . . . . . **.82**

10-WATT SIZE

Net (1-9), 1 thru 2 ohms **$0.95**
Net (1-9), 3 thru 1,000 ohms . . . . . **.68**
Net (1-9), 1,100 thru 5,000 ohms . . . . . **.73**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.84**
Net (1-9), 11,000 thru 20,000 ohms . . . . . **.95**
Net (1-9), 22,500 thru 40,000 ohms **1.00**
Net (1-9), 45,000 and 50,000 ohms **1.12**

Popular OHMITE "BROWN DEVIL"® RESISTORS

5 Watt—1" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.23	200	.160	2,250	.047
1.5	1.82	225	.150	2,500	.045
2	1.58	250	.140	3,000	.041
3	1.29	300	.130	3,500	.037
4	1.12	350	.120	4,000	.035
5	1.00	400	.110	4,500	.033
7.5	.810	450	.100	5,000	.032
10	.710	500	.100	6,000	.029
12	.640	600	.091	7,000	.027
15	.580	700	.084	7,500	.026
20	.500	750	.082	8,000	.025
25	.450	800	.079	9,000	.024
30	.410	900	.074	10,000	.022
35	.380	1,000	.070	12,500	.020
40	.350	1,100	.067	15,000	.018
50	.320	1,200	.064	17,500	.017
75	.260	1,250	.063	20,000	.016
100	.220	1,500	.057	22,500	.014
125	.200	1,750	.053	25,000	.013
150	.180	2,000	.050		

Net (1-9), 1 thru 1,000 ohms **$0.52**
Net (1-9), 1,100 thru 5,000 ohms . . . . . **.55**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.58**
Net (1-9), 12,500 thru 20,000 ohms . . . . . **.65**
Net (1-9), 22,500 and 25,000 ohms . . . . . **.68**

10 Watt—1¾" x 5/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	4.47	300	.18	5,000	.045
1	3.16	350	.17	6,000	.041
2	2.24	400	.16	7,000	.038
3	1.83	450	.15	7,500	.036
4	1.58	500	.14	8,000	.035
5	1.41	600	.13	8,500	.034
7.5	1.16	700	.12	10,000	.032
10	1.00	750	.12	11,000	.030
12	.91	800	.11	12,000	.029
15	.82	900	.11	12,500	.028
20	.71	1,000	.10	13,500	.027
25	.63	1,100	.095	15,000	.026
30	.58	1,200	.091	16,000	.025
35	.53	1,250	.089	17,500	.024
40	.50	1,500	.081	18,000	.023
50	.45	1,750	.075	20,000	.022
75	.37	2,000	.071	22,500	.021
100	.32	2,250	.066	25,000	.020
125	.28	2,500	.063	30,000	.018
150	.26	3,000	.057	35,000	.017
200	.22	3,500	.053	40,000	.016
225	.21	4,000	.050	45,000	.015
250	.20	4,500	.047	50,000	.014

Net (1-9), 0.5 thru 1,000 ohms **$0.57**
Net (1-9), 1,100 thru 5,000 ohms . . . . . **.61**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.70**
Net (1-9), 11,000 thru 20,000 ohms . . . . . **.79**
Net (1-9), 22,500 thru 40,000 ohms . . . . . **.83**
Net (1-9), 45,000 and 50,000 ohms . . . . . **.93**

WITH WELDED TERMINALS

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units, bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world —prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½" tinned wire leads. Standard resistance tolerance is ±5%.

20 Watt—2" x 7/16" Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	6.32	800	.15	10,000	.043
1.0	4.47	850	.15	12,500	.035
2.0	3.16	1,000	.14	15,000	.032
3.0	2.58	1,200	.13	20,000	.027
4.0	2.24	1,250	.12	25,000	.024
5	2.00	1,500	.12	30,000	.022
10	1.41	1,750	.11	35,000	.021
25	.89	2,000	.10	40,000	.019
50	.63	2,250	.094	45,000	.018
75	.52	2,500	.089	50,000	.017
100	.45	2,750	.085	55,000	.016
150	.36	3,000	.081	60,000	.016
200	.32	3,500	.075	65,000	.015
250	.28	4,000	.070	70,000	.014
300	.26	4,500	.066	75,000	.013
350	.24	5,000	.063	80,000	.012
400	.22	6,000	.057	85,000	.012
500	.20	7,000	.053	90,000	.011
650	.18	7,500	.051	95,000	.010
700	.17	8,000	.050	100,000	.010
750	.16	9,000	.047		

Net (1-9), 0.5 ohms **$0.95**
Net (1-9), 1.0 thru 1,000 ohms . . . . . **.68**
Net (1-9), 1,200 thru 5,000 ohms . . . . . **.70**
Net (1-9), 6,000 thru 10,000 ohms . . . . . **.83**
Net (1-9), 12,500 thru 20,000 ohms . . . . . **.85**
Net (1-9), 25,000 thru 40,000 ohms . . . . . **.99**
Net (1-9), 45,000 thru 60,000 ohms **1.15**
Net (1-9), 65,000 thru 80,000 ohms **1.37**
Net (1-9), 85,000 thru 100,000 ohms **1.57**

10 WATT DIVIDOHM® ADJUSTABLE RESISTORS

Core: $1\frac{3}{4}$" x $\frac{5}{16}$" — Mounting Centers 2¼"

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.
1	3.16	1001	75	.37	1011
2	2.24	1002	100	.32	1012
3	1.83	1003	150	.26	1013
5	1.41	1004	200	.22	1014
7.5	1.16	1005	250	.20	1015
10	1.00	1006	300	.18	1016
15	.82	1007	350	.17	1017
20	.71	1008	400	.16	1018
25	.63	1009	500	.14	1019
50	.45	1010	600	.13	1020

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.
750	.12	1021	4,000	.050	1031
800	.11	1022	4,500	.047	1032
1,000	.10	1023	5,000	.045	1033
1,250	.089	1024	6,000	.041	1034
1,500	.081	1025	7,000	.038	1035
2,000	.071	1026	7,500	.036	1036
2,250	.066	1027	8,000	.035	1037
2,500	.063	1028	8,500	.034	1038
3,000	.057	1029	9,000	.033	1039
3,500	.053	1030	10,000	.032	1040

Net (1-9), 1 thru 1,000 ohms **$1.14**
Net (1-9), 1,250 thru 5,000 ohms **1.18**
Net (1-9), 6,000 thru 10,000 ohms **1.27**

Net
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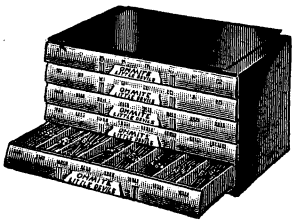
OHMITE®

RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE

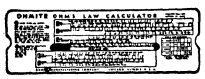


Serviceman's assortments of 150 Ohmite "Little Devil," ¼-watt or ½-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9" long, 4¾" high, and 5¼" deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE ±10% tolerance (40 resistance values)	**CAB-4**	150	¼ watt	$19.50
	CAB-10	150	½ watt	18.00
	CAB-2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

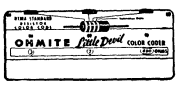
NEW OHM'S LAW CALCULATOR

Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the slide the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.



Ohm's Law Calculator (Cardboard).....**Net Price $0.25**
Ohm's Law Calculator (Plastic).....**Net Price 1.50**

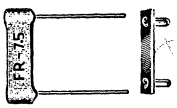
LITTLE DEVIL COLOR CODER



Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder.....**Net Price $ .10**

OHMITE FUSE RESISTOR

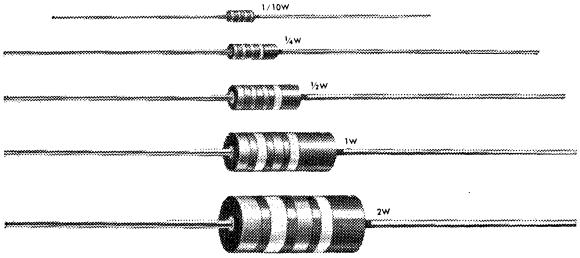


FR-7.5
Net Price $0.45 Each

Designed for replacement in all television receivers, the FR-7.5 Fuse Resistor is provided with 1½" tinned lead wires for easy installation directly in the TV circuit. May also be soldered to the plug-in terminal strip which is provided. 7.5 ohms.

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on Tally Tape (see below)

Now Includes MIL-R-11 Types

Ohmite's famous molded composition resistors. The ¼, ½, 1 and 2-watt sizes, conform respectively to Styles RC07, RC20, RC32 and RC42 of MIL-R-11C and meet all the requirements of this military specification.

Little Devils have molded insulation except for the 1/10 watt size which is coated with insulating material. Features: Great stability, low noise level, low voltage coefficient, high insulation breakdown voltage and rapid heat dissipation. They may be used at full rated wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in the tolerances and resistance ranges shown in the price table below. Ratings for maximum continuous RMS voltage drop are high: 150 volts for 1/10 watt units, 250 volts for ¼ watt, 350 volts for ½ watt, 500 volts for 1 watt and 750 volts for 2 watt units.

STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. *All* values listed are ±5% values. Price table lists the various "Little Devil" sizes and indicates the tolerances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.	Megs.
2.7	**22**	**180**	**1500**	**12000**	**0.1**	**0.82**	**6.8**
3.0	24	200	1600	13000	0.11	0.91	7.5
3.3	**27**	**220**	**1800**	**15000**	**0.12**	**1.0**	**8.2**
3.6	30	240	2000	16000	0.13	1.1	9.1
3.9	**33**	**270**	**2200**	**18000**	**0.15**	**1.2**	**10.0**
4.3	36	300	2400	20000	0.16	1.3	11.0
4.7	**39**	**330**	**2700**	**22000**	**0.18**	**1.5**	**12.0**
5.1	43	360	3000	24000	0.20	1.6	13.0
5.6	**47**	**390**	**3300**	**27000**	**0.22**	**1.8**	**15.0**
6.2	51	430	3600	30000	0.24	2.0	16.0
6.8	**56**	**470**	**3900**	**33000**	**0.27**	**2.2**	**18.0**
7.5	62	510	4300	36000	0.30	2.4	20.0
8.2	**68**	**560**	**4700**	**39000**	**0.33**	**2.7**	**22.0**
9.1	75	620	5100	43000	0.36	3.0	...
10	**82**	**680**	**5600**	**47000**	**0.39**	**3.3**	...
11	91	750	6200	51000	0.43	3.6	...
12	**100**	**820**	**6800**	**56000**	**0.47**	**3.9**	...
13	110	910	7500	62000	0.51	4.3	...
15	**120**	**1000**	**8200**	**68000**	**0.56**	**4.7**	...
16	130	1100	9100	75000	0.62	5.1	...
18	**150**	**1200**	**10000**	**82000**	**0.68**	**5.6**	...
20	160	1300	11000	91000	0.75	6.2	...

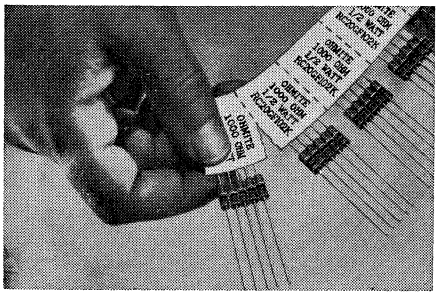
PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size Lgth.	Size Dia.	Resistance Range From	Resistance Range Thru	MIL Type	±5% Net 1-4	±5% Net 5-49	±10% Net 1-4	±10% Net 5-49
1/10	.140"	.067"	10 ohms	1.0 meg	—	—	—	24c LIDVS	20c LIDVS
1/4	¼"	.090"	2.7 ohms	24 ohms	RC 07*	40c LIDED	34c LIDED	20c LIDSM	17c LIDSM
			27 ohms	22 megs	RC 07	26c LIDED	22c LIDED	13c LIDSM	11c LIDSM
1/2	⅜"	9/64"	2.7 ohms	22 megs	RC 20*	24c LIDFA	20c LIDFA	12c LIDLO	10c LIDLO
1	9/16"	7/32"	2.7 ohms	22 megs	RC 32	36c LIDBU	30c LIDBU	18c LIDME	15c LIDME
2	11/16"	5/16"	10 ohms	22 megs	RC 42	48c LIDOC	40c LIDOC	24c LIDHI	20c LIDHI

*Minimum resistance under MIL-R-11C is 10 ohms.

"Tally Tape", Ohmite's wonderfully convenient packaging presently provided for 1/2, 1 and 2-watt resistors. Each perforated segment holds 5 resistors —prevents spilling or tangling—simplifies counting —is printed for quick identification—guarantees original, factory-fresh stock.

▼



For more complete information on OHMITE PRODUCTS, ask for Ohmite Stock Catalog.

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Net

SPECTROL ELECTRONICS CORPORATION

* Precisioned Wirewound Potentiometers
* Turns Counting Multidials*
* Trimming Potentiometers

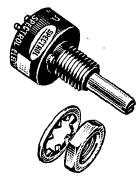
IN STOCK . . . Available at factory prices from your local distributor. Fifty electronics parts houses throughout the U.S. and Canada can furnish off-the-shelf delivery of these popular models. In addition, 25 Spectrol sales engineering representatives located throughout the western world will assist you to determine your potentiometer requirements.

PRECISION POTENTIOMETERS

MODEL 130 1-5/16" Diameter

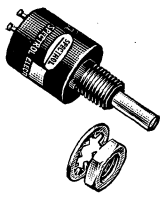
The Model 130 is a single-turn precision potentiometer, offering both economy and quality in Spectrol's characteristic clean and rugged design. The 130 performs dependably up to 105°C and functions reliably under normal humidity conditions. It is available in resistance ranges from 10Ω to 30K with a standard linearity tolerance of ±0.5%.

MODEL 140 1/2" Diameter



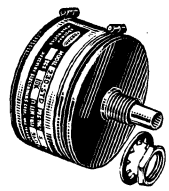
The Model 140 is a single turn unit providing reliable operation in a small package at a reasonable price. Only ½ inch in diameter and requiring less than ½ inch behind the panel for the bushing mount, this rugged unit is designed for applications where space and environmental requirements are critical. Meets: MIL-E-5272C, Procedure I (10 days cycling), humidity; MIL-STD-202A, Method 101A, Condition A (96 hours), salt spray. Available in ranges from 50Ω to 10K. Standard linearity, ±1.0%.

MODEL 150 1/2" Diameter



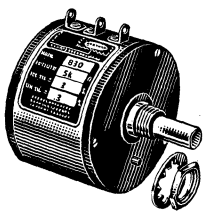
This Model 150 is similar to the 140 in operating and environmental specifications. Its major differences are in resistance range, 20K to 70K, and depth behind panel, ¾" (bushing mount). Standard linearity, ±1.0%.

MODEL 230 1-3/4" Diameter



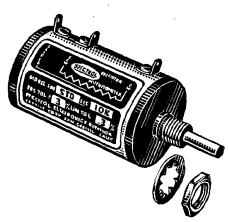
Spectrol's Model 230 high resistance precision potentiometer is a reliable single turn unit with resistance values up to 200K in a compact package. The Model 230 is economically priced, yet built to the highest standards of performance. For limited phasing, any cup of a multi-gang unit can be locked at any angle by simple adjustment of one clamp screw. Standard linearity, 0.3%.

MODEL 830 1-13/16" Diameter

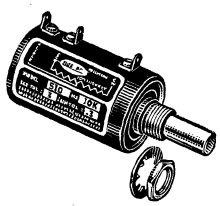


The Spectrol Model 830 is an economical 3-turn general purpose precision potentiometer featuring Spectrol quality and reliability at a competitive price. The 830 is available in resistance ranges from 1K to 50K with a standard linearity of ±0.25%.

MODEL 500 7/8" Diameter



The Spectrol Model 500 is a quality 10-turn miniature precision potentiometer with a ⅛" diameter shaft. It is available in resistance ranges from 1K to 100K with a standard linearity tolerance of ±0.25%.



MODEL 510 7/8" Diameter

The Spectrol Model 510 is a quality 10-turn miniature precision potentiometer with ¼" diameter shaft. It is available in standard resistances from 1K to 100K with a standard linearity tolerance of ±0.25%.

SEE NEXT PAGE FOR SPECIFICATIONS AND PRICES

Trade Discount Applies to List Prices Only

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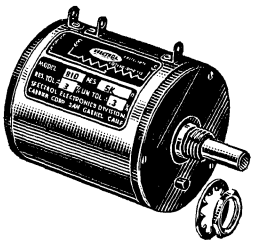
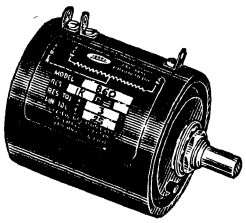
SPECTROL ELECTRONICS CORPORATION

MODEL 810 1-13/16" Diameter



The Model 810 is the result of a development program to produce a competitively priced 10-turn precision potentiometer and maintain Spectrol quality and reliability. The 810 is available in resistance ranges from 100Ω to 100K with a standard linearity tolerance of ±0.25%.

MODEL 860 1-13/16" Diameter



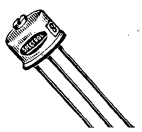
The Spectrol Model 860 precision 10-turn potentiometer is made especially for applications where low price plus steady, dependable operation is of prime importance.

Available in a resistance range from 100Ω to 100K, with standard linearity of ±0.25% and special linearity to ±0.1%, the tough 860 is the best buy for those "work horse" pot jobs.

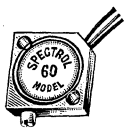
SPECIFICATIONS	MODEL 130	MODEL 140	MODEL 150	MODEL 230
Resistance tolerance	±3%	±5%	±5%	±3%
Linearity tolerance	±0.5%	±1% std., ±0.5% special	±1% std., ±0.5% special	±0.3%
Mechanical rotation	Continuous	Continuous	Continuous	Continuous
Electrical rotation	352° ±2°	325° ±3°	325° ±3°	354° ±1°
Power rating at 40°C	2.75 watts	2 watts at 70°C	2 watts at 70°C	2.5 watts
Life expectancy (shaft rev's)	1,000,000	250,000	250,000	1,000,000
Voltage breakdown	1,000V RMS	1,000V RMS	1,000V RMS	1,000V RMS
Temperature range	−55°C to +105°C	−55°C to +150°C	−55°C to +150°C	−55°C to +105°C
Weight (approx.)	1.5 oz.	0.15 oz.	0.25 oz.	3 oz.
Torque (max.)	Start 1.0 oz. in. Run 0.7 oz. in.	Start and run 2.0 oz. in. max.	Start and run 2.0 oz. in. max.	Start 1.0 oz. in. Run 0.7 oz. in.
Resistance values in stock	1K, 5K, 10K, 20K, 30K	50Ω, 100Ω, 200Ω, 500Ω, 1K, 2K, 5K 10K	20K, 50K, & 70K	1K, 5K, 10K, 20K, 30K, 50K, 100K, 200K
Price (quantities 1-9)	**$9.00** each	**$10.00** each	**$12.00** each	**$15.00** each

SPECIFICATIONS	MODEL 500	MODEL 510	MODEL 810	MODEL 830	MODEL 860
Resistance tolerance	±3%	±3%	±3%	±3%	±3%
Linearity tolerance	±0.25%	±0.25%	±0.25%	±0.25%	±0.25%
Mechanical rotation	3600° +10° −0°	3600° +10° −0°	3600° +4° −0°	1080° +4° −0°	3600° +4° −0°
Electrical rotation	3600° +10° −0°	3600° +10° −0°	3600° +4° −0°	1080° +4° −0°	3600° +4° −0°
Power rating at 40°C	3 watts	3 watts	8 watts	4.75 watts	8 watts
Life expectancy (shaft rev's)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Voltage breakdown	1,000V RMS	1,000V RMS	1,000V RMS	1,000V RMS	1,000V RMS
Temperature range	−55°C to +105°C	−55°C to +105°	−55°C to +105°C	−55°C to +105°C	−55°C to +105°C
Weight (approx.)	1 oz.	1.5 oz.	4.5 oz.	3 oz.	4.5 oz.
Torque (max.)	Start 0.5 oz. in. Run 0.4 oz. in.	Start 0.5 oz. in. Run 0.4 oz. in.	Start 1.75 oz. in. Run 1.25 oz. in.	Start 1.75 oz. in. Run 1.25 oz. in.	Start 1.75 oz. in. Run 1.25 oz. in.
Resistance values in stock	1K, 5K, 10K, 20K 30K, 50K, 100K	1K, 5K, 10K, 20K 30K, 50K, 100K	100Ω, 500Ω, 1K, 2K, 5K, 10K 20K, 30K, 50K, 100K	1K, 5K, 10K, 20K, 30K, 50K	100Ω, 500Ω, 1K, 2K, 5K, 10K, 20K 30K, 50K, 100K
Price (quantities 1-9)	**$15.00** each	**$12.00** each	**$12.00** each	**$10.00** each	**$10.00** each

TRIMMERS



⅓" diameter transistor size Model 80



½" square Model 60

⅜" square Model 50

Spectrol trimmers are produced to the same exacting standards of quality and reliability engineered into the entire Spectrol line. The standard Models 50 and 60 are equipped with Teflon insulated stranded leads and are humidity proof. Printed circuit pins on the side or on the bottom of the case and bushing panel mount are also available. They are 25-turn models having ±5.0% resistance tolerance. Model 50 is available in ranges from 50Ω to 50K and weighs only 1 gram. Model 60 is available in ranges from 50Ω to 100K and weighs 2 grams.

Unit quantity prices, Model 50—$7.50; Model 60—$6.50.

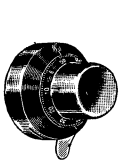
The unique Model 80 is truly an advance in the state of the art in trimmer design. Built into a standard TO-9 transistor size case with standard MIL grid spacing for leads, the single turn Model 80 is available in ranges from 50Ω to 20K with a tolerance of ±5%.

Designed specifically for transistor circuits, the top adjustment and sealed construction allows complete package encapsulation. Unit quantity prices $6.00 each.

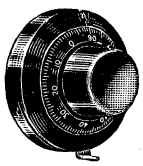
MULTIDIAL* Precision 10 Turn Indicating Dials

Mounting directly on your pot shaft with no panel drilling, the MULTIDIAL indicates each shaft turn in precise divisions of 1/100, and totals each completed turn with a snap—just one number visible for instant reading. The convenient locking mechanism grips and releases at a finger touch without disturbing your setting. Available in 2 sizes, 1" diameter and 1-13/16" diameter.

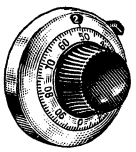
*Spectrol Trademark



Model 10— 1 inch diameter black anodized aluminum
PRICE: $8.75



Model 20— 1-13/16 inch diameter black anodized aluminum
PRICE: $7.50



Model 30— 1-13/16 inch diameter satin finished chrome
PRICE: $5.75

For complete electrical and mechanical specifications, contact your nearest Spectrol distributor or call or write direct.

SPECTROL ELECTRONICS CORPORATION
PLAINVIEW, L.I., NEW YORK
TORONTO, ONTARIO, CANADA
SAN GABRIEL, CALIFORNIA

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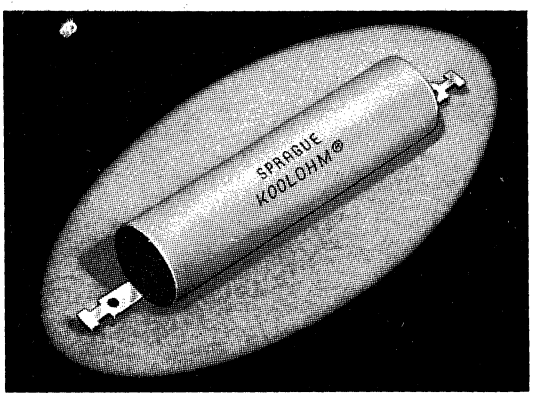
SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS



- **Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors**

- **New Smaller Size Koolohm Insulated-Shell Resistors**
- **New Smaller Size Insulated-Shell Design for Severe Duty Cycles Encountered in Heavy-Duty Industrial Electronic Equipment**
- **Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength**
- **Ceramic Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors**
- **Non Porous Tubular Ceramic Shells Sealed With High Temperature Silicone Cement**
- **Unexcelled Insulation and Mechanical Protection. Can Be Mounted in Direct Contact With Chassis**
- **For Prices on Quantities From 25 to 249, See Your Sprague Industrial Distributor**
- **For Complete Technical Details Refer to Latest Issue of Sprague Engineering Bulletin 7300**

	Type 450E 3 WATTS ¼" x 9/16"		Type 452E 5 WATTS ¼" x 1"		Type 454E 7 WATTS 15/32" x 15/16"		Type 456E 10 WATTS 15/32" x 1 29/32"		Type 458E 14 WATTS 15/32" x 1 29/32"	
Ohms	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
1	450E1R05	$.354	452E1R05	$.366	454E1R05	$.420	456E1R05	$.440	458E1R05	$.484
1.5	450E1R55	.354	452E1R55	.366	454E1R55	.420	456E1R55	.440	458E1R55	.484
2	450E2R05	.354	452E2R05	.366	454E2R05	.420	456E2R05	.440	458E2R05	.484
3	450E3R05	.354	452E3R05	.366	454E3R05	.420	456E3R05	.440	458E3R05	.484
4	450E4R05	.354	452E4R05	.366	454E4R05	.420	456E4R05	.440	458E4R05	.484
5	450E5R05	.354	452E5R05	.366	454E5R05	.420	456E5R05	.440	458E5R05	.484
7.5	450E7R55	.354	452E7R55	.366	454E7R55	.420	456E7R55	.440	458E7R55	.484
10	450E1005	.354	452E1005	.366	454E1005	.420	456E1005	.440	458E1005	.484
12	450E1205	.354	452E1205	.366	454E1205	.420	456E1205	.440	458E1205	.484
15	450E1505	.354	452E1505	.366	454E1505	.420	456E1505	.440	458E1505	.484
18	450E1805	.354	———	.366	———	.420	———	.440	———	.484
20	450E2005	.354	452E2005	.366	454E2005	.420	456E2005	.440	458E2005	.484
22	450E2205	.354	———	.366	———	.420	———	.440	———	.484
25	450E2505	.354	452E2505	.366	454E2505	.420	456E2505	.440	458E2505	.484
27	450E2705	.354	———	.366	———	.420	———	.440	———	.484
30	450E3005	.354	452E3005	.366	454E3005	.420	456E3005	.440	458E3005	.484
33	450E3305	.354	———	.366	———	.420	———	.440	———	.484
35	———	.354	452E3505	.366	454E3505	.420	456E3505	.440	458E3505	.484
39	450E3905	.354	———	.366	———	.420	———	.440	———	.484
40	450E4005	.354	452E4005	.366	454E4005	.420	456E4005	.440	458E4005	.484
47	450E4705	.354	———	.366	———	.420	———	.440	———	.484
50	450E5005	.354	452E5005	.366	454E5005	.420	456E5005	.440	458E5005	.484
56	450E5605	.354	———	.366	———	.420	———	.440	———	.484
68	450E6805	.354	———	.366	———	.420	———	.440	———	.484
75	450E7505	.354	452E7505	.366	454E7505	.420	456E7505	.440	458E7505	.484
82	450E8205	.354	———	.366	———	.420	———	.440	———	.484
100	450E1015	.354	452E1015	.366	454E1015	.420	456E1015	.440	458E1015	.484
120	450E1215	.354	452E1215	.366	454E1215	.420	456E1215	.440	458E1215	.484
150	450E1515	.354	452E1515	.366	454E1515	.420	456E1515	.440	458E1515	.484
180	450E1815	.354	———	.366	———	.420	———	.440	———	.484

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Net
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SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

Ohms	Type 450E 3 WATTS ¼" x 9/16"		Type 452E 5 WATTS ¼" x 1"		Type 454E 7 WATTS 15/32" x 15/16"		Type 456E 10 WATTS 15/32" x 1 29/32"		Type 458E 14 WATTS 15/32" x 1 29/32"	
	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
200	450E2015	$.354	452E2015	$.366	454E2015	$.420	456E2015	$.440	458E2015	$.484
220	450E2215	.354	452E2215	.366	454E2215	.420	456E2215	.440	458E2215	.484
250	450E2515	.354	452E2515	.366	454E2515	.420	456E2515	.440	458E2515	.484
270	450E2715	.354	———	.366	———	.420	———	.440	———	.484
300	450E3015	.354	452E3015	.366	454E3015	.420	456E3015	.440	458E3015	.484
330	450E3315	.354	———	.366	———	.420	———	.440	———	.444
350	———	.354	452E3515	.366	454E3515	.420	456E3515	.440	458E3515	.484
390	450E3915	.354	———	.366	———	.420	———	.440	———	.484
400	450E4015	.354	452E4015	.366	454E4015	.420	456E4015	.440	458E4015	.484
450	———	.354	452E4515	.366	———	.420	———	.440	———	.484
470	450E4715	.354	———	.366	———	.420	———	.440	———	.484
500	450E5015	.354	452E5015	.366	454E5015	.420	456E5015	.440	458E5015	.484
560	450E5615	.354	———	.366	———	.420	———	.440	———	.484
600	450E6015	.354	452E6015	.366	454E6015	.420	456E6015	.440	458E6015	.484
680	450E6815	.354	———	.366	———	.420	———	.440	———	.484
700	450E7015	.354	452E7015	.366	454E7015	.420	456E7515	.440	458E7015	.484
750	———	.354	452E7515	.366	454E7515	.420	———	.440	458E7515	.484
800	450E8015	.354	452E8015	.366	454E8015	.420	456E8015	.440	458E8015	.484
820	450E8215	.354	———	.366	———	.420	———	.440	———	.484
900	450E9015	.354	452E9015	.366	454E9015	.420	456E9015	.440	458E9015	.484
1000	450E1025	.354	452E1025	.366	454E1025	.420	456E1025	.440	458E1025	.484
1100	———	.354	452E1125	.378	454E1125	.432	456E1125	.458	458E1125	.504
1200	450E1225	.380	452E1225	.378	454E1225	.432	456E1225	.458	458E1225	.504
1400	450E1425	.380	452E1425	.378	454E1425	.432	456E1425	.458	458E1425	.504
1500	450E1525	.380	452E1525	.378	454E1525	.432	456E1525	.458	458E1525	.504
1800	450E1825	.380	452E1825	.378	454E1825	.432	456E1825	.458	458E1825	.504
2000	450E2025	.380	452E2025	.378	454E2025	.432	456E2025	.458	458E2025	.504
2200	450E2225	.394	452E2225	.388	454E2225	.432	465E2225	.470	458E2225	.518
2500	450E2525	.394	452E2525	.388	454E2525	.432	456E2525	.470	458E2525	.518
2700	450E2725	.394	———		———		———		———	
3000	450E3025	.394	452E3025	.388	454E3025	.432	456E3025	.470	458E3025	.518
3300	450E3325	.410	———		454E3325	.462	456E3325	.484	458E3325	.532
3500	———		452E3525	.396	454E3525	.462	456E3525	.484	458E3525	.532
3900	450E3925	.410	———		454E3925	.462	456E3925	.484	458E3925	.532
4000	450E4025	.410	452E4025	.396	454E4025	.462	456E4025	.484	458E4025	.532
4500	———		452E4525	.408	454E4525	.478	456E4525	.498	458E4525	.548
4700	450E4725	426	———		———		———		———	
5000	450E5025	.426	452E5025	.408	454E5025	.478	456E5025	.498	458E5025	.548
5600	450E5625	.438	———		———		———		———	
6000	450E6025	.438	452E6025	.418	454E6025	.488	456E6025	.510	458E6025	.562
6800	450E6825	.454	———		———		———		———	
7000	———		452E7025	.432	454E7025	.504	456E7025	.510	458E7025	.576
7500	450E7525	.466	452E7525	.442	454E7525	.518	456E7525	.534	458E7525	.588
8000	450E8025	.466	452E8025	.442	454E8025	.518	456E8025	.534	458E8025	.588
8200	450E8225	.482	———		———		———		———	
9000	450E9025	.482	452E9025	.458	454E9025	.532	456E9025	.552	458E9025	.608
10000	450E1035	.489	452E1035	.476	454E1025	.548	456E1035	.562	458E1035	.618
11000	———		———		454E1135	.548	456E1135	.582	458E1135	.640
12000	———		452E1235	.506	454E1235	.574	456E1235	.594	458E1125	.654
14000	———		452E1435	.534	454E1435	.600	456E1435	.618	458E1435	.680
15000	———		452E1535	.552	454E1535	.620	456E1535	.632	458E1535	.696
16000	———		———		454E1635	.630	456E1635	.650	458E1635	.716
18000	———		452E1835	.614	454E1835	.654	456E1835	.676	458E1835	.744
20000	———		452E2035	.668	454E2035	.678	456E2035	.702	458E2035	.772
22000	———		———		454E2235	.706	456E2235	.726	———	
25000	———		———		454E2535	.754	456E2535	.727	———	
30000	———		———		454E3035	.826	456E3035	.838	———	
35000	———		———		454E3535	.896	456E3535	.904	———	
40000	———		———		454E4035	.966	456E4035	.974	———	
45000	———		———		———		456E4535	1.042	———	
50000	———		———		———		456E5035	1.114	———	
60000	———		———		———		456E6035	1.252	———	
70000	———		———		———		456E7035	1.402	———	

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SPRAGUE RESISTORS

KOOLOHM NON-INDUCTIVE AXIAL-LEAD WIREWOUND RESISTORS

	Type 451E 3 WATTS ¼" x 1/16"		Type 453E 5 WATTS ¼" x 1"		Type 455E 7 WATTS 15/32" x 15/16"		Type 457E 10 WATTS 15/32" x 1 29/32"		Type 459E 14 WATTS 15/32" x 1 29/32"	
Ohms	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
1	451E1R05	$.468	453E1R05	$.542	455E1R05	$.574	457E1R05	$.630	459E1R05	$.694
1.5	451E1R55	.468	453E1R55	.542	455E1R55	.574	457E1R55	.630	459E1R55	.694
2	451E2R05	.468	453E2R05	.542	455E2R05	.574	457E2R05	.630	459E2R05	.694
3	451E3R05	.468	453E3R05	.542	455E3R05	.574	457E3R05	.630	459E3R05	.694
4	451E4R05	.468	453E4R05	.542	455E4R05	.574	457E4R05	.630	459E4R05	.694
5	451E5R05	.468	453E5R05	.542	455E5R05	.574	457E5R05	.630	459E5R05	.694
7.5	451E7R55	.468	453E7R55	.542	455E7R55	.574	457E7R55	.630	459E7R55	.694
10	451E1005	.468	453E1005	.542	455E1005	.574	457E1005	.630	459E1005	.694
12	451E1205	.468	453E1205	.542	455E1205	.574	457E1205	.630	459E1205	.694
15	451E1505	.468	453E1505	.542	455E1505	.574	457E1505	.630	459E1505	.694
18	451E1805		———		———		———		———	
20	451E2005	.468	453E2005	.542	455E2005	.574	457E2005	.630	459E2005	.694
22	451E2205	.468	———		———		———		———	
25	451E2505	.468	453E2505	.542	455E2505	.574	457E2505	.630	459E2505	.694
27	451E2705	.468	———		———		———		———	
30	451E3005	.468	453E3005	.542	455E3005	.574	457E3005	.630	459E3005	.694
33	451E3305	.468	———		———		———		———	
35	451E3505	.468	453E3505	.542	455E3505	.574	457E3505	.630	459E3505	.694
39	451E3905	.468	———		———		———		———	
40	451E4005	.468	453E4005	.542	455E4005	.574	457E4005	.630	459E4005	.694
47	451E4705	.468	———		———		———		———	
50	451E5005	.468	453E5005	.542	455E5005	.574	457E5005	.630	459E5005	.694
56	451E5605	.468	———		———		———		———	
68	451E6805	.468	———		———		———		———	
75	451E7505	.468	453E7505	.542	455E7505	.574	457E7505	.630	459E7505	.694
82	451E8205	.468	———		———		———		———	
100	451E1015	.468	453E1015	.542	455E1015	.574	457E1015	.630	459E1015	.694
120	451E1215	.468	453E1215	.542	455E1215	.574	457E1215	.630	459E1215	.694
150	451E1515	.468	453E1515	.542	455E1515	.574	457E1515	.630	459E1515	.694
180	451E1815	.468	———		———		———		———	
200	451E2015	.468	453E2015	.542	455E2015	.574	457E2015	.630	459E2015	.694
220	451E2215	.468	453E2215	.542	455E2215	.574	457E2215	.630	459E2215	.694
250	451E2515	.468	453E2515	.542	455E2515	.574	457E2515	.630	459E2515	.694
270	451E2715	.468	———		———		———		———	
300	451E3015	.468	453E3015	.542	455E3015	.574	457E3015	.630	459E3015	.694
330	451E3315	.468	———		———		———		———	
350	451E3515	.468	453E3515	.542	455E3515	.547	457E3515	.630	459E3515	.694
390	451E3915	.468	———		———		———		———	
400	451E4015	.468	453E4015	.542	455E4015	.574	457E4015	.630	459E4015	.696
450	451E4515	.468	453E4515	.542	———		———		———	
470	451E4715	.468	———		———		———		———	
500	451E5015	.468	453E5015	.542	455E5015	.574	457E5015	.630	459E5015	.694
560	451E5615	.468	———		———		———		———	
600	451E6015	.468	453E6015	.542	455E6015	.574	457E6015	.630	459E6015	.694
680	451E6815	.468	———		———		———		———	
700	451E7015	.468	453E7015	.542	455E7015	.574	457E7015	.630	459E7015	.694
750	451E7515	.468	453E7515	.542	455E7515	.574	457E7515	.630	459E7515	.694
800	451E8015	.468	453E8015	.542	455E8015	.574	457E8015	.630	459E8015	.694
820	451E8215	.468	———		———		———		———	
900	451E9015	.468	453E9015	.542	455E9015	.574	457E9015	.630	459E9015	.694
1000	451E1025	.468	453E1025	.542	455E1025	.574	457E1025	.630	459E1025	.694
1100	———		453E1125	.576	455E1125	.600	457E1125	.666	459E1125	.732
1200	451E1225	.532	453E1225	.576	455E1225	.600	457E1225	.666	459E1225	.732
1400	451E1425	.532	453E1425	.576	455E1425	.600	457E1425	.666	459E1425	.732
1500	451E1525	.532	453E1525	.576	455E1525	.600	457E1525	.666	459E1525	.732
1800	451E1825	.532	453E1825	.576	455E1825	.600	457E1825	.666	459E1825	.732
2000	451E2025	.532	453E2025	.576	455E2025	.600	457E2025	.666	459E2025	.732
2200	———		453E2225	.612	455E2225	.620	457E2225	.700	459E2225	.770
2500	———		453E2525	.612	455E2525	.620	457E2525	.700	459E2525	.770
3000	———		453E3025	.612	455E3025	.620	457E3025	.700	459E3025	.770
3300	———		———		455E3325	.658	457E3325	.728	459E3325	.800
3500	———		453E3525	.684	455E3525	.658	457E3525	.728	459E3525	.800
3900	———		———		455E3925	.658	457E3925	.728	459E3925	.800
4000	———		453E4025	.684	455E4025	.658	457E4025	.728	459E4025	.800
4500	———		———		455E4525	.658	457E4525	.774	459E4525	.852
5000	———		———		455E5025	.774	457E5025	.774	459E5025	.852
6000	———		———		———		457E6025	.798	459E6025	.878
7000	———		———		———		457E7025	.846	459E7025	.930
7500	———		———		———		457E7525	.896	459E7525	.986
8000	———		———		———		457E8025	.896	459E8025	.986
9000	———		———		———		457E9025	.968	459E9025	1.064
10000	———		———		———		457E1035	1.074	459E1035	1.182

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REM-58-6128

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Net

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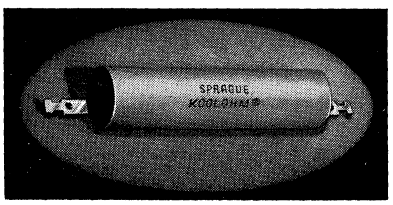
SPRAGUE RESISTORS

TYPE RW55, RW56 KOOLOHM® RESISTORS

- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristic V
- For Prices on Quantities From 10 to 249, See Your Sprague Industrial Distributor

Ohms	Type RW55 7 WATTS 15/32" x 1 7/8" Cat. No.	Net(1-9)	Type RW56 14 WATTS 15/32" x 2" Cat. No.	Net(1-9)
1.0	RW55V1R0	$1.682	RW56V1R0	$1.812
1.1	RW55V1R1	1.682	RW56V1R1	1.812
1.2	RW55V1R2	1.682	RW56V1R2	1.812
1.4	RW55V1R4	1.682	RW56V1R4	1.812
1.6	RW55V1R6	1.682	RW56V1R6	1.812
1.8	RW55V1R8	1.682	RW56V1R8	1.812
2.0	RW55V2R0	1.682	RW56V2R0	1.812
2.2	RW55V2R2	1.682	RW56V2R2	1.812
2.5	RW55V2R5	1.682	RW56V2R5	1.812
2.8	RW55V2R8	1.682	RW56V2R8	1.812
3.1	RW55V3R1	1.201	RW56V3R1	1.289
3.5	RW55V3R5	1.201	RW56V3R5	1.289
4.0	RW55V4R0	1.201	RW56V4R0	1.289
4.5	RW55V4R5	1.201	RW56V4R5	1.289
5.0	RW55V5R0	1.201	RW56V5R0	1.289
5.6	RW55V5R6	1.201	RW56V5R6	1.289
6.3	RW55V6R3	1.201	RW56V6R3	1.289
7.1	RW55V7R1	1.201	RW56V7R1	1.289
8.0	RW55V8R0	1.201	RW56V8R0	1.289
9.0	RW55V9R0	1.201	RW56V9R0	1.289
10	RW55V100	1.201	RW56V100	1.289
11	RW55V110	1.201	RW56V110	1.289
12	RW55V120	1.201	RW56V120	1.289
14	RW55V140	1.201	RW56V140	1.289
16	RW55V160	1.201	RW56V160	1.289
18	RW55V180	1.201	RW56V180	1.289
20	RW55V200	1.201	RW56V200	1.289
22	RW55V220	1.201	RW56V220	1.289
25	RW55V250	1.201	RW56V250	1.289
28	RW55V280	1.201	RW56V280	1.289
31	RW55V310	$1.201	RW56V310	$1.289
35	RW55V350	1.201	RW56V350	1.289
40	RW55V400	1.201	RW56V400	1.289
45	RW55V450	1.201	RW56V450	1.289
50	RW55V500	1.201	RW56V500	1.289
56	RW55V560	1.201	RW56V560	1.289
63	RW55V630	1.201	RW56V630	1.289
71	RW55V710	1.201	RW56V710	1.289
80	RW55V800	1.201	RW56V800	1.289
90	RW55V900	1.201	RW56V900	1.289
100	RW55V101	1.201	RW56V101	1.289
110	RW55V111	1.201	RW56V111	1.289
120	RW55V121	1.201	RW56V121	1.289
140	RW55V141	1.201	RW56V141	1.289
160	RW55V161	1.201	RW56V161	1.289
180	RW55V181	1.201	RW56V181	1.289
200	RW55V201	1.201	RW56V201	1.289
220	RW55V221	1.201	RW56V221	1.289
250	RW55V251	1.201	RW56V251	1.289
280	RW55V281	1.201	RW56V281	1.289
310	RW55V311	1.201	RW56V311	1.289
350	RW55V351	1.201	RW56V351	1.289
400	RW55V401	1.201	RW56V401	1.289
450	RW55V451	1.201	RW56V451	1.289
500	RW55V501	1.201	RW56V501	1.289
560	RW55V561	1.201	RW56V561	1.289
630	RW55V631	1.201	RW56V631	1.289
710	RW55V711	$1.201	RW56V711	$1.289
800	RW55V801	1.201	RW56V801	1.289
900	RW55V901	1.201	RW56V901	1.289
1000	RW55V102	1.201	RW56V102	1.289
1100	RW55V112	1.279	RW56V112	1.369
1200	RW55V122	1.279	RW56V122	1.369
1400	RW55V142	1.279	RW56V142	1.369
1600	RW55V162	1.279	RW56V162	1.369
1800	RW55V182	1.279	RW56V182	1.369
2000	RW55V202	1.279	RW56V202	1.369
2200	RW55V222	1.279	RW56V222	1.369
2500	RW55V252	1.279	RW56V252	1.369
2800	RW55V282	1.279	RW56V282	1.369
3100	RW55V312	1.279	RW56V312	1.369
3500	RW55V352	1.279	RW56V352	1.369
4000	RW55V402	1.279	RW56V402	1.369
4500	RW55V452	1.279	RW56V452	1.369
5000	RW55V502	1.279	RW56V502	1.369
5600	RW55V562	1.572	RW56V562	1.472
6300	RW55V632	1.572	RW56V632	1.472
7100	RW55V712	1.572	RW56V712	1.472
8000	RW55V802	1.572	RW56V802	1.472
9000	RW55V902	1.572	RW56V902	1.472
10000	———	1.572	RW56V103	1.472
11000	———	1.572	RW56V113	1.852
12000	———	1.572	RW56V123	1.852
14000	———	1.572	RW56V143	1.852
16000	———	1.572	RW56V163	1.852

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-614

Ohms	Type 25KT 25 Watts Cat. No.	Net	Type 50KT 50 Watts Cat. No.	Net	Type 120KT 120 Watts Cat. No.	Net
TYPE KT STANDARD RESISTORS						
5	25KT5R05	$ .87	50KT5R05	$1.17	120KT5R05	$4.65
10	25KT1005	.78	50KT1005	1.17	120KT1005	4.65
25	25KT2505	.78	50KT2505	1.17	120KT2505	4.65
50	25KT5005	.78	50KT5005	1.17	120KT5005	4.65
75	25KT7505	.78	50KT7505	1.17	120KT7505	4.65
100	25KT1015	.78	50KT1015	1.17	120KT1015	4.65
150	25KT1515	.78	50KT1515	1.17	120KT1515	4.65
200	25KT2015	.78	50KT2015	1.17	120KT2015	4.65
250	25KT2515	.78	50KT2515	1.17	120KT2515	4.65
390	———	———	———	———	120KT3915	4.65
500	25KT5015	.78	50KT5015	1.17	120KT5015	4.65
600	25KT6015	.81	50KT6015	1.17	120KT6015	4.65
750	25KT7515	.81	50KT7515	1.17	120KT7515	4.65
1000	25KT1025	.81	50KT1025	1.17	120KT1025	4.65
1500	25KT1525	.81	50KT1525	1.26	120KT1525	4.65
2000	25KT2025	.81	50KT2025	1.26	120KT2025	4.65
2500	25KT2525	.81	50KT2525	1.26	120KT2525	4.65
3000	25KT3025	.87	50KT3025	1.38	120KT3025	4.65
4000	25KT4025	.87	50KT4025	1.38	———	———
5000	25KT5025	.87	50KT5025	1.38	120KT5025	4.65
7500	25KT7525	.87	50KT7525	1.44	120KT7525	4.80
10000	25KT1035	.90	50KT1035	1.71	120KT1035	4.80
12000	25KT1235	.93	50KT1235	1.71	120KT1235	4.80
15000	25KT1535	.93	50KT1535	1.71	120KT1535	4.80
20000	25KT2035	.99	50KT2035	1.74	120KT2035	4.80
25000	25KT2535	1.08	50KT2535	1.74	120KT2535	4.80
40000	25KT4035	1.20	———	———	———	———
50000	25KT5035	1.32	50KT5035	1.80	120KT5035	4.80
75000	25KT7535	1.71	50KT7535	1.86	120KT7535	4.80
100000	25KT1045	2.13	50KT1045	2.10	120KT1045	4.80

Ohms	Type 25NIT 25NIT Watts Cat. No.	Net	Type 50NIT 50NIT Watts Cat. No.	Net	Type 120NIT 120NIT Watts Cat. No.	Net
TYPE NIT NON-INDUCTIVE RESISTORS						
5	25NIT5R05	$1.11	50NIT5R05	$1.26	120NIT5R05	$5.64
10	25NIT1005	1.11	50NIT1005	1.86	120NIT1005	5.64
25	25NIT2505	1.11	50NIT2505	1.86	120NIT2505	5.64
50	25NIT5005	1.11	50NIT5005	1.86	120NIT5005	5.64
75	25NIT7505	1.11	50NIT7505	1.86	120NIT7505	5.64
100	25NIT1015	1.11	50NIT1015	1.86	120NIT1015	5.64
150	25NIT1515	1.11	50NIT1515	1.86	120NIT1515	5.64
200	25NIT2015	1.11	50NIT2015	1.86	120NIT2015	5.64
250	25NIT2515	1.11	50NIT2515	1.86	120NIT2515	5.64
390	———	———	———	———	120NIT3915	5.64
500	25NIT5015	1.11	50NIT5015	1.86	120NIT5015	5.64
600	25NIT6015	1.11	50NIT6015	1.86	120NIT6015	5.64
750	25NIT7515	1.11	50NIT7515	1.86	120NIT7515	5.64
1000	25NIT1025	1.11	50NIT1025	1.86	120NIT1025	5.64
1500	25NIT1525	1.20	50NIT1525	1.86	120NIT1525	5.64
2000	25NIT2025	1.20	50NIT2025	1.86	120NIT2025	5.64
2500	25NIT2525	1.20	50NIT2525	1.86	120NIT2525	5.64
3000	25NIT3025	1.44	50NIT3025	1.86	120NIT3025	5.64
4000	25NIT4025	1.44	50NIT4025	1.86	———	———
5000	25NIT5025	1.44	50NIT5025	1.86	120NIT5025	5.64
7500	25NIT7525	1.44	50NIT7525	1.86	120NIT7525	6.00
10000	25NIT1035	1.65	50NIT1035	1.86	120NIT1035	6.00
12000	25NIT1235	1.65	50NIT1235	1.86	———	———
15000	25NIT1535	1.65	50NIT1535	1.86	120NIT1535	6.00
20000	25NIT2035	1.65	50NIT2035	1.98	120NIT2035	6.00
25000	25NIT2535	1.86	50NIT2535	1.98	120NIT2535	6.00
50000	———	———	50NIT5035	3.45	120NIT5045	6.00

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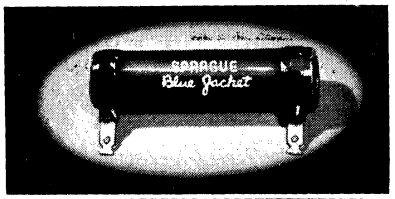
Net

SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Crazing, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2BJ, 3BJ, 5BJ and 10BJ Commercial or Service Equivalents to These Resistors, Refer to the Latest Issue of Sprague Catalog C-614
- For Prices on Quantities of 10 to 249 See Your Sprague Industrial Distributor

	Type 240E, 2 WATTS 3/16" x 3/8"		Type 242E, 3 WATTS 13/64" x 17/32"		Type 243E, 5 WATTS 13/64" x 15/16"		Type 244E, 7 WATTS 5/16" x 1 1/8"		Type 247E, 10 WATTS 5/16" x 1 3/4"	
Ohms	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)
1	240E1R05	$.591	242E1R05	$.591	243E1R05	$.622	244E1R05	$.641	247E1R05	$.681
1.5	240E1R55	.591	242E1R55	.591	243E1R55	.622	244E1R55	.641	247E1R55	.681
2	240E2R05	.591	242E2R05	.591	243E2R05	.622	244E2R05	.641	247E2R05	.681
3	240E3R05	.591	242E3R05	.591	243E3R05	.622	244E3R05	.641	247E3R05	.681
4	240E4R05	.591	242E4R05	.591	243E4R05	.622	244E4R05	.641	247E4R05	.681
5	240E5R05	.591	242E5R05	.591	243E5R05	.622	244E5R05	.641	247E5R05	.681
7.5	240E7R55	.591	242E7R55	.591	243E7R55	.622	244E7R55	.641	247E7R55	.681
10	240E1005	.591	242E1005	.591	243E1005	.622	244E1005	.641	247E1005	.681
12	240E1205	.591	242E1205	.591	243E1205	.622	244E1205	.641	247E1205	.681
15	240E1505	.591	242E1505	.591	243E1505	.622	244E1505	.641	247E1505	.681
18	240E1805	.591	242E1805	.591	—	—	—	—	—	—
20	240E2005	.591	242E2005	.591	243E2005	.622	244E2005	.641	247E2005	.681
22	240E2205	.591	242E2205	.591	—	—	—	—	—	—
25	240E2505	.591	242E2505	.591	243E2505	.622	244E2505	.641	247E2505	.681
27	240E2705	.591	243E2705	.591	—	—	—	—	—	—
30	240E3005	.591	242E3005	.591	243E3005	.622	244E3005	.641	247E3005	.681
33	240E3305	.591	242E3305	.591	—	—	—	—	—	—
35	—	—	—	—	243E3505	.622	244E3505	.641	247E3505	.681
39	240E3905	.591	242E3905	.591	—	—	—	—	—	—
40	240E4005	.591	242E4005	.591	243E4005	.622	244E4005	.641	247E4005	.681
47	240E4705	.591	242E4705	.591	—	—	—	—	—	—
50	240E5005	.591	242E5005	.591	243E5005	.622	244E5005	.641	247E5005	.681
56	240E5605	.591	242E5605	.591	—	—	—	—	—	—
68	240E6805	.591	242E6805	.591	—	—	—	—	—	—
75	240E7505	.591	242E7505	.591	243E7505	.622	244E7505	.641	247E7505	.681
82	240E8205	.591	242E8205	.591	—	—	—	—	—	.681
100	240E1015	.591	242E1015	.591	243E1015	.622	244E1015	.641	247E1015	.681
120	240E1215	.591	242E1215	.591	243E1215	.622	244E1215	.641	247E1215	.681
150	240E1515	.591	242E1515	.591	243E1515	.622	244E1515	.641	247E1515	.681
180	240E1815	.591	242E1815	.591	—	—	—	—	—	—
200	240E2015	.591	242E2015	.591	243E2015	.622	244E2015	.641	247E2015	.681
220	240E2215	.591	242E2215	.591	243E2215	.622	244E2215	.641	247E2215	.681
250	240E2515	.591	242E2515	.591	243E2515	.622	244E2515	.641	247E2515	.681
270	240E2715	.591	242E2715	.591	—	—	—	—	—	—
300	240E3015	.591	242E3015	.591	243E3015	.622	244E3015	.641	247E3015	.681
330	240E3315	.591	242E3315	.591	—	—	—	—	—	—
350	—	—	—	—	243E3515	.622	244E3515	.641	247E3515	.681
390	240E3915	.591	242E3915	.591	—	—	—	—	—	—
400	240E4015	.591	242E4015	.591	243E4015	.622	244E4015	.641	247E4015	.681
450	—	—	—	—	243E4515	.622	—	—	—	—
470	240E4715	.591	242E4715	.591	—	—	—	—	—	—
500	240E5015	.591	242E5015	.591	243E5015	.622	244E5015	.641	247E5015	.681
560	240E5615	.591	242E5615	.591	—	—	—	—	—	—
600	240E6015	.591	242E6015	.591	243E6015	.622	244E6015	.641	247E6015	.681
680	240E6815	.591	242E6815	.591	—	—	—	—	—	—
700	240E7015	.591	242E7015	.591	243E7015	.622	244E7015	.641	247E7015	.681
750	—	—	—	—	243E7515	.622	244E7515	.641	247E7515	.681
800	240E8015	.591	242E8015	.591	243E8015	.622	244E8015	.641	247E8015	.681
820	240E8215	.591	242E8215	.591	—	—	—	—	—	—
900	240E9015	.591	242E9015	.591	243E9015	.622	244E9015	.641	247E9015	.681
1000	240E1025	.591	242E1025	.591	243E1025	.622	244E1025	.641	247E1025	.681
1100	—	—	—	—	243E1125	.659	244E1125	.702	247E1125	.732
1200	240E1225	.622	242E1225	.622	243E1225	.659	244E1225	.702	247E1225	.732
1400	240E1425	.622	242E1425	.622	243E1425	.659	244E1425	.702	247E1425	.732
1500	240E1525	.622	242E1525	.622	243E1525	.659	244E1525	.702	247E1525	.732
1800	240E1825	.622	242E1825	.622	243E1825	.659	244E1825	.702	247E1825	.732
2000	240E2025	.622	242E2025	.622	243E2025	.659	244E2025	.702	247E2025	.732
2200	240E2225	.622	242E2225	.622	243E2225	.659	244E2225	.702	247E2225	.732
2500	240E2525	.622	242E2525	.622	243E2525	.659	244E2525	.702	247E2525	.732
2700	240E2725	.622	242E2725	.622	—	—	—	—	—	—
3000	240E3025	.622	242E3025	.622	243E3025	.659	244E3025	.702	247E3025	.732
3300	240E3325	.622	242E3325	.622	—	—	244E3325	.702	247E3325	.732
3500	240E3525	.622	—	—	243E3525	.659	244E3525	.702	247E3525	.732
3900	—	—	242E3925	.622	—	—	244E3925	.702	247E3925	.732
4000	—	—	242E4025	.622	243E4025	.659	244E4025	.702	247E4025	.732
4500	—	—	—	—	243E4525	.659	244E4525	.702	247E4525	.732
4700	—	—	242E4725	.622	—	—	—	—	—	—
5000	—	—	242E5025	.622	243E5025	.659	244E5025	.782	247E5025	.732
5600	—	—	242E5625	.659	—	—	—	—	—	—
6000	—	—	242E6025	.659	243E6025	.701	244E6025	.782	247E6025	.839
6800	—	—	242E6825	.659	—	—	—	—	—	—
7000	—	—	—	—	243E7025	.701	244E7025	.782	247E7025	.839
7500	—	—	242E7525	.659	243E7525	.701	244E7525	.782	247E7525	.839
8000	—	—	242E8025	.659	243E8025	.701	244E8025	.782	247E8025	.839
8200	—	—	242E8225	.659	—	—	—	—	—	—

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SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 240E, 2W ATTS 3/16" x 3/8" Cat. No.	Net Ea. (1-9)	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Net Ea. (1-9)	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Net Ea. (1-9)	Type 244E, 7 WATTS 5/16" x 1 1/8" Cat. No.	Net Ea. (1-9)	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.	Net Ea. (1-9)
9000	———	——	242E9025	.659	243E9025	.701	244E9025	.782	247E9025	.839
10000	———	——	242E1035	.659	243E1035	.701	244E1035	.782	247E1035	.839
11000	———	——	———	——	———	——	244E1135	.782	247E1135	.949
12000	———	——	———	——	243E1235	.782	244E1235	.782	247E1235	.949
14000	———	——	———	——	243E1435	.782	244E1435	.782	247E1435	.949
15000	———	——	———	——	243E1535	.782	244E1535	.782	247E1535	.949
16000	———	——	———	——	———	——	244E1635	.782	247E1635	.949
17000	———	——	———	——	———	——	244E1735	.782	———	———
18000	———	——	———	——	243E1835	.782	244E1835	.782	247E1835	.949
20000	———	——	———	——	243E2035	.782	244E2035	.782	247E2035	.949
22000	———	——	———	——	243E2235	.821	244E2235	.913	247E2235	1.001
25000	———	——	———	——	243E2535	.821	244E2535	.913	247E2535	1.001
30000	———	——	———	——	243E3035	.821	244E3035	.913	247E3035	1.001
35000	———	——	———	——	———	——	———	——	247E3535	1.001
40000	———	——	———	——	———	——	———	——	247E4035	1.001
45000	———	——	———	——	———	——	———	——	247E4535	1.122
50000	———	——	———	——	———	——	———	——	247E5035	1.122

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

- This Series of Blue Jacket Wirewound Resistors Meet All Performance Characteristics of Military Specification MIL R-26C, Characteristic V
- For Prices on Quantities of 10 to 249 Contact Your Sprague Industrial Distributor

Ohms	Type RW59 3 WATTS 1/4" x 1/2" Cat. No.	Net Ea. (1-9)	Type RW57 6.5 WATTS 3/8" x 1" Cat. No.	Net Ea. (1-9)	Type RW58 11 WATTS 7/16" x 1 7/8" Cat. No.	Net Ea. (1-9)
1.0	RW59V1R0	$1.281	RW57V1R0	$1.302	RW58V1R0	$1.462
1.1	RW59V1R1	1.281	RW57V1R1	1.302	RW58V1R1	1.462
1.2	RW59V1R2	1.281	RW57V1R2	1.302	RW58V1R2	1.462
1.4	RW59V1R4	1.281	RW57V1R4	1.302	RW58V1R4	1.462
1.6	RW59V1R6	1.281	RW57V1R6	1.302	RW58V1R6	1.462
1.8	RW59V1R8	1.281	RW57V1R8	1.302	RW58V1R8	1.462
2.0	RW59V2R0	1.281	RW57V2R0	1.302	RW58V2R0	1.462
2.2	RW59V2R2	1.281	RW57V2R2	1.302	RW58V2R2	1.462
2.5	RW59V2R5	1.281	RW57V2R5	1.302	RW58V2R5	1.462
2.8	RW59V2R8	1.281	RW57V2R8	1.302	RW58V2R8	1.462
3.1	RW59V3R1	.891	RW57V3R1	.919	RW58V3R1	1.028
3.5	RW59V3R5	.891	RW57V3R5	.919	RW58V3R5	1.028
4.0	RW59V4R0	.891	RW57V4R0	.919	RW58V4R0	1.028
4.5	RW59V4R5	.891	RW57V4R5	.919	RW58V4R5	1.028
5.0	RW59V5R0	.891	RW57V5R0	.919	RW58V5R0	1.028
5.6	RW59V5R6	.891	RW57V5R6	.919	RW58V5R6	1.028
6.3	RW59V6R3	.891	RW57V6R3	.919	RW58V6R3	1.028
7.1	RW59V7R1	.891	RW57V7R1	.919	RW58V7R1	1.028
8.0	RW59V8R0	.891	RW57V8R0	.919	RW58V8R0	1.028
9.0	RW59V9R0	.891	RW57V9R0	.919	RW58V9R0	1.028
10	RW59V100	.891	RW57V100	.919	RW58V100	1.028
11	RW59V110	.891	RW57V110	.919	RW58V110	1.028
12	RW59V120	.891	RW57V120	.919	RW58V120	1.028
14	RW59V140	.891	RW57V140	.919	RW58V140	1.028
16	RW59V160	.891	RW57V160	.919	RW58V160	1.028
18	RW59V180	.891	RW57V180	.919	RW58V180	1.028
20	RW59V200	.891	RW57V200	.919	RW58V200	1.028
22	RW59V220	.891	RW57V220	.919	RW58V220	1.028
25	RW59V250	.891	RW57V250	.919	RW58V250	1.028
28	RW59V280	.891	RW57V280	.919	RW58V280	1.028
31	RW59V310	.891	RW57V310	.919	RW58V310	1.028
35	RW59V350	.891	RW57V350	.919	RW58V350	1.028
40	RW59V400	.891	RW57V400	.919	RW58V400	1.028
45	RW59V450	.891	RW57V450	.919	RW58V450	1.028
50	RW59V500	.891	RW57V500	.919	RW58V500	1.028
56	RW59V560	.891	RW57V560	.919	RW58V560	1.028
63	RW59V630	.891	RW57V630	.919	RW58V630	1.028
71	RW59V710	.891	RW57V710	.919	RW58V710	1.028
80	RW59V800	.891	RW57V800	.919	RW58V800	1.028
90	RW59V900	.891	RW57V900	.919	RW58V900	1.028
100	RW59V101	.891	RW57V101	.919	RW58V101	1.028
110	RW59V111	.891	RW57V111	.919	RW58V111	1.028
120	RW59V121	.891	RW57V121	.919	RW58V121	1.028
140	RW59V141	.891	RW57V141	.919	RW58V141	1.028
160	RW59V161	$ .891	RW57V161	$ .919	RW58V161	$1.028
180	RW59V181	.891	RW57V181	.919	RW58V181	1.028
200	RW59V201	.891	RW57V201	.919	RW58V201	1.028
220	RW59V221	.891	RW57V221	.919	RW58V221	1.028
250	RW59V251	.891	RW57V251	.919	RW58V251	1.028
280	RW59V281	.891	RW57V281	.919	RW58V281	1.028
310	RW59V311	.891	RW57V311	.919	RW58V311	1.028
350	RW59V351	.891	RW57V351	.919	RW58V351	1.028
400	RW59V401	.891	RW57V401	.919	RW58V401	1.028
450	RW59V451	.891	RW57V451	.919	RW58V451	1.028
500	RW59V501	.891	RW57V501	.919	RW58V501	1.028
560	RW59V561	.891	RW57V561	.919	RW58V561	1.028
630	RW59V631	.891	RW57V631	.919	RW58V631	1.028
710	RW59V711	.891	RW57V711	.919	RW58V711	1.028
800	RW59V801	.891	RW57V801	.919	RW58V801	1.028
900	RW59V901	.891	RW57V901	.919	RW58V901	1.028
1000	RW59V102	.891	RW57V102	.919	RW58V102	1.028
1100	RW59V112	1.101	RW57V112	1.011	RW58V112	1.111
1200	RW59V122	1.101	RW57V122	1.011	RW58V122	1.111
1400	RW59V142	1.101	RW57V142	1.011	RW58V142	1.111
1600	RW59V162	1.101	RW57V162	1.011	RW58V162	1.111
1800	RW59V182	1.101	RW57V182	1.011	RW58V182	1.111
2000	RW59V202	1.101	RW57V202	1.011	RW58V202	1.111
2200	———	——	RW57V222	1.011	RW58V222	1.111
2500	———	——	RW57V252	1.011	RW58V252	1.111
2800	———	——	RW57V282	1.011	RW58V282	1.111
3100	———	——	RW57V312	1.011	RW58V312	1.111
3500	———	——	RW57V352	1.011	RW58V352	1.111
4000	———	——	———	——	RW58V402	1.111
4500	———	——	———	——	RW58V452	1.111
5000	———	——	———	——	RW58V502	1.111
5600	———	——	———	——	RW58V562	1.259
6300	———	——	———	——	RW58V632	1.259
7100	———	——	———	——	RW58V712	1.259
8000	———	——	———	——	RW58V802	1.259
9000	———	——	———	——	RW58V902	1.259
10000	———	——	———	——	RW58V103	1.259
11000	———	——	———	——	RW58V113	1.749
12000	———	——	———	——	RW58V123	1.749
14000	———	——	———	——	RW58V143	1.749
16000	———	——	———	——	RW58V163	1.749
18000	———	——	———	——	RW58V183	1.749
20000	———	——	———	——	RW58V203	1.749

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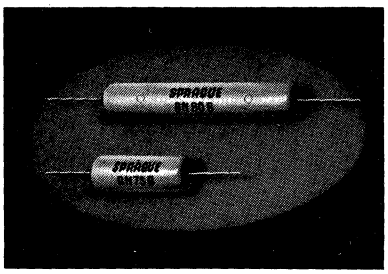
SPRAGUE RESISTORS

FILMISTOR® 'B' MOLDED-CASE DEPOSITED-CARBON RESISTORS



- Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficient
- Low Self-inductance, Low Distributed Capacitance
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509C, Characteristic B.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures from Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7000
- For Prices on Quantities from 25 to 999 Pieces, See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

10.0	26.7	71.5	191	511	1.37 K	3.65 K	9.76 K	26.1 K	69.8 K	187 K	499 K	1.37 meg.	3.74 meg.
10.2	27.4	73.2	196	523	1.40 K	3.74 K	10.00 K	26.7 K	71.5 K	191 K	511 K	1.40 meg.	3.83 meg.
10.5	28.0	75.0	200	536	1.43 K	3.83 K	10.2 K	27.4 K	73.2 K	196 K	523 K	1.43 meg.	3.92 meg.
10.7	28.7	76.8	205	549	1.47 K	3.92 K	10.5 K	28.0 K	75.0 K	200 K	536 K	1.47 meg.	4.02 meg.
11.0	29.4	78.7	210	562	1.50 K	4.02 K	10.7 K	28.7 K	76.8 K	205 K	549 K	1.50 meg.	4.12 meg.
11.3	30.1	80.6	215	576	1.54 K	4.12 K	11.0 K	29.4 K	78.7 K	210 K	562 K	1.54 meg.	4.22 meg.
11.5	30.9	82.5	221	590	1.58 K	4.22 K	11.3 K	30.1 K	80.6 K	215 K	576 K	1.58 meg.	4.32 meg.
11.8	31.6	84.5	226	604	1.62 K	4.32 K	11.5 K	30.9 K	82.5 K	221 K	590 K	1.62 meg.	4.42 meg.
12.1	32.4	86.6	232	619	1.65 K	4.42 K	11.8 K	31.6 K	84.5 K	226 K	604 K	1.65 meg.	4.53 meg.
12.4	33.2	88.7	237	634	1.69 K	4.53 K	12.1 K	32.4 K	86.6 K	232 K	619 K	1.69 meg.	4.64 meg.
12.7	34.0	90.9	243	649	1.74 K	4.64 K	12.4 K	33.2 K	88.7 K	237 K	634 K	1.74 meg.	4.75 meg.
13.0	34.8	93.1	249	665	1.78 K	4.75 K	12.7 K	34.0 K	90.9 K	243 K	649 K	1.78 meg.	4.87 meg.
13.3	35.7	95.3	255	681	1.82 K	4.87 K	13.0 K	34.8 K	93.1 K	249 K	665 K	1.82 meg.	4.99 meg.
13.7	36.5	97.6	261	698	1.87 K	4.99 K	13.3 K	35.7 K	95.3 K	255 K	681 K	1.87 meg.	5.11 meg.
14.0	37.4	100	267	715	1.91 K	5.11 K	13.7 K	36.5 K	97.6 K	261 K	698 K	1.91 meg.	5.23 meg.
14.3	38.3	102	274	732	1.96 K	5.23 K	14.0 K	37.4 K	100 K	267 K	715 K	1.96 meg.	5.36 meg.
14.7	39.2	105	280	750	2.00 K	5.36 K	14.3 K	38.3 K	102 K	274 K	732 K	2.00 meg.	5.49 meg.
15.0	40.2	107	287	768	2.05 K	5.49 K	14.7 K	39.2 K	105 K	280 K	750 K	2.05 meg.	5.62 meg.
15.4	41.2	110	294	787	2.10 K	5.62 K	15.0 K	40.2 K	107 K	287 K	768 K	2.10 meg.	5.76 meg.
15.8	42.2	113	301	806	2.15 K	5.76 K	15.4 K	41.2 K	110 K	294 K	787 K	2.15 meg.	5.90 meg.
16.2	43.2	115	309	825	2.21 K	5.90 K	15.8 K	42.2 K	113 K	301 K	806 K	2.21 meg.	6.04 meg.
16.5	44.2	118	316	845	2.26 K	6.04 K	16.2 K	43.2 K	115 K	309 K	825 K	2.26 meg.	6.19 meg.
16.9	45.3	121	324	866	2.32 K	6.19 K	16.5 K	44.2 K	118 K	316 K	845 K	2.32 meg.	6.34 meg.
17.4	46.4	124	332	887	2.37 K	6.34 K	16.9 K	45.3 K	121 K	324 K	866 K	2.37 meg.	6.49 meg.
17.8	47.5	127	340	909	2.43 K	6.49 K	17.4 K	46.4 K	124 K	332 K	887 K	2.43 meg.	6.65 meg.
18.2	48.7	130	348	931	2.49 K	6.65 K	17.8 K	47.5 K	127 K	340 K	909 K	2.49 meg.	6.81 meg.
18.7	49.9	133	357	953	2.55 K	6.81 K	18.2 K	48.7 K	130 K	348 K	931 K	2.55 meg.	6.98 meg.
19.1	51.1	137	365	976	2.61 K	6.98 K	18.7 K	49.9 K	133 K	357 K	953 K	2.61 meg.	7.15 meg.
19.6	52.3	140	374	1.0 K	2.67 K	7.15 K	19.1 K	51.1 K	137 K	365 K	976 K	2.67 meg.	7.32 meg.
20.0	53.6	143	383	1.02 K	2.74 K	7.32 K	19.6 K	52.3 K	140 K	374 K	1.00 meg.	2.74 meg.	7.50 meg.
20.5	54.9	147	392	1.05 K	2.80 K	7.50 K	20.0 K	53.6 K	143 K	383 K	1.02 meg.	2.80 meg.	7.68 meg.
21.0	56.2	150	402	1.07 K	2.87 K	7.68 K	20.5 K	54.9 K	147 K	392 K	1.05 meg.	2.87 meg.	7.87 meg.
21.5	57.6	154	412	1.10 K	2.94 K	7.87 K	21.0 K	56.2 K	150 K	402 K	1.07 meg.	2.94 meg.	8.06 meg.
22.1	59.0	158	422	1.13 K	3.01 K	8.06 K	21.5 K	57.6 K	154 K	412 K	1.10 meg.	3.01 meg.	8.25 meg.
22.6	60.4	162	432	1.15 K	3.09 K	8.25 K	22.1 K	59.0 K	158 K	422 K	1.13 meg.	3.09 meg.	8.45 meg.
23.2	61.9	165	442	1.18 K	3.16 K	8.45 K	22.6 K	60.4 K	162 K	432 K	1.15 meg.	3.16 meg.	8.66 meg.
23.7	63.4	169	453	1.21 K	3.24 K	8.66 K	23.2 K	61.9 K	165 K	442 K	1.18 meg.	3.24 meg.	8.87 meg.
24.3	64.9	174	464	1.24 K	3.32 K	8.87 K	23.7 K	63.4 K	169 K	453 K	1.21 meg.	3.32 meg.	9.09 meg.
24.9	66.5	178	475	1.27 K	3.40 K	9.09 K	24.3 K	64.9 K	174 K	464 K	1.24 meg.	3.40 meg.	9.31 meg.
25.5	68.1	182	487	1.30 K	3.48 K	9.31 K	24.9 K	66.5 K	178 K	475 K	1.27 meg.	3.48 meg.	9.53 meg.
26.1	69.8	187	499	1.33 K	3.57 K	9.53 K	25.5 K	68.1 K	182 K	487 K	1.30 meg.	3.57 meg.	9.76 meg.
											1.33 meg.	3.65 meg.	10 meg.

⅛ WATT
TYPE 405E/RN60B

.135″ Dia. x .400″ Long

Ohms	Net, each (1-24)
10 thru 24.9	$1.79
25.5 thru 49.9	1.19
51.1 thru 499	1.03
511 thru 499 K	.97
511 K thru 1.00 meg.	1.03

¼ WATT
TYPE 406E/RN65B

.200″ Dia. x .600″ Long

Ohms	Net, each (1-24)
10 thru 49.9	$1.00
51.1 thru 499 K	.94
511 K thru 1.00 meg.	1.00
1.02 meg. thru 2.00 meg.	1.08

½ WATT
TYPE 407E/RN70B

.250″ Dia. x .750″ Long

Ohms	Net, each (1-24)
10 thru 49.9	$ .91
51.1 thru 2.15 meg.	.86
2.21 thru 3.16 meg.	1.03

1 WATT
TYPE 408E/RN75B

.375″ Dia. x 1.062″ Long

Ohms	Net, each (1-24)
10 thru 97.6	$1.37
100 thru 4.99 meg.	1.28
5.11 meg.	1.43

2 WATT
TYPE 409E/RN80B

.375″ Dia. x 2.220″ Long

Ohms	Net, each (1-24)
30.1 thru 196	$2.00
200 thru 10 meg.	1.57

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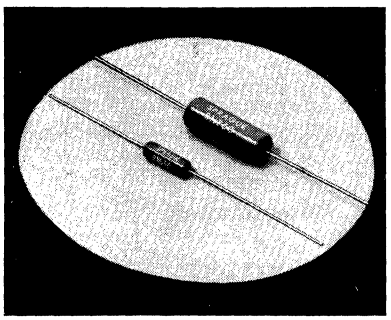
SPRAGUE RESISTORS

FILMISTOR® 'C' MOLDED-CASE METAL-FILM RESISTORS



- Key Performance Characteristics Include High Accuracy, Reliability, Stability, Combined with Low Temperature Coefficients
- Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size
- Low Inherent Noise Level, Negligible Voltage Coefficient of Resistance
- Excellent Stability Under Rated Load and Under Severe Conditions of Humidity
- Designed to Meet Stringent Performance Characteristics of Spec. MIL-R-10509C, Characteristic C
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moisture Penetration
- Metallic Resistive Film is Firmly Bonded to Special Ceramic Core, Automatically Spiralled to Desired Resistance Values
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7025
- For Prices on Quantities from 25 to 999 Pieces, See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

100	210	442	931	1.96 K	4.12 K	8.87 K	19.1 K	41.2 K	88.7 K	191 K	412 K	887 K	1.91 meg.
102	215	453	953	2.00 K	4.22 K	9.09 K	19.6 K	42.2 K	90.9 K	196 K	422 K	909 K	1.96 meg.
105	221	464	976	2.05 K	4.32 K	9.31 K	20.0 K	43.2 K	93.1 K	200 K	432 K	931 K	2.00 meg.
107	226	475	1.0 K	2.10 K	4.42 K	9.53 K	20.5 K	44.2 K	95.3 K	205 K	442 K	953 K	2.05 meg.
110	232	487	1.02 K	2.15 K	4.53 K	9.76 K	21.0 K	45.3 K	97.6 K	210 K	453 K	976 K	2.10 meg.
113	237	499	1.05 K	2.21 K	4.64 K	10.00 K	21.5 K	46.4 K	100 K	215 K	464 K	1.00 meg.	2.15 meg.
115	243	511	1.07 K	2.26 K	4.75 K	10.2 K	22.1 K	47.5 K	102 K	221 K	475 K	1.02 meg.	2.21 meg.
118	249	523	1.10 K	2.32 K	4.87 K	10.5 K	22.6 K	48.7 K	105 K	226 K	487 K	1.05 meg.	2.26 meg.
121	255	536	1.13 K	2.37 K	4.99 K	10.7 K	23.2 K	49.9 K	107 K	232 K	499 K	1.07 meg.	2.32 meg.
124	261	549	1.15 K	2.43 K	5.11 K	11.0 K	23.7 K	51.1 K	110 K	237 K	511 K	1.10 meg.	2.37 meg.
127	267	562	1.18 K	2.49 K	5.23 K	11.3 K	24.3 K	52.3 K	113 K	243 K	523 K	1.13 meg.	2.43 meg.
130	274	576	1.21 K	2.55 K	5.36 K	11.5 K	24.9 K	53.6 K	115 K	249 K	536 K	1.15 meg.	2.49 meg.
133	280	590	1.24 K	2.61 K	5.49 K	11.8 K	25.5 K	54.9 K	118 K	255 K	549 K	1.18 meg.	2.55 meg.
137	287	604	1.27 K	2.67 K	5.62 K	12.1 K	26.1 K	56.2 K	121 K	261 K	562 K	1.21 meg.	2.61 meg.
140	294	619	1.30 K	2.74 K	5.76 K	12.4 K	26.7 K	57.6 K	124 K	267 K	576 K	1.24 meg.	2.67 meg.
143	301	634	1.33 K	2.80 K	5.90 K	12.7 K	27.4 K	59.0 K	127 K	274 K	590 K	1.27 meg.	2.74 meg.
147	309	649	1.37 K	2.87 K	6.04 K	13.0 K	28.0 K	60.4 K	130 K	280 K	604 K	1.30 meg.	2.80 meg.
150	316	665	1.40 K	2.94 K	6.19 K	13.3 K	28.7 K	61.9 K	133 K	287 K	619 K	1.33 meg.	2.87 meg.
154	324	681	1.43 K	3.01 K	6.34 K	13.7 K	29.4 K	63.4 K	137 K	294 K	634 K	1.37 meg.	2.94 meg.
158	332	698	1.47 K	3.09 K	6.49 K	14.0 K	30.1 K	64.9 K	140 K	301 K	649 K	1.40 meg.	3.01 meg.
162	340	715	1.50 K	3.16 K	6.65 K	14.3 K	30.9 K	66.5 K	143 K	309 K	665 K	1.43 meg.	3.09 meg.
165	348	732	1.54 K	3.24 K	6.81 K	14.7 K	31.6 K	68.1 K	147 K	316 K	681 K	1.47 meg.	3.16 meg.
169	357	750	1.58 K	3.32 K	6.98 K	15.0 K	32.4 K	69.8 K	150 K	324 K	698 K	1.50 meg.	3.24 meg.
174	365	768	1.62 K	3.40 K	7.15 K	15.4 K	33.2 K	71.5 K	154 K	332 K	715 K	1.54 meg.	3.32 meg
178	374	787	1.65 K	3.48 K	7.32 K	15.8 K	34.0 K	73.2 K	158 K	340 K	732 K	1.58 meg.	3.40 meg.
182	383	806	1.69 K	3.57 K	7.50 K	16.2 K	34.8 K	75.0 K	162 K	348 K	750 K	1.62 meg.	3.48 meg.
187	392	825	1.74 K	3.65 K	7.68 K	16.5 K	35.7 K	76.8 K	165 K	357 K	768 K	1.65 meg.	3.57 meg.
191	402	845	1.78 K	3.74 K	7.87 K	16.9 K	36.5 K	78.7 K	169 K	365 K	787 K	1.69 meg.	3.65 meg.
196	412	866	1.82 K	3.83 K	8.06 K	17.4 K	37.4 K	80.6 K	174 K	374 K	806 K	1.74 meg.	3.74 meg.
200	422	887	1.87 K	3.92 K	8.25 K	17.8 K	38.3 K	82.5 K	178 K	383 K	825 K	1.78 meg.	3.83 meg.
205	432	909	1.91 K	4.02 K	8.45 K	18.2 K	39.2 K	84.5 K	182 K	392 K	845 K	1.82 meg.	3.92 meg.
					8.66 K	18.7 K	40.2 K	86.6 K	187 K	402 K	866 K	1.87 meg.	4.00 meg.

⅛ WATT
TYPE 418E/RN60C

.135″ Dia. x .400″ Long

Ohms	Net, each (1-24)
100 thru 200 K	$2.06
201 K thru 500 K	2.24

¼ WATT
TYPE 419E/RN65C

.200″ Dia. x .600″ Long

Ohms	Net, each (1-24)
100 thru 200 K	$1.97
201 K thru 1 meg.	2.14

½ WATT
TYPE 420E/RN70C

.250″ Dia. x .750″ Long

Ohms	Net, each (1-24)
100 thru 500 K	$1.79
501 K thru 2 meg.	1.97

1 WATT
TYPE 421E/RN75C

.375″ Dia. x 1.062″ Long

Ohms	Net, each (1-24)
100 thru 500 K	$2.01
501 K thru 4 meg.	2.24

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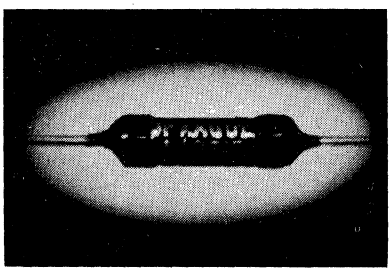
SPRAGUE RESISTORS

FILMISTOR® 'X-70' ENCAPSULATED Deposited-Carbon Resistors



- Ideal for Use in Industrial Electronic Equipment, Commercial Computer Circuitry, Packaged Circuit Modules, etc., Wherever Small Size, Close Tolerance Resistors are Required
- Standard Resistance Tolerance, ±1%
- Will Operate at Full Rated Wattage at Temperatures to 70C — No Derating Required
- Have Special End Terminations and End Caps for Low Contact Resistance and Low Inherent Noise Level
- Special Encapsulating Material Will Withstand 10 Cycles of Standard Military Humidity Cycling Test
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7005
- For Prices on Quantities from 25 to 999 Pieces, See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

10.0	24.3	59.0	143	357	887	2.21 K	5.49 K	13.7 K	34.0 K	84.5 K	210 K	523 K	1.30 meg.
10.2	24.9	60.4	147	365	909	2.26 K	5.62 K	14.0 K	34.8 K	86.6 K	215 K	536 K	1.33 meg.
10.5	25.5	61.9	150	374	931	2.32 K	5.76 K	14.3 K	35.7 K	88.7 K	221 K	549 K	1.37 meg.
10.7	26.1	63.4	154	383	953	2.37 K	5.90 K	14.7 K	36.5 K	90.9 K	226 K	562 K	1.40 meg.
11.0	26.7	64.9	158	392	976	2.43 K	6.04 K	15.0 K	37.4 K	93.1 K	232 K	576 K	1.43 meg.
11.3	27.4	66.5	162	402	1.0 K	2.49 K	6.19 K	15.4 K	38.3 K	95.3 K	237 K	590 K	1.47 meg.
11.5	28.0	68.1	165	412	1.02 K	2.55 K	6.34 K	15.8 K	39.2 K	97.6 K	243 K	604 K	1.50 meg.
11.8	28.7	69.8	169	422	1.05 K	2.61 K	6.49 K	16.2 K	40.2 K	100 K	249 K	619 K	1.54 meg.
12.1	29.4	71.5	174	432	1.07 K	2.67 K	6.65 K	16.5 K	41.2 K	102 K	255 K	634 K	1.58 meg.
12.4	30.1	73.2	178	442	1.10 K	2.74 K	6.81 K	16.9 K	42.2 K	105 K	261 K	649 K	1.62 meg.
12.7	30.9	75.0	182	453	1.13 K	2.80 K	6.98 K	17.4 K	43.2 K	107 K	267 K	665 K	1.65 meg.
13.0	31.6	76.8	187	464	1.15 K	2.87 K	7.15 K	17.8 K	44.2 K	110 K	274 K	681 K	1.69 meg.
13.3	32.4	78.7	191	475	1.18 K	2.94 K	7.32 K	18.2 K	45.3 K	113 K	280 K	698 K	1.74 meg.
13.7	33.2	80.6	196	487	1.21 K	3.01 K	7.50 K	18.7 K	46.4 K	115 K	287 K	715 K	1.78 meg.
14.0	34.0	82.5	200	499	1.24 K	3.09 K	7.68 K	19.1 K	47.5 K	118 K	294 K	732 K	1.82 meg.
14.3	34.8	84.5	205	511	1.27 K	3.16 K	7.87 K	19.6 K	48.7 K	121 K	301 K	750 K	1.87 meg.
14.7	35.7	86.6	210	523	1.30 K	3.24 K	8.06 K	20.0 K	49.9 K	124 K	309 K	768 K	1.91 meg.
15.0	36.5	88.7	215	536	1.33 K	3.32 K	8.25 K	20.5 K	51.1 K	127 K	316 K	787 K	1.96 meg.
15.4	37.4	90.9	221	549	1.37 K	3.40 K	8.45 K	21.0 K	52.3 K	130 K	324 K	806 K	2.00 meg.
15.8	38.3	93.1	226	562	1.40 K	3.48 K	8.66 K	21.5 K	53.6 K	133 K	332 K	825 K	2.05 meg.
16.2	39.2	95.3	232	576	1.43 K	3.57 K	8.87 K	22.1 K	54.9 K	137 K	340 K	845 K	2.10 meg.
16.5	40.2	97.6	237	590	1.47 K	3.65 K	9.09 K	22.6 K	56.2 K	140 K	348 K	866 K	2.15 meg.
16.9	41.2	100	243	604	1.50 K	3.74 K	9.31 K	23.2 K	57.6 K	143 K	357 K	887 K	2.21 meg.
17.4	42.2	102	249	619	1.54 K	3.83 K	9.53 K	23.7 K	59.0 K	147 K	365 K	909 K	2.26 meg.
17.8	43.2	105	255	634	1.58 K	3.92 K	9.76 K	24.3 K	60.4 K	150 K	374 K	931 K	2.32 meg.
18.2	44.2	107	261	649	1.62 K	4.02 K	10.00 K	24.9 K	61.9 K	154 K	383 K	953 K	2.37 meg.
18.7	45.3	110	267	665	1.65 K	4.12 K	10.2 K	25.5 K	63.4 K	158 K	392 K	976 K	2.43 meg.
19.1	46.4	113	274	681	1.69 K	4.22 K	10.5 K	26.1 K	64.9 K	162 K	402 K	1.00 meg.	2.49 meg.
19.6	47.5	115	280	698	1.74 K	4.32 K	10.7 K	26.7 K	66.5 K	165 K	412 K	1.02 meg.	2.55 meg.
20.0	48.7	118	287	715	1.78 K	4.42 K	11.0 K	27.4 K	68.1 K	169 K	422 K	1.05 meg.	2.61 meg.
20.5	49.9	121	294	732	1.82 K	4.53 K	11.3 K	28.0 K	69.8 K	174 K	432 K	1.07 meg.	2.67 meg.
21.0	51.1	124	301	750	1.87 K	4.64 K	11.5 K	28.7 K	71.5 K	178 K	442 K	1.10 meg.	2.74 meg.
21.5	52.3	127	309	768	1.91 K	4.75 K	11.8 K	29.4 K	73.2 K	182 K	453 K	1.13 meg.	2.80 meg.
22.1	53.6	130	316	787	1.96 K	4.87 K	12.1 K	30.1 K	75.0 K	187 K	464 K	1.15 meg.	2.87 meg.
22.6	54.9	133	324	806	2.00 K	4.99 K	12.4 K	30.9 K	76.8 K	191 K	475 K	1.18 meg.	2.94 meg.
23.2	56.2	137	332	825	2.05 K	5.11 K	12.7 K	31.6 K	78.7 K	196 K	487 K	1.21 meg.	3.01 meg.
23.7	57.6	140	340	845	2.10 K	5.23 K	13.0 K	32.4 K	80.6 K	200 K	499 K	1.24 meg.	3.09 meg.
			348	866	2.15 K	5.36 K	13.3 K	33.2 K	82.5 K	205 K	511 K	1.27 meg.	3.16 meg.

⅛ WATT TYPE 425E

3/32" Dia. x 5/16" Long

Ohms	Net, each (1-24)
10 thru 49.9	$1.25
51.1 thru 1 meg.	.94

¼ WATT TYPE 426E

⅛" Dia. x 7/16" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.80
51.1 thru 2 meg.	.61

¼ WATT TYPE 427E

3/32" Dia. x 15/32" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.80
51.1 thru 2 meg.	.61

½ WATT TYPE 428E

1 1/64" Dia. x ½" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.65
51.1 thru 2 meg.	.54

½ WATT TYPE 429E

1 1/64" Dia. x 3/8" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.65
51.1 thru 2 meg.	.54
2.05 meg. thru 3.16 meg.	.75

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Net

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TRU-OHM

VITREOUS ENAMELED

POWER RESISTORS

- FIXED
- ADJUSTABLE
- TRU-RIB
- AXIAL LEAD

Our new, modern plant occupies 80,000 square feet devoted to producing the finest power rheostats and wire wound resistors available. If you need a rheostat or resistor, whether it be right from stock or to your specifications, we assure you of courteous service, prompt delivery and quality merchandise.

FIXED VITREOUS ENAMELED RESISTORS

5 WATT FRL-5

All Welded Construction

Core: 5/16" x 3/16" x 1"

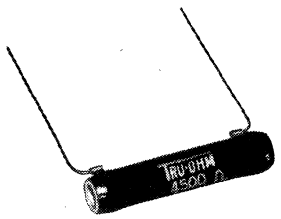
OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS
1	2230	2.2	125	200	25	1250	63	79
1.5	1820	2.7	150	182	27	1500	58	87
2	1580	3.2	200	158	32	1750	53	93
3	1290	3.9	225	149	33	2000	50	100
4	1120	4.5	250	141	35	2250	47	106
5	1000	5.0	300	129	39	2500	45	112
7.5	816	6.1	350	119	42	3000	41	123
10	707	7.1	400	112	45	3500	38	133
12	646	7.8	450	105	47	4000	35	140
15	576	8.6	500	100	50	4500	33	149
20	500	10	600	91	55	5000	32	160
25	447	11	700	84	59	6000	29	174
30	409	12	750	81	61	7000	27	189
35	378	13	800	79	63	7500	26	195
40	353	14	900	74	67	8000	25	200
50	316	16	1000	71	71	9000	23	207
75	258	19	1100	67	74	10,000	22	220
100	223	22	1200	64	77			

FIXED VITREOUS ENAMELED RESISTORS

10 WATT FRL-10

All Welded Construction

Core: 5/16" x 3/16" x 1 3/4"



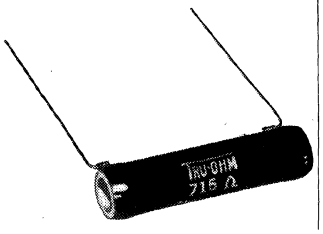
OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS
1	3160	3.1	350	169	59	7000	38	266
1.5	2580	3.8	400	158	63	7500	36	270
2	2230	4.4	450	149	67	8000	35	280
3	1820	5.4	500	141	70	8500	34	289
4	1580	6.3	600	129	77	9000	33	297
5	1410	7.0	700	120	84	10,000	30	300
7.5	1150	8.6	750	115	86	11,000	27	300
10	1000	10	800	112	89	12,000	25	300
12	914	11	900	105	94	12,500	24	300
15	816	12	1000	100	100	13,500	22	300
20	707	14	1100	95	104	14,300	21	300
25	631	16	1200	91	109	15,000	20	300
30	577	17	1250	89	111	16,000	19	300
35	535	19	1500	82	123	17,500	17	300
40	500	20	1750	76	133	18,000	16	300
50	447	22	2000	71	142	20,000	16	320
75	365	27	2250	67	151	22,500	15	337
100	316	31	2500	63	158	25,000	15	375
125	283	35	3000	57	171	30,000	14	420
150	254	38	3500	53	185	35,000	13	455
200	223	44	4000	50	200	40,000	12	480
225	211	47	4500	47	212	45,000	11	495
250	200	50	5000	45	225	50,000	10	500
300	182	54	6000	41	246			

FIXED VITREOUS ENAMELED RESISTORS

20 WATT FRL-20

All Welded Construction

Core: 7/16" x 1/4" x 2"



OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS	OHMS	MILLIAMPS	VOLTS
1	4480	4.4	850	154	131	10,000	44	440
3	2580	7.7	1000	141	141	12,500	36	450
5	2000	10	1200	129	155	15,000	31	465
10	1410	14	1250	126	157	20,000	24	480
15	1150	17	1500	115	172	25,000	20	500
25	895	22	1750	107	187	30,000	17	510
50	633	31	1850	104	192	35,000	15	525
75	516	39	2000	100	200	40,000	14	560
100	447	44	2250	94	211	45,000	13	585
150	365	54	2400	91	218	50,000	12	600
175	338	59	2500	89	222	55,000	11	605
200	316	63	2750	85	234	60,000	10.8	648
250	283	71	3000	81	243	65,000	10.5	684
300	258	77	3500	75	262	70,000	10	700
350	239	84	4000	70	280	75,000	9.5	712
400	223	89	4500	67	301	80,000	9.3	744
500	200	100	5000	63	315	85,000	9.1	773
650	175	114	6000	57	342	90,000	8.8	792
700	169	118	7000	53	371	95,000	8.6	816
750	164	123	7500	51	382	100,000	8.4	840
800	158	126	8000	50	400			

You are guaranteed to receive 24 hour delivery as we maintain jobber stock items!

TRU-OHM

TRU-OHM RESISTORS are made to meet and exceed MIL-R-26C Specifications!

Mfd. by TRU-OHM PRODUCTS DIVISION OF MODEL ENG. & MFG. INC.
General Sales Office: Chicago, Ill.

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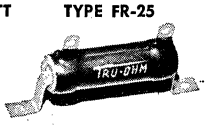
VITREOUS ENAMELED RESISTORS

OHMS	100% RATING VOLTS	100% RATING AMPS	OHMS	100% RATING VOLTS	100% RATING AMPS	OHMS	100% RATING VOLTS	100% RATING AMPS
1	5.0	5.000	400	100	.250	7500	427	.057
2	7.0	3.535	500	111	.223	10,000	500	.050
3	8.6	2.885	750	136	.182	12,000	505	.042
4	10	2.500	800	141	.177	15,000	510	.034
5	11	2.236	850	145	.171	20,000	520	.026
10	15	1.580	1000	158	.158	25,000	530	.022
15	19	1.291	1250	176	.141	30,000	540	.018
25	25	1.000	1500	193	.129	35,000	550	.016
50	35	.707	2000	222	.111	40,000	560	.014
75	43	.577	2500	250	.100	50,000	585	.012
100	50	.500	3000	273	.091	60,000	610	.010
150	61	.408	3500	294	.084	70,000	630	.009
200	70	.353	4000	316	.079	75,000	635	.008
250	79	.316	5000	350	.070	80,000	640	.008
300	86	.289	6000	384	.064	100,000	700	.007
1	7	7.070	500	158	.316	12,500	787	.063
2	10	5.000	750	193	.258	15,000	855	.057
3	12	4.070	800	200	.250	20,000	960	.048
4	14	3.535	1000	223	.223	25,000	1024	.041
5	15	3.160	1500	273	.182	30,000	1080	.036
10	22	2.236	2000	316	.158	35,000	1120	.032
25	35	1.414	2500	350	.141	40,000	1140	.029
50	50	1.000	3000	384	.129	50,000	1150	.023
75	61	.816	4000	444	.111	75,000	1200	.016
100	70	.707	5000	500	.100	100,000	1250	.012
150	86	.577	6000	545	.091	125,000	1300	.010
200	100	.500	7500	608	.081	150,000	1350	.009
250	111	.447	8000	632	.079	175,000	1375	.008
300	122	.408	10,000	700	.070	200,000	1400	.007
400	141	.353	12,000	768	.064	225,000	1450	.006
						250,000	1500	.006
1	8	8.660	400	173	.433	8000	769	.096
2	12	6.120	500	193	.387	10,000	860	.086
3	15	5.000	750	237	.316	12,000	948	.079
4	17	4.330	800	242	.306	12,500	962	.077
5	19	3.875	1000	274	.274	15,000	1050	.070
10	27	2.740	1500	334	.223	20,000	1220	.061
25	43	1.732	2000	386	.193	25,000	1225	.049
50	61	1.225	2500	432	.173	30,000	1260	.042
100	86	.866	3000	474	.158	35,000	1270	.036
150	106	.707	4000	548	.137	40,000	1280	.032
200	122	.612	5000	610	.122	45,000	1310	.029
250	137	.548	6000	666	.111	50,000	1320	.026
300	150	.500	7500	750	.100	75,000	1340	.018
						100,000	1360	.013
1	10	10.000	500	223	.447	10,000	1000	.100
2	14	7.070	750	274	.365	15,000	1217	.081
3	17	5.770	1000	316	.316	20,000	1400	.070
4	20	5.000	1250	356	.285	25,000	1415	.053
5	22	4.470	1500	388	.259	30,000	1425	.047
10	31	3.160	2000	448	.224	35,000	1430	.042
25	50	2.000	2500	500	.200	40,000	1440	.036
50	70	1.414	3000	543	.181	50,000	1450	.029
75	86	1.150	3500	595	.170	60,000	1460	.024
100	100	1.000	4000	640	.160	70,000	1470	.021
125	112	.895	4500	675	.150	75,000	1474	.019
150	122	.816	5000	705	.141	100,000	1500	.015
250	157	.630	7500	864	.115			
1	12	12.650	250	200	.800	10,000	1260	.126
2	18	8.940	500	282	.565	15,000	1560	.104
3	21	7.300	750	346	.461	20,000	1780	.089
4	25	6.320	1000	400	.400	25,000	2000	.080
5	28	5.650	1500	489	.326	30,000	2010	.067
10	40	4.000	2000	564	.282	35,000	2015	.057
15	49	3.265	2500	630	.252	40,000	2020	.050
25	63	2.525	3000	693	.231	50,000	2030	.040
50	89	1.786	3500	753	.215	60,000	2040	.034
75	109	1.460	4000	800	.200	75,000	2065	.027
100	126	1.265	4500	832	.185	80,000	2080	.025
150	155	1.033	5000	895	.179	100,000	2100	.021
200	178	.894	7500	1096	.146			
1	14	14.140	750	387	.516	15,000	1725	.115
2	20	10.000	1000	447	.447	20,000	2000	.100
3	24	8.162	1500	547	.365	25,000	2225	.089
4	28	7.070	2000	632	.316	30,000	2460	.082
5	31	6.325	2500	707	.283	35,000	2470	.071
10	44	4.470	3000	776	.259	40,000	2480	.062
25	70	2.828	3500	840	.240	50,000	2500	.050
50	100	2.000	4000	900	.225	60,000	2500	.042
75	122	1.635	4500	945	.210	75,000	2500	.033
100	141	1.414	5000	1000	.200	100,000	2500	.025
150	173	1.152	7500	1222	.163	125,000	2500	.020
250	224	.895	10,000	1410	.141	150,000	2500	.016
500	316	.632						

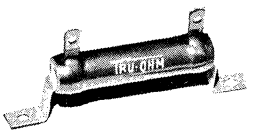
TRU-OHM

FIXED VITREOUS ENAMELED RESISTORS
25 WATT TYPE FR-25



Core: 9/16" x 5/16" x 2"
Mounting Centers 2-3/4"
With Bracket #P-3747
Standard Lug #12

FIXED VITREOUS ENAMELED RESISTORS
50 WATT TYPE FR-50

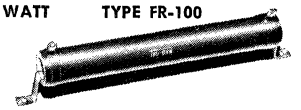


Core: 9/16" x 5/16" x 4"
Mounting Centers 4-3/4"
With Bracket #P-3747
Standard Lug #12

FIXED VITREOUS ENAMELED RESISTORS
75 WATT TYPE FR-75

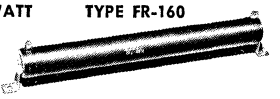
Core: 9/16" x 5/16" x 6"
Mounting Centers 6-3/4"
With Bracket #P-3747
Standard Lug #12

FIXED VITREOUS ENAMELED RESISTORS
100 WATT TYPE FR-100



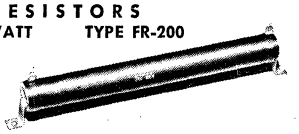
Core: 3/4" x 1/2" x 6-1/2"
Mounting Centers 7-1/4"
With Bracket #P-3689
Standard Lug #12

FIXED VITREOUS ENAMELED RESISTORS
160 WATT TYPE FR-160



Core: 1-1/8" x 3/4" x 8-1/2"
Mounting Centers 9-1/4"
With Bracket #P-4898
Standard Lug #14

FIXED VITREOUS ENAMELED RESISTORS
200 WATT TYPE FR-200



Core: 1-1/8" x 3/4" x 10-1/2"
Mounting Centers 11-1/4"
With Bracket #P-4898
Standard Lug #14

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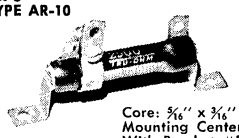
VITREOUS ENAMELED RESISTORS

TRU-OHM

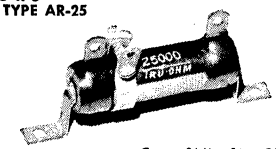
ADJUSTABLE
Vitreous Enameled
RESISTORS
10 WATT TYPE AR-10



Core: 5/16" x 3/16" x 1 3/4"
Mounting Centers—2 1/4"
With Bracket #P4989
Standard Lug #10

OHMS	100% RATING VOLTS	AMPS
1	3.1	3.160
2	4.4	2.230
3	5.4	1.820
5	7.0	1.410
7.5	8.6	1.150
10	10	1.000
15	12	.816
20	14	.707
25	16	.631
50	22	.447
75	27	.365
100	31	.316
150	38	.254
200	44	.223
250	50	.200
300	54	.182
350	59	.169
400	63	.158
500	70	.141
600	77	.129
750	86	.115
800	89	.112
1000	100	.100
1250	111	.089
1500	123	.082
2000	142	.071
2250	151	.067
2500	158	.063
3000	171	.057
3500	185	.053
4000	200	.050
4500	212	.047
5000	225	.045
6000	246	.041
7000	226	.038
7500	270	.036
8000	280	.035
8500	289	.034
9000	297	.033
10,000	300	.030

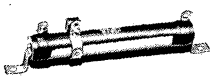
ADJUSTABLE
Vitreous Enameled
RESISTORS
25 WATT TYPE AR-25



Core: 3/16" x 5/16" x 2"
Mounting Centers—2 3/4"
With Bracket #P3747
Standard Lug #12

OHMS	100% RATING VOLTS	AMPS
1	5.0	5.000
2	7.0	3.535
3	8.6	2.885
5	11	2.236
7.5	13	1.825
10	15	1.580
15	19	1.291
20	22	1.117
25	25	1.000
50	35	.707
75	43	.577
100	50	.500
150	61	.408
200	70	.353
250	79	.316
300	86	.289
400	100	.250
500	111	.223
750	136	.182
800	141	.177
850	145	.171
1000	158	.158
1250	176	.141
1500	193	.129
2000	222	.111
2250	236	.105
2500	250	.100
3000	273	.091
3500	294	.084
4000	316	.079
4500	332	.074
5000	350	.070
6000	384	.064
7000	420	.060
7200	425	.059
7500	427	.057
8000	440	.055
9000	468	.052
10,000	500	.050
12,000	505	.042
15,000	510	.034
20,000	520	.026
25,000	530	.022

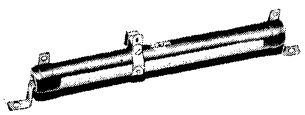
ADJUSTABLE
Vitreous Enameled
RESISTORS
50 WATT TYPE AR-50



Core: 5/16" x 5/16" x 4"
Mounting Centers—4 3/4"
With Bracket P3747
Standard Lug #12

OHMS	100% RATING VOLTS	AMPS
1	7	7.070
2	10	5.000
3	12	4.070
4	14	3.535
5	15	3.160
10	22	2.236
25	35	1.414
50	50	1.000
75	61	.816
100	70	.707
150	86	.577
200	100	.500
250	111	.447
300	122	.408
400	141	.353
500	158	.316
750	193	.258
800	200	.250
1000	223	.223
1250	250	.200
1500	273	.182
2000	316	.158
2250	335	.149
2500	350	.141
3000	384	.129
3500	416	.119
4000	444	.111
4500	472	.105
5000	500	.100
6000	545	.091
7000	588	.084
7200	598	.083
7500	608	.081
8000	632	.079
9000	665	.074
10,000	700	.070
12,000	768	.064
15,000	855	.057
20,000	960	.048
25,000	1024	.041
30,000	1080	.036
40,000	1140	.029
50,000	1150	.023
60,000	1175	.019
75,000	1200	.016
80,000	1225	.015
100,000	1250	.012

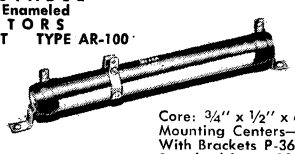
ADJUSTABLE
Vitreous Enameled
RESISTORS
75 WATT TYPE AR-75



Core: 5/16" x 5/16" x 6"
Mounting Centers—6 3/4"
With Brackets P-3747
Standard Lug #12

OHMS	100% RATING VOLTS	AMPS
1	8	8.660
2	12	6.120
3	15	5.000
4	17	4.330
5	19	3.875
10	27	2.740
15	33	2.236
25	43	1.732
50	61	1.225
75	75	1.000
100	86	.866
200	122	.612
250	137	.548
300	150	.500
400	173	.433
500	193	.387
750	237	.316
800	242	.306
1000	274	.274
1250	280	.244
1500	334	.223
2000	386	.193
2250	409	.182
2500	432	.173
3000	474	.158
3500	511	.146
4000	548	.137
4500	581	.129
5000	610	.122
6000	666	.111
7000	721	.103
7200	735	.102
8000	769	.096
9000	819	.091
10,000	860	.086
12,000	948	.079
15,000	1050	.070
20,000	1220	.061
25,000	1225	.049
30,000	1260	.042
35,000	1270	.036
40,000	1280	.032
45,000	1310	.029
50,000	1320	.026
60,000	1330	.022
70,000	1340	.019
80,000	1350	.017
100,000	1360	.013

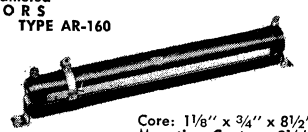
ADJUSTABLE
Vitreous Enameled
RESISTORS
100 WATT TYPE AR-100



Core: 3/4" x 1/2" x 6 1/2"
Mounting Centers—7 1/4"
With Brackets P-3689
Standard Lug #12

OHMS	100% RATING VOLTS	AMPS
1	10	10.000
2	14	7.070
3	17	5.770
4	20	5.000
5	22	4.470
10	31	3.160
25	50	2.000
50	70	1.414
100	100	1.000
200	141	.707
250	157	.630
400	200	.500
500	223	.447
750	274	.365
1000	316	.316
1500	388	.259
2000	448	.224
2500	500	.200
3000	543	.181
4000	640	.160
5000	705	.141
6000	774	.129
7500	864	.115
10,000	1000	.100
15,000	1217	.081
20,000	1400	.070
25,000	1415	.053
30,000	1425	.047
40,000	1440	.036
50,000	1450	.029
60,000	1460	.024
75,000	1474	.019
100,000	1500	.015

ADJUSTABLE
Vitreous Enameled
RESISTORS
160 WATT TYPE AR-160



Core: 1 1/8" x 3/4" x 8 1/2"
Mounting Centers—9 1/4"
With Brackets P-4898
Standard Lug #14

OHMS	100% RATING VOLTS	AMPS
1	12	12.650
2	18	8.940
3	21	7.300
4	25	6.320
5	28	5.650
10	40	4.000
15	49	3.265
25	63	2.525
50	89	1.786
100	126	1.265
200	178	.894
250	200	.800
500	282	.565
1,000	400	.400
1,500	489	.326
2,000	564	.282
2,500	630	.252
3,000	693	.231
3,500	753	.215
4,000	800	.200
4,500	832	.185
5,000	895	.179
7,500	1096	.146
10,000	1260	.126
15,000	1560	.104
20,000	1780	.089
25,000	2000	.080
30,000	2010	.067
40,000	2020	.050
50,000	2030	.040
60,000	2040	.034
75,000	2065	.027
80,000	2080	.025
100,000	2100	.021

ADJUSTABLE
Vitreous Enameled
RESISTORS
200 WATT TYPE AR-200

Core: 1 1/8" x 3/4" x 10 1/2"
Mounting Centers—11 1/4"
With Brackets P-4898
Standard Lug #14

OHMS	100% RATING VOLTS	AMPS
1	14	14.140
2	20	10.000
3	24	8.162
4	28	7.070
5	31	6.325
10	44	4.470
25	70	2.828
50	100	2.000
100	141	1.414
250	224	.895
500	316	.632
1,000	447	.447
1,500	547	.365
2,000	632	.316
2,500	707	.283
3,000	776	.259
3,500	840	.240
4,000	900	.225
4,500	945	.210
5,000	1000	.200
7,500	1222	.163
10,000	1410	.141
15,000	1725	.115
20,000	2000	.100
25,000	2225	.089
30,000	2460	.082
40,000	2180	.062
50,000	2500	.050
60,000	2500	.042
75,000	2500	.033
100,000	2500	.025

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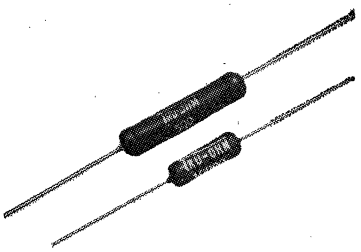
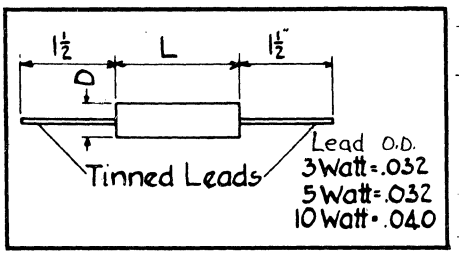
AXIAL LEAD Vitreous Enamel RESISTOR • TYPE VAL



TRU-OHM Vitreous enameled wire wound resistors with axial leads are available in a wide range of resistance values and wattage ratings.



WATTAGE	RESISTANCE RANGES	CORE DIA.	CORE LENGTH	LEAD DIA.	LEAD LENGTH
3	1-10000	¼	9/16"	.032	1½"
5	1-25000	11/32	1 1/16"	.032	1½"
10	1-50000	27/64	1 15/16"	.040	1½"
20	1-100000	½	2⅛"	.040	1½"

STANDARD RESISTANCE TOLERANCE ±5%

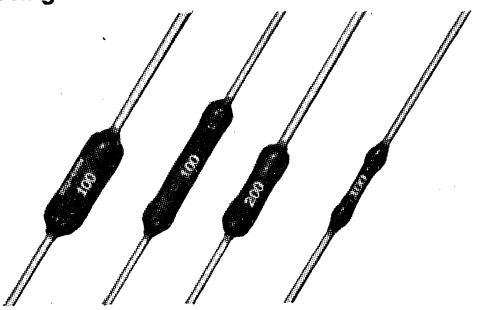
All welded construction, resistant to thermal shock and humidity are assured by thermally matching the expansion rates of core, enamel and end cad. Continuous operating temperature 340°C. Max. 40°C. ambient. These commercial units are engineered to meet and exceed the rigid requirements of the MIL-R-26-C specifications.

AXIAL LEAD PRECISION WIRE WOUND RESISTORS

With Exclusive Silicone Coating

TYPE S•AL Series

Miniature size — all welded construction — precision tolerances ±5% is standard for all types. ±2%, ±1% and ±½% tolerances are available at additional cost. Maximum power in minimum space.



STANDARD TYPES

TYPE	WATTAGE	LEAD SIZE Lgth.	LEAD SIZE Dia.	DIMENSIONS Lgth.	DIMENSIONS Dia.	CORE SIZE Lgth.	CORE SIZE Dia.	RESISTANCE Min.	RESISTANCE Max.
S • AL-1	1	1½	.032	5/32	3/8	⅛	5/16	1 Ω	3000 Ω
S • AL-3	3	1½	.032	7/32	½	5/32	7/16	1 Ω	5500 Ω
S • AL-5	5	1½	.032	5/16	29/32	¼	⅞	1 Ω	14000 Ω
S • AL-7	7	1½	.032	3/8	1 1/32	5/16	1	1 Ω	20000 Ω
S • AL-10	10	1½	.032	3/8	1 25/32	5/16	1¾	1 Ω	50000 Ω
S • AL-15	15	1½	.040	½	1 11/16	7/16	1½	1 Ω	55000 Ω
S • AL-20	20	1½	.040	½	2 3/16	7/16	2	1 Ω	90000 Ω

SPECIAL TYPES

S • AL-1A	1	1½	.025	3/32	13/32	1/16	3/8	1 Ω	1500 Ω
S • AL-1B	1	1½	.025	3/32	17/32	1/16	½	1 Ω	3500 Ω
S • AL-2	2	1½	.032	3/16	13/16	⅛	¾	1 Ω	12000 Ω
S • AL-3A	3	1½	.032	3/16	9/16	⅛	9/16	1 Ω	6000 Ω
S • AL-3B	3	1½	.032	¼	5/8	3/16	5/8	1 Ω	8000 Ω
S • AL-7A	7	1½	.032	5/16	1 7/32	¼	1 3/16	1 Ω	39000 Ω

NOTE 1:
All S • AL Resistors are made to order. Materials for Standard Types are Stock items. Materials for Special Types must be purchased to order.

NOTE 2:
Overall Dimension Tolerances are ±1/32 on Diameter and ±1/16 on Length. (Tolerance on Length of 1 Watt Size is ±1/32.)

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General Sales Office: Chicago, Ill.

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POWER RHEOSTATS

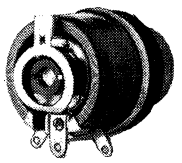
VITREOUS ENAMELED

Manufactured to meet and exceed MIL-R-22 Specifications

R-25

25 Watts —

Dia. — 1 9/16"
Back of panel dim. 1 5/16"
Shaft Dia. 1/4"
Approx. 295° Rotat'n
Panel mtg. to 1/4" by 3/8"—32 bushing

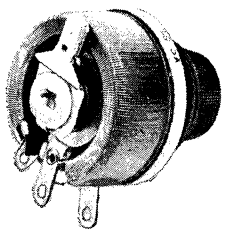


CAT. NO.	RESISTANCE	MAX. AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS.
100	1	5.000	112	125	.445
101	2	3.540	113	175	.375
102	3	2.880	114	250	.316
103	6	2.040	115	350	.267
104	8	1.770	116	500	.222
105	10	1.580	117	750	.182
106	15	1.290	118	1000	.155
107	25	1.000	119	1500	.129
108	35	.845	120	2500	.100
109	50	.707	121	3500	.084
110	75	.575	122	5000	.070
111	100	.500			

R-50

50 Watts

Dia. — 2 5/16
Back of panel dim. 1 7/16"
Shaft—Dia. 1/4"
Approx. rotat'n 300°
Panel mtg. to 1/4" by 3/8"—32 bushing

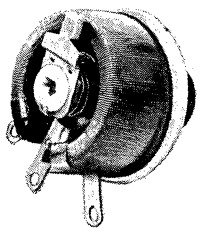


CAT. NO.	RESISTANCE	MAX. AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS.
200	0.5	10.000	212	125	.630
201	1	7.070	213	150	.574
202	2	5.000	214	225	.470
203	4	3.540	215	300	.408
204	6	2.880	216	500	.316
205	8	2.500	217	800	.250
206	12	2.040	218	1000	.223
207	16	1.760	219	1600	.176
208	22	1.500	220	2500	.141
209	35	1.190	221	3500	.119
210	50	1.000	222	5000	.100
211	80	.790	223	8000	.079
			224	10,000	.070

R-75

75 Watts

Dia.—2 3/4"
Back of panel dim. 1 3/4"
Shaft—Dia. 1/4"
Approx. rotat'n 300°
Panel mtg. to 1/4" by 3/8—32 bushing

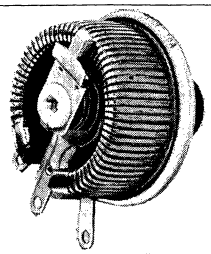


CAT. NO.	RESISTANCE	MAX AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS
300	0.5	12.300	312	200	.612
301	1	8.660	313	300	.500
302	2	6.120	314	400	.433
303	3	5.000	315	500	.388
304	5	3.880	316	750	.316
305	7.5	3.160	317	1,000	.274
306	10	2.740	318	1,500	.224
307	16	2.170	319	2,000	.194
308	25	1.730	320	2,500	.173
309	50	1.230	321	5,000	.123
310	75	1.000	322	7,500	.100
311	100	.866	323	10,000	.087

R-100

100 Watts

Dia. 3 1/8"
Back of panel dim. 1 3/4"
Shaft—Dia. 1/4"
Approx. rotat'n 300°
Panel mtg. to 1/4" by 3/8—32 bushing

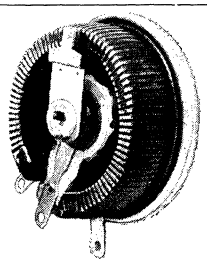


CAT. NO.	RESISTANCE	MAX. AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS
400	0.5	14.100	412	200	.707
401	1	10.000	413	300	.575
402	2	7.070	414	400	.500
403	3	5.750	415	500	.447
404	5	4.470	416	750	.365
405	7.5	3.650	417	1,000	.316
406	10	3.160	418	1,500	.258
407	16	2.500	419	2,000	.224
408	25	2.000	420	2,500	.200
409	50	1.410	421	5,000	.141
410	75	1.150	422	7,500	.115
411	100	1.000	423	10,000	.100

R-150

150 Watts

Dia.—4"
Back of panel Dim. 2"
Shaft Dia. 1/4"
Approx. rotat'n 300°
Panel mtg. to 1/4" by 3/8—32 bushing or two 10-32 Flat Head Screws — mtg. centers 7/8" each side from shaft center.

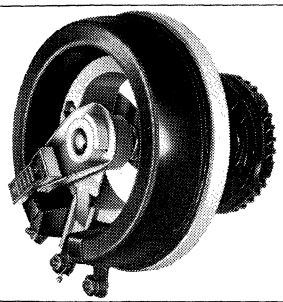


CAT. NO.	RESISTANCE	MAX. AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS.
500	0.5	17.300	513	150	1.000
501	1	12.300	514	200	.865
502	2	8.650	515	250	.775
503	3	7.070	516	350	.655
504	5	5.480	517	500	.548
505	7.5	4.470	518	750	.447
506	10	3.880	519	1,250	.346
507	15	3.163	520	1,800	.288
508	25	2.450	521	2,250	.259
509	35	2.070	522	3,000	.224
510	50	1.735	523	4,500	.182
511	75	1.415	524	7,500	.141
512	100	1.225	525	10,000	.122

R-300

300 Watts

Dia. 6"
Back of panel dim. 2 1/4"
Shaft Dia. 3/8"
Approx. rotat'n 315°
Panel mtg. to 1 1/4" by two 1/4 — 20 by 1 1/2 Flat Head mtg. Screws



CAT. NO.	RESISTANCE	MAX. AMPS.	CAT. NO.	RESISTANCE	MAX. AMPS.
700	1	17.32	711	100	1.73
701	2	12.24	712	150	1.41
702	3	10.00	713	200	1.22
703	4	8.66	714	300	1.00
704	5	775	715	400	.87
705	7.5	6.32	716	700	.66
706	10	5.48	717	900	.58
707	15	4.47	718	1,200	.50
708	25	3.46	719	1,500	.45
709	50	2.45	720	1,750	.41
710	75	2.00	721	2,500	.35

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DESIGNERS' and EXPERIMENTORS' KITS

will help you in circuit design and experimental work

Creative personnel, designers and experimentors find these kits invaluable in the solution of circuitry problems and the preparation of prototype models, as well as in experimentation with a wide variety of thermistor and varistor applications.

VECO DESIGNERS' KITS

Each kit includes units covering a wide resistance range and physical size. VECO Designers' Kits are furnished with technical characteristics, curves and schematics to assist in the solution of circuitry designs and problems concerning the use and application of VECO thermistors and varistors.

VECO Number	Description	Net Price (Postpaid)
KD 25	Designers' Disc Kit Contains one each: 11E2, 12E2, 15D1, 18E2, 21E21, 22E6, 23D34, 25D4, 31E2, 32D12, 33D10, 35D6, 41D2	$12.50
KP 50	Designers' Probe Kit Contains one each: 21A3, 31A11, 41A11, 51A11, 61A11, 71A11	14.50
KR 75	Designers' Rod Kit Contains one each: 33S1, 36S1, 41R1, 41S2, 43R1, 45R1, 51R1, 51R2	9.50
KTB1	Designers' Bead Kit Contains one each: 21A2, 31A2, 32A48, 41A2, 43A2, 51A2, 51A30, 61A2. Complete with tweezers	19.50
KW 125	Designers' Washer Kit Contains 2 each: 11X1, 12X15, 14X4, 21W1, 22W6, 24W6. A828 (1 only)	13.50
KV 100	Designers' Varistor Kit Contains one each: 023L4, 023W1, 063L4, 114L1, 124W1, 143W1, 155L2, 165W2, A818	14.50
KV 1001	Designers' Varistor Kit Contains one each: 023L9, 063L9, 114L2, 124L1, 124L2, 134L1, 155L3, 175L1, 195L1	7.50

VECO EXPERIMENTORS' KITS

Each kit includes forms showing typical circuitry and specific characteristics of units in kit.
M-168 Experimentors' Kit, 7 assorted units for $ 5.00 net, ppd.
M-168A Experimentors' Kit, 10 assorted units for $10.00 net, ppd.

VECO THERMISTORS & VARISTORS

VECO Number	Resistance @ 25°C (ohms)	List Price
SMALL BEAD THERMISTORS .014" Dia.		
32A5	2 000 ±25%	$4.00
32A48	2,000 ±25%	3.00
34A2	3,500 ±15%	5.00
38C2	8,000 ±25%	3.80
43A1	30,000 ±25%	4.20
43A2	30,000 ±25%	4.00
51A30	100,000 ±25%	4.00
MEDIUM & LARGE BEADS .043" to .088" Dia.		
21A2	100 ±20%	$3.80
25A2	500 ±20%	4.00
31A2	1,000 ±20%	2.90
32A12	2,000 ±20%	2.90
32A13	2,000 ±20%	2.70
35A1	5,000 ±20%	2.90
41A2	10,000 ±20%	2.90
43A4	30,000 ±20%	2.90
45A2	50,000 ±20%	2.90
51A2	100,000 ±15%	2.70
55A2	500,000 ±20%	3.20
61A2	1 meg ±20%	3.40
GLASS THERMISTOR PROBES ½" Long		
21A3	100 ±20%	$3.80
31A11	1,000 ±20%	2.70
32A11	2,000 ±20%	2.40
35A11	5,000 ±20%	2.70
41A11	10,000 ±20%	2.70
43A11	30,000 ±20%	2.70
51A11	100,000 ±15%	2.60
55A11	500,000 ±20%	3.20
61A11	1 meg ±20%	3.30
71A11	10 meg ±20%	4.00
GLASS THERMISTOR PROBES 2" Long		
32A1	2,000 ±20%	$2.80
34A3	3,500 ±30%	2.80
41A1	10,000 ±20%	3.70
45A1	50,000 ±20%	3.70
51A1	100,000 ±15%	3.00
61A1	1 meg ±20%	4.30
GLASS THERMISTOR RODS & BULBS		
32A3	2,000 ±25%	$6.40
37A1	7,000 ±20%	4.20
44A1	35,000 ±25%	2.20
45B2	50,000 ±40%	3.00
46A2	60,500 ±29%	3.00
49A1	85,000 ±25%	2.20
65A1	5.4 meg ±32%	7.00
71A2	12 meg ±20%	5.80
MATCHED PAIR OF THERMISTOR BEADS ON HERMETIC SEALS		
A33	2,000 ±25%	$15.00
DISC THERMISTORS .1" to 1.0" Dia.		
11E2	10 ±10%	$1.00
12E2	20 ±10%	1.00
15D1	50 ±10%	1.50
18E2	75 ±10%	1.00
21D2	100 ±10%	1.00
21E2	100 ±10%	1.00
21E21	100 ±10%	1.00
22E6	200 ±10%	1.00
23D7	295 ±10%	1.00
23D34	300 ±10%	1.00
23E3	310 ±10%	1.20
25D4	500 ±10%	1.00
25E2	500 ±10%	1.00
27D1	725 ± 5%	$3.40
28D1	760 ± 5%	3.40
31D4	1,000 ±10%	1.00
31D7	1,200 ±10%	1.20
31E2	1,000 ±10%	1.00
32D12	2,000 ±10%	1.00
33D2	3,000 ±10%	1.00
33D10	3,000 ±10%	1.00
35D2	5,000 ±10%	1.00
35D6	5,000 ±10%	1.00
41D2	10,000 ±10%	1.00
WASHER THERMISTORS .2" to .770" Dia.		
11X1	10 ±10%	$1.30
12X15	20 ±10%	1.30
14X2	38 ±10%	1.50
14X4	40 ±10%	1.30
21W1	100 ±10%	1.30
21W4	130 ±10%	1.50
22X1	150 ±10%	1.30
22W2	180 ±10%	1.50
22W6	200 ±10%	1.30
23W1	315 ±10%	1.50
24W6	400 ±10%	1.30
24W1	415 ±10%	1.50
ROD THERMISTORS .5" to 1.6" Long		
33S1	3,150 ±10%	$1.30
36S1	6,300 ±10%	1.30
38S1	8,000 ±10%	1.30
41R1	10,000 ±10%	1.30
41S1	10,000 ±10%	1.30
41S2	10,000 ±10%	1.60
43R1	31,500 ±10%	1.30
45R1	50,000 ±10%	1.30
51R1	100,000 ±10%	$1.30
51R2	100,000 ±10%	1.60
VARISTORS		
023L4	1.5V min. @ 1 ma.	$ .80
023L9	6V @ 5 ma. DC	1.00
023W1	9.09V to 12.3V @ 25 ma.	1.80
063L4	4.6V min @ 1 ma.	.55
063L9	10V @ 5 ma. DC	1.00
114L1	16V to 24V @ 15 ma.	1.40
114L2	15V @ 5 ma. DC	1.00
124L1	25V @ 5 ma. DC	1.00
124L2	35V @ 5 ma. DC	1.00
124W1	26.8V to 32.2 V @15 ma.	3.00
134L1	50V @ 5 ma. DC	1.00
143W1	13.2V to 20.3V @ 50 μa	2.00
155L2	40.8V to 55.2V @ 1 ma.	4.20
155L3	75V @ 5 ma. DC	1.00
165W2	95V to 120V @ 10 ma.	5.00
175L1	100V @ 5 ma. DC	1.00
195L1	120V @ 5 ma. DC	1.00
MOUNTING ACCESSORIES		
A815	Mounting Kit for 1 washer	$1.00
A816	Mounting Kit for 3 washers	1.25
A818	Mounting Kit w/Bracket for 1 washer	1.50
A828	Mounting Kit w/Bracket for 3 washers	1.75
A819	Packing Gland—Probe	4.00

TECHNICAL LITERATURE

VECO THERMISTOR AND VARISTOR DATA BOOK
containing historical background, technical data, typical circuitry, curves and other valuable information. $1.00

Literature covering technical data pertaining to VECO products available FREE. The new Technical Catalog of VECO products appears in **section 4700 of Electronic Engineers Master** or may be obtained through your local jobber.

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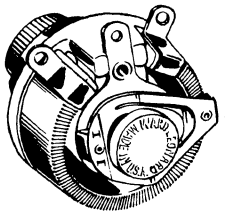
Vitrohm® RING RHEOSTATS

WARD LEONARD

25-Watt — 50-Watt

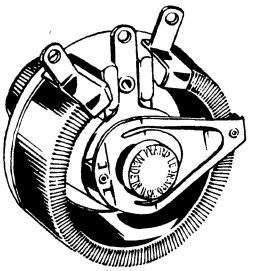


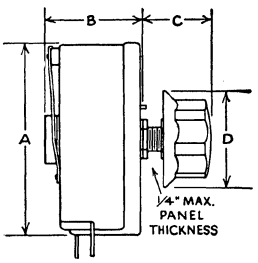
The Ward Leonard 25-watt (Type 25R) and 50-watt (Type 50R) Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.

Standard shaft length for back-of-board mounting on ¼" panel.

TYPE 25R

TYPE 50R





DIMENSION SKETCH

SEE DIMENSIONS HEADING EACH TABLE

25 WATTS TYPE 25R

Dimensions: A-1 1/16" B-1⅛" C-1" D-1½"

Current M.A.	Approx. No. of Steps	Price Less Knob†	Ohms
5000	32	$4.63	1
3540	32	4.63	2
2880	51	4.63	3
*	*	*	4
2040	85	4.63	6
1770	95	4.63	8
1580	95	4.63	10
1280	102	4.11	15
1000	102	4.11	25
840	102	4.11	35
707	97	4.11	50
574	129	4.11	75
500	162	4.11	100
407	190	4.11	150
316	200	4.11	250
267	220	4.11	350
223	245	4.11	500
181	292	4.11	750
158	315	4.63	1000
128	369	4.63	1500
100	388	4.63	2500
84	388	4.90	3500
70	595	4.90	5000
*	*	*	7500
*	*	*	10000

50 WATTS TYPE 50R

Dimensions: A-2 5/16" B-1⅛" C-1" D-1½"

Current M.A.	Approx. No. of Steps	Price Less Knob†
7070	45	$5.15
5000	56	5.15
*	*	*
3540	56	5.15
2880	94	5.15
2500	94	4.63
2230	94	4.63
1810	113	4.63
1415	144	4.63
1190	144	4.63
1000	180	4.63
812	144	4.63
707	216	4.63
574	252	4.63
447	245	4.63
374	288	4.63
316	324	4.90
256	373	4.90
223	390	4.90
181	396	4.90
141	547	5.15
119	547	5.15
100	786	5.15
81	905	5.15
70	947	5.15

†Price with Knob add $.29.

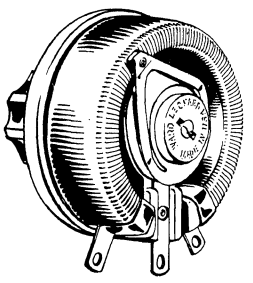
STANDARD RESISTANCE TOLERANCE ±10%

The Ring Rheostats shown on this page are standard values and sizes carried in stock at our factory and by our Distributors. Information concerning Rheostats of special construction available on request.

100-Watt — 150-Watt

The Ward Leonard 100-watt (Type 100R) and 150-watt (Type 150R) Ring Type Rheostats are of sturdy construction for electrical applications, such as control of fractional h.p. motors, rectifiers, voltage regulators, and some electronic circuits, such as filament and battery control.

TYPE 100R



100 WATTS TYPE 100R

Dimensions: A-3 3/32" B-1½" C-1" D-1½"

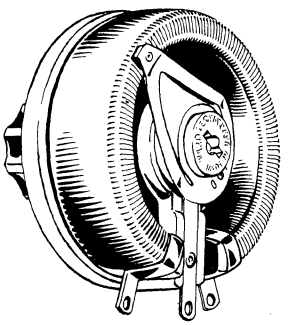
Current M.A.	Approx No. of Steps	Price Less Knob†	Ohms
10000	30	$7.72	1
7070	56	7.72	2
5740	66	7.72	3
4470	56	7.72	5
3640	66	7.72	7.5
3160	104	7.72	10
2560	113	7.72	15
2000	144	7.21	25
1415	180	7.21	50
1150	180	7.21	75
1000	216	7.21	100
707	252	7.21	200
574	252	7.21	300
500	252	7.21	400
447	324	7.21	500
364	396	7.21	750
316	410	7.72	1000
223	410	7.72	2000
200	410	7.72	2500
141	685	8.24	5000
115	820	8.76	7500
100	820	9.26	10000

150 WATTS TYPE 150R

Dimensions: A-4" B-1¾" C-1" D-1½"

Current M.A.	Approx. No. of Steps	Price Less Knob†
12240	39	$9.78
8660	39	9.78
7070	70	9.78
5470	73	9.78
4470	70	9.78
3870	70	9.78
3160	120	9.78
2440	152	9.26
1730	190	9.26
1415	228	9.26
1224	228	9.26
866	265	9.26
707	303	9.26
612	342	9.26
547	342	9.26
447	418	9.78
387	432	9.78
273	575	10.30
244	456	10.30
173	865	11.33
141	1000	11.33
122	1000	12.35

†Price with Knob add $.29.



TYPE 150R

300 WATT TYPE 300 R

Dimensions: A-6" B-2 3/16" Shaft—⅜" x 2"

Resistance Values 1 to 2500 ohms

Price less Knob $15.29

Price with Knob $16.45

WARD LEONARD

Vitrohm® RESISTORS

Wire-wound, power type, vitreous enamel resistors designed for high reliability. Coated with famous crazeless VITROHM enamel.

5 WATTS — Size—1" x 5/16" — TYPE 5F

Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	2230	$0.52	100	223	$0.52	1200	64	$0.56
1.5	1820	.52	125	200	.52	1250	63	.56
2	1580	.52	150	182	.52	1500	57	.56
3	1290	.52	200	158	.52	1750	53	.56
4	1117	.52	225	148	.52	2000	50	.56
5	1000	.52	250	141	.52	2250	47	.56
7.5	811	.52	300	129	.52	2500	45	.56
10	707	.52	350	119	.52	3000	40	.56
12	644	.52	400	112	.52	3500	37	.56
15	577	.52	450	105	.52	4000	35	.56
20	500	.52	500	100	.52	4500	33	.56
25	450	.52	600	91	.52	5000	31	.56
30	408	.52	700	84	.52	6000	28	.58
35	378	.52	750	81	.52	7000	26	.58
40	353	.52	800	79	.52	7500	25	.58
50	316	.52	900	74	.52	8000	25	.58
75	257	.52	1000	70	.52	9000	23	.58
			1100	67	.56	10000	22	.58

10 WATTS — Type 10F—Fixed — Type 10A—Adj.

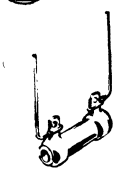
Size—1¾" x 5/16" Mtg. Centers—2⅛"

Ohms	m.a.	Price Fixed	Price Adj.	Ohms	m.a.	Price Fixed	Price Adj.
1	3160	$0.57	$1.14	1200	91	$0.61	*
1.5	2580	.57	*	1250	89	.61	$1.18
2	2235	.57	1.14	1500	81	.61	1.18
3	1825	.57	1.14	1750	75	.61	*
4	1580	.57	*	2000	70	.61	1.18
5	1415	.57	1.14	2250	66	.61	*
7.5	1155	.57	1.14	2500	63	.61	1.18
10	1000	.57	1.14	3000	58	.61	1.18
12	913	.57	*	3500	53	.61	1.18
15	815	.57	1.14	4000	50	.61	1.18
20	707	.57	1.14	4500	47	.61	1.18
25	630	.57	1.14	5000	45	.61	1.18
30	577	.57	*	6000	41	.70	1.27
35	534	.57	*	7000	38	.70	1.27
40	500	.57	*	7500	36	.70	1.27
50	450	.57	1.14	8000	35	.70	1.27
75	365	.57	1.14	8500	34	.70	1.27
100	316	.57	1.14	9000	33	.70	1.27
125	283	.57	*	10000	32	.70	1.27
150	258	.57	1.14	11000	30	.77	
200	224	.57	1.14	12000	29	.77	
225	211	.57	*	12500	28	.77	
250	200	.57	1.14	13500	27	.77	
300	182	.57	1.14	15000	25.5	.77	
350	169	.57	1.14	16000	25	.77	
400	158	.57	1.14	17500	24	.77	
450	149	.57	*	18000	23	.77	
500	142	.57	1.14	20000	22	.77	
600	129	.57	1.14	22500	21	.83	
700	120	.57	*	25000	20	.83	
750	115	.57	1.14	30000	18	.83	
800	112	.57	1.14	35000	17	.83	
900	105	.57	*	40000	16	.83	
1000	100	.57	1.14	45000	15	.92	
1100	95	.61	*	50000	14	.92	

20 WATTS • TYPE 20F

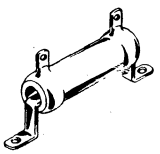
Size—2" x 5/16" Mtg. Centers—2⅝"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	4480	$0.68	850	153	$0.68	10000	45	$0.83
3	2580	.68	1000	141	.68	12500	40	.85
5	2000	.68	1200	130	.70	15000	36	.85
10	1410	.68	1250	125	.70	20000	32	.85
15	1150	.68	1500	115	.70	25000	28	.99
25	900	.68	1750	107	.70	30000	26	.99
50	630	.68	1850	104	.70	35000	24	.99
75	517	.68	2000	100	.70	40000	22	.99
100	450	.68	2250	94	.70	45000	21	1.15
150	365	.68	2400	91	.70	50000	20	1.15
175	340	.68	2500	90	.70	55000	18	1.15
200	320	.68	2750	85	.70	60000	16	1.15
250	285	.68	3000	81	.70	65000	15	1.37
300	258	.68	3500	76	.70	70000	14	1.37
350	240	.68	4000	70	.70	75000	13	1.37
400	224	.68	4500	67	.70	80000	12	1.37
500	200	.68	5000	63	.70	85000	11.5	1.57
650	175	.68	6000	57	.83	90000	11	1.57
700	169	.68	7000	53	.83	95000	10.5	1.57
750	163	.68	7500	51	.83	100000	10	1.57
800	155	.68	8000	50	.83			

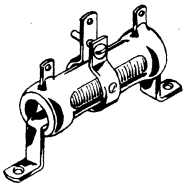


HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.



Types 5F, 10F, and 20F. Furnished with wire terminal leads. Brackets supplied on request.



Type 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

Order by Type Number and Resistance Value.

Asterisks (*) in Tables Indicate that Resistors are not Stock Items.

ADJUSTABLE BANDS

Screw Driver Type

Size of Resistor	Cat. No.	Price
10 Watts	609Z	$0.26
25 Watts	612A	.26
50 Watts	612B	.26
80 Watts	612B	.26
100 Watts	615D	.26
160 Watts	615D	.26
200 Watts	615D	.26

Bakelite Knob Type

25 Watts	610A	$0.40
50 Watts	610B	.40
80 Watts	610B	.40
100 Waits	619D	.40
160 Watts	619D	.40
200 Watts	619D	.40

80 WATTS • TYPE 80A

Size—6½" x ¾"
Mtg. Centers—7¼"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8940	$1.87	3000	161	$1.92
2	6320	1.87	3500	151	1.92
3	5160	1.87	4000	141	1.92
4	4470	1.87	4500	133	1.92
5	4000	1.87	5000	126	1.92
10	2830	1.87	6000	115	2.01
15	2310	1.87	7000	107	2.01
25	1790	1.87	7500	103	2.01
50	1260	1.87	8000	100	2.01
75	1030	1.87	9000	94	2.01
100	894	1.87	10000	89	2.01
200	632	1.87	15000	73	2.13
250	565	1.87	20000	63	2.13
300	515	1.87	25000	57	2.32
400	447	1.87	30000	51	2.32
500	400	1.87	35000	48	2.32
750	325	1.87	40000	45	2.32
800	316	1.87	45000	41	2.52
1000	282	1.87	50000	40	2.52
1250	253	1.92	60000	36	2.52
1500	231	1.92	70000	33	2.78
2000	200	1.92	80000	31	2.78
2250	188	1.92	100000	28	2.93
2500	178	1.92			

25 WATTS — Type 25F—Fixed — Type 25A—Adj.

Size—2" x 5/8" Mtg. Centers—2⅝"

Ohms	m.a.	Price Fixed	Price Adj.	Ohms	m.a.	Price Fixed	Price Adj.
1	5000	$0.72	$1.29	2500	100	$0.75	$1.32
2	3535	.72	1.29	3000	90	.75	1.32
3	2890	.72	1.29	3500	85	.75	1.32
4	2500	.72	*	4000	80	.75	1.32
5	2230	.72	1.29	4500	74	*	1.32
7.5	1825	*	1.29	5000	70	.75	1.32
10	1580	.72	1.29	6000	65	.85	1.42
15	1290	.72	1.29	7000	60	*	1.42
20	1115	*	1.29	7500	58	.85	1.42
25	1000	.72	1.29	8000	56	*	1.42
50	710	.72	1.29	8500	54	.85	1.42
75	580	.72	1.29	9000	52	*	1.42
100	500	.72	1.29	10000	50	.85	1.42
150	410	.72	1.29	12000	46	.90	1.47
200	354	.72	1.29	15000	41	.90	1.47
250	315	.72	1.29	20000	34	.90	1.47
300	289	.72	1.29	25000	32	1.04	1.61
400	250	.72	1.29	30000	29	1.04	
500	224	.72	1.29	35000	27	1.04	
750	182	.72	1.29	40000	25	1.04	
800	177	.72	1.29	50000	20	1.21	
850	170	.72	1.29	60000	17	1.21	
1000	158	.72	1.29	70000	14	1.42	
1250	140	.75	1.32	75000	13	1.42	
1500	129	.75	1.32	80000	12	1.42	
2000	112	.75	1.32	100000	10	1.64	
2250	105	*	1.32				

50 WATTS — Type 50F—Fixed — Type 50A—Adj.

Size—4½" x ¾" Mtg. Centers—5¼"

Ohms	m.a.	Price Fixed	Price Adj.	Ohms	m.a.	Price Fixed	Price Adj.
1	7070	$1.11	$1.68	5000	100	$1.14	$1.71
2	5000	1.11	1.68	6000	91	1.23	1.80
3	4080	1.11	1.68	7000	85	*	1.80
4	3535	1.11	1.68	7500	82	1.23	1.80
5	3160	1.11	1.68	8000	79	1.23	1.80
10	2235	1.11	1.68	9000	75	*	1.80
25	1415	1.11	1.68	10000	71	1.23	1.80
50	1000	1.11	1.68	12000	65	1.35	1.92
75	815	1.11	1.68	12500	63	1.35	*
100	707	1.11	1.68	15000	58	1.35	1.92
150	575	1.11	1.68	20000	50	1.35	1.92
200	500	1.11	1.68	25000	45	1.54	2.11
250	445	1.11	1.68	30000	41	1.54	2.11
300	408	1.11	1.68	35000	38	1.54	*
400	353	1.11	1.68	40000	35	1.54	2.11
500	316	1.11	1.68	45000	33	1.72	*
750	258	1.11	1.68	50000	32	1.72	2.29
800	250	1.11	1.68	60000	29	*	2.29
1000	224	1.11	1.68	75000	23	1.97	2.54
1250	200	*	1.71	80000	21	*	2.54
1500	180	1.14	1.71	100000	17	2.13	2.70
2000	160	1.14	1.71	125000	14	2.57	
2250	150	*	1.71	150000	12	2.70	
2500	141	1.14	1.71	175000	10	2.79	
3000	130	1.14	1.71	200000	9	2.89	
3500	120	*	1.71	225000	8	3.24	
4000	110	1.14	1.71	250000	7	3.24	
4500	105	*	1.71				

100 WATTS — Type 100F—Fixed — Type 100A—Adj.

Size—6½" x 1⅛" Mtg. Centers—7¼"

Ohms	m.a.	Price Fixed	Price Adj.	Ohms	m.a.	Price Fixed	Price Adj.
1	10000	$1.54	$2.11	2500	200	$1.60	$2.17
2	7070	1.54	2.11	3000	180	1.60	2.17
3	5770	1.54	2.11	3500	170	1.60	*
4	5000	1.54	2.11	4000	158	1.60	2.17
5	4470	1.54	2.11	4500	150	1.60	2.17
10	3160	1.54	2.11	5000	141	1.60	2.17
25	2000	1.54	2.11	6000	130	*	2.30
50	1410	1.54	2.11	7500	115	1.73	2.30
75	1150	1.54	*	10000	100	1.73	2.30
100	1000	1.54	2.11	15000	80	1.87	2.44
125	895	1.54	*	20000	70	1.87	2.44
150	815	1.54	*	25000	63	2.13	2.70
200	707	*	2.11	30000	58	2.13	2.70
250	630	1.54	2.11	35000	54	2.13	*
400	500	*	2.11	40000	50	2.13	2.70
500	447	1.54	2.11	50000	45	2.21	2.78
750	365	1.54	2.11	60000	41	2.21	2.78
1000	316	1.54	2.11	70000	38	2.45	*
1250	285	1.60	*	75000	36	2.45	3.02
1500	260	1.60	2.17	100000	32	2.75	3.32
2000	225	1.60	2.17				

Trade Discount Applies To *List Prices Only*
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Vitrohm RESISTORS

Order by Type Number and Resistance Value. Asterisks (*) in Table indicate that Resistors are not Stock items.

WARD LEONARD

160 WATTS Type 160F—Fixed Type 160A—Adj.

Size—8½" x 1⅛" Mtg. Centers—9¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	12650	$2.28	$3.16	2500	252	$2.32	$3.20
2	8940	2.28	3.16	3000	230	2.32	3.20
3	7300	2.28	3.16	3500	215	2.32	3.20
4	6320	2.28	3.16	4000	200	2.32	3.20
5	5650	2.28	3.16	4500	185	2.32	3.20
10	4000	2.28	3.16	5000	178	2.32	3.20
15	3265	2.28	3.16	7500	146	2.53	3.41
25	2525	2.28	3.16	10000	126	2.53	3.41
50	1785	2.28	3.16	15000	105	2.71	3.59
75	1460	2.28	*	20000	90	2.71	3.59
100	1265	2.28	3.16	25000	80	2.80	3.68
150	1035	2.28	*	30000	73	2.80	3.68
200	894	2.28	3.16	35000	68	2.80	*
250	800	2.28	3.16	40000	64	2.80	3.68
500	565	2.28	3.16	50000	57	2.89	3.77
750	460	2.28	*	60000	52	2.89	3.77
1000	400	2.28	3.16	75000	46	3.08	3.96
1500	326	2.32	3.20	80000	45	3.08	3.96
2000	280	2.32	3.20	100000	40	3.26	4.14

200 WATTS Type 200F—Fixed Type 200A—Adj.

Size—10½" x 1⅛" Mtg. Centers—11¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	14140	$2.46	$3.34	3500	240	$2.53	$3.41
2	10000	2.46	3.34	4000	225	2.53	3.41
3	8162	2.46	3.34	4500	210	2.53	3.41
4	7070	2.46	3.34	5000	200	2.53	3.41
5	6320	2.46	3.34	7500	163	2.71	3.59
10	4470	2.46	3.34	10000	141	2.71	3.59
25	2825	2.46	3.34	15000	115	2.89	3.77
50	2000	2.46	3.34	20000	100	2.89	3.77
75	1630	2.46	*	25000	90	2.98	3.86
100	1414	2.46	3.34	30000	82	2.98	3.86
150	1150	2.46	*	35000	76	2.98	*
250	900	2.46	3.34	40000	71	2.98	3.86
500	632	2.46	3.34	50000	63	3.08	3.96
750	515	2.46	*	60000	58	3.08	3.96
1000	447	2.46	3.34	75000	52	3.26	4.14
1500	365	2.53	3.41	100000	45	3.46	4.34
2000	315	2.53	3.41	125000	40	*	4.57
2500	282	2.53	3.41	150000	35	*	4.83
3000	260	2.53	3.41				

AXIOHMS

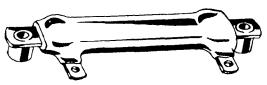
Vitreous enameled wire-wound resistors with 1½" tinned copper leads for self-mounting.

The same fine materials used in the manufacture of Ward Leonard Vitrohm Resistors are used in making Axiohms.

Order by Type Number and Resistance Value.

STRIPOHMS

Order by Type Number and Resistance Value



MINISTRIP

Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.

The "Ministrip" is smaller in size than the standard Stripohm. May be stacked by using 1/32" washers. Rated at 20 watts.

20 WATTS • TYPE 20S

2" Long—Mtg. Centers 2⅝"
Width 7/16"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	4480	$0.99	1500	115	$0.99
3	2580	.99	2000	100	.99
5	2000	.99	2500	90	.99
10	1410	.99	3000	81	1.04
15	1150	.99	3500	76	1.04
25	900	.99	4000	70	1.04
50	630	.99	5000	63	1.04
100	450	.99	7500	51	1.10
150	365	.99	10000	45	1.16
200	320	.99	15000	36	1.20
250	285	.99	20000	32	1.26
400	224	.99	25000	28	1.33
500	200	.99	30000	26	1.38
750	163	.99	35000	24	1.38
1000	141	.99	40000	22	1.44
1250	125	.99	50000	20	1.44

30 WATTS • TYPE 30S

1¼" Long—Mtg. Centers 2"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	5480	$1.42	500	244	$1.42
3	3160	1.42	750	200	1.42
5	2450	1.42	1000	173	1.42
10	1730	1.42	1250	154	1.42
15	1420	1.42	1500	142	1.42
25	1095	1.42	2000	122	1.42
50	774	1.42	2500	100	1.42
100	547	1.42	3000	100	1.52
150	447	1.42	3500	92	1.52
200	387	1.42	4000	86	1.52
250	346	1.42	5000	77	1.52
400	273	1.42			

40 WATTS • TYPE 40S

2" Long—Mtg. Centers 2¾"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	6320	$1.47	750	230	$1.47
3	3650	1.47	1000	200	1.47
5	2830	1.47	1250	180	1.47
10	2000	1.47	1500	163	1.47
15	1630	1.47	2000	141	1.47
25	1270	1.47	2500	126	1.47
50	894	1.47	3000	114	1.59
100	632	1.47	3500	106	1.59
150	510	1.47	4000	100	1.59
200	447	1.47	5000	88	1.59
250	400	1.47	7500	73	1.65
400	315	1.47	10000	63	1.77
500	283	1.47	15000	51	1.86

55 WATTS • TYPE 55S

3½" Long—Mtg. Centers 4¼"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	7420	$1.70	1250	209	$1.70
3	4280	1.70	1500	191	1.70
5	3320	1.70	2000	165	1.70
10	2350	1.70	2500	148	1.70
15	1910	1.70	3000	135	1.81
25	1480	1.70	3500	129	1.81
50	1050	1.70	4000	117	1.81
100	741	1.70	5000	104	1.81
150	604	1.70	7500	84	1.87
200	522	1.70	10000	74	1.99
250	469	1.70	15000	60	2.08
400	370	1.70	20000	52	2.15
500	331	1.70	25000	47	2.28
750	270	1.70	30000	42	2.39
1000	234	1.70			

65 WATTS • TYPE 65S

4¾" Long—Mtg. Centers 5½"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8060	$1.95	1500	208	$1.95
3	4650	1.95	2000	180	1.95
5	3610	1.95	2500	161	1.95
10	2550	1.95	3000	146	2.04
15	2080	1.95	3500	136	2.04
25	1610	1.95	4000	127	2.04
50	1140	1.95	5000	114	2.04
100	806	1.95	7500	92	2.12
150	658	1.95	10000	80	2.23
200	570	1.95	15000	65	2.31
250	509	1.95	20000	57	2.40
400	403	1.95	25000	51	2.53
500	360	1.95	30000	46	2.62
750	294	1.95	35000	43	2.62
1000	254	1.95	40000	40	2.73
1250	228	1.95	50000	36	2.73

75 WATTS TYPE 75S

6" Long
Mtg. Centers 6¾"

Ohms	Current m.a.	Price
1	8660	$2.12
3	5000	2.12
5	3870	2.12
10	2740	2.12
15	2235	2.12
25	1730	2.12
50	1220	2.12
100	866	2.12
150	707	2.12
200	612	2.12
250	550	2.12
400	433	2.12
500	387	2.12
750	315	2.12
1000	274	2.12
1250	245	2.12
1500	224	2.12
2000	193	2.12
2500	173	2.12
3000	158	2.22
3500	146	2.22
4000	137	2.22
5000	122	2.22
7500	100	2.28
10000	87	2.40
15000	71	2.48
20000	61	2.57
25000	55	2.70
30000	50	2.80
35000	46	2.80
40000	43	2.89
50000	37	2.89
60000	35	3.03
65000	33	3.03

3 WATTS Size—½" x 3/16" TYPE 3X

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	1732	$0.59	125	155	.59	1250	49	.62
1.5	1414	.59	150	141	.59	1500	45	.62
2	1225	.59	200	122	.59	1750	41	.62
3	1000	.59	225	115	.59	2000	39	.62
4	866	.59	250	110	.59	2250	37	.62
5	775	.59	300	100	.59	2500	35	.62
7.5	632	.59	350	93	.59	3000	32	.62
10	548	.59	400	87	.59	3500	29	.62
12	500	.59	450	82	.59	4000	27	.62
15	447	.59	500	77	.59	4500	26	.62
20	387	.59	600	71	.59	5000	25	.62
25	346	.59	700	66	.59	6000	22	.66
30	316	.59	750	63	.59	6500	21	.66
35	293	.59	800	61	.59	7000	21	.66
40	274	.59	900	58	.59	7500	20	.66
50	245	.59	1000	55	.59	8000	20	.66
75	200	.59	1100	52	.62	9000	18	.66
100	173	.59	1200	50	.62	10000	17	.66

5 WATTS Size—15/16" x 3/16" TYPE 5XM

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	2230	$0.61	225	148	.61	3000	40	.67
1.5	1820	.61	250	141	.61	3500	37	.67
2	1580	.61	300	129	.61	4000	35	.67
3	1290	.61	350	119	.61	4500	33	.67
4	1117	.61	400	112	.61	5000	31	.67
5	1000	.61	450	105	.61	6000	28	.70
7.5	811	.61	500	100	.61	7000	26	.70
10	707	.61	600	91	.61	7500	25	.70
12	644	.61	700	84	.61	8000	25	.70
15	577	.61	750	81	.61	9000	23	.70
20	500	.61	800	79	.61	10000	22	.70
25	450	.61	900	74	.61	11000	21	.79
30	408	.61	1000	70	.61	12000	20	.79
35	378	.61	1100	67	.67	12500	20	.79
40	353	.61	1200	64	.67	13500	19	.79
50	316	.61	1250	63	.67	15000	18	.79
75	257	.61	1500	57	.67	16000	18	.79
100	223	.61	1750	53	.67	17500	17	.79
125	200	.61	2000	50	.67	18000	17	.79
150	182	.61	2250	47	.67	20000	16	.79
200	158	.61	2500	45	.67			

10 WATTS Size—1¾" x 3/16" TYPE 10XM

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	3160	$0.68	300	182	$0.68	6000	41	$0.84
1.5	2580	.68	350	169	.68	7000	38	.84
2	2235	.68	400	158	.68	7500	36	.84
3	1825	.68	450	149	.68	8000	35	.84
4	1580	.68	500	142	.68	8500	34	.84
5	1415	.68	600	129	.68	9000	33	.84
7.5	1155	.68	700	120	.68	10000	32	.84
10	1000	.68	750	115	.68	11000	30	.94
12	913	.68	800	112	.68	12000	29	.94
15	815	.68	900	105	.68	12500	28	.94
20	707	.68	1000	100	.68	13500	27	.94
25	630	.68	1100	95	.74	15000	25.5	.94
30	577	.68	1200	91	.74	16000	25	.94
35	534	.68	1250	89	.74	17500	24	.94
40	500	.68	1500	81	.74	18000	23	.94
50	450	.68	1750	75	.74	20000	22	.94
75	365	.68	2000	70	.74	22500	21	.99
100	316	.68	2250	66	.74	25000	20	.99
125	283	.68	2500	63	.74	30000	18	.99
150	258	.68	3000	58	.74	35000	17	.99
200	224	.68	3500	53	.74	40000	16	.99
225	211	.68	4000	50	.74	45000	15	1.11
250	200	.68	4500	47	.74	50000	14	1.11
			5000	45	.74			

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WORKMAN TV Products, Inc. REPLACEMENT COMPONENTS

• SARASOTA, FLORIDA •

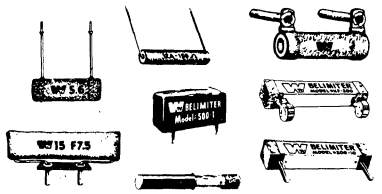
GLOBAR RESISTORS

CAT. NO.	DESCRIPTION	LIST
FR6	6Ω Hot—600ma.	1.65
FR9	9Ω Hot—600ma.	1.65
FR11	11Ω Hot—600ma.	2.50
FR19	19Ω Hot—600ma.	1.50
051	20Ω Hot—600ma.	1.50
FR31	31Ω Hot—300ma.	1.90
054	35Ω Hot—600ma.	3.20
FR35	35Ω Hot—600ma.	1.90
FR43	43Ω Hot—600ma.	2.50
FR50	50Ω Hot—150ma.	1.60
FR100	50Ω Hot—150ma.	1.60
T 1	20Ω - 100Ω Hot	1.85
FR.49	.49Ω at 3 amps.	1.60
FR2	Replaces filament resistors	3.00
052	10.5KΩ at 125 volts	3.20
088	14KΩ at 140 volts	3.20
041	75Ω Hot—300ma.	2.20
FR19A	19Ω Hot—600ma.	2.20
FR11P	9.2Ω - 11Ω Hot	1.65
FR5-8	5-8Ω at 450ma.	1.65
FR5K	500KΩ at 25 deg. C	1.50
191	120Ω cold	1.60
GM	1/5 Watt ±20% 40 values	.65
291	79Ω cold .47Ω hot	1.60

NON INDUCTIVE DUMMY LOAD

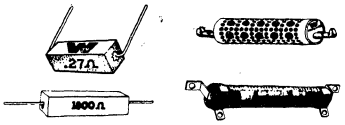
CAT. NO.	DESCRIPTION	LIST
DL 10W	10 Watt	2.70
DL 25W	25 Watt	4.35
DL 75W	75 Watt	8.85
DL100W	100 Watt	12.45
DL500W	500 Watt	42.00

FUSED RESISTORS



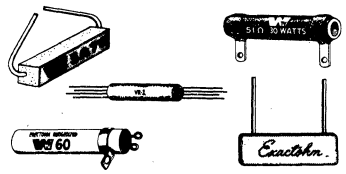
CAT. NO.	DESCRIPTION	LIST
F4.7	4.7Ω - 5 Watts	.65
F5	5Ω - 5 Watts	.65
F5.6	5.6Ω - 5 Watts	.65
F6	6Ω - 5 Watts	.65
R7	7.5Ω - 3 Amperes	.72
F80	7.5Ω - 3 Amperes	.65
F9	9Ω - 5 Watts	.65
F10	10Ω - 5 Watts	.65
F18	18Ω - 5 Watts	.65
F22	22Ω - 5 Watts	.65
F47	47Ω - 5 Watts	.65
F100	100Ω - 5 Watts	.65
F150	150Ω - 5 Watts	.65
F12A	150Ω - 0.12 Amperes	.65
FZ4.7	4.7Ω - 3 Amp.	.36
FZ5.6	5.6Ω - 3 Amp.	.36
FZ7.5	7.5Ω - 3 Amp.	.36
FZ9	9Ω - 3 Amp.	.36
FB1	Universal replacement	2.00
F28	No. AWG 28 Wire	.25
15F7.5	7.5Ω - 15 Watts	.96
7F5	5Ω - 7 Watts	.72
200-10	Chemical Fuse	.82
KF-200	Chemical Fuse	1.00
LC-200	Chemical Fuse	1.00
500-1	Chemical Fuse	.75
400-1	Chemical Fuse	.80
3-1	Chemical Fuse	.58

AUTO RADIO RESISTORS



CAT. NO.	DESCRIPTION	LIST
T10	10Ω cold	.65
T22	0.22Ω - 5 Watt	.48
T27	0.27Ω - 5 Watt	.48
T33	0.33Ω - 5 Watt	.48
T47	0.47Ω 5 Watt	.48
T56	5.6Ω - 5 Watt	.48
T68	0.68Ω - 5 Watt	.48
7W	1800Ω - 7 Watts	.35
GD1	For 6 volt in 12 volt systems	4.50
GD2	2, 4 or 6 amp. loads	3.30
GD3	5 to 6 amp. loads	2.50
GD4	7 to 8 amp. loads	2.50

WIREWOUND RESISTORS

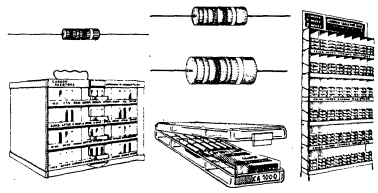


CAT. NO.	DESCRIPTION	LIST
5W-SQ	5W 69 Values 1-6KΩ	.36
7W-SQ	7W 77 Values 1-10KΩ	.38
10W-SQ	10W 85 Values 1-25KΩ	.40
15W-SQ	15W 87 Values 1-35KΩ	.50
20W-SQ	20W 87 Values 1-35KΩ	.65
25W-SQ	25W 121 Values 1-50KΩ	.75
10W	10W 48 Values	.65
148	41Ω - 25 Watts	.85
151	51Ω - 30 Watts	.95
MO1	59Ω - 25 Watts	.85
E10	10W - 8 Values	1.40
30W	30W 18 Values	1.60
VR1	10W 48 Values - .5-15Ω	1.10
VR2	10W 48 Values - 5-150Ω	1.10
VR3	10W 48 Values - 50-1500Ω	1.10
VR4	10W 48 Values - 500-15KΩ	1.10
VR5	10W 12 Values - 3K-50KΩ	1.10
C1	28Ω Tap 24Ω	1.60
C2	17Ω Tap 13Ω	1.20
C3	2760Ω Tap 1380Ω	2.00
C4	5375Ω Tap 2650Ω	2.00
C5	54Ω	2.00
C6	50Ω	2.00
C7	44Ω	2.00
C8	3000Ω	2.00
C9	2250Ω Tap 750Ω	1.60
C10	2200Ω Tap 1100Ω	2.00
C11	4000Ω	1.60
C12	2300Ω	1.60
C13	6Ω	1.60
C14	1300Ω	1.60
C15	2600Ω Tap 1300Ω	2.00
C16	850Ω Open	4.00
C17	2650Ω	2.00
C18	9325Ω Tap 8200Ω	4.80
C19	130Ω	1.40
C20	2175Ω Tap 75Ω	1.60
C21	1975Ω Tap 75Ω	1.60
C22	2000Ω	1.40
C23	135Ω	1.20
C24	47Ω Tap 14Ω Tap 32Ω	2.40
C25	1550Ω	2.00
C26	33Ω	1.60
C27	1800Ω	1.60
C28	2000Ω	1.60
C29	180Ω	1.22
C30	1180Ω Tap 180Ω	1.59
C31	2820Ω Tap 2000Ω	2.40
C32	2000Ω	1.40
C33	2000Ω Tap 1000Ω	1.59
C34	61Ω	2.00
C35	4520Ω Tap 120, 1120, 2320Ω	3.00
C36	56Ω	1.60
C37	2070Ω Tap 720Ω	1.60
C38	1900Ω Tap 950Ω	1.59
C39	450Ω Tap 200Ω	2.80
C40	9562Ω Tap 2500Ω	3.40
C41	1280Ω	3.90

CARBON BAR RESISTORS

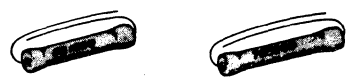
CAT. NO.	DESCRIPTION	LIST
1M	1 Meg - 4 Watts	.95
1.5M	1.5 Meg - 4 Watts	.95
2M	2 Meg - 4 Watts	.95
2.5M	2.5 Meg - 4 Watts	.95
1L	1 Meg - 4 Watts	1.25
1.5L	1.5 Meg - 4 Watts	1.25
2L	2 Meg - 4 Watts	1.25
2.5L	2.5 Meg - 4 Watts	1.25
1W2	1 Watt - 2.2Ω	1.10
1W3	1 Watt - 3.3Ω	1.10
1W4	1 Watt - 4.4Ω	1.10
1W5	1 Watt - 5.5Ω	1.10
4W5	4 Watts - 5600Ω	.95
4W6	4 Watts - 6800Ω	.95

CARBON RESISTORS



CAT. NO.	DESCRIPTION	LIST
CA	½W ±10% 77 Values	.20
CB	1W ±10% 77 Values	.30
CC	2W ±10% 77 Values	.40
CE	½W ±5% 153 Values	.40
CA (6 Pk.)	½W ±10% 77 Values	1.20
CB (4 Pk.)	1W ±10% 77 Values	1.20
CC (3 Pk.)	2W ±10% 77 Values	1.20
CD	Rack of 624 Resistors	172.80
CD1	Cabinet 438 Resistors	129.60

GLASS RESISTORS



CAT. NO.	DESCRIPTION	LIST
3G470	3 Watt 470Ω	.65
3G560	3 Watt 560Ω	.65
3G1000	3 Watt 1000Ω	.65
3G2700	3 Watt 2700Ω	.65
3G3300	3 Watt 3300Ω	.65
3G4700	3 Watt 4700Ω	.65
3G5000	3 Watt 5000Ω	.65
3G5600	3 Watt 5600Ω	.65
3G6800	3 Watt 6800Ω	.65
3G8200	3 Watt 8200Ω	.65
3G10K	3 Watt 10000Ω	.65
3G12K	3 Watt 12000Ω	.65
3G15K	3 Watt 15000Ω	.65
3G22K	3 Watt 22000Ω	.65
4G3600	4 Watt 3600Ω	.70
4G4100	4 Watt 4100Ω	.70
4G4700	4 Watt 4700Ω	.70
4G5600	4 Watt 5600Ω	.70
4G7500	4 Watt 7500Ω	.70
4G12K	4 Watt 12000Ω	.70
4G27K	4 Watt 27000Ω	.70
5G1000	5 Watt 1000Ω	.75
5G5600	5 Watt 5600Ω	.75
5G6800	5 Watt 6800Ω	.75
5G7500	5 Watt 7500Ω	.75
5G8200	5 Watt 8200Ω	.75
5G33K	5 Watt 33000Ω	.75
7G3300	7 Watt 3300Ω	.80
7G4700	7 Watt 4700Ω	.80
7G5100	7 Watt 5100Ω	.80
7G5600	7 Watt 5600Ω	.80
7G7000	7 Watt 7000Ω	.80
7G16K	7 Watt 16000Ω	.80

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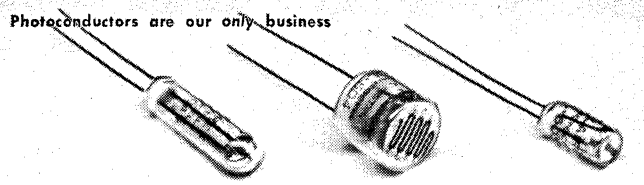

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Now, 25 standard types in glass!

CL Cell #	Sensitive Material	Enclosure (inches)	Pk. Spectral Response, A	Light Resistance[1]	Voltage Rating (Max.)	Power[4] (MW)
CL402	CdS	.265x1	5150	1M	300	75
CL402S[5]	CdS	.265x1	5150	1M	300	75
CL403	CdSe	.265x1	7350	133K	300	75
CL403S[5]	CdSe	.265x1	7350	133K	300	75
CL403A	CdSe	.265x1	7350	75K	300	75
CL403AS[5]	CdSe	.265x1	7350	75K	300	75
CL403ASL[5]	CdSe	.265x1	7350	3.5K	60	75
CL404	CdSe	.265x1	6900	30K	300	75
CL404S[5]	CdSe	.265x1	6900	30K	300	75
CL404SL[5]	CdSe	.265x1	6900	1.5K	60	75
CL407	CdS	.265x1	6150	133K	300	75
CL407S[5]	CdS	.265x1	6150	133K	300	75
CL504	CdSe	.5x.5	6900	1.5K	250	500-250[2]
CL504L	CdSe	.5x.5	6900	0.25K	60	500-250[2]
CL505	CdS	.5x.5	5500	9K	250	500-250[2]
CL505L	CdS	.5x.5	5500	1.5K	60	500-250[2]
CL602[3]	CdS	.25x.5	5150	1M	300	75
CL603[3]	CdSe	.25x.5	7350	133K	300	75
CL603A[3]	CdSe	.25x.5	7350	75K	300	75
CL603AL	CdSe	.25x.5	7350	3.5K	60	75
CL604[3]	CdSe	.25x.5	6900	30K	300	75
CL604L	CdSe	.25x.5	6900	1.5K	60	75
CL605	CdS	.25x.5	5500	166K	300	75
CL605L	CdS	.25x.5	5500	7.5K	60	75
CL607[3]	CdS	.25x.5	6150	133K	300	75

Operating temperature, all types, −50 to +75° C.
[1]Average DC resistance measured at 2 foot-candles, 2870° K. and 25° C ambient.
[2]With and without heat sink.
[3]Designed to replace previous plastic types. [4]At 25° C ambient. [5]S denotes side view cell.

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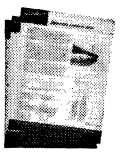

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■ Amperex PADT Transistors for high speed switching applications, featuring high dissipation, uniformity, and deep-diffused, extremely thin active base region, resulting in increased beta and higher cut-off frequency.
■ Amperex PNP and NPN Transistors for audio and computer applications, featuring high power handling capacity, low leakage and unparalleled ruggedness.
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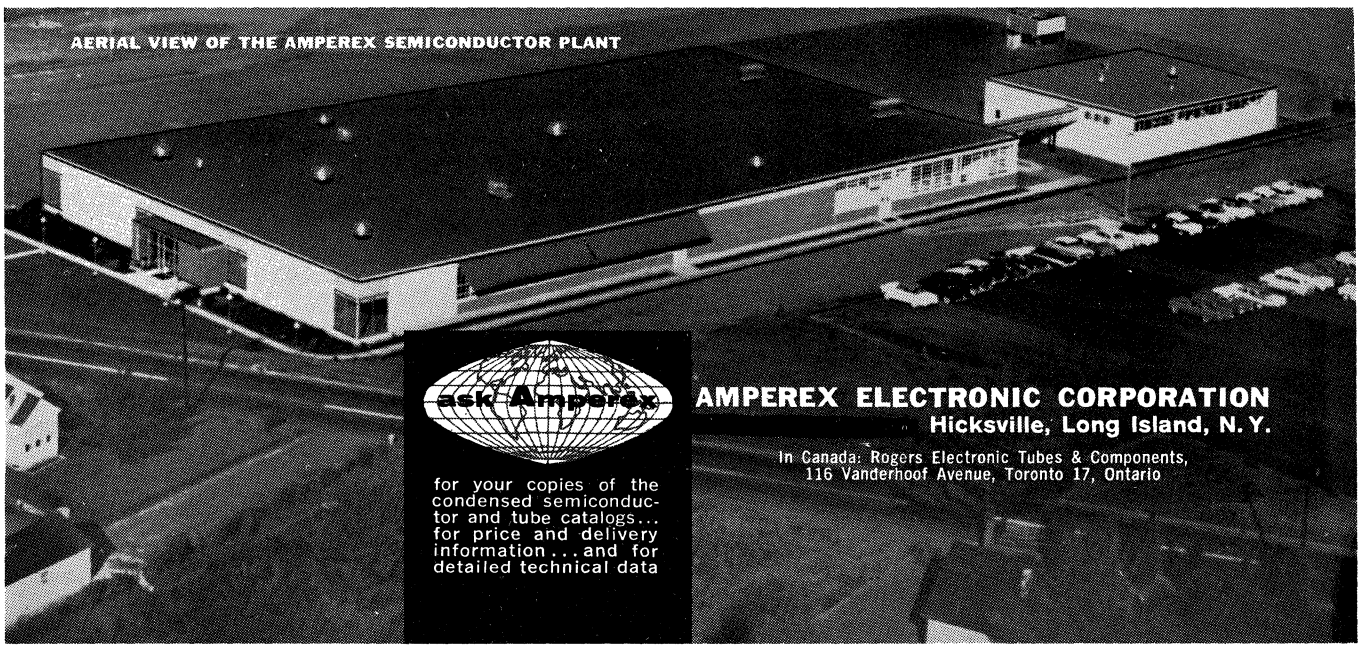
The facilities of the modern Amperex applications laboratory and the Amperex R & D laboratory—both located at the Hicksville, Long Island, plant—are always available to Amperex customers for consultation on any applications problem.



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	MAXIMUM RATINGS				TYPICAL CHARACTERISTICS AT 25° C AMBIENT					
	V_{CE} VOLTS	I_C ma	P_C mw	T_j °C	f_t mc	hfe 1 kc	I_{CBO} ua	Gain at db	Freq. mc	Case
AM/FM RECEIVERS										
PADT-20 (rf)	20	10	83	75	70	150	1.5	12.5	100	TO-7
PADT-21 (conv)	20	10	83	75	70	150	1.5	12 (G_c)	10.7	TO-7
PADT-22 (if)	20	10	83	75	70	150	1.5	23	10.7	TO-7
MOBILE COMMUNICATIONS										
PADT-25 (hf-if)	35	10	100	85	70	150	1.5	22	10.7	TO-7
PADT-26 (rf-if-conv)	35	10	100	85	70	150	1.5	16	50	TO-7
PADT-28 (rf)	35	10	100	85	220	120	10 (max.)	14	200	TO-7
PADT-31 (mix-mult)	35	10	100	85	70	150	1.5	18 (G_c)	26	TO-7
AUTOMOBILE SETS										
PADT-23 (rf)	35	10	100	85	70	150	1.5	45.9	1.5	TO-7
PADT-24 (if)	35	10	100	85	70	150	1.5	37	262.5 kc	TO-7
PADT-27 (osc-conv)	35	10	100		70	150				TO-7
GENERAL PURPOSE										
2N1515 (if)	20	10	83	75	70	100	1.5	61	455 kc	TO-7
2N1516 (conv)	20	10	83	75	70	100	1.5	18 (G_c)	26 mc	TO-7
2N1517 (rf)	20	10	83	75	70	100	1.5	10	100	TO-7
2N1517A (rf)	40	10	100	85	70	100	1.5	14	100	TO-7
PADT-30 (hf-rf)	25	10	83	75	200		10 (max.)	14	200	TO-7
PADT-35 (video/sw.)	50	30	120	75	C_{re}=2uf (5 mc)		5 (max.)	tr=60ns. max.		TO-7
OC-44 (mix-osc)	15	10	83	75	15		0.5			(TO-1)
OC-45 (if)	15	10	83	75	6		0.5			(TO-1)
HIGH SPEED SWITCHING										
PADT-40 (saturated)	20	30	275	75	300	30	I_{EBO} 4 max.	t_{tot} = 135 ns		TO-18
PADT-51 (avalanche)	V_{CO}<2v.	75	83	75	V_{CB} at I_{CO} =1 ma:25v.	(I_C=12 ma)		t_r = 1 ns.		TO-7 TO-3
OC-22	24	1000	K=3°C/mw	75	2.5	180	30			TO-3
OC-23	24	1000	K=3°C/mw	75	2.5	180	30			TO-3
OC-24	24	1000	K=3°C/mw	75	2.5	180	30			(TO-1)
OC-46	20	125	83	75	3.0	80	3			(TO-1)
OC-47	20	125	83	75	5.5	200	3			
AF POWER & SWITCHING										
2N1666	60	6A	12W	90	200 kc	32	100			(TO-3)
2N1667	60	6A	12W	90	200 kc	90	100			(TO-3)
2N1668	32	6A	30W	90	200 kc	50	100			(TO-3)
2N1669	32	6A	30W	90	200 kc	70	100			(TO-3)
OC-80	32	300	550	75	2 mc	85	10			(TO-1)
2N284	32	125	75	75	.9	45	4.5			(TO-1)
2N284A	60	125	75	75	.9	52	4.5			(TO-1)
LARGE SIGNAL AMPLIFIER										
2N131A	16	3A	12.5	90	150 kc	33	100			(TO-3)
OC-30	16	1.4A	900	75	300 kc	35	12			(TO-3)
2N281	16	125	125	75	.9	70	4.5			(TO-1)
AUDIO AMPLIFIER (Si)										
OC200	25	50	250	150	1	20	.01			(TO-1)
OC201	25	50	250	150	4	30	.01			(TO-1)
SPECIAL PURPOSE										
PADT-50 (core driver)	75	750	16W	75	60		I_{CEO} = 1 ma	t_{tot} = 1.6 us		TO-3
PADT-60 (PNPN) (switching trans.)	35 (V_{CB}=12v.	25 (V_{CE} sat.=.6v.	50	75			10			TO-7

diodes *representative of the* **Amperex** *line*

	Max. Ratings (25° C)		TYPICAL CHARACTERISTICS				
	V_O V	I_O ma	Forward Current ma	at Forward Volts V	Reverse Current ua	at Reverse Volts V	Case
COMPUTER TYPES							
1N119	60	35	5	1.0	125	50	clip-in
1N120	60	35	5	1.0	25	10	clip-in
1N191	90	35	5	1.0	25	10	submin.
1N192	70	35	5	1.0	20	10	submin.
1N480	60	35	5	1.0	125	50	solder-in
1N490	60	35	5	1.0	25	10	solder-in
1N698	15	50	0.1	0.23	4.5	10	submin.
1N3122	20	180	10	0.34	3.0	10	submin.
S262	15	30	3	1.0	150	15	submin.
OA5	100	115	200	1.0	6	10	single end.
DETECTOR							
1N60 (video)	30	50			67	10	solder-in
1N87 (video)	25	45	0.1	0.25	30	1.5	solder-in
1N87A (video)	25	45	0.1	0.25	30	1.5	submin.
1N295	40				200	10	
1N541 (AM)	30	10	1.5	1.0	18	10	solder-in
1N542 (FM)	Matched pair of 1N541						
GENERAL PURPOSE							
1N34	60	40	5	1.0	30	10	solder-in
1N34A	60	50	5	1.0	30	10	clip-in
1N38	100	50	4	1.0	5	3	solder-in
1N38A	100	50	4	1.0	5	3	clip-in
1N58	100	50	4	1.0	50	10	solder-in
1N58A	100	50	4	1.0	50	10	clip-in
1N67A	80	30	4	1.0	50	50	submin.
1N90	60	30	5	1.0	500	50	submin.
1N126	60	30	5	1.0	50	10	submin.
1N128	40	30	3	1.0	10	10	submin.
1N198	80	30	5	1.0	75	10	submin.
1N476	90	50	3	1.0	11	10	solder-in
1N478	90	50	5	1.0	30	3	solder-in
1N617	90	50	3	1.0	11	10	submin.
1N618	90	50	5	1.0	7	10	submin.
VOLTAGE VARIABLE CAPACITANCE DIODE							
1N3182	20		C_D=33 μμf at −4V., f=500 kc		100	20	submin.
SILICON DIODES							
1N456	25	90	40	1.0	.025	25	submin.
1N457	60	75	20	1.0	.025	60	submin.
1N458	125	55	7	1.0	.025	125	submin.
1N459	175	40	3	1.0	.025	175	submin.
1N461	25	60	15	1.0	0.5	25	submin.
1N462	60	50	5	1.0	0.5	60	submin.
1N463	175	30	1.0	1.0	0.5	175	submin.
1N464	125	40	3	1.0	0.5	125	submin.
SILICON REFERENCE DIODES							
OAZ200 to OAZ207	40 ma diodes 4.7 v to 9.1 v. V_F at I_D = 10 ma: 0.72 v.						(single end.)
RECTIFIERS							
OA31 (Ge)	85	12 amps					(DO-5)
OA210 (Si)	400	500					DO-3
OA211 (Si)	800	400					DO-3

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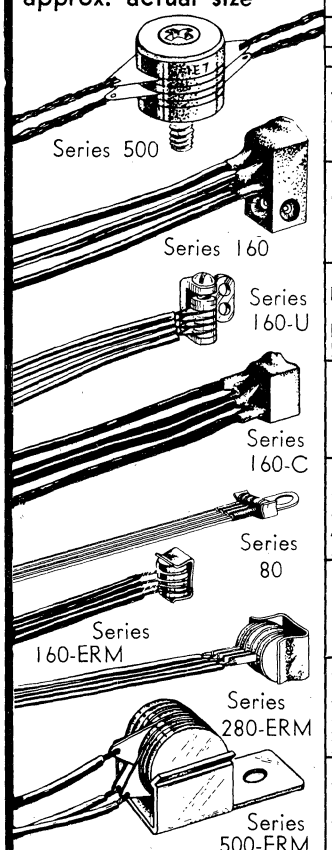
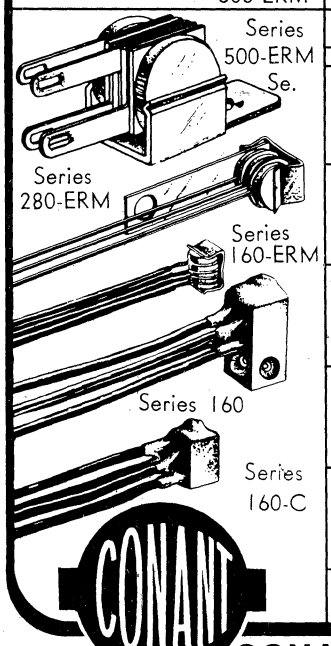
Net

CONANT Miniature Metallic Rectifiers

STANDARD SINCE 1933

Illustrations approx. actual size





CONANT

CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M	1	.500"	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	$2.10
TH	Series 2	"	" "	"	75 ma.	" "	"	1.86
HS	500 3	"	" "	"	50 ma.	" "	"	1.53
T	4	"	" "	"	100 ma.	" "	"	1.53
H	5	"	" "	"	50 ma.	" "	"	1.20
B	1	.166"	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series 2	"	" "	"	7 ma.	" "	"	1.86
BHS	160 3	"	" "	"	5 ma.	" "	"	1.53
BT	4	"	" "	"	10 ma.	" "	"	1.53
BH	5	"	" "	"	5 ma.	" "	"	1.20
B-U	1	"	" "	"	10 ma.	#2 screw	"	1.98
BTH-U	2	"	" "	"	7 "	" "	"	1.74
BHS-U	Series 3	"	" "	"	5 "	" "	"	1.41
BT-U	160-U 4	"	" "	"	10 "	" "	"	1.41
BH-U	5	"	" "	"	5 "	" "	"	1.08
B-C	1	"	" "	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series 2	"	" "	"	7 ma.	" "	"	1.86
BHS-C	160-C 3	"	" "	"	5 ma.	" "	"	1.53
BT-C	4	"	" "	"	10 ma.	" "	"	1.53
BH-C	5	"	" "	"	5 ma.	" "	"	1.20
A	1	.080"	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series 2	.080"	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80 3	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT	4	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH	5	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*	1	"	" "	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series 2	"	" "	"	7 ma.	" "	"	1.35
BHS-ERM*	160- 3	"	" "	"	5 ma.	" "	"	1.05
BT-ERM*	ERM 4	"	" "	"	10 ma.	" "	"	1.05
BH-ERM*	5	"	" "	"	5 ma.	" "	"	.75
I-ERM*	1	.280"	.035 sq. in.	"	30 ma.	" "	"	1.59
ITH-ERM*	Series 2	"	" "	"	20 ma.	" "	"	1.35
IHS-ERM*	280 3	"	" "	"	15 ma.	" "	"	1.05
IT-ERM*	ERM 4	"	" "	"	30 ma.	" "	"	1.05
IH-ERM*	5	"	" "	"	15 ma.	" "	"	.75
M-ERM*	1	.500"	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series 2	"	" "	"	75 ma.	" "	"	1.35
HS-ERM*	500 3	"	" "	"	50 ma.	" "	"	1.05
T-ERM*	ERM 4	"	" "	"	100 ma.	" "	"	1.05
H-ERM*	5	"	" "	"	50 ma.	" "	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series 1	.500"	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	$1.23
SeTH-ERM*	500 2	"	" "	"	40 ma.	" "	"	1.08
SeHS-ERM*	ERM 3	"	" "	"	30 ma.	" "	"	.87
SeT-ERM*	Se. 4	"	" "	"	60 ma.	" "	"	.87
SeH-ERM*	5	"	" "	"	30 ma.	" "	"	.66
SeI*	1	.280"	.06 sq. in.	"	20 ma.	Bracketerminal	"	.66
SeITH*	Series 2	"	" "	"	15 ma.	" "	"	.60
SeIHS*	280 3	"	" "	"	10 ma.	" "	"	.51
SeIT*	ERM 4	"	" "	"	20 ma.	" "	"	.51
SeIH*	5	"	" "	"	10 ma.	" "	"	.42
SeB-ERM*	1	.166"	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series 2	"	" "	"	7 ma.	" "	"	.81
SeBHS-ERM*	160 3	"	" "	"	5 ma.	" "	"	.69
SeBT-ERM*	ERM 4	"	" "	"	10 ma.	" "	"	.69
SeBH-ERM*	5	"	" "	"	5 ma.	" "	"	.57
SeB	1	"	" "	"	10 ma.	#2 screw	Solid fill	2.10
SeBTH	Series 2	"	" "	"	7 ma.	" "	"	1.86
SeBHS	160 3	"	" "	"	5 ma.	" "	"	1.53
SeBT	4	"	" "	"	10 ma.	" "	"	1.53
SeBH	5	"	" "	"	5 ma.	" "	"	1.20
SeB-C	1	"	" "	"	10 ma.	Fuse clip	"	2.10
SeBTH-C	Series 2	"	" "	"	7 ma.	" "	"	1.86
Se-BHS-C	160-C 3	"	" "	"	5 ma.	" "	"	1.53
SeBT-C	4	"	" "	"	10 ma.	" "	"	1.53
SeBH-C	5	"	" "	"	5 ma.	" "	"	1.20

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT LABORATORIES **Lincoln, Nebraska**

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ITT Silicon Devices

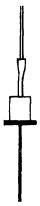
We reserve the right to change specifications without notice.

ZENER VOLTAGE REGULATOR DIODES

¾ Watt Power Dissipation:

Jedec Types IN1507 thru IN1517 inclusive-10% tolerance • IN1507A thru IN1517A inclusive-5% tolerance

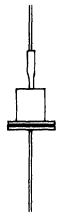
In addition ITT offers 33 voltage ranges in their series "B" Zener Diodes. ITT part numbers ZB3.9 thru ZB100 in tolerances 5%, 10%, and 20%.



1 Watt Power Dissipation:

Jedec Types IN1518 thru IN1528 inclusive • IN1765 thru IN1795 inclusive

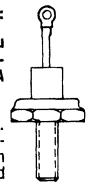
Standard tolerance 10%-Add "A" suffix to Jedec No. for 5% tolerance. ITT part nos. ZT3.9 to ZT100 complements the Jedec series with 33 voltage ranges and three tolerances:



3.5 Watt Power Dissipation:

Jedec Types IN1588 thru IN1598 inclusive-10% tolerance • IN1588A thru IN1598A inclusive-5% tolerance

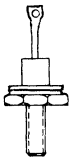
ITT series "G" part nos. ZG3.9 thru ZG100 makes available 33 voltage ranges in tolerances of 5%, 10%, and 20%.



10 Watt Power Dissipation:

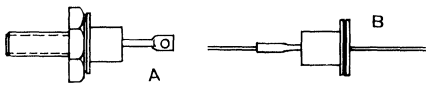
Jedec types IN1351R thru IN1375R • IN1599 thru IN1609 • IN1803R thru IN1808R • IN1816R thru IN1836R • IN2041 thru IN2049

All available in standard tolerance of 10% or in 5% tolerances — Add suffix "A" to part number to signify 5%.
Series "K" completes ITT 10 watt zener line—part nos. ZK3.9 to ZK100 includes 33 voltage ranges and three tolerances:



Ratings and characteristics are @ 25°C. For complete zener diode information request catalog 900025-361. Also available on request is ITT Zener Regulator Cross Reference Guide listing current zeners by Jedec and non-Jedec designations.

LOW POWER SILICON RECTIFIERS



STUD MOUNTED SERIES (FIG. A)

Superior design meets exacting systems and testing controls. Ratings are conservative. Stud 10-32 threaded.

JEDEC No.	PIV	Max. DC Amps At 150° C	1-Cycle Surge Amps	Fwd. Drop At 25° C Volts @	Ma
1N254	200	.4†	10	2.0	800
1N255	400	.4†	10	2.0	400
1N256	600	.2†	5	2.0	400
1N332	400	.4	10	2.0	800
1N333	400	.2	5	2.0	400
1N334	300	.4	10	2.0	800
1N335	300	.2	5	2.0	400
1N336	200	.4	10	2.0	800
1N337	200	.2	5	2.0	400
1N339	100	.4	10	2.0	800
1N340	100	.2	5	2.0	400
1N341	400	.4	10	2.0	800
1N342	400	.2	5	2.0	400
1N343	300	.4	10	2.0	800
1N344	300	.2	5	2.0	400
1N345	200	.4	10	2.0	800
1N346	200	.2	5	2.0	400
1N348	100	.4	10	2.0	800
1N349	100	.2	5	2.0	400
1N550	100	.5‡	4	1.5	500
1N551	200	.5‡	4	1.5	500
1N552	300	.5‡	4	1.5	500
1N553	400	.5‡	4	1.5	500
1N554	500	.5‡	4	1.5	500
1N555	600	.5‡	4	1.5	600
1N562	800	.4‡	15	1.75	400
1N563	1000	.4‡	15	1.75	400

AXIAL LEAD "TOP HAT" SERIES (FIG. B)

JEDEC No.	PIV	Max. DC Amps At 25° C	150° C	Fwd. Drop At 25° C Volts @	Ma
1N440	100	.3	.3†	1.5	300
1N440B	100	.75*	.25	1.5	750
1N441	200	.3	.3†	1.5	300
1N441B	200	.75*	.25	1.5	750
1N442	300	.3	.3†	1.5	300
1N442B	300	.75*	.25	1.5	750
1N443	400	.3	.3†	1.5	300
1N443B	400	.75*	.25	1.5	750
1N444	500	.3	.3†	1.5	300
1N444B	500	.75*	.25	1.5	750
1N445	600	.3	.3†	1.5	300
1N445B	600	.75*	.25	1.5	750
1N530	100	.3	.....	2.0	300
1N531	200	.3	.....	2.0	300
1N532	300	.3	.....	2.0	300
1N533	400	.3	.....	2.0	300
1N534	500	.3	.....	2.0	300
1N535	600	.3	.....	2.0	300
1N537	100	.75*	.25	1.1	500
1N538	200	.75*	.25	1.1	500
1N539	300	.75*	.25	1.1	500
1N540	400	.75*	.25	1.1	500
1N547	600	.75*	.25	1.2	500
1N560	800	.5*	.25†	1.3	250
1N561	1000	.5*	.25†	1.3	250
1N599	50	.4	.3†	1.5	200
1N600	100	.4	.3†	1.5	200
1N600A	100	.4	.3†	1.5	400
1N601	150	.4	.3†	1.5	200
1N602	200	.4	.3†	1.5	200
1N602A	200	.4	.3†	1.5	400
1N603	300	.4	.3†	1.5	200
1N604	400	.4	.3†	1.5	200
1N604A	400	.4	.3†	1.5	400
1N605	500	.4	.3†	1.5	200
1N605A	500	.4	.3†	1.5	400
1N606	600	.4	.3†	1.5	200
1N1095	500	.05*	.25‡	1.1	500
1N1096	600	.6*	.....	1.1	500

†At 135° C. ‡At 100° C.
1At 50° C. †At 100° C. ‡At 135° C. §Max. Inv. Current (FCA) at 125° C.

MEDIUM POWER SILICON RECTIFIERS

10-32 STUD-MOUNTED SERIES (FIG. C)

Feature low forward voltage drop, high surge current and low reverse current capabilities. Rugged, hermetically sealed package.

JEDEC No.	PIV	Max. DC Amps 25° C	1-Cycle Surge Amps	Fwd. Drop At 25° C Volts @	Amps
1N253	100	1.0*	20	1.5	1.0
1N338	100	1.0†	20	2.0	2.0
1N347	100	1.0†	20	2.0	2.0
1N607	50	1.0†	10	1.5	0.2
1N607A	50	1.0‡	10	1.5	0.2
1N608	100	1.0‡	10	1.5	0.2
1N608A	100	1.0‡	10	1.5	0.2
1N609	150	1.0‡	10	1.5	0.2
1N609A	150	1.0‡	10	1.5	0.2
1N610	200	1.0‡	10	1.5	0.2
1N610A	200	1.0‡	10	1.5	0.2
1N611	300	1.0‡	10	1.5	0.2
1N611A	300	1.0‡	10	1.5	0.2
1N612	400	1.0‡	10	1.5	0.2
1N612A	400	1.0‡	10	1.5	0.2
1N613	500	1.0‡	10	1.5	0.2
1N613A	500	1.0‡	10	1.5	0.2
1N614	600	1.0‡	10	1.5	0.2
1N614A	600	1.0‡	10	1.5	0.2
1N1124	200	3	10	1.1	1
1N1125	300	3	10	1.1	1
1N1126	400	3	10	1.1	1
1N2226	1200	1.0	20	1.2	1.0
1N2226A	1200	1.0	20	1.2	1.0
1N2228	50	5.0	100	1.2	5.0
1N2228A	50	5.0	100	1.2	5.0
1N2230	200	5.0	100	1.2	5.0
1N2230A	200	5.0	100	1.2	5.0
1N2232	300	5.0	100	1.2	5.0
1N2232A	300	5.0	100	1.2	5.0
1N2234	400	5.0	100	1.2	5.0
1N2234A	400	5.0	100	1.2	5.0
1N2236	500	5.0	100	1.2	5.0
1N2236A	500	5.0	100	1.2	5.0
1N2238	600	5.0	100	1.2	5.0
1N2238A	600	5.0	100	1.2	5.0
1N2240	800	5.0	100	1.2	5.0
1N2240A	800	5.0	100	1.2	5.0
1N2242	1000	5.0	100	1.2	5.0
1N2242A	1000	5.0	100	1.2	5.0
1N2244	1200	5.0	100	1.2	5.0
1N2244A	1200	5.0	100	1.2	5.0
1N2246	50	10.0	200	1.2	10.0
1N2246A	50	10.0	200	1.2	10.0
1N2248	100	10.0	200	1.2	10.0
1N2248A	100	10.0	200	1.2	10.0
1N2250	200	10.0	200	1.2	10.0
1N2250A	200	10.0	200	1.2	10.0
1N2252	300	10.0	200	1.2	10.0
1N2252A	300	10.0	200	1.2	10.0
1N2254	400	10.0	200	1.2	10.0
1N2254A	400	10.0	200	1.2	10.0
1N2256	500	10.0	200	1.2	10.0
1N2256A	500	10.0	200	1.2	10.0
1N2258	600	10.0	200	1.2	10.0
1N2258A	600	10.0	200	1.2	10.0
1N2260	800	10.0	200	1.2	10.0

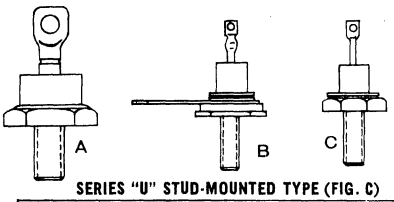
*At 135° C. †At 150° C. ‡At 100° C. §At 140° C.
=Max. inv. cur., Ma (FCA) at 125°.

SERIES "K" STUD-MOUNTED TYPES (FIG. C)

Rated 6 amps DC max. at 150° C. Max. single-cycle surge, 75 amps KS602AA through KS602RA; 1N1341 thru 1N1342A, 160 amps; 10-32 stud threaded.

JEDEC No.	ITT No.	PIV	Fwd. Drop At 25° C Volts @	Amps
1N2491	KS602AA	50	1.1	6
1N2492	KS602BA	100	1.1	6
.....	KS602CA	150	1.1	6
1N2493	KS602DA	200	1.1	6
.....	KS602EA	250	1.1	6
1N2494	KS602FA	300	1.1	6
.....	KS602GA	350	1.1	6
1N2495	KS602HA	400	1.1	6
1N2496	KS602KA	500	1.1	6
1N2497	KS602MA	600	1.1	6
.....	KS602PA	700	1.1	6
.....	KS602RA	800	1.1	6
1N1341	.....	50	1.1	6
1N1341A	.....	50	.64	6*
1N1342	.....	100	1.1	6
1N1342A	.....	100	.64	6*

* Full cycle average, 150° C, stud at full.



SERIES "U" STUD-MOUNTED TYPE (FIG. C)

Rated 12 amps DC max. at 150° C. Max. 1-cycle surge, 200 amps 1N1199 thru 1N1205; 240 amps, 1N1199A thru 1N1204A. Stud, 10-32 threaded.

JEDEC No.	ITT No.	PIV	Fwd. Drop At 25° C Volts @	Amps
IN1199	US123AA	50	1.2	12
IN1199A	.....	50	.55	12*
1N1200	US123BA	100	1.2	12
1N1200A	.....	100	.55	12*
1N1201	US123CA	150	1.2	12
1N1201A	.....	150	.55	12*
1N1201	US123DA	200	1.2	12
1N1201A	.....	200	.55	12*
.....	US123EA	250	1.2	12
1N1203	US123FA	300	1.2	12
1N1203A	.....	300	.55	12*
.....	US123GA	350	1.2	12
1N1204	US123HA	400	1.2	12
1N1204A	.....	400	.55	12*
1N1205	US123KA	500	1.2	12

*Full cycle average, 150° C, stud at full load.

¼-28 STUD MOUNT SERIES (FIG. A)

Types IN248, IN249, and IN250 rated 10 amps @ 150°C: All others rated 20 amps 150°C: Max Inv. current-FCA @ 150°C, 5 ma.: Polarity, cathode to stud-For reverse polarity add suffix "R" to Jedec No. (IN248R).

JEDEC No.	ITT No.	PIV	1-Cycle Surge Amps	Fwd. Drop At 25° C Volts @	Amps
1N248	.....	50	80	1.5	25
1N248A	.....	50	180	1.5	50
1N249	.....	100	80	1.5	25
1N249A	.....	100	180	1.5	50
1N249B	.....	110	180	1.5	50
1N250	.....	200	80	1.5	25
1N250A	.....	200	180	1.5	50
1N250B	.....	220	180	1.5	50

INSULATED STUD MOUNTED TYPES (FIG. B)

JEDEC No.	PIV	Max. DC Amps at 25° C	150° C	1-Cycle Surge Amps	Rev. Cur., μa*
1N2247A	50	10.0	3.0	200	3.0
1N2249	100	10.0	3.0	200	5.0
1N2249A	100	10.0	3.0	200	3.0
1N2251	200	10.0	3.0	200	5.0
1N2251A	200	10.0	3.0	200	3.0
1N2253	300	10.0	3.0	200	5.0
1N2253A	300	10.0	3.0	200	3.0
1N2259	600	10.0	3.0	200	5.0
1N2259A	600	10.0	3.0	200	3.0
1N2261	800	10.0	3.0	200	10.0
1N2261A	800	10.0	3.0	200	5.0
1N2263	1000	10.0	3.0	200	10.0
1N2263A	1000	10.0	3.0	200	5.0
1N2265	1200	10.0	3.0	200	10.0
1N2290A	100	5.0	1.0	100	3.0
1N2291	200	1.5	.4	20	3.0
1N2233A	400	1.5	.4	20	3.0
1N2363	1400	1.0	.....	15	1.0
1N2363A	1400	5.0	.....	20	1.0
1N2363B	1400	10.0	.....	25	1.0
1N2365	1500	1.0	.....	15	1.0
1N2365A	1500	5.0	.....	20	1.0
1N2365B	1500	10.0	.....	25	1.0
1N2367	1600	1.0	.....	15	1.0
1N2367A	1600	5.0	.....	20	1.0
1N2367B	1600	10.0	.....	25	1.0
1N2369	1800	1.0	.....	15	1.0
1N2369A	1800	5.0	.....	20	1.0
1N2369B	1800	10.0	.....	25	1.0

* At 25° C.

Items listed represent a sampling of silicon devices available. For complete information on low medium or high power silicon devices, request individual specification sheets Nos. 900022-361, 900023-361, or 900024-361 respectively.

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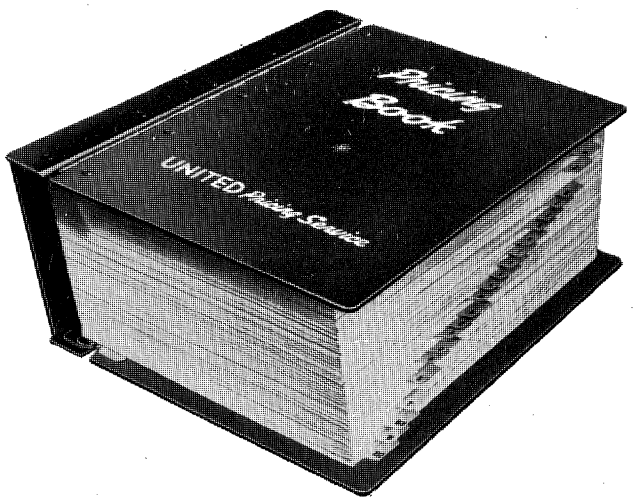

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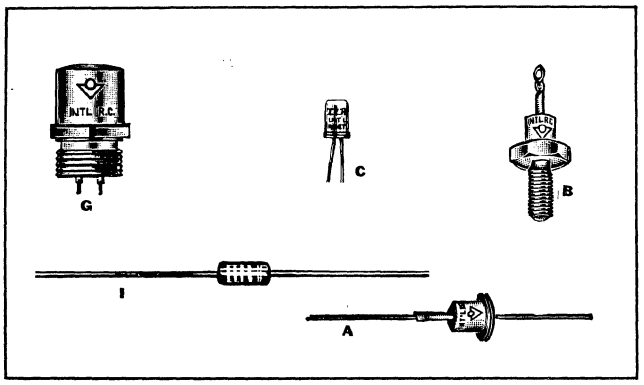

SILICON ZENER VOLTAGE REFERENCE ELEMENTS (FIGS. C & G)

Maximum Power Dissipation 1N429: 200mw; all other types: 250mw at 25°C

JEDEC	VOLTAGE REFERENCE			DYNAMIC RESISTANCE*		Net
Part No.	Min†	Av†	Max†	Av‡	Max‡	1-99
1N429§	5.9	6.2	6.5		20.0	$ 7.20
1N430	8.0	8.4	8.8	11.0	15.0	18.00
USN 1N430	8.0	8.4	8.8	11.0	15.0	27.00
1N430A	8.0	8.4	8.8	11.0	15.0	27.00
1N430B	8.0	8.4	8.8	11.0	15.0	36.00

*At 10ma bias current. †Volts. ‡Ohms. §See Fig. C.

250-MW SILICON GLASS ZENER DIODES (FIG. 1)

Subminiature glass zener diodes provide high reliability and stability over −50°C to +150°C range. Body size: 0.265 x 0.110" diameter.

JEDEC Part No.*	V @ IT Nom	@ IT Max	I T	Net
	Volts	Ohms	Ma	
1N702	2.6	60		$2.50
1N703	3.4	55	10	2.50
1N704	4.1	45	10	2.50
1N705	4.8	35	10	2.50
1N706	5.8	20	10	2.50
1N707	7.1	10	10	2.50
1N708	5.6	3.6	25	2.50
1N709	6.2	4.1	25	2.50
1N710	6.8	4.7	25	2.50
1N711	7.5	5.3	25	2.50
1N712	8.2	6.0	25	2.50
1N713	9.1	7.0	12	2.50
1N714	10.0	8.0	12	2.50
1N715	11.0	9.0	12	2.50
1N716	12.0	10.0	12	2.50

*Add suffix "A" to JEDEC part no .for 5% tolerance.

400MW SILICON GLASS ZENER DIODES (FIG. 1)

Subminiature glass zener diodes give you zener voltages to 3.3 volts, low dynamic impedance, low temperature coefficients. Body size: 0.265 x 0.110" diameter.

JEDEC Part No.*	V @ IT	@ IT Max	I T	Net 1-99
	Volts	Ohms	Ma	
1N746	3.3	28	20	$2.60
1N747	3.6	24	20	2.60
1N748	3.9	23	20	2.60
1N749	4.3	22	20	2.60
1N750	4.7	19	20	2.60
1N751	5.1	17	20	2.60
1N752	5.6	11	20	2.60
1N753	6.2	7	20	2.60
1N754	6.8	5	20	2.60
1N755	7.5	6	20	2.60
1N756	8.2	8	20	2.60
1N757	9.1	10	20	2.60
1N758	10.0	17	20	2.60
1N759	12.0	30	20	2.60

*Add suffix "A" to JEDEC part no .for 5% tolerance.

750MW SILICON ZENER DIODES (FIG. A)

Size: .185" diam. x .220" body length with 1¼" leads. Ratings and characteristics at 25°C.

JEDEC Part No.	@ 1 z MA— Voltage 10%	Tolerance 5%	Test Current 1 z MA	Test Impedance Z z Ohms	Max DC Zener Current @ 25°C	Typical Zener Voltage Temp. Coeff. %/°C	Net 1-99
1N1507	3.9		35	14	180	—.04	$4.35
1N1507A		3.9	35	14	180	—.04	5.22
1N1508	4.7		30	12	150	0	4.35
1N1508A		4.7	30	12	150	0	5.22
1N1509	5.6		26	5.2	130	+.03	3.30
1N1509A		5.6	26	5.2	130	+.03	3.96
1N1510	6.8		22	1.5	110	+.05	3.30
1N1510A		6.8	22	1.5	110	+.05	3.96
1N1511	8.2		18	1.5	90	+.06	3.30
1N1511A		8.2	18	1.5	90	+.06	3.96
1N1512	10		15	1.8	75	+.07	3.30
1N1512A		10	15	1.8	75	+.07	3.96
1N1513	12		12	2.8	60	+.075	3.30
1N1513A		12	12	2.8	60	+.075	3.96
1N1514	15		10	5	50	+.08	3.30
1N1514A		15	10	5	50	+.08	3.96
1N1515	18		8	9	40	+.085	3.30
1N1515A		18	8	9	40	+.085	3.96
1N1516	22		6	19	33	+.09	3.30
1N1516A		22	6	19	33	+.09	3.96
1N1517	27		5	50	26	+.095	3.30
1N1517A		27	5	50	26	+.095	3.96

1-WATT SILICON ZENER DIODES (FIG. A)

Size: 0.375" O.D. with 1¼" leads. Ratings and characteristics at 25°C.

JEDEC Part No.	@ 1 z MA— Voltage 10%	Tolerance 5%	Test Current 1 z MA	Test Impedance Z z Ohms	Max DC Zener Current @ 25°C	Typical Zener Voltage Temp. Coeff. %/°C	Net 1-99
1N1518	3.9		50	9	250	—.04	$6.20
1N1518A		3.9	50	9	250	—.04	7.44
1N1519	4.7		40	8.5	200	0	6.20
1N1519A		4.7	40	8.5	200	0	7.44
1N1520	5.6		35	5.5	175	+.03	3.50
1N1520A		5.6	35	5.5	175	+.03	4.20
1N1521	6.8		30	1.6	150	+.05	3.50
1N1521A		6.8	30	1.6	150	+.05	4.20
1N1522	8.2		25	1.1	120	+.06	3.50
1N1522A		8.2	25	1.1	120	+.06	4.20
1N1523	10		20	1.5	100	+.07	3.50
1N1523A		10	20	1.5	100	+.07	4.20
1N1524	12		15	2.4	80	+.075	3.50
1N1524A		12	15	2.4	80	+.075	4.20
1N1525	15		13	5.4	65	+.08	3.50
1N1525A		15	13	5.4	65	+.08	4.20
1N1526	18		10	11	55	+.085	3.50
1N1526A		18	10	11	55	+.085	4.20
1N1527	22		9	18	45	+.09	3.50
1N1527A		22	9	18	45	+.09	4.20
1N1528	27		7	28	35	+.095	3.50
1N1528A		27	7	28	35	+.095	4.20

3.5 WATT SILICON ZENER DIODES (FIG. B)

Size: 1.222" overall L. x 7/16" across the flats. 10-32 stud mounting with washer and nut.

JEDEC Type	@ 1 z MA— Voltage 10%	Tolerance 5%	Test Current 1 z MA	Test Impedance Z z Ohms	Max DC Zener Current @ 25°C	Typical Zener Voltage Temp. Coeff. %/°C	Net 1-99
1N1588	3.9		150	2.6	850	—.04	$7.50
1N1588A		3.9	150	2.6	850	—.04	9.00
1N1589	4.7		125	2.3	700	0	7.50
1N1589A		4.7	125	2.3	700	0	9.00
1N1590	5.6		110	1.4	625	+.03	6.00
1N1590A		5.6	110	1.4	625	+.03	7.20
1N1591	6.8		100	.58	525	+.05	6.00
1N1591A		6.8	100	.58	525	+.05	7.20
1N1592	8.2		80	.5	425	+.06	6.00
1N1592A		8.2	80	.5	425	+.06	7.20
1N1593	10		70	.7	350	+.07	6.00
1N1593A		10	70	.7	350	+.07	7.20
1N1594	12		50	1.4	275	+.075	6.00
1N1594A		12	50	1.4	275	+.075	7.20
1N1595	15		40	3.4	225	+.08	6.00
1N1595A		15	40	3.4	225	+.08	7.20
1N1596	18		35	6	200	+.085	6.00
1N1596A		18	35	6	200	+.085	7.20
1N1597	22		30	9	160	+.09	6.00
1N1597A		22	30	9	160	+.09	7.20
1N1598	27		25	13	125	+.095	6.00
1N1598A		27	25	13	125	+.095	7.20

10-WATT SILICON ZENER DIODES (FIG. B)

Size: 1.323" overall L. x 7/16" across hex flats. 10-32 stud mounting with washer and nut.

JEDEC Type	@ 1 z MA— Voltage 10%	Tolerance 5%	Test Current 1 z MA	Test Impedance Z z Ohms	Max DC Zener Current @ 25°C	Typical Zener Voltage Temp. Coeff. %/°C	Net 1-99
1N1599	3.9		500	.84	2500	—.04	$8.50
1N1599A		3.9	500	.84	2500	—.04	10.20
1N1600	4.7		400	.68	2000	0	8.50
1N1600A		4.7	400	.68	2000	0	10.20
1N1601	5.6		350	.3	1750	+.03	6.75
1N1601A		5.6	350	.3	1750	+.03	8.10
1N1602	6.8		300	.2	1500	+.05	6.75
1N1602A		6.8	300	.2	1500	+.05	8.10
1N1603	8.2		250	.25	1200	+.06	6.75
1N1603A		8.2	250	.25	1200	+.06	8.10
1N1604	10		200	.55	1000	+.07	6.75
1N1604A		10	200	.55	1000	+.07	8.10
1N1605	12		170	.95	850	+.075	6.75
1N1605A		12	170	.95	850	+.075	8.10
1N1606	15		140	1.5	650	+.08	6.75
1N1606A		15	140	1.5	650	+.08	8.10
1N1607	18		110	2	550	+.085	6.75
1N1607A		18	110	2	550	+.085	8.10
1N1608	22		90	3	450	+.09	6.75
1N1608A		22	90	3	450	+.09	8.10
1N1609	27		70	4.5	350	+.095	6.75
1N1609A		27	70	4.5	350	+.095	8.10

Note: Z is measured at standard test current of I

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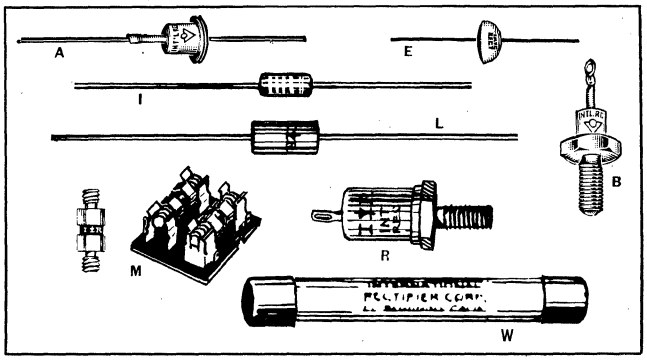

SUBMINIATURE SILICON GLASS DIODES (FIG. I)

Silicon diffused-junction glass diodes assure high conductance with exceptional forward and reverse characteristics.

GENERAL PURPOSE TYPES

JEDEC Part No.*	PRV, Volts	Max. Rect. Current Ma @ 25°C	@ 150°C	Net 1-99	JEDEC Part No.*	PRV, Volts	Max. Rect. Current Ma @ 25°C	@ 150°C	Net 1-99
1N456	25	90	25	$ .62	1N461	25	60	25	$ .62
1N457	60	75	25	.74	1N462	60	50	25	.70
1N458	125	55	25	.86	1N463	175	30	15	.79
1N459	175	40	25	1.12	1N464	125	40	20	1.00

*Add suffix "A" to JEDEC part No. for 5% tolerance units.

MINIATURE SILICON POWER RECTIFIERS (FIG. A)

Highly reliable silicon power diodes provide optimum power dissipation with miniaturized hermetically sealed packaging. This diode is smaller than conventional top-hat diodes. Case size is .025" diam. x 0.275" length. Ratings for 60 cps resistive or inductive loads.

JEDEC Part No.	PRV, Volts	Max. Rect. Current Ma @ 50°C	@ 100°C	Net 1-99	JEDEC Part No.	PRV, Volts	Max. Rect. Current Ma @ 50°C	@ 100°C	Net 1-99
1N1701	50	300	150	$ .75	1N1704	300	300	150	1.23
1N1702	100	300	150	.87	1N1705	400	300	150	1.57
1N1703	200	300	150	1.01	1N1706	500	300	150	2.59

High Temperature Diodes (Fig. A)

Optimum reliability, high efficiency and reduced space requirements. Provide maximum forward conductance under elevated temperature without additional heat sink; saving space and assembly time and cost. Max. voltage drop: 0.5 v; max. leakage current: 0.4 ma (1N536 and 1N537), 0.3 ma all other types; all at 150°C. Ratings are absolute maximum, 60 cps resistive or inductive loads.

JEDEC Part No.	PRV Volts	Max Rectified DC Output, Ma @ 50°C	@ 150°C	Max Input RMS Volts*	Net 1-99
1N536	50	750	250	35	$ .66
1N537	100	750	250	70	.74
1N538	200	750	250	140	.76
1N539	300	750	250	210	.91
1N540	400	750	250	280	107
1N547	600	750	250	420	1.65
1N1095	500	750	250	350	1.07
1N1096	600	750	250	420	1.65

SILICON GENERAL PURPOSE RECTIFIERS (FIG. A)

Hermetically sealed to assure long, trouble-free life. Manufactured to the same rigid requirements specified for critical military and industrial applications.

Int'l No.	Peak Inv. Volts	Max Rect Current Ma @ 50°C	@ 100°C	Max RMS Volts	Net 1-99
SD-91	100	550	300	70	$ .59
SD-92	200	550	300	140	.68
SD-93	300	550	300	210	.86
SD-94	400	550	300	280	.96
SD-95	500	550	300	350	1.06
SD-91A	100	750	500	70	.62
SD-92A	200	750	500	140	.72
SD-93A	300	750	500	210	.90
SD-94A	400	750	500	280	1.01
SD-95A	500	750	500	350	1.12

1.8 AMP SILICON RECTIFIER CELLS (FIG. A)

Silicon diffused-junction rectifier cells provide forward currents up to 1.8 amps (when mounted on 1½ x 1½" heat sink), 1.3 amps in free air; well suited for all applications where a very small, high power rectifier is desired, including magnetic amplifiers and other devices where low leakage is also important. Ratings at 40°C into resistive or inductive load.

Int'l Part No.	PRV Volts	Max Rect Current Amps	Max RMS Input Volts	Net 1-99
10B1	100	1.8	70	$ .86
10B2	200	1.8	140	1.24
10B3	300	1.8	210	1.75
10B4	400	1.8	280	2.46
10B5	500	1.8	350	3.46
10B6	600	1.8	420	4.89

COMMERCIAL TYPE SILICON DIODES (FIG. E)

Specifically designed for low cost, miniaturized use such as radio, TV, audio, and other commercial applications.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current @ 70°C Cap. Load Ma	Max Rect Current @ 70°C Res. Load Ma	Net 1-99
2E4	400	400	200	300	$ .70
5E4	400	400	350	500	.90
5E5	500	500	350	500	1.15
5E6	600	600	350	500	1.20

MINIATURE 1-AMP SILICON RECTIFIER CELLS (FIG. L)

Miniature diffused-junction fully insulated silicon rectifier cells in encapsulated package provide high current handling capacities with low forward voltage drop over entire −65°C to +130°C.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current Cap. Load @ 25°C Amp	Cap. Load @ 100°C Amp	Res. Load @ 25°C Amp	Res. Load @ 100°C Amp	Net 1-99
5A2	200	200	.75	.5	1	.625	$1.10
5A4	400	400	.75	.5	1	.625	1.35
5A5	500	500	.75	.5	1	.625	1.50
5A6	600	600	.75	.5	1	.625	1.65

SILICON PLUG-IN RECTIFIER CELLS (FIG. M)

Silicon diffused-junction plug-in rectifier cells can be snapped into clip-type holders. For TV, audio, industrial power supply, etc.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current Cap. Load @ 50°C Ma	Cap. Load @ 100°C Ma	Res. Load @ 50°C Ma	Res. Load @ 100°C Ma	Net 1-99
5M2	200	200	750	500	850	625	$ .85
5M4	400	400	750	500	850	625	1.40
5M5	500	500	750	500	850	625	1.25
5M6	600	600	750	500	850	625	1.70

HOLDERS FOR SNAP-IN RECTIFIERS

Int'l No.	Description	Net Each
43-1803	SNAP-IN holder only (single)	$ .12
43-1804	SNAP-IN holder only (dual)	.25
43-1805	SNAP-IN holder only (quadruple)	.90

SILICON POWER RECTIFIERS CELLS (FIG. B)

Stud-mounted silicon power diodes are designed specifically for high temperature, high reliability applications; provide 800 ma @ 100°C over 50 to 600 PRV range. Max operating temperature: 150°C; derate output current 2%/°C above 100°.

JEDEC Type No.	PRV Volts	Max Contin. DC Current* Ma	Max Rect. Current* Ma	Max RMS Input Volts	Net 1-99
1N607	50	1,000	800	35	$1.32
1N608	100	1,000	800	70	1.38
1N609	150	1,000	800	105	1.43
1N610	200	1,000	800	140	1.53
1N611	300	1,000	800	210	1.95
1N612	400	1,000	800	280	2.67
1N613	500	1,000	800	350	3.17
1N614	600	1,000	800	420	4.55

*On 2" x 2" x 0.025 heat sink operating into resistive or inductive load at 100°C.

SELENIUM HIGH VOLTAGE CARTRIDGE RECTIFIERS (FIG. W)

These cartridge rectifiers deliver high efficiency rectification over −65°C to 100°C temperature range.

Int'l	PRV* Volts	Max AC Input Volts RMS Res.	Max AC Input Volts RMS Cap.	Norm. DC Output Volts Res.	Norm. DC Output Volts Cap.	O.D. In.	Lth. In.	Net 1-9
V50HF	2400	1650	1000	650	1000	5/16	2 5/16	$3.43
V75HF	3600	2475	1500	975	1500	5/16	3	4.60
V100HF	4800	3300	2000	1300	2000	5/16	4	5.50
V125HF	6000	4125	2500	1675	2500	5/16	4 3/4	6.85
V150HF	7200	4950	3000	1950	3000	5/16	5½	7.75
V175HF	8400	5775	3500	2275	3500	5/16	6	9.10

*Also available in other values to 14,400 PRV.

HIGH VOLTAGE SILICON RECTIFIERS (FIG. R)

Designed especially for high voltage/high temperature applications where stability under environmental extremes is necessary.

JEDEC Part No.	PRV Volts	Max Rect Current* @ 25°C Ma	@ 100°C Ma	Stud Polarity	Net 1-99
1N1130	1500	300	230	Cathode	$11.20
1N1131	1500	300	230	Anode	11.20

*Rectifier mtd. on 2 x 2 x 1/16" heat sink.

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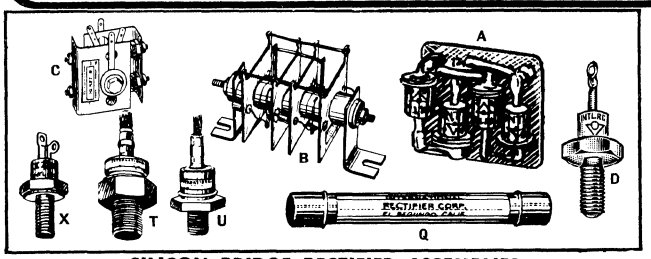
INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES, EL SEGUNDO, CALIFORNIA

SEMICONDUCTORS



SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. The ½ and 1.2 amp series are sub-miniature assemblies of diodes on glass melamine board. All others are fin mounted assemblies. All diodes and rectifiers used are hermetically sealed and withstand extremes of temperature and humidity. Dual amp. ratings on B12 and B25 types are without and with fan cooling.

Part No.	Fig	Input RMS Volt	OUTPUT (DC) Volt*	Amps @ 50°C	Approx. Dim. (inch)	Net 1-99
5SMB5L	A	35	30	1/2	⅞ x 2 3/32 x ¾	$3.50
5SMB10L	A	70	62	1/2	⅞ x 2 3/32 x ¾	3.98
5SMB20L	A	140	125	1/2	⅞ x 2 3/32 x ¾	4.54
12MB10L	A	70	62	1.2	1¼ x 1 x 1 3/16	3.18
12MB20L	A	140	125	1.2	1¼ x 1 x 1 3/16	3.94
1N2725	B	70	62	2.5	2½ x 1 5/16 x 3½	6.01
1N2728	B	140	125	2.5	2½ x 1 5/16 x 3½	6.01
1N2731	B	210	188	2.5	2½ x 1 5/16 x 3½	7.31
B12F5	C	14	9.5	14/30	3 x 3¾ x 2⅝	12.52
B12F10	C	25	20	14/30	3 x 3¾ x 2⅝	13.40
B12F20	C	60	43	14/30	3 x 3¾ x 2⅝	18.56
B12F40	C	120	87	14/30	3 x 3¾ x 2⅝	23.20
B25H5	C	14	9.5	18/42	3 x 3¾ x 2⅝	15.00
B25H10	C	25	20	18/42	3 x 3¾ x 2⅝	16.60
B25H20	C	60	43	18/42	3 x 3¾ x 2⅝	22.60
B25H40	C	120	87	18/42	3 x 3¾ x 2⅝	39.80

*Into resistive or inductive load. Add 10-30% for capacitive load.

SILICON CONTROLLED RECTIFIERS (FIG. X)

Designed specifically for low power switching applications; comparable to gas thyratrons, but give you faster triggering and recovery times.

PRV (Repetitive) Volts	5 AMP Part No.	5 AMP Net 1-99	10 AMP Part No.	10 AMP Net 1-99	16 AMP Part No.	16 AMP Net 1-99
25	5RC2	$ 6.65	10RC2	$11.88	16RC2	$15.44
50	5RC5	8.69	10RC5	12.59	16RC5	16.63
100	5RC10	11.88	10RC10	15.44	16RC10	20.43
200	5RC20	15.87	10RC20	23.75	16RC20	31.35
300	5RC30	41.33	10RC30	39.43	16RC30	52.25
400	5RC40	63.46	10RC40	59.14	16RC40	78.85

INTERNATIONAL RECTIFIER ENGINEERING HANDBOOK

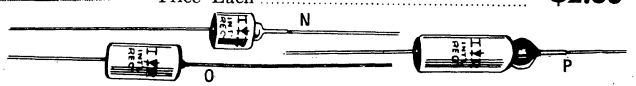
A manual combining theoretical articles along with the practical on the application of rectifiers to today's electronic equipment.
Price Each **$2.00**

SILICON AND SELENIUM PHOTOCELL HANDBOOK

Contains theory, application data and actual circuitry involving the use of both silicon solar cells and selenium photocells in radios, relay circuits, control, photometer and many other light-powered devices.
Price **$2.00**

ZENER DIODE HANDBOOK

Covers diode usage in AC, DC, audio, RF, computer, and numerous other applications, including use as voltage regulators.
Price Each **$2.00**



HIGH VOLTAGE SILICON RECTIFIERS

Hermetically sealed for optimum reliability at elevated and sub-zero temperatures. Ideally suited for radar power supplies, high voltage bias supplies, and airborne or guided missile instrumentation.

JEDEC Type	Fig	PRV Volts	Max. Input Volts RMS	Max. Rect. DC Output, Ma*	Net 1-99
IN596	N	600	420	125	$ 5.00
IN597	N	800	560	125	6.00
IN598	N	1000	700	125	8.50
IN1406	O	600	420	100	5.00
IN1407	O	800	560	100	5.50
IN1408	O	1000	700	100	8.00
IN1409	P	1200	840	100	8.00
IN1410	P	1500	1050	100	9.00
IN1411	P	1800	1260	100	11.00
IN1412	P	2000	1400	100	13.50
IN1413	P	2400	1680	100	15.50

*Ratings at 75°C into inductive or resistive load. Derate 25% for capacitive load.

HIGH VOLTAGE CARTRIDGE TYPE SILICON RECTIFIERS (FIG. Q)

Provide high temperature, high efficiency operation to a wide range of high voltage applications; optimum reliability over −55°C to +150°C temperature range. Standard types listed are normal convection cooling. Ratings are absolute maximum at 75°C ambient. Horizontal mounting. Half wave resistive load 60 cps. Hermetically sealed ceramic housing fits 30-amp fuse clips. Ferrule diameter 3 5/64".

JEDEC Type	PRV Volts	Max. Rect. DC Output Ma	Fwd. DC Volt Drop*	Lgth., In.	Net 1-99
IN1133	1500	75	15.0	2½	$ 7.40
IN1134	1500	100	7.5	1 13/16	8.10
IN1135	1800	65	18.0	2½	9.45
IN1136	1800	85	9.0	1 13/16	9.90
IN1137	2400	50	24.0	2½	12.85
IN1138	2400	60	12.0	1 13/16	13.95
IN1139	3600	65	27.0	4 5/16	20.65
IN1140	3600	65	18.0	2½	23.55
IN1141	4800	60	36.0	4 5/16	28.50
1N1142	4800	50	24.0	2½	30.75
IN1143	6000	50	45.0	4 5/16	34.30
IN1143A	6000	65	30.0	4 5/16	39.20
IN1144	7200	50	54.0	6 1/16	40.80
IN1145	7200	60	36.0	4 5/16	43.10
IN1146	8000	45	60.0	6 1/16	45.40
IN1147	12000	45	60.0	6 1/16	64.40
IN1148	14000	50	52.0	6 1/16	74.75
IN1149	16000	45	60.0	6 1/16	78.20

*At rated DC current.

6 and 12 AMP SILICON RECTIFIERS (FIG. D)

High Reliability Series Oper. Range −65° to +80°C — **Commercial Types** Temp. Range −20° to +150°C

6-AMP SERIES

JEDEC* Part Number	PRV Volts	Net 1-99	INT'L† Part No.	PRV Volts	Net 1-99
IN1341	50	$2.75	6F5	50	$2.23
IN1342	100	3.25	6F10	100	2.60
IN1343	150	3.90	6F15	150	3.05
IN1344	200	4.50	6F20	200	3.60
IN1345	300	6.25	6F30	300	4.29
IN1346	400	8.25	6F40	400	6.06
IN1347	500	9.75	6F50	500	8.67

12-AMP SERIES

JEDEC* Part Number	PRV Volts	Net 1-99	INT'L† Part No.	PRV Volts	Net 1-99
IN1199	50	$3.00	12F5	50	$ 2.47
IN1200	100	3.60	12F10	100	2.74
IN1201	150	4.35	12F15	150	3.62
IN1202	200	5.15	12F20	200	4.32
IN1203	300	7.30	12F30	300	6.35
IN1204	400	10.35	12F40	400	8.34
IN1205	500	14.00	12F50	500	12.75

25 TO 45 AMP* SILICON POWER RECTIFIERS (FIG. U)

JEDEC Part Number	PRV Volts	RMS Max Volts	Recommended RMS Volts	Net 1-99
IN2128A	50	35	12	$ 4.25
IN2129A	100	70	24	5.05
IN2130A	150	105	36	6.05
IN2131A	200	140	48	7.10
IN2132A	250	175	60	8.50
IN2133A	300	210	72	9.90
IN2134A	350	245	84	11.80
IN2135A	400	280	96	13.95
IN2136A	450	310	108	15.00
IN2137A	500	350	120	19.25

To order reverse polarity types, add the letter "R" to the basic part number (IN2128RA, etc.).

45 TO 150 AMP* SILICON POWER RECTIFIERS (FIG. T)

JEDEC Part Number	Int'l Part Number	RATED VOLTAGE PRV Volts	Max RMS Volts	Recommended RMS Volts	Net 1-99
	45L5	50	35	12	$ 7.75
IN3085	45L10	100	70	24	9.55
	45L15	150	105	36	11.70
IN3086	45L20	200	140	48	14.20
	45L25	250	175	60	16.50
IN3087	45L30	300	210	72	20.80
	45L35	350	245	84	24.00
IN3088	45L40	400	280	96	29.80
	45L45	450	310	108	33.50
IN3089	45L50	500	350	120	37.80
IN3090	45L60	600	420	144	47.75

TO ORDER REVERSE POLARITY TYPES add the letter "R" to the basic part number. For example: 45LR5, 45PR5, etc.

*Current rating depends on circuit, heat sink and whether or not fan cooled.

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SEMICONDUCTORS

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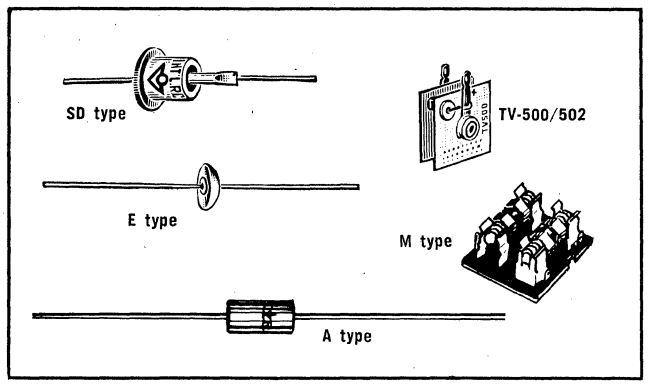


SILICON REPLACEMENT RECTIFIERS FOR TV, RADIO AUDIO AND SIMILAR APPLICATIONS

The most complete line of industrial and replacement silicon rectifiers. Type E are small, economy diodes. Type A is the new, all insulated miniature Mark VII, very high rated for its size. Type SD 500 is the most popular, hermetically sealed "Top-Hat." TV 500 and TV 502 are top-hats, mounted on heat-sinks as direct replacement for selenium stacks. Type M are "plug-ins."

RATINGS (Into Capacitive Load)

Type	Peak Rev. Volt	RMS Input	DC Output (Ma)	Max. Surge, Amp.
5A4	400	140	750	50
2E4	400	140	250	2
5E4	400	140	450	5
1M4	400	140	250	2
5M4	400	140	750	50
SD 500	400	140	650	5
TV-500	400	140	750	5
TV 502	800	280	750	5

PACKAGING ON ABOVE RECTIFIERS

Int'l No.	Packaging	Net
5A4	Indiv. Packaged	$1.35
5A4-BU	Bulk — 10 to pkg.	1.07*
5A4-95**	Plastic box of 5	5.60
2E4	Indiv. Boxes	.70
2E4-BU	Bulk — 10 to a pkg.	.68*
5E4	Indiv. Boxes	.90
5E4-BU	Bulk — 10 to a pkg.	.72*
5E4-95*	Plastic Box of 5	3.95
1M4	Indiv. Boxed	.95
1M4-BU	Bulk — 10 to a pkg.	.85*
1M4-K	Kit, includ. rectif. holder, hdwe and resistor	1.00
5M4	Indiv. Boxed	1.40
5M4-95**	Plastic box of 5	6.75
5M4-BU	Bulk — 10 to a pkg.	1.30*
5M4-K	Kit of 2 rect. with holder	2.80
43-1803	SNAP-IN Holder only (single	.12
43-1804	SNAP-IN Holder only (dual)	.25
43-1805	SNAP-IN Holder only (quadruple)	.90
SD 500	Indiv. boxes, no hardware	1.05
SD 500-BU	Bulk, no hardware, 10 to pkg.	.92
SD 500-92**	Popular Kit of 2 rectifiers incl. conversion hardware and compl. instructions	2.30
SD 500-95**	Same as above but kit of 5	5.50
TV 500	Universal, 750 mil rectifier	1.86
TV 502	Dual rectifier for voltage doubler circuits and color TV	3.30

*In lots of 10 **order per kit

SELENIUM BATTERY CHARGER REPLACEMENTS

Type JD-4346B: Universal unit for commercial "fast" chargers; fits many brands without circuit or mechanical modifications. Single-Plate Rectifiers: Replace low current types in "trickle" type battery chargers. Can be assembled for any function (center tap, bridge, etc.).

Int'l No.	Output DC Volts	Output DC Amps	Max. AC Volts	Circuit Diag.	Dimensions, Inches H.	W.	D.	Stud	Net Each
JD-4346B	6-12	30-100*	16.5-0-16.5	1A	6	5	4⅛	⅜-16	$16.75
JD-4346D	6-12	30-100*	16.5-0-16.5	1	6	5	4⅛	⅜-16	16.75
JD-116K	6-12	2†	16.5-0-16.5		3	3	½	.....	1.20
JD-117K	6-12	3†	16.5-0-16.5		4	4	½	.....	1.80
JD-241K	6-12	6†	16.5-0-16.5		6	5	½	.....	2.46
JD-240K	6-12	9†	16.5-0-16.5		7½	6½	½	.....	3.40

*30 amps without fan; 100, with fan rated 800 LFM. †Ratings shown are for half wave; two plates in center-tap circuit have twice this rating.

SELENIUM RECTIFIERS
RADIO-TV REPLACEMENT TYPES

Compact, high density types for economy with reliability; for radio, TV and audio replacement. Feature negligible leakage and aging; stable characteristics. Supplied with mounting bracket and hardware. Type QM50 is encapsulated.

Int'l No.	Output DC MA	Max. RMS Volts	Plate Size, Iin.	Mtg. Size Max., In.	Net Each
T065/075	To 75	130	.067 sq.	9/16	$0.48
T075/150	75-150	130	1 sq.	¾	.69
T200/300	150-300	130	1¼ sq.	¾	1.08
T350/400	300-400	130	1½ sq.	1 5/16	1.25
T450/500	400-500	130	1½ sq.	1 5/16	1.32
T550/650	500-650	130	2 sq.	2	1.74
QM50	To 50	130	⅞ sq.	½	.64

FULL WAVE BRIDGE RECTIFIERS

Int'l No.	Max. DC Ma	Max. RMS Volts	Dimensions Inches H.	W.	D.	Net Each
Q1B	100	25	.67	.67	¾	$0.84
Q4B	100	130	.67	.67	1 5/16	1.56
A1B	180	25	1.0	1.0	¾	1.22
B1B	300	25	1.2	1.2	¾	1.28
C1B	600	25	1 5	1.5	¾	1.46
M1B	1200	25	2.0	2.0	¾	1.72

SINGLE PLATE HALF WAVE RECTIFIERS

Int'l No.	Max. DC Ma	Max. RMS Volts	Min. Series Rstr. Ohms	Dimensions, Inches H.	W.	D.	Net Each
Q1H	65	25	47	.67	.67	7/16	$0.36
A1H	100	25	22	1.0	1.0	7/16	.38
B1H	150	25	15	1.2	1.2	7/16	.40
C1H	250	25	5	1.5	1.5	7/16	.42
M1H	500	25	5	2.0	2.0	7/16	.56

MINIATURE BRIDGE RECTIFIERS

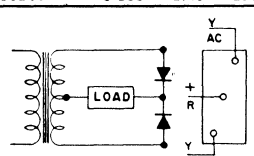
D3575F	100	130	.....	21/32	21/32	1¼	$1.56
60-9150*	100	260	.....	21/32	21/32	1¼	1.56
61-4037	100	260	.....	21/32	21/32	1⅞	3.10

*Doubler stack; ratings for two stacks connected as full wave bridge; half-wave and doubler ratings are half of those shown.

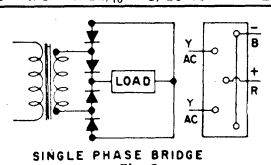
INDUSTRIAL SELENIUM RECTIFIERS
NEW HIGH DENSITY TYPES

Ideal for limited space and weight applications; delivers approximately twice the rectified DC output of standard units. Save 50% in volume for a given rating. Low fwd v. drop; high inverse voltage. Circuit diagram 1, all units rated 0-14 v. DC; circuit diagram 2, all others (see below).

Int'l No.	DC Output Volts	DC Output Amps	Input AC Volts	Size, Inches H. x W. x D.	Stud	Net Each
J14C04	0-14	0.4	36	1 x 1 x 1⅛	8-32	$ 0.95
J14C1	0-14	1.5	36	1½ x 1½ x 1⅛	8-32	1.39
J14C5	0-14	4.8	36	3 x 3 x 1⅛	⅜-16	3.48
J14C8	0-14	8.4	36	4 x 4 x 1⅞	⅜-16	4.89
J14C17	0-14	17.4	36	6 x 5 x 2⅛	⅜-16	7.55
J29B04	0-29	0.4	36	1 x 1 x 1½	8-32	1.57
J29B1	0-29	1.5	36	1½ x 1½ x 1½	8-32	2.28
J29B5	0-29	4.8	36	3 x 3 x 2⅝	⅜-16	6.43
J29B8	0-29	8.4	36	4 x 4 x 2⅝	⅜-16	8.93
J29B17	0-29	17.0	36	6 x 5 x 3¼	⅜-16	13.27
J58B04	0-58	0.4	72	1 x 1 x 2¼	8-32	3.11
J58B1	0-58	1.5	72	1½ x 1½ x 2¼	8-32	4.49
J58B5	0-58	4.8	72	3 x 3 x 4⅜	⅜-16	12.08
J58B8	0-58	8.4	72	4 x 4 x 4⅜	⅜-16	16.75
J58B17	0-58	17.0	72	6 x 5 x 5⅝	⅜-16	26.52
J116B04	0-116	0.4	144	1 x 1 x 3 13/16	8-32	5.56
J116B1	0-116	1.5	144	1½ x 1½ x 3 13/16	8-32	8.15
J116B5	0-116	4.8	144	3 x 3 x 7⅜16	⅜-16	22.91
J115B8	0-116	8.4	144	4 x 4 x 7⅜16	⅜-16	32.09
J116B17	0-116	17.0	144	6 x 5 x 10¼	⅜-16	50.45
J135B04	0-135	0.4	180	1 x 1 x 4⅜16	8-32	6.77
J135B1	0-135	1.5	180	1½ x 1½ x 4⅜16	8-32	9.93
J135B5	0-135	4.8	180	3 x 3 x 8 11/16	⅜-16	28.29
J135B8	0-135	8.4	180	4 x 4 x 8 11/16	⅜-16	39.71
J135B17	0-135	17.0	180	6 x 5 x 12⅜16	3/10-16	62.43



CENTER TAP
Fig.1



SINGLE PHASE BRIDGE
Fig.2

CIRCUIT DIAGRAMS

FIG 1A
Same as Fig. 1 Except Center Terminal (Red) Is Negative

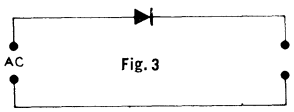


Fig. 3

ITEMS ON THIS PAGE CARRIED BY INDUSTRIAL AND COMMERCIAL PRODUCTS DISTRIBUTORS

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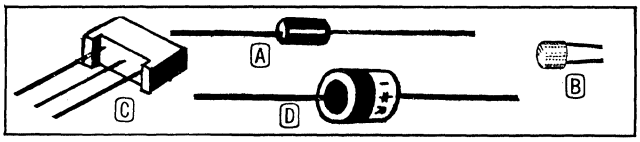
INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES, EL SEGUNDO, CALIFORNIA

SEMICONDUCTORS

IOR



GERMANIUM DIODES (FIG. A)

Int'l No.	Min. Fwd. Cur., Ma*	Max. Inv. Current Ma	Max. Inv. Current At V.	Max. DC Inv. V.	Net Each
1N34A	5.0	0.500	—50	60	$0.40
1N48	4.0	0.833	—50	70	.34
1N60	6.0	0.800	—30	40	.29
1N64	5.0	0.200	—10	25	.38
1N87G	4.0	0.100	—25	30	.35
1N294	5.0	0.800	—50	70	.52
1N295	.....	0.200	—10	50	.35
1N541	.....	0.350	—45	45	.40
1N542	.....	Matched pair 1N541's			.90
1N636	2.5	0.010	—10	60	.38

*At inverse voltage.

SELENIUM DIODES (FIG. B)

Int'l No.	JEDEC No.	Input Volts, RMS Resis.	Input Volts, RMS Capac.	Out., DC Ma	PRV Volts	Net Each
1T1	1N1625A	33	20	0.5	48	$0.37
2T1	1N1626A	66	40	0.5	96	.41
1U1	1N1627	33	20	3.75	48	.37
2U1	1N1628	66	40	3.75	96	.41
3U1	1N1629	99	60	3.75	144	.45
4U1	1N1630	132	80	3.75	192	.48
6U1	1N1632	198	120	3.75	288	.56
1V1	1N1635	33	20	12.5	48	.37
2V1	1N1636	66	40	12.5	96	.41
5V1	1N1639	165	100	12.5	240	.52
3Y1	1N1642	99	60	28	144	.45

SELENIUM DUAL DIODES (FIG. C)

Quality replacements for TV phase detector circuits. Superior quality design. Come complete with connecting diagram and interchangeability table.

Int'l No.	Description	Equivalent to G.E.	Equivalent to IRC	Equivalent to ITT	Each Net
DD04	Common cathode	6GC1	D4	K1615	$0.54
DD05	Series connected	6GD1	D5	K1616	.54
DD06	Common anode	6GX1		K1617	.54

SELENIUM CONTACT PROTECTORS (FIG. D)

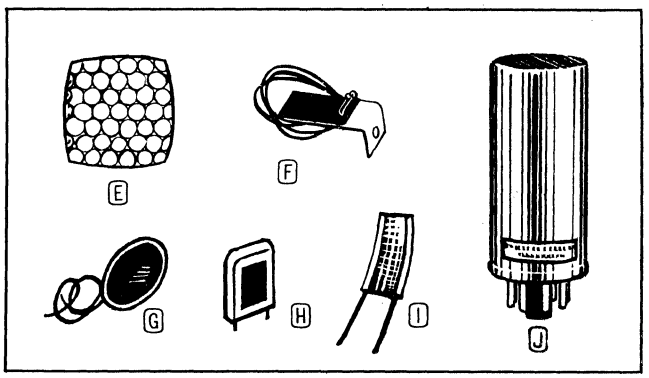
Make circuits safe against arcing, flashover and erosion acress relay, switch or other contacts. Low cost, high efficiency. Miniature design with pigtail leads for fast installation. When ordering, make sure that maximum voltage rating of the protector exceeds the maximum value of the supply voltage. Size: Indicated by center letter of number (S1V1P, S1Y1P, etc.) V—.380" dia. Y—.500" dia. All units .620" long except S6V6P and S6Y6P which are .990" long.

DC TYPES Int'l No.	WVDC Min.	WVDC Max.	Max. Amps	Net Each	AC TYPES Int'l No.	Max. WVAC	Max. Amps	Net Each
S1V1P	15	22	.25	$0.89	S1V1P	26	.20	$ .89
S2V1P	23	44	.25	.90	S2V2P	52	.20	1.07
S3V2P	45	66	.25	1.07	S3V3P	78	.20	1.08
S4V2P	67	88	.25	1.08	S4V4P	104	.20	1.26
S5V2P	89	110	.25	1.24	S5V5P	130	.20	1.40
S6V2P	111	132	.25	1.25	S6V6P	156	.20	1.42
S7V2P	133	154	.25	1.26	S1Y1P	26	.40	.94
S1Y1P	15	22	.60	.94	S2Y2P	52	.40	1.13
S2Y1P	23	44	.60	.94	S3Y3P	78	.40	1.14
S3Y2P	45	66	.60	1.14	S4Y4P	104	.40	1.38
S4Y2P	67	88	.60	1.14	S5Y5P	130	.40	1.56
S5Y2P	89	110	.60	1.36	S6Y6P	156	.40	1.58
S6Y2P	111	132	.60	1.37				
S7Y2P	133	154	.60	1.38				

SILICON HIGH VOLTAGE TUBE REPLACEMENT RECTIFIERS (FIG. J)

Designed to replace vacuum tube and mercury vapor tube rectifiers; long life, high temp. operation, no warm up time. Equipped with tube bases to allow direct replacement.

Int'l No.	JEDEC No.	PRV Volts	Max. Inp. Volts	Max. MaDC 75° C	Replaces Tube Type	Net Each
ST-1	1N2630	1500	1050	85	6X4, 12X4	$13.00
ST-1A	1N570	1500	1050	75	MIL 6X4 and 12X4	30.00
ST-2	1N2631	1600	1130	600	5AW4, 5AX4, 5AZ4, 5AU4, 5W4, 5Y3, 5U4, 5T4, 5Z4, 6004	13.00
ST-2A	1N2632	2800	1950	250	5R4, 5R4W	20.45
ST-3	1N2633	1600	1130	600	6AX5, 6W5, 6X5, 6ZY5, OZ4, 5839, 5852, 5X4	13.00
ST-4	1N2634	1600	1130	600	5Z3, 80, 82, 83, 83V	13.00
ST-5	1N2635	1500	1050	85	Hi. alt. 6X4, 12X4	14.40
ST-6	1N2636	1500	1050	85	84/6Z4	14.40
ST-7A	.....	10500	7500	250	866A	28.25
ST-8	.....	1250	880	80	OZ4, 6X5	9.00
ST-9	.....	10000	7000	1250	8008	137.50
ST-10	.....	10000	7000	1250	872A	137.50
ST-13	.....	1275	900	130	6BW4, 12BW4	13.00



PHOTOCELLS, SUN BATTERIES AND PHOTO-CONDUCTIVE CELLS

EXPERIMENTER'S TYPES

Specially selected, low priced, efficient units for the experimenter and hobbyist. Many applications in transistorized radios, light meters, powering small motors, etc. Rugged selenium types have spectral response similar to the human eye; often used in light meters. Silicon cells have higher light conversion efficiency. Types "S" are the same as used for battery charging in space vehicles. All units supplied with pigtail leads. Outputs, shown, is in full sunlight, using conventional volt and ma meters.

Int'l No.	Fig.	Description	Output Volts	Output Ma	Case Size, In.	Net Each
B2M	F	Selenium*	0.3-.4	2	1½ x ¾†	$1.50
B3M	E	Selenium	0.3-.4	1½-2½	1⅛ sq. x 3/16	1.75
S1M	E	Silicon	0.3-.5	10-16	1⅛ sq. x 3/16	2.25
S3M	E	Silicon	0.6-.9	10-16	1⅛ sq. x 3/16	3.95
S5M	E	Silicon	0.6-.9	18-25	1⅛ sq. x 3/16	4.95

*With mounting bracket; all others have plastic case.

INDUSTRIAL SELENIUM TYPES

Widely used in photography and other optical applications. Spectral response similar to human eye. Output: Rated at 100 foot-candles into 100-ohm load. Suffix PL: (Example, A5PL) Indicates 6" flexible leads. Suffix M: Stud terminal types. Type DP3: Plug-in pin type. Type DP5: Solder terminal type.

Int'l No.	Fig.	Description	Output μa	Net Each
A5PL	G	Unmounted, 1⅛" round	250	$ 2.50
A10PL	G	Unmounted, 1¾" round	600	5.00
A15PL	G	Unmounted, 2" round	770	6.50
A5M	.....	Molded case, 1¼" dia. x 0.3" thick	220	7.00
A15M	.....	Molded case, 2⅛" dia. x 0.3" thick	700	11.00
B2PL	.....	Unmounted, .72" x .44"	77	1.50
B10PL	.....	Unmounted, 1.69" x 0.88"	380	3.00
B10M	.....	Molded case, 2.2" x 1.1" x 0.4"	320	7.00
B15PL	.....	Unmounted, 1.69" square	640	6.50
DP3	H	Herm. sealed case, ¾" x .35" x .36"	66	10.00
DP5	H	Herm. sealed case, 2" sq. x 25/64" thick	600	14.00

INDUSTRIAL SILICON SOLAR CELLS (FIG. I)

Higher efficiency than selenium cells; principally used to convert solar energy directly into electricity. Operate portable radios, charge batteries, etc. Output: Rated in full sunlight using conventional meters. Type S: Supplied with flexible pigtail leads. Type SM: Five S1020E6 cells in series. Turret terminals on back.

Int'l No.	Description	Output Volts	Output Ma	Size. In.	Net Each
S1020E4-PL	Unmounted	0.40	18	0.4 x 0.8	$ 1.95
S1020E6-PL	Unmounted	0.40	27	0.4 x 0.8	2.50
S1020E8-PL	Unmounted	0.40	36	0.4 x 0.8	3.85
5SM1020E6	Mounted	1.85	29	2½ x ⅞	13.20

IR LIGHT SENSITIVE PHOTO CELL (CADMIUM SULPHIDE CELL) Fig. E

Extremely sensitive device. Activates relays for use in door-openers, burglar alarms, traffic and industrial counters, turning lights on in evening for store windows, signs, parking lots, etc. These cells are "light sensitive resistors" with resistance varying from a few hundred Ohms or less to bright light, to Megohms in darkness. A 24 page Experimenter's Handbook supplied free with each cell. Max. voltage 120 AC or DC, 0.2 Watt Max. Power dissipation.

Int'l No.	Max. Volts	Max. Pwr. Dissip.	Approx. Resis., Ohms Dark	Approx. Resis., Ohms 10FC	Approx. Resis., Ohms 100FC	Net Each
CS-120-M6	120	.2 watt	1.5 meg	10K	2000	2.35

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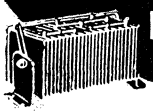
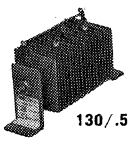
DIRECTRON

Industrial Selenium Rectifiers, Transformers, Chokes and Power Supplies



FULL WAVE BRIDGE RECTIFIERS, SINGLE PHASE, RESISTIVE-INDUCTIVE LOADS ALL PRICES SHOWN ARE USER NET PRICES

Max. Amps.	18v. in— 14v. out	36v. in— 28v. out	54v. in— 42v. out	130v. in— 100v. out
½	$1.05	$1.50	$2.50	$5.00
1	1.20	2.20	3.20	8.00
2	2.10	3.00	4.50	10.00
3	2.70	4.00	6.00	14.00
4	3.60	7.50	10.00	24.00
6	4.50	9.00	12.00	32.00
10	6.60	12.00	18.00	39.00
12	8.20	16.00	22.00	44.00
15	10.50	20.00	27.00	54.00
20	12.50	25.00	36.00	77.00
24	15.00	30.00	42.00	82.00
30	19.10	37.00	55.00	
36	24.00	48.00		



130/.5

SELENIUM RECTIFIER TRANSFORMERS

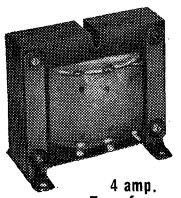
Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

	User's Net Price		User's Net Price
1 Amp	$ 5.25	12 Amps	$16.75
2 Amps	7.20	24 Amps	35.75
4 Amps	8.75	30 Amps	45.00
8 Amps	15.00	50 Amps	59.75

Primary taps at 100, 105, 110 and 115 volts now available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge. Custom built transformers — 48 hour service.

With Two 28V Center Tapped Windings—56 Volt:

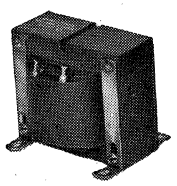
2 Amps	$ 8.50
4 Amps	12.50
6 Amps	22.50
12 Amps	30.00



4 amp. Transformer

HIGH CURRENT CHOKES

					User's Net Price
1 Amp	.1	hy	1.5	ohm	$ 4.95
2 Amps	.04	hy	.9	ohm	6.00
4 Amps	.07	hy	.6	ohm	7.95
8 Amps	.03	hy	.3	ohm	12.00
12 Amps	.01	hy	.1	ohm	14.95
20 Amps	.004	hy	.05	ohm	15.00
24 Amps	.004	hy	.025	ohm	27.00
30 Amps	.003	hy	.01	ohm	36.00
50 Amps	.001	hy	.001	ohm	45.00
100 Amps	.0005	hy	.005	ohm	54.00

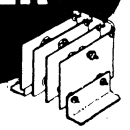


4 amp. Choke

HY-A-SIL

High - Ampere - Silicon

SILICON POWER RECTIFIERS



FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

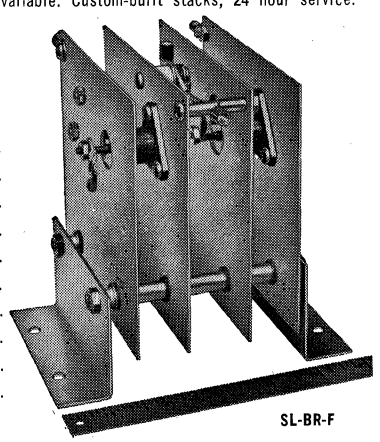
Stock No.	Type	AC Input Volts up to	DC Output Volts up to	Max. Amps Self Cooled	Max. Amps fan Cooled	Size and Weight	User Net Price
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	$17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SO-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-D	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SL-BR-A	1φ Bridge	32	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-B	1φ Bridge	72	64	70	140	J	50.00
SG-BR-D	1φ Bridge	140	125	70	140	J	80.00
SG-BR-F	1φ Bridge	280	250	70	140	J	130.00
SK-BR-A	1φ Bridge	36	32	100	200	K	60.00
SK-BR-B	1φ Bridge	72	64	100	200	K	68.00
SK-BR-D	1φ Bridge	140	125	100	200	K	90.00
SK-BR-F	1φ Bridge	280	250	100	200	K	150.00
SM-BR-A	1φ Bridge	36	32	200	400	L	100.00
SM-BR-B	1φ Bridge	72	64	200	400	L	120.00
SM-BR-D	1φ Bridge	140	125	200	400	L	180.00
SM-BR-F	1φ Bridge	280	250	200	400	L	260.00
SO-BR-B	1φ Bridge	72	64	400	800	M	270.00
SO-BR-F	1φ Bridge	280	250	400	800	M	570.00
SL-PH-A	3φ Bridge	36	48	75	150	N	60.00
SL-PH-B	3φ Bridge	72	96	75	150	N	85.00
SL-PH-C	3φ Bridge	105	144	75	150	N	120.00
SL-PH-D	3φ Bridge	140	188	75	150	N	180.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 1000 linear ft/minute. For resistive or inductive loads, as rated. For capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase half wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service.

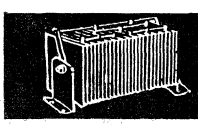
DIMENSIONS WITH BRACKETS

Size	Length	Height	Width	Weight
B	3″	6″	5″	12 oz.
C	3″	6″	6″	1 lb.
D	4″	8″	7″	2 lbs.
E	4″	9″	8″	6 lbs.
F	6″	5″	5″	1¼ lbs.
G	6″	6″	5″	1½ lbs.
H	6″	6″	6″	2 lbs.
J	6″	6″	5″	1½ lbs.
K	7″	8″	7″	4 lbs.
L	8″	9″	8″	6 lbs.
M	8″	11″	10″	6 lbs.
N	8″	6″	5″	4 lbs.

*Not suitable for fan-cooling



SL-BR-F



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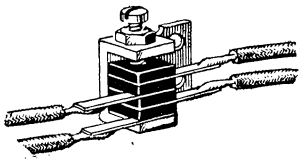
SCHAUER INSTRUMENT RECTIFIERS



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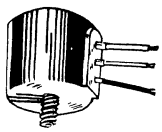

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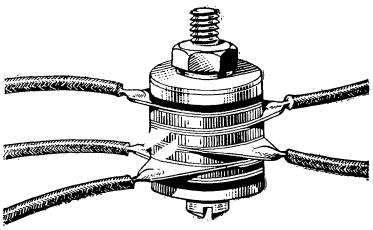


TYPE C4A

Schauer copper oxide rectifiers for instrument and other uses are processed and individually tested to meet the requirements of the user. Versatile processing techniques make possible variations in characteristics for special or unusual applications. Each rectifier is rated conservatively for long life and dependable operation.

Size "B" Rectifiers are encapsulated —fully sealed in special formula polyester plastic in attractive red color. Cells are specially processed with vacuum evaporated gold contact areas to give maximum efficiency, stable operation and low aging characteristics. All rectifiers are supplied with 3″ leads, color-coded. (Red, positive; black, negative; yellow, A.C.) Plastic encapsulated ectifiers have lead insulation imbedded in the plastic for better sealing, eliminating short circuits at the rectifier. Lead lengths of other than 3″ can be supplied on special order.

"A" SIZE CELLS have good frequency response above the audio range and can be used at higher frequencies. Recommended for meter applications needing 1MA or less for operation. Can be used for other applications requiring up to 5 MA.

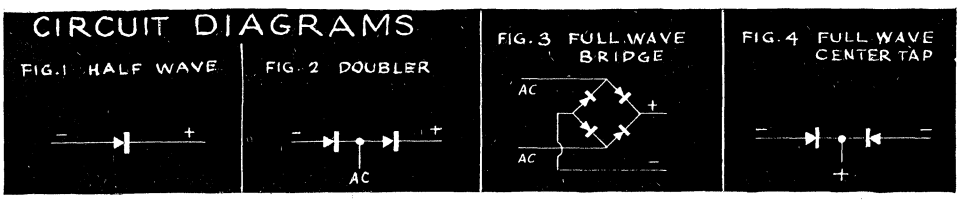
"B" SIZE CELLS are for meter, relay and other applications requiring 1MA up to their maximum rating. Recommended for commercial and low audio frequency operation.

"C" SIZE CELLS—are for general applications requiring larger output currents and operation of meters, relays and other apparatus. Special process cells for varistor applications.

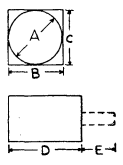
Write, wire or telephone for complete information. We welcome your inquiries concerning any special rectification problem.

Max. Cont. Rating			Circuit Diagram Fig.	Cell Dia. Inches	No. of Cells	Leads	Mounting Screw Size	DIMENSIONS*					Type
D.C. M.A.	D.C. Volts	Max. RMS Volts						(Dia.) A	B	C	D	E	
3	6.0		2	3/16 sq.	2	3	Hole for 2–56		3/8	1/4	9/16		A2C
5	3.0	5.0	3	3/16 sq.	4	4	Hole for 2–56		3/8	1/4	9/16		A4A
13	3.0		1	7/16	1	2	6–32	9/16			7/16	9/32	BP1C
13	6.0		2	7/16	2	3	6–32	9/16			1/2	5/16	BP2B
26	1.5	2.5	4	7/16	2	3	6–32	9/16			1/2	5/16	BP2C
26	3.0	5.0	3	7/16	4	5	6–32	9/16			23/32	5/16	BP4A
32	3.0		1	3/4	1	0	10–32	3/4			11/16	5/16	C1C
32	6.0		2	3/4	2	0	10–32	3/4			3/4	5/16	C2C
32	9.0		1	3/4	3	0	10–32	3/4			7/8	1/4	C3C
64	3.0	5.0	3	3/4	4	5	10–32	3/4			31/32	5/16	C4A

Note: The Schauer Mfg. Corp. is the exclusive manufacturer of replacement Westinghouse copper oxide rectifiers.



*Dimensions



SCHAUER MANUFACTURING CORP. • Cincinnati, Ohio

Manufacturers of high-quality, dry-disc rectifiers since 1930.

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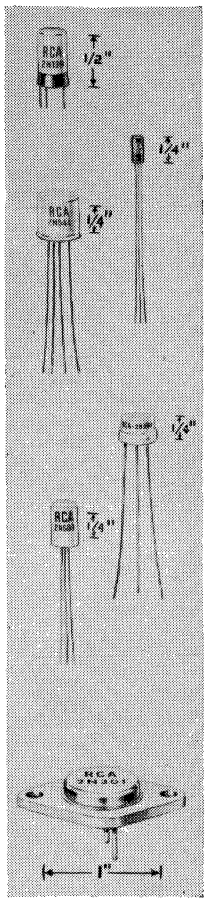
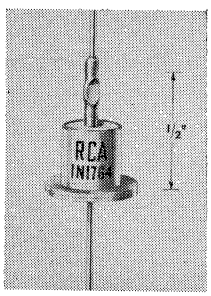
TRANSISTORS AND SILICON RECTIFIERS

August 15, 1961

RCA TRANSISTORS

TRANSISTORS • THYRISTORS • GERMANIUM DIODES • TUNNEL DIODES





(RCA) Type No.	Optional Distributor Resale Price 1-99
TRANSISTORS	
2N104	$1.82
2N105*	2.97
2N109	1.24
2N139	1.49
2N140	1.53
2N173	6.01
2N174	7.13
2N175	1.63
2N176	1.88
2N215	1.73
2N217	1.16
2N218	1.40
2N219	1.45
2N220	1.55
2N220(JAN)	4.54
2N247*	3.14
(For New Eqpt. Design, Use 2N274)	
2N269	1.98
2N270	1.32
2N274	1.65
2N274(USA)	3.30
2N277	3.45
2N278	4 87
2N301	1.98
2N301A	4.50
2N307	1.49
2N331*	2.06
2N351	2.03
2N356*	5.20
2N357*	6.53
2N358 (3/61)	8.91
2N370	1.49
2N371	1.40
2N372	1.40
2N373*	1.24
(For New Eqpt. Design, Use 2N1633 or 2N1634)	
2N374*	1.32
(For New Eqpt. Design, Use 2N1635 or 2N1636)	
2N376	2.10
2N384	2.48
2N384(USA)	4.54

(RCA) Type No.	Optional Distributor Resale Price 1-99
2N398	$ 1.86
2N404	.91
2N404(USAF)	.91
3907/2N404	1.82
2N404A	1.65
2N405; 2N406	ea. .61
2N407	.66
2N408	.66
2N409	.86
2N410	.86
2N411	.89
2N412	.89
2N414	.97
2N441	3.07
2N442	4.42
2N443	5.48
2N456*	3.63
2N457*	5.78
2N497	15.70
2N544	1.47
2N561	6.60
2N578	2.48
2N579	3.30
2N580	4.50
2N581	.91
2N582	2.23
2N583	1.82
2N584	3.22
2N585	1.07
2N586	1.73
2N591	.74
2N640*	1.44
(For New Eqpt. Design, Use 2N1637)	
2N641*	1.37
(For New Eqpt. Design, Use 2N1638)	
2N642*	1.40
(For New Eqpt. Design, Use 2N1639)	
2N643	2.92
2N644	4.42
2N645	5.78
2N647	1.16
2N649	.86
2N656	21.55
2N696	15.60

(RCA) Type No.	Optional Distributor Resale Price 1-99
2N697	$17.55
2N705	7.66
2N706	7.65
USA 2N706	7.65
2N706A	7.65
2N708	7.65
2N710	6.75
2N711	2.92
2N794	2.64
2N795	4.54
2N796	6.19
2N934	6.60
2N1010	2.89
2N1014*	12.40
2N1023	3.88
2N1047A	26.05
2N1048A	38.45
2N1049A	34.55
2N1050A	48.20
2N1066	4.13
2N1067	20.95
2N1068	21.95
2N1069	49.90
2N1070	64.95
2N1090	1.40
2N1091	2.23
2N1092	10.75
2N1099	9.83
2N1100	18.00
2N1169	3.71
2N1170	5.20
2N1177	1.65
2N1178	1.49
2N1179	1.49
2N1180	1.12
2N1183	2.06
2N1183A	2.72
2N1183B	3.30
2N1184	4.13
2N1184A	4.95
2N1184B	7.43
2N1213	7.84
2N1214	7.84
2N1215	7.84
2N1216	4.95
2N1224	2.06
2N1225	2.89

*Limited to extent of inventory.
(Prices include Federal Excise Tax, whenever applicable.)

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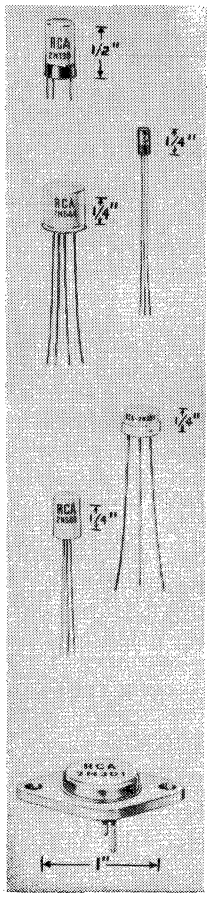
TRANSISTORS AND SILICON RECTIFIERS

RCA TRANSISTORS

TRANSISTORS • THYRISTORS • GERMANIUM DIODES • TUNNEL DIODES

(RCA) Type No.	Optional Distributor Resale Price 1-99
TRANSISTORS	
2N1226	$3.30
2N1300	2.06
2N1301	2.72
2N1319	5.20
2N1358	16.50
2N1384	4.87
2N1395	2.81
2N1396	3.71
2N1397	5.45
2N1412	14.26
2N1425	.86
2N1426	.89
2N1450	5.94
2N1479	6.60
2N1480	8.25
2N1481	11.55
2N1482	13.20
2N1483	11.55
2N1484	14.85
2N1485	24.75
2N1486	42.50
2N1487	19.80
2N1488	23.10
2N1489	33.00
2N1490	64.75
2N1491	13.55
2N1492	16.50
2N1493	20.95
2N1511	19.80
2N1512	23.10
2N1513	33.00
2N1514	64.75
2N1524	.86
2N1525	.86
2N1526	.89
2N1527	.89
2N1631	.97
2N1632	.97
2N1633	1.24
2N1634	1.24
2N1635; 2N1636	ea. 1.32
2N1637	1.20
2N1638	1.11
2N1639	1.16
2N1683	4.29
2N1700	$5.35
2N1701	7.85
2N1702; 2N1703	ea. 12.40
2N1708	11.55
2N1768	24.75
2N1769	42.50
2N1905	4.13
2N1906	6.60
2N2015	75.00
2N2016	90.00
DIODES AND RECTIFIERS	
1N248C	$4.87
1N248RC	4.87
1N249C	6.07
1N249RC	6.07
1N250C	8.25
1N250RC	8.25
1N440B	.83
1N441B	.86
1N442B	.99
1N443B	1.24
1N444B	1.40
1N445B	1.82
1N536	.73
1N537	.74
1N538	.76
1N538(JAN)	.78
1N539	.91
1N540	1.07
1N540(JAN)	1.24
1N547	1.65
1N547(JAN)	1.82
1N1095	1.24
1N1195A	10.05
1N1195RA	10.05
1N1196A	14.26
1N1196RA	14.26
1N1197A	19.50
1N1197RA	19.50
1N1198A	26.99
1N1198RA	26.99
1N1199A	2.85
1N1199RA	2.85
1N1200A	3.30
1N1200RA	3.30
1N1202A	$5.86
1N1202RA	5.86
1N1203A	8.55
1N1203RA	8.55
1N1204A	10.20
1N1204RA	10.20
1N1205A	14.55
1N1205RA	14.55
1N1206A	17.24
1N1206RA	17.24
1N1763	.89
1N1764	1.12
1N2326	.50
1N2858	.63
1N2859	.66
1N2860	.74
1N2861	.83
1N2862	.99
1N2863	1.16
1N2864	1.57
1N3128	14.26
1N3129	13.79
1N3130	13.37
1N3138	36.30
1N3193	.76
1N3194	.96
1N3195	1.49
1N3196	1.82
1N3253	.79
1N3254	.99
1N3255	1.52
1N3256	1.85
2DG001	2.15
3DG001	3.22



SILICON RECTIFIER ASSEMBLIES

(RCA) Type No.	Optional Distributor Resale Price 1-99
CR101	11.20
CR102	14.00
CR103	19.60
CR104	23.80
CR105	28.00
CR106	32.20
CR107	37.10
CR108	42.00
CR109	49.00
CR110	56.00

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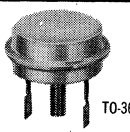
With Replacement & Interchangeability Chart

A complete kit for replacement and quick service of most types of PNP transistors and diodes.
1 each HF12, HF6, HF3, AT10, AT20, AT30, IN34A, IN60, IN64. **NET PRICE $4.95**

NO. 10 S P SILICON RECTIFIER KIT
Silicon Rectifiers for T.V. and Radio Circuits, for half wave and voltage doubler circuits.
Maximum Ratings 10 type SP500 500 MA, 400 PIV, 140 RMS **NET PRICE $5.95**

NO. 5 G P GERMANIUM DIODE KIT
With Replacement Chart
5 Pak Germanium Glass Diode Replacement Kit
1 each IN34, IN34A, IN60, IN64, IN51.
NET PRICE $ .99



TO-36

STUD POWER TRANSISTORS TYPE TO-36 CASE

SEMITRON	PNP REPLACEMENTS*	NET PRICE
PT501	High Wattage - 2N173, 2N174, 2N277, 2N278, 2N441, 2N442, 2N443, DS501, DS503, DS504.	$3.57
PT515	High Current Transistor for Replacement in Auto Radios, Amplifiers, and Electronic Converters.	$5.37

*Equivalent units shown have similar electrical characteristics. However they may vary in some specifications.

GERMANIUM DIODE PLASTIC CASE & GOLD BOND GERMANIUM CRYSTAL DIODE

TYPE	SIMILAR TYPES	NET PRICE
1N34 1N34A	1N34A, 1N43, 1N46, 1N49, 1N60, 1N51, 1N66, 1N69, 1N90, 1N294, 1N295, 1N126, CK705, 1N109, 1N125, 1N267, 1N268, GICA, NU34, TP34, TP34A, 400A, 400C, M34, M34A, M95, MN34A, OA71, OA71C, X16	$.33
1N60	1N64, 1N69, 1N295, 1N132, 1N87, 1N87G, 1N296, 1N105, 1N125, CK706, C60, G7F, G7G, CV442, GINA, M60, MN60, OA73, OA73C	$.33 $.33
1N64	1N69, 1N109, 1N125, 1N132, 1N148, 1N64A, 1N135.	$.33
1N51	M51, MN51.	$.33

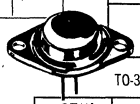
TO-3

"POPULAR" POWER TRANSISTORS TYPE TO-3 CASE

SEMITRON	REPLACEMENT	NET PRICE	SEMITRON	REPLACEMENT	NET PRICE
PT155	2N155	$1.77	PT285A	2N285A	$2.37
PT176	2N176	1.77	PT301	2N301	1.77
PT234	2N234	1.40	PT301A	2N301A	2.37
PT235A	2N235A	1.77	PT307	2N307	1.17
PT242	2N242	1.77	PT307A	2N307A	1.40
PT255	2N255	1.17	PT554	2N554	1.17
PT256	2N256	1.40	PT555	2N555	1.40

AMERICAN REPLACEMENT FOR JAPANESE RADIO TRANSISTORS & DIODES

SEMI-TRON	USE	PNP TYPE	NET PRICE
JR30	Oscillator Mixer Converter	High quality RF unit for replacement of Radio Frequency Transistors having similar rating.	$1.47
JR30X	Osc. Con. Mixer	In 2 and 3 Band Radios	1.65
JR10	IF Amplifier	High quality IF unit for replacement of intermediate Frequency Transistors having similar rating.	1.35
JR5	Audio Driver Detector	High quality Audio Transistor for replacement of Driver or Detector Transistors having similar rating.	1.17
JR15	Audio Output	High quality Audio Transistor for replacement of Output Transistor having similar rating.	1.47
JD1	Detector Diode	For replacement as Diode Detector.	.30
JD2	AVC Diode	For replacement as AVC Diode	.30
JP40	Audio Power	For replacement of Power Transistor in Audio App.	1.77



TO-3

POWER TRANSISTORS

SEMI-TRON	PNP REPLACEMENT	NET PRICE
PT40	High Wattage - 2N155, 2N156, 2N157, 2N157A, 2N176, 2N176B, 2N176G, 2N176W, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N235B, 2N236, 2N236A, 2N236B, 2N242, 2N250, 2N255, 2N256, 2N257, 2N285, 2N285A, 2N301, 2N301A, 2N307, 2N307A, 2N350, 2N351, 2N352, 2N353, 2N376, 2N378, 2N399, 2N400, 2N401, 2N419, 2N456, 2N554, 2N555, 2N637, 2N638, 2N639, AR5, AR6, AR7, AR8A, AR9, AR10, AR11, AR12, AR13, B1017, CTP1104, CTP1108, CTP1109, CTP1117, CTP1137, TS176	$1.77
PT25	Medium Wattage - 2N155, 2N156, 2N176, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N242, 2N250, 2N255, 2N256, 2N257, 2N301, 2N301A, 2N307, 2N307A, 2N378, 2N401, 2N554, 2N555, 2N638, 2N639, AR5, B1017, CTP1104, CTP1108, CTP1109, TS176	1.40
PT12	Normal Wattage - 2N234, 2N234A, 2N255, 2N256, 2N307, 2N554, B1017, CTP1104, CTP1108, CTP1109.	1.17
PT6	Experimenter Hobbyist - 2N255, 2N256, B1017, CTP1108, CTP1109	1.05

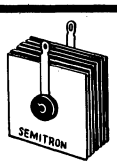
SILICON POWER RECTIFIERS

TOP HAT AXIAL LEADS

*Inductive or Resistive Load

TYPE	P.I.V.	RMS*	FORWARD CURRENT MA	NET PRICE
SR60	600	420	750	$1.40
SR 50	500	350	750	1.08
SR40	400	280	750	.90
SR30	300	210	750	.75
SR20	200	140	750	.60
SR10	100	70	750	.51
SR5	50	35	750	.42
SR605	600	420	500	1.35
SR405	400	280	500	.84
SR205	200	140	500	.51
SR105	100	70	500	.42

SELENIUM RECTIFIERS



Semitron Type No.	Max. D.C. Output MA.	Max. A.C. Input Volts	Min. Series Resistor (Ohms)	DIMENSIONS A Inches	B Inches	C Inches	Net Price
RS-151	50-75	130	22	11/16	11/16	11/16	$.47
RS-152	100-150	130	15	1	1	1	.66
RS-153	200-250	130	5	1.3	1.3	1-1/4	.87
RS-154	300-500	130	5	1.5	1.5	1-3/8	.99

AUDIO TRANSISTORS

SEMITRON		PNP TYPE	NET PRICE
AT 30H AT 30M AT 30N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output Transistors having similar or lower rating	$1.77 1.65 1.50
AT 20H AT 20M AT 20N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output or Driver Transistors having similar or lower rating.	1.35 1.17 1.05
AT 10H AT 10M AT 10N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Driver or Detector Transistors having similar or lower rating.	.90 .75 .59
AT GP	General Purpose	General Purpose Transistors suitable for Audio Amplifiers, Code Oscillators & numerous other experimental circuits.	.47

H. F. TRANSISTORS

SEMITRON		PNP TYPE	NET PRICE
HF 20H	High Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	$2.37
HF 20M	Medium Gain		2.25
HF 12H	High Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	1.77
HF 12M	Medium Gain		1.65
HF 6H	High Gain	High quality I.F. unit for design or replacement of Intermediate Frequency transistors having similar or lower rating.	1.47
HF 6M	Medium Gain		1.17
HF 3H	High Gain	High quality I.F. unit for design or replacement of Intermediate Frequency transistors having similar or lower rating.	1.05
HF 3M	Medium Gain		.87

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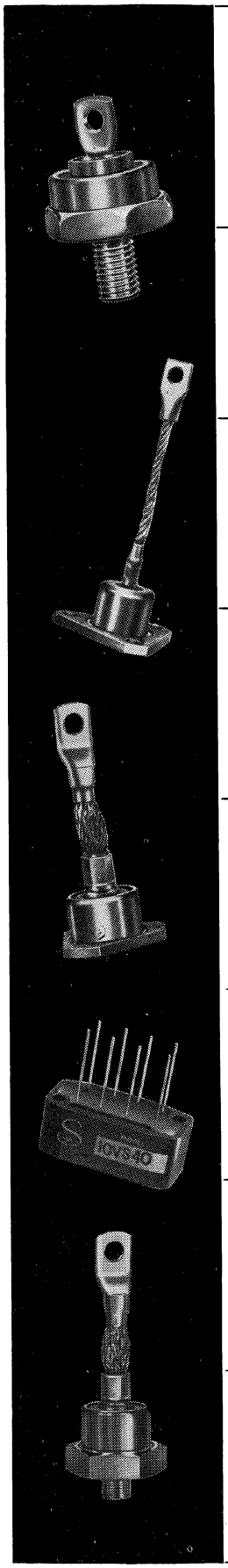
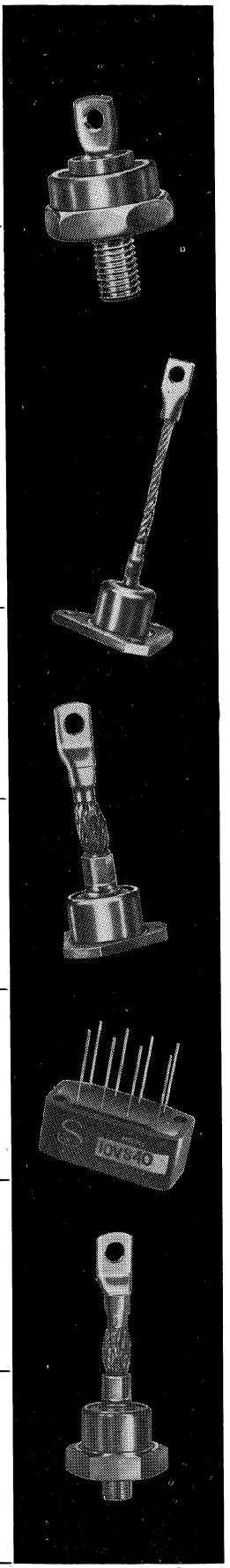
Santa Ana, California



Model	Jedec	PIV	Amp	Model	Jedec	PIV	Amp
10T4	1N600	100	.4	12C10	1N1200	100	12
20T4	1N602	200	.4	12C20	1N1202	200	12
30T4	1N603	300	.4	12C30	1N1203	300	12
40T4	1N604	400	.4	12C40	1N1204	400	12
50T4	1N605	500	.4	12C50	1N1205	500	12
60T4	1N606	600	.4	12C60	1N1206	600	12
10T5	1N1218	100	.5	25C10	1N2155	100	25
20T5	1N1220	200	.5	25C20	1N2156	200	25
40T5	1N1222	400	.5	25C30	1N2157	300	25
60T5	1N1224	600	.5	25C40	1N2158	400	25
70T5	1N1225	700	.5	25C50	1N2159	500	25
80T5	1N1226	800	.5	25C60	1N2160	600	25
10T7	1N537	100	.75	35C10	1N1184	100	35
20T7	1N538	200	.75	35C20	1N1186	200	35
30T7	1N539	300	.75	35C30	1N1187	300	35
40T7	1N540	400	.75	35C40	1N1188	400	35
50T7	1N1104	500	.75	35C50	1N1189	500	35
60T7	1N547	600	.75	35C60	1N1190	600	35
10S5	1N1446	100	.5	75E10		100	75
20S5	1N1447	200	.5	75E20		200	75
30S5	1N1448	300	.5	75E30		300	75
40S5	1N1449	400	.5	75E40		400	75
50S5		500	.5	75E50		500	75
40S2		400	.2	75E60		600	75
5F1		50	1.5	100E10		100	100
10F1	1N1450	100	1.5	100E20		200	100
20F1	1N1451	200	1.5	100E30		300	100
30F1	1N1452	300	1.5	100E40		400	100
40F1	1N1453	400	1.5	100E50		400	100
50F1		500	1.5	100E60		600	100
5F5		50	5	160E10	1N1272	100	160
10F5		100	5	160E20	1N1274	200	160
20F5		200	5	160E30	1N1275	300	160
30F5		300	5	160E40	1N1276	400	160
40F5		400	5	160E50	1N1277	500	160
50F5		500	5	160E60		600	160
3C10	1N1582	100	3	240E10	1N1671	100	240
3C20	1N1583	200	3	240E20	1N1673	200	240
3C30	1N1584	300	3	240E30	1N1674	300	240
3C40	1N1585	400	3	240E40		400	240
3C50	1N1586	500	3	240E50		500	240
3C60	1N1587	600	3	240E60		600	240
6C10	1N1342	100	6	400E10		100	400
6C20	1N1344	200	6	400E20		200	400
6C30	1N1345	300	6	400E30		300	400
6C40	1N1346	400	6	400E40		400	400
6C50	1N1347	500	6	400E50		500	400
6C60	1N1348	600	6	400E60		600	400



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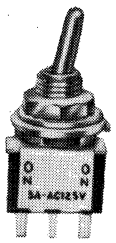
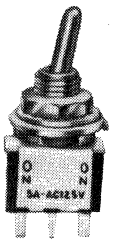
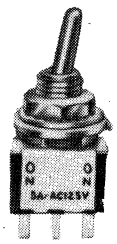
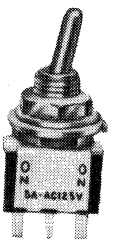
micro-miniature toggle switches

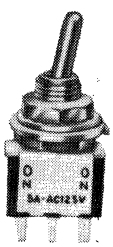
MINIATURIZATION has taken a major step forward with the development and perfection of this new miniature toggle switch. It is specifically designed to fill an urgent need for micro-miniature applications and it carries an unusually high 5 AMP rating at 115 VAC.











5 AMPS @ 115 VAC — and capable of carrying a 100% overload!

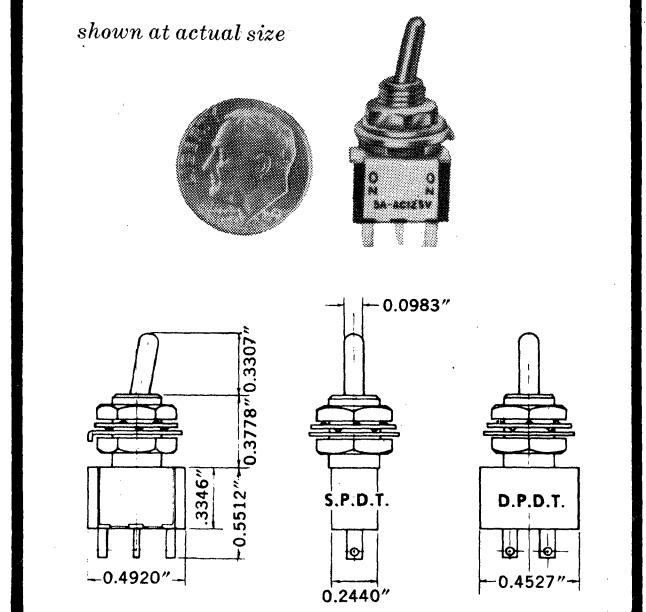
MICRO-MINIATURE — (see right) S.P.D.T. is sub-miniaturized to only ½" x ⅜" x ¼"! Extremely compact!

SOLID SILVER — contacts, terminals and moving parts! Not just plated!

LONG LIFE RATINGS — over 80,000 operations for this tiny switch!

simultaneous action on D.P.D.T.

shown at actual size



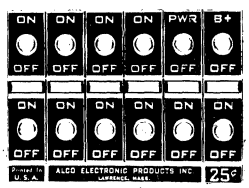
QUANTITY PRICES AVAILABLE ON REQUEST

Quantity	S.P.D.T.	D.P.D.T.
1-24	$1.65	$2.15
25-90	1.12	1.43
100-499	.99	1.29
500 over	.83	1.08

PHYSICAL SPECIFICATIONS

Insulating Resistance: Over 1000 megohms @ 500 VDC.
Voltage Breakdown: Over 1000 volts @ 60 cycles.
Moisture Resistance: Over 8 megohms after 48 hours at temperatures of 40°C and humidity of 95%.
Heat Resistance: One hour @ 140°C.
Life Cycle: Well over 80,000 on-off actions.
Case Material: Black phenol resin.

ALCO MINIATURE Toggle Switch PLATES



ALUMINUM FOIL on-off switch plates for above switches or any miniature toggle switches having a ¼" bushing. Card of 12 plates.
Prices per card.
1 to 49.....25¢
50 to 99.....20¢
100 over.....18¢
SP-1 .....Card of 12 plates

AS ABOVE WITH 15/32" HOLE FOR STANDARD SWITCHES
Prices per card.
1 to 49.....25¢
50 to 99.....20¢
100 over.....18¢
SP-2 .....Card of 12 plates

ALCO ELECTRONIC PRODUCTS INC.
LAWRENCE, MASS.

Net
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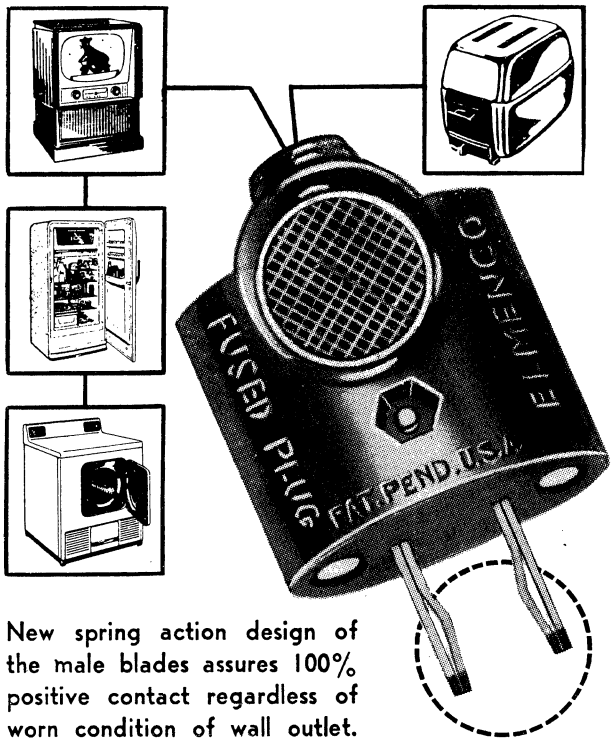
Announcing an important NEW Feature



New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.

OF THE

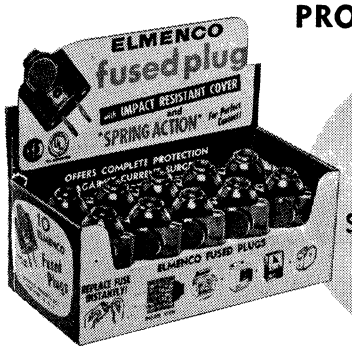
ELMENCO
Fused Plug

Spring Action

For
POSITIVE CONTACT
plus
Impact Resistant Cover

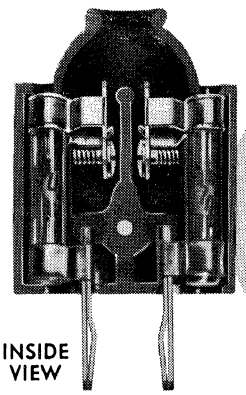
LIST PRICE **75¢** LESS FUSES

OFFERS COMPLETE PROTECTION
AGAINST CURRENT SURGES & SHORT CIRCUITS
PROTECTS ELECTRICAL APPLIANCES!



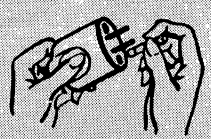
Conveniently Packed 10 to a Box In Colorful Self-merchandising displays. Easy to handle for resale

The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it contains 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.



INSIDE VIEW

REPLACE FUSE Instantly!



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

ARCO *electronics inc.*

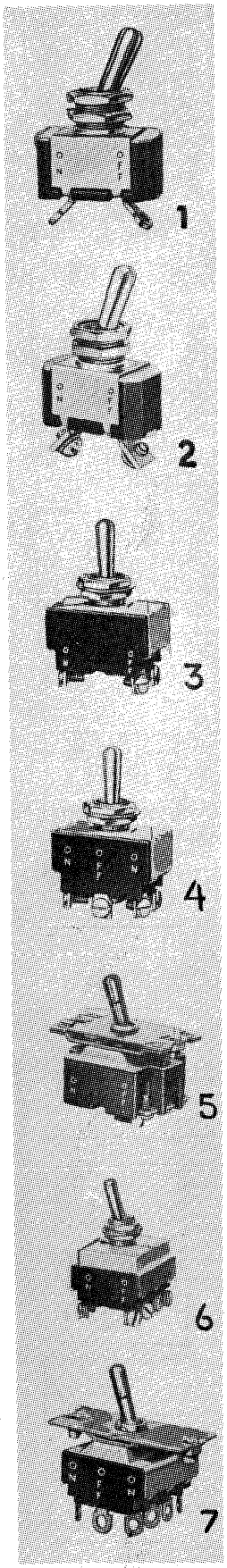
NEW YORK, N. Y.

BRANCHES: Dallas 7, Texas, Los Angeles 35, California

40% Discount Applies To The Above Prices.

© U.C.P. Inc.

Birnbach CUTLER-HAMMER SWITCHES



AIRCRAFT SWITCHES

Made to joint Army and Navy specifications. Spec. Jan-S-23 Superseded by Mil-S-3950. Binding Screw Terminals (ST-40 Series and ST-50 series) Per Spec. AN-3021 and AN 3027. The ST-42 and ST-52 Series have solder lugs. These switches are heavy duty; rugged design; bakelite housing; rated 10 amps-250V AC, 15 amps-125V AC, ¾ HP 115-230VAC.

1 SINGLE POLE STYLE ST-42—WITH SOLDER LUGS

Cat. No.	C-H No.	Jan-S-23 No.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Current Rating 125V	Current Rating 250V	
5370	8803K6	ST-42A	SPST	On	None	Off	15 amps.	.6 amps.	2.10 ea
5371	8819K5	ST-42B	SPST	On	None	Mom. Off	15 amps.	.6 amps.	2.30 ea
5372	8817K5	ST-42C	SPST	Off	None	Mom. On	15 amps.	.6 amps.	2.30 ea
5373	8816K5	ST-42D	SPDT	On	None	On	15 amps.	.6 amps.	2.45 ea
5374	8802K6	ST-42E	SPDT	On	Off	On	15 amps.	.6 amps.	2.45 ea
5375	8805K5	ST-42F	SPDT	On	None	Mom. On	15 amps.	.6 amps.	2.70 ea
5376	8818K5	ST-42G	SPDT	Mom. On	Off	Mom. On	15 amps.	.6 amps.	2.70 ea
5377	8815K6	ST-42H	SPDT	On	Off	Mom. On	15 amps.	.6 amps.	2.70 ea

STANDARD PKG. 25

2 SINGLE POLE STYLE 40—WITH SCREW TERMINALS

Cat. No.	C-H No.	Jan-S-23 No.	MIL-S-6745 (AN-S-20A) No.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Current Rating 125V	Current Rating 250V	
5360	8801K13	ST-40A	AN 3021-2	SPST	On	None	Off	15 amps.	.6 amps.	2.80 ea
5361	8813K12	ST-40B	AN 3021-9	SPST	On	None	Mom. Off	15 amps.	.6 amps.	3.10 ea
5362	8811K12	ST-40C	AN 3021-8	SPST	Off	None	Mom. On	15 amps.	.6 amps.	3.10 ea
5363	8810K12	ST-40D	AN 3021-3	SPDT	On	None	On	15 amps.	.6 amps.	3.40 ea
5364	8800K13	ST-40E	AN 3021-1	SPDT	On	Off	On	15 amps.	.6 amps.	3.40 ea
5365	8804K12	ST-40F	AN 3021-6	SPDT	On	None	Mom. On	15 amps.	.6 amps.	3.65 ea
5366	8812K13	ST-40G	AN 3021-7	SPDT	Mom. On	Off	Mom. On	15 amps.	.6 amps.	3.65 ea
5367	8809K13	ST-40H	AN 3021-5	SPDT	On	Off	Mom. On	15 amps.	.6 amps.	3.65 ea

STANDARD PKG. 25

3 DOUBLE POLE STYLE ST-50—WITH SCREW TERMINALS

Cat. No.	C-H No.	Jan-S-23 No.	Mil-S-6745 (AN-S-20A) No.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Current Rating 125V	Current Rating 250V	
5380	8822K8	ST-50K	AN-3027-2	DPST	On	None	Off	25 amps.	.9 amps.	3.75 ea
5381	8828K5	ST-50L	AN-3027-4	DPST	On	None	Mom. Off	15 amps.	.6 amps.	4.50 ea
5382	8826K5	ST-50M	AN-3027-5	DPST	Off	None	Mom. On	15 amps.	.6 amps.	4.50 ea
5383	8824K8	ST-50N	AN-3027-3	DPDT	On	None	On	25 amps.	.9 amps.	4.50 ea
5384	8820K10	ST-50P	AN-3027-1	DPDT	On	Off	On	25 amps.	.9 amps.	4.50 ea
5385	8830K5	ST-50R	AN-3027-6	DPDT	On	None	Mom. On	15 amps.	.6 amps.	4.90 ea
5386	8834K4	ST-50S	AN-3027-7	DPDT	Mom. On	Off	Mom. On	15 amps.	.6 amps.	4.90 ea
5387	8832K4	ST-50T	AN-3027-8	DPDT	On	Off	Mom. On	15 amps.	.6 amps.	4.90 ea

STANDARD PKG. 25

4 DOUBLE POLE STYLE ST-52—WITH SOLDER LUGS

Cat. No.	C-H No.	Jan-S-23 No.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Current Rating 125 V	Current Rating 250 V	
5390	8823K5	ST-52K	DPST	On	None	Off	25 amps.	.9 amps.	2.50 ea
5391	8829K5	ST-52L	DPST	On	None	Mom. Off	15 amps.	.6 amps.	2.80 ea
5391A	8827K5	ST-52M	DPST	Off	None	Mom. On	15 amps.	.6 amps.	2.80 ea
5392	8825K5	ST-52N	DPDT	On	None	On	25 amps.	.9 amps.	2.80 ea
5393	8821K5	ST-52P	DPDT	On	Off	On	25 amps.	.9 amps.	2.80 ea
5394	8831K5	ST-52R	DPDT	On	None	Mom. On	15 amps.	.6 amps.	3.25 ea
5395	8835K3	ST-52S	DPDT	Mom. On	Off	Mom. On	15 amps.	.6 amps.	3.25 ea
5396	8833K3	ST-52T	DPDT	On	Off	Mom. On	15 amps.	.6 amps.	3.25 ea

STANDARD PKG. 25

5 THREE POLE—WITH SCREW TERMINALS FLUSH MOUNTING

Cat. No.	C-H No.	Spec.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	
5400	8740K9	MIL-S-6745	3PST	On	None	Off	6.45 ea
5401	8744K9	MIL-S-6745	3PDT	On	None	On	7.70 ea
5402	8742K9	MIL-S-6745	3PDT	On	Off	On	7.70 ea

CURRENT RATING: 125 VAC 20 AMPS. 30 VDC 25 AMPS. STANDARD PKG. 12

6 FOUR POLE—ONE HOLE MOUNTING

The four pole switches are designed to meet the rigid specifications and requirements of JAN-S-23 and MIL-S-6745 Specs.

Cat. No.	C-H. No.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Terminals	
5420	7660K8	4PST	On	None	Off	Screw	8.25 ea
5421	7661K6	4PST	On	None	Off	Lug	7.60 ea
5422	7662K5	4PDT	On	Off	On	Screw	10.30 ea
5423	7663K5	4PDT	On	Off	On	Lug	9.35 ea
5424	7664K3	4PDT	On	None	On	Screw	10.30 ea
5425	7665K4	4PDT	On	None	On	Lug	9.35 ea
5426	7666K6	4PST	Off	None	Mom. on	Screw	11.15 ea
5427	7667K6	4PST	Off	None	Mom. on	Lug	10.55 ea
5428	7668K4	4PST	On	None	Mom. off	Screw	11.15 ea
5429	7669K4	4PST	On	None	Mom. off	Lug	10.55 ea
5430	7670K4	4PDT	On	Off	Mom. on	Screw	12.40 ea
5431	7671K4	4PDT	On	Off	Mom. on	Lug	11.50 ea
5432	7672K4	4PDT	Mom. on	Off	Mom. on	Screw	12.40 ea
5433	7673K4	4PDT	Mom. on	Off	Mom. on	Lug	11.50 ea
5434	7674K4	4PDT	On	None	Mom. on	Screw	12.40 ea
5435	7675K4	4PDT	On	None	Mom. on	Lug	11.50 ea

CURRENT RATING: 125 VAC 10 AMPS. 30 VDC 20 AMPS. STD. PKG. 12

7 FOUR POLE—FLUSH MOUNTING

Cat. No.	C-H No.	Spec.	Type	Circuit: Up Position	Circuit: Center Position	Circuit: Down Position	Terminals	
5410	8882K5	MIL-S-6745.	4PST	On	None	Off	Screw	8.30 ea
5411	8883K5	MIL-S-6745.	4PST	On	None	On	Lug	7.40 ea
5412	8886K5	MIL-S-6745.	4PST	On	Off	On	Screw	11.15 ea
5413	8884K5	MIL-S-6745.	4PDT	On	None	On	Screw	10.40 ea
5414	8885K5		4PDT	On	None	On	Lug	9.45 ea
5415	8880K5	MIL-S-6745.	4PDT	On	Off	On	Screw	10.40 ea
5416	8881K5		4PDT	On	Off	On	Lug	9.45 ea
5417	8888K5	MIL-S-6745.	4PDT	Mom. on	Off	Mom. on	Screw	12.45 ea
5418	8887K5	MIL-S-6745.	4PDT	On	Off	Mom. on	Screw	12.45 ea

CURRENT RATING: 125 VAC 10 AMPS. 30 VDC 20 AMPS. STD. PKG. 12

Trade Discount Applies To List Prices Only

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Birnbach CUTLER-HAMMER SWITCHES

Complete line of Cutler-Hammer quality switches available from our warehouse stocks. Includes commercial, industrial, aircraft and Gov't spec.

LIGHT DUTY TOGGLE SWITCHES

1 BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	250V	List Price
5300	8280K16	SPST	15/32"		3 amps.	1.15 ea
5301	8381K8	SPST	15/32"	6 amps.	3 amps.	1.35 ea
5302	8282K14	SPDT	15/32"	3 amps.	1 amp	1.45 ea
5303	8284K14	2 circ	15/32"	3 amps.	1 amp	1.55 ea
5304	8360K7	DPST	15/32"		3 amps.	2.10 ea
5305	8370K7	DPST	15/32"	6 amps.	3 amps.	2.30 ea
5306	8363K7	DPDT	15/32"		3 amps.	2.40 ea
5307	8373K7	DPDT	15/32"	6 amps.	3 amps.	2.60 ea

STD. PKG. 25

2 SIDE CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	250V	List Price
5308	8295K8	SPST	15/32"		3 amps.	1.40 ea
5309	8396K8	SPST	15/32"	6 amps.	3 amps.	1.60 ea
5310	8297K8	SPDT	15/32"	3 amps.	1 amp	1.85 ea
5311	8372K7	DPST	15/32"	6 amps.	3 amps.	2.75 ea
5312	8365K7	DPDT	15/32"		3 amps.	3.15 ea
5313	8375K7	DPDT	15/32"	6 amps.	3 amps.	3.35 ea

STD. PKG. 25

3 SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	250V	List Price
5335	8290K16	SPST	15/32"		3 amps.	1.40 ea
5336	8391K8	SPST	15/32"	6 amps.	3 amps.	1.60 ea

STD. PKG. 25

4 PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; 15/32" shank; rated at .75 AMF., 125 volts—.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals	List Price
5337	8411K4	SP norm. open	lug	.80 ea
5338	8411K3	SP norm. open	screw	.90 ea
5339	8411K8	SP norm. closed	lug	.60 ea
5340	8411K7	SP norm. closed	screw	.65 ea

STD. PKG. 25

8, 9 HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; 15/32" shank (No. 8680 11/32" shank); AC-DC, UL approved; bakelite case; screw terminals.

Cat. No.	C-H No.	Descrip.	Current Rating 125V	250V	List Price
5341	@7321K3	SPST	12 amps.	6 amps.	2.20 ea
5342	@7320K3	DPST	12 amps.	6 amps.	2.20 ea
5343	*7361K5	SPST	15 amps.	10 amps.	3.85 ea
5344	*7360K8	DPST	15 amps.	10 amps.	3.85 ea
5345	**7402K4	DPST		20 amps.	5.40 ea
5346	8680K1	DPDT	10 amps.	5 amps.	7.15 ea
5347	8690K2	DPDT	15 amps.	10 amps.	8.60 ea

@ 1 HP—125/250V * 1½ HP—125/250V
**1½ HP—125V, 2 HP—250V

STD. PKG. 12

A MULTI-POLE, MULTI-POSITION, ROTARY SWITCHES

Nos. 7260 thru 7266 and Nos. 7271 thru 7276

B PUSHBUTTON OPERATED AIRCRAFT SWITCHES

Nos. 8911K525, 8874, 8875

STANDARD DUTY TOGGLE SWITCHES

5 BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125 volts—10 amps. 250 volts.

Cat. No.	C-H No.	Description	Shank	List Price
5314	7501K13	SPST	15/32"	1.15 ea
5315	7505K4	SPDT	15/32"	1.35 ea
5316	7561K4	DPST	15/32"	1.75 ea
5317	7565K5	DPDT	15/32"	2.05 ea
5318	7611K2	3PST	15/32"	3.65 ea
5319	7615K2	3PDT	15/32"	4.50 ea

STD. PKG. 25

6 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank	List Price
5320	7500K14	SPST	15/32"	1.35 ea
5321	7504K4	SPDT	15/32"	1.60 ea
5322	7560K5	DPST	15/32"	2.10 ea
5323	7564K6	DPDT	15/32"	2.60 ea
5324	7610K2	3PST	15/32"	4.25 ea
5325	7614K2	3PDT	15/32"	5.40 ea

STD. PKG. 25

4 PUSH BUTTON SWITCHES PUSH TO MAKE—PUSH TO BREAK

Push-push switches; AC-DC. UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

Cat. No.	C-H No.	Description	Terminals	List Price
5326	7206K4	SPST	lug	1.60 ea
5327	7208K4	SPST	screw	1.80 ea
5328	7207K4	SPST	wire	1.80 ea

STD. PKG. 25

5 CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Cat. No.	C-H No.	Description	Shank	List Price
5329	7503K13	SPDT	15/32"	1.35 ea
5330	7563K4	DPDT	15/32"	2.10 ea
5331	7613K2	3PDT	15/32"	4.50 ea

STD. PKG. 25

7 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank	List Price
5332	7502K13	SPDT	15/32"	1.60 ea
5333	7562K4	DPDT	15/32"	2.60 ea
5334	7612K2	3PDT	15/32"	5.40 ea

STD. PKG. 12

C MISCELLANEOUS AIRCRAFT SWITCHES

Pistol grip trigger movement switches Nos. 8895, 8896, 8897

D LEVER EXTENSIONS and ATTACHABLE TIPS

To meet requirements for luminous identification on switches and circuit breakers these tips snap over the standard levers and are held in place by a cup shaped spring member.
Nos. 24-1939, 24-1939-2, 24-1997, 24-1997-2, 24-1164, 24-1164-2, 24-1164-3.

E AIRCRAFT SWITCH GUARDS

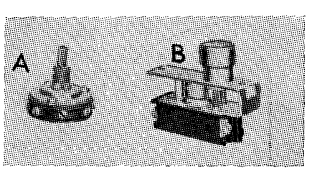
IT IS USED TO PREVENT INADVERTENT OPERATION OF THE LEVER

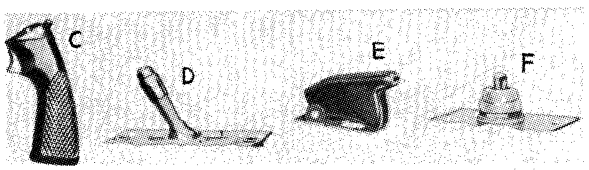
BOOTS FOR WATER and DUST RESISTANT APPLICATIONS

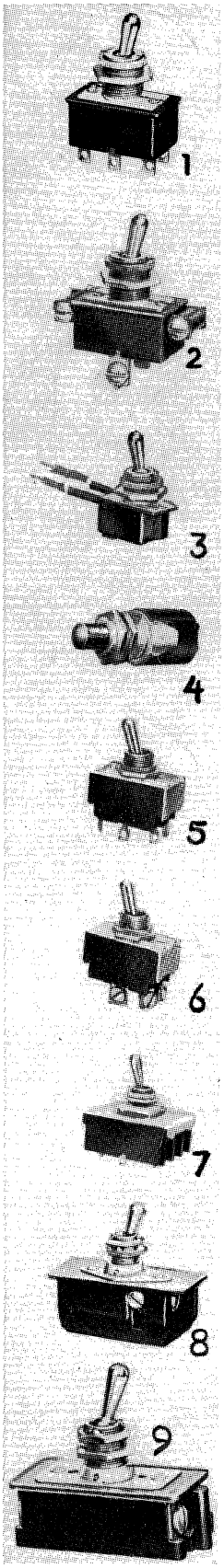
Gray silastic flexible designed to obstruct water and dust from entering switch interior. Remains flexible at minus 67°F. with stand exposure to sunlight without deterioration. For all applications. Advise which Specific Switch guard is to be used.

F BUSHING SEAL No. 32-341

ADDITIONAL CUTLER-HAMMER EQUIPMENT AVAILABLE





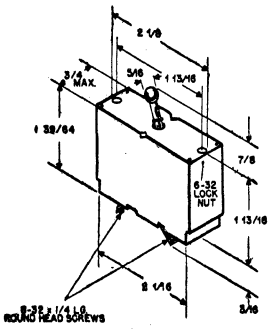


All Prices Subject to Change or Withdrawal without Notice.

Birnbach

CUTLER-HAMMER SWITCHES MISCELLANEOUS SWITCHES

MANUAL TYPE CIRCUIT BREAKERS



OVERRIDE TYPE
NON-TRIP FREE

Both types combine, in one unit, a standard aircraft type SPST switch and a positive protection device. Molded case, metal strap with locking type mounting nuts.

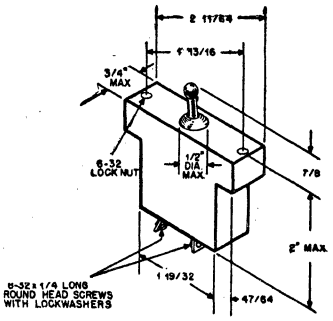
NON-TRIP FREE

CAT. NO.	C-H NO.	SPEC.	TYPE	RATING 24 VOLTS	LIST PRICE
5460	8750 K11	AN-3160- 5	SPST	5 AMPS	15.75 ea.
5461	8751 K 8	AN-3160-10	SPST	10 AMPS	15.75 ea.
5462	8752 K 8	AN-3160-15	SPST	15 AMPS	15.75 ea.
5463	8753 K 8	AN-3160-20	SPST	20 AMPS	15.75 ea.
5464	8754 K 8	AN-3160-25	SPST	25 AMPS	15.75 ea.
5465	8755 K 8	AN-3160-35	SPST	35 AMPS	15.75 ea.
5466	8756 K 8	AN-3160-50	SPST	50 AMPS	15.75 ea.

TRIP FREE

5470	8730 K3	E-1441- 5	SPST	5 AMPS	21.50 ea.
5471	8731 K3	E-1441-10	SPST	10 AMPS	21.50 ea.
5472	8732 K3	E-1441-15	SPST	15 AMPS	21.50 ea.
5473	8733 K3	E-1441-20	SPST	20 AMPS	21.50 ea.
5474	8734 K1	E-1441-25	SPST	25 AMPS	21.50 ea.
5475	8735 K3	E-1441-35	SPST	35 AMPS	21.50 ea.
5476	8736 K1	E-1441-50	SPST	50 AMPS	21.50 ea.

Std. Pkg. 5



NON-OVERRIDE TYPE
TRIP FREE

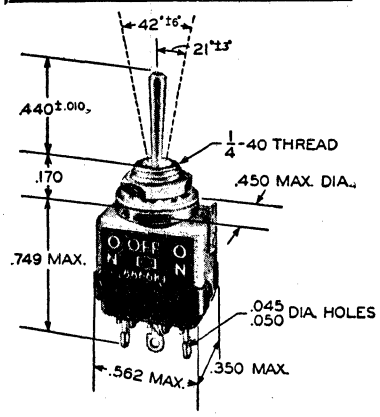
In addition to our large inventory listed above we have in stock the special switches manufactured specifically for aircraft—such as:

DOUGLAS DC-8
BOEING 707
CONVAIR 888
LOCKHEED ELECTRA

Also we have the regular aircraft relays which includes the hermetically sealed type.

POSITIVE ACTION MINIATURE MILITARY SWITCHES
"AS SMALL AS A DIME"

Especially designed for aircraft, missile and electronic applications.



EXTREMELY COMPACT — highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walkie-talkies, electronic instruments and communication systems.

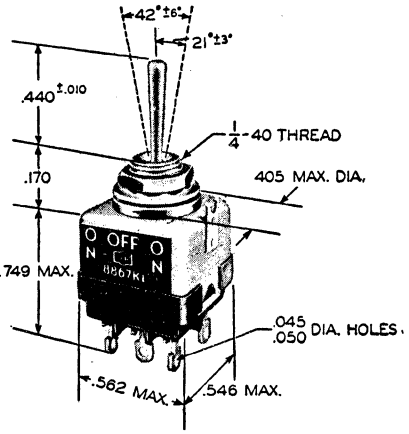
NEW DESIGN — Toggle is linked directly with movable contact member, insuring positive make and break.

NEW TOGGLE LEVER SEAL — Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.

NEW GOLD PLATED CONTACTS — Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.

NEW SUPERIOR MATERIAL — In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.

NEW POSITIVE DETENT ACTION — For improved operator "feel."



DOUBLE POLE

SINGLE POLE

CAT. NO.	C-H NO.	TYPE	CIRCUIT UP POSITION	CENTER POSITION	DOWN POSITION	CURRENT RATING 25 VOLTS DC	50 VOLTS DC	115 VOLTS AC	LIST
5480 K1	8866 K1	SPDT	ON	OFF	ON	2 AMPS	1 AMP	2 AMPS	10.10 ea.
5480 K2	8866 K2	SPDT	MOM-ON	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	11.40 ea.
5480 K3	8866 K3	SPDT	ON	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	11.40 ea.
5480 K4	8866 K4	SPDT	ON	NONE	ON	2 AMPS	1 AMP	2 AMPS	10.10 ea.
5480 K5	8866 K5	SPST	ON	OFF	NONE	2 AMPS	1 AMP	2 AMPS	10.10 ea.
5480 K6	8866 K6	SPST	NONE	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	11.40 ea.
5480 K7	8866 K7	SPST	ON	NONE	OFF	2 AMPS	1 AMP	2 AMPS	10.10 ea.
5481 K1	8867 K1	DPDT	ON	OFF	ON	2 AMPS	1 AMP	2 AMPS	12.60 ea.
5481 K2	8867 K2	DPDT	MOM-ON	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	14.70 ea.
5481 K3	8867 K3	DPDT	ON	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	14.70 ea.
5481 K4	8867 K4	DPDT	ON	NONE	ON	2 AMPS	1 AMP	2 AMPS	12.60 ea.
5481 K5	8867 K5	DPST	ON	OFF	NONE	2 AMPS	1 AMP	2 AMPS	12.60 ea.
5481 K6	8867 K6	DPST	NONE	OFF	MOM-ON	2 AMPS	1 AMP	2 AMPS	14.70 ea.
5481 K7	8867 K7	DPST	ON	NONE	OFF	2 AMPS	1 AMP	2 AMPS	12.60 ea.

Std. Pkg. 5

SLIDE LEVER SWITCHES

UL APPROVED

Ideal for phonographs, test instruments, electrical equipment, appliances, etc.
1⅜" x ½" with 1⅛" mounting centers; mounting holes .140".

CAT. NO.	DESCRIPTION	CURRENT RATING	STD. PKGE.
6245	SPST	4 Amps-125 V AC	25
6246	SPDT	4 Amps-125 V AC	25
6247	DPST	50 Amp-125 V AC-DC	25
6248	DPDT	50 Amp-125 V AC-DC	25
	SPRING RETURN		
6245S	SPST	75 Amp-125 V AC-DC	25
6246S	SPDT	75 Amp-125 V AC-DC	25
6239	Slide Switch Shield		25

BIRNBACH KNIFE SWITCHES

Made of special nickel plated spring brass on a rugged base. Screw terminals located conveniently for easy connections in circuit. Two mounting holes.

Cat. No.	Descrip.	Base	Std. Pkg.
6100	SPST	Por.	25
6102	SPDT	Bake.	20
6103	DPST	Por.	10
6104	DPDT	Bake.	10
6105	TPDT	Por.	10

Trade Discount Applies To List Prices Only
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Birnbach

ARROW H&H SWITCHES

TOGGLE • PUSH BUTTON • ROTARY • KNIFE • POWER • SLIDE

BIRNBACH

1 MOMENTARY CONTACT PUSH BUTTON

Solder lugs; laminated type. Has 9/16" slotted sleeve, 15/32-32 TPI Complete with hex and knurled nut; nickel plated; all accept snap on button. Supplied less insulating button.

QUICK MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 250 V	List Price
6184	.SPST	.Normally Closed (On)	.3 amps	2.25 ea
6184A	SPST.	Normally Open (Off)	.3 amps	2.25 ea
6185A	SPDT	.Normally Closed (On)	.1 amp	2.60 ea
6185	.SPDT	.Normally Open (Off)	.1 amp	2.60 ea
6186	.2 Circ	.Normally Closed (On)	.1 amp	3.10 ea
6231A	DPST	.Normally Closed (On)	.1 amp	3.10 ea
6231	.DPST	.Normally Open (Off)	.1 amp	3.10 ea
6231B	DPDT.	Normally Closed (On)	.1 amp	3.45 ea
6232	.Button only, red or black			.40 ea

Std. Pkg. 25

SLOW MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 125 V	List Price
6180	..SPST.	.Normally Closed (On)	.1 amp	2.55 ea
6230	..SPST.	.Normally Open (Off)	.1 amp	2.55 ea
6224	..2 Circ.	.Normally Closed (On)	.1 amp	1.60 ea

Std. Pkg. 25

3 INTERMEDIATE SIZE TOGGLE-BAT

Molded phenolic base; back connected silver plated solder lug contacts; supplied with hex nut and knurled nut. SPDT rated at 1 amp.-250V, 6 amps.-125 volts AC-DC; others rated at 3 amps-250V, 6 amps.- 125V AC-DC.

Std. Pkg. 25

Cat. No.	Description	Type Action	List Price
6280	... SPST ...	POSITIVE	.. 1.55 ea
6280A	... SPST ...	MOM.—NORM. OFF	.. 2.20 ea
6281	... SPDT ...	POSITIVE	.. 1.85 ea
6281A	... SPDT ...	MOMENTARY	.. 2.50 ea
6284	...2 CIRC...	POSITIVE	.. 1.90 ea
6282	... DPST ...	POSITIVE	.. 2.25 ea
6282A	... DPST ...	MOM.—NORM. OFF	.. 3.15 ea
6283	... DPDT ...	POSITIVE	.. 2.60 ea
6283A	... DPDT ...	MOMENTARY	.. 3.45 ea

2 THREE POSITION—CENTER OFF

Rated 3 amps-250 V, 6 amps-125 V AC-DC

Cat. No.		List Price
6261	..... SPDT	2.80 ea
6262	.....2 CIRC.....	3.15 ea
6263	..... DPDT	3.45 ea

Std. Pkg. 25

2 BAKELITE MOLDED MOMENTARY CONTACT SWITCHES

Same as above except momentary. SPST Normally Off. 3 A., 250 V. UL approved. Rated 6 A., 125 V.

Cat. No.	Description	Shank Length	List Price
6241	.....SPST	.....15/32"	2.20 ea
6240	.....SPDT	.....15/32"	2.50 ea
6242	.....DPDT	.....15/32"	3.45 ea

Std. Pkg. 25

4 MOMENTARY PUSH BUTTON

Molded momentary, solder lugs. Rated 1 A., 125 V. With 9/16" shank, normally OFF—push to make. Nickel plated. UL approved.

Cat. No.	Descrip.	Std. Pkg.	List Price
6233	SPST	25	1.28 ea
6234	SPDT	25	1.39 ea
6235	DPST	25	1.78 ea
6236	DPDT	25	2.39 ea

6 MIDGET SIZE TOGGLE POS. ACTION

SPST Rated 3 Amps—250 Volts, 6 amps—125 Volts. Others Rated 1 Amp—250 Volts, 6 amps—125 Volts. Molded Phenolic base. 15/32—32 x 15/32" long slotted sleeve, Nickel finish; solder lugs.

Cat. No.	Description	Type	List Price
6244	....SPST	.....Ball Handle	... 1.30 ea
6244A	....SPST	.....Bat Handle	.... 1.30 ea
6244B	....SPDT	.....Ball Handle	... 1.65 ea
6244C	....SPDT	.....Bat Handle	.... 1.65 ea
6244D	...2 circ.	.....Ball Handle	... 1.70 ea
6244E	....2 circ.	.....Bat Handle	..... 1.70 ea

Std. Pkg. 25

16 ROTARY SWITCHES CANOPY TYPE—ROTO LOCK

Laminated phenolic sections—solder lugs; sleeve 11/32" diam. 32 threads per inch; nickel finish; Rotary switches supplied with two hex nuts; roto lock key types have 15/32" diam. 32 threads per inch; key removable in off position only on SPST and DPST—key removable in both positions on all others.

SPST rated at 3 amps-250 V AC-DC, others rated at 1 amp-250 V, 3 amps-125 volts AC-DC.

Roto Lock (Key Type)

Cat. No.	Description	Std. Pkg.	List Price
6110	..... SPST	12	2.20 ea
6111	..... SPDT	12	2.50 ea
6112	..... DPST	12	3.15 ea
6113	..... DPDT	12	3.45 ea
6114	....Key—Rem. Off Pos.	100	.35 ea
6115	....Key—Rem. Both Pos.	100	.35 ea

Canopy type rotary

6210	..... SPST	..... 3/8"	..... 1 1/2"	..... 1.45 ea
6211	..... SPST	..... 1"	..... 2 1/2"	..... 1.95 ea
6212	..... SPDT	..... 3/8"	..... 1 1/2"	..... 1.75 ea
6213	..... SPDT	..... 1"	..... 2 1/2"	..... 2.30 ea
6214	..... DPST	..... 3/8"	..... 1 1/2"	..... 2.40 ea
6215	..... DPST	..... 1"	..... 2 1/2"	..... 2.90 ea
6216	..... DPDT	..... 3/8"	..... 1 1/2"	..... 2.70 ea
6217	..... DPDT	..... 1"	..... 2 1/2"	..... 3.30 ea

BALL HANDLE TOGGLE SWITCHES 10 POSITIVE ACTION

UL approved. Ball lever switches nickel plated; laminated type; ring and mounting nuts.

Std. Pkg. 25

Cat. No.	Descrip.	Shank Length	Current Rating 125 V.	250 V	List Price
6200	....SPST.	.15/32"..		..3 amps	1.15 ea
6201	....SPST.	.3/4"....		..3 amps	1.40 ea
6202	....SPDT.	.15/32"..	.3 amps.	.1 amp	1.45 ea
6202A	.. 2 Cir.	..15/32"..	.3 amps.	.1 amp	1.55 ea
6203	....SPDT.	.3/4"....	.3 amps.	.1 amp	1.80 ea
6204	....DPST.	.15/32"..	.3 amps.	.1 amp	2.10 ea
6205	....DPST.	.3/4"....	.3 amps.	.1 amp	2.40 ea
6206	....DPDT.	.15/32"..	.3 amps.	.1 amp	2.40 ea
6207	....DPDT.	.3/4"....	.3 amps.	.1 amp	2.65 ea

NAME PLATE ..... Std. Pkg. 100

6208	—On-Off—Fits 15/32" Sleeves	.09 ea
6208A	—Hi-Low—Fits 15/32" Sleeves	.09 ea

BAT HANDLE TOGGLE SWITCHES 11 POSITIVE ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts. 15/32" shank.

Std. Pkg. 25

Cat. No.	Descrip.	Current Rating 125 V	250 V	List Price
6220	.....SPST.....		....3 amps...	1.15 ea
6221	.....SPDT.....	.3 amps.	....1 amp ...	1.45 ea
6221A	... 2 Cir.	.3 amps.	....1 amp ...	1.55 ea
6222	.....DPST.....	.3 amps.	....1 amp ...	2.10 ea
6223	.....DPDT.....	.3 amps.	....1 amp ...	2.40 ea

BAT HANDLE MOMENTARY ACTION 11

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts; 15/32" shank; solder terminals; SPST rated at 3 amps 250V AC-DC, others rated at 1 amp 250V, 3 amps 125V AC-DC. Std. Pkg. 25.

Cat. No.	Descrip.	Type	List Price
6190	...SPST...	Normally Closed (On)	.... 1.85 ea
6191	...SPST...	Normally Open (Off)	.... 1.85 ea
6192	...SPDT...	Normally Closed (On)	.... 2.15 ea
6193	...DPST...	Normally Closed (On)	.... 2.80 ea
6194	...DPST...	Normally Open (Off)	.... 2.80 ea
6195	...DPDT...	Normally Closed (On)	.... 3.10 ea

ST TYPE PER SPEC. JAN-S-23 12

Std. Pkg. 25

Bat handle, back connected, silver plated solder lug contacts; slotted sleeve. Supplied with two hex nuts. Molded phenolic base; 15/32-32 x 15/32" long, nickel finish. They meet, where applicable. All Jan-S-23 and Mil-S-6745 Specs.

Cat. No.	Aws No.	Description	List Price
6250	.....ST-12A.....	SPST.....	2.05 ea
6251	.....ST-12D.....	SPDT.....	2.34 ea
6251C	.....ST-12C.....	SPST.....	2.70 ea
6251V	.....ST-12V.....	2 Circ.....	2.40 ea
6252	.....ST-22K.....	DPST.....	2.95 ea
6252M	.....ST-22M.....	DPST.....	3.55 ea
6253	.....ST-22N.....	DPDT.....	3.20 ea

Cur. rate 125V 6A, 250V 3A, Std. Pkg. 25.

6270*	.....ST-42A.....	SPST.....	2.10 ea
6271*	.....ST-42D.....	SPDT.....	2.45 ea
6249*	.....ST-42E.....	SPDT.....	2.45 ea
6272**	.....ST-52K.....	DPST.....	2.50 ea
6273**	.....ST-52N.....	DPDT.....	2.80 ea
6274**	.....ST-52P.....	DPDT.....	2.80 ea

*Cur. rate 125V 15A, 250V 6A.
**Cur. rate 125V 25A, 250V 9A.
Std. Pkg. 25.

STANDARD DUTY MOM. PUSH BUTTON 13

Molded phenolic base; 15/32-32x7/16" long slotted sleeve; nickel finish; screw terminals; complete with two hex nuts. All accept snap on button; supplied less insulating button. Cur. rate 125V 12A, 250V 6A,

Std. Pkg. 10

Cat. No.	Description	Type	List Price
6238	... SPST...	Normally Closed	.. 3.30 ea
6238B	... SPDT...	Normally Closed (on)	.. 3.50 ea
6238C	...2 Circ.**	Normally Closed (on)	.. 3.50 ea
6226	... DPST*..	Normally Open (off)	.. 3.30 ea
6238D	... DPST*..	Normally Closed (on)	.. 3.30 ea

* 1 H.P. 250 V.A.C.-D.C.
**Cur. rating ½.

STANDARD DUTY TOGGLE SWITCHES 14

Molded phenolic base; 15/32-32 x 7/16" long slotted sleeve; nickel finish; screw terminals; complete with one hex nut, one knurled nut.

QUICK MAKE AND BREAK BAT

Cat. No.	Descrip.	Current Rating AC-DC 125 V	250 V	List Price
6225A	.... SPST	12 amps....	6 amps..	2.20 ea
6225B	.... SPDT	12 amps....	6 amps..	2.20 ea
6225C	....2 Circ.....	6 amps....	3 amps..	2.20 ea
6225	.... DPST*...	12 amps....	6 amps..	2.20 ea

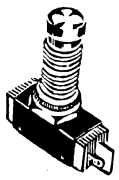
* 1 HP 250 V. Std. Pkg. 10.

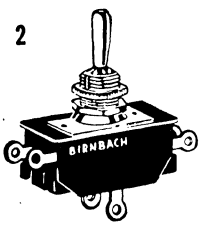
EXTRA HEAVY DUTY POWER SWITCHES 15 3 POSITION—POSITIVE CENTER OFF

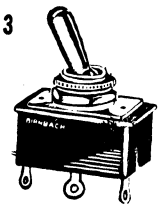
Molded phenolic base; screw terminals; slotted sleeve ¾-32; nickel finish; with two hex nuts. Rated at 5 Amps—250 V, 10 Amps—125 V.

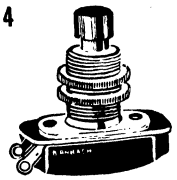
Cat. No.	Description	Circuit	List Price
6227	DPDT ¾ H.P. 250 V.A.C.-D.C.	....	8.15 ea
6228	3PDT ½ H.P. 115/230 V.A.C.	3 phase	12.55 ea
6229	4PDT ½ H.P. 115/230 V.A.C.	2 phase	16.75 ea

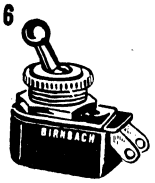
Std. Pkg. 10.

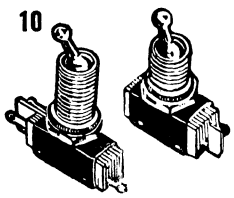


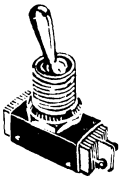


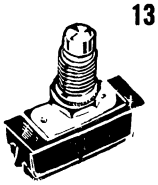


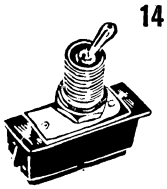


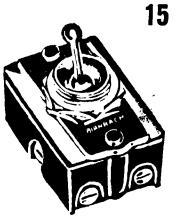


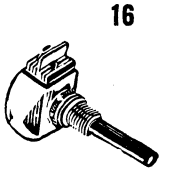












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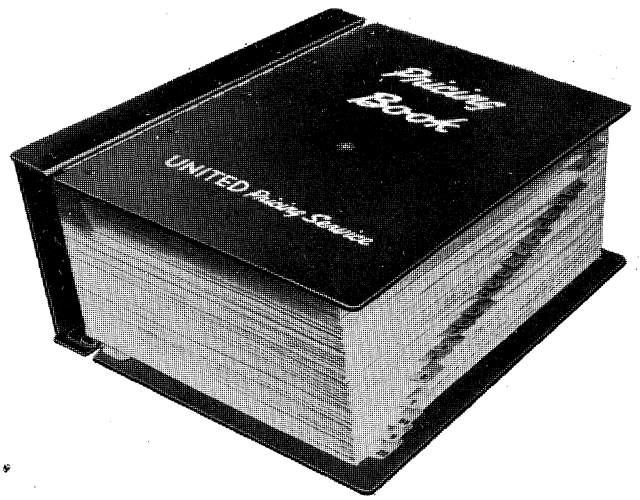

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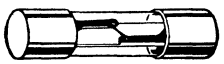
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

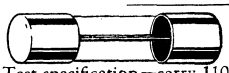
FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, Etc.



Formerly called 8AG.
Dimension ¼ x 1 inch, Glass tube.

Provide high speed action necessary to protect sensitive instruments.
Listed by Underwriters' Laboratories Inc.
Test specification—carry 100%, open at 200% in 5 seconds

Voltage	Symbol	Amperes	List Price
250 or less	AGX	1/500	$1.39
"	AGX	1/200	.58
"	AGX	1/100	.52
"	AGX	1/32	.45
250 or less	AGX	1/16	.28
"	AGX	1/10, 1/8, 3/16, 2/10	.21
"	AGX	1/4, 3/8, 4/10, 1/2 or 3/4	.14
"	AGX	1	.084
"	MKB	1/16 or 1/8	.45
125 or less	AGX	1 1/2 or 2	.084



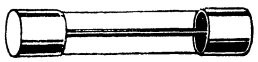
Formerly called 8AG
Dimension ¼ x 1 inch, Glass tube.

Test specification—carry 110%, open at 135% within 1 hour.
125 volt sizes are listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
125 or less	AGX	3, or 4	$0.084
"	AGX	5	.053
32 or less	AGX	8, 10, 15 or 20	.053
"	AGX	25 or 30	.063

MJB & MJW FUSES NOW CALLED AGX

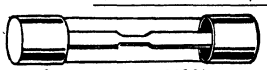
BUSS GLASS TUBE FUSES, ¼ x 1¼ inch



Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price	Voltage	Symbol	Amperes	List Price
250 or less	AGC	1/500	$1.39	250 or less	AGC	175/1000	$0.21
"	AGC	1/200	.58	"	AGC	3/16, 2/10	.21
"	AGC	1/100	.52	"	AGC	1/4, 3/10, 3/8	.14
"	AGC	1/32	.45	"	AGC	45/100, 1/2, 3/4	.14
"	AGC	1/16	.21	"	AGC	1, 1 1/4, 1 1/2, 2	.084
"	AGC	1/8	.21	"	MGB	1/16 or 1/8	.45
"	AGC	15/100	.21	"	AGC	3	.074
				"	MTH	4, 5 or 6	.105



Formerly called 3AG

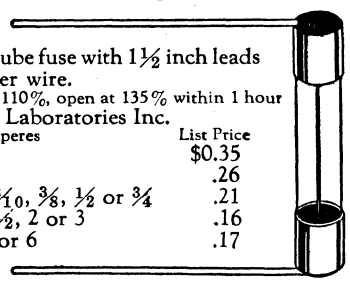
Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	List Price
125 or less	GLH	8 or 10	$0.16
32 or less	AGC	4	.074
"	AGC	5, 6, 7½, 8, 10 or 15	.053
"	AGC	20	.047
"	AGC	25 or 30	.063

20 ampere size is an SFE 20 fuse.
Sizes larger than 30 ampere are not recommended as clips or fuse holders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL Fusetron dual-element fuses.

MBW & MBB FUSES NOW CALLED AGC

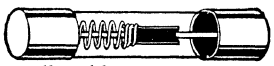
BUSS PIG-TAIL FUSES



¼ x 1¼ inch Glass tube fuse with 1½ inch leads of No. 20 tinned copper wire.
Test specifications—carry 110%, open at 135% within 1 hour
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	GJV	1/16	$0.35
"	GJV	1/8	.26
"	GJV	1/4, 3/10, 3/8, 1/2 or 3/4	.21
"	GJV	1, 1½, 2 or 3	.16
"	GJV	4, 5 or 6	.17

FUSETRON FUSES, ¼ x 1¼ inch



DUAL-ELEMENT SLOW BLOWING TYPE

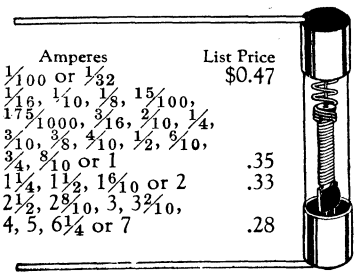
Stop needless blows from starting currents or surges. Fuse link operates only on very high overloads or short-circuits. Thermal cutout functions on low overloads — cannot operate quickly at any load, so long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.
Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load **MDL** 25 sec. **MDX** 12 sec.
at 300% " " 8 " " 3 "
at 500% " " 3 " " ½ "

125 and 250 volt sizes listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	MDL	1/100 or 1/32	$0.39
250 or less	MDL	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10 or 1	.28
"	MDX	1 1/4, 1 1/2, 1 6/10 or 2	.32
125 or less	MDL	1 2/10, 1 1/4, 1 1/2, 1 6/10 or 2	.26
"	MDL	2 1/2 or 2 8/10	.21
"	MDX	3, 3 2/10, 4 or 5	.21
"	MDX	6 1/4 or 7	.24
32 or less	MDL	3, 3 2/10, 4, 5, 6 1/4, 8, 10, 15, 20, 25 or 30	.21

FUSETRON PIG-TAIL FUSES

Leads are No. 20 tinned wire 1½ inch long. Listed by Underwriters' Laboratories Inc. Test specifications and performance, MDV 1/100 to 2 8/10 amps. same as MDL fuses. 3 to 7 amps. same as MDX fuses.



Voltage	Symbol	Amperes	List Price
250 or less	MDV	1/100 or 1/32	$0.47
"	MDV	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 3/4, 8/10 or 1	.35
125 or less	MDV	1 1/4, 1 1/2, 1 6/10 or 2	.33
"	MDV	2 1/2, 2 8/10, 3, 3 2/10, 4, 5, 6 1/4 or 7	.28

BUSS INDICATING FUSES, ¼ x 1¼ inch

Fibre Tube. Silverplated indicating pin extends from end of fuse when fuse is blown. This pin can also be used to actuate a signal by using fuses in BUSS HKA Fuseholders or BUSS Signal Fuse Blocks. GLD fuses in sizes larger than 5 amperes have dual tube construction. They can be used in BUSS Signal Fuse Blocks but not in HKA Fuseholders.
125 volt sizes listed by Underwriters' Laboratories Inc.
Test specifications—carry 110% open at 135% in one hour or less.

Voltage	Symbol	Amperes	List Price
125 or less	GLD	¾	$0.66
"	GLD	1, 2, 3, or 5	.50
32 or less	GLD	8, 10, 12 or 15	.70

13/32 x 1½ inch INDICATING FUSES

250 or less	MIC	1, 2, 3, 5, 10 or 15	.58
32 or less	MIC	20, 25 or 30	.58

250 volt sizes listed by Underwriters' Laboratories Inc.

Fuses made in accordance with Military Specifications.

			List Price
250 or less	MIN	1, 2, 3, 5, 10 or 15	$0.51
125 or less	MIN	20, 25 or 30	.51

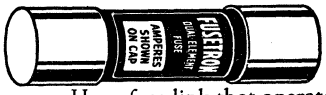
BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES
13/32 x 1½ inch



Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds.
at 300% load 8 seconds.
at 500% load 5 seconds.

125 and 250 volt sizes listed by Underwriters' Labs., Inc.

Voltage	Symbol	Amperes	List Price
250 or less	FNM	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10, 1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6¼, 7, 8, 9 or 10	$0.35
125 or less	FNM	12 or 15	.35
32 or less	FNM	20, 25 or 30	.35

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

Voltage	Symbol	Amperes	List Price
250 or less	FNA	1/10, 15/100, 2/10, 3/10, 4/10, ½, 6/10, 8/10	$0.656
125 or less	FNA	1, 1⅛, 1¼, 1 4/10, 1 6/10, 1 8/10, 2, 2¼, 2½, 2 8/10, 3, 3 2/10, 3½, 4, 4½, 5, 5 6/10, 6, 6¼, 7, 8, 10	.656
"	FNA	12 or 15	.722
32 or less	FNA	20, 25 or 30	.722

BUSS LIMITRON FUSES

600 Volt. 13/32 x 1⅜ inch. Fibre tube. For protection of control circuits or wherever a fuse with "quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	BBS	4/10, ¾ or 8/10	$0.23
600 or less	BBS	1, 2, 3, 4 or 5	0.21

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.

Buss LIMITRON Fuses

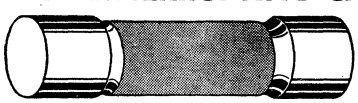
For Protection of Semi-Conductor Rectifiers

These fuses furnished with type of terminals needed to meet requirements for easy mounting.

Available in three voltage ranges. Type KAA and type KAH for 130 volts or less. Type KAB for 250 volts or less. Type KAC and type KAJ for 600 volts or less.

Tell us your requirements.

HIGH INTERRUPTING CAPACITY FUSES
13/32 x 1½ inch

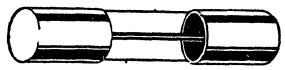


Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 68,000 amperes at voltages of 500 or less AC or DC.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
500 or less	KTK	1/10, ⅛, 2/10, ¼, 3/10, ½, ¾, 1, 1½, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25 or 30	$1.33

BUSS GLASS TUBE FUSES
9/32 x 1¼ inch



Formerly called 4 AG.

Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	AGS	1/16	$0.44
	AGS	⅛	.30
	AGS	¼, or ½	.15
	AGS	1, 2, 2½ or 3	.14
32 or less	AGS	5, 10, 15, 20, 25, 30	.12
	AGS	35, 40 or 50	.14

BUSS HIGH VOLTAGE FUSES

HVA and HVB

HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	HVA	⅜, ½, ¾, 1, 1½ or 2	13/32	3	$0.29
2500 or less	HVB	½, ¾, 1, 1½ or 2	13/32	4½	0.38
5000 or less	HVJ	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	5	0.70
10000 or less	HVL	1/16, ⅛, ¼, ⅜, ½, ¾, 1, 1½ or 2	13/16	10	1.40

BUSS TWIN-CLIPS for ¼" FUSES

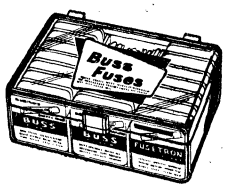
Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails.

Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

	List Price
No. 4121 BUSS Twin Clips	One pair $0.20

BUSS FUSE TV Service Kit Assortment

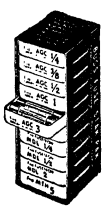


Contains 101 of the most popular fuses — 20 slide-cover metal boxes — and five pair of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box.

Symbol, **TV-STD** List Price $19.25

BUSS Fuse STAK-PAK

An On-the-Job TV Service Kit Fuse Assortment



Ten individual 5-in. metal boxes — 50 popular fuses — assembled into 1 unbreakable metal container.

Two BUSS Fuse STAK-PAK assortments available to supply a TV serviceman with all the fuses necessary.

SP-1 Standard Stak-Pak Assortment — List Price $8.22
(Supplies popular ampere sizes of AGC, AGX, MDL, MTH)

SP-2 C & N Stak-Pak Assortment — List Price $11.88
(Supplies popular ampere sizes of these fuses)

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

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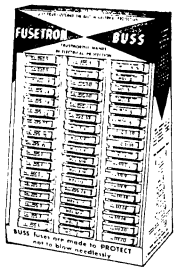
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS ELECTRONIC FUSE ASSORTMENTS
. . . with hand inventory feature



Helps serviceman have fuse he needs right in front of him . . . no delay in work to find a fuse. Keeps all the fuse stock normally needed for complete servicing of TV sets in smallest possible space.

Each 5-in metal box has its own shelf . . . Size and type of fuse shown on label at back of shelf . . . when shelf is empty label shows what fuses need to be immediately reordered.

		List Price
No. 255	Full-Service Electronic Fuse Assortment (255 fuses — 30 different sizes)	$38.74
No. 180	Special Electronic Fuse Assortment (130 fuses — 26 different sizes)	$19.67

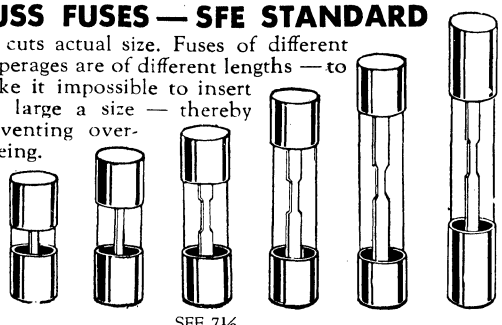
BUSS GRASSHOPPER FUSES

Give a visible signal or activate an alarm circuit when blown. Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color Code	
35A	1 1/3	90 or less	White	
35B	1 1/3	90 or less	White	
35B	2	90 or less	Orange	
35C	2	90 or less	Orange	
35D	1 1/3	90 or less	White	
35E	3	90 or less	White	Prices
35F	1/2	90 or less	Red	
35G	3	90 or less	Blue	
35H	5	90 or less	Green	
35R	18/100	90 or less	Yellow	on
35T	65/100	90 or less	Tan	
35J	1/2	160 or less	Red	
35K	1 1/3	160 or less	White	
35L	2	160 or less	Orange	Request
35M	3	160 or less	Blue	
35N	5	160 or less	Green	
35P	3/4	160 or less	Tan	
35S	1/4	160 or less	Pink	

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.

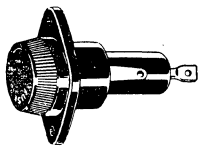


SFE 4 | SFE 6 | SFE 7½ & SFE 9 | SFE 14 | SFE 20 | SFE 30

Glass tube — diameter 1/4 inch. Length as per table below.
Test specification—carry 100%, open at 125% within 1/2 hour.
Listed by Underwriters' Laboratories Inc.
Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Pounds per 100	List Price
32 or less	**SFE 4**	5/8	.73	$0.058
"	**SFE 6**	3/4	.75	.058
"	**SFE 7½**	7/8	.80	.053
"	**SFE 9**	7/8	.80	.053
"	**SFE 14**	1 1/16	.82	.047
"	**SFE 20**	1 1/4	.87	.047
"	**SFE 30**	1 7/16	1.60	.063

PANEL MOUNTED HOLDERS
for 13/32 x 1½ inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15 ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) ..... List Price $0.80
HPC-C (Same as above, but has transparent knob) ..... List Price $1.00

HPC-L Holder for 13/32 x 13/8 inch Fuses.
Like **HPC** Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.
HPC-L (for BBS fuses) ..... List Price $0.80

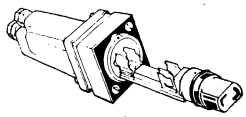
PANEL MOUNTED HOLDERS for ¼ inch Fuses

Can be used on panels up to 5/16 inch thick.
Bayonet type knob. No screw driver is needed.
Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.
Vibration will not cause failure of terminals as they are designed to stand severe service.
Neoprene washer and steel locking nut furnished with each holder.
Wire hole in terminals; .115 inch.
Normal current carrying capacity; 30 amperes.
Listed by Underwriters' Laboratories Inc.

		List Price
HJM	for ¼ x 1 inch fuses (AGX, SFE 14)	$0.52
HJM-CC	(Same as HJM but projects shorter distance behind panel)	.52
HKP	for ¼ x 1¼ inch fuses (ABC, AGC, SFE20, MDL, MDX, MTH)	.52
HKP-CC	(Same as HKP but projects shorter distance behind panel)	.52

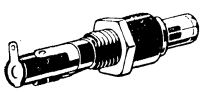
PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS
for ¼ x 1¼ and 13/32 x 1½ inch fuses

Made to Military Specifications.
Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyd.



Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	¼ x 1¼	100 to 250	30	Prices
HGA-C	Two	¼ x 1¼	100 to 250	30	on
HGC	Single	13/32 x 1½	200 to 500	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting ¼ x 1 and ¼ x 1¼ inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	Type Lamp	List Price
HKL	¼ x 1¼	100 to 250	20	Neon	$2.15
HKL-X	¼ x 1¼	100 to 250	20	Neon	2.15
HKR	¼ x 1¼	24 to 32	20	Incand.	3.50
HKX	¼ x 1¼	24 to 32	20	Incand.	3.50
HKT	¼ x 1¼	10 to 14	20	Incand.	3.50
HKU	¼ x 1¼	4 to 6	20	Incand.	3.50
HJL	¼ x 1	100 to 250	20	Neon	2.15

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed

Tron fuses are so small they can easily be used as an integral part of circuit — to protect miniaturized devices — or gigantic multi-circuit electronic devices — without sacrifice of space.

Fuse element hermetically sealed

Tron fuses may be potted or encapsulated without danger of sealing material affecting operation. Not affected by atmospheric or surrounding conditions. Designed for installation in high shock and vibration ambients.

They are self-protecting and operate without exterior flash or venting, so they can be installed anywhere in the circuit. Likewise, they may be teamed in one capsule or replaceable unit with such components as resistors or condensers.

Available in ratings from 1/20 to 5 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes.

Color coding indicates ampere rating and assists in final inspection of fused circuits.

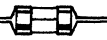
Made with 1½ inch axial pigtails that are adapted to feed through automatic wire forming machines — or with 1 inch right angle pigtails conveniently spaced for assembly on printed circuit chassis. Leads are of No. 24 tinned copper wire.

Test specifications —

Characteristic A — Carry 100% load, open within 10 seconds at 200% load.

Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

GFA TRON Fuses

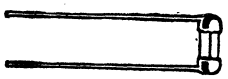


Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms
GFA 1/20	A	Yellow	Yellow	20.0
GFA 1/16	A	Brown	Brown	9.0
GFA 1/10	A	Red	Red	4.0
GFA 1/8	A	Orange	Orange	3.0
GFA 15/100	B	Red	Yellow	2.1
GFA 2/10	B	Red	Blue	1.8
GFA 1/4	B	Red	Purple	0.9
GFA 3/10	A	Green	Green	0.7
GFA 4/10	A	Blue	Blue	0.48
GFA 1/2	B	Orange	Green	0.35
GFA 6/10	B	Orange	Blue	0.25
GFA 3/4	B	Orange	Purple	0.22
GFA 1	B	Yellow	Green	0.17
GFA 1½	B	Yellow	Purple	0.12
GFA 2	B	Green	Blue	0.07
GFA 3	B	Blue	Purple	0.05
GFA 4	B	Purple	Brown	0.040
GFA 5	B	Brown	Black	0.035

Prices on Request

GLN and GLX TRON Fuses



Body size only .140 x .300 inches

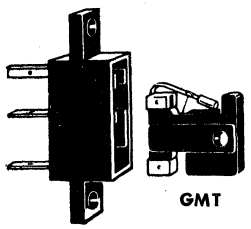
Symbol & Amperes	Test Specification	Color Code One End	Color Code Other End	*Approximate Resistance in Ohms
GLN 1/20	A	Yellow	Yellow	20.0
GLN 1/16	A	Brown	Brown	9.0
GLN 1/10	A	Red	Red	4.0
GLN 1/8	A	Orange	Orange	3.0
GLN 3/10	A	Green	Green	0.7
GLN 4/10	A	Blue	Blue	0.48
GLX 15/100	B	Red	Yellow	2.1
GLX 2/10	B	Red	Blue	1.8
GLX 1/4	B	Red	Purple	0.9
GLX 1/2	B	Orange	Green	0.35
GLX 6/10	B	Orange	Blue	0.25
GLX 3/4	B	Orange	Purple	0.22
GLX 1	B	Yellow	Green	0.17
GLX 1½	B	Yellow	Purple	0.12
GLX 2	B	Green	Blue	0.07
GLX 3	B	Blue	Purple	0.05
GLX 4	B	Purple	Brown	0.040
GLX 5	B	Brown	Black	0.035

Prices on Request

*Cold resistance obtained on Wheatstone Bridge. Other ratings are available with a nominal test charge.
Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating
Alarm Activating



GMT

HLT

For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only ¼ inch horizontal by $1\frac{15}{32}$ inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code

300 volts or less

Test specification — carry 100% for 10 minutes; open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 18/100	YELLOW	GMT 1⅓	WHITE
GMT ¼	VIOLET	GMT 2	ORANGE
GMT ½	RED	GMT 3	BLUE
GMT 65/100	BLACK	GMT 5	GREEN
GMT ¾	BROWN	GMT 7½	BLACK-WHITE
GMT 1	GRAY	GMT 10	RED-WHITE

Symbol GMT (All Sizes) — List Price $0.62

Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses.

HLT — List Price $0.66

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

Trade Discount Applies To List Prices Only

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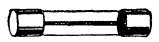
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

5 mm x 20 mm (.197 x .769 inches)

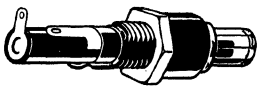


Made to International Standards for Electrical Equipment. Designed for protection of miniaturized circuits or equipment

Test specifications — Carry 100% load indefinitely.
Open at 150% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	GMA	1/8	$0.43
	GMA	1/4, 1/2, or 7/10	.32
	GMA	1, 1 1/10, 1 1/2, or 2	.26
	GMA	3, 4, 5, 6, or 10	.27

GJU fuses now called GMA.



HKA SERIES

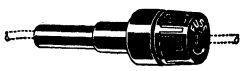
Lamp Indicating, Signal Activating holders for 1/4 x 1 1/4 inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol		List Price
HKA	for 1/4 x 1 1/4 inch GLD fuses, 3/4 to 5 amps.	$4.70

GLD fuses listed under Indicating fuses.

IN-THE-LINE HOLDERS for 1/4 inch fuses



For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.

Holders can also be mounted in panel up to 5/16 inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

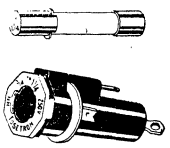
Symbol	Fuse Size Inches	List Price
HHJ	1/4 x 1 1/4	$0.25
HHI	1/4 x 1 or 1 1/16	.25
HHH	1/4 x 7/8	.25
HIG	1/4 x 3/4	.25
HIF	1/4 x 5/8	.25

SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	1/4 x 1 1/4	$0.20
HDI	1/4 x 1 or 1 1/16	.20
HDH	1/4 x 7/8	.20
HAG	1/4 x 3/4	.20
HAF	1/4 x 5/8	.20
No. 9969	Spring nut for panel mounting above holders	.033

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder.
Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE		FUSEHOLDER	
Symbol & Amperes	List Price	Symbol & Range	List Price
N 1/100	$0.41		
N 1/32	.41		
N 1/16	.295		
N 1/10	.295	HN	
N 1 5/100	.295	0 to 3/10	$0.21
N 2/10	.295		
N 1/4	.295		
N 3/10	.295		
N 4/10	.295	HN	
N 1/2	.295	3/10 to 1/2	.21
N 6/10	.295		
N 7/10	.295	HN	
N 3/4	.295	1/2 to 3/4	.21
N 8/10	.295		
N 1	.295	HN	
N 1 1/4	.27	3/4 to 1 1/4	.21
N 1 6/10	.27	HN	
N 1 3/4	.27	1 3/10 to 1 3/4	.21
N 2	.27	HN	
N 2 1/2	.25	1 3/4 to 2 1/2	.21
N 2 8/10	.25		
N 3 2/10	.25	HN	
N 3 1/2	.25	2 1/2 to 3 1/2	.21
N 4	.25	HN	
N 5	.25	3 1/2 to 5	.21
N 6 1/4	.25	HN	
N 7	.25	5 to 7	.21

BUSS FUSE		FUSEHOLDER	
Symbol & Amperes	List Price	Symbol & Range	List Price
C 1/32	$0.44		
C 1/16	.28		
C 1/8	.22	HC	
C 3/16	.22	0 to 3/10	$0.21
C 1/4	.17		
C 3/10	.17		
C 3/8	.17	HC	
C 1/2	.17	3/10 to 1/2	.21
C 3/4	.17	HC 1/2 to 3/4	.21
C 1	.095	HC	
C 1 1/4	.095	3/4 to 1 1/4	.21
C 1 1/2	.095	HC	
C 1 3/4	.095	1 1/4 to 1 3/4	.21
C 2	.095	HC	
C 2 1/2	.095	1 3/4 to 2 1/2	.21
C 3	.095	HC	
C 3 1/2	.125	2 1/2 to 3 1/2	.21
C 4	.125	HC	
C 5	.125	3 6/10 to 5	.21
C 6	.125	HC	
C 7	.125	5 to 7	.21
C 8	.18	HC	
C 10	.19	7 to 10	.21

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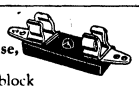
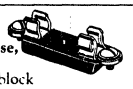
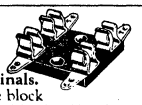
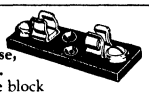
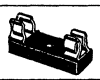
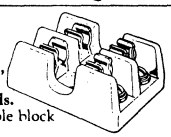
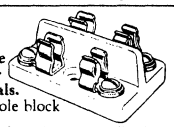
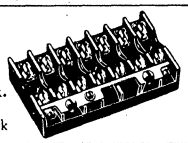
BUSS Fuses

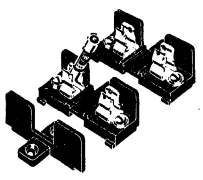
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS FUSE and BUSS SILICON RECTIFIER BLOCKS

Type of Block	Poles	For ¼ x 1 inch Fuses		For ¼ x 1¼ inch Fuses		For ¼ x 1-7/16 inch Fuses		For 9/32 x 1¼ inch Fuses		For 13/32 x 1½ inch Fuses	
		No.	List Price	No.	List Price	No.	List Price	No.	List Price	No.	List Price
 **Small bakelite base, solder terminals.** Cut shows 1 pole block	1 Pole	4520	$0.22	4405	$0.22			4413	$0.36	4421	$0.54
	2 Pole	4485	.44	4408	.44			4416	.72	4424	1.08
	3 Pole	4403	.66	4411	.66			4419	1.08	4428	1.62
 **Small bakelite base, screw terminals.** Cut shows 1 pole block	1 Pole	4399	$0.36	4407	$0.36			4415	$0.59	4423	$0.59
	2 Pole	4402	.72	4410	.72			4418	1.18	4427	1.18
	3 Pole	4404	1.08	4412	1.08			4420	1.77	4429	1.77
 **Small bakelite base, solder side terminals.** Cut shows 2 pole block	1 Pole	4398	$0.22	4406	$0.22			4414	$0.36	4422	$0.54
	2 Pole	4401	.44	4409	.44			4417	.72	4426	1.08
 **Full bakelite base, screw terminals.** Cut shows 1 pole block	1 Pole	4514	$0.47	4512	$0.47	4513	$0.59	4481	$0.59	4515	$0.68
	2 Pole	4524	.94	4522	.94	4523	1.18	4482	1.18	4525	1.37
	3 Pole	4534	1.41	4532	1.41	4533	1.77	4483	1.77	4535	2.05
 **Spare fuse block. Bakelite base.**	1 Pole	4393	$0.22	4574	$0.22						
 **Porcelain base, side barrier, screw terminals.** Cut shows 2 pole block	1 Pole			4396	$0.53					3792	$0.79
	2 Pole			4161	1.05					4439	2.36
	3 Pole										
 **Porcelain base center barrier screw terminals.** Cut shows 2 pole block	2 Pole									4575	$1.47
Porcelain base, side barrier, screw terminals. Cut shows 1 pole block	1 Pole 3845 For 13/32 x 1⅜ inch Fuses (BUSS BBS) — Price Each $0.79										
 **Signal Fuse block.** Cut shows 7 pole block	4 Pole 3839 For 13/32 x 1½ inch BUSS FNA fuses—Prices on request										
	7 Pole 4178 For ¼ x 1¼ BUSS GLD fuses—Prices on request										
BUSS SILICON RECTIFIER BLOCKS											
Silicon rectifier block. Solder terminals. Cut shows 1 pole block	1 Pole 3794 $0.22										
	2 Pole 3795 .44										

BUSS Add-On Fuse Blocks for $^{13}/_{32}$ x 1½ inch Fuses



Single-pole fuse blocks and separate end barrier assemble into a unit block of one or more poles. Units lock in position. Assembled block becomes a single unit.

Each fuse can be used as a disconnect. See illustration. Raised fuse identifies open circuit and prevents confusion in getting right fuse back in circuit.

Marking strips so each circuit can be identified available.

No.		
3949	Assembly consisting of one No. **3742** End Barrier **—plus specified** number of No. **3743** One-Pole Blocks	
3742	End-Barrier Only	$ .30
3743	One-Pole Block Only	1.50
Marking Strip	in 50 inch lengths	$0.55 per length

When ordering, be sure to specify number of End Barriers and number of One-Pole Blocks desired. Only ONE End Barrier is required for each assembled fuse block of any number of poles.

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military specifications also are available.

If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

Printed in U. S. A. 261

Trade Discount Applies To List Prices Only

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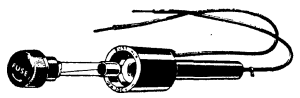
BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE & HOLDER COMBINATIONS

Non-Indicating
For voltages up to 300



In these two fuse and holder combinations the fuse and knob of fuseholder are in one piece. When fuse blows, the entire fuse-knob assembly is replaced.

This gives added safety to the circuit because neither the HLR or the HLQ holder will take an ordinary type fuse. Thus a blown fuse must be replaced with the type of fuse originally installed.

Fuseholders can be mounted in-the-line — or panel mounted.

For panel mounting a snap-in steel clip is available that makes it easy to mount fuseholders.

Test specifications for GLR, GLQ, GMF, GMQ fuses

Carry 110%; open at 135% within one hour.
Listed by Underwriters' Laboratories, Inc.

Shipping wt. per 100: GLR and GLQ 1.5 lbs., GMF and GMQ 1.4 lbs.

HLR and HLQ Fuseholders

Recognized under the components program of Underwriters' Laboratories, Inc.

Shipping wt. HLR and HLQ holders 3.13 lbs. per 100.

Lead-in-Wires — Unless otherwise specified, HLR and HLQ holders are furnished with 6 inch leads of No. 18 solid copper wire with high temperature insulation. The bottom wire carries a clip to prevent it from sliding into holder. Leads of other types of wire can be furnished to your specification at slight additional cost.

Mounting Clip No. 6374 — BUSS Snap-in Steel Clip is available for mounting HLR and HLQ holders on any panel 1/32 to 1/16 inch thick. To mount holder, insert clip into mounting hole BEFORE INSERTING HOLDER. Then push holder into position in panel.

Packing — Fuses and holders are normally packed separately. Carton quantity: Fuses 5, Holders 10.

For production use, holders and fuses can be obtained packed separately, 100 to a carton.

Fuses assembled in holders also are available for a small additional charge.

HLR HOLDER SAFEGUARDS AGAINST USE OF WRONG TYPE OF FUSE

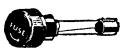
HLR fuseholders make it simple to protect a wide variety of devices or equipment from damaging fault currents because it is designed to take only GLR or GMF fuses.

HLR Fuseholder

Symbol		List Price
HLR	takes all sizes GLR and GMF Fuses	$0.22

GLR Buss Glass Tube Fuses

Single-Element
Quick-Blowing Type

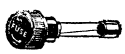


GLR BUSS fuses are "quick-blowing" type for use where delay in the fuse opening might cause damage.

Voltage	Symbol	Amperes	List Price
300 or less	**GLR**	1, 1½, 1 6/10, 2, 2½, 3, 4, 5, or 6	$0.12
300 or less	**GLR**	7, 8, 9, or 10	.13

GMF Fusetron Glass Tube Fuses

Dual-Element
Time-Delay Type



GMF FUSETRON fuses are "slow-blowing" type for use where harmless surges or starting currents might cause ordinary fuses to open needlessly.

Voltage	Symbol	Amperes	List Price
300 or less	**GMF**	½, 6/10, 8/10, 1, 1¼, 1 6/10, 2, 2½, or 2 8/10	$0.36
300 or less	**GMF**	3 2/10, 4, 5, or 6¼	.36

HLQ HOLDER PREVENTS TOO LARGE A FUSE BEING USED

GLQ BUSS fuses or GMQ FUSETRON fuses used in HLQ fuseholders give a size limiting combination.

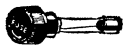
Each type of fuse is available in 13 ampere sizes, for voltages of 300 or less.

Over-fuseing is prevented because ears on fuses match slots in holder. This prevents use of a fuse of larger ampere size than marked in holder.

This stops anyone from heedlessly replacing a blown fuse with one of a size too large to protect the circuit or equipment.

GLQ Buss Glass Tube Fuses

Single-Element
Quick-Blowing Type



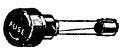
GLQ BUSS fuses are "quick-blowing" type for use where delay in the fuse opening might cause damage.

Symbol	Amperes	List Price
GLQ	1, 1½, 1 6/10, 2, 2½, 3, 4, 5, or 6	$0.12
GLQ	7, 8, 9, 10	.13

Carry 110%; open at 135% within one hour. Listed by Underwriters' Laboratories, Inc.

GMQ Fusetron Glass Tube Fuses

Dual-Element
Time-Delay Type



GMQ FUSETRON fuses are "slow-burning" type for use where harmless surges or starting currents might cause ordinary fuses to open needlessly.

Symbol	Amperes	List Price
GMQ	½, 6/10, 8/10, 1, 1¼, 1 6/10, 2, 2½, 2 8/10 3 2/10, 4, 5, 6¼	$0.36

Carry 110%; open at 135% within one hour. Listed by Underwriters' Laboratories, Inc.

HLQ Fuseholders

HLQ fuseholders take either GLQ or GMQ fuses up to the largest ampere size marked in the holder. They are made in 6 fuse ranges. The top figure of the range indicates the largest fuse that the holder will accept.

Symbol		List Price
HLQ	takes all sizes GLQ and GMQ Fuses	$0.25

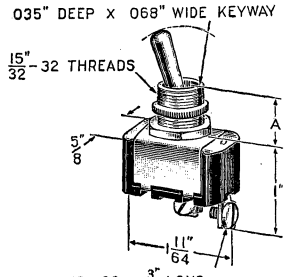
BUSS GLQ Fuses Symbol & Amperes	FUSETRON GMQ Fuses Symbol & Amperes	HLQ Fuseholders Catalog Symbol	HLQ Fuseholders Fuse Range
	GMQ ½	HLQ ½	0 to ½
	GMQ 6/10		
	GMQ 8/10		
GLQ 1	GMQ 1	HLQ 1 6/10	0 to 1 6/10
GLQ 1½	GMQ 1¼		
GLQ 1 6/10	GMQ 1 6/10		
GLQ 2	GMQ 2		
GLQ 2½	GMQ 2½		
GLQ 3	GMQ 2 8/10	HLQ 3 2/10	0 to 3 2/10
	GMQ 3 2/10		
GLQ 4	GMQ 4		
GLQ 5	GMQ 5	HLQ 5	0 to 5
GLQ 6	GMQ 6¼		
GLQ 7		HLQ 8	0 to 8
GLQ 8			
GLQ 9			
GLQ 10		HLQ 10	0 to 10

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

SWITCHES - TOGGLE

*For COLORED PLASTIC Toggles—Inquire

Heavier Duty Types of these Switches Available — Inquire

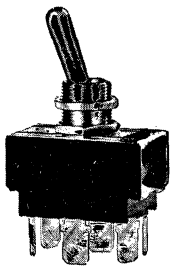


#6-32 x 3/16" LONG BINDING HEAD SCREWS "F" Series

Single Pole ("F" Series)

CATALOG NUMBERS — NOMINAL RATINGS: 15 Amp—125 V. A.C., 10 Amp—250 V. A.C., ¾ H.P.—115-230 V. A.C.		6 Amp—125 V. A.C., 3 Amp—250 V. A.C., ¼ H.P.—115-230 V. A.C.		ELECTRICAL CIRCUIT CHARACTERISTICS (NOTE—Keyway Indicates "Down" Position)		
SOLDER LUGS	SCREW TERMINALS	SOLDER LUGS	SCREW TERMINALS	UP POSITION	CENTER POSITION	DOWN POSITION
*2FA53	*2FA54	2FA63	2FA64	On	None	Off
6FA57	6FA58	6FA67	6FA68	On	None	Momentarily Off
6FA53	6FA54	6FA63	6FA64	Off	None	Momentarily On
2FB53	2FB54	2FB63	2FB64	On	None	On
2FC53	2FC64	2FC63	2FC64	On	Off	On
6FB53	6FB54	6FB63	6FB64	On	None	Momentarily On
6FC53	6FC54	6FC63	6FC64	Momentarily On	Off	Momentarily On
6FC57	6FC58	6FC67	6FC68	On	Off	Momentarily On

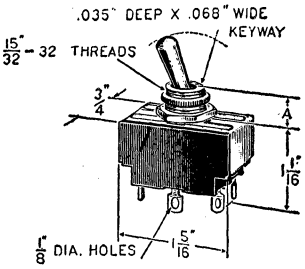
Note: For Cross Connected Reversing, Progressive Circuits, and other multiple circuit applications—Inquire.



For TAB Terminals as above Add Suffix — "TABS"

Double Pole ("G" Series)

CATALOG NUMBERS — NOMINAL RATINGS: 15 Amp—125 V. A.C., 10 Amp—250 V. A.C., ¾ H.P.—115-230 V. A.C.		6 Amp—125 V. A.C., 3 Amp—250 V. A.C., ¼ H.P.—115-230 V. A.C.		ELECTRICAL CIRCUIT CHARACTERISTICS (NOTE—Keyway Indicates "Down" Position)		
SOLDER LUGS	SCREW TERMINALS	SOLDER LUGS	SCREW TERMINALS	UP POSITION	CENTER POSITION	DOWN POSITION
2GK53	2GK54	2GK63	2GK64	On	None	Off
6GK57	6GK58	6GK67	6GK68	On	None	Momentarily Off
6GK53	6GK54	6GK63	6GK64	Off	None	Momentarily On
2GL53	2GL54	2GL63	2GL64	On	None	On
2GM53	2GM54	2GM63	2GM64	On	Off	On
6GL53	6GL54	6GL63	6GL64	On	None	Momentarily On
6GM53	6GM54	6GM63	6GM64	Momentarily On	Off	Momentarily On
6GM57	6GM58	6GM67	6GM68	On	Off	Momentarily On

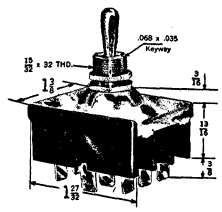


"G" Series (above)

CATALOG NUMBER SUFFIX FOR TOGGLE and STEM LENGTHS (Bat Toggle Only)					
TOGGLE LENGTH	STEM LENGTH	SUFFIX NO.	TOGGLE LENGTH	STEM	SUFFIX NO.
13/32"	11/32"	—52	1"	11/32"	—A2
9/16"	11/32"	—62	1"	15/32"	—A3
9/16"	15/32"	—63	1 1/4"	15/32"	—B3
11/16"	1/2"	—72	3"	15/32"	—I3
11/16"	15/32"	—73			

*Note: #2FA53 and #2FA54 have a higher rating of 1 H.P.

RATING:
13 Amp.—125 V. A.C.
10 Amp.—250 V. A.C.
1 H.P.—1, 2, 3 Phase
120-240 V. A.C.

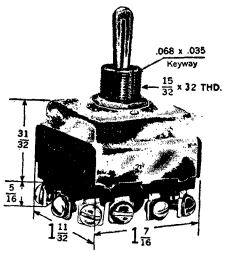


"H" SERIES
Illustration is with Tab type terminals

Three Pole ("H" Series)

CATALOG NUMBERS — TERMINALS			CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE		
LUG	SCREW	TAB	UP	CENTER	DOWN
HK233	HK234	HK23A	On	None	Off
HK633	HK634	HK63A	Off	None	Momentarily On
HK637	HK638	HK63B	On	None	Momentarily Off
HL233	HL234	HL23A	On	None	On
HL633	HL634	HL63A	On	None	Momentarily On
HM233	HM234	HM23A	On	Off	On
HM633	HM634	HM63A	Momentarily On	Off	Momentarily On
HM637	HM638	HM63B	On	Off	Momentarily On

RATING: 15 Amp.—125 V. A.C.
10 Amp.—250 V. A.C.



"I" SERIES
Illustration above shows Screw Terminals

Four Pole ("I" Series)

CATALOG NUMBERS — TERMINALS			CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE		
LUG	SCREW	TAB	UP	CENTER	DOWN
IK253	IK254	IK25A	On	None	Off
IK653	IK654	IK65A	Off	None	Momentarily On
IK657	IK658	IK65B	On	None	Momentarily Off
IL253	IL254	IL25A	On	None	On
IL653	IL654	IL65A	On	None	Momentarily On
IM253	IM254	IM25A	On	Off	On
IM653	IM654	IM65A	Momentarily On	Off	Momentarily On
IM657	IM658	IM65B	On	Off	Momentarily On

Note: Keyway is in down position on all switches shown.

CARLING ELECTRIC, INC. — West Hartford, Conn.

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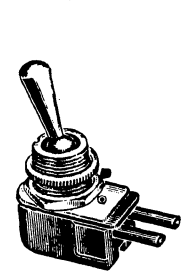
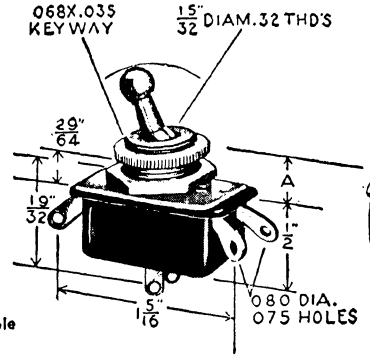
SINGLE POLE DOUBLE POLE SWITCHES—TOGGLE

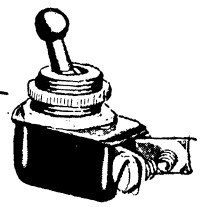
Maintained (Locking) and Momentary (Non-Locking) Types



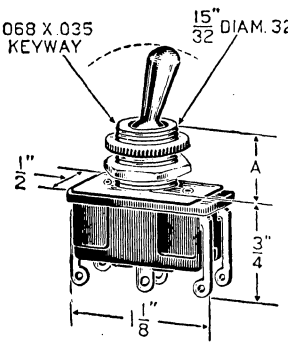
Wire Leads
Single Pole or Double Pole



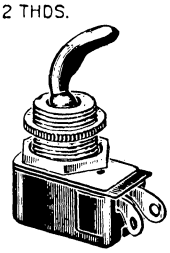
End Lugs—Double Poles
Bottom Lugs—Single Pole



Screw Terminals
Single Pole Only



Bottom Lugs—Double Poles



Trigger Bat
Momentary Only

End Lugs
Single Pole
Switches

IMPORTANT—ADD correct SUFFIX NUMBER to CATALOG NUMBER to receive type TOGGLE and STEM wanted.

MAINTAINED CONTACTS

CATALOG NUMBER	TYPES OF TERMINALS	POLES-CIRCUIT	NOMINAL RATING AC or DC
T-110 T-110-B T-110-S T-111-16	Lugs—End Lugs—Bottom Screw Wire	S.P.—S.T.	3 Amp—250 V. 6 Amp—125 V.T. (T Rated)
110 110-B 110-D 110-S 111-16 111-D	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire—2 Ends	S.P.—S.T.	3 Amp—250 V. 6 Amp—125 V.
112 112-A	Lugs—End Wire	S.P.—D.T.	1 Amp—250 V. 3 Amp—125 V.
216 216-A 216-B	Lugs—End Wire Lugs—Bottom	D.P.—S.T.	
316 316-A 316-B	Lugs Wire Lugs—Bottom	D.P.—D.T.	
516 516-A 516-B	Lugs—End Wire Lugs—Bottom	Two Circuit	
2BB62	Lugs—End	S.P.—D.T.	3 Amp—250 V. 6 Amp—125 V.
2BK62	Lugs—End	D.P.—S.T.	
2BL62 2BL63	Lugs—End Lugs—Bottom	D.P.—D.T.	
160 160-A 160-B 160-S	Lugs—End Wire Lugs—Bottom Screw	S.P.—S.T.	10 Amp—125 V. 5 Amp—250 V.

MOMENTARY TYPES — Stem Length 15/32" ONLY

NOMINAL RATING AC or DC	POLES-CIRCUIT	TYPES OF TERMINALS	CATALOG NUMBER
6 Amp—125 V. 3 Amp—250 V.	S.P.—S.T. Normally Open (Off) (Momentarily On)	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire—2 Ends	110-M-NO 110-BM-NO 110-M-DNO 110-SM-NO 111-16M-NO 111-16M-DNO
	S.P.—S.T. Normally Closed (On) (Momentarily Off)	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire-2 Ends	110-M-NC 110-BM-NC 110-M-DNC 110-SM-NC 111-16M-NC 111-16M-DNC
3 Amp—125 V. 1 Amp—250 V.	S.P.—D.T.	Lugs—End Wire	112-M 112-M-A
	D.P.—S.T. Normally Open (Off) (Momentarily On)	Lugs—End Wire	216-M-NO 216-M-ANO
	D.P.—S.T. Normally Closed (On) (Momentarily Off)	Lugs—End Wire	216-M-NC 216-M-ANC
	D.P.—D.T.	Lugs Lugs—Bottom	316-M 316-BM
	Two Circuit (1 On—1 Off)	Lugs—End Wire Lugs—Bottom Screw	516-M 516-AM 516-BM 516-SM

TOGGLE TYPE & LENGTH	BALL 3/8"	BAT 1/2"	BAT 1/16"	TRIGGER BAT
SUFFIX NO.	—23	—63	—73	—93

TOGGLE TYPE & LENGTH	BALL 5/16	BALL—3/8" LONG			BAT—1/2"		BAT—1/16"	SLOTTED
STEM LENGTH (A)	1/4"	1/4"	11/32"	15/32"	7/8"	11/32"	15/32"	15/32"	11/32"
Std. SUFFIX NOS.	—11	—21	—22	—23	—25	—62	—63	—73	
*With Neoprene Seal			—57			—67	—68		
& Toggle Type & Length			BAT 3/8			BAT 1/2	BAT 9/16		

MARINE APPLICATIONS USE PREFIX M-

***DUSTPROOF SEAL (Also RAIN RESISTANT)**

Note: Solderless quick disconnect terminals are available on #110 switch above

(See Picture on Cover) Use Addt'l Suffix No. — "TABS"

CARLING ELECTRIC, INC. — West Hartford, Conn.

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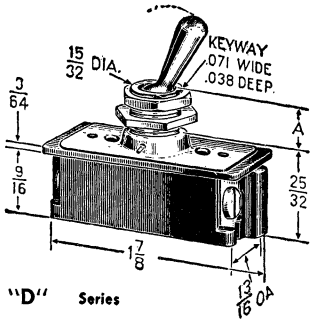
SWITCHES - TOGGLE - PUSH - SLIDE



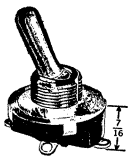
"D" Series

CATALOG NUMBER	TYPE OF TERMINALS	POLES OR CIRCUIT	NOMINAL RATING A.C. OR D.C.	CATALOG NUMBER SUFFIX FOR TOGGLE & STEM LENGTHS — Toggle Length 11/16"		
				TOGGLE TYPE	STEM LENGTH	SUFFIX NO.
2DA25	Screw	S.P.—S.T.	12 Amps—125 V. 6 Amps—250 V. 1 H.P. 125—250 V.	Bat	11/32"	—72
				Ball	13/32"	—32
2DK25	Screw	D.P.—S.T.		Bat	15/32"	—73
EA255	Screw	S.P.—S.T.	15 Amps—125 V. 10 Amps—250 V. 1½ H.P. 125—250 V.	Ball	15/32"	—33
EK255	Screw	D.P.—S.T.				

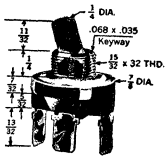
Note: Dimensions of "E" Series Switches are 2⅛" lg x 1" w x 23/32" high.

RATING: 15 Amp — 125 V. A-C
7½ Amp. — 250 V. A-C
½ H.P. 115-23 V. A-C

Single Pole



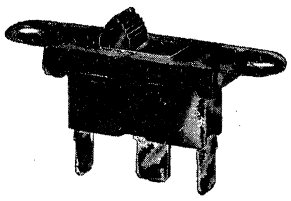
"A" Series Illustrated Above with Solder Lugs and Metal Toggle 11/16" Long



"A" Series Illustrated Above with Tab Terminals and Plastic Toggle

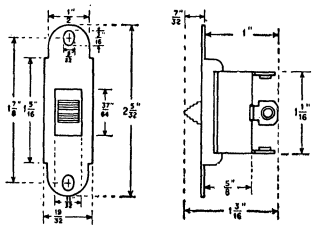
CATALOG NUMBERS — TERMINALS			CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE		
LUG	SCREW	TAB	UP	CENTER	DOWN
AA252	AA254	AA25A	On	None	Off
AB252	AB254	AB25A	On	None	On
AC252	AC254	AC25A	On	Off	On
RATING: 3 Amp. — 125 V. A-C (Below)					
AA232	AA234	AA23A	On	None	Off

Add: Following Suffixes to ABOVE CATALOG NOS.				
Metal Toggle Type	Colored Plastic Toggle Types:			
	Black	Brown	—WH	—RD
—71	—BL	—BR	Red	White



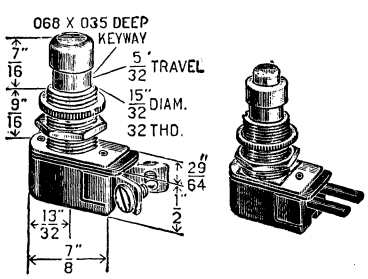
"L" Series

(Also available with ON-OFF Stamped on Slide or Case on Special Order)



CATALOG NUMBERS — NOMINAL RATINGS						ELECTRICAL CIRCUIT CHARACTERISTICS		
15 Amp—125 V. A.C. 10 Amp—250 V. A.C. ½ H.P.—115-230 V. A.C.			3 Amp—250 V. A.C. 6 Amp—125 V. A.C. ¼ H.P.			UP POSITION	CENTER POSITION	DOWN POSITION
Solder Lugs	Screw Term.	Tab Term.	Solder Lugs	Screw Term.	Tab Term.	Single Pole—Single Throw & Single Pole—Double Throw		
LA453	LA454	LA45A	LA463	LA464	LA46A	On	None	Off
LB453	LB454	LB45A	LB463	LB464	LB46A	On	None	On
LC453	LC454	LC45A	LC463	LC464	LC46A	On	Off	On

For Slide COLOR Add SUFFIX	BLACK —BL	RED —RD	GRAY —GY



MAINTAINED CONTACTS OR MOMENTARY CONTACTS AC—DC

CATALOG NUMBERS			Type Terminals	Poles Or Circuit	Nominal Rating
Maintained Contacts	MOMENTARY CONTACTS — Normally Open	Normally Closed			
110—P 110—BP 110—SP 111—16P	110—PM—OFF 110—PBM—OFF 110—SPM—OFF 111—PM—OFF	110—PM—ON 110—PBM—ON 110—SPM—ON 111—PM—ON	Lug Lug (Bottom) Screw Wire	S.P.—S.T.	6 Amp—125 V. 3 Amp—250 V. A.C.—D.C.
160—P 160—BP 160—SP 160—AP	None	None	Lug Lug (Bottom) Screw Wire	S.P.—S.T.	10 Amp—125 V. 5 Amp—250 V. A.C.—D.C.
216—PP 216—PPA	216—PM—OFF 216—PAM—OFF	216—PM—ON 216—PAM—ON	Lug Wire	D.P.—S.T.	
112—P 112—PA	112—PM 112—PAM		Lug Wire	S.P.—D.T.	3 Amp—125 V. 1 Amp—250 V. A.C.—D.C.
316—PP 316—PPA	316—PM 316—PAM		Lug Wire	D.P.—D.T.	
516—PP 516—PPA	516—PM 516—PAM		Lug Wire	2 circuit	

Overtravel available for Momentary Switches only)—Add CATALOG SUFFIX NO. —OV

TAB (Quick Disconnect) Terminals available on above Switches

CARLING ELECTRIC, INC. — West Hartford, Conn.

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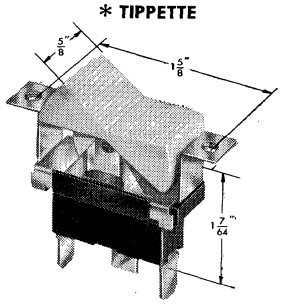
SWITCHES-TIPPETTE*-TRIGGER

TIL Series

*Tippette is a Carling Trademark

TIL SERIES

*** TIPPETTE**



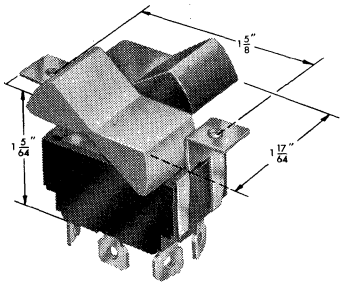
1⅝" Distance Between Mounting Hole Centers. Mounting Holes Tapped 6-32 NC2. Width of "Tippette" Actuators .660. Length of "Tippette" Actuators 1.230.

Note: For purposes of terminology "OFF" indicates open circuit, "ON" indicates closed circuit, MOM. ON indicates Momentary Normally OPEN circuit and MOM. OFF indicates Momentary Normally Closed Circuit.

CATALOG NUMBERS NOMINAL RATINGS — RATING 6 AMP—125V A.C. 3 AMP—250V A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA60	TILA61	TILA62	TILA63	TILA64	TILA65	On	None	Off
TILA6A	TILA6B	TILA6C	TILA6D	TILA6E	TILA6F	Off	None	Mom. On
TILA6L	TILA6M	TILA6Q	TILA6R	TILA6S	TILA6T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB60	TILB61	TILB62	TILB63	TILB64	TILB65	On	None	On
TILB6A	TILB6B	TILB6C	TILB6D	TILB6E	TILB6F	On	None	Mom. On
TILC60	TILC61	TILC62	TILC63	TILC64	TILC65	On	Off	On
TILC6A	TILC6B	TILC6C	TILC6D	TILC6E	TILC6F	On	Off	Mom. On
TILC6L	TILC6M	TILC6Q	TILC6R	TILC6S	TILC6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C. 10 AMP—250V A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA50	TILA51	TILA52	TILA53	TILA54	TILA55	On	None	Off
TILA5A	TILA5B	TILA5C	TILA5D	TILA5E	TILA5F	Off	None	Mom. On
TILA5L	TILA5M	TILA5Q	TILA5R	TILA5S	TILA5T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB50	TILB51	TILB52	TILB53	TILB54	TILB55	On	None	On
TILB5A	TILB5B	TILB5C	TILB5D	TILB5E	TILB5F	On	None	Mom. On
TILC50	TILC51	TILC52	TILC53	TILC54	TILC55	On	Off	On
TILC5A	TILC5B	TILC5C	TILC5D	TILC5E	TILC5F	On	Off	Mom. On
TILC5L	TILC5M	TILC5Q	TILC5R	TILC5S	TILC5T	Mom. On	Off	Mom. On

TIG SERIES

*** TIPPETTE**



Also this switch can be provided with **two** "Tippette" levers (see illustration) to operate as two single pole switches in any circuit combination desired and rating shown under our "TIL" Series switches. Specify "TIG" switch and combination desired.

Note: For purposes of terminology "OFF" indicates open circuit, "ON" indicates closed circuit, MOM. ON indicates Momentary Normally OPEN circuit and MOM. OFF indicates Momentary Normally Closed Circuit.

TIG Series (With *ONE* Tippette Lever)

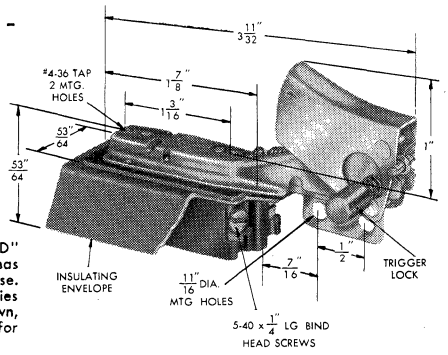
CATALOG NUMBERS NOMINAL RATINGS — RATING 6 AMP—125V A.C. 3 AMP—250V A.C. ¼ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK60	TIGK61	TIGK62	TIGK63	TIGK64	TIGK65	On	None	Off
TIGK6A	TIGK6B	TIGK6C	TIGK6D	TIGK6E	TIGK6F	Off	None	Mom. On
TIGK6L	TIGK6M	TIGK6Q	TIGK6R	TIGK6S	TIGK6T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL60	TIGL61	TIGL62	TIGL63	TIGL64	TIGL65	On	None	On
TIGL6A	TIGL6B	TIGL6C	TIGL6D	TIGL6E	TIGL6F	On	None	Mom. On
TIGM60	TIGM61	TIGM62	TIGM63	TIGM64	TIGM65	On	Off	On
TIGM6A	TIGM6B	TIGM6C	TIGM6D	TIGM6E	TIGM6F	On	Off	Mom. On
TIGM6L	TIGM6M	TIGM6Q	TIGM6R	TIGM6S	TIGM6T	Mom. On	Off	Mom. On
RATING 15 AMP—125V A.C. 10 AMP—250 V.A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK50	TIGK51	TIGK52	TIGK53	TIGK54	TIGK55	On	None	Off
TIGK5A	TIGK5B	TIGK5C	TIGK5D	TIGK5E	TIGK5F	Off	None	Mom. On
TIGK5L	TIGK5M	TIGK5Q	TIGK5R	TIGK5S	TIGK5T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL50	TIGL51	TIGL52	TIGL53	TIGL54	TIGL55	On	None	On
TIGL5A	TIGL5B	TIGL5C	TIGL5D	TIGL5E	TIGL5F	On	None	Mom. On
TIGM50	TIGM51	TIGM52	TIGM53	TIGM54	TIGM55	On	Off	On
TIGM5A	TIGM5B	TIGM5C	TIGM5D	TIGM5E	TIGM5F	On	Off	Mom. On
TIGM5L	TIGM5M	TIGM5Q	TIGM5R	TIGM5S	TIGM5T	Mom. On	Off	Mom. On

*TRD SERIES-TRE SERIES

TRIGGER

"TRD" Series Rated 12A @ 125V 6A @ 250V ½ H.P. 125-250V A.C. ¾ H.P. 125-250V D.C.			
CATALOG NO.	CIRCUIT	HAS LOCK	HAS ENVELOPE
TRDA-00	SPST	No	No
TRDA-01	SPST	No	Yes
TRDA-05	SPST	Yes	No
TRDA-06	SPST	Yes	Yes
TRDK-00	DPST	No	No
TRDK-01	DPST	No	Yes
TRDK-05	DPST	Yes	No
TRDK-06	DPST	Yes	Yes
"TRE" Series Rated 15A @ 125V 10A @ 250V 1 H.P. 125V A.C. 1½ H.P. 125V D.C.			
TREA-00	SPST	No	No
TREA-01	SPST	No	Yes
TREA-05	SPST	Yes	No
TREA-06	SPST	Yes	Yes
TREK-00	DPST	No	No
TREK-01	DPST	No	Yes
TREK-05	DPST	Yes	No
TREK-06	DPST	Yes	Yes

*Note: Illustration shows "TRD" Series dimensions. "TRE" Series has same dimensions except for base. For base dimensions of "TRE" Series substitute 1 5/16" for 53/64 height shown, 1" for 53/64 width shown, and 5/16 for 7/16" dimension shown.



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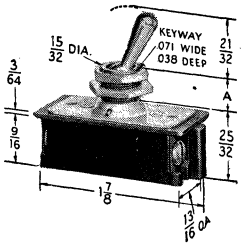
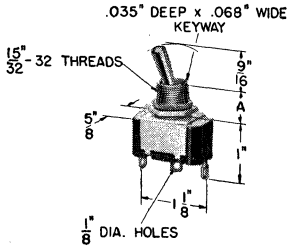
For your switching needs, ask for a specialist . . .
CUTLER-HAMMER — who has designed more switches for more applications than any other manufacturer.

COMMERCIAL APPLICATIONS—ONE HOLE MOUNTING

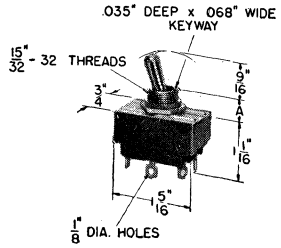
These Cutler-Hammer switches are of the one-hole mounted type, designed for convenient installation on panels, housings and other flat surfaces of machines and appliances. Experienced Cutler-Hammer engineers working closely with the electronics and appliance manufacturers — have developed these devices to meet the requirements of every type of apparatus and every class of service.



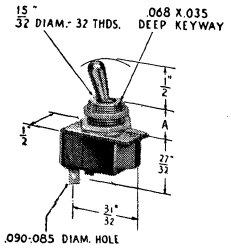
Cat. No. 7320 (D.P. S.T.)
Standard Duty



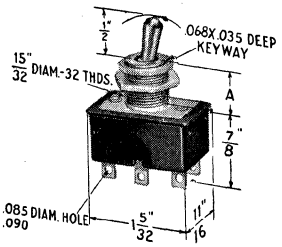
Cat. No. 7503 (S.P. D.T.) Standard Duty
Cat. No. 7581 (S.P. D.T.) Light Duty



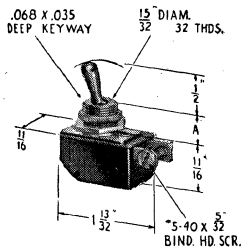
Cat. No. 7563 (D.P. D.T.)
Standard Duty



Cat. No. 8280 (S.P. S.T.)
Light Duty



Cat. No. 8363 (D.P. D.T.)
Light Duty



Cat. No. 8396 (S.P. S.T.)
Light Duty

ONE HOLE MOUNTING — A. C. RATINGS
Standard bushing lengths 11/32" and 15/32".

RATING		1 POLE		2 POLE		3 POLE		4 POLE		Term. Type
250 V.	125 V.	S. T.	D. T. W/O Off	S. T.	D. T. W/O Off	S. T.	D. T. W/O Off	S. T.	D. T. W/O Off	
	3 Amp.	8098 8098	7140* 7141							L S S
3 Amp.	6 Amp.	7580 7583‡	7581* 7582 7585‡ 7586*‡	7590 7593‡	7591* 7592 7595‡ 7596*‡					S, L & Sp S, L & Sp S, L & Sp S, L & Sp
10 Amp.	15 Amp.	7500 7501	7502* 7503* 7504 7505	7560 7561	7562* 7563* 7564 7565	7610 7611 7616‡	7612* 7613* 7614 7615 7617*‡ 7618‡			S L & Sp S L & Sp S & Sp S & Sp
10 Amp.		7506‡ 7507‡ 7533	7508*‡ 7510‡	7566‡ 7522 7520 7521	7568*‡ 7570‡			7690 7691 7696‡ 7697‡	7692* 7693* 7694 7695	S, L & Sp S, L & Sp S L S L W
20 Amp.				7543		8320				S

L=Solder Lug, W=Wire Leads, S=Screw terminals, Sp=Spade terminals.
*Center Off
‡Momentary contact.

ONE HOLE MOUNTING — AC-DC RATINGS
Standard bushing lengths ¼", 11/32" and 15/32"

RATING		1 Pole		2 Pole		Term. Type
250 V.	125 V.	S.T.	D.T. W/O Off (3-Way)	S.T.	D.T. W/O Off	
1 Amp.	3 Amp.		8282 8292 8297			L W S
3 Amp.		8280 8290 8295		8360 8361 8362	8363 8364 8365	L W S
3 Amp.	6 Amp.	8381 8384 8391 8396		8370 .... 8371 8372	8373 .... 8374 8375	L Sp W S
4 Amp.	8 Amp.	7740 7741 7742 7743				L W S Sp
5 Amp.	10 Amp.				8680	S
6 Amp.	12 Amp.	7321		7320		S
	12 Amp.	7722#				S
10 Amp.	15 Amp.	7361		7360	8690	S
20 Amp.		7403		7402		S

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Ask **CUTLER-HAMMER** Milwaukee Wisconsin

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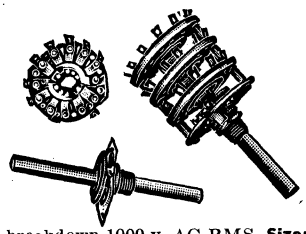
Centralab — Miniature Switches, Parts

PA-1000 SERIES MINIATURE PHENOLIC SWITCHES



Laminated phenolic insulated rotary switches that meet requirements for a miniature switch for rigorous commercial or military uses. Clip and contact arrangements assure low inter-circuit capacitance and contact resistance. Index assemblies and hardware identical to PA-2000 series, permitting interchangeability. **Insulation:** High quality laminated phenolic type PBE per MIL-P-3115B specs.; voltage breakdown 1000 v. AC-RMS. **Size:** ½" spacing between sections; ⅜" spacing between 1st section and front plate, phenolic section 1/16" thick. **Hardware:** All metal parts (except clips and contacts) cadmium plated; withstand 25-hour salt-spray test. **Mounting:** Single hole with locating lug. Bushing ⅜"-32 thread ⅜" long. Shaft ¼" diam. full round, 2¼" long. **Rating:** 2 amps at 15 v. DC; 150 milliamps at 110 v. AC. **Index:** Positive, adjustable stop or continuous rotation; 30° or 60° detents available.
Mounting nut, lockwasher and 1¼" black pointer knob are included with switches.

MINIATURE PHENOLIC SWITCHES

CRL Number		Poles to Section	No. of Sections	No. Poles	Total Pos.	Net Each
Shorting	Non-Shtg.					
PA-1000	PA-1001	1	1	1	2-11	$1.80
PA-1002	PA-1003	2	1	2	2-5	1.80
PA-1004	PA-1005	1	2	2	2-11	2.58
PA-1006	PA-1007	3	1	3	2-3	1.80
PA-1008	PA-1009	1	3	3	2-11	3.24
PA-1010	PA-1011	4	1	4	2	1.80
PA-1012	PA-1013	2	2	4	2-5	2.58
PA-1014	PA-1015	1	4	4	2-11	3.81
PA-1016	PA-1017	1	5	5	2-11	4.47
PA-1018	PA-1019	3	2	6	2-3	2.58
PA-1020	PA-1021	2	3	6	2-5	3.24
PA-1022	PA-1023	1	6	6	2-11	5.04
PA-1024	PA-1025	4	2	8	2	2.58
PA-1026	PA-1027	2	4	8	2-5	3.81
PA-1028	PA-1029	4	3	12	2	3.24
PA-1030	PA-1031	2	5	10	2-5	4.47
PA-1032	PA-1033	2	6	12	2-5	5.04

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

PA-1034*	.....	1	1	1	2-10	$1.80
PA-1040†	.....	1	1	1	2-10	1.80
.....	PA-1035‡	1	1	1	2-6	1.80
.....	PA-1037‡	1	2	2	2-6	2.58

*All shorted to common contact in CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡60° indexing; 1½" spacing between sections.

SEPARATE PHENOLIC SECTIONS

Use with index assemblies PA-300, PA-301 and PA-302 for all (except Model PA-45, which uses PA-304 or PA-305, 60° index) for assembly of special switches to meet your needs.

CRL Number		Indexing	No. Poles	Total Positions	Net Each
Shorting	Non-Short.				
PA-30	PA-31	30°	1	2-11	87c
PA-32	PA-33	30°	2	2-5	87c
PA-34	PA-35	30°	3	2-3	87c
PA-36	PA-37	30°	4	2	87c
PA-38*	PA-39*	30°	1	2-5	87c
PA-40**	PA-41**	30°	1	2-11	87c
PA-43†	.....	30°	1	2-10	87c
PA-49††	.....	30°	1	2-10	87c
.....	PA-45	60°	1	2-6	87c

*Unused contacts one side of common connected and shorted out. **All unused contacts connected and shorted out. †Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. ††All active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable.

CRL No. PA-300 Assembly—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two ⅛" spacers, two 9/32" spacers, four 7/16" spacers, 2½" tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections. Net Each **$1.38**

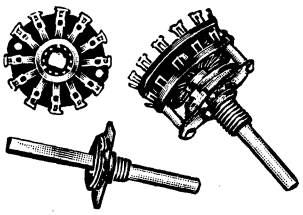
CRL No. PA-301 Assembly—Contains PA-301 index (30°), P-120 pointer knob, adjustable stop plate, two 1/16" spacers, two 9/32" spacers, ten 7/16" spacers, four 15/16" spacers, 5" tie bolts and hardware. Rear shaft length 4". Use with 4 to 6 sections. Net Each **$1.80**

CRL No. PA-302 Assembly—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four 3/16" spacers, two 9/32" spacers, sixteen 7/16" spacers, eight 15/16" spacers, 7" tie bolts, and hardware. Rear Shaft length 6". Use with 7 to 9 sections. Net Each **$2.37**

CRL No. PA-304 Assembly—Contains PA-304 (60°) index and hardware same as PA-300. Rear Shaft length 2". Use with 1 to 3 sections. Net Each **$1.44**

CRL No. PA-305 Assembly—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". Use with 4 to 6 sections. Net Each **$1.89**

PA-2000 SERIES MINIATURE CERAMIC SWITCHES



Complete line of ceramic insulated miniature rotary switches with the following features: 1-piece shaft construction; adjustable stop allows selection of positions or continuous rotation; cadmium plated metal parts, except clips and contacts; available as complete switches or separate assemblies. Excellent RF characteristics. Shaft 1 7/8" from bushing, index available 30 and 60 degree with adjustable stop; mounting is single hole and optional locating lug, bushing ⅜-32 thread, ⅜" long. Includes mounting nut, lockwasher and 1¼" black bar knob. Index assemblies and hardware are identical and interchangeable with those of the PA-1000 series. Rating: 2 amps. at 15 v. DC; 150 milliamps. at 110 v. AC.

SERIES PA-2000 MINIATURE ROTARY SWITCHES

CRL Number		Poles to Section	No. of Sections	No. Poles	Total Pos.	Net Each
Shorting	Non-Shtg.					
PA-2000	PA-2001	1	1	1	2-12	$2.37
PA-2002	PA-2003	2	1	2	2-6	2.37
PA-2004	PA-2005	1	2	2	2-12	3.39
PA-2006	PA-2007	3	1	3	2-5	2.37
PA-2008	PA-2009	1	3	3	2-12	4.32
PA-2010	PA-2011	2	2	4	2-6	3.39
PA-2012	PA-2013	1	4	4	2-12	5.19
PA-2014	PA-2015	5	1	5	2-3	2.37
PA-2016	PA-2017	1	5	5	2-12	6.21
PA-2018	PA-2019	6	1	6	2	2.37
PA-2020	PA-2021	3	2	6	2-5	3.39
PA-2022	PA-2023	2	3	6	2-6	4.32
PA-2024	PA-2025	1	6	6	2-12	7.20
PA-2026	PA-2027	2	4	8	2-6	5.19
PA-2028	PA-2029	3	3	9	2-5	4.32
PA-2030	PA-2031	5	2	10	2-3	3.39
PA-2032	PA-2033	2	5	10	2-6	6.21
PA-2034	PA-2035	6	2	12	2	3.39
PA-2036	PA-2037	2	6	12	2-6	7.20
PA-2038	PA-2039	5	3	15	2-3	4.68
PA-2040	PA-2041	6	3	18	2	4.68

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

PA-2052*	.....	1	1	1	2-10	$2.16
PA-2042†	.....	1	1	1	2-10	2.16
PA-2048‡	PA-2049‡	1	2	2	2-12	4.68
PA-2050§	.....	1	2	2	4	2.37
.....	PA-2043††	1	1	1	2-6	2.16
.....	PA-2045††	1	2	2	2-6	3.03

*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ‡Silver clips and contacts. §For switching dual lines. ††60° Indexing; 1½" spacing between stations.

SERIES PA-2000 STEATITE SECTIONS

For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17 and PA-20, for use with 60° index assemblies PA-304 and PA-305.

CRL Number		Number of Poles	Number of Positions	Net Each
Shorting	Non-Shorting			
PA-0	PA-1	1	2-12	$1.20
PA-2	PA-3	2	2-6	1.20
PA-4	PA-5	3	2-5	1.20
PA-6	PA-7	5	2-3	1.20
PA-8	PA-9	6	2	1.20
PA-10††	PA-19††	1	2-5	1.20
PA-11*	PA-18*	1	2-11	1.20
PA-12†	.....	1	2-10	1.20
PA-13‡	.....	1	2-10	1.20
PA-20	PA-17	1	2-6	1.20

††Unused contacts one side of common connected and shorted out. *All unused contacts connected and shorted out. †9 contacts, open in full CCW position, progressively picked up and shorted to common with CW rotation. ‡9 contacts, shorted to common in full CCW position, progressively opened and dropped with CW rotation.

SILVER CLIPS AND CONTACTS

CRL Number		Index	No. of Poles	No. of Positions	Net Each
Shorting	Non-Shorting				
PA-16	PA-21	30°	1	2-12	$1.98
PA-14	PA-23	30°	2	2-5	1.98
PA-15	PA-24	30°	4	2	1.98

For switches to military specifications add "M" to part number (PA-2000M). State specifications which must be met. Where no specification number is stated, switches will meet finish requirements of MIL-S-3786. Prices and delivery on request.

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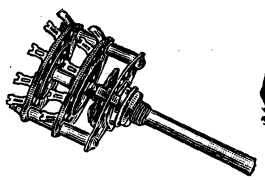
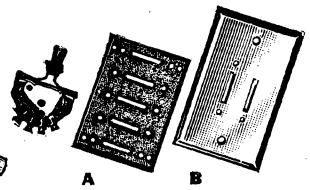
Centralab. Rotary & Lever Switches



1400 Series



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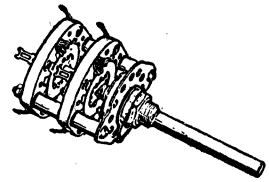
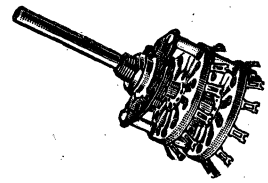
Lever Action



Ham Switch



2500 Series

1400 SERIES—LAMINATED PHENOLIC INSULATION

Extremely compact design. Mounting bushings ⅜"-32 thread, ⅜" long. Shafts 1⅞" from end of bushing. Positive 30° index with adjustable stop. Revisions or corrections easily made due to availability of all parts separately. Packaged with mounting nut, lockwasher, 1¼" black pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2 amps at 15 v. DC; 150 ma at 110 v. AC.

CRL Number		Poles to	No.	No.	No.	Net
Shorting	Non-Short.	Section	Sections	Poles	Positions	Each
1400	1401	1	1	1	2–6	$2.52
1402	1403	1	1	1	2–11	2.52
1404	1405	2	1	2	2–5	2.52
1410	1411	1	2	2	2–6	3.06
1412	1413	1	2	2	2–11	3.06
1406	1407	3	1	3	2–3	2.52
1420	1421	1	3	3	2–6	3.90
1422	1423	1	3	3	2–11	3.90
1408	1409	4	1	4	2	2.52
1414	1415	2	2	4	2–5	3.06
1426	1427	1	4	4	2–6	4.50
1428	1429	1	4	4	2–11	4.50
1416	1417	3	2	6	2–3	3.06
1424	1425	2	3	6	2–5	3.90
1418	1419	4	2	8	2	3.06
1430	1431	2	4	8	2–5	4.50

SEPARATE PHENOLIC SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 indexes.

CRL Number		No. of	No. of	Net
Shorting Type	Non-Shorting Type	Poles	Positions	Each
AD	HD	1	2–6	$1.05
BD	JD	1	2–11	1.05
CD	KD	2	2–5	1.05
DD	LD	3	2–3	1.05
ED	MD	4	2	1.05
EED	BBD	4	2–3	1.35
FD**	AAD**	1	2–5	1.05
GD*	CCD*	1	2–10	1.05
PID‡	.....	1	2–10	1.05
ND and PD	.....	Resistance Decade†		1.05
QD	.....	Capacitance Decade		1.05

*All unused contacts connected and shorted out. ‡9 contacts, open in full CCW, progressively picked up and shorted to common with CW rotation. †Combine for resistance decade switch. **Unused contacts one side of common connected and shorted out.

SEPARATE INDEX ASSEMBLIES

Deluxe Type: 1-piece shaft .187" thick flat; use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. Deluxe	No. of Sections	Rear Shaft	Net Each
P-270	1 to 3	2"	$1.65
P-271	3 to 5	4"	2.10
P-272	5 to 10	8"	2.85

LEVER ACTION SWITCHES

Coil spring and cam index design provide guaranteed minimum life 150,000 switching cycles. Smooth "clean" action. Coil type index spring. Furnished with black paddle-type knob. Rating: 2 amps. at 15 v. DC; 150 milliamps. at 110 v. AC.

CRL No.		No.	Posi-		Net
Shorting	Non-Short.	Poles	tions	Index	Each
1452	1454	2	3	Positive	$1.26
1453	1455	2	3	Spring Return	1.26
1466	1467	2	3	Pos. and Spring Ret.	1.26
1456	1457	4	2	Spring Return	1.44
1459	1458	4	2	Positive	1.44
2815*	.....	2	3	Positive	1.26
.....	1475†	1	3	Positive	1.26

*Model railroad reversing switch. †Test equipment replacement.

Mounting Plates for Lever Switches—Type A made of .035" die cut steel, black crackle finish. Provides ¾" spacing between switches. Type B for use in electrical outlet boxes. Chrome plated steel with mounting holes 3⅛" between centers. Type A 2⅝" h.

CRL Type A	No. Switches	Lgth. In.	Net Each	CRL Type B	No. Switches	Net Each
P-1755	1	¾	30c	P-221	2	63c
P-1756	2	1½	30c	P-222	1	63c
P-1757	3	2¼	30c	Size: 2¾" x 4½" overall.		
P-1758	4	3	30c	¾" spacing between switches.		
P-1759	5	3¾	30c			

ANTENNA SWITCH KIT

(Not Illustrated). Ceramic section rotary switch for UHF-VHF antenna switching. Rated at 2 amps. for 150 v. DC; 150 milliamps. at 110 v. AC. Contains: PA-2050 switch, P-218 bracket-dial plate, P-401 knob, two self-tapping wood screws. **$1.65**

CRL No. PK-400—Net Each.....

2500 SERIES—STEATITE INSULATION

Made of highest quality (grade L-5A) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing ⅜"-32 thread ⅜" long. Shaft 1⅞". Positive 30° index with adjustable stop. Index assemblies and hardware are identical and interchangeable with those of the 1400 Series. Ratings same as 1400 Series.

CRL Number		Poles to	No.	No.	No.	Net
Shorting	Non-Short.	Section	Sections	Poles	Positions	Each
2500	2501	1	1	1	2–6	$2.82
2502	2503	1	1	1	2–11	2.82
2504	2505	2	1	2	2–5	2.82
2510	2511	1	2	2	2–6	4.02
2512	2513	1	2	2	2–11	4.02
2506	2507	3	1	3	2–3	2.82
2520	2521	1	3	3	2–6	5.16
2522	2523	1	3	3	2–11	5.16
2514	2515	2	2	4	2–5	4.02
2516	2517	3	2	6	2–3	4.02
2524	2525	2	3	6	2–5	5.16

SEPARATE CERAMIC SECTIONS

Deluxe Types: .187" rotor slot, use P-270, P-271, P-272 indexes.

CRL Number		No. of	No. of	Net
Shorting Type	Non-Shorting Type	Poles	Positions	Each
TD	XD	1	2–6	$1.35
UD	YD	1	2–11	1.35
RD	RRD	2	2–5	1.35
SD	SSD	3	2–3	1.35
VD	ZD	4	2	1.35
GGD*	FFD*	1	2–10	1.35
PISD‡	.....	1	.....	1.35
NSD and PSD	.....	Resistance Decade†		1.35
QSD	.....	Capacitance Decade		1.35

*All unused contacts connected and shorted out. ‡9 contacts, open in full CCW, progressively picked up and shorted to common with CW rotation. †Combine for resistance decade switch.

STEATITE HAM-TYPE SWITCHES

Heavy-duty deluxe ceramic construction for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are cadmium plated steel; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2-6 active positions; 90° units, 2-4. Single hole mounting: ⅜"-32 thread bushing ⅜" long. Shaft ¼" diam. 2¼" long, full round. Rated 150 milliamps. at 150 v. AC; 4 milliamps. at 1500 v. AC; 2 amps. at 15 v. DC; will handle 15 watts; for tubes operating at voltages up to 1 kv. and inputs to 150 watts. Unit complete includes mounting nut, lockwasher, pointer knob, and dial plate.

NON-SHORTING HAM SWITCHES

CRL No. 90°	CRL No. 60°	Poles to Section	No. Sections	No. Poles	Net Each
2542	2550	1	1	1	$2.16
2543	2551	1	2	2	3.06
2544	2552	1	3	3	3.96
2545	2553	1	4	4	4.86
2546	2554	1	5	5	5.76

SEPARATE SECTIONS

CRL No.	Index	No. Poles	Posi-tions	Type	Net Each
XXD	90°	1	2-4	Non-shorting	$1.20
ZZD	60°	1	2-6	Non-shorting	1.20

SEPARATE INDEX ASSEMBLIES

Deluxe 90° and 60° Types: 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZZD section for 60°.

CRL No. 90°	CRL No. 60°	Rear Shaft	Suggested No. Sections	Net Each
P-278	P-273	2"	1 to 2	$1.38
P-279	P-274	4¼"	3 to 4	1.74
P-280	P-275	7"	5 to 8	2.16

DUAL SPEAKER SWITCH KIT

(Not Illustrated). Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping metal screws and instruction sheet.

CRL No. PK-300—
Net Each..... **90c**

ALL-PURPOSE INTERCOM SWITCHES

CRL Type 1448-1449—Six pole three position, will fit practically every intercom application in use. Both units have replaceable coil spring indexing assuring 50,000 cycles minimum.

CRL No. 1448—Spring return both sides. Net Each..... **$1.98**

CRL No. 1449—Spring return one side; positive index opposite side. Net Each..... **$1.98**

CRL No. PK-500—Lever action switch assembly for PA or intercom systems. Cord operated. Comes in kit form. Net Each. **$1.62**

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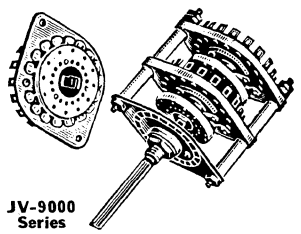
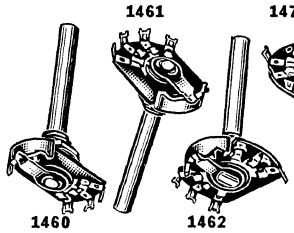
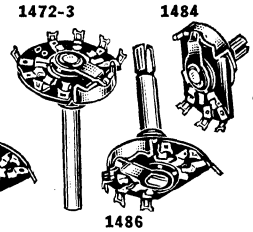
Centralab — Special Switches, Kits


JV-9000 Series


1460 1461 1462


1472-3 1484 1486

1443, 1445

1448, 1449

PS Series

SERIES JV-9000 HEAVY-DUTY POWER SWITCH

High accuracy and long life to meet engineering requirements for transmitters, industrial controls, laboratory equipment, etc. Ceramic grade L-5A steatite insulation; 1″ spacing between sections. Metal parts are cadmium plated steel except clips, contacts and index spring. **Index:** Positive 20° adjustable stop; continuous stopless rotation through 18 positions. **Mounting:** ⅜″-32 thread bushing ¾″ long; shaft ¼″ diam. double flat 2¼″ long. **Rating:** 7½ amps at 115 v. AC; 25 amps at 6 v. DC; 0.75 amp at 500 v. AC; 0.4 amp at 1000 v. AC. Solid coin silver contacts. Includes 2″ double set screw pointer knob, dial plate and instructions.

SERIES JV-9000 ROTARY SWITCHES

CRL Number		Poles to Section	No. Sections	No. Poles	No. Positions	Net Each
Shorting	Non-Short.					
JV-9000	JV-9001	1	1	1	2–17	$10.50
JV-9002	JV-9003	3	1	3	2–5	10.50
JV-9004	JV-9005	1	2	2	2–17	17.40
JV-9006	JV-9007	3	2	6	2–5	17.40
JV-9008	JV-9009	1	3	3	2–17	24.30
JV-9010	JV-9011	3	3	9	2–5	24.30
JV-9012	JV-9013	1	4	4	2–17	31.20
JV-9014	JV-9015	3	4	12	2–5	31.20
JV-9016	JV-9017	1	5	5	2–17	38.10
JV-9018	JV-9019	3	5	15	2–5	38.10
JV-9020	JV-9021	1	6	6	2–17	45.30
JV-9032	JV-9033	2	1	2	2–8	10.50
JV-9034	JV-9035	2	2	4	2–8	17.40
JV-9036	JV-9037	2	3	6	2–8	24.30
JV-9038	JV-9039	2	4	8	2–8	31.20

SERIES JV-9000 SECTIONS

CRL Number		Number Poles	Number Positions	Net Each
Shorting	Non-Shorting			
JV-8	JVN-8	1	2–17	$6.90
JV-9	JVN-9	3	2–5	6.90
JV-10	JVN-10	2	2–8	6.90
JV-18*	JVN-18*	1	2–18	7.50

*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLY

CRL Nos. P-230, P-231 or P-232—2¾″ diam., etched aluminum on black background; 20°; marked 1-5 for P-230, 1-8 for P-232, and 1-17 for P-231. Packaged 5 of a number. Net Pkg.... $1.08

CRL No. JV-7 Index Assembly—Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, 2″ black bar knob and dial plate. Net Each..... $4.50

GENERAL PURPOSE AND TONE SWITCHES

CRL No. 1460—SPDT. May be used as SPST or SPDT. Positive index. Shorting contacts. Net Each..... $1.08

CRL No. 1463—Same as above except has spring return index and non-shorting contacts. Net Each..... $1.08

CRL No. 1461—SP. Three-position selector switch. Positive index. Shorting contacts. Net Each..... $1.08

CRL No. 1462—DPDT. May also be used as SPDT, SPST, or DPST. Positive index. Shorting contacts. Net Each..... $1.08

CRL No. 1464—Two pole, two position, spring return index and non-shorting contacts. Net Each..... $1.08

CRL No. 1465—Single pole, 4-position (3 active), with DPST, AC line switch, shorting contacts, positive index. Net Each.. $1.80

CRL No. 1473—Two pole, three position. Positive index. Shorting contacts. Net Each..... $1.08

CRL No. 1472—Same as above except with non-shorting contacts. Net Each..... $1.08

CRL No. 1483—Specially designed to be used with auxiliary rear seat auto radio speakers. Permits the operation of either speaker separately or both simultaneously. Single pole, three position. Positive index. Shorting contacts. Extra long shaft. Net Ea. 75c

CRL No. 1484—Same as above except with ¼″ bushing and ⅜″ knurl split shaft; 15/16″ black pointer knob. Net Each..... 75c

CRL No. 1486—Stereo remote speaker switch; 2 pole, 3-position, shorting contacts. Switches one pair of speakers to a remote pair, or all four speakers. Shaft 1½″ l. with ½″ split knurl end. With black and chrome push-on knob and instructions. Net Each.... $1.08

ROTARY ACTION SWITCHES

CRL No. 1443—"23 CLIPPER" single pole, 23 positions, shorting type contacts. 15° positive index. Requires 1″ behind panel. Silver plated contacts. Fixed stop. Net Each..... $2.16

CRL No. 1444—Same as 1443 except 2 sections, 2 poles. Net Each..... $2.88

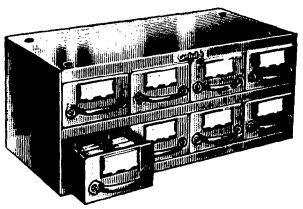
CRL No. 1445—Same as 1443 except continuous rotation; 23 positions include one "off". Net Each..... $2.16

CRL No. WD—Section only, for replacement in 1443, 1444 and 1445 switches with deluxe shaft and .187″ rotor slot (DD type). Net Each..... $1.20

CRL No. 1450—"ECONO-SWITCH." A 4 pole, 2 position economically designed switch. Requires only ⅞″ depth behind panel. Can be used as SPST, SPDT, DPDT, 3PST, 4PST, or 4PDT. Positive non-shorting leaf type index. Laminated phenolic insulation. Net Each..... $1.26

CRL No. 1451—"PERMA-SWITCH". Long life coil spring switch similar in style to the type 1450 but with 4 pole 2 positions. Net Each..... $1.44

CABINET SWITCH KITS



Convenient source of stock sections, indexes and hardware packed in heavy gauge steel, shelf size cabinets, 23¼″ x 9½″ h. x 12″ d.

CRL Kit No. PA-410—Contains 106 pieces 1½″ dia. phenolic sections, 32 index assemblies (including dial plates, knobs and hardware) of PA 1000 series switches. Assembles 32 regular or special switches. Net Each..... $160.20

CRL Kit No. PA-420—Contains 102 pieces of 1½″ dia. steatite sections, 32 index assemblies (with knobs, dial plates, etc.), of PA-2000 series. Makes 32 switches. Net Each. $190.20

CRL Kit No. 414D—Series 1400 phenolic switch parts; 100 phenolic 1⅞″ dia. sections, 30 index assemblies to make 30 switches. Includes knobs, dials and hardware. Net. $155.40

CRL Kit No. 419D—Series 2500 ceramic parts; 100 sections and 29 index assemblies to make 29 switches; 30° and 60°. Net Each..... $184.80

NEW JUNIOR CABINET SWITCH KITS

Balanced stock of PA-1000 or PA-2000 assemblies and sections in 10″ x 11½″ x 10″ blue and gray 4-drawer steel cabinet.

CRL Kit No. SWK-210—PA-1000 series; 48 sections, 13 index assemblies plus hardware. Makes 13 switches. Net Each..... $66.67

CRL Kit No. SWK-220—PA-2000 series; 52 sections; 13 index assy's and hardware for 13 switches. Net Each. $87.31

NEW CUSTOM SWITCH KIT

CRL Kit No. PK-20S—Custom kit for designers of special switches. All tools and parts in metal tray cabinet. Makes 25 four-section miniature phenolic or ceramic rotary switches with factory precision. Net Each..... $125.00

SUBMINIATURE ROTARY SWITCHES

Deluxe, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. ezch, yet have the same electrical ratings as switches much heavier and larger. Ideally suited for band switching, transistor circuits, aircraft instruments, etc. Insulation is Dow-Corning 200 Silicone treated L-5A steatite; resistance exceeds 10,000 megohms. **Size:** Ceramic sections ⅛″ thick spaced ⅛″ apart with ceramic spacing; spacing between front plate and first section, 1/32″. All hardware except clips, contacts, and index spring are of cadmium plated steel. **Mounting:** Single hole with optional locating lug on ⅜″ radius. Bushing ¼″-32 thread, ¼″ long. Shaft ⅛″ diam. x 1¼″ long. **Rating:** Make and break, resistance load 0.5 amp at 6 volts DC; 100 milliamps at 110 v. AC. **Index:** Positive 30°; fixed stop.

CRL Number		Total Poles	No. of Positions	Poles Per Sec.	No. of Sec.	Net Each
Shorting	Non-Short.					
PS-100	PS-101	1	11	1	1	$4.80
PS-102	PS-103	2	11	1	2	6.00
PS-104	PS-105	2	5	2	1	4.80
PS-106	PS-107	3	11	1	3	7.20
PS-108	PS-109	3	3	3	1	4.80
PS-110	PS-111	4	5	2	2	6.00
PS-112	PS-113	4	2	4	1	4.80
PS-114	PS-115	6	5	2	3	7.20
PS-116	PS-117	6	3	3	2	6.00
PS-118	PS-119	8	2	4	2	6.00
PS-120	PS-121	9	3	3	3	7.20
PS-122	PS-123	12	2	4	3	7.20

SEPARATE STEATITE SECTIONS

CRL Number		No. Poles	No. of Positions	Fixed Stop Indexing	Net Each
Shorting	Non-Short.				
PS-20	PS-21	1	2-11	Use	$2.70
PS-22	PS-23	2	2-5	P-501	2.70
PS-24	PS-25	3	2-3	thru	2.70
PS-26	PS-27	4	2	P-511	2.70

SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: Index and shaft assembly; KC-6 knob; two 3/32″ spacers; two 1/16″ spacers; six ⅛″ spacers; two 3/16″ spacers; two 1⅛″ tie bolts; nuts, lockwashers, washers; and 16 plastic spacer washers.

CRL Number	No. of Positions	CRL Number	No. of Positions	Net Each
P-501	2	P-507	8	$1.95
P-502	3	P-508	9	1.95
P-503	4	P-509	10	1.95
P-504	5	P-510	11	1.95
P-505	6	P-511	Continuous Rotation	1.95
P-506	7			1.95

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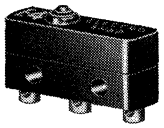
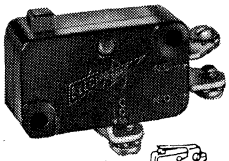
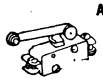
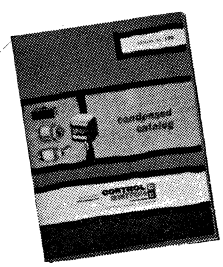
OVER 60,000 OFF-THE-SHELF ANSWERS

ALWAYS AVAILABLE FOR IMMEDIATE DELIVERY

Basic Switches	DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SUB-SUBMINIATURE T type			
Exceptionally high current capacity in tiny case. Only ½" x ¼" x ⅜" yet UL listed at 7.5 amps. 125/250 VAC. Also rated at 7.5 amps, 30 VDC resistive, 3 amps. 30 VDC inductive. Mounts side-by-side, four switches to the inch.	SPDT solder terminals	T3	2.00
	SPDT solder terminals, U.L.	T12	2.00
	leaf actuator	A5-71**	.20
	roller leaf actuator	A5-73**	.50
ACTUATORS ROLLER LEAF LEAF			
SUBMINIATURE E4 type			
 Ideal for compact electrical and electronic equipment. Low movement differential and operating force gives precision control in critical applications. Can be stacked and gang mounted. Meets MIL Specs. MS-25085 and is UL listed at 5 amps, 125/250 VAC. Also handles 4 amps, 30 VDC resistive, 2.5 amps, 30 VDC inductive. Size: 25/32" x ¼" x 23/64".	SPDT, solder terminals	E4-103	1.50
	SPDT, turret terminals	E4-110	1.50
	DPDT maintained toggle switch, 15/32" bushing	A3-32-103*	5.70
	TPDT maintained toggle switch, 15/32" bushing	A3-33-103*	7.80
	DPDT maintained toggle switch, ¼" bushing	A3-41-103*	5.70
	SPDT maintained toggle switch, ¼" bushing	A3-42-103*	3.49
	DPDT momentary push-button switch, 15/32" bushing	A4-86-103*	6.10
	DPDT push-on, push-off, push-button switch, 15/32" bushing	A4-87-103*	7.40
	leaf actuator	A5-9*	.20
	roller leaf actuator	A5-10*	.50
ACTUATORS TOGGLE PUSHBUTTON LEAF ROLLER LEAF			
MINIATURE F type			
 Low cost precision switch that meets military specs and is UL listed. Rugged design—positive over-travel stop protects mechanism from damaging over-actuation. Easy to mount. Size: 1 3/32" x 13/32" x ⅝". Rating: 10 amps 125/250 VAC / 28 VDC resistive, 6 amps, 30 VDC inductive.	SPDT basic switch, screw terminals, U.L. MS-15253-1	F2-13	1.00
	roller leaf actuator	A5-47**	.40
	leaf actuator	A5-49**	.20
ACTUATORS LEAF ROLLER LEAF			
2-CIRCUIT S type			
Combines high capacity, small size and long life with extreme precision. Rated at 10,000,000 operations at full load, tested to 30,000,000. Good for power circuits as well as precision control applications. Meets military specs. Several models UL listed. Reset model maintains circuit until reset button actuated; can be used as inexpensive two-way limit switch. Size: 1¼" x ½" x ½". Rating: 10 amps, 125/250 VAC. 30 VDC inductive.	SPDT, end solder terminals	S1-4	1.40
	SPDT, (reset) end solder terminals	S1-304	1.65
	SPDT, end screw terminals	S2-4	1.50
	SPDT, (reset) end screw terminals	S2-304	1.75
	SPDT, side solder terminals	S3-4	1.47
	roller lever actuator	A2-2**	.80
	push-button switch, solder terminals 15/32" bushing	A4-1/S1-4* N.P.	2.40
	push-button switch, detachable plastic button	A4-25-1/S1-4*	3.32
	red plastic button for A4-25-1	1109-SA11-1*	.60
	black plastic button for A4-25-1	1109-SA11-2	.60
	1" dia. push-button actuator	A4-102**	3.50
	roller leaf actuator	A5-5**	.40
	extended leaf actuator	A5-7**	.50
ACTUATORS  ROLLER LEVER PUSHBUTTON EXTENDED LEAF ROLLER LEAF			

*Designates actuator assembled with switch. **Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED



ASK FOR CATALOG No. 100
from your distributor. Contains short-form specification details, engineering drawings, descriptions and suggested application data. The above illustrations are only a few of the more popular items in the over 60,000 switches and indicators manufactured by Control Switch Division. For facts on the many others available, ask for Catalog 100.

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CONTROL SWITCH DIVISION
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to your switching problems...

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
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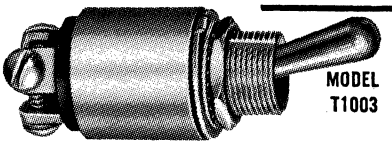
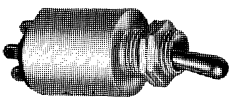
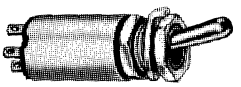
AT YOUR CONTROL SWITCH DISTRIBUTOR

Toggle Switches

Space-Saving Cylindrical Types

Exceptionally rugged, cam-roller Hetherington Toggle Switches positively cannot be teased off contact. Cylindrical anodized aluminum cases reduce size by 25% over conventional rectangular switches. Firmly anchored terminals separated by heavy insulation barrier. All are 2-position, snap-action.

	CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
 MODEL T1003	SPDT	20 amps.	10 amps.	15/32"	Designed to MIL-S-6745 specs.	3.22
 MODEL T2104	2-circuit	10 amps.	5 amps.	1/4"	Designed to JAN-S-23, Amend. 3.	3.94
MODEL T2150	DPDT	1 amp.	1 amp.	1/4"	Miniaturized	5.32
 MODEL T3103	SPDT	5 amps.	2½ amps.	1/4"	Anodized aluminum case	4.06

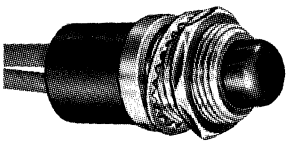
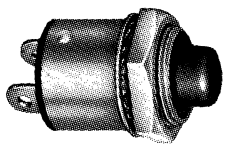
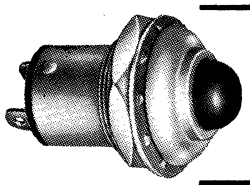
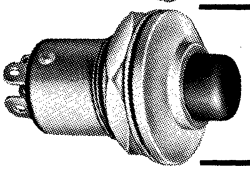
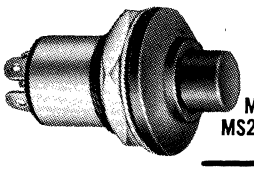
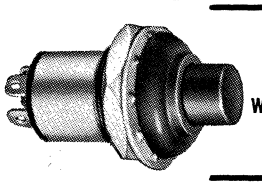
Pushbutton Switches

Snap-Action, Momentary Contact

The exclusive Hetherington snap-action mechanism reduces arcing and contact wear... provides far greater current capacity than the small sizes of these switches would indicate. Mechanism enclosed in dust and moisture-resistant anodized aluminum housings (phenolic in B2001 & B2002). 1-piece terminals and contacts firmly anchored to bases. Many types meet JAN and MIL Specs for aviation and military requirements.

Features and dimensions are subject to change based on engineering refinements. If dimensions or specifications are critical, obtain drawings from Control Switch engineering department.

* Inspected by Underwriters' Laboratories, Inc.

	CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
 MODEL B2001	SPST (N.O.)	—	8 amps.*	½"	Phenolic body	2.09
MODEL B2002	SPST (N.C.)					
 MODEL C1006	SPST (N.O.)	17 amps.	15 amps.*	½"	Anodized aluminum cases	3.01
MODEL C2006	2-circuit	10 amps.				3.61
 MODEL C100U4	SPST (N.O.)	17 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	3.76
 MODEL C200P3	2-circuit	10 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	4.36
 MODEL MS25089-3C	2-circuit	10 amps.	—	5/8"	Conforms to MS25089-3C (MIL-S-6743). Black flange.	4.34
 MODEL W103UB6	2-circuit	10 amps.	—	5/8"	Black flange.	5.43

More Switches on the Next Page

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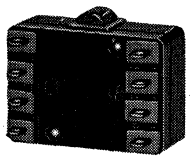
MORE PRECISION SNAP-ACTION SWITCHES

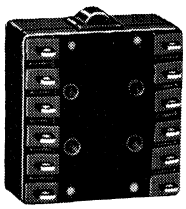
DOUBLE POLE D type



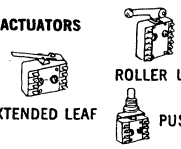
Multi-Circuit

High capacity basic switches permit simultaneous switching of multiple circuits and precision control of three phase motors. Military and UL listed models available. Reset model maintains circuit until reset button is actuated. Can be used as inexpensive two-way limit switches. Sizes: D type, 1¼" x ½" x ⅞"—K type, 1¼" x .491" x 1⅜".

TRIPLE POLE K type

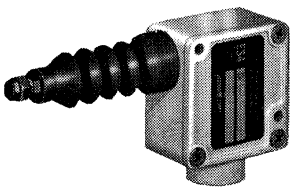


ACTUATORS



BASIC SWITCH SERIES	DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
	DPDT, side solder terminals	**4-Circuit**	
	DPDT, (reset) side solder terminals	D8-4	6.25
		D8-304 N.P.	6.75
	TPDT, side solder terminals	**6-Circuit**	
	Actuators for Type D & K Basic Switches	K3-4	7.45
	Roller lever		
	Push-button, 15/32" bushing	A2-5**	1.05
	Push-button, w/o detachable plastic button, 15/32" bushing	A4-2**	2.00
	Red plastic button for A4-24-1	A4-24-1**	1.71
	Black plastic button for A4-24-1	1109-SA11-1	.60
	1" dia. push-button	1109-SA11-2	.60
	Extended leaf	A4-102**	3.50
		A5-18**	.75

LIMIT SWITCHES ES4 type

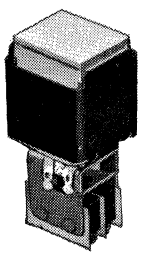


Especially designed for machine control, automation circuitry and sequencing operation. Aluminum diecast housing protects switch from damage, dirt and corrosion, simplifies mounting on equipment. Some models available with neoprene boot on plunger for protection from dirt, oil and metal chips. Impulse models eliminate need for one-way dogs, complicated relays and timers. As plunger is depressed, switch completes electrical circuit during pre-set section of travel ("ON" period), but does not make circuit on return stroke. Case size: 2" (plus plunger length) x 1 31/32" x 2 3/16". Rating: 10 amps, 125/250 VAC. Circuit: SPNO.

		OVER-TRAV-EL	"ON" PE-RIOD	1-19
	STANDARD ACTION			
		ES4-N	5/16"	8.50
	Red 1¾" push-button	ES4-J	5/16"	9.80
	Neoprene boot plunger	ES4-K	7/16"	9.50
	IMPULSE ACTION			
		ES4-NM1	¼"	1/16"	9.50
		ES4-NM2	3/16"	⅛"	9.50
		ES4-NM3	⅛"	3/16"	9.50
		ES4-NM4	1/16"	¼"	9.50
	Red 1¾" push-button	ES4-JM3	⅛"	3/16"	10.80
	Neoprene boot plunger	ES4-KM1	3/8"	1/16"	10.50
	" " "	ES4-KM2	5/16"	⅛"	10.50
	" " "	ES4-KM3	¼"	3/16"	10.50
	" " "	ES4-KM4	3/16"	¼"	10.50
	" " "	ES4-KM6	1/16"	3/8"	10.50
	Replacement basic switch for ES4 Series	S1-25			1.75

LIGHTED PUSH-BUTTON PANEL SWITCHES

C6 type



Combine lighting, legend, and electrical control in one compact unit. Save panel space, simplify operation. Units can be stacked or mounted individually on control panels or consoles. Plastic push-button is available in colors, can be hot-stamped with words or symbols, button size ¾" x 1". Light is provided by two separate 6- or 28-volt lamps wired in parallel. Switching component is DPDT, rated at 5 amps, 125 VAC or 4 amps, 30 VDC, resistive each pole. Either alternate action (push-on, push-off) or momentary action is available. Unit is also available without switch for use as pilot light. Two lamps included with each unit. Solid plastic or two-piece plastic button with clear slip-in insert for legend.

			1-24
	Momentary, w/2 clear 6V lamps	C6-52-22	9.60
	Momentary, w/2 clear 28V lamps	C6-56-22	10.40
	Push-push, w/2 clear 6V lamps	C6-53-22	11.70
	Push-push, w/2 clear 28V lamps	C6-57-22	12.50
	Pilot light, w/2 clear 6V lamps	C6-50-22	5.25
	Pilot light, w/2 clear 28V lamps	C6-54-22	6.05
	Solid blue button	1117-229-BB	.50
	2/pc. blue button	1117-SA19-11-B	.50
	Solid green button	1117-229-GG	.50
	2/pc. green button	1117-SA19-11-G	.50
	Solid red button	1117-229-RR	.50
	2/pc. red button	1117-SA19-11-R	.50
	Solid white button	1117-229-WW	.50
	2/pc. white button	1117-SA19-11-W	.50
	Solid yellow button	1117-229-YY	.50
	2/pc. yellow button	1117-SA19-11-Y	.50
	Mounting barrier (use one more barrier than number of units ganged)	1117-SA-19-4	.75

NOTE: Order buttons and mounting barriers separately

**Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

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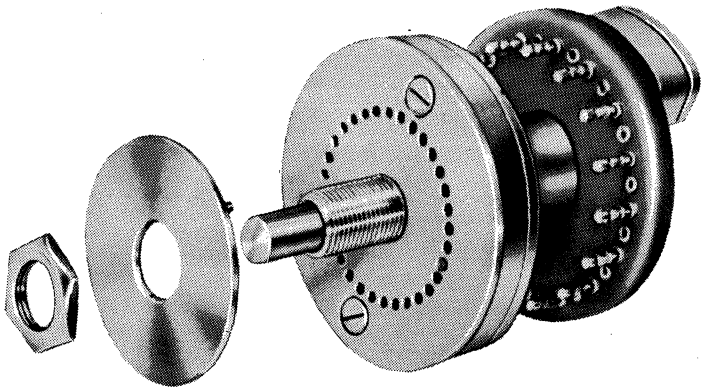
DAVEN Adjustable Stop Switches

VERSATILITY — For flexibility in all types of circuit experimentation, laboratory work, breadboard setups, and in circuitry where the exact number of switch positions might be changed at a later date, the new DAVEN Rotary Switch with an Adjustable Stop is ideal. This unit has a maximum of either 24 positions with 15° spacing or 32 positions with 11¼° spacing. One, two, three, and four pole units are available in this design.

In common with all other DAVEN Rotary Switches, the Adjustable Stop Switch features: sturdy, dependable construction; large silver alloy contacts and slip rings; tamper-proof KNEE ACTION silver alloy rotor blades; high grade, accurately machined dielectric; and gold flashed turret-type terminals for ease of soldering.



Adjustable in the Following Combinations:

Maximum of 24 Positions	15° Between Positions	Shorting
11 CM-24A	1 pole	24 pos. max. per pole
21 CM-12A	2 poles	12 pos. max. per pole
31 CM-8A	3 poles	8 pos. max. per pole
41 CM-5A	4 poles	5 pos. max. per pole

Maximum of 32 Positions	11¼° Between Positions	Shorting
12 CM-32A	1 pole	32 pos. max. per pole
22 CM-15A	2 poles	15 pos. max. per pole
32 CM-10A	3 poles	10 pos. max. per pole
42 CM-7A	4 poles	7 pos. max. per pole

Maximum of 12 Positions	30° Between Positions	Non-Shorting
11 CB-12A	1 pole	12 pos. max. per pole
21 CB-6A	2 poles	6 pos. max. per pole
31 CB-4A	3 poles	4 pos. max. per pole
41 CB-3A	4 poles	3 pos. max. per pole

Maximum of 16 Positions	22½° Between Positions	Non-Shorting
12 CB-16A	1 pole	16 pos. max. per pole
22 CB-8A	2 poles	8 pos. max. per pole
32 CB-5A	3 poles	5 pos. max. per pole
42 CB-4A	4 poles	4 pos. max. per pole

DAVEN Subminiature Series G Switches*

½" diam. x ⅝" deep

A new subminiature rotary selector switch, developed by DAVEN, is specifically suited for application in missiles, aircraft, handy talkies, field pack sets, frog-man communication equipment, and all types of mobile apparatus. This explosion-proof, waterproof switch has the same reliability as its bigger brothers . . . but in a fraction of the space. It meets applicable military specifications on temperature, humidity, corrosion, vibration, acceleration, shock and immersion.

This unit is available as a single pole, 10 position switch and can be obtained with up to four poles on a single deck.

SINGLE DECK — SHORTING
SPACING: 36° BETWEEN POSITIONS

	Positions	Type
Single Pole	2	18-GM-2
	3	18-GM-3
	4	18-GM-4
	5	18-GM-5
	6	18-GM-6
	7	18-GM-7
	8	18-GM-8
	9	18-GM-9
	10	18-GM-10
	*10	18-GM-10CR
Two Poles	2	28-GM-2
	3	28-GM-3
	4	28-GM-4
	5	28-GM-5
Three Poles	2	38-GM-2
	3	38-GM-3
Four Poles	2	48-GM-2

SINGLE DECK — NON-SHORTING
SPACING: 60° BETWEEN POSITIONS

	Positions	Type
Single Pole	2	18-GB-2
	3	18-GB-3
	4	18-GB-4
	5	18-GB-5
	6	18-GB-6
	†6	18-GB-6CR
Two Poles	2	28-GB-2
	3	28-GB-3
Three Poles	2	38-GB-2

†Continuous Rotation

*U.S. Pat. #2,980,770

Available from your local Daven distributor

THE DAVEN COMPANY
SWITCHES
Livingston, New Jersey

A SUBSIDIARY OF GENERAL MILLS

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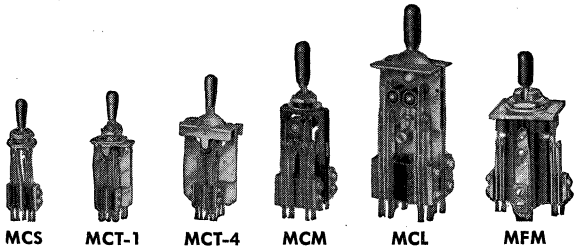
A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY



RATINGS

Type	Amps.*	High	Wide	Long**
MCS	1	7/8"	7/8"	2-1/16"
MCT-1	1	1 1/4"	3/4"	2-5/16"
MCT-4	1	1 1/2"	3/4"	2-17/32"
MCM	5	1 1/4"	1 1/4"	2-25/32"
MCL	10	1 3/4"	1 3/8"	3-15/16"
MFM	5	1 3/4"	1 3/4"	3"

*125 volts, 60 cycles, non-inductive.
**From back panel to end of terminals.

Write for data Sheet CLR1.1

MCS Light-weight, miniature switch. Two contact sections. Single-hole mounting. Especially suited for Instruments and communications systems.

MCT Small switch for multiple-circuit control. Four contact sections. Frames available for either single-hole or four-hole screw type mounting.

MCM Widely used switch with multiple-position, ball-bearing detents. Four contact sections. Contact assemblies easily removed for wiring. Single-hole mounting.

MCL Heavy-duty switch for constant use in electrical control. Rugged cam. Four contact sections; easily removed contact assembly. Four-hole mounting.

MFM Versatile five-position switch with four contact sections—one neutral and four switch positions. Single-hole mounting.

LEVER OPERATION

Symbol		Three-Position			Two-Position	Half Throw	Two-Position	Full Throw
Lock (Stays put)	Non-lock Spring return							
Designation	MCS	S1	*S2	S3	*S4	*S5		
	MCT	T1	*T2	T3	*T4	*T5		
	MCM	M1	*M2	M3	*M4	*M5	M6	*M7
	MCL	L1	*L2	L3	*L4	*L5		

*Lock and non-lock positions may be reversed. To reverse designate as RS2, RM4, RL5, etc.

SPECIAL MCM LEVER

(A) waterproof lever
$3.30 EACH, LIST

MFM

Description	Lock	Non-Lock	Four-Position
SYMBOL			
OPERATION			
Operation No.	F8	F9	F10	F11	F12

CONTACTS

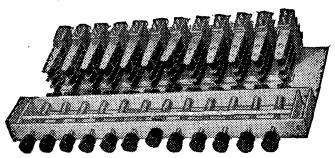
To obtain list price:— add contact prices to frame price.

Frame Types and Prices	Contact Forms / Circuit	A	B	C	D	E	F	G	H	O (No Contacts)
MCS $1.35	MCS	0.40	0.40	0.50	0.60	0.70	0.50	—	0.50	—
MCT-4 $1.60	MCT-4	0.40	0.40	0.50	0.60	0.70	0.50	—	0.50	—
MCT-1 $2.00	MCT-1	0.40	0.40	0.50	0.60	0.70	0.50	—	0.50	—
MCM $3.00	MCM	.60	.60	.75	.95	1.20	.75	.75	.75	—
MCL $4.00	MCL	.95	.95	1.05	1.30	2.00	1.05	1.05	1.05	—
MFM $13.75	MFM	.60	.60	.75	.95	1.20	.75	.75	.75	—

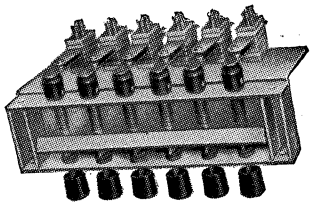
NOTE: Add 20% to MCS and MCT contact prices for contacts of palladium-silver alloy.

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY

A complete heavy duty push button switch with either 1 amp. or 5 amp. ratings at 110/60 AC. Furnished in two or twelve positions. A right-angle MPB is also available where back-of-panel depth is limited, incorporating all of the operating features of the standard MPB. 1 amp. switches are available with palladium silver contacts. It is possible to obtain the standard MPB switch stacked and/or intercoupled, providing all of the features of a single switch. Other variations of the standard MPB switch are also obtainable. Contact the factory with your requirements.



STANDARD MPB SWITCH



RIGHT-ANGLE MPB SWITCH

STANDARD and RIGHT-ANGLE FRAME PRICES

1 FRAME TYPES / CONTACT POSITIONS		MPB-2	MPB-3	MPB-4	MPB-5	MPB-6	MPB-7	MPB-8	MPB-9	MPB-10	MPB-11	MPB-12
		2	3	4	5	6	7	8	9	10	11	12
*Accumulative Lock	B-13	See note	6.70	8.65	10.60	12.55	14.50	16.45	18.40	20.35	22.30	24.85
No Two Interlock	B-14	5.50	5.95	7.40	8.85	10.30	11.75	13.20	14.65	16.10	17.55	19.60
Lock Release	B-15	5.00	5.20	6.40	7.60	8.80	10.00	11.20	12.40	13.60	14.80	16.60
Non-Lock	B-16	5.00	5.20	6.40	7.60	8.80	10.00	11.20	12.40	13.60	14.80	16.60

*Reset button requires one position in addition to standard contact positions. Reset button is on right-hand side unless otherwise specified.
*Reset button normally actuates no contacts but *can* be used to actuate *momentary* contacts if required.

CONTACTS

2 CONTACT FORMS		A	B	C	D	E	H	O
Circuit								No Contacts
PRICE	*5 Amps.	.60	.60	.75	.95	1.20	.75	—
	*1 Amp.	.40	.40	.50	.60	.70	.50	—

*Ratings at 125 volts A-C, N.I.

PUSH BUTTON OPERATION

3 OPERATION	ACCUMULATIVE LOCK	NO TWO INTERLOCK	LOCK RELEASE	NON-LOCK
Description	Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
Designation	B-13	B-14	B-15	B-16

Write for data sheet PBRM

ORDERING INFORMATION

When ordering, specify: (1) Frame Type — Standard MPB-6 — Price: $8.80 | (2) Push Button Operation — B-15 | (3) Contacts C1, C2, C3, etc — A-A-A-B-B-C — +.60 + 60 +.60 + .60+.60 +.75 | (4) Contact Rating — 5-amperes | (5) Panel Thickness — 1/8" panel = $12.55

NOTICE: All prices and specifications subject to change without prior notice. **General Control Company, Boston 34, Mass.**

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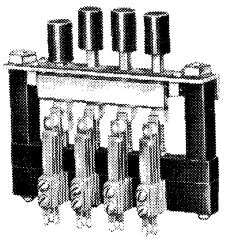
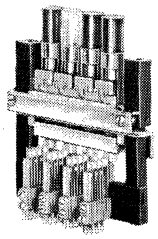
NEW Standard and Lighted Push Button Switches

STANDARD



LIGHTED



FRAME PRICES

BUTTONS		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B13	SPS	7.65	8.20	10.50	12.95	15.15	17.55	19.75	22.20	24.40	26.80	29.75	32.90	35.85	39.00	41.95
	LPS	13.75	17.75	22.25	25.85	32.25	37.65	43.25	48.85	54.25	59.85	62.25	71.85	78.25	84.85	91.25
B14	SPS	6.90	7.45	9.25	11.10	12.90	14.70	16.50	18.35	20.15	21.95	24.50	27.05	29.60	32.15	34.70
	LPS	13.00	17.00	21.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	66.00	72.00	78.00	84.00
B15	SPS	6.25	6.50	8.00	9.50	11.00	12.50	14.00	15.50	17.00	18.50	20.75	23.00	25.25	27.50	29.75
	LPS	12.00	16.00	20.00	24.00	29.00	34.00	39.00	44.00	49.00	54.00	59.00	65.00	71.00	77.00	83.00
B16	SPS	5.75	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	20.25	22.50	24.75	27.00	29.25
	LPS	11.50	15.50	19.50	23.50	28.50	33.00	38.00	43.00	47.50	52.50	57.50	63.50	69.50	75.50	81.50

CONTACTS

CONTACT FORMS	A	B	C	H
1 amp silver	.50	.50	.65	.65
3 amps paladium alloy	.60	.60	.75	.75
↑ Direction of Throw				

Ratings at 125 volts A.C. n.i.

OPERATION

Operation	Accumulative Lock	No Two Interlock	Lock Release	Non-Lock
Description	Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
Designation	B-13	B-14	B-15	B-16

WRITE FOR DATA SHEET SLRM

ORDERING INFORMATION

1. Frame Type	2. Operation	3. Contacts	4. Rating	5. Panel Thickness	
SPS4	B14	A-C-2A-2C	3 amps	1/8"	
9.25	—	.60+.75+1.20+1.50	—	—	= $13.30

"Footrol" FOOT SWITCHES by GENERAL CONTROL COMPANY

FOOTROL® GENERAL CONTROL

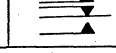
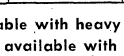
TYPE MA A new light weight foot switch with an actuating treadle built into its top to permit operation with unusually light foot pressure. A completely enclosed limit switch forms the internal switch action. Especially recommended for fast operation where minimum fatigue is important. Access to the internal limit switch terminals is greatly facilitated by simply removing the front end of the casting.

TYPE MI An ideal treadle-type foot switch, especially convenient for many applications. Inclined, non-slip tread has an adjustable throw and includes a heel rest. Two operating pressures: 5 lbs. and 10 lbs. Mounting ears are provided on each side. A BX connector is mounted in the base, and terminal access is by a removable base plate.

TYPE MC Especially adapted for unusual applications and hard use. Easily operated for foot, knee, hand, or elbow. Non-slip-tread top may be operated at any point of its surface.

Since 1934, General Control Company has been a foremost manufacturer of Foot Switches. These are products of the highest quality; built for rugged industrial and commercial applications such as: bowling alleys, packaging machinery, super-market conveyor belts, drill presses, indexing machines, etc.

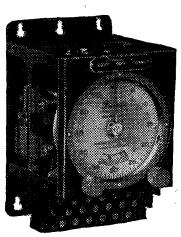
Write for data sheet FSRM

TYPES			CONTACT TYPES	CONTACT OPERATION	RATING
MA-3 $4.60	MC-13 $6.50	MI-23 $9.80		Double throw Spring return (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	20 amps
—	—	* MI-25 $11.25		First press transfers switch contacts Second press restores switch contacts (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	12 amps
—	—	MI-26 $13.65		1st half-throw closes 1st switch 2nd half-throw closes 2nd switch Spring Return	20 amps
—	—	MI-27 $15.00		Double pole Double throw Spring return (TWO NORMALLY OPEN, TWO NORMALLY CLOSED)	20 amps

*Available with heavy duty 20 amps rating at 250 V

Standard Foot Switches are available with mounting holes to accommodate special connectors used on shielded cable.

"Promatic" CONTROLS by GENERAL CONTROL COMPANY



SYNCHRONOUS-MOTOR TIMERS

The Series II, Type SY, Synchronous-motor Timers has time ranges from 1 second up to 24 hours, available to match the Type ET Timer. Redesigned to incorporate the latest production and quality improvements. A new patented O-Ring clutch eliminates gears and costly maintenance problems. Time period easily adjusted and continuously indicated on large dial. Prices from $55.00 each, list.

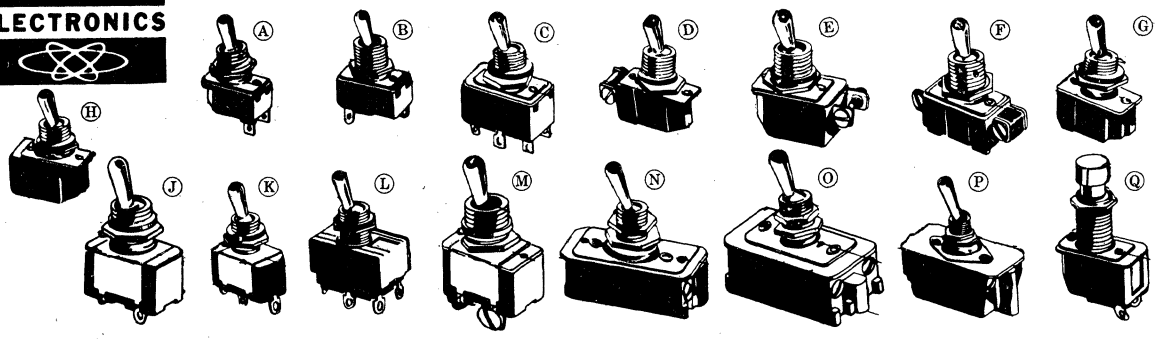
ELECTRONIC TIMERS

Type ET, Electronic Timers with ranges from .060 seconds to 60 seconds, are available in a variety of frame types, terminal arrangements, and mountings. The enclosed type or chassis model have back plates punched with universal mounting holes. Double pole, double throw auxiliary load contacts are rated at 10 amps., 125 volts a-c, n.i. Prices from $35.00 each, list.

Write for data sheets SERM

GC ELECTRONICS ELECTROCRAFT COMPONENTS

SWITCHES • CABLE CLAMPS



These switches, made by Cutler Hammer Inc., for GC-Electrocraft, are all single hole mounting, UL Approved and supplied with threaded shank 13/32" long. Shanks are milled with keway to prevent any possible turning when used with a keyed hole in the panel.

(A) LIGHT DUTY, SMALL SIZE TOGGLE SWITCH—rating 3 amps, 250/V.

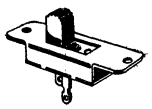
Cat. No. 34-180 SPST Net $ .72
Cat. No. 34-182 DPST Net 1.28
Cat. No. 34-184 DPDT Net 1.47

(B) "THREE WAY" AND "TWO CIRCUIT" SWITCH—Three way switch handles 2 circuits with common line; 3 terminals, with one terminal "common". Two circuit model 4 terminals, with no connections between circuits.

Cat. No. 34-186 SPDT (3-way) Net $ .90
Cat. No. 34-188 DPST (2-circuit) Net $1.10

MISCELLANEOUS SMALL SWITCHES

The switches listed below are widely used on electronic equipment, automotive applications and small electrical appliances.



SLIDE SWITCHES—UL approved for ½ amp, 125/V. Mount with 2 screws #6 or rivets ⅛" with 1⅛" spacing.

Cat. No. 34-160 SPDT Net $ .17
Cat. No. 34-162 DPDT Net $ .20

ROTARY CANOPY SWITCH—With wire leads and 13/32" shank length. Rating 3 amps, 125/V, 1 amp, 250/V. Mounts in ⅜" hole.

Cat. No. 34-166 Net $ .30

CUTLER HAMMER SWITCHES

(C) MEDIUM DUTY TOGGLE SWITCH—solder lug connections; 3 amp, 250/V; 6 amp, 125/V, AC-DC.

Cat. No. 34-190 DPST Net $1.42
Cat. No. 34-192 DPDT Net $1.58

(D) LIGHT DUTY TOGGLE SWITCH—screw terminals, rating 3 amp, 250/V AC-DC.

Cat. No. 34-194 SPST Net $ .87
Cat. No. 34-196 DPST (2 pos. no "off") Net $1.68
Cat. No. 34-198 DPDT (2 pos. w/ off) Net $2.03

(E) MEDIUM DUTY TOGGLE SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.

Cat. No. 34-200 SPST Net $ .98
Cat. No. 34-202 DPDT (2 pos. w/ "off") Net $1.92

(F) LIGHT DUTY, 3-WAY SWITCH—rating 1 amp, 250/V; 3 amps, 125/V.

Cat. No. 34-204 SPDT Net $1.13

(G) LIGHT DUTY, WIRE LEAD SWITCH—rating 3 amps, 250/V, AC-DC.

Cat. No. 34-206 SPST Net $ .87

(H) MEDIUM DUTY WIRE LEAD SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.

Cat. No. 34-208 SPST Net $ .98

(J) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V, 15 amp, 125/V and ¾ HP.

Cat. No. 34-210 SPST Net $ .72
Cat. No. 34-212 DPST (2 pos. on-off) Net $1.12

(K) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V and 1 HP.

Cat. No. 34-214 SPDT (2 pos. no "off") Net $ .83
Cat. No. 34-216 3 PST (2 pos. on-off) Net $2.22
Cat. No. 34-218 3 PDT (no "off" pos.) Net $2.73

(L) MEDIUM-STD DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.

Cat. No. 34-220 DPDT lug (2 pos. w/ "off") Net $1.28
Cat. No. 34-222 DPST screw (2 pos. on-off) Net $1.28
Cat. No. 34-224 DPDT screw (2 pos. w/ "off") Net $1.58
Cat. No. 34-226 DPDT lug (3 pos. center off) Net $1.28

(M) MEDIUM-HEAVY DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.

Cat. No. 34-228 SPST screw (on-off) Net $ .83
Cat. No. 34-230 SPDT screw (no "off pos.) Net $ .98
Cat. No. 34-232 3 PST screw (2 pos. on-off) Net $2.58
Cat. No. 34-234 3 PDT screw (2 pos. w/ "off") Net $3.27
Cat. No. 34-236 SPDT (3 pos. center off) Net $ .83
Cat. No. 34-238 3 PDT (3 pos. center off) Net $2.73
Cat. No. 34-240 3 PDT (3 pos. center. off) Net $3.27

(N) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 6 amp, 250/V; 12 amp, 125/V, 1 HP.

Cat. No. 34-242 SPST Net $1.35
Cat. No. 34-244 DPST Net $1.35

(O) HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V, 1½ HP.

Cat. No. 34-246 SPST Net $2.33
Cat. No. 34-248 DPST Net $2.33

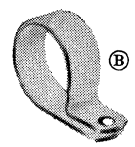
(P) EXTRA-HEAVY DUTY TOGGLE SWITCH—rating 20 amps, 250/V, 1½ HP, 125/250 V.

Cat. No. 34-250 DPST Net $3.27

(Q) PUSH BUTTON, ON-PUSH-OFF SWITCHES—rating 3 amp, 250/V; 6 amp, 125/V; 11/16" shank length, single pole, single throw type.

Cat. No. 34-252 SPST with lug terminal Net $ .98
Cat. No. 34-254 SPST with screw terminal Net $1.12
Cat. No. 34-256 SPST with wire leads Net $1.12

PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are excellent for fastening cables, harnesses, tubing, etc. The Ethyl Cellulose clamps are designed for normal industrial and commercial application. They are tough, have good electrical properties and may be used where temperatures do not exceed 185°F. They have a low temperature limit of —40°F. The Nylon (Zytel) clamps are specifically designed for application where extreme durability and high resistance to temperature (—60 to 300°F) is required. They are also resistant to most chemicals.

(A) ETHYL CELLULOSE CABLE CLAMPS—made of transparent (light yellowish cast) plastic.

Cat. No. 34-300C	1/8" O.D.	Net $2.33
Cat. No. 34-304C	5/16" O.D.	Net $2.40
Cat. No. 34-308C	1/4" O.D.	Net $2.58
Cat. No. 34-312C	5/16" O.D.	Net $2.85
Cat. No. 34-316C	3/8" O.D.	Net $3.00
Cat. No. 34-320C	7/16" O.D.	Net $3.30
Cat. No. 34-324C	1/2" O.D.	Net $3.60
Cat. No. 34-328C	9/16" O.D.	Net $4.20

ETHYL CELLULOSE CABLE CLAMP:

Cat. No. 34-332C	13/32" O.D.	Net $4.50
Cat. No. 34-336C	5/8" O.D.	Net $4.80
Cat. No. 34-340C	11/16" O.D.	Net $5.10
Cat. No. 34-344C	3/4" O.D.	Net $5.40
Cat. No. 34-348C	7/8" O.D.	Net $5.70
Cat. No. 34-352C	1" O.D.	Net $6.00
Cat. No. 34-356C	1 1/8" O.D.	Net $6.30

(B) NYLON (ZYTEL) CABLE CLAMPS—Made of natural color (translucent white) Nylon.

Cat. No. 34-370C	1/8" O.D.	Net $ 3.60
Cat. No. 34-374C	5/16" O.D.	Net $ 3.93
Cat. No. 34-378C	1/4" O.D.	Net $ 4.17
Cat. No. 34-382C	5/16" O.D.	Net $ 4.68
Cat. No. 34-386C	3/8" O.D.	Net $ 4.83
Cat. No. 34-390C	7/16" O.D.	Net $ 5.13
Cat. No. 34-394C	1/2" O.D.	Net $ 5.47
Cat. No. 34-398C	9/16" O.D.	Net $ 6.72
Cat. No. 34-402C	5/8" O.D.	Net $ 7.50
Cat. No. 34-406C	11/16" O.D.	Net $ 7.80
Cat. No. 34-410C	3/4" O.D.	Net $ 8.40
Cat. No. 34-414C	7/8" O.D.	Net $ 9.00
Cat. No. 34-418C	1" O.D.	Net $10.50

SEND FOR FREE 400-PAGE CATALOG ON ALL GC ELECTRONICS PRODUCTS TODAY!

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Graphill INC.

LA GRANGE, ILLINOIS

MINIATURE ROTARY TAP SWITCHES

SERIES 12 and 5000

Miniature Tap Switches

Serves wide range of applications from automotive, to missile and navigation equipment. Identical in rating, materials and accessories. Series 12 offers added feature of soldered terminal to contact rivet joints for low resistance under corrosive conditions. 36° indexing. 1 to 10 decks, 2 to 10 positions per deck. Conservatively rated to break 1 ampere, at 115 VAC, resistive, or carry 5 amperes. Life expectancy 100,000 operations.

SERIES 24

For Precision Requirements

Designed for high reliability military and commercial applications. Positive detent action. 36° indexing. One pole per deck with shorting or non-shorting contacts—1 to 10 decks, 2 to 9 positions with built-in stop, or 10 positions continuous rotation unless otherwise specified. Two poles per deck (non-shorting contacts only) also available, made to order via multiple deck construction. Rating: break 1 ampere, 115 VAC, resistive, or carry 5 amperes.

SERIES 45

Midget Tap Switch

For high reliability military and commercial applications demanding small size. Single deck, single pole only. 2 to 6 positions with stops standard on 2 to 5 positions. 6 positions continuous rotation unless otherwise specified. 60° indexing. Shorting and non-shorting base is molded melamine thermosetting plastic per MIL-M-14, Type CFG. Terminals are solder type brass, lead tin plate and fused. Conservatively rated to break 1 ampere at 115 VAC resistive circuit and to carry 5 amperes. Supplied with mounting nut.

SERIES 6 and 36

Miniature Concentric Shaft Switch

Fully enclosed tap switch permitting new flexibility, and allowing 2 switches to be mounted in space normally occupied by one. Each shaft controls from one to three decks, with two to ten shorting, or non-shorting, positions per deck. Can be furnished in over 6500 combinations of decks and positions. Only 1" in diameter including solder lugs. Series 36 incorporates precision detent action.

Rating: Break 1 ampere, 115 VAC resistive, carries 5 amperes. 3/8-32 threaded and keyed bushing, supplied with knobs and mounting nut.

Spring Return Rotary Switch

Same as Series #24 except momentary contact, spring return to either side of center position. Available 1 to 3 decks (incl.), one pole per deck, shorting or non-shorting contacts. Also available with up to 4 detent positions plus spring return position to either right or left of detent position.

PRICES ON REQUEST

PUSH BUTTON SWITCHES

LIGHTED PUSH BUTTON SWITCH

Equipped with a NE2 neon bulb, with light circuit independent of switch circuit. Switch rated at 1 amp. 115 VAC with approximate life of 500,000 operations. Normally open. Momentary contact. 3/8-32 threaded bushing, 7/16" max. dia., 1 1/4" behind panel length. Fine silver contacts. Solder type terminals.

No. 40-1—Normally open ..... **$2.00 each**

MINIATURE PUSH-PULL SWITCH

Push-on, pull-off action, SPST. Normally open. Rating: 1 ampere, 115 VAC resistive. Life expectancy 100,000 operations. 15/32-32 threaded bushing, 1/2" O.D., 1 1/2" overall length including terminals.

No. 30-16 ..... **$1.15 each**

SNAP ACTION SWITCH

Snap action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 10 amperes, 115 VAC, resistive. Life approximately 50,000 operations. 15/32-32 threaded bushing, 7/8" O.D., 15 5/64" overall length including solder type terminals.

No. 2201—Normally open (Red Button) ..... **$1.85 each**

No. 2202—Normally closed (Black Button) ..... **$1.85 each**

SILENT ACTION SWITCH

Silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 1/2 ampere, 115 VAC, resistive, for approximately 800,000 operations, or 1 ampere for approximately 100,000 operations. 15/32-32 threaded bushing, 5/64" O.D., 1 17/32" overall length including solder type terminals.

No. 4001—Normally open (Red Button) ..... **$.70 each**

No. 4002—Normally closed (Black Button) ..... **$.70 each**

DOUBLE POLE SWITCH

Silent action, Normally Open, momentary contact, DPST, push button switch. Rating: 1/2 ampere, 115 VAC, resistive. Life over 100,000 operations. Button and housing molded phenolic. 5/64" O.D., 1 17/64" overall length including solder terminals.

No. 35-1 (Red Button) ..... **$1.20 each**

MINIATURE PUSH BUTTON SWITCH

Silent action, momentary contact, Normally Open, SPST, switch rated at 1/4 ampere, 115 VAC, resistive. Life approximately 1/2 million operations. Button and housing molded phenolic. 5/16-32 threaded bushing, 1/2" O.D., 13/64" overall length including solder terminals.

No. 23-1 (Red Button) ..... **$.85 each**

SUB-MINIATURE SWITCH

Silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Conservatively rated at 1/10 ampere, 115 VAC, resistive. Life approximately 1/2 million operations. Button and housing molded phenolic. 1/4-32 threaded bushing, 3/8" O.D., 63/64" overall length including solder terminals.

No. 30-1—Normally open (Red Button) ..... **$.95 each**

No. 30-2—Normally closed (Black Button) ..... **$.95 each**

ULTRA-MINIATURE SWITCH

Silent action, momentary contact, Normally Open, SPST, push button switch. Conservatively rated at 1/10 ampere, 115 VAC, resistive. Life over 1 million operations. Button and base molded phenolic. 1/4" O.D., 19/32" overall length including solder terminals.

No. 39-1 (Red Button) ..... **$1.00 each**

SOLDERLESS WIRING SWITCH

Silent action, Normally Open, momentary contact, SPST, push button switch. Built-in receptacles for A-MP #53 taper pins plus "in-and-out" wiring provision on one side. Rating: 1/2 ampere, 115 VAC, resistive. Life over 100,000 operations. Button and housing molded phenolic. 3/8-32 threaded mounting bushing and knurled nut black anodized aluminum. Lockwasher provided. 1/2" O.D., 31/32" overall length.

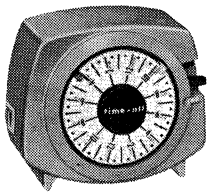
No. 34-1 (Red Button) ..... **$1.35 each**

© U.C.P., Inc.

Intermatic®

A COMPLETE LINE OF QUALITY TIME SWITCHES FOR ALL AUTOMATIC CONTROL REQUIREMENTS

PORTABLE PLUG-IN APPLIANCE TIMERS



Time-All — for all-around use in the home office, or store. Converts any radio to a clock radio . . . provides automatic "on-off" operation of lamps, de-humidifiers, hi-fi, fans, tape recorders, etc. Has manual control with automatic reset. Plug-in receptacle.

TV Show Catcher—Combination electric clock and signal timer. Buzzer sounds when favorite show is on the air. Timing period from 1 minute to 1 hour.

Tape Recorder Timer — Combination clock and appliance timer. Set it and it starts recorder for taping programs even when you're away.

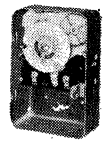
Music-Minder—Go to sleep to music—awaken to music! Exclusive sleep switch setting permits radio to play for any period up to 1 hour before shutting off automatically. Set for radio to begin playing in morning—buzzer sounds 10 minutes later to assure awakening.

Model No.	Description	Watts	Amps	Volts	List Price
A221-4	Standard Time-All	875	7	125	$10.95
A211-4	DeLuxe Time-All	1875	15	125	$11.95
A301-4	TV Show Catcher	....	..	125	$ 8.95*
A401-4	Tape Recorder Timer	1875	15	125	$11.95*
A501	Music-Minder	1875	15	125	$11.95*

*Subject to Retail Federal Excise Tax

STANDARD ON-OFF TIME SWITCHES

Century Series T100



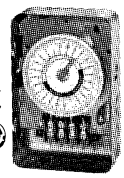
Tungsten-Rated to handle incandescent lighting loads. For ordinary automatic control requirements, with up to 11 on-off operations per day. Minimum on-off time, 1 hour; maximum 23 hours. Manual control with automatic reset.

Model No.	Switch	Amps	Voltage	List Price
T101	SPST	40	125	$11.95
T102	SPST	40	250	$12.95
T103	DPST	40	125	$13.95
T104	DPST	40	250	$14.95
T105	SPDT	40	125	$13.95
T106	SPDT	40	250	$14.95
T101B	SPST	40	125	$11.95
T102B	SPST	40	250	$12.95
P101*	SPST	10	125	$13.95

*Portable Plug-In: 125 volts, 60 cycle only.
Models also available for 125 volt 50 cycle, 125 volt 25 cycle or 250 volt 50 cycle.

PROGRAM TIME SWITCH

Supervisor Series T960



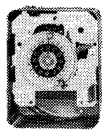
For recorded music, process timings, fans, and heaters. Permits 1 to 96 on-off operations every 24 hrs. in 15 min. increments. 96 permanently attached trippers easily slide in and out for fast setting. Portable plug-in model available.

Model No.	Type	Amps per pole	Voltage 60 cycle	List Price
T965	Can be used 3 ways 1. SPST—Normally open	20	125	$36.50
T966	2. SPST—Normally closed 3. SPDT—Alternate open & close	15	250	$37.50
P961*	Single Pole, Single Throw	10	125	$39.50

*Portage Plug-In

12 MINUTE REPEAT CYCLE TIMER

Cycler Series C8300

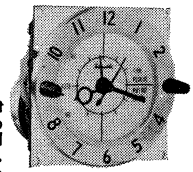


Dial makes a complete revolution every 12 min. ON operations from 10 sec. to 11 min., 10 sec. OFF operations from 50 sec. to 11 min., 50 sec. Up to 12 sets of on-off trippers can be placed on the dial at one time.

Model No.	Switch	Amps	Voltage	List Price
C8301-S	SPST	15	125	$14.45

RADIO CLOCK TIMER

Model RC 6021-2—unmounted

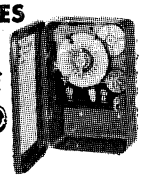


An unmounted radio clock timer with front control. For installation in any model radio or other electrical unit. Radio can be turned on automatically, turned on or off manually. Complete with round bezel and crystal. With front switch setting, front "time" and "automatic" set.

Model No.	Watts	Amps	Voltage/60 cycles	List Price
RC6021-2	1875	15	125	$8.00

Skipper SERIES TIME SWITCHES

T170—for 7-day Operation



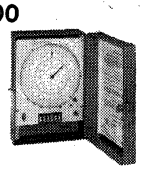
Tungsten-Rated to handle incandescent lighting loads. For use where it is desired to skip operation on selected days. SKIPPER has two dials—a 24 hour time dial and a day dial—day dial advances position one day every 24 hours.

Model No.	Switch	Amps	Voltage	List Price
T171	SPST	40	125	$16.95
T172	SPST	40	250	$17.95
T173	DPST	40	125	$18.95
T174	DPST	40	250	$19.95
T175	SPDT	40	125	$18.95
T176	SPDT	40	250	$19.95
T171B	SPST	40	125	$16.95
T172B	SPST	40	250	$17.95
P171*	SPST	10	125	$18.95

*Portable Plug-In: 125 volts, 60 cycle only.
Models also available for 125 volt-50 cycle, 125 volt-25 cycle, or 250 volt-50 cycle.

5 OR 15 MINUTE ON-OFF SWITCH

Supervisor DeLuxe Series V27000



For highly accurate on-off operations in 5 or 15 min. intervals, on a 24 hr. basis. Recommended for intermittent 24 hr. control of recorded music in stores, factories and offices, for process timings in food, chemical, and industrial plants, fans, ventilating systems, etc. Timings in multiples of 5 or 15 min.

Model No.	Case Size	Minimum Time Between Settings	Circuit Closure Range in multiples of	No. Circ.	List Price
V27101	LC	5 min.	5 min.	1	$89.95
V27201	SC	15 min.	15 min.	1	$79.95
V27107	LC	5 min.	5 min.	2	$119.95
V27207	SC	15 min.	15 min.	2	$109.95

Note: All models available for 250 volt operation and/or with Skipper feature. Request catalog No. TS-110 for complete model number listing.

for complete Time Switch information, request Catalog 81-Zts

INTERNATIONAL REGISTER COMPANY, CHICAGO, ILLINOIS

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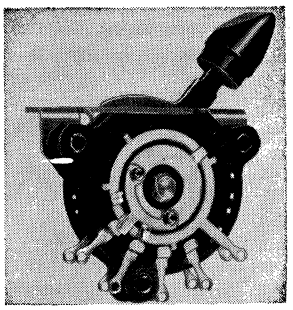
Instrument Quality J-B-T Components

J-B-T INSTRUMENTS, INC.

LEVER ACTION SWITCHES AND UNIQUE MOLDED SWITCHES

3-, 4-, 5-, and 6-Position Lever Switches — Time-saving Ring-Contact Rotaries — 6-Pole DT per Deck



SS-14-1L4F-2
Two-Deck Lever-Action Switch

SINGLE DECK, POSITIVE INDEXING, 3- and 4-POSITION. These lever switches are derived from the J-B-T SS-14 instrument-type rotaries. Specified for tube checkers, inspection equipment, communications systems, control consoles, and other uses where quality is important. 4-position types are interchangeable with 3-position except in length of throw, and provide for an extra circuit. Individually-boxed switches come with mounting hardware and KN-17 knob as illustrated; bulk shipments, without knobs. Spacing between centers: recommended ¾"; minimum 9/16". For dimensions, see drawing below.

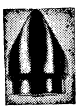
Spring Return Type. Single deck, 3-position switches may also be ordered with spring return. Lever returns to position 11, giving momentary action at positions 9 and 10.

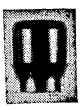
Two Deck. Same basic construction and packaging as single deck. Spacing between centers: recommended, 15/16"; minimum, 13/16". ⅜" between decks matches TV twinlead wires.

Model	Pos. per Circuit	Ckts. per Deck	Decks	Short. or Non	Stand.* Contact Pos.	Boxed Incl. Knob
SS-14-1L3	3, no "off"	1	1	NS	A	**$1.00**
SS-14-1L3A	3, no "off"	2	1	NS	B	**1.15**
SS-14-1L3S	3, no "off"	1	1	S	A	**1.05**
SS-14-1L3-R Sp. Ret.	3, no "off"	1	1	NS	A	**1.15**
SS-14-1L3S-R Sp. Ret.	3, no "off"	1	1	S	A	**1.20**
SS-14-1L3-2	3, no "off"	1	2	NS	A	**1.70**
SS-14-1L4	3 & "off"	1	1	NS	C	**1.10**
SS-14-1L4F	4, no "off"	1	1	NS	D	**1.10**
SS-14-1L4F-2	4, no "off"	1	2	NS	D	**1.90**
SS-14-1L4S	3 & "off"	1	1	S	C	**1.15**

*A—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts at 6, 7, 8, 12, 13, 14; C—common and off at 12, contacts at 9, 10, 11; D—common at 12, contacts at 8, 9, 10, 11.

KNOBS AND MOUNTING PLATES FOR LEVER SWITCHES

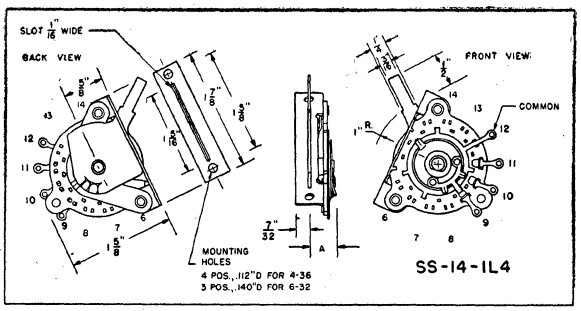




Spare Knobs. Push-on type are:
KN-17, black, pointed design, metal insert regularly supplied **$0.08**
KN-18, walnut, same as KN-19 ..... **.06**
KN-19, black, round, flat-type, no insert needed ..... **.06**

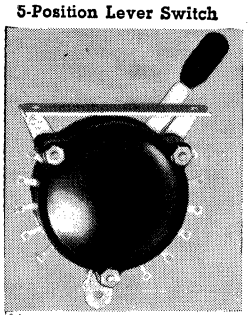
Mounting Plates. These .035" stamped steel plates in black crackle finish simplify alignment of standard 3-position IL3 single deck models. Spacing between slots, ¾"; all plates 2⅝" high.

PL-36, ¾" wide, for one switch **$0.30**
PL-37, 1½" wide, for two switches ..... **.40**
PL-38, 3" wide, for four switches (illustrated) ..... **.45**



Dimensions A=13/32" on 1-deck Switches; 23/32" on 2-deck. Non-shorting type with standard level length is shown.

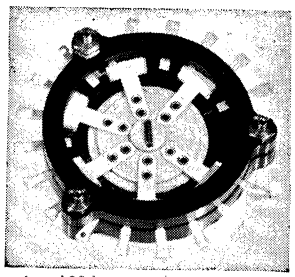
5-Position Lever Switch



MOLDED 5- and 6-POSITION, POSITIVE-INDEXING. Designers and servicemen now have available 5 or 6 live positions, two circuits per deck, in an enclosed lustrous black molded construction. Both switches are adapted from the MS-20 series on page 1229 and have similar electrical characteristics. Besides sound systems, these models can simplify circuitry for control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with mounting hardware and KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64 on 5-position and SK-119 on 6-position.

MS-20-IL5A-1, 5-position, 2-circuit (1-deck) **$3.25**
MS-20-IL6A-1, 6-position, 2-circuit (1-deck) **3.50**

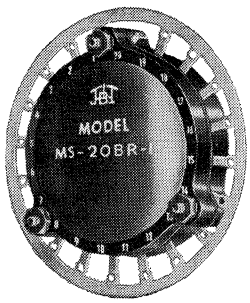
6-POLE DOUBLE-THROW PER DECK — 1 OR 2 DECKS



6-Pole Switches. Double-throw switching of 6 circuits per deck through two 18° positions (36° throw) becomes easy with this unique rotary-type molded switch. It is fully enclosed and similar in appearance to the molded MS-20 switches on page 1229 The illustration at the right shows internal construction with back protective cover cut away. Circuit arrangement is designated on the metal front of the switch. Quality features include .007 ohm average contact resistance; heavy, fine-silver plating for 100-hour salt spray test; double-grip collector arms. Now available in non-shorting (break before make) and shorting (make before break). 2⅝" maximum diameter, one deck, 13/16" behind panel; two deck, 1⅛" behind panel. DTS Shorting Types are rated 1500 volts R.M.S. between contacts and ground, 1000 volts R.M.S. between contacts.

MS-20-1-6DT, 6-pole, double-throw (1 deck), non-shorting.... **$3.90**
MS-20-1-6DTS, 6-pole, double-throw (1 deck), shorting..... **4.00**
MS-20-2-6DT, 6-pole, double-throw (2 decks), non-shorting.... **5.50**
MS-20-2-6DTS, 6-pole, double-throw (2 decks), shorting..... **5.75**

NEW IDEA: RING-CONTACT SWITCHES



Perfect connections between adjacent switch contacts are assured because this distinctive design needs no soldered jumpers. An integral ring which holds together all the contacts on each deck can be snipped wherever wanted—to save valuable time in development and pilot runs. For production lots, J-B-T can supply various combinations of joined and unjoined contacts to slash the user's assembly costs and build in quality. The ring-contact adds 7/32" o.d. to the MS-14 or MS-20 types listed on page 1233 (prints SK-88 and SK-89 respectively). The MS-20BR-1 shown here also has bonded (suffix B) construction. Switches listed below are normally available. Others such as 3-decks, 6-decks, shorting, etc., require substantial lead time.

RING-TYPE MOLDED SWITCH MS-14R

(14-position; angular indexing 25° 43'; o.d. 2-5/16")

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-14R-1	14	1	1	N-S	13/16"	**$2.75**
MS-14R-2	14	1	2	N-S	1⅛"	**3.65**
MS-14R-4	14	1	4	N-S	1¾"	**5.90**

RING-TYPE MOLDED SWITCH MS-20R

(20 positions; angular indexing, 18°; o.d. 2-27/32")

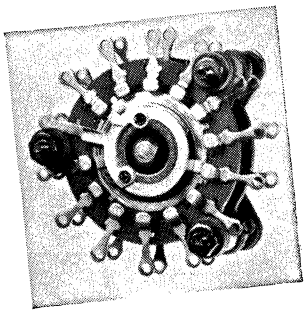
MS-20R-1	20	1	1	N-S	13/16"	**$3.40**
MS-20R-2	20	1	2	N-S	1⅛"	**4.45**
MS-20R-4	20	1	4	N-S	1¾"	**7.25**

Net Effective Aug. 28, 1961

Instrument Quality J-B-T INSTRUMENTS, INC. Components

INSTRUMENT AND TESTER SWITCHES (Laminated)

Rotary Selector — Single and Multi-Gang — Non-Shorting and Shorting



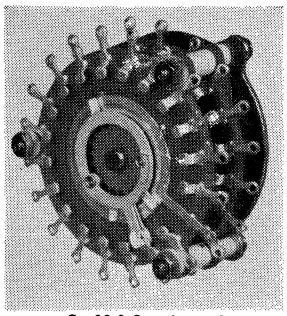
SS-14-2 Laminated

J-B-T Instrument-type Rotary Selector Switches are used widely in quality test equipment, portable instruments, inspection setups and avionics where trouble-free, dependable performance is of major importance. Available as a 14-position or a 20-position in laminated or molded types—the design gives extra contacts in minimum space. One to six decks.

FEATURES:

Reliability — Rigid, 3-post deck suspension, instead of the usual 2; all current carrying parts are brass or phosphor bronze, silver flashed and then heavily plated with fine silver to meet 100 hour salt spray test; ball bearing action, beryllium-copper balanced spring (SS-14); leaf type (SS-20), and sharp detent assure positive indexing. Springs of both types are replaceable without disturbing soldered connections. Laminated plastic decks and rotors are selected for maximum mechanical and dielectric strength. Insulation resistance above 50,000 megohms.

Exceptional Compactness—14-position switch takes 13 circuits and "off" in 2" circle; 20-position switch handles 19 circuits and "off" in 2-23/32" circle. Each deck above first adds only 5/16".



SS-20-2 Laminated

Low Contact Loss—Double-grip collector arms, and large-area contacts, silver to silver, result in an average contact resistance of .007 ohms or less during the useful life of the switch.

Ample Dielectric—AC or DC; carries 1 amp., 125 volts VAC, inductive load; maximum momentary capacity (not make-and-break), 5 amp.; maximum voltage between contacts 1500 volts R.M.S.; between decks and ground, 2000 volts R.M.S.

Military Variations—The following can be supplied on special order at extra cost: (a) laminated plastic, Type PBE-P per Spec. MIL-P-3115B; (b) vacuum impregnation of rotors, decks, spacers, and ceramic spacers with approved fungicides; (c) hot tin dip on contact surfaces to be soldered; (d) 14 or 20 live positions, no off, (add suffix F, as SS-14-2F or SS-20-1F); (e) common position in non-standard location.

BASIC 14-POSITION: 1¼" Bar knob (KN-14) supplied only on individually packed units—not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft, unless otherwise specified. **Contact lugs** and common lugs positioned as shown below, 13 contacts per deck. **One to six decks;** for each additional deck (or gang) add 5/16" to depth. **Continuous rotation type** supplied unless otherwise specified. **Adjustable Stop** normally is supplied on standard cataloged switches. **Fixed Stops** can be supplied on quantity orders at moderate cost. **Panel locator** positioned as shown unless otherwise specified on bulk orders.

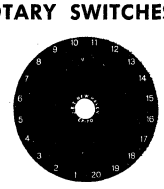
BASIC 20-POSITION: 2" Bar Knob (KN-16) supplied on individually packed units—not on bulk orders unless specified. **Collector Arm** placed directly opposite to flat of shaft unless otherwise ordered. **Contact Lugs** and common lugs positioned as shown below, 19 live positions per deck, standard. **One to six decks;** for each additional deck or gang add 5/16" to depth. **Continuous rotation** type supplied unless otherwise specified. **Panel locator** positioned as shown; can be modified on bulk orders.

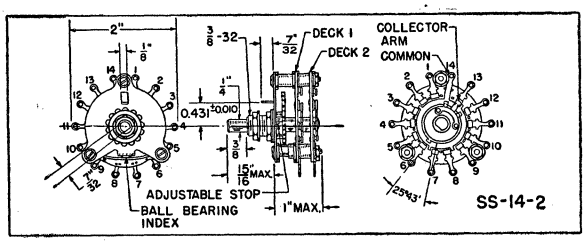
COMBINATIONS IN SS-14 and SS-20 SERIES: In addition to the military variations listed above, shorting and non-shorting decks can be assembled on the same switch shaft. Reference to the sketch below will be helpful in numbering decks and contacts when ordering non-standard assemblies. Specialized requirements for stainless steel shafts, no flats or double-flats on shaft, longer projections beyond bushing, and other variations can also be supplied, with necessarily longer delivery time and additional cost.

ETCHED DIAL PLATES FOR ROTARY SWITCHES

For SS-14 or MS-14 Series; and for SS-20 or MS-20 Series. Dull black finish—with raised bright metal numerals. 2¾" diameter.

EP-13 off thru 13 ..... **$0.23**
EP-14 1 thru 14 ..... **.23**
EP-19 off thru 19 ..... **.23**
EP-20 1 thru 20 ..... **.23**





Note: Threaded bushing on all SS-14 changing to 3/8-32 NEF-2A.

Non-Shorting—Break before make. **Shorting**—Make before break.

LAMINATED SWITCHES, SS-14 Type

(14-positions; angular indexing 25° 43')

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Boxed, Including Knob
SS-14-1	14	1	1	N-S	$2.30
SS-14-1A*	5†	2	1	N-S	2.45
SS-14-1S*	14	1	1	S	2.35
SS-14-1CS‡*	14	1	1	CS	2.80
SS-14-2	14	1	2	N-S	2.90
SS-14-2A*	5†	2	2	N-S	3.20
SS-14-2S*	14	1	2	S	3.00
SS-14-2CS‡*	14	1	2	CS	3.95
SS-14-3	14	1	3	N-S	3.50
SS-14-3S*	14	1	3	S	3.65
SS-14-4	14	1	4	N-S	4.40
SS-14-6	14	1	6	N-S	6.30

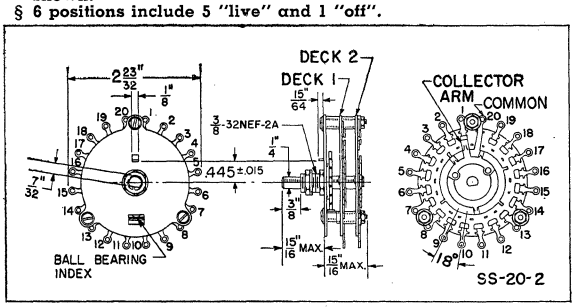
*** Standard items, but not regularly stocked; check with your electronic parts distributors.**
‡ Complete shorting — all contacts shorted except one in use.
† 5 positions include 4 "live" and 1 "off."

LAMINATED SWITCHES, SS-20 TYPE**

(20-positions; angular indexing, 18°)

SS-20-1	20	1	1	N-S	$4.00
SS-20-1A*	6§	2	1	N-S	4.15
SS-20-1S*	20	1	1	S	4.05
SS-20-2	20	1	2	N-S	4.75
SS-20-2S*	20	1	2	S	4.85
SS-20-3	20	1	3	N-S	5.85
SS-20-4	20	1	4	N-S	7.10
SS-20-6	20	1	6	N-S	9.40

*** Standard items, but not regularly stocked; check with your electronic parts distributors.**
**** SS-20 Switches reinstated February 1960 with new prices as shown.**
§ 6 positions include 5 "live" and 1 "off".



Net Effective Aug. 28, 1961

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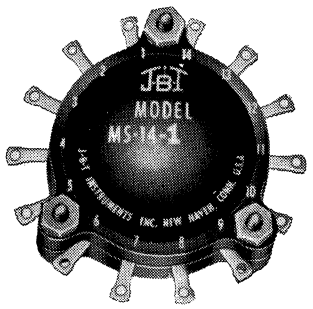
Instrument Quality J-B-T Components

J-B-T INSTRUMENTS, INC.

MOLDED ROTARY SELECTOR SWITCHES (Fully Enclosed)

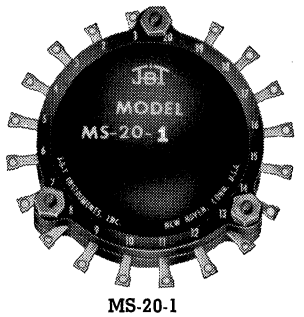
14 and 20 Position — Single and Multi-Gang — Shorting and Non-Shorting



MS-14-1

- **All moving contacts enclosed—minimizes dirt and corrosion—also 3-post deck suspension, double grip collector arms, and rectangular drive shaft for precision indexing.**
- **Interchangeable, electrically and mechanically, with SS-14 and SS-20 laminated switches.**

FEATURES: See adjoining page on SS types laminated switches for description of rigid 3-post construction; heavy fine silver plating to meet 100-hour salt-spray test; exceptional compactness; .007 ohm average contact resistance; insulation resistance above 50,000 megohms; current-carrying capacity and voltage breakdown. Besides fully enclosing all the moving contact parts, the molded switches differ from the laminated construction in the design of the detent mechanism, but both types provide the positive indexing which quickly identifies the superior quality of J-B-T switches. Test results are available on request covering certain procedures of MIL-E-5272A on insulation resistance; high and low temperature and temperature shock; humidity; altitude; salt spray; vibration; fungus resistance; rain, sand and dust; explosion; shock; and endurance values. (Ratings for MS-20-6DTS Types differ somewhat.)



MS-20-1

BASIC 14-POSITION MOLDED (MS-14): 13 circuits and "off" per deck in 2 3/32" circle for compactness. **Molded end cover** regularly supplied. 1 1/4" **Bar knob (KN-14)** included with individually boxed units—not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft, so that knob pointer points to live contact. **Common or "off" contact lug** is bent down for ready identification. **Internal construction:** double-grip collector arms hold contact lug on upper and lower surfaces; collector ring is self-wiping. **Extra decks** add 19/64" per deck (or gang) to depth; for 7 decks and over add 1/2" to depth for shaft support and 1/64" per deck for bonding; if adjustable stop type, also add 3/16" to depth. **Continuous rotation type** supplied unless adjustable stop (type MAS) is ordered or, on quantity orders, pre-set fixed stops are specified. **Panel locator** is available at extra cost on quantity orders when specified; on MS-14-4 and MS-14-6, extra hex nut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. For complete dimensions on MS-14 switches, 1 to 6 decks, request Print SK-111; for 7 decks and over, SK-112.

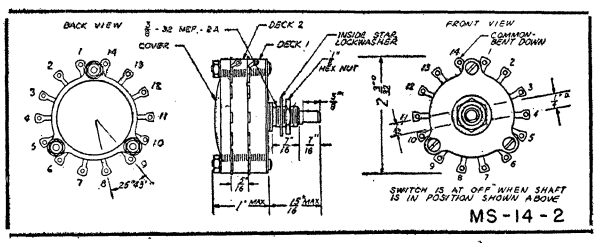
BASIC 20-POSITION MOLDED (MS-20): 19 circuits and "off" per deck in 2 5/8" circle for compactness. **Molded end cover** regularly supplied. **2" Bar knob (KN-16)** included with individually boxed units—not on bulk orders unless specified. **Collector arm** placed directly opposite to flat of shaft, so that knob pointer points to live contact. **Common or "off" contact lug** is bent down for ready identification. **Internal construction:** double-grip collector arms and self-wiping collector ring are standard construction. **Extra decks** add to depth 19/64" per deck and, if 7 decks or more, 1/2" for shaft support and 1/64" per deck for bonding. **Continuous rotation type** supplied; on quantity orders, pre-set fixed stops are available. **Panel locator** available at extra cost on quantity orders when specified; on MS-20-4 and MS-20-6, extra hex nut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. For complete dimensions on MS-20 switches, 1 to 6 decks, request Print SK-113; for 7 decks and over, SK-114.

MOLDED SWITCHES, MS-14 TYPE

(14 positions; angular indexing 25° 43')
Continuous rotation, no stops

Non-Shorting—Break before make. **Shorting**—Make before break.

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-14-1	14	1	1	N-S	13/32"	$2.45
MS-14-1S*	14	1	1	S	13/32"	2.50
MS-14-2	14	1	2	N-S	1 1/8"	3.10
MS-14-2S*	14	1	2	S	1 1/8"	3.20
MS-14-3	14	1	3	N-S	1 7/16"	3.75
MS-14-4	14	1	4	N-S	1 3/4"	4.85
MS-14-6	14	1	6	N-S	2 3/8"	7.05



Note: MS Switches now manufactured with deck depth of 19/64" instead of 5/16" as shown.

NEW BONDED RUGGEDIZED TYPES — All molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types using cured laminations for ruggedization, shock-proofing and further enclosure. Add 35c per deck to catalog price. Thus, 2 deck switch is MS-14B-2 at $3.80. Bonding add 1/64" max. per deck.

Non-Shorting—Break before make. **Shorting**—Make before break

MOLDED SWITCHES, MS-20 TYPE

(20 positions; angular indexing 18°)
Continuous rotation, no stops (except 6DT Types)

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-20-1	20	1	1	N-S	13/16"	$3.10
MS-20-1-6DT	2	6	1	N-S	13/16"	3.90
MS-20-1-6DTS	2	6	1	S	13/16"	4.00
MS-20-1S*	20	1	1	S	13/16"	3.15
MS-20-2	20	1	2	N-S	1 1/8"	3.90
MS-20-2-6DT	2	6	2	N-S	1 1/8"	5.50
MS-20-2-6DTS	2	6	2	S	1 1/8"	5.75
MS-20-2S*	20	1	2	S	1 1/8"	4.00
MS-20-3	20	1	3	N-S	1 7/16"	5.00
MS-20-4	20	1	4	N-S	1 3/4"	6.20
MS-20-6	20	1	6	N-S	2 3/8"	8.60

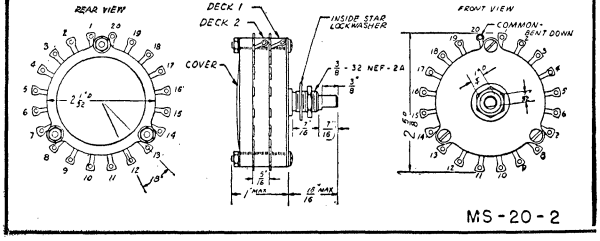
ADJUSTABLE STOP MOLDED SWITCHES, MAS-14 TYPE

(14 positions; angular indexing 25° 43')

IMPORTANT: Enclosed adjustable stop mechanism increases switch length by 5/32" behind panel; decrease effective bushing length by 3/32"; and shortens shaft extending from bushing by 1/16". Rings RI-23 and RI-24 are supplied.

Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MAS-14-1	14	1	1	N-S	31/32"	$3.10
MAS-14-1S*	14	1	1	S	31/32"	3.20
MAS-14-2	14	1	2	N-S	1 9/32"	3.80
MAS-14-2S*	14	1	2	S	1 9/32"	3.95
MAS-14-3	14	1	3	N-S	1 17/32"	4.60
MAS-14-4	14	1	4	N-S	1 25/32"	5.70
MAS-14-6	14	1	6	N-S	2 31/32"	8.00

For more than 6 decks, request prices
***Standard items, but not regularly stocked; check with your electronic parts distributor.**

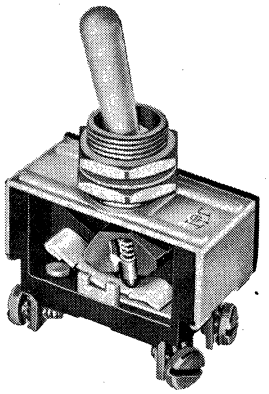


Net Effective Aug. 28, 1961

Instrument Quality J-B-T Components

J-B-T INSTRUMENTS, INC.

TOGGLE SWITCHES — HEAVY DUTY — SINGLE & DOUBLE POLE



*Cut-away view showing J-B-T's use of solid coin silver rocker arms and contacts.

Overload . . . Tested to make and break at 50% overload for brief periods. To assure performance of these switches with their comparatively heavy current ratings, J-B-T features ample size ***solid coin silver contacts and rocker arms** instead of clad or brazed construction. Contact resistance is under 0.005 ohms. High dielectric exceeds 1000 volts r.m.s. at 60 cycles at sea level.

Cold and Heat . . . Specialized aircraft lubricant facilitates mechanical and electrical operation at —85°F to 185°F.

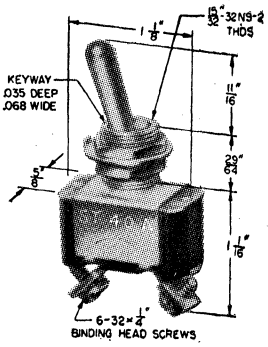
Vibration and Shock . . . No momentary make or break or mechanical damage during severe shake and 75 G's drop tests.

High Humidity . . . Materials, dull finish on outside metal parts (per Armed Services specifications) and lubricant enable switches to withstand tropical climates.

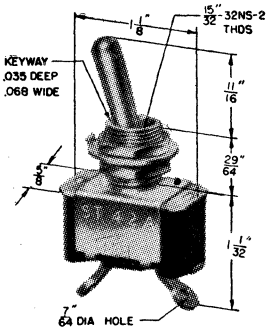
Salt . . . Meet 100 hour Salt-Spray Test QQ-M-151a which is twice the requirement of MIL-S-3950A.

Rugged Service . . . Generously proportioned and substantially built for extra life. For instance, both screw-type terminals and solder lugs easily withstand a 30 pound pull test. Operating cycles far in excess of minimum specified as acceptable. Quality standards are maintained by in-plant production testing.

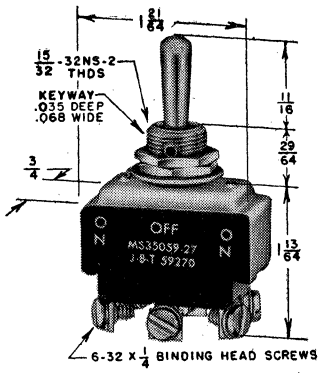
20 AMP — HEAVY DUTY — These pages cover 130 models of heavy-duty toggle switches nominally rated at 20 amp. at 125 VAC, and 10 amp., 250 VAC, and other ratings where specified in MIL-S-3950A. **6 Amp. — Medium Duty** described at bottom of next page.



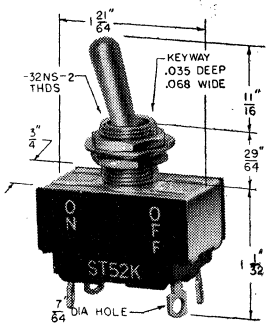
ST40A, B, C, D, E, F, G, H (screw terminals)



ST42A, B, C, D, E, F, G, H (solder lugs)



MS35059-26 —27, —31 (screw terminals)



ST52K, L, M, N, P, R (solder lugs)

For Electrical Characteristics, Current Values, and Full Information, Ask For Bulletin TS-6C

CIRCUIT DIAGRAM AND TYPE	MODEL NUMBER — SCREW TERMINAL: MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	SOLDER LUG: JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A	CIRCUIT ARRANGEMENT A	B	C (KEYWAY)
SPST — 2 terminals	MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9	On	None	Off
	MS35058-29	ST40B	AN3021-9	#	ST42B	MS35058-10	On	None	Off*
	MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11	Off	None	On*
	MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12	On	Off	None
	MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13	None	Off	On*
	MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14	On	Off*	None
SPDT — 3 terminals	MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15	On	None	On
	MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16	On	Off	On
	MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17	On	None	On*
	MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18	On*	Off	On*
	MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19	On	Off	On*
	#	#	AN3021-6†	#	#	#	On	Off	On*
DPST — 4 terminals	MS35059-22	ST50K	AN3027-2	#	ST52K	MS35059-9	On	None	Off
	MS35059-29§	ST50L	AN3027-4§	#	ST52L	MS35059-10§	On	None	Off*
	MS35059-30§	ST50M	AN3027-5§	#	ST52M	MS35059-11§	Off	None	On*
	MS35059-24	#	AN3027-9	MS35059-1	#	MS35059-12	On	Off	None
	MS35059-28	#	AN3027-11	MS35059-2	#	MS35059-13	None	Off	On*
	MS35059-25§	#	AN3027-10§	MS35059-3§	#	MS35059-14§	On	Off*	None
DPDT — 6 terminals	MS35059-23	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15	On	None	On
	MS35059-21	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16	On	Off	On
	MS35059-26§	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§	On	None	On*
	MS35059-27§	ST50S	AN3027-7§	MS35059-7	ST52S	MS35059-18§	On*	Off	On*
	MS35059-31§	ST50T	AN3027-8§	MS35059-8	ST52T	MS35059-19§	On	Off	On*

*Momentary Position

#Not included in this specification †AN3021-6 same as AN3021-5 with jumper §Same dimensions as MS35059-26 as illustrated.

NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950A have internal toggle seal to meet 15 ft. water submersion test.

NOTE B: Official Government policy recommends future procurement of toggle switches for military use be only to MIL-S-3950A. For heavy duty switches, MIL-S-3950A (with suffix —21 and higher) in the MS25068-, MS35058- and MS35059- series, calls for screw terminals only. Such terminals are prepared for soldering and may be soldered after removal of screw. For medium duty switches MIL-S-3950A, in the MS25098- and MS25100- series, calls for solder terminals only.

For standard J-B-T products and dealer net prices, see authorized electronic parts distributors, and for further technical information, or request J-B-T catalog 558-G and Bulletin SM-11A.

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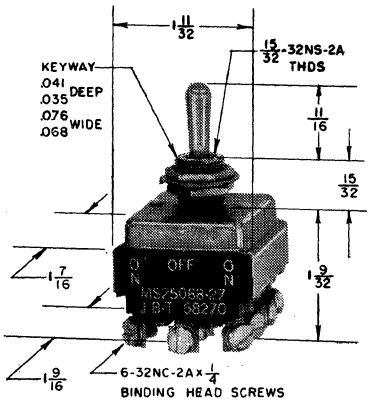
Instrument Quality J-B-T Components

J-B-T INSTRUMENTS, INC.

TOGGLE SWITCHES — HEAVY DUTY — 4 POLE

GOVERNMENT-QUALITY, SUPERIOR CONSTRUCTION, DESIGNED FOR MIL-S-3950A, SERIES MS25068



MS25068-27

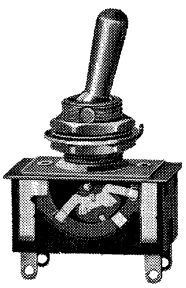
Newest additions to the J-B-T family of toggle switches are 8 models of 4-pole construction. They make up the MS25068-series, designed for MIL-S-3950A, and use single-hole mounting with single-throw or double-throw action as designated in the table. All have Silicone rubber bushing seals. To surpass the rigorous electrical endurance requirements, J-B-T switch bodies in the MS25068-series are molded of a new compound having hi-arc resistance and low shrinkage characteristics. The material is readily identified by its light brown color and silver printing.

CIRCUIT DIAGRAM AND TYPE	MODEL NUMBER SCREW TERMINALS ONLY MIL-S-3950A	MIL-S-3950	CIRCUIT ARRANGEMENT A	B	C (Keyway)
4 PST	MS25068-24	MS25068-11	On	Off	None
	MS25068-25	MS25068-13	On	Off*	None
8 Terminals	MS25068-28	MS25068-12	None	Off	On*
4 PDT	MS25068-21	MS25068-1	On	Off	On
	MS25068-23	MS25068-3	On	None	On
	MS25068-26	MS25068-10	On	None	On*
12 Terminals	MS25068-27	MS25068-7	On*	Off	On*
	MS25068-31	MS25068-5	On	Off	On*

*Momentary position

TOGGLE SWITCHES — MEDIUM DUTY — SINGLE & DOUBLE POLE

GOVERNMENT-QUALITY TYPES, DESIGNED FOR MIL-S-3950A, SERIES MS25098 and MS25100; JAN-S-23, DDAX SERIES, and MIL-S-21195A (Ships)



*Cut-away view of self-wiping construction showing outside of double-grip moving contact.

Like other J-B-T Switches, this series has quality as its first objective. J-B-T builds-in quality by doing its own design and manufacture, and by a continuous program of in-plant tests of production samples for quality assurance.

Typical Applications . . . This series is popular in communications circuits, electronic instruments, dry circuits (but with gold plated current carrying parts recommended for extremely low currents and voltages), measuring devices, miniature motor controls, and computers.

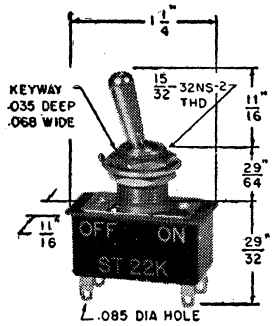
Self-Wiping Design . . . Even after long storage, a few flips of this switch brings the contact resistance well under the 0.01 ohm requirement of military specifications. As illustrated*, the double-grip moving contact of phosphor bronze heavily silver plated wipes over the stationary contacts of brass, also heavily silver plated.

Sound Electrical Values . . . Tested to meet 50% overload for brief periods. High dielectric exceeds 1000 volts r.m.s., 60 cycles at sea level.

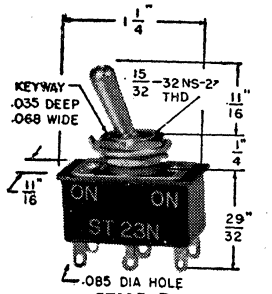
Exceptional Environmental Characteristics . . . Functions well throughout a range of —85°F to 185°F, with materials, plating, lubricant, and mechanical features to withstand tropical climates. Dull finish plating as stipulated in specificatons meets 100 hour salt-spray test QQ-M-151a (twice the required minimum). Other plating quoted on request.

Rugged Construction . . . Solder type hot tin dipped terminals as used throughout this series withstand 5 lb. pull test . . . enclosed molded body has no unused holes for side terminals . . . no momentary make or break or mechanical damage during severe shake tests and 75 G's drop test.

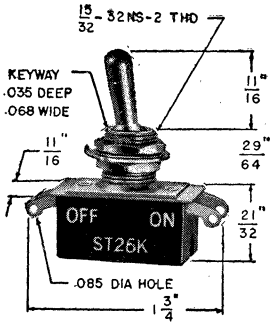
For Electrical Characteristics, Current Values, and Full Information, Ask for Bulletin TS-6C



ST12A, B, C, D
ST22K, L, M, N



ST13A, D
ST23K, N



29/64" Bushing:
ST16A, B, C, D
ST26K, L, M, N
1/4" Bushing:
ST17A, D
ST27K, N

CIRCUIT DIAGRAM AND TYPE	TERMINALS SIDE	TERMINALS BOTTOM	MODEL NUMBER (Solder Lugs Only) MIL-S-3950A 29/64" Bushing See Note A & B	JAN-S-23 and MIL-S-21195A (Ships) 29/64" Bushing	JAN-S-23 and MIL-S-21195A (Ships) 1/4" Bushing	MIL-S-3950 29/64" Bushing See Notes A & B	CIRCUIT ARRANGEMENT A	B	C (Keyway)
SPST	—	2	MS25098-22	ST12A	ST13A	MS25098-1	On	None	Off
	—	2	MS25098-29	ST12B	—	MS25098-2	On	None	Off*
	—	2	MS25098-30	ST12C	—	MS25098-3	Off	None	On*
	2	—	—	ST16A	ST17A	—	On	None	Off
	2	—	—	ST16B	—	—	On	None	Off*
	2	—	—	ST16C	—	—	Off	None	On*
SPDT	—	3	MS25098-23	ST12D	ST13D	MS25098-4	On	None	On
	2	1	—	ST16D	ST17D	—	On	None	On
DPST	—	4	MS25100-22	ST22K	ST23K	MS25100-1	On	None	Off
	—	4	MS25100-29	ST22L	—	MS25100-2	On	None	Off*
	—	4	MS25100-30	ST22M	—	MS25100-3	Off	None	On*
	4	—	—	ST26K	ST27K	—	On	None	Off
	4	—	—	ST26L	—	—	On	None	Off*
	4	—	—	ST26M	—	—	Off	None	On*
DPDT	—	6	MS25100-23	ST22N	ST23N	MS25100-4	On	None	On
	4	2	—	ST26N	ST27N	—	On	None	On

*Momentary position

For standard J-B-T products and dealer net prices, see authorized electronic parts distributors, and for further technical information, or request J-B-T catalog 558-G and bulletin SM-11A.

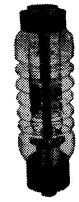
Jennings® VACUUM SWITCHES

R5C

R1G

R6G

RH5G


RH7G

Types R and RH Vacuum Switches

VACUUM SWITCH RATINGS

For RF and DC Transfer Switching

Jennings Type	R5C	R1	R1K	R2	R8	RH7
Test Voltage (300 kc dry)—peak kv	25	50	40	60	85	100
Operating Voltage—peak kv	15	30	20	40	75	85
Continuous Current (rms amp)—dc①	50	50, 100	100, 200	50, 100	100, 200	50, 400
—300 kc	30	35	100	35	100	200
— 10 mc	25	25	50	25	50	60
— 30 mc		15	25	15	25	25
RF Interrupting Power—kilowatts	50	250	500	250	1000	1000

①DC continuous currents may be increased as shown by using special connectors.

For DC Switching Under Load or Capacitor Discharging

Jennings type	R4C	R5C	R1G	R6G③	R2G	R8G	R9G	RH1G	RH4G	RH2G	RH7G	RH5G
Test voltage (60 cycles dry)—pk kv	20	25	50	51	55	60	71	37	37	51	113	71
Max. operating voltage—pk kv	5	15	20	20	30	40	50	20	10	20	70	30
Continuous current①—DC amp	50 100	50	50 100	100 250	50 100	100 200	100 200	50 400	50 600	50 600	50 400	50 600
DC interruption②—power in kw —Current in amp.	7.5 250@ 28 VDC	50 15	75 20	100 20	100 20	100 20	200 25	200 25	250 30	250 30	200 25	250 30
Capacitor discharge decaying to 30% in 1 millisec. or less—												
initial amp.			500	1000	500	1000	1500	5000	10,000	20,000	5000	20,000
10 micro sec pulse (amps)			1000	2000	1000	2000	3000	10,000	20,000	20,000	10,000	20,000
peak kv			30	25	40	50	60	30	20	30	70	40

①DC continuous currents may be increased as shown by using special connectors.
②For DC interruption in continuous operation, neither power nor current rating should be exceeded.
DC current interruption capabilities will be increased beyond current shown by addition of transient suppression capacitance across switch contacts. They can be multiplied considerably by special application of capacitors after the contacts have parted.

For 60 Cycle Power Switching

Jennings type	R6G③	R8G	R9G	RH1G	RH4G	RH2G	RH5G	RH7G	RL7G	RL10G
Recommended max. load voltage for max. operating recovery voltage @ 50 amps-rms kv	27	31	35	13.5	5	13.5	31	38	35	40
Load break 70% PF to 600 amps (grounded wye) rms kv	15.5	18	24.5	8.5	3.2	8.5	18	33	29.5	37
Grounded Y capacitor switching at 50 amps-rms kv	13.5	15.5	17.5	6.75	2.5	6.75	15.5	19	17.5	20
Grounded Y capacitor switching at rated thermal current—rms kv	10.5	12.5	14.75	4.75	1.6	4.25	9	15	12	17
Thermal current (for 30° C. rise) rms amps	100, 250	200	250	400	600	600	600	400	600	600
Max. recovery voltage at rated thermal current load—rms kv	21	25.5	29.5	9.5	3.2	8.5	18	30.5	24.5	34
Overload or fault interrupter circuit breaker 3 phase simultaneous break line to line (present recommended duty) rms kv			15.5	5	5	8.5	12	21.5	15.5	34.5
Max. interrupting current (10 times) rms amps.	1500 @9kv	1500 @14kv	2000 @17.5kv	2000 @6kv	4000 @2.5kv	4000 @5kv	4000 @12kv	2000 @21.5kv	4000 @15.5kv	4000 @18kv
Withstand voltage (60 cycle 1 min. dry) rms kv	36	36	50	26	26	36	50	80	50	80
Impulse voltage (1½ x 40 micro sec. NEMA) pk kv	75	75	110	60	45	60	95	125	110	150
Short time surge currents										
NEMA—4 sec. rms amps.	2500	2000	2500	2500	5000	5000	5000	2500	5000	5000
NEMA—½ cy + 10 cy. @ 70% rms amps	5000	4000	5000	5000	10000	20000	20000	5000	20000	20000

③Type R9A and R6A modification is available with longer life bellows and lower continuous current ratings of 50, 100 amps.

Relays using Vacuum Switches

Type R and RH Vacuum Switches are available from Jennings mounted as relays for indoor use. They may be mounted with contacts normally open or normally closed or two switches may be mounted in a single pole double throw arrangement. Either ac or dc solenoids may be used. Insulation between the switch and its actuating solenoid is provided by a 2 to 12 inch puller rod providing 40 to 140 kv insulation. CE grade phenolic laminate is recommended for dc or 60 cycle use. Grade G7 silicone glass laminate is recommended for radio frequency applications.

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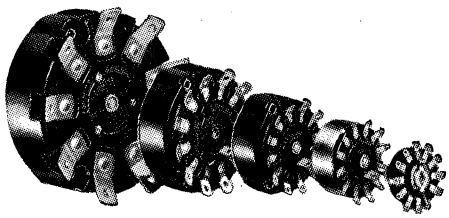
OHMITE® RESISTORS • RHEOSTATS • TAP SWITCHES
RELAYS • TANTALUM CAPACITORS
VARIABLE TRANSFORMERS • RF CHOKES

POWER TAP SWITCHES NON-SHORTING TYPE



Each switch is a non-shorting, single pole, rotary, multi-position unit, but switches can be ordered assembled 2 or 3 in tandem (2 maximum, for Model 111) to form multipole assemblies. All ceramic insulation, large, solid silver-to-silver contacts, and "slow-break" action especially designed for alternating current use establish new standards of dependability and performance. Switch shafts are electrically "dead"—insulated by strong ceramic hubs. Contacts and mechanism are entirely enclosed and protected (except for the Model 111).

MODEL 111 TAP SWITCH

Alternating Current Rating *10 Amps. 150 Volts* — Diameter 1¾" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut.

Depth Behind Panel		Single Unit 1⅛"		2 in Tandem 2¾"	
No. of Taps	Total Rotation	Stock Number	*Net 1-4	Stock Number	*Net 1-2
11	300°	111-11	$4.78	111-11-T2	$12.86
10	270°	111-10	4.66	111-10-T2	12.62
9	240°	111- 9	4.54	111- 9-T2	12.38
8	210°	111- 8	4.42	111- 8-T2	12.14
7	180°	111- 7	4.30	111- 7-T2	11.90
6	150°	111- 6	4.18	111- 6-T2	11.66
5	120°	111- 5	4.06	111- 5-T2	11.42
4	90°	111- 4	3.94	111- 4-T2	11.18
3	60°	111- 3	3.82	111- 3-T2	10.94
2	30°	111- 2	3.70	111- 2-T2	10.70
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5109 or 5110	

*Without Knob.

MODEL 212 TAP SWITCH

Alternating Current Rating *15 Amps. 150 Volts* — Diameter 2¼" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut. Tandem Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 1¾"		2 in Tandem 4³⁄₁₆"		3 in Tandem 6⁵⁄₁₆"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	212-12	$ 9.04	212-12-T2	$21.38	212-12-T3	$32.12
11	300°	212-11	8.86	212-11-T2	21.02	212-11-T3	31.58
10	270°	212-10	8.68	212-10-T2	20.66	212-10-T3	31.04
9	240°	212- 9	8.50	212- 9-T2	20.30	212- 9-T3	30.50
8	210°	212- 8	8.32	212- 8-T2	19.94	212- 8-T3	29.96
7	180°	212- 7	8.14	212- 7-T2	19.58	212- 7-T3	29.42
6	150°	212- 6	7.96	212- 6-T2	19.22	212- 6-T3	28.88
5	120°	212- 5	7.78	212- 5-T2	18.86	212- 5-T3	28.34
4	90°	212- 4	7.60	212- 4-T2	18.50	212- 4-T3	27.80
3	60°	212- 3	7.42	212- 3-T2	18.14	212- 3-T3	27.26
2	30°	212- 2	7.24	212- 2-T2	17.78	212- 2-T3	26.72
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 312 TAP SWITCH

Alternating Current Rating *25 Amps. 300 Volts*, 150 V. A.C. between taps — Diameter 3⅛" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 2¼"		2 in Tandem 4⅝"		3 in Tandem 7"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	312-12	$11.62	312-12-T2	$27.24	312-12-T3	$41.46
11	300°	312-11	11.44	312-11-T2	27.28	312-11-T3	40.92
10	270°	312-10	11.26	312-10-T2	26.92	312-10-T3	40.38
9	240°	312- 9	11.08	312- 9-T2	26.56	312- 9-T3	39.84
8	210°	312- 8	10.90	312- 8-T2	26.20	312- 8-T3	39.30
7	180°	312- 7	10.72	312- 7-T2	25.84	312- 7-T3	38.76
6	150°	312- 6	10.54	312- 6-T2	25.48	312- 6-T3	38.22
5	120°	312- 5	10.36	312- 5-T2	25.12	312- 5-T3	37.68
4	90°	312- 4	10.18	312- 4-T2	24.76	312- 4-T3	37.14
3	60°	312- 3	10.00	312- 3-T2	24.40	312- 3-T3	36.60
2	30°	312- 2	9.82	312- 2-T2	24.04	312- 2-T3	36.06
Recommended Knobs		Stock No. 5109 or 5110		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 412 TAP SWITCH

Alternating Current Rating *50 Amps. 300 Volts*, 150 V. A.C. between taps — Diameter 4⅜" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit 2⁷⁄₁₆"		2 in Tandem 5¹⁄₃₂"		3 in Tandem 7⅝"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	412-12	$15.46	412-12-T2	$35.32	412-12-T3	$52.98
11	300°	412-11	15.20	412-11-T2	34.80	412-11-T3	52.20
10	270°	412-10	14.94	412-10-T2	34.28	412-10-T3	51.42
9	240°	412- 9	14.68	412- 9-T2	33.76	412- 9-T3	50.64
8	210°	412- 8	14.42	412- 8-T2	33.24	412- 8-T3	49.86
7	180°	412- 7	14.16	412- 7-T2	32.72	412- 7-T3	49.08
6	150°	412- 6	13.90	412- 6-T2	32.20	412- 6-T3	48.30
5	120°	412- 5	13.64	412- 5-T2	31.68	412- 5-T3	47.52
4	90°	412- 4	13.38	412- 4-T2	31.16	412- 4-T3	46.74
3	60°	412- 3	13.12	412- 3-T2	30.64	412- 3-T3	45.96
2	30°	412- 2	12.86	412- 2-T2	30.12	412- 2-T3	45.18
Recommended Knobs		Stock No. 5111 or 5112		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 608 TAP SWITCH

Alternating Current Rating *100 Amps. 300 Volts* — Diameter 6" —Shaft Diameter ⅜"—Standard Mounting: For 1" panel maximum, three flat-head machine screws ¼"-20 x 1¼".

Depth Behind Panel		Single Unit 3⁵⁄₁₆"		2 in Tandem 6¹³⁄₁₆"		3 in Tandem 10⁵⁄₁₆"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
8	280°	608-8	$25.54	608-8-T2	$57.68	608-8-T3	$85.42
7	240°	608-7	25.20	608-7-T2	57.00	608-7-T3	84.40
6	200°	608-6	24.86	608-6-T2	56.32	608-6-T3	83.38
5	160°	608-5	24.52	608-5-T2	55.64	608-5-T3	82.36
4	120°	608-4	24.18	608-4-T2	54.96	608-4-T3	81.34
3	80°	608-3	23.84	608-3-T2	54.28	608-3-T3	80.32
2	40°	608-2	23.50	608-2-T2	53.60	608-2-T3	79.30
Recommended Knobs		Stock No. 5104 or 5115 or 5105		Stock No. 5104 or 5115 or 5105		Stock No. 5115	

*Without Knob.

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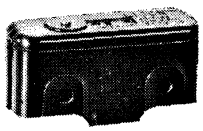
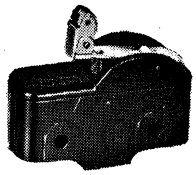
LICON® Precision Switches

LICON TYPE 10 PRECISION BASIC SWITCHES



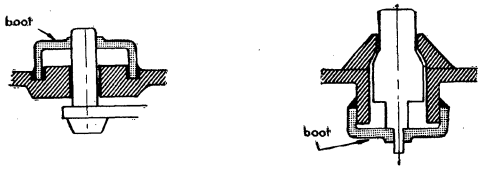
TYPE 10-122

Features extremely sensitive operation plus long life and high electrical rating. Over 10,000,000 actuations by test. Movement differential of .001 on standard types. 15 amp; 125, 250, 460V A.C. Meets government specs. ½ amp; 125V D.C. U.L. Approved.

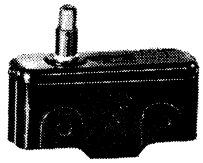


TYPE 10-72237

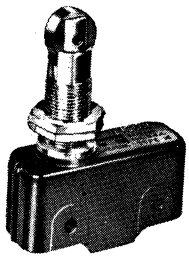
SPLASH PROOF SEAL



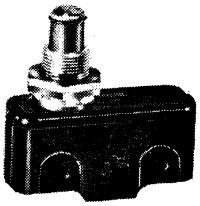
Sealing against moisture, dirt and other harmful elements can be provided by a neoprene boot for most type 10 models without altering switch characteristics. Specify by adding 301 to part number, i.e., 10-122301.



TYPE 10-222

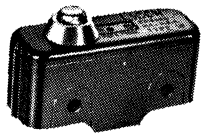


TYPE 10-922

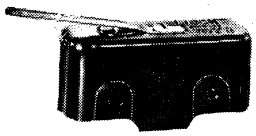


TYPE 10-322

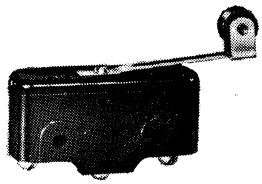
Type 10 switches shown are normally supplied with .020″ contact gaps with 15 amp rating. Gaps of .010″ to .070″ and ratings to 20 amps are also available.



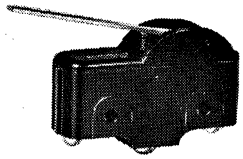
TYPE 10-822



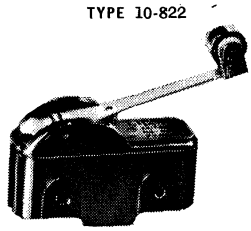
TYPE 10-422



TYPE 10-522



TYPE 10-622

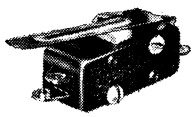


TYPE 10-722

LICON TYPE 11 PRECISION BASIC SWITCHES

TYPE 11 ACTUATORS

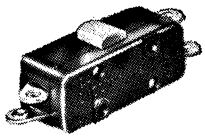
70-104



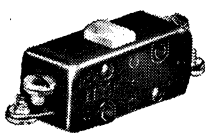
70-301

Type 11 combines small size, long life, high rating and double break in one reliable package. Government approved. Rated 10 amps, 30V D.C., 125 or 250V A.C. U.L. Approved. Tested over 20,000,000 life cycles.

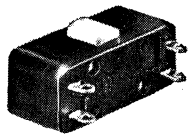
TYPE 11-104



TYPE 11-204

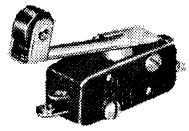


TYPE 11-304

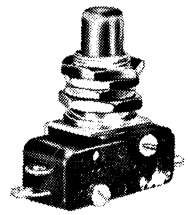


RESET MODEL AVAILABLE WITH END OR SIDE TERMINALS

TYPE 11 ACTUATORS

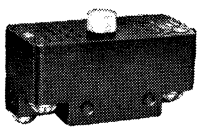


70-302



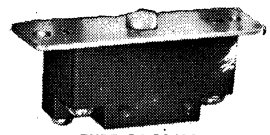
70-201

LICON TYPE 14 HEAVY DUTY SNAP-ACTION SWITCHES



TYPE 14-124

Rugged, dependable Type 14 switches feature 30,000,000 life cycles by test. Rated 20 amps, 250V A.C. Normally supplied with .020″ movement differential. Available with .010″ to over .040″ movement differential, in choice of mounting means and terminal designs. Operating force normally 12 oz. but can be from 100 grams to 2 lbs. Best suited to industrial and machine tool applications.



TYPE 14-12403

BOTH SWITCH TYPES AVAILABLE IN RESET MODELS

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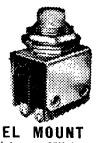
LICON® Precision Switches

LICON TYPE 16 SUBMINIATURE SWITCHES

TYPE 16 ACTUATORS

70-2510 OIL TIGHT PUSHBOTTON
Available in round or hex head in aluminum, Red, Yellow, Black, Green, Orange, Blue or Olive Drab. Also available in DPDT as 70-2520.



70-223 PANEL MOUNT PUSHBUTTON
15/32" Bushing—White nylon plunger or specify color—in 2, 3 or 4 pole.

70-222 MINIATURE PUSHBUTTON
¼"-20 threaded bushing, also with 5/32" overtravel as type 70-226.

Type 16 offers extremely long life (over 20,000,000 cycles) and big switch performance in a subminiature unit—rated 10 amps 30 VDC inductive (L/R = .026) yet measures only ¼" thick and 25/32" long. Offers exceptional shock and vibration resistance—meets MIL-S-6743. Wide variety of actuators and terminal types offer unusual flexibility in application.

TYPE 16-104

TYPE 16-304

TYPE 16-404

Type 104 and 304 also available in reset styles.
Type 404 also available with taper tab terminals.

Type 16 also offers wide engineered flexibility in specials — Licon engineers can adapt the type 16 to suit individual requirements. Especially adaptable to aircraft and guided missile applications where size, vibration resistance, and capacity are critical.

TYPE 16 ACTUATORS.

70-421 TOGGLE ACTUATOR
2 to 5 poles

70-120 PIVOTED ROLLER LEVER
Also available without roller as 70-121.

70-320 SPRING LEAF
Also available with roller actuator as 70-321.

LICON TYPE 30 INDUSTRIAL ENCLOSED LIMIT SWITCH

SEALED SWITCHES
30-200 PLUNGER SWITCH
30-400 ROLLER ARM SWITCH
30-600 PALM BUTTON SWITCH
30-700 ROLLER PLUNGER SWITCH

UNSEALED SWITCHES
30-100 OVERTRAVEL PLUNGER SWITCH
30-300 ROLLER ARM SWITCH
30-500 ROLLER PLUNGER SWITCH

ACTUATORS

70-101 LEVER ACTUATOR

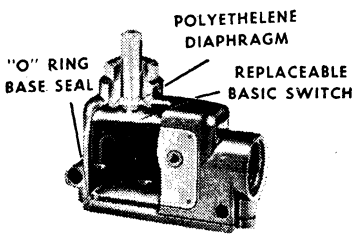
Used to convert 30-200, sealed plunger switch to 30-400 sealed roller arm; 30-100 plunger switch to 30-300 roller arm.

70-102 PALM BUTTON ACTUATOR

Used to convert 30-200 Sealed Plunger Switch to 30-600 Sealed Palm Button switch. Also attaches to 30-100.

Type 30 is versatile—3 actuators and 3 housings provide 16 switch types — its effective oil tight sealing is accomplished without boots. Used for industrial control, limit and safety applications. Aluminum diecast housing — adequate wiring room. ½"-14 internal tap conduit hub. Excellent mounting means — wide variety of actuators. Actuation is sensitive. Rated 15 amp 125, 250, 460V A.C. ½ amp 115V D.C. Tested life 10,000,000 cycles. Types listed are interchangeable with all 16 competitive types.

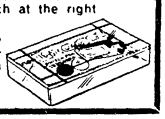
MICROMETER SCREW ADJUSTMENT



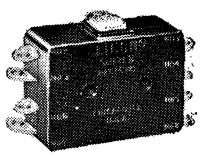
Switchpak CONTROL COMPONENTS

Handy plastic kit contains three complete switches, two accessory actuators and optional base mounting plates. Perfect for on-the-job maintenance. Have the right switch at the right time—get Switchpak containing . . .

Sealed Plunger Switch • Overtravel Plunger Switch • Roller Plunger Switch • Palm Button Actuator • Lever Actuator and three optional base mounting plates

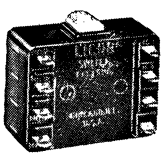


LICON TYPE 22 DOUBLE POLE DOUBLE THROW SWITCHES



TYPE 22-104
Also reset model Type 22-114

Type 22 features DPDT high current interruption, outstanding vibration resistance (over 25 G's @ 2000 cps.), long dependable life (10,000,000 cycles) and a wide variety of circuit combinations offered by four separate circuits. Switch is rated 10 amp 125/250V A.C. and 30V D.C.



TYPE 22-304
Also reset model Type 22-314

LINEMASTER

AMERICA'S FOOT SWITCH LEADER

LINEMASTER

HERCULES HEAVY DUTY FOOT SWITCH LINE

- Rugged
- Cast Iron Enclosure
- Safety-Guarded
- 2 Contact Types
- 4 Classes • 40 Models

Finish:
Machine Grey Enamel
Wt.: 7 lbs. 2 oz.—11 lbs. 10 oz.
Size: 8-7/16" x 4-5/16" x 4-1/2"

Interior steel parts are cadmium plated or otherwise treated to resist corrosion. All terminals face up for easy wiring upon unfastening cover guard. Casing has 3/4 inch threaded hole for conduit pipe. Pedal position trip point is minutely adjustable. Two and three stage switches have distinct "FEEL" between stages. Special circuit combinations can be supplied in addition to those listed below.

Class—Voltage Rating	Contact Type	Single Stage SP DT	DP DT	TP DT	2-Stage SP DT	3-Stage SP-DT
General Purpose 125-480 V. AC-20 amps	Maintained	561-D	562-D	563-D	564-D	565-D
	Momentary	521-S	522-S	523-S	524-S	525-S
Water Tight NEMA Type 4 125-480 V. AC 20 amps	Maintained	571-DW	572-DW	573-DW	574-DW	575-DW
	Momentary	531-SW	532-SW	533-SW	534-SW	535-SW
Explosion-Proof Class I Group D Class II Group E, F & G NEMA Type 7 125-480 V. AC-20 amps	Maintained	581-DX	582-DX	583-DX	584-DX	585-DX
	Momentary	541-SX	542-SX	543-SX	544-SX	545-SX
High DC Rated 125 V. DC 10 amps.	Maintained	591-DDC	592-DDC	593-DDC	594-DDC	595-DDC
	Momentary	551-SDC	552-SDC	553-SDC	554-SDC	555-SDC

Tip-Toe Control for Tip-Top Production!

LINEMASTER, Jr. FOOT SWITCH

#121-S & #122-S

Lightweight, sensitive... ideal for women workers! Needs only a touch of the toe, while heel remains comfortably on the floor.

Aluminum housing, black crackle finish. Weight 1 lb. 5½" long, 3¼" wide, 1¼" high. Rated at 15 amps., 115 volts A.C.; 15 amps., 250 volts A.C. Can be wired to operate as single pole, normally open; single pole, normally closed; or single pole, double throw. Momentary Contact only.
#122-S—Rated at 20 amps., 115-250 volts A.C.

The LINEMASTER

CLIPPER SWITCH

in two models:

1. **Momentary contact** (press to start—release to stop)
2. **Maintained contact** (press to start—press to release)

Rugged Momentary Contact Clipper has proved invaluable to product engineers and machine operators. Maintained Contact Clipper is now available for heavy duty applications. Molded nylon actuating cams; rugged cast iron housings, sponge rubber skid pads. Weight: 2½ lbs. Size: 4½" x 3½" x 1½".

#632-S—AC Rating: 20-A, 125-250V, Momentary Contact, Single Pole, Double Throw.

#634-S—AC Rating: 10-A, 125-250V, Momentary Contact, Double Pole, Double Throw.

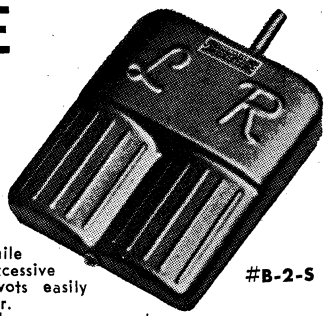
#632-D—AC Rating: 20-A, 125-250V, Maintained Contact, Single Pole, Double Throw.

#634-D—AC Rating: 10-A, 125-250V, Maintained Contact, Double Pole, Double Throw.

The LINEMASTER

EXECUTIVE

Two Switches in One • "On-Center" Mechanical Interlock!



#B-2-S

This handsome switch is fool-proof and easy-to-operate! Selective circuits and guaranteed interlock eliminate possibility of accidentally tripping both circuits simultaneously, while low, wide casing saves excessive leg movement — foot pivots easily from one side to the other.
Easy to wire—remove only one screw and switch is ready. Either interior (or both) may be wired as normally open or normally closed—single pole—double throw.

Heavy steel housing, baked hammertone grey finish. Wt., 14 oz., 4⅝" long, 4" wide, 1¼" high. Each interior rated at 15 amps at 125-250 volts A.C.

The LINEMASTER

CADET

the "little giant" in foot switches that operates from *any* angle

#HB-2

Small only, 1⅛" high 3⅝" in diameter . . .
Lightweight, just 11 oz. including cordset . . .
Rugged, with heavy steel housing and unbreakable plastic actuating cap, the Cadet is an extremely compact foot switch that will give years of service in hundreds of different applications. It is well designed with an attractive grey hammertone effect casing, maroon cap and non-skid sponge rubber base for perfect positioning. The slightest pressure on the actuating cap from any angle puts the switch in operation. The operator has better control of work resulting in better production. Single pole, double throw, momentary contact only. Wired normally open. Rating 5A at 110V and 250V. Furnished with heavy duty 6 ft. 18-2SV black rubber cordset, series plug and molded strain relief grommet.

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

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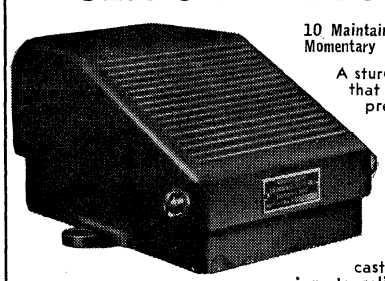
LINEMASTER

PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS

LINEMASTER "SENIOR" 4000 SERIES



10 Maintained and Momentary Contact Models

A sturdy industrial-type switch that operates with light pressure from foot or knee, leaving both hands free for work. Economical and built to give years of trouble-free service — fully enclosed and hooded for protection against dirt and chips, with additional heavy spring and cast stop under cover casting, to relieve pressure and strain on spring inside switch proper

Heavy-duty cast iron housing; black crackle enamel finish. 7" long, 4" wide, 3¼" high. Weight, 5¼ lbs.

MAINTAINED CONTACT MODELS: Press to start—press to stop.

MOMENTARY CONTACT MODELS: Press to start—release to stop.

ELECTRICAL CHARACTERISTICS						MAINTAINED CONTACT	MOMENTARY CONTACT
Descrip.	Amperes AC	Amperes DC	Volts	Horse-power	Ph.	Cat. No.	Cat. No.
D-P	20	20	125	1	1		
S-T	20	20	250	1	1	4141-D	4141-S
D-P	10	10	125	½	1		
D-T	5	5	250	½	1	4142-D	4142-S
S-P	15	15	125	½	1		
D-T	10	10	250	½	1	4143-D	4143-S
D-P	15		115	1	1		
S-T	15		230	2	1	4151-D	4151-S
	5		575	2	1		
Three	15		115-230	2	3		
Pole	5		575	2	3	4351-D	4351-S

Safety guard available for all above models.

The LINEMASTER COMPACT

Amazingly versatile—amazingly low-priced!

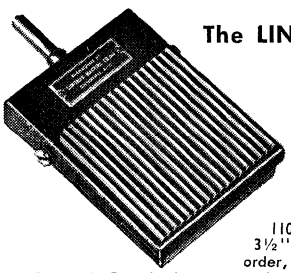
Small, lightweight — and instantly responsive to the slightest pressure of foot, finger, knee or elbow! Substantially built to insure long life, with an actuating mechanism superior to any other on the market today.

Available in a wide variety of wiring plans. Strong steel housing, black crackle finish. 2¾" long, 2½" wide, ⅞" high. Weight, 6½ ozs. Momentary contact only.

Cat. No.	DESCRIPTION	RATING
491-S	Single Pole, Double Throw A.C. only	10A at 115V 10A at 230V
491-SC	SPDT. Wired N.O. with 6 ft. cord and 2 prong series plug. A.C. only.	10A at 125V ½HP at 115V
492-S	Single Pole, Double Throw A.C. only	20A at 115V 20A at 230V
493-S	Single Pole, Single Throw A.C. only, double break	10A at 115V 5A at 230V
494-S	2 interiors so arranged as to simulate D-P-D-T	10A at 115V 5A at 230V
495-S	Single Pole, Double Throw A.C.	15A at 125V 15A at 250V 15A at 460V
496-S	Foto with cord & light, Single Pole, Double Throw A.C.	20A at 115V 20A at 230V

Twin Compacts Available: Two 491-S Switches Mounted On A Twin Base. Cat. No. 491-S Twin

The LINEMASTER TREADLITE



Trim, small, lightweight, instantaneous!

MODEL T-51-S — Accurate control in a modern, minute, treadle switch! Single pole, double throw, momentary contact interior, that can be wired open or closed. Rubber base pad and rubber-ribbed treadle, formed steel casing with black crackle finish. Interior rated at 7 amps., 110 volts and 250 volts A.C. Weight 7 ozs.; 3½" long, 2⅝" wide, 1" high (Supplied on order, wired with 6' cord and series plugs.)

MODEL T-51-D — Rocker type maintained contact action.

MODEL T-52-S — ONE treadle activates TWO switching operations! A partial downward stroke opens or closes one circuit, added pressure actuates the second circuit. Both interiors, as well as exterior, meet specifications for single-switching Model T-51-S.

LINEMASTER "NAUTILUS" FOOT SWITCH

waterproof • dustproof oilproof • rustproof

A truly great development by Linemaster. The Nautilus is waterproof, dustproof, oilproof, rustproof. Rugged Aluminum casting for long life. Piston type actuator sealed with "O" ring. Electrical interior "well" sealed with "O" ring.

Size: 8" x 4" x 2¼" Wt.: 2 lbs., 8½ ozs.

Cat. No. WP541-S 20 Amp. 125-250 VAC SPDT momentary

Cat. No. WP541-D 12 Amp. 125 VAC SPDT maintained

The LINEMASTER LEKTRO-LOK SWITCH

#L-2-S

Small, sensitive, automatically safe

Particularly ideal for transmission equipment!

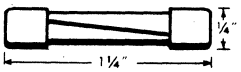
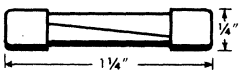
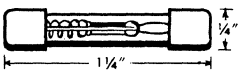
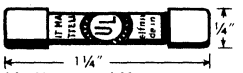
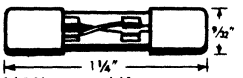
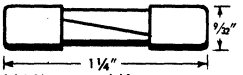
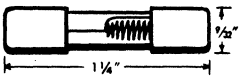
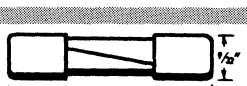
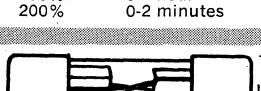
Mechanical Interlock allows only one circuit to function at a time—and you can depend on it! LEKTRO-LOK operates on the teeter-totter system, with selective circuits. Pressure on one side actuates one circuit, release of pressure automatically returns switch to normal "off" position. Pressure on the other side is required before second switch is actuated, independent of first. Yet LEKTRO-LOK requires only a single cord—eliminates costly harness assemblies! Rugged stamped metal housing, black crackle finish. Weight, 10 ozs. 5" long, 2¾" wide, 1¼" high. Single pole, double throw. Rating (A.C. only) 15 amps at 125 volts, 15 amps. at 250 volts.

LINEMASTER SWITCH CORPORATION

WOODSTOCK, CONNECTICUT

© U.C.P., Inc.

LITTELFUSE DES PLAINES, ILLINOIS, U.S.A.

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
		**3AG Fuses (42 volts or less) 311(000) Series** Quick to medium blowing fuses. Designed with straight type element positioned to center of fuse.	4, 5, 7½, 10, 15 amp. (Note: For 3AG 20 amp. now obsolete, use SFE 20A)	.16/5	2.65/c
			25, 30 amp.	.19/5	3.15/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**3AG Fuses (250 volts or less) 312(000)** Quick acting fuses for low time lag applications. 312(000) Series approved by Underwriters' Laboratories.	1/16, 3/16, 1/8, 15/100, 175 amp.	.63/5	10.50/c
			1/4, 3/10, 3/8, 1/2, 3/4 amp.	.42/5	7.00/c
			1, 1½, 2 amp.	.25/c	4.20/c
			3 amp.	.22/5	3.70/c
			4, 5, 6 amp.	.32/5	5.25/c
			8 amp. at 125 volts	.45/5	7.50/c
110%	Life	**318(000) Series** Available under this series with 1½" No. 20 tinned copper leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3 amps.	1/16	1.05/c	17.50/c
135%	0-1 hour		1/8 amp.	.78/5	13.00/c
200%	0-2 minutes		1/4, 3/8, 1/2, 3/4 amp.	.63/5	10.50/c
			1, 1½, 2, 3 amp.	.48/5	8.00/c
			4, 5, 6 amp.	.51/5	8.50/c
		**3AG Slo-Blo Fuses (125 volts or less) 313(000)** Slow blow fuses with high time lag to withstand heavy current surges. Blows quickly on shorts. 313(000) series approved by Underwriters' Laboratories through 5 amperes.	1/100, 1/32 amp.	1.17/5	19.50/c
			1/16, 1/10, 1/8, 15/100, .175, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1 amp.	.84/5	14.00/c
			1 1/10, 1¼, 1½, 1 6/10, 2 amp.	.78/5	13.00/c
			2½, 3, 3 2/10, 4, 5 amp.	.63/5	10.50/c
			6¼, 8, 10, 15, 20, 25, 30 amps. at 32 volts	.63/5	10.50/c
110%	Life	**315(000) Series** Available under this series with 1½" No. 20 tinned copper wire leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3.2 amps.	1/100, 1/32 amp.	1.41/5	23.50/c
135%	0-1 hour		1/16, 1/10, 15/100, 3/16, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 3/4, 8/10, 1 amp.	1.05/5	17.50/c
200%	60 sec. max. 5 sec. min.		1¼, 1½, 1 6/10, 2 amp.	.99/5	16.50/c
			2½, 3, 3 2/10, 4, 5 amp.	.84/5	14.00/c
		**3AB Fuses (250 volts or less) (steatite) 314(000) Series** Medium time lag steatite enclosed arc quenching powder filled fuses. Approved by Underwriters' Laboratories through 15 amperes.	1, 2, 3	.54/5	9.00/c
			5, 6, 8, 10	.51/5	8.50/c
			12, 15, 20 amp.	.54/5	9.00/c
			30 amp.	.63/5	10.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Aircraft Fuses (32 volts or less) (anti-vibration) 411(000) Series** Medium to slow fuses especially developed for aircraft use. Designed to withstand vibration, shock, fatigue and repeated off and on circuit operating conditions encountered in aircraft operation.	5 amp.		
			10, 15, 20, 25, 30 amp.	.45/5	7.50/c
			35 amp.	.45/5	7.54/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Aircraft Fuses (250 volts or less) (anti-vibration) 412(000) Series** Quick acting fuses—for low time lag applications. Developed for aircraft use. Designed to withstand shock and fatigue and afford maximum protection.	¼, ½	.45/5	7.50/c
			1	.70/5	12.00/c
			2	.75/5	12.50/c
			2½	.70/5	12.00/c
			3	.84/5	14.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Slo-Blo Fuses (250 volts or less) 413(000) Series** High time lag fuses for extra protection against sustained overloads. Designed to meet aircraft vibration test requirements. Spring-and-link element construction takes up thermal expansion and contraction and eliminates cyclic fatigue, crystallization and resulting fracture of link.	1/10, 1/8, 15/100, 3/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1, 1¼, 1 6/10, 2 2½, 3, 3 2/10	1.11/5	18.50/c
			4, 5, 6¼, 8, 10, 15, 20, 25, 30 at 32 volts	.84/5	14.00/c
			35, 40 at 32 volts	.84/5	14.00/c
110%	Life				
135%	0-1 hour				
200%	60 sec. max. 5 sec. min.				
		4AB Fuses (250 volts or less) (steatite) 414(000) Series Medium lag, steatite-enclosed, shatterproof fuses. Spring and link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amperes.	1, 2, 3 amp.	.84/5	14.00/c
			5, 8, 10, 15, 20 at 125 volts	.78/5	13.00/c
			25, 30 at 32 volts	.78/5	13.00/c
			35, 40 at 32 volts	.84/5	14.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**4AG Straight-element Fuses (250 volts or less) 417(000) Series** Medium lag fuses for applications where vibration is not an important factor. Designed with diagonally aligned element and Littelfuse exclusive locked cap construction.	1, 2, 3 amp.	.42/5	7.00/c
			5, 10, 15, 20, 25, 30 amp. at 32 volts	.36/5	6.00/c
			35, 40 at 32 volts	.42/5	7.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**5AG Aircraft Fuses (32 volts or less) 511(000) Series** Medium to slow fuses for general aircraft applications. Design incorporates anti-vibration type element, twisted to 90° angle and mechanically depolarized construction.	5, 10, 15, 20, 25, 30, 35, 40, 50, 60 amp.	1.53/5	25.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				

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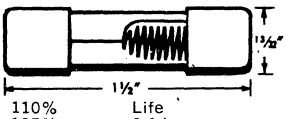
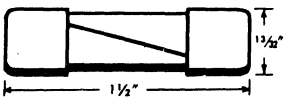
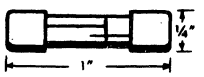
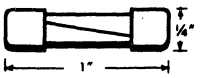
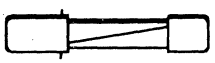
DES PLAINES, ILLINOIS, U.S.A. **LITTELFUSE**

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
		**5AG Slo-Blo Fuses (250 volts or less) 513(000) Series** High time lag fuses. Designed to withstand heavy current surges while affording maximum protection against shorts and damaging overloads.	1, 2 amp	1.41/5	23.50 c
			3 amp	1.11/5	18.50/c
			5, 10, 15, 20 amp. at 32 volts	1.11/5	18.50/c
			25, 30 amp. at 32 volts	1.26/5	21.00/c
110%	Life				
135%	0-1 hour				
200%	60 sec. max. 5 sec. min.				
		5AB Aircraft Fuses (250 volts or less) 514(000) Series Medium time lag, bakelite enclosed, shatterproof fuses. Spring-link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated in ratings over 5 amperes. Recommended for applications where excessive shock and vibration are encountered.	1, 2, 3 amps.	.96/5	16.00/c
			5, 10, 15, 20, 25, 30 amps at 32 volts	.90/5	15.00/c
			35, 40 amp. at 32 volts	.96/5	16.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**5AG Straight-element Fuses (250 volts or less) 517(000) Series** Medium time lag fuses for applications where a heavy duty fuse is desirable. Design incorporates diagonally aligned element and locked cap construction.	1, 2, 3 amp.	.51/5	8.50/c
			4 amp. at 32 volts	.51/5	8.50/c
			5, 10, 15, 20, 25, 30 amp. at 32 volts	.48/5	8.00/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		**8AG Instrument Fuses (250 volts or less) 361(000) Series** Designed for high speed action to insure maximum protection of delicate electrical equipment.	1/500 amp.	4.17/5	69.50/c
			1/200 amp.	1.74/5	29.00/c
			1/100 amp.	1.56/5	26.00/c
			1/32 amp.	1.35/5	22.50/c
			1/16 amp.	.84/5	14.00/c
			1/10, 1/8, 3/16, 2/10 amp.	.63/5	10.50/c
			1/4, 3/8, 4/10, 1/2, 3/4 amp.	.39/5	6.50/c
			1, 1½, 2, 3, 4, 5 20 amp. at 32 volts	.30/5	5.00/c
				.30/5	5.00/c
100%	Life				
150%	0-10 sec.				
		**8AG Fuses (250 volts or less) 362(000) Series** Medium time lag fuses for applications where size is a factor because of space limitation or the need to differentiate physically between two fuses in close proximity. Designed to standard N.E.C. blowing specifications. Approved by Underwriters' Laboratories.	1/8 amp.	.48/5	8.00/c
			1/4, 3/8, 1/2, 3/4 amp.	.42/5	7.00/c
			1 amp.	.25/5	4.20/c
			1½, 2, 3 amp. at 125 volts	.25/5	4.20/c
			5 amp. at 125 volts	.16/5	2.65/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				

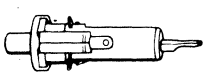
LIMITED CURRENT FUSES & HOLDERS

A new approach to circuit protection completely eliminating the possibility of overfusing circuits. This has been accomplished by a combination of three different fuse lengths and seven different widths of bayonet locking tabs on the fuse caps.

The Limited Current Fuse Holder is designed to accept only the size, amperage, range and type (regular or slo blo) in its amperage range. The fuse locks into the holder by means of a bayonet lock which permits easy and quick insertion and removal of fuses.

		**Limited Current LC fuses 250V type C 332(000) Series** Quick acting—low time lag fuses, incorporating design features which adapt easily to television and similar applications.	1/32 amp.	1.32/5	22.00/c
			1/16 amp.	.84/5	14.00/c
			1/8, 3/16 amp.	.66/5	11.00/c
			1/4, 3/10, 3/8, 1/2, 3/4 amp.	.51/5	8.50/c
			1, 1¼, 1½, 1¾, 2, 2½, 3 amp.	.29/5	4.75/c
			3½, 4, 5, 6 amp.	.38/5	6.25/c
			7 amp. at 125 volts	.38/5	6.25/c
			8 amp. at 125 volts	.54/5	9.00/c
			10 amp. at 125 volts	.57/5	9.50/c
110%	Life				
135%	0-1 hour				
200%	0-2 minutes				
		Limited current LC Slo Blo fuses 125V type N 333(000) Series Slo Blo fuses for high tmie lag applications. Construction incorporates design features similar to 332(000) series.	1/100, 1/32 amp.	1.23/5	20.50/c
			1/16, 1/10, 1/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1 amp.	.89/5	14.75/c
			1¼, 1½, 1¾, 2 amp.	.81/5	13.50/c
			2½, 2½, 3½, 3½,	.75/5	12.50/c
			4, 5, 6¼, 7 amp. at 32 volts	.75/5	12.50/c
110%	Life				
135%	0-1 hour				
200%	60 sec. max. 5 sec. min.				

Limited Current Fuse Holders 346(000) Series)



Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100	Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100
346001	Regular	(C 1/32-3/10)	$.13 ea.	$.11 ea.	346008	Slo-Blo	(N 1/100-3/10)	$.13 ea.	$.11 ea.
346002	Regular	(Over C 3/10-1/2)	.13	.11	346009	Slo-Blo	(Over N 3/10-1/2)	.13	.11
346003	Regular	(Over C 1/2-3/4)	.13	.11	346010	Slo-Blo	(Over N 1/2-3/4)	.13	.11
346004	Regular	(Over C 3/4-1¼)	.13	.11	346011	Slo-Blo	(Over N 3/4-1¼)	.13	.11
346005	Regular	(Over C 1¼-1¾)	.13	.11	346016	Slo-Blo	(Over N 1¼-1¾)	.13	.11
346006	Regular	(Over C 1¾-2½)	.13	.11	346017	Slo-Blo	(Over N 1¾-2½)	.13	.11
346007	Regular	(Over C 2½ 3½)	.13	.11	346018	Slo-Blo	(Over N 2½-3½)	.13	.11
346012	Regular	(Over C 3½-5)	.13	.11	346019	Slo-Blo	(Over N 3½-5)	.13	.11
346013	Regular	(Over C 5-7)	.13	.11	346020	Slo-Blo	(Over N 5-7)	.13	.11
346014	Regular	(Over C 7-10)	.13	.11					

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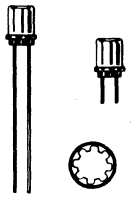
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A.



MICROFUSE

A completely different development in circuit protection for sub miniature applications.

The PIGTAIL VARIETY (278000 series) is especially adaptable for soldered connections in minimum space.

The PLUG-IN VARIETY (272000 series) is designed for use with the No. 281001 sub-miniature fuse holder which is easily mounted to chassis or printed circuit board.

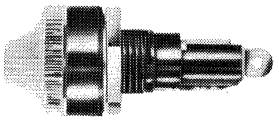
The SUB-MINIATURE FUSE HOLDER #281001 allows fast simple fuse replacement, will handle continuous currents up to 5 amps at 125V or less.

Size: 13/64" Dia. x 11/32". Available from 1/500 amp. through 5 amps. Maximum voltages—125V. Blowing Specifications: Series 272000—278000. 110% Life; 200% 0-10 Seconds.

LITTELFUSE

Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
0 through .031 amp.	5.15/5	86.00/c
.050A through 5 amp.	4.29/5	71.00/c
281001 plug-in holder	.26 each	.22 each

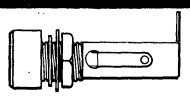
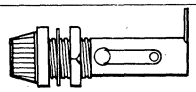
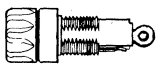
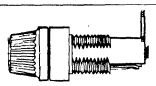
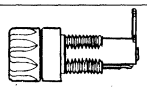
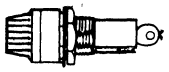
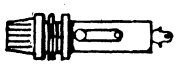
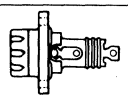
3AG INDICATING FUSE POST



Catalog Number	Voltage Range	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
344006	2½-7V	$2.21 ea.	$1.84 ea.
344012	7-16V	2.21 ea.	1.84 ea.
344024	16-32V	2.21 ea.	1.84 ea.
344125	100-125V	1.35 ea.	1.13 ea.
344250	200-250V	1.35 ea.	1.13 ea.

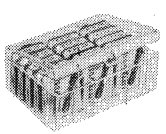
PHYSICAL CHARACTERISTICS

High temperature styrene knob (amber with incandescent bulbs—2½ thru 32 volts—and clear with high degree vacuum neon bulbs 90-250 volts). Maximum current rating 20 amperes. Size: Overall Length 2⅜"; front of Panel 13/16"; back of Panel 1½"; mounting hole ⅝" Dia.; flat on one side.

Style	Catalog Number	Fuse Size	Description	Physical Size fuse	Mounting Hole Dia.	Overall Length	Back of Panel	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
	341001 371001	3AG 8AG	Screwdriver Slot Knob Screwdriver Slot Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.42 ea. .42 ea.	.35 ea. .35 ea.
	342001 372001	3AG 8AG	Finger Operated Knob Finger Operated Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.42 ea. .42 ea.	.35 ea. .35 ea.
	342014		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/64	1 11/32	.31 ea.	.26 ea.
	342022		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1 53/64	1¼	.36 ea.	.30 ea.
	342004		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1¾	1 7/64	.36 ea.	.30 ea.
	342012	3AG	Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/32	1 11/32	.31 ea.	.26 ea.
	442001	4AG	Fuse extractor post	1¼ x 9/32 Dia.	.635D	2 29/32	2¼	.84 ea.	.70 ea.
	570001	5AG	Finger operated knob —flange Mount	1½ x 13/32 Dia.	.865D	2 5/32	1 15/32	1.07 ea.	.895 ea.

FUSE CADDY Part 094037

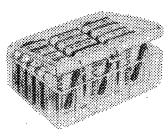
A handy fuse kit for instant accessibility—correct fuse at your fingertips every time. 18 individual compartments. Fuse caddy comes with 75 fuses, 15 different types, plus 3 spare compartments.



3AG ¼A	3AG 5A	N ¼ LC
3AG ½A	3AG ¼A SB	N 1 LC
3AG 1A	3AG ½A SB	N 1¼ LC
3AG 2A	8AG ¼	C 2½ LC
3AG 3A	8AG ½	

Net Resale Price
$6.70 ea.

LC FUSE CADDY Part 094041



A handy all inclusive LC (Limited Current) Fuse Caddy for servicemen's tube caddy. One call is all. 18 individual compartments. LC Fuse Caddy comes with 75 fuses; 15 different types plus three spare compartments.

Net Resale Price
$9.00 ea.

Net

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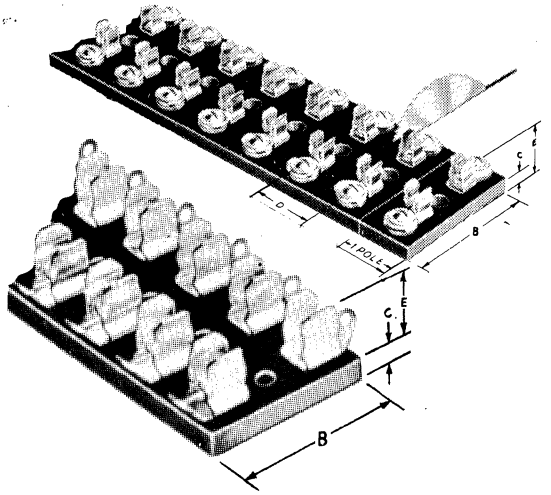
DES PLAINES, ILLINOIS, U.S.A. **LITTELFUSE**

FUSE MOUNTING PANELS



MOUNTINGS WITH SOLDER TERMINALS — TYPE "S" Phosphor-Bronze, bright-dipped finish Lug Clips are firmly anchored to black Bakelite base—have non-turning anchors. For 8AG (387000 series) and 3AG (357000 series) fuses.

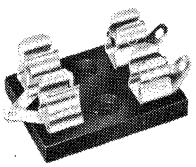
MOUNTINGS WITH SCREW TERMINALS—TYPE "T" Spaced to U/L requirements for equipment circuit protection. Nickel plated brass screw terminals, nickel plated fuse clips. For 3AG(356000 series), 4AG(456000 series) and 5AG(556000 series) fuses.

Open type fuse panels, stocked in 12-pole units as shown—we cut them to 2, 3, 4 or more poles as ordered, or you may cut them in your plant (⅛" allowance for saw cut).

Cat. No.	Fuse Type	Mtg. Type	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "E"	Each less than 100	Each over 100
387001	8AG	S	1 3/16	3/16	5/8	21/32	.13	.11
357001	3AG	S	1 5/8	3/16	5/8	21/32	.13	.11
356001	3AG	T	2 3/8	7/32	29/32	11/16	.28	.24
456001	4AG	T	2 3/8	7/32	29/32	13/16	.35	.30
556001	5AG	T	2 3/4	9/32	31/32	1 1/32	.41	.34

Note: Above are single pole mountings. Prices and delivery by quotation for multiple pole types.

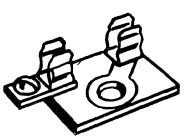
RECTIFIER MOUNTINGS



Mountings custom designed for Sarkes Tarzian silicon rectifiers series M500 and L1250. Mountings designed to your specifications are available upon request. Let our engineers assist you.

Cat. No.		Each less than 100	Each over 100
099062	1 pole	.14 each	.12 each
099063	2 poles	.28 each	.23 each

METER BACK MOUNTING Cat. No. 383002 (1059)—



Mounts directly on meter binding post. Will not touch other posts on smallest standard meter. Linen bakelite base, 1" x 1⅛". Length over screw terminal, 1½".

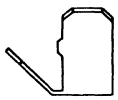
Net Resale Price	
Less than Std. Pkg.	Std. Pkg. of 10
.21 ea.	.175 ea.

STANDARD FUSE CLIPS

For the exacting performance often required in the electronics communications, radio, television, aircraft and marine equipment industries, we recommend our beryllium copper fuse clip. Beryllium copper clips have lower contact resistance and higher conductivity than ordinary fuse clips. They are silver plated, a finish well suited to fuse applications.

Ears

Earless



Lug

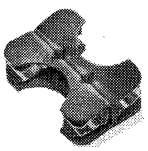
FUSE CLIPS
(Phosphor Bronze Bright Nickel Plated)

		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg. of 100 ea.
3AG Fuse Clip	101001	.017	.014
3AG Fuse Clip (Earless)	101002	.017	.014
3AG Solder Terminal Clip Bright dip	101003	.024	.02
4AG Fuse Clip	103001	.0318	.0265
4AG Fuse Clip (Earless)	104002	.0318	.0265
5AG Fuse Clip	105001	.0408	.034
5AG Fuse Clip (Earless)	105002	.0408	.034
9/16" Dia. Fuse Clip	107001	.066	.055
9/16" Dia. Fuse Clip (Earless)	107002	.066	.055
13/16" Dia Fuse Clip	109001	.15	.125
13/16" Dia. Fuse Clip (Earless)	109002	.15	.125

FUSE CLIPS
(Beryllium Copper Silver Plated)

3AG Fuse Clip	121001	.0408	.034
3AG Fuse Clip (Earless)	121002	.0408	.034
3AG Solder Terminal Clip	121004	.084	.07
4AG Fuse Clip	123001	.06	.05
4AG Fuse Clip (Earless)	123002	.06	.05
5AG Fuse Clip	125001	.096	.08
5AG Fuse Clip (Earless)	125002	.096	.08
9/16" Dia. Fuse Clip	127001	.186	.155
9/16" Dia. Fuse Clip (Earless)	127002	.186	.155
13/16" Dia. Fuse Clip	129001	.462	.385
13/16" Dia. Fuse Clip (Earless)	129002	.462	.385

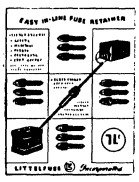
SNAP-ON MOUNTINGS



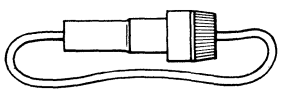
Time saver for pigtail replacement. Snap on blown pigtail, then use regular fuse in other side. No soldering. This Snap-On mounting has a cut out on both sides which makes the fuse accessible for replacement from both sides. They are available in bulk, on display cards of 24, or in handy merchandising plastic boxes of ten.

		Net Resale Price Less than Std. Pkg.	Std. Pkg.
Card of 24	No. 094024	$4.32 ea.	$3.60 ea.
Box of 10	No. 094025	1.80 ea.	1.50 ea.
Bulk	No. 350130	.92/5	14.00/c

IN-LINE FUSE RETAINER Assortment 094020

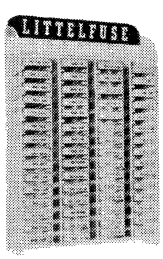


comes complete with 8-inch loop of wire and fuse inserted under spring tension. Assortment consists of 6 SFE 14 units, 3 SFE 9 and 3 SFE 20.



Net Resale Price
$4.70 ea.

FUSEMASTER 094047



Versatile clear plastic fuse wall rack with 60 individual compartments for 60 different fuse types. Index inventory control card, pressure sensitive blank inventory labels for easy index adjustment; and an assortment of 100 popular fuses are furnished as a package under Fusemaster Assortment 094047.

Net Resale Price
$10.14 ea.

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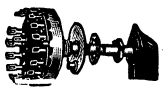
MALLORY SPECIAL PURPOSE SWITCHES

P. R. MALLORY & CO. INC.
INDIANAPOLIS, IND.

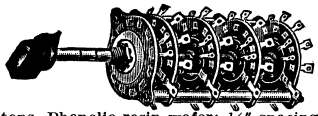
SINGLE SECTION ROTARY SWITCHES



For use in small receivers as tone controls, band selector and antennae switching; also for meter switching in test equipment and other devices where space is a factor. Two sizes available: 1¼" dia. 30° indexing and 1 11/16" dia., 20° indexing. Phenolic resin wafer. Breakdown, 500 v. DC or AC. Rated .125 amp, 300 v. DC; 3 amp, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC. Non-breaking current resistive load, 5 amps max. With knob, nut and lockwasher.

Shorting Mallory No.	Non-Shorting Mallory No.	No. of Circuits	No. of Positions	Dia. of Base	Adjustable Stop	Net Each
3115J	3215J	1	5	1¼"	No	$1.02
31112J	32112J	1	12	1¼"	No	1.02
3122J	3222J	2	2	1¼"	No	1.02
3123J	3223J	2	3	1¼"	No	1.02
3126J	3226J	2	6	1¼"	No	1.02
3134J	3234J	3	4	1¼"	No	1.05
3142J	3242J	4	2	1¼"	No	1.05
3143J	3243J	4	3	1¼"	No	1.05
31117J	32117J	1	2 to 17	1 11/16"	Yes	1.56
3129J	3229J	2	2 to 9	1 11/16"	Yes	1.56
3136J	3236J	3	2 to 6	1 11/16"	Yes	1.65
3163J	3263J	6	2 to 3	1 11/16"	Yes	1.65

MULTI-SECTION ROTARY SWITCHES

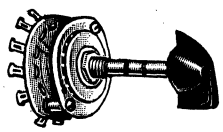


For test equipment, meter switching and low current industrial applications. All contacting members are silver plated, with self-cleaning contact wiping action. Durable alloy index spring. Adjustable stops. Phenolic resin wafer; ½" spacing except three and four-section models, 1" spacing. Indexing, 30°. Breakdown, 1000 v. AC or DC. Rated .6 amp, 300 v. DC; 8 amps, 60 v. DC; 1 amp, 300 v. AC; 10 amps, 6 v. AC. Non-breaking current, resistive load, 10 amps max. With knob, nut and lockwasher.

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	No. of Circuits Per Section	No. of Circuits Per Switch	No. of Positions	No. of Sections or Gangs	Net Each
1211L	1311L	1	1	2 to 11	1	$2.10
1215L*	1315L*	2	2	2 to 5	1	2.10
1213L*	1313L*	3	3	2 to 3	1	2.10
1212L*	1312L*	4	4	2 to 2	1	2.10
1221L	1321L	1	2	2 to 11	2	2.58
1225L*	1325L*	2	4	2 to 5	2	2.58
1223L*	1323L*	3	6	2 to 3	2	2.58
1222L*	1322L*	4	8	2 to 2	2	2.58
1231L	1331L	1	3	2 to 11	3	3.24
1235L*	1335L*	2	6	2 to 5	3	3.24
1241L	1341L	1	4	2 to 11	4	3.81
1245L*	1345L*	2	8	2 to 5	4	3.81
1251L	1351L	1	5	2 to 11	5	4.11
1256L	1356L	2	10	2 to 6	5	4.53
1261L	1361L	1	6	2 to 11	6	4.83
1266L	1366L	2	12	2 to 6	6	5.52

*These switches are provided with an "off" position which is in addition to the number of positions listed in the fifth column.

CERAMIC SECTION SELECTOR SWITCHES



Ideal for highly efficient, critical r-f circuit applications in radio receivers and low-power transmitter circuits. Ceramic insulation minimizes r-f losses and retards moisture absorption. Adjustable stop is feature of index assembly permitting choice of 2 to 11 positions. All types are non-shorting. Two-section switch has ½" spacing; three-section units, 1" spacing between sections. Brass bushing ⅜" dia. x ⅜" l.; shaft ¼" dia. x 2" l. grooved for cutting. Breakdown, 500 v. AC or DC. Rated 5 amps, 300 v. AC-DC; 6 amps, 6 v. AC-DC. Non-breaking current, resistive load, 10 amps max. With knob, nut and lockwasher.

*Mallory No.	Number of Gangs	Number of Circuits Per Gang	Number of Positions	Net Each
172C	1	1	2 to 11	$2.37
173C*	1	2	2 to 5	2.37
174C*	1	3	2 to 3	2.37
176C	2	1	2 to 11	3.39
177C*	2	2	2 to 5	3.39
178C*	2	3	2 to 3	3.39
180C	3	1	2 to 11	4.32
181C*	3	2	2 to 5	4.32

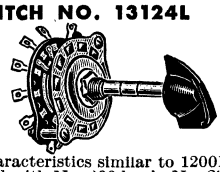
*Has additional "off" switch preceding numbered positions.

CIRCUIT OPENING SWITCH

For meter switching in test sets or where multiple circuits must be opened for insertion of resistors, capacitors, etc. Phenolic resin insulation; 2 to 11 position adjustable stop. Bushing, ⅜" dia. x ⅜" long; shaft ¼" dia. x 2" long, grooved for cutting. Indexing, 30°. Rated 6 amps, 300 v. DC; 8 amps, 6 v. DC; 1 amp, 300 v. AC; 10 amps, 6 v. AC. Max. resistive load 10 amps non-breaking current. With knob, nut and lockwasher. $4.68

Mallory No. 1400L Circuit Opening Switch—Net Each..

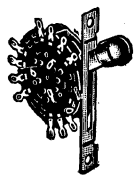
24-POSITION TAP SWITCH NO. 13124L



For test applications which cannot be met with conventional 12-point switch. Accomplished through use of two sections similar in design to 1300L switches. Indexing mechanism has no stops, and is capable of continuous rotation with a 15° indexing action between positions. Furnished with ⅜" dia. x ⅝" long bushing and 2" long, notched shaft. Electrical characteristics similar to 1200L, 1300L series. Each switch is equipped with No. 366 knob, No. 232 nut, No. 227 lock washer and No. 394 dial plate. $2.76

Mallory No. 13124L Switch—Net Each.....

LEVER ACTION SWITCHES



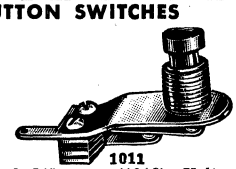
TYPES 5000 AND 6000

Particularly adapted to centralized radio, sound distribution, public address equipment and intercommunicating systems. Housing and bracket are one integral part, prevents warping or mis-alignment of contacts. Terminals secured by "wrap-around" method to high grade phenolic resin. 5000 series has elongated mounting holes with 2 9/64" centers; 6000 series has round holes spaced 1 5/8". May be mounted in multiples with ¾" between lever arm centers. Breakdown, 500 v. AC or DC. Rated .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC. With knob and two 6-32 bolts with nuts.

POSITIVE INDEXING

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	No. of Poles or Circuits	No. of Positions or Contacts	Net Each
5124	5224	2	4	$1.38
6142	6242	4	2	1.20
6143	6243	4	3	1.20

MINIATURE PUSH BUTTON SWITCHES



1011

Especially suitable for use in such applications as test panels, meter circuits and labs. Eight different circuit combinations available in non-locking type only, where contact is made when button is depressed. Alloy contact springs, fine silver contacts, cadmium plated steel switch frame, aluminum mounting bushing. Mounts in single hole, 7/16" min. (1011) and ⅞" max. (1018). Voltage breakdown, 500 v. DC. With mounting nut and washer.

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

CAPACITOR AND RESISTOR DECADE SWITCHES

Phenolic insulation. Positions adjustable for use as single decade or combined with other switches for multiple decade. Circuit requires only four resistors or capacitors for full decade. Mounting depth, 1" behind panel; lateral mounting space 2". Rated 500 v. DC or AC breakdown. Shaft, ¼" dia. x 2" long. With knob, nut and lockwasher. $2.70

Mallory No. 153L Capacitor Decade Switch—Net Each..

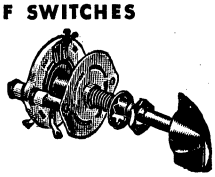
Mallory No. 154L Resistor Decade Switch—Net Each.... $2.94

ANTENNA SWITCH

For use where two separate antennas are used with a single TV set. Mounts on rear safety panel of cabinet with mounting bracket and two self-tapping screws, supplied. Solder terminals. Shaft 13/16" long from mounting surface; switch 1¼" dia. With bar knob, bracket and screws. $1.31

Mallory No. 3122TV Antenna Switch—Net Each.....

CERAMIC SECTION RF SWITCHES



A special ceramic switch designed for transmitter circuits up to 1000 V. D. C. with power up to 100 watts. Ceramic insulation is employed in both sections and spacers.90° indexing between positions, and capable of continuous rotation. Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. Bar knob, locknut and washer included. All types non-shorting.

Mallory No.	No. of Sections	Circuits	Spacing Between Sections	Contacts Per Circuit	Net Each
161C	1	1	.....	4	$2.16
162C	2	2	1 7/8"	4	3.06
163C	3	3	1"	4	3.96
164C	4	4	1"	4	4.86
165C	5	5	1"	4	5.76

FIVE-POSITION HAMSWITCH®

Provides a method of using a single meter to measure current or voltages up to five circuits of an amateur transmitter. Same basic design as Series 1200L. Has conservative rating of 1000 volts RMS AC or 1500 volts DC. Indexing 60°. Has adjustable stop feature for maximum of five positions. Bushing is ⅜" dia. x ⅜" long, shaft is ¼" dia x 2" long, grooved for easy cutting. Knob, nut and lock washer furnished. $2.70

Mallory No. 151L Hamswitch—Net Each.....

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Net

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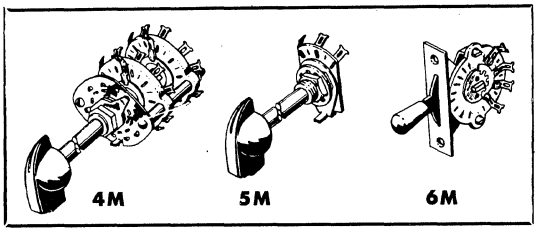
P R MALLORY & CO Inc
MALLORY

MINIATURE SWITCHES

P. R. MALLORY & CO. INC.
INDIANAPOLIS , IND.

MALLORY-GRIGSBY MINIATURE SWITCHES



Features exclusive "Wedgelock" method of attaching contacts to the wafers; insures positive contact alignment; and, avoids frame and contact distortion. Radial stator arrangement provides a wide insulating path between contacts and minimum wafer size.

TYPE 4M PHENOLIC AND CERAMIC ROTARY SWITCHES

Commercial equivalents of MIL-S-3786. Phenolic types use Richardson T725 grade phenolic for stators and rotors; have common contact on the same side as the switching contacts. Ceramic types use military grade L-5 steatite treated with Dow-Corning 200; have common contact on the opposite side of the wafer from the other contacts to provide a 12-position switch. Initial contact resistance, .005 ohm, maximum. Breakdown voltage, 1,700 v. rms, 60 cycle, between contacts and contacts and frames. Contact rating, 350 ma at 500 v. rms, resistive load. Supplied with knob, adjustable stop, lockwasher, and nut.

30° INDEXING PHENOLIC WAFER

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M11111	4M21111	1	1	11	$1.80
4M1215	4M2215	2	1	5	1.80
4M11211	4M21211	1	2	11	2.58
4M1313	4M2313	3	1	3	1.80
4M11311	4M21311	1	3	11	3.24
4M1412	4M2412	4	1	2	1.80
4M1225	4M2225	2	2	5	2.58
4M11411	4M21411	1	4	11	3.81
4M11511	4M21511	1	5	11	4.47
4M1323	4M2323	3	2	3	2.58
4M1235	4M2235	2	3	5	3.24
4M11611	4M21611	1	6	11	5.04
4M1422	4M2422	4	2	2	2.58
4M1245	4M2245	2	4	5	3.81
4M1255	4M2255	2	5	5	4.47
4M1432	4M2432	4	3	2	3.24
4M1265	4M2265	2	6	5	5.04

30° INDEXING CERAMIC WAFER

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M11112C	4M21112C	1	1	12	$2.37
4M1216C	4M2216C	2	1	6	2.37
4M11212C	4M21212C	1	2	12	3.39
4M1315C	4M2315C	3	1	5	2.37
4M11312C	4M21312C	1	3	12	4.32
4M1226C	4M2226C	2	2	6	3.39
4M11412C	4M21412C	1	4	12	5.19
4M1513C	4M2513C	5	1	3	2.37
4M11512C	4M21512C	1	5	12	6.18
4M1612C	4M2612C	6	1	2	2.37
4M1325C	4M2325C	3	2	5	3.39
4M1236C	4M2236C	2	3	6	4.32
4M11612C	4M21612C	1	6	12	7.20
4M1246C	4M2246C	2	4	6	5.19
4M1335C	4M2335C	3	3	5	4.32
4M1523C	4M2523C	5	2	3	3.39

CERAMIC WAFER (CONTINUED)

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M1256C	4M2256C	2	5	6	$6.18
4M1622C	4M2622C	6	2	2	3.39
4M1266C	4M2266C	2	6	6	7.20
4M1533C	4M2633C	5	3	3	4.68
4M1632C	4M2632C	6	3	2	4.68

TYPE 4M CERAMIC ROTARY RF SWITCHES

Especially designed to be used in applications where high RF signals are to be encountered and use a phenolic shaft in the active switch segments. Suffix **H** indicates 60° indexing; suffix **N** 90° indexing. Made of military grade L-5 steatite treated with Dow-Corning 200; feature rugged contact construction. Dimensions similar to 30° indexing type except mounting plate to first section which is ¾". Complete with knob, adjustable stop, lockwasher and nut.

60° INDEXING

Non-Shorting Mallory No.	Circuits per Section	No. of Sections	No. of Positions	Net Each
4M2116H	1	1	6	$2.16
4M2126H	1	2	6	3.06
4M2136H	1	3	6	3.96
4M2146H	1	4	6	4.86
4M2156H	1	5	6	5.76

90° INDEXING

Non-Shorting Mallory No.	Circuits per Section	No. of Sections	No. of Positions	Net Each
4M2114N	1	1	4	$2.16
4M2124N	1	2	4	3.06
4M2134N	1	3	4	3.96
4M2144N	1	4	4	4.86
4M2154N	1	5	4	5.76

TYPES 4M AND 5M SINGLE SECTION PHENOLIC GENERAL PURPOSE SWITCHES

General purpose switches supplied with knob, lockwasher and nut. Type 4M switches are intended for simple switching applications or where a spring return feature is desired. Type 5M switches are small compact designs for tone control, radio-phono, etc., similar construction to Type 4M. No. 5M1113K uses knurled shaft; knob not furnished.

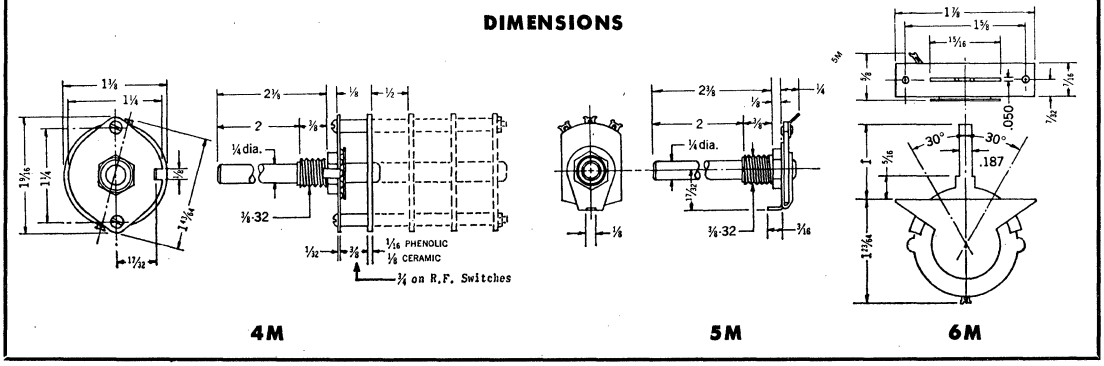
Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M1114	.....	1	1	4	$1.80
.....	4M2412S	4	1	2	1.44
5M1112	.....	1	1	2	1.08
5M1113	.....	1	1	3	1.08
5M1113K	.....	1	1	3	.75
5M1213	5M2213	2	1	3	1.08

TYPE 6M PHENOLIC LEVER ACTION SWITCHES

Feature the same general construction as the 4M types. Wafer diameter is basically the same and incorporates the same "Wedgelock" and radial contact features. Supplied with lever knob. Suffix **S** designates spring return; suffix **U** indicates both positive action and spring return.

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
6M1213	6M2213	2	1	3	$1.26
6M1213S	6M2213S	2	1	3	1.26
6M1213U	6M2213U	2	1	3	1.26
6M1412S	6M2412S	4	1	2	1.44

DIMENSIONS



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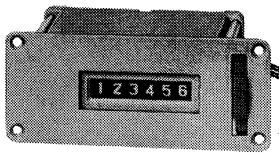
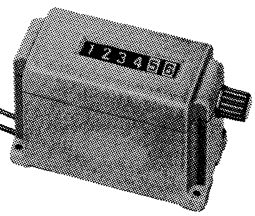
ELECTRIC COUNTERS & ACTUATORS

AUTOMATION CONTROLS DIVISION

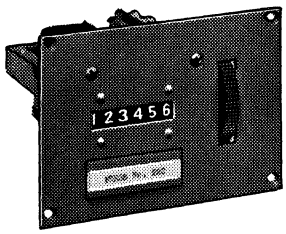
GENERAL CONTROLS CO. SKOKIE, ILL.



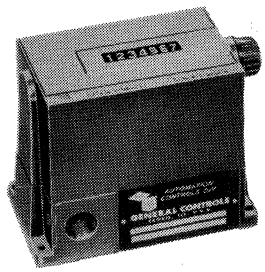
CE-600B Panelmount



CE-600A Basemount



CE-800B Panelmount



CE-800C Standard, CE-800A Dustproof

PIC Electric Counters are actuated by electric impulses (12 to 150 AC or 12 to 220 DC) which may come from any suitable switch, relay, photoelectric unit or other circuit breaking device. Counters rated for 1000 counts per minute (cpm) require .030 second minimum closed period and .030 second minimum open period for each count. Counters rated at 600 cpm require .040 second minimum closed period and .060 second minimum open period for each count. Models are available for 12 to 230 v. AC and DC. Send for literature or write us for prices and deliveries.

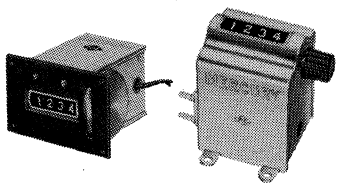
Also available in coin counting models.

CE-600 COUNTERS
TO 999,999, WITH RESET

Count life of 50 million; 1000 cpm (with suitable actuation); seven watts power consumption. Built-in rectification provides reliable operation on all AC voltages to 150 v. Quiet operation; no AC hum when energized. Continuous duty coils and balanced armature. White figures on black wheels are easy to read; die cast, dust resistant enclosure. No. CE600AS602, 1.668" w. x 3.5" d. x 2.5" h.; No. CE600BS602, 4.4375" x 1.875" panel x 2.6875" d.; No. CE600BK602, 5.5" x 2.125" panel x 2.812" d. Models listed are for 115 v. AC, 60 cps.

CE-600AS602 Basemount with knob reset. Net..... **$21.40**
CE-600BS602 Panelmount with knob reset. Net.... **22.90**
CE-600BK602 Panelmount with key reset. Net..... **31.50**

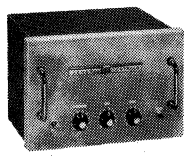
MERCURY COUNTERS
TO 9,999, WITH RESET

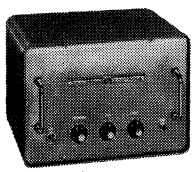


For laboratory use and industrial service where duty is moderate. Estimated life six million counts. Counting rate 600 cpm, higher with electronic actuation. Has white figures on black wheels. Coils consume three watts. Tamper-proof metal enclosure has plastic window. Size: Basemount model, 2¼" x 1²³⁄₃₂" x 2¹³⁄₆₄" h.; panelmount model, 2¹³⁄₁₆" x 1¹⁵⁄₁₆" panel x 2²⁷⁄₆₄" d. For 115 v. AC, 60 cps.

CE-40AS402—Basemount. Net..... **$15.25**
CE-40BS402—Panelmount. Net **15.95**

CE-901 PRE-DETERMINING COUNTER





The CE901 Electromagnetic counter is a compact pre-determining counting device capable of maintaining an accurate count of 1000 counts per minute. This unit, designed for industrial applications employs the use of any remote actuator, switch, photoelectric cell, contactor or any other sensing device which operates within the actuator specifications.

Available in models of 2, 3, 4 or 5 digits as standard.

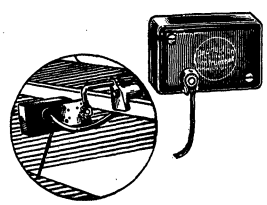
CE901AA302 3 digit desk mount
CE901BA302 3 digit rack mount
} Consult Factory or your local PIC distributor for prices

Dimensions Overall:
2 & 3 digit 12" wide x 8" high x 8" deep
4 & 5 digit 19" wide x 8" high x 8" deep

SENSITIVE ACTUATOR ES-41

Widely used on folding machines. Requires only ¾ in.-oz. torque. Arm motion: 24° min., 59° max. reciprocal; 10° to 45° overthrow. Arm position adjustable, easily shortened or bent. Rated speed, 300 cpm. SPST contacts rated 2 amps; 120 v. AC. Body size, 2½" x 1⅝" x 1¾" d. Furnished with straight spring steel arm 2¹³⁄₁₆" long.

ES-41 — Actuator, Net. **$7.70**

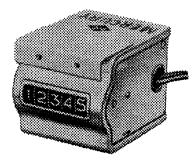


CE-800 SUPER-WIZARD COUNTER
TO 999,999, WITH RESET

Has 200 million count life; 1000 cpm (with suitable actuation); only five watts power consumption. Built-in rectification provides top reliability from all AC voltages to 230 v. Continuous duty coils and balanced armatures for dependability. Large, white-on-black figures are easy to read. Standard enclosure has tamper-proof, die cast aluminum housing with staked window of unbreakable plastic; separate wiring compartment with independent cover is tapped for conduit. Dustproof enclosure has same housing with dustproof gasket seal and cement sealed window. Size: Standard and dustproof models, 3.12" w. x 5.94" l. x 4.69" h.; panelmount model, 5.19" x 3.50" panel x 4.39" d. Models listed are for 115 v. AC, 60 cps.

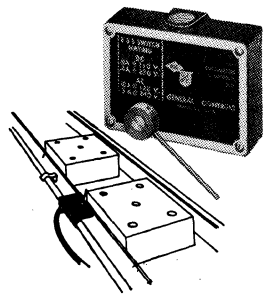
CE-800CS602 — Standard enclosure, knob reset. Net. **$43.00**
CE-800AS602 — Dustproof enclosure, knob reset. Net. **47.25**
CE-800BS602 — Panelmount, knob reset. Net..... **41.50**

MERCURY COUNTERS
TO 99,999, NO RESET



Counts to 99,999 and then repeats. Widely used in vending machines and similar applications where duty is moderate. Estimated life, three million counts. Counting rate, 600 cpm. Coil consumes three watts. Has white figures on black wheels. Tamper-proof metal enclosure with plastic window. Size: Basemount model, 2¼" x 1²³⁄₃₂" x 2²⁷⁄₆₄" h.; panelmount model, 1²³⁄₃₂" x 2²³⁄₆₄" x 1⅝" h. For 120 v. AC, 60 cps operation.

CE-40AN502 — Basemount. Net..... **$5.15**
CE-40BN502 — Panelmount. Net..... **6.40**

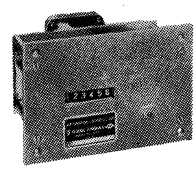


HEAVY DUTY ACTUATOR ES-5

Arm has spring return. For operation by boxes, cans, packages, etc. Minimum torque of 3 oz.-in. Arm motion: 31° min., 65° max., reciprocal; 10° to 42° overthrow. Arm position adjustable. Rated speed 300 cpm. SPST contacts rated 10 amps, 120 v. AC. Size: 3⅜" x 2⅝" x 1¹⁵⁄₃₂". Furnished with lever as shown in upper illustration.

ES-5 — Actuator. Net....**$9.35**

CE-620 ELECTRIC RESET ELECTRIC COUNTER



Developed to provide remote reset through manually, mechanically, electrically or electronically operated contacts. The CE620 includes a 6 digit CE600 electric counter with electrically operated reset mechanism mounted on a subpanel. Available with push button reset built into panel or with terminals provided for connecting remote contactor furnished by user. Also available in 7 digit and coin counting models.

CE-620BA602 — Remote reset 120v 60 cy. Net..... **$66.20**
CE-602BB602 — Pushbutton reset 120v 60 cy. Net..... **71.20**
Dimensions, overall 6" wide, 4" high, by ⅛" deep.

Net

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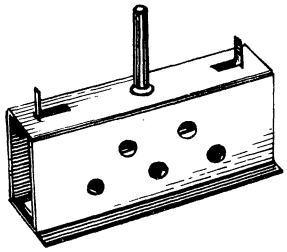
Sightmaster® CORPORATION, PROVIDENCE, R. I.

NEW THERMAL OVERLOAD SWITCH FOR TV

A simple, but unique series of thermal overload switches ideally suited for TV receivers. Other intended applications include a wide range of electrical/electronic instruments for industrial, commercial and consumer use.

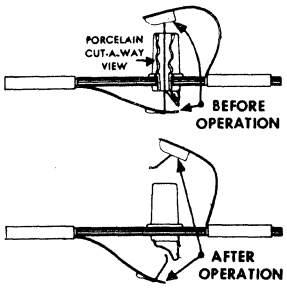
OUTSTANDING FEATURES

- SIMPLE CONSTRUCTION
- LOW COST
- DURABLE—RELIABLE
- ALL CRITICAL PARTS SILVER PLATED
- IMPOSSIBLE TO OVER-RIDE BY FASTENING RE-SET BUTTON



SERIES 35 GRASSHOPPER FUSES

(INDICATOR ALARM TYPE)

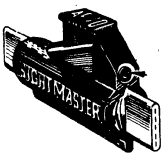


FUSE CAT. NO.	RATED CAPACITY (AMPERES)	OPERATES ON SUGGESTED PEAK VOLTAGE	OPERATES ON AMPS.	OPERATES ON IN LESS THAN
35A	1-1/3	90	2	1-1/2 Min.
35B	1-1/3	90	2	1-1/2 Min.
35B	2	90	3	3 Min.
35C	2	90	3	3 Min.
35D	1-1/3	90	2	1-1/2 Min.
35E	3	90	4	5 Min.
35F	1/2	90	3/4	1-1/2 Min.
35G	3	90	4-1/2	5 Min.
35H	5	90	6-1/2	5 Min.
**35J	1/2	160	3/4	1-1/2 Min.
*35K	1-1/3	150	2	3 Min.
*35L	2	150	3	3 Min.
*35M	3	150	4-1/2	5 Min.
*35N	5	150	6-1/2	5 Min.
**35P	3/4	160	1-1/8	1-1/2 Min.
35R	.180	90	.270	1-1/2 Min.
**35S	1/4	160	3/8	1-1/2 Min.
35T	.65	90	1.1	3 Min.

* Made with ceramic insulator to protect against arcing
** Made with glass insulator to protect against arcing

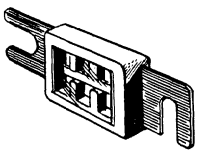
HIGH RELIABILITY AIRCRAFT LIMITERS

"AF" SERIES



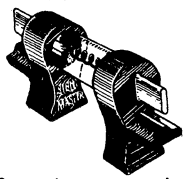
Specific use—aircraft electrical circuits. Mechanical plunger identifies blown limiter.

"AFH" SERIES



For aircraft electrical distribution up to 50v. Sizes from 35 to 400 A. Transparent window for fuse link inspection.

"AFS" SERIES



Operates same circuits as "AF" Series. Limiters made for system as well as equipment protection. Glass tube for inspection of blown link.

SERIES "70" INDICATING FUSES

Case Material: Fibre **Body Size: 9/32" x 1 1/4"**
Overall Size: 9/32" x 1 27/32"

Designed for use in communications equipment. Spring-loaded, color coded tip extends to give positive visual indication of blown fuse. Can be used in specially designed fuse-holder or is interchangeable with 4AG Series used in open clips. Can be wired to activate alarm system indicating blown fuse. Manufactured in the following amperages:

300V or Less
180/1000 Amp through 5 Amps

Test Specifications:
Continuous duty at 100%. Blows within 90 seconds at 150%.

"C" LIMITED CURRENT SERIES

For use when rapid interruption of fault current is required to avoid damage due to delay in opening. Length of fuse is determined by amperage and ear size. Manufactured in the following amperages:

250V OR LESS
1/16 Amp through 10 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%.

CASE MATERIALS: GLASS SIZE: 1/4" DIAMETER

1/16	$.27
1/8, 3/16	.21
1/4, 3/10, 3/8, 1/2, 3/4	.16
1, 1 1/4, 1 1/2, 1 3/4, 2, 2 1/2, 3	.09
3 1/2, 4, 5, 6. 7	.12
8	.17
10	.18

"3AG" HIGH VOLTAGE SERIES

Designed for use in Radio, Television and numerous electronic devices. The 3AG High Voltage series blow quickly under overload conditions therefore providing the high speed action necessary to protect electronic apparatus. Manufactured in the following amperages:

250V OR LESS
1/16 Amp through 6 Amps
125V OR LESS: 8

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%.

CASE MATERIALS: GLASS SIZE: 1/4" x 1 1/4"

1/16	$.27
1/8, 15/100, 175/1000, 3/16	.20
1/4, 3/10, 3/8, 9/10, 3/4, 1/2	.13
1, 1 1/2, 2	.08
3	.07
4, 5, 6	.10

"3AG" HIGH VOLTAGE TIME LAG SERIES

Designed for circuits with equipment having high inductive or capacitative surges and for circuits with heavy starting currents. Manufactured in the following amperages:

250 VOLTS OR LESS
1/100 Amp through 1 Amp
125 VOLTS OR LESS
1 1/4 Amps through 6 1/4 Amps
32 VOLTS OR LESS
6 1/2 Amps through 25 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%. Blows within 1 minute, but not less than 5 seconds at 200%.

CASE MATERIALS: GLASS SIZE: 1/4" x 1 1/4"

1/100, 1/32	$.36
1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 3/16, 3/10, 1/4, 3/10, 3/8, 1/10, 1/2, 9/10, 7/10, 3/4, 9/10, 1	.27
1 1/4, 1 1/2, 1 9/10, 2	.25
2 1/2, 2 9/10, 3, 3 3/10, 4, 5, 6 1/4, 8, 10, 15, 20, 25, 30	.20

"N" LIMITED CURRENT SERIES

Designed with time-lag characteristics to avoid unnecessary opening due to harmless surges or starting currents. Length of fuse is determined by amperage and ear size. Manufactured in the following amperages:

125V OR LESS
1/100 Amp through 7 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%. Blows in not less than 5 seconds at 200%.

CASE MATERIALS: GLASS SIZE: 1/4" DIAMETER

1/100, 1/32	$.40
1/16, 1/10, 15/100, 2/10, 1/4, 3/10, 1/10, 1/2, 5/10, 7/10, 3/4, 9/10, 1	.28
1 1/4, 1 9/10, 1 3/4, 2	.26
2 1/2, 2 9/10, 3 3/10, 3 1/2, 4, 5, 6 1/4, 7	.24

VULCANIZED FIBRE FUSES

Manufactured with ratings from 1/2 Amp thru 2 Amps, for continuous duty at 110%; blow within 1 hour at 135%.

1 HV SERIES
1,000 V or less— 13/32 x 3"

2 HV SERIES
2,500 V or less—13/32" x 4 1/2"

3 HV SERIES
5,000 V or less— 13/16" x 5"

4 HV SERIES
10,000 V or less—13/16" x 10"

WRITE FOR

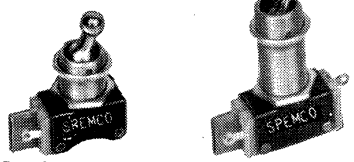
PLUS . . . THE MOST COMPLETE LINE OF INDUSTRIAL & SERVICE FUSES IN THE INDUSTRY

SPEMCO H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.

3 Amp.



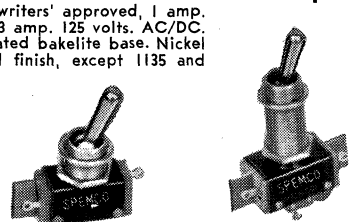
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1120	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1122	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1124	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1126	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

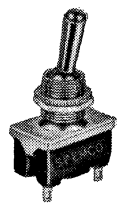
Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1135	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1136	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1137	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1138	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121-B	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123-B	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125-B	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127-B	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

NEW "COMPACT" SWITCH



3 Amp.

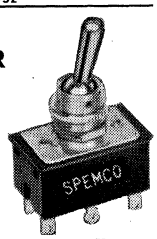
Ideal for aircraft, missile, and electronic applications. Underwriter's approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1205	SPST	15/32"	1 1/64"	41/64"	13/16"	.84 ea.
1206	SPDT	15/32"	1 1/64"	41/64"	13/16"	.99 ea.
1207	DPST	15/32"	1 1/64"	41/64"	13/16"	1.23 ea.
1208	DPDT	15/32"	1 1/64"	41/64"	13/16"	1.41 ea.

Sleeve Diameter—15/32"

MOLDED BAKELITE SWITCH, BAT LEVER

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.



6 Amp.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1142	SPST	15/32"	1 1/4"	11/16"	15/16"	.84 ea.
*1143	SPDT	15/32"	1 1/4"	11/16"	15/16"	.99 ea.
1144	DPST	15/32"	1 1/4"	11/16"	15/16"	1.23 ea.
1145	DPDT	15/32"	1 1/4"	11/16"	15/16"	1.41 ea.

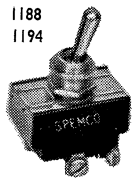
Sleeve Diameter—15/32"
*1 amp. 250 volts, 6 amp. 125 volts

UTILITY SWITCHES—Toggle Type For AC Uses

1185
1186

15 Amp.

1188
1194



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1185	SPST	15/32"	1 1/8"	5/8"	15/16"	.72 ea.
1186	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1188	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.14 ea.
1194	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

MOMENTARY BAT LEVER TOGGLE SWITCHES

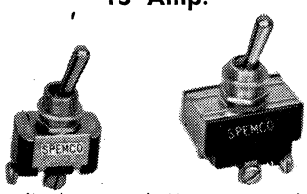
3 Amp.

Underwriters' approved, 3 amp. 125 volts, laminated bakelite base. Nickel plated finished.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1166	SPST	15/32"	1 3/16"	1/2"	35/64"	1.05 ea.
1167	SPDT	15/32"	1 9/16"	1/2"	35/64"	1.14 ea.
*1155	DPST	15/32"	1 9/16"	21/32"	35/64"	1.44 ea.
1150	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.65 ea.

Sleeve Diameter—15/32"
*1166 Normally Off *1155 Normally Off
*3 Amp 250V

15 Amp.



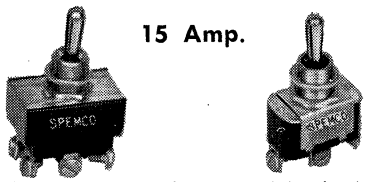
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1196	SPST	15/32"	1 1/8"	5/8"	15/16"	.93 ea.
*1197	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.50 ea.

*Normally Off Sleeve Diameter—15/32"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.



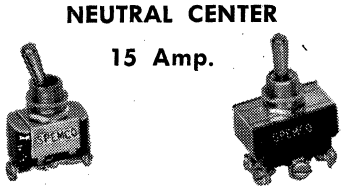
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1193	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.80 ea.
1195	SPDT	15/32"	1 1/8"	5/8"	15/16"	1.11 ea.

Sleeve Diameter—15/32"

NEUTRAL CENTER

15 Amp.



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

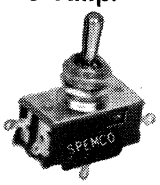
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1187	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1189	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

BAT LEVER TOGGLE SWITCH Neutral Center

6 Amp.

Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.



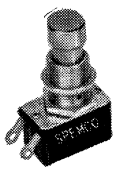
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1175	SPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.53 ea.
1176	DPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.83 ea.

Sleeve Diameter—15/32"

PUSH BUTTON DOUBLE ACTION SWITCH

6 Amp.

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1156	Nickel Plated	9/16"	1 1/8"	1/2"	9/16"	.90 ea.
1156-A	Red	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.
1156-B	Black	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.

Sleeve Diameter—15/32"

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, AC. Molded bakelite base, nickel plated finish.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1141	SP Norm. Closed	9/16"	1 1/32"	9/16"	2 9/64"	.54 ea.
1141-A	SP Norm. Open	9/16"	1 1/32"	9/16"	2 9/64"	.54 ea.

Sleeve Diameter—15/32"

3 Amp.

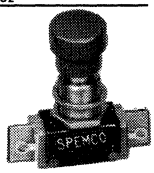
Underwriters' approved, 3 Amp. 120v, AC, Nickel plated finish, Molded bakelite base, Single Pole, slow make and slow break with bakelite snap-On button in red or black.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1157-A	Open—Red	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-B	Open—Black	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-C	Closed—Red	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.
1157-D	Closed—Black	9/16"	1 1/32"	9/16"	2 9/64"	.93 ea.

Sleeve Diameter—15/32"

1 Amp.

Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact.) 1 Amp. 125 Volts AC.
Underwriters' Approved

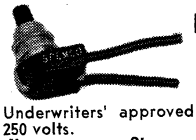


No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1158-A	Red	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.
1158-B	Black	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.

Sleeve Diameter—15/32"

ROTARY CANOPY SWITCH With Fixed Plastic Handle

3 Amp.



Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Price
1179	7/16"	6"	.42 ea.

SPECIALTIES MANUFACTURING CO. • Detroit, Michigan

Net

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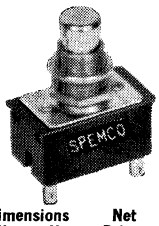
SPEMCO H & H SWITCHES

INTERMEDIATE MOMENTARY PUSH SWITCH



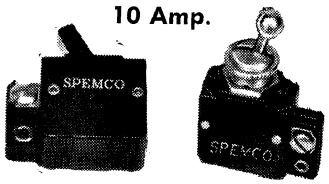
U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
**1146	SPST	1/2"	1 1/4"	11/16"	15/16"	1.41 ea.
*1147	SPDT	1/2"	1 1/4"	11/16"	15/16"	1.59 ea.
**1148	DPST	1/2"	1 1/4"	11/16"	15/16"	1.83 ea.
1149	DPDT	1/2"	1 1/4"	11/16"	15/16"	2.01 ea.

*1 amp. 250 volts, 6 amp 125 volts
**1146 & 1148 Normally off. Sleeve Diameter—15/32"

POWER SWITCHES

10 Amp.

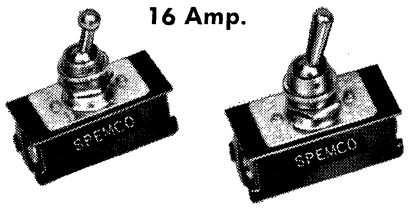


Underwriters' approved, 10 amp. 125 volts. 5 amp. 250 A.C., 3/4 H.P. 250V. A.C. 1/2 H.P. 250V A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	11/32"	15/16"	17/32"	15/16"	1.08 ea.
1133-B	Bakelite lever	15/16"	17/32"	15/16"	.69 ea.

*15/32" sleeve diameter

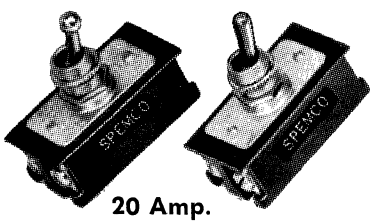
16 Amp.



Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.
1159-B	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.

1159—Ball Lever 1159-B—Bat Lever
Sleeve Diameter—15/32"



20 Amp.

Underwriters' aproved, 20 amp. 125V., 10 amp. 250V. A.C.-D.C., 1/2 H.P. 125-250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1134	DPST	15/32"	2"	1"	7/8"	2.07 ea.
1134-B	DPST	15/32"	2"	1"	7/8"	2.07 ea.

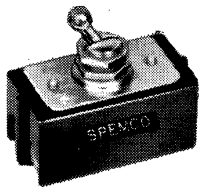
1134—Ball Lever 1134-B—Bat Lever
Sleeve Diameter—15/32"

HARDWARE

for 15/32" diameter sleeve.

No.	Description	Price
1132	On and Off Plate	.036 ea.
1132-H	Hex Nut	.024 ea.
1132-K	Knurled Nut	.024 ea.
1210	Lockwasher	1.80C
1211	Locking Ring	2.40C

POWER SWITCHES



20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	11/32"	2 1/4"	1 1/8"	15/32"	3.00 ea.

Sleeve Diameter—1/2"

20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	17/32"	2 1/4"	1 1/8"	15/32"	3.00 ea.

Sleeve Diameter—15/32"

MOMENTARY PUSH BUTTON SWITCH, NORMALLY OFF

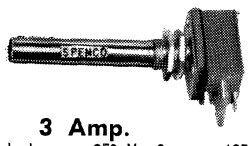
16 Amp.

Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST	15/32"	1 3/4"	13/16"	25/32"	1.80 ea.

Sleeve Diameter—15/32"

ROTARY SWITCHES



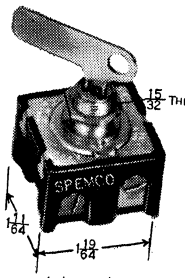
3 Amp.

Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1128). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1128	SPST	1 1/8"	3/8"	3/16"	3/4"	9/16"	.81 ea.
1129	SPDT	1 1/8"	3/8"	9/16"	3/4"	9/16"	.99 ea.
1130	DPST	1 1/8"	3/8"	9/16"	3/4"	11/16"	1.32 ea.
1131	DPDT	1 1/8"	3/8"	9/16"	3/4"	1 1/8"	1.44 ea.

*1128 rated 3 amp. 250 V. AC-DC. 1/32"
Sleeve Diameter—11/32"

ROTO-LOCK SWITCH



20 Amp.

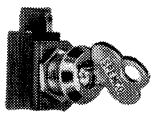
Underwriters' approved. 20 amp. 120 volts, 240 volts AC.

1 1/2 H.P.—120 volts AC
2 H.P.—120 volts AC

(with key)
(above key removable in off position only)

No.	Description	Sleeve	Net Price
1130-K	DPST (With Key)	9/16"	2.64 ea.
1130-KA	Key Only for above		.27 ea.

3 Amp. ROTO-LOCK SWITCH

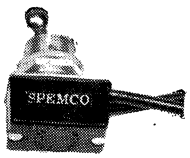


Underwriters' Approved, 3 amp. 250 volts. Except #1129-K & 1131-K

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1128-K	SPST (With Key) (above key removable in off position only)	15/32"	1 3/16"	3/4"	9/16"	1.35 ea.
1128-KA	Key only for above					.21 ea.
1128-KE	SPST (With Key) (above key removable in either position)	15/32"	1 3/16"	3/4"	9/16"	1.35 ea.
*1129-K	SPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	1/2"	3/4"	1.56 ea.
*1131-K	DPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	3/4"	3/4"	2.07 ea.
1128-KEA	Key—fits 1128-KE, 1129-K, and 1131-K					.21 ea

*1129-K & 1131-K—U.L. approved, 1 amp. 250 V., 3 amp. 125V., AC-DC. Sleeve Diameter—15/32"

BALL LEVER TOGGLE SWITCH



6 Amp.

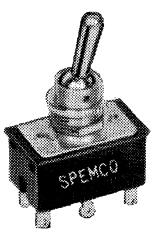
Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finished. WITH 6" WIRE LEADS

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1154	SPST	3/8"	7/8"	1/2"	9/16"	.87 ea.

Sleeve Diameter—15/32"

MILITARY TYPE TOGGLE SWITCHES

Manufactured of materials and in accordance with specification Mil-S-3950
MS-25098 and MS-35058—Single Pole MS-25100 and MS-35059—Double Pole



MS Part No.	Up Position	Center Position	Down Position Keyway Side	Net Price
MS-25098-22	On	None	Off	$216.75C
MS-25098-23	On	None	On	233.25C
MS-25100-22	On	None	Off	266.25C
MS-25100-23	On	None	On	283.50C
MS-35058-21	On	Off	On	195.75C
MS-35058-22	On	None	Off	162.75C
MS-35058-23	On	None	On	195.75C
MS-35058-24	On	Off	None	162.75C
MS-35058-25	On	Mom. Off	None	179.25C
MS-35058-26	On	None	Mom. On	212.25C
MS-35058-27	Mom. On	Off	Mom. On	212.25C
MS-35058-28	None	Off	Mom. On	179.25C
MS-35058-29	On	None	Mom. Off	179.25C
MS-35058-30	Off	None	Mom. On	179.25C
MS-35058-31	On	Off	Mom. On	230.25C
MS-35059-21	On	Off	On	261.75C
MS-35059-22	On	None	Off	217.50C
MS-35059-23	On	None	On	261.75C
MS-35059-24	On	Off	None	217.50C
MS-35059-25	On	Mom. Off	None	261.75C
MS-35059-26	On	None	Mom. On	283.50C
MS-35059-27	Mom. On	Off	Mom. On	283.50C
MS-35059-28	None	Off	Mom. On	261.75C
MS-35059-29	On	None	Mom. Off	261.75C
MS-35059-30	Off	None	Mom. On	261.75C
MS-35059-31	On	Off	Mom. On	283.50C

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SPEMCO H & H SWITCHES

EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER

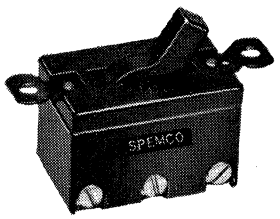
10 Amp.

Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast "break" which reduces the tendency to arc. Rated at 10 amp. 125 volts. 5 amp. 250 volts ¾ H.P. 250 volts

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1161-A	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.
1161	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.

Straight thru, no off-center* Sleeve Diameter—¾".

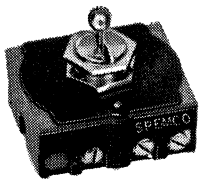
20 Amp.



3 9/32" mounting centers. 10 amp., 250 volts; 20 amp., 125 volts; 5 amp., 600 volts 1½ H.P., 250 volts DC. 2 H.P., 230 volts DC.

No.	Description	Base Dimensions L.	W.	H.	Net Price
1161-B	DPDT	2½"	1 19/32"	1 21/32"	7.05 ea.

10 Amp.



Rated 10 amp. 125 volts, ½ horsepower, 115-230 volt AC. 5 amp. 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1177	3 PDT	13/32"	2 5/16"	2"	1⅛"	7.05 ea.
1178	4 PDT	13/32"	2 5/16"	2"	1⅛"	8.85 ea.

Sleeve Diameter—¾"

THREE & FOUR POLE AC UTILITY SWITCHES

15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200 and 1201 which is 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1198	3PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	2.40 ea.
1199	3PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.00 ea.
1200	4PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	3.45 ea.
1201	4PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.20 ea.

Sleeve Diameter—15/32"

FEED THROUGH CORD SWITCH

10 Amp.

Underwriters' approved, black bakelite case sliding lever, 10 amp. 125 volts, 5 amp. 250 volts. 5/16" cord hole.

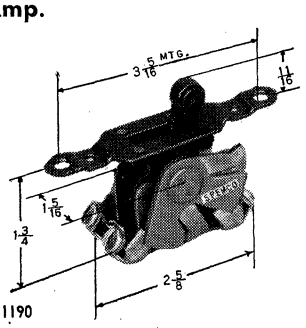
No.	Description	Net Price
1163	SP	1.29 ea.

HEAVY DUTY SWITCHES Toggle Type

Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

Roller Type Lever

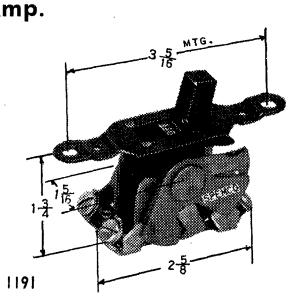
30 Amp.



1190

Square Bakelite Lever

30 Amp.

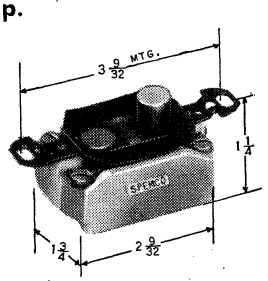


1191

No.	Description	Net Price
1190	DPST	2.85 ea.
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN

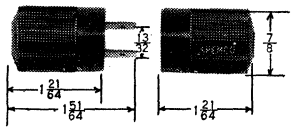
20 Amp.



Underwriters' approved, 20 amp. 250 volts, 2 H.P. 230V AC, 2 H.P. 250V DC.
For use on Floor Sander, as a foot switch, etc.

No.	Description	Net Price
1192	DPST	2.85 ea.

CORD CONNECTORS 10 Amp.



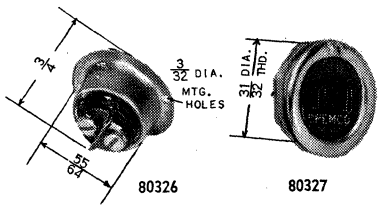
Brown Bakelite Cord Connector Complete, ⅞" O.D. x 2½" long. 10 amps. 250 volts. End opening for wire size up to ⅜" O.D.

No.	Description	Net Price
1162	Complete	1.86 ea.
1162-F	Female Part	1.02 ea.
1162-M	Male Part	1.02 ea.

RECEPTACLES

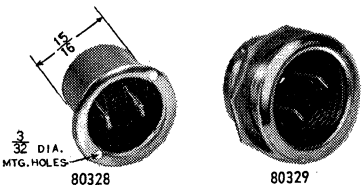
Underwriters' approved, 10 amp. 250 volts AC.

Short Female Flush Receptacle 10 Amp.



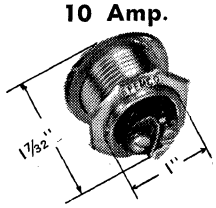
No.	Description	Net Price
80326	2 Screw Mounting	1.14 ea.
80327	Lock Nut Mounting	1.86 ea.

Recessed Male Receptacle 10 Amp.



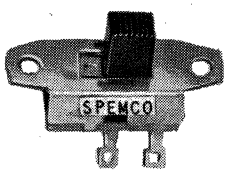
No.	Description	Net Price
80328	2 Screw Mounting	1.32ea.
80329	Lock Nut Mounting	1.86 ea.

Recessed Female Receptacle 10 Amp.



No.	Description	Net Price
80331	Lock Nut Mounting	1.86 ea.

SLIDE SWITCHES



Housings are made of steel and are cadmium plated 1 13/32" long, 35/64" wide and 1⅛" mounting centers.

No.	Description		Net Price
1180	SPST	.75A-125V AC-DC	.186 ea.
1181	SPDT	.75A-125V AC-DC	.222 ea.
1182	DPST	.50A-125V AC-DC	.264 ea.
1183	DPDT	.50A-125V AC-DC	.33 ea.

SPECIALTIES MANUFACTURING CO. • Detroit, Michigan

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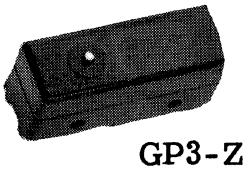
SPEMCO

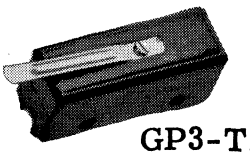
H & H PRECISION SWITCHES



GP3-Z1

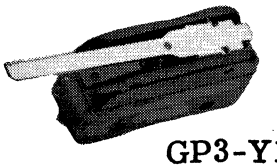
GENERAL PURPOSE PRECISION SWITCHES SPDT

H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC.

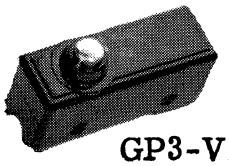


GP3-T1

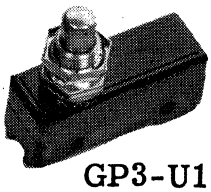
GP3-W1



GP3-Y1

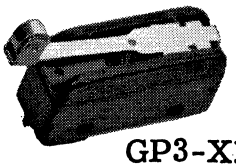


GP3-V1



GP3-U1

GP3-Q1



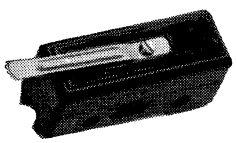
GP3-X1

SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	$155.00 C.	$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2 1/2 oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3 1/2 oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" max.	345.00 C.	350.00 C.

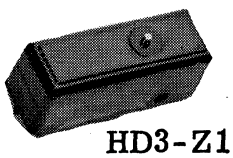
*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, non; 10-19, 10%; 20-49, 20%; 50-99, 30%.

HEAVY DUTY PRECISION SWITCHES SPDT

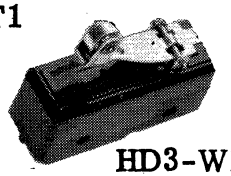
H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC, 1 H.P. 120 V AC, 2 H.P. 240 V AC.



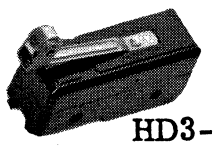
HD3-T1



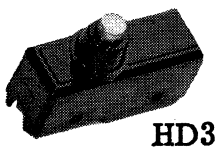
HD3-Z1



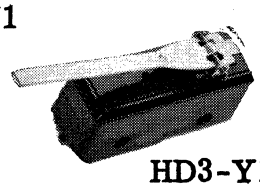
HD3-W1



HD3-Q1

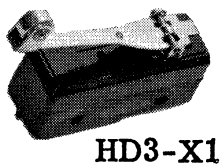


HD3-V1



HD3-Y1

HD3-U1



HD3-X1

SPEMCO NUMBER Solder Lug	SPEMCO NUMBER Screw Term.	*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE Solder Lug	LIST PRICE Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	$160.00 C.	$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2 1/2 oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2 1/2 oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, non; 10-19, 10%; 20-49, 20%; 50-99, 30%.

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SWITCHCRAFT INC.

CHICAGO, ILLINOIS

TELEPHONE JACKS
SHIELDED JACKS
JACK PANELS

"LITTEL-JAX AND "TINI-JAX"

A

B

The **"Littel-Jax"** (A) features notched insulating washers mechanically interlocking springs and lugs; "V" bend in tip spring firmly "holds" mating plug; minimum space requirements, economical. Mount in single ⅜" hole, panels up to 5/32" thick, except L-11 and L-12A in panels up to ¼" thick.

No. C-11 (JJ-034) and C-12A (JJ-089) mate with No. 440 (PJ-055B) Plug; C-12B (JJ-033), S-12B and S-13B mate with No. 480 (JAN PJ-068 or W.E. No. 309) Plug. No. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve to mate with S-250 and S-280 Plugs. C-11 (JJ-034), C-12B (JJ-033) and C-12A (JJ-089) per JAN-J-641. All others mate with standard ¼" dia. plugs such as our No. 40, 250, etc.

The **"Tini-Jax"** (B) a miniature 2-conductor Jack, approximately ⅓ the size of the "Littel-Jax"; otherwise similar in construction. Mounts in ¼" dia. hole; panels up to ⅛" thick. Mate with **"Tini-Plugs"** No. 750, etc. 43A has a unique spring design that requires a pear shaped tip, such as our No. 750.

"LITTEL-JAX"		"TINI-JAX"		Schematic No.
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	
11	$0.40	41	$0.40	I
C-11	$0.60			
L-11	$0.50			
S-11	$0.45			
12A	$0.45	42A	$0.45	III
C-12A	$0.75			
L-12A	$0.55			
13	$0.90			V
13A	$0.85	43A	$0.70	VI
13E	$0.90			IX
Three Conductor Types				
12B	$0.55			IV
C-12B	$0.70			
S-12B	$0.65			
13B	$0.75			VII
S-13B	$0.95			

For detailed information request Switchcraft Catalog J-101.

"MICRO-JAX"

Precision manufactured jack for miniaturized applications. Two conductor, single closed circuit. See Schematic Circuit III. Silver plated contacts on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to 3/32" thick. "Micro-Jax" is 1/3th the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Part No. TR-2A **U.S.A. List Price $.45**

For detailed information request Switchcraft Catalog J-101.

"LAMP JAX"

Switchboard Panel Type. Lamp completely insulated. Interchangeable with W.E. #47A & 47B. Accepts standard Switchboard Lamps. Ideal for mounting on Jack Panel. Two frame mountings—Vertical add prefix A. Horizontal prefix C.

Part No. LT-47 **U.S.A. List $2.00**

For detailed information request Switchcraft Catalog J-101.

"SHIELDED JAX"

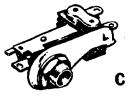
H

"Shielded Jax" (H) regular "Littel-Jax" (see separate listing) assembled into shield, ideal for high impedance circuits.

Part No.	U.S.A. List Price	DESCRIPTION
CN-11	$0.80	Open ckt. (see No. 11)
CN-12A	$0.85	Close ckt. (see No. 12A)
CN-12B	$0.95	(see No. 12B)
CN-13B	$1.15	(see No. 13B)

For detailed information request Switchcraft Catalog J-101.

"SF-JAX"


C

D

"SF-JAX", Series 20 (C) requires a minimum of panel depth, mounts in single ⅜" dia. hole, panels up to 3/16" thick. Series 50 (D) similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mounts in panels up to ¼" thick.

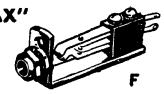
Series C-20 and C-50, MIL types with Military Insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to ¼" thick.

Series 20 & C-20		Series 50 & C-50		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
21	$0.65	51	$0.65		I
		C-51	$1.20	JJ-096	
22	$0.80	52	$0.80		II
22A	$0.80	52A	$0.80		III
		C-52A	$1.30	JJ-097	
22B	$0.80	52B	$0.80		IV
		C-52B	$1.30	JJ-103	
23	$0.95	53	$0.95		V
C-23	$1.35			JJ-099	
23A	$0.95	53A	$0.95		VI
C-23A	$1.35			JJ-098	
		C-53A	$1.55	JJ-092	
23B	$0.95	53B	$0.95		VII
23C	$0.95	53C	$0.95		VIII
23E	$0.95	53E	$0.95		IX
C-23E	$1.35			JJ-102	
24	$1.10	54	$1.10		X
24A	$1.10	54A	$1.10		XI
		C-54A	$1.60	JJ-093	
24B	$1.10	54B	$1.10		XII
		C-54B	$1.60	JJ-101	
25	$1.30	55	$1.30		XIII
		C-55B	$1.85	JJ-095	XV
26	$1.40	56	$1.40		XIV

For detailed information request Switchcraft Catalog J-101.

"LF-JAX" AND "M-JAX"

E


F

Long Frame Jacks, the "LF-JAX", (E) Series 30, requires minimum panel space, 3" deep.

"M-JAX" (F) a heavy frame, often referred to as Navy Jack, 2 11/16" deep. Both types mount in single ⅜" hole, in panels up to ¼" thick.

"LF-JAX"		"M-JAX"		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
31	$0.75	M-441	$1.50		I
32	$0.95				II
32A	$0.95	M-442A	$1.70	JJ-107	III
32B	$0.95				IV
33	$1.05				V
33A	$1.05	M-443A	$1.95	JJ-105	VI
33B	$1.05	M-443B	$2.10	JJ-106	VII
33C	$1.05				VIII
33E	$1.05				IX
34	$1.20				X
34A	$1.20				XI
34B	$1.20	*M-444	$2.30	JJ-083	XII
		M-444B	$2.20	JJ-082	XII
35	$1.45	M-445	$2.75	JJ-104	XIII
36	$1.70	M-446	$3.50	JJ-079	XIV
		M-446A	$3.90	JJ-081	XVI

*Bushing .2085", to mate with plugs PJ-068 and PJ-309.

For detailed information request Switchcraft Catalog J-101 and J-102.

"T-JAX" AND "MT-JAX"

G

The **"T-JAX"** and **"MT-JAX"** are a long frame, switchboard type. The **"T-JAX"**, commercial quality, for low cost communication equipment where economy is all important.

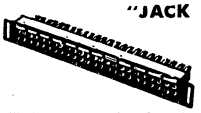
The **"MT-JAX"** is recommended for high quality communication and Military equipment, featuring welded crossbar Palladium contacts. Frame design also available with mounting ear rotated 90° from position shown in figure "G"; add prefix "C" to part number. All types listed mate with ¼" dia. plug sleeves unless otherwise indicated.

"T-JAX"		"MT-JAX"		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
T-331	$1.05	MT-331	$1.50	JJ-086	I
		MT-332	$1.70		II
T-332A	$1.20	MT-332A	$1.70	JJ-024	III
T-332B	$1.20	MT-332B	$1.70	JJ-022	IV
		MT-332C	$1.95	JJ-016	XVIII
		MT-333	$1.95	JJ-084	V
		MT-333B	$1.95		VII
		MT-333E	$1.95		IX
T-334A	$1.50	MT-334A	$2.00		XI
T-334B	$1.60	MT-334B	$2.00	JJ-042	XII
T-334C	$1.50	MT-334C	$2.00	JJ-072	XVII
		MT-334E	$2.00	JJ-085	XXV
		MT-334F	$2.00	JJ-035	XIX
		MT-335	$2.25		XIII
		MT-335A	$2.25	JJ-017	†
		MT-336	$2.25	JJ-074	XX
		MT-336A	$2.75	JJ-075	XIV
		MT-336B	$2.75	JJ-077	XXI
		MT-336C	$2.75	JJ-073	XXII
		MT-336E	$2.75		XXIII
		CMT-336E	$2.75	JJ-019	XIII
		MT-337	$2.75	JJ-087	XXIV
		CMT-337	$2.75	JJ-015	XXIV
		*MT-342B	$1.95		IV
		*MT-344B	$2.25		XII

*Bushing .2085" to mate with PJ-068 and PJ-309.

†**For detailed information request Switchcraft Catalog J-102.**

"JACK PANELS"



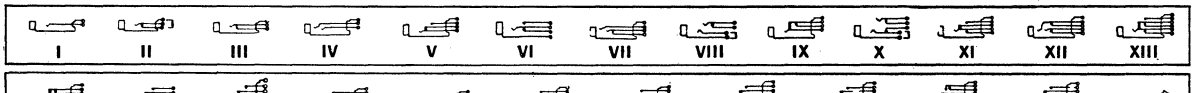
Black phenolic strip, reinforced with steel, supports Switchcraft "T-JAX" and "MT-JAX" (see separate listing).

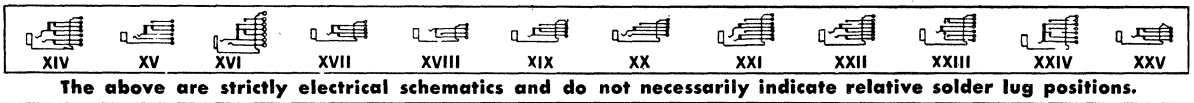
Slotted mounting brackets for standard 19" relay racks. Series 1200, single row for 24 Jacks; strip 1¾" wide. Series 2400, double row for 48 Jacks; 2½" wide. Series 2600, double row for 52 Jacks; 1¾" wide.

Series 2800, Aluminum Jack Panel. Clear anodized frame, extremely rugged, lightweight. Features a new narrow designation strip with individual "windows."

Part No.	U.S.A. List	DESCRIPTION
1200	$18.00	Single Row Panel, less Jacks.
1232A	$45.00	Single Row, 12 pr. closed ckt. T-332A "T-Jax".
1332A	$55.00	Single Row, 12 pr. closed ckt. MT-332A "MT-Jax".
2400	$20.00	Double Row Panel, less Jacks. 2⅛" wide (holds 48 Jacks).
2432A	$75.00	Double Row, 24 pr. closed ckt. T-332A "T-Jax". 2⅛" wide.
2532A	$95.00	Double Row, 24 pr. closed ckt. MT-332A "MT-Jax". 2⅛" wide.
2600	$25.00	Double Row Panel, less Jacks. 1¾" wide (holds 52 Jacks).
2632A	$85.00	Double Row with 52 No. T-332A "T-Jax". 1¾" wide.
2732A	$110.00	Double Row with 52 No. MT-332A "MT-Jax". 1¾" wide.
2800	$40.00	Double Row Aluminum Panel Less Jacks. 1¾" wide.

For detailed information request Switchcraft Catalog J-102.





The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

Trade Discount Applies To List Prices Only

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SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"BUTTON SWITCHES"

An unusually small, completely enclosed switch. Series 903 and 913 (A), behind panel mounting, requires single 13/32" dia. hole, panels up to 19/64". Series 923 and 933 (B) front of panel mounting, requires 1/4" dia. hole, panels up to 5/32" thick. Rated 250 mils, non-inductive load. A.C. 30 watts max.

"CORD SWITCHES"—Button Switch assembled into nickel plated brass handle provides ideal switch for attachment to cable.

Part No. Red Button	Part No. Blk. Button	U.S.A. List Price	Schematic Circuit
903	913	$1.50	
903D	913D	$1.50	
923	933	$1.75	
923D	933D	$1.75	

"CORD SWITCHES"

E-903	E-913	$2.50	
E-903D	E-913D	$2.50	

"LITTEL" AND "TINY" SWITCHES

C

The "Littel Switch" (C) available in 3 circuits, red or black 1 pc. Plastic P.B., non-locking only. Integral contacts; recommended for low current circuits only; same switches with suffix letter "S" in part number rated at 3 amps, 300 watts A.C. non inductive load. Mounts 3/8" dia. hole in panels up to 1/4".

D

The "Tiny-Switch"(D) similar in construction but approx. 1/3 the size of "Littel-Switch". Available integral contacts only. Mounts 1/4" dia. hole in panels up to 1/8" thick. *Silver Cont

Part No. Red Button	Part No. Blk. Button	U.S.A. List Price	Schematic Circuit
101	201	$0.90	I
*101-S	201-S	$1.05	
102	202	$0.90	II
*102-S	202-S	$1.05	
103	203	$1.00	III
*103-S	203-S	$1.20	

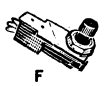
"TINY-SWITCHES"

951	961	$0.90	I
952	962	$0.90	II
953	963	$1.00	III

"FF" AND "NF" SWITCHES

E

"FF-Switch" (E), Series 1000, 1-pc. black plastic push button; all common circuits. Mounts in single 3/8" dia. hole, panels up to 1/4" thick. Fine silver contacts rated at 3 amp. 300 Watts max. A.C. non-inductive load. Frame 3/4" wide; 1 61/64 lg. o/a.


F

"NF-Switch" (F) series 4000, same features and rating as "FF-Switch" but smaller. Frame 1/2" wide; 1 5/8" long o/a. mounts in panels up to 5/32" thick.

FF-Switch Part No.	NF-Switch Part No.	U.S.A. List Price	Schematic Circuit
1001	4001	$1.05	I
1002	4002	$1.05	II
1003	4003	$1.20	III
1004	4004	$1.30	IV
1005	4005	$1.30	V
1006	4006	$1.55	VI
1009	4009	$2.10	VII

For detailed information request Switchcraft Catalog S-301.

"LEV-R-SWITCHES"

Unusually small lever action switch. Ideal for test equipment, intercom. systems, model r.r. switch panels, etc. Mount in 13/32" dia. hole, panels up to 5/64" thick for series 3000, and panels up to 1/4" for series 13000. Contacts fine silver, rated at 3 amps., 300 watts max. non-inductive A.C. load. Welded cross bar Palladium contacts special.

Add suffix "L" for locking type.

TWO POSITION TYPE

Series 3000 Non-Locking	Series 3000 U.S.A. List	Series 13000 Non-Locking	Series 13000 U.S.A. List	Schematic CKT.
3001	$1.95	13001	$2.10	XI
3002	$1.95	13002	$2.10	XII
3003	$2.25	13003	$2.40	XIII
3003D	$2.40	13003D	$2.50	XIV
3004	$2.50	13004	$2.65	XV
3005	$2.50	13005	$2.65	XVI
3006	$2.75	13006	$2.75	XVII
3006D	$2.90	13006D	$2.90	XVIII
3009	$3.40	13009	$3.75	XIX

THREE POSITION TYPE

3033	$2.50	13033	$2.65	XX
3034	$2.60	13034	$2.75	VIII
3035	$2.60	13035	$2.75	IX
3036	$2.90	13036	$3.10	X
3036D	$3.10	13036D	$3.25	XXI
3037	$2.95	13037	$3.10	XXII
30312	$3.75	130312	$4.00	XXIII
30313	$3.75	130313	$4.00	XXIV

INTER-COMM. SWITCHES

3033T	$2.50	13033T	$2.65	XX
3037T	$2.95	13037T	$3.10	XXII

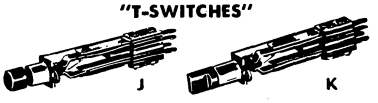
SERIES 12000

Requires minimum depth (7/8") behind panel. Single hole mounting. Springs insulated. Contacts fine silver rated at 3 amp. 120V A.C. non-inductive load, 300 Watts max. std. For detailed information regarding stack heights write for technical sheet. See basic contact forms.

Series 12000 Locking	Series 12000 Non-Locking	U.S.A. List	Schematic Circuit
TWO POSITION TYPE			
12001L	12001	$1.75	XI
12002L	12002	$1.75	XII
12003L	12003	$2.00	XIII
12003DL	12003D	$2.25	XIV
12004L	12004	$2.25	XV
12005L	12005	$2.25	XVI
12006L	12006	$2.50	XVII
12006DL	12006D	$2.75	XVIII
THREE POSITION TYPE			
12033L	12033	$2.25	XX
12034L	12034	$2.35	VIII
12035L	12035	$2.35	IX
12036L	12036	$2.65	X
12036DL	12036D	$2.85	XXI
12037L	12037	$2.75	XXII
3 POS. LOCKING ONE SIDE—NON-LOCKING OTHER SIDE			
12033T		$2.25	XX
12037T		$2.75	XXII

For detailed information request Switchcraft Catalog S-302.

"T-SWITCHES"



Long frame switches, Series 11000 (J), locking and non-locking push button design commonly used on Jack Panels, same mounting as "MT-JAX". 3/8" dia. mounting hole 3/8" center distance to push button. Requires 2 7/8" depth behind panel. Welded cross bar Palladium contacts rated 3 amps. A.C. 300 Watts max. non-inductive load.

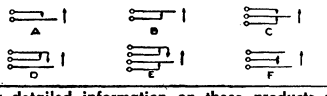
Series 11200 (K), similar to above but turn type operation, locking and non-locking.

Add suffix "L" to part number for locking type.

"PUSH BUTTONS" SERIES 11000 Part No. Non-Locking	"TURN-BUTTONS" SERIES 11200 Part No. Non-Locking	U.S.A. List	Contact Assembly
11001	11201	$3.50	1-A
11002	11202	$3.50	1-B
11003	11203	$4.00	1-C
11003D	11203D	$4.00	1-D
11004	11204	$4.50	2-A
11005	11205	$4.50	2-B
11006	11206	$5.00	2-C
11006D	11206D	$5.00	2-D
11008	11208	$5.60	4-A
11009	11209	$6.00	3-C
11012	11212	$6.80	4-C

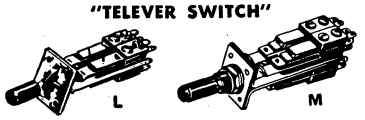
This table refers to Basic Contact Forms under the heading "Contact Assembly"

BASIC CONTACT FORMS



For detailed information on these products request Switchcraft Catalogs S-301 and S-302.

"TELEVER SWITCH"



Series 6000, "Telever Switch" (L), rugged telephone type; 3" dpth behind panel. Welded cross bar Palladium contacts rated at 3 amps., 300 Watts max. non-inductive A.C. load. Insulated black knob; chrome plated brass actuator. Standard mounting centers 17/32" x 13/16"; usually mounted by four No. 3-48 screws (not furnished); can be assembled to escutcheon plate.

Series 16000, "Telever Switch" (M), same design as Series 6000, except features a single hole mounting; requires 15/32" hole in panels up to 1/4" thick. Unique feature, "non-locking" type can easily be converted to "locking" by removing "stop plate".

Add suffix "L" to part number for locking type.

6000 SERIES Part No. Non-Locking	6000 SERIES U.S.A. List	16000 SERIES Part No. Non-Locking	16000 SERIES U.S.A. List	Contact Assembly
TWO POSITION TYPE				
6006	$ 5.00	16006	$ 5.00	2-C
6006D	$ 5.60	16006D	$ 5.60	2-D
6008	$ 5.60	16008	$ 5.60	4-A
6009	$ 6.00	16009	$ 6.00	3-C
60012	$ 6.80	160012	$ 6.80	4-C
60012D	$ 7.50	160012D	$ 7.50	4-D
60024	$10.00	160024	$10.00	8-C

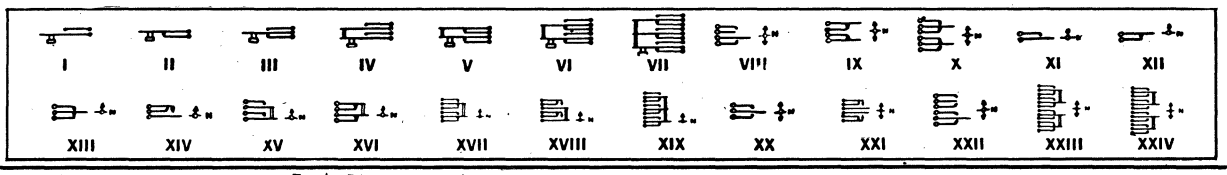
				Pos.1	Pos. 2
THREE POSITION TYPE					
6036	$ 5.00	16036	$ 5.00	1-C	1-C
6036D	$ 5.60	16036D	$ 5.60	1-D	1-D
6038	$ 5.60	16038	$ 5.60	2-A	2-A
60312	$ 6.80	160312	$ 6.80	2-C	2-C
60312D	$ 7.50	160312D	$ 7.50	2-D	2-D
60316	$ 8.80	160316	$ 8.80	4-A	4-A
60324	$10.00	160324	$ 10.00	4-C	4-C
530	$ 0.60	Escutcheon plate with 4 mounting screws. For series 6000 only.			

STACK SWITCH KITS

Experimental Kits consisting of the most popular springs, spacers, insulators, tubing, pins, roller assemblies and assorted contacts. Ideal for assembling design samples, field repair and replacement. Kit No. K-101, recommended for the engineer who has not decided which spring design to use. Kits No's. K-102 and K-103 contain springs of one type.

Part No.	U.S.A. List Price	Description
K-101	$16.50	Assorted 1/4" and 3/8" mtg. ctr. contact springs and parts.
K-102	$16.50	Assorted 1/4" mtg. ctr. contact springs and parts.
K-103	$16.50	Assorted 3/8" mtg. ctr. contact springs and parts.

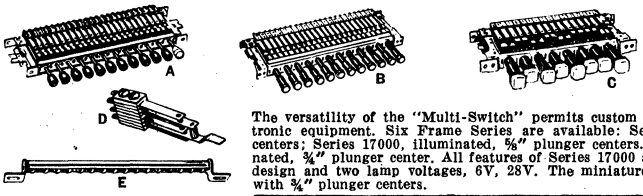
For detailed information request Switchcraft Catalog S-304.



SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"MULTI-SWITCH"
"PUSH-PUSH" SWITCH
"TF" SWITCH — "LK" SWITCH
JACK COVERS — TWIN JACK



"MULTI-SWITCHES"—Now, Choose from Six Frame Series.

Featuring:

- **Illuminated or Non-Illuminated**
- **Choice of Functions**
- **Multiple Circuits Available**
- **Choice of 2 Plunger Centers — 5/8" and 3/4"**

The versatility of the "Multi-Switch" permits custom designing of push-button switches to meet any requirement. Ideal for use in all types of electronic equipment. Six Frame Series are available: Series 7000, non-illuminated, 5/8" plunger centers; Series 8000, non-illuminated, 3/4" plunger centers; Series 17000, illuminated, 5/8" plunger centers. Includes 6V midget screw base lamp. Buttons have identifying discs. Series 18000, illuminated, 3/4" plunger center. All features of Series 17000 are retained. New, Series 21000, illuminated, 5/8" plunger center. Featuring a new button design and two lamp voltages, 6V, 28V. The miniature lamps are purchased separately. Series 22000, illuminated, same as Series 21000, except with 3/4" plunger centers.

All Series of the "Multi-Switch" may be assembled at the factory or adapted in the field to provide these functions: Interlock—pressing any button or group of buttons will release previously depressed button. Non-Locking—Momentary action (no interaction between buttons). All Lock—Pressing button does not release button previously depressed (order frame with extra button to serve as release button). Interlock and Non-Lock or All-Lock and Non-Lock combinations.

Each complete unit consists of the following components which are ordered separately: Frame with push buttons; individual switch stacks (which are to be installed on the frame); lock-out bar (optional); and Solenoid release (optional). On Series 21000 and 22000 Illuminated Multi-Switches, the lamps are also ordered separately.

For detailed engineering specifications and special functions on Multi-Switches, request Switchcraft Catalog S-306.

(A) NON-ILLUMINATED PUSH-BUTTON FRAMES

A round brown push-on button is furnished for each station and extra red button for use when switch requires a release.

Part No.*	U.S.A. List Price**	No. of Stations
7400	$12.00	4
7600	$16.00	6
7800	$20.00	8
71000	$24.00	10
71200	$28.00	12

*Only popular frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering Series 8000 Frames with 3/4" plunger centers, available up to 31 stations.

(B) SERIES 17000 ILLUMINATED PUSH-BUTTON FRAMES

Buttons light in "IN" position. If buttons are to light in "OUT" position, prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N". Supplied with white "push-on" discs; and red disc for release station.

Part No.*	U.S.A. List Price**	No. of Stations
17400	$24.50	4
17600	$34.50	6
17800	$45.00	8
171000	$55.00	10
171200	$65.00	12

*Only popular Frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering Series 18000 Frames with 3/4" plunger centers; available up to 31 stations.

"TF" SWITCHES

Push-button "TF" tiny frame switch; (F) requires only 1 1/32" depth behind panel. Mounts in single 1/4" dia. hole. Locking or non-locking action. Integral contacts. Ideal for all low level circuits where contact resistance is unimportant.

Non-Locking	U.S.A. List Price	Locking	U.S.A. List Price	Schematic Circuits
974	$1.30	974L	$1.55	2-A
975	$1.30	975L	$1.55	2-B
976	$1.30	976L	$1.55	2-C

For detailed information, request Switchcraft Catalog 102.

"HOOK SWITCH"

Hanging accessory on "hook" actuates switch. Requires minimum of depth behind panel. Soft, easy action. Fine silver contacts rated at 3 amps. 120V. A.C. Palladium contacts and special circuits available. (Refer to basic contact forms Page 2. Specify by lettering.)

Part No.	U.S.A. List	Schematic Circuit	Part No.	U.S.A. List	Schematic Circuit
14004	$2.75		14006	$3.00	
14005	$2.75		14012	$3.85	

For detailed information, request Switchcraft Catalog S-303.

"JACK COVERS"

500 Series Cover used with conventional 3/8"-32 threaded bushing type Phone Jacks. Spring loaded cover immediately snaps over Jack opening when plug is removed, providing a moisture seal.

600 Series Cover, similar to above, is used with certain type Tip Jacks. Fit Tip Jacks with 1/4" mounting; height of Tip Jack head 1/8" to 3/16".

Also can be used as covers for "Tini-Jax".

U.S.A. Part No.	U.S.A. List Price	Description	U.S.A. Part No.	U.S.A. List Price	Description
510	$1.05	Olive Drab	610	$0.75	Olive Drab
512	$1.05	Br. Nkl.	615	$0.75	Black
515	$1.05	Black	620	$0.75	Navy Grey
520	$1.05	Navy Grey			

For detailed information, request Switchcraft Catalog J-101.

(C) SERIES 21000 ILLUMINATED PUSH-BUTTON FRAMES

Buttons light in "IN" position. If buttons are to light in "OUT" position prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N". Standard buttons are supplied with white jewels and diffusers; other colors available on special order.

Part No.*	U.S.A. List Price**	No. of Stations
21400	$24.50	4
21600	$34.50	6
21800	$45.00	8
211000	$55.00	10
211200	$65.00	12

*Only popular Frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering Series 22000, Frames with 3/4" plunger centers; available up to 31 stations.

LAMPS FOR SERIES 21000, 22000 FRAMES

Lamps are not furnished with Illuminated "Multi-Switch" Frames Series 21000, 22000. When ordering these frames determine and specify lamp voltages you will require.

Part No.	U.S.A. List Price	Description
P-1593-2	$1.20	6V Lamp, Ind. No. 328
P-1593-1	$1.50	28V Lamp, Ind. No. 327

TYPE J SOLENOIDS

Fasten to end of Frame.

Part No.	U.S.A. List Price	Function Used On	Voltage
J-1	$8.50	Interlock	115V AC
J-3	$9.50	All-Lock	115V AC

"RS-SWITCH"

The "RS-SWITCH"; locking and non-locking, 2- or 3-position, all common circuits. Mounts in single 3/8" dia. hole, panels up to 1/4" thick. Fine silver contacts rated 3 amperes, 120 volts A.C. (non-inductive).

Add suffix "L" to part number for locking type.

Part No. Non-Locking	U.S.A. List Price	Schematic CKT.
2001	$1.25	XI
2002	$1.25	XII
2003	$1.50	XIII
2004	$1.50	XV
2005	$1.50	XVI
2006	$1.95	XVII
THREE POSITION TYPES		
2034	$1.50	VIII
2035	$1.50	IX
2036	$1.95	X

For detailed information, request Switchcraft Catalog S-303.

TWIN JACK

Twin Jack, similar to "MT-JAX," except frame is doubled. MT-388 mates with 411, 412, 413, 420 and 425 plugs. MT-389, two 3-cond. jacks interconnected, mates with 482 plug. Twin Jacks have mounting ears on 1 3/8" centers; sleeves are on 5/8" centers.

Part No.	U.S.A. List Price	Mil Type	Schematic Circuit
MT-388	$5.15	JJ-088	
MT-389	$5.65		

For detailed information, request Switchcraft Catalog J-102.

LOCK-OUT BAR

Lock-out bar, Fig. E., prevents operation of more than one button at a time. Mounted at rear of "Multi-Switch."

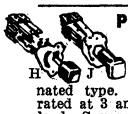
Part No.	U.S.A. List Price	No. of Stations
K04	$3.25	4
K06	$3.50	6
K08	$3.75	8
K10	$4.25	10
K12	$4.75	12

STACK SWITCHES*

For all Multi-Switches, Fig. D.

Series 70 — Silver Contacts		Series 70P — Palladium Contacts		
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	Schematic Circuit
71	$.50	71P	$.60	
72	$.50	72P	$.60	
73	$.60	73P	$.80	
73D	$.70	73PD	$.90	

*Listed above are a few of the popular stacks, many others available from stock.



PUSH-PUSH SWITCHES

Unique, new single station push-button switches featuring push-to-lock, push-to-release action. Series 5000L "Push-Push" Switch (H), rugged, non-illuminated type. Welded cross bar Palladium Contacts rated at 3 amps, 300 watts max. non-inductive A.C. load. Square brown button. 5/8" mounting centers; mounted by two 3-48 screws (not furnished). Series 5000, same design as Series 5000L, except momentary type. (Series 5000L can also be converted by user to momentary action.)

Series 15000L, "Push-Push" Switch (J), similar to Series 5000L, except illuminated. Two lamp voltages, 6V and 28V are available. Utilizes same lamps and buttons as furnished for Multi-Switches, Series 21000 and 22000. (See listing above.) Standard buttons are furnished with white jewels and diffusers, other colors are available on special order. Button lights in "IN" position. If buttons are to light in "OUT" position, prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N." **Order lamps separately.** Series 15000, similar to Series 15000L, except momentary action. (Series 15000L can also be converted by user to momentary action.)

The following numbers cover the most popular Push to Lock, Push to Release Switches, in various switching combinations. Special circuits, or special contacts, can be furnished on production orders.

Non-Illuminated		Illuminated		
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	Schematic Circuit
5003L	$6.00	15003L	$ 8.50	1-C
5004L	$6.50	15004L	$ 9.00	2-A
5006L	$6.75	15006L	$ 9.25	2-C
5008L	$7.60	15008L	$10.00	4-A
5009L	$7.75	15009L	$10.25	3-C
5012L	$9.00	15012L	$11.50	4-C

Delete suffix "L" in part number for momentary action. Order lamps separately for Series 15000 Switches. (See above listings on lamps.)

For detailed information, request Switchcraft Catalog S-306.

LK SWITCH

Rugged, lever type switch featuring new short frame design. Fine silver contacts rated at 3 amp., 300 watts max., non-inductive AC load. Locking and non-locking, 2 or 3 position action. Frame has 2 tapped 3-48 holes for easy mounting.

TWO POSITION TYPE

Part No.	U.S.A. List Price	Circuits
23201	$1.65	1-A
23203	$1.95	1-C
23206	$2.25	2-C

Additional circuits available on special order.

THREE POSITION TYPE*

Part No.	U.S.A. List Price	Circuits Pos. 1	Pos. 2
23304	$2.10	1-A	1-A
23306	$2.25	1-C	1-C
23308	$2.50	2-A	2-A

Add suffix "L" to part number for locking type.
*Also available with locking action on one side, non-locking action other side.

For detailed information, request Switchcraft Bulletin No. 115.

Trade Discount Applies To List Prices Only

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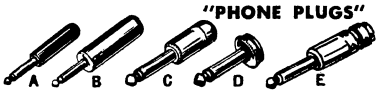
SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"PHONE PLUGS"
"MILITARY TYPE PLUGS"
"FLAT PLUGS" "TINI PLUGS"
"MICRO-PLUGS" "EXTENSION JAX"

"PHONE PLUGS"



The **"Littel-Plug"** (A), radically new, fitting standard Jacks; solder lug type features clamp terminal serving as a cable clamp and terminal—perfect for metal braid cable. Screw type terminals—no clamp. Tenite or Metal handles 1⅜" L., ½" dia. Ext. metal nickel Pl.

No.'s S-250 and S-280 have a .206 dia. sleeve; mates with S-11 and S-128 Jacks. No.'s 180 and 288 have wide insulator between sleeve and tip—makes it possible to use a 2-conductor Plug in a 3-conductor Jack.

No's. C-240, C-245 and C-270 have an integral cord clamp and screw terminals.

No's. S-260 and S-290 have a .206" dia. sleeve; mates with S-12B, S-13B Jacks.

The **Standard Plugs** (B), conventional design, available both black Bakelite or metal handles 2 1/16" L. x 11/16" O.D., except No. 90 and No. 160 have metal handles 1" long. Exterior metal parts bright nickel Pl. No. 170 (E) is similar to No. 70, except 2 piece handle with built-in cable clamp: No. 190A similar to No. 90 except same handle as No. 170. No. 475 same as No. 170 but MIL construction for type PJ-636. No. 385 1" lg. .206" dia. sleeve and tip-mates with S-11 & S-128.

The **"Silent Plug"** No's. 49 and 169, features a circuit closing device, when removed from Jack.

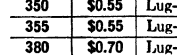
The **"Lug Plug"** (C), low-cost two conductor, solder lug term. Exterior metal parts bright Nickel Pl. Red or Black Tenite Handles are 1⅝" L., ½" O.D. No. 380 has metal handle 1" L., bright Nickel Pl.

Plug Adapter (D) used with 2501 F Connector for use with standard Jacks. See separate adapter listing.

Part No.	U.S.A. List	Plug Type	Type Handle	Description
40	$0.75	Standard	Black	2-cond.*
44	$0.50	Adapter		2-cond.
45	$0.75	Standard	Red	2-cond.*
49	$1.50	Standard	Black	2-cond.*
60	$1.05	Standard	Black	3-cond.‡
70	$1.20	Standard	Metal	2-cond.*
90	$1.30	Standard	Metal	3-cond.‡
160	$0.90	Standard	Metal	2-cond.*
169	$1.75	Standard	Metal	2-cond.*
170	$1.65	Standard	Metal-2-pc	2-cond.*
180	$1.05	Standard	Metal	2-cond.*
190	$1.50	Standard	Metal	3-cond.‡
190-A	$1.95	Standard	Metal	3-cond.‡
240	$0.75	Littel-Plug	Black	2-cond.*
C-240	$0.90	Littel Plug	Black	2-cond.*
245	$0.75	Littel-Plug	Red	2-cond.*
C-245	$0.90	Littel Plug	Red	2-cond.*
250	$0.70	Littel-Plug	Black	2-cond.†
S-250	$0.75	Littel-Plug	Black	2-cond.†
255	$0.70	Littel-Plug	Red	2-cond.†
260	$1.20	Littel-Plug	Black	3-cond.*
S-260	$1.65	Littel Plug	Black	3-cond.*
267	$1.05	Littel-Plug	Black	3-cond.†
269	$1.05	Littel-Plug	Red	3-cond.†
270	$1.05	Littel-Plug	Metal	2-cond.*
C-270	$1.20	Littel Plug	Metal	2-cond.*
280	$1.00	Littel-Plug	Metal	2-cond.†
S-280	$1.00	Littel-Plug	Metal	2-cond.†
R-280	$1.25	Littel-Plug	Metal	2-cond.†
(Short sleeve for Revere Recorders, mates with No. 126 "Extension Jax")				
288	$1.05	Littel-Plug	Metal	2-cond.†
290	$1.40	Littel-Plug	Metal	3-cond.*
S-290	$1.85	Littel Plug	Metal	3-cond.*
297	$1.30	Littel-Plug	Metal	3-cond.†
350	$0.55	Lug-Plug	Black	2-cond.‡
355	$0.55	Lug-Plug	Red	2-cond.‡
380	$0.70	Lug-Plug	Metal	2-cond.‡
385	$1.00	Lug-Plug	Metal	2-cond.‡
475	$1.95	Standard	Metal	2-cond.*

*Screw Terminals. †Clamp-Lug Terminals.
‡Solder-Lug Terminals.

For detailed information request Switchcraft Catalog P-201.



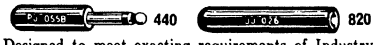
THICK PANEL JAX

Phone jack with long bushing. Mounts in single 15/32" dia. hole in panels up to 1¼" thick. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-cond. mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-cond., mates with 260, 267, 269 and 297 Plugs.

Part No.	U.S.A. List Price	DESCRIPTION
151	$1.35	2-cond. Brass Nickel Plated
152B	$1.50	3-cond. Brass Nickel Plated

For detailed information request Switchcraft Catalog J-101.

"LITTEL-PLUG" AND "EXTENSION JAX" MILITARY TYPES

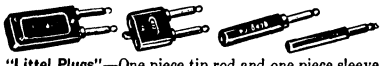


Designed to meet exacting requirements of Industry and the Armed Services. Molded construction provides complete continuity of insulation in plugs Jack per MIL-J-641A; Plugs per MIL-P-642A.

Part No.	U.S.A. List	DESCRIPTION
410	$0.60	2-cond.—Solder Cup—Type PJ-291 (Old S C. No. PL-291) Mates with No. 810 (JJ-048) Jack
*430	$1.40	2-cond.—Screw Term. Cable opening ¼"—Black handle—Type PJ-054B (Old S.C. No. PL-54).
*435	$1.40	Same as No. 430, except Red Handle—Type PJ-054R (Old S.C No. PL-354).
440	$1.40	2-cond.—Screw Term. Black Handle—Type PJ-055B. (Old S.C. No. PL-55).
445	$1.40	2-cond.—Screw Term Red Handle —Type PJ-055R.
*450	$1.40	Same as No. 430, except—Type PJ-540B—Cable Opening 9/32" (13/32" deep) (Old S.C. No. PL-540). Black Handle.
*455	$1.40	Same as No. 450, except—Type PJ-540R, Red Handle
470	$2.00	2-cond.—Screw Term. Shielded Handle—Type PJ-055M (Old S.C. No. PL-125).
475	$1.95	Shielded Handle. MIL Type PJ-636. Similar No. 70, except 2-pc handle, built-in Cable Clamp. Handle 1¾" long.
480	$3.60	3-cond.—Screw Term. Black Handle —Type PJ-068 (Old PL-68).
810	$0.80	2-cond.—Solder Lug—Type JJ-048 (Old S.C. No. JK-48), mates with No. 410 (PJ-291) Plug.
820	$2.00	2-cond.—Screw Term. Black Handle —Type JJ-026 (Old S.C. No. JK-26).
P-1074-1	$0.85 for Pkg. of 25	Strain Relief Clamp, Nickel Plate Brass.

*Mates with **No. 820** (JJ-026) **"Extension Jax"**.

"LITTEL-PLUGS"—"TWIN-PLUGS"



"Littel Plugs"—One piece tip rod and one piece sleeve and plug body, assembled together into a mold as inserts. Insulated. Internal interlock to prevent parts shifting in position.

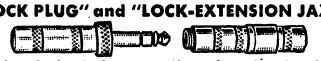
"Twin-Plugs"—Two electrically independent 2-cond. plugs, 5/8" centers, placed into handles to provide a double or "Twin-Plug". Self aligning. Made in same exacting manner as "Littel Plugs" above.

Design and material to NME Spec. MIL-P-642(A).

Part No.	U.S.A. List	DESCRIPTION
		"LITTEL-PLUGS"—MILITARY TYPE
420	$1.50	2-cond. Screw term. Black Handle. Type PJ-047B (Sim. WE 347B).
425	$1.50	2-cond. Screw term. Red Handle. Type PJ-047R (Sim. WE 347A).
482	$4.00	3-cond. Screw term. Red handle. Type PJ-051 (Sim. WE 310)
		"TWIN-PLUGS"—MILITARY TYPE
411	$4.75	Two 2-cond. plugs. Black Handle. Type PJ-327. Provision for internal cord clamp (not included).
412	$4.50	Two 2-cond. plugs. Black Handle. (Old MIL Type PJ-289) Sim. WE 289B. External Cord Anchor.
413	$4.50	Three circuit plug with 2 electrically independent tip circuits. Black Handle. Commercial version of MIL Type PJ-241. Sim. WE-241.
S-2674	$0.50 for pkg. of 10	Strain Relief Clamp, Brass. Use only with No. 411.

For detailed information request Switchcraft Catalog P-201.

"LOCK PLUG" and "LOCK-EXTENSION JAX"



Locking device locks connection after the plug fully inserted into Littel-Jax or Lock-Ext. Jax. Sold. Lug Term. Sleeve terminal has cable clamp. Shielded. Lock Ext. Jax mates standard Phone Plugs where no "lock" requirement exists.

Part No.	U.S.A. List	DESCRIPTION
282	$1.40	2-Cond. Plug Sim. No. 280
298	$1.75	3-cond. Plug Sim. No. 297
123	$1.75	2-cond. Jack Mates with No. 282.
133	$2.25	3-cond. Jack Mates with No. 298.

For detailed information request Switchcraft Catalog P-201.

"FLAT PLUGS"

A unique design, removable cover for easy access to either screw or solder terminals; 2- and 3-cond. types. Ideal for equipment where conventional long handle may interfere.

No's. S-230 and S-235 have .206" sleeve, mates with S-12B, S-13B. Sim. to MIL Type PJ-068.

PART NO. Black Handle	PART NO. Red Handle	U.S.A. List Price	DESCRIPTION
220	225	$0.90	2-cond. Screw term.
227	229	$0.85	2-cond. Solder term.
230	235	$1.30	3-cond. Screw term.
237	239	$1.25	3-cond. Solder term.
S-230	S-235	$1.75	3-cond. Screw term.

"SHIELDED FLAT PLUGS"

New shielded flat plug with bright nickel plated steel handle. Ideal for music equipment or where conventional long handled shielded plugs may interfere with equipment design. Unique body design provides built-in cable clamp.

Part No.	U.S.A. List Price	DESCRIPTION
228	$.95	2-cond. Solder term.
238	$1.40	3-cond. Solder term.

For detailed information request Switchcraft Catalog P-201.

"TINI-PLUGS"

"Tini-Plugs"—A miniature 2-conductor Phone Plug for the **"Tini-Jax"**; about ½ the size of Switchcraft **"Littel Plug"**; similar construction. Accepts cable up to 3/16" diameter. Cable clamp terminals for soldering also screw terminal with no clamp.

PART NO. Black Handle	PART NO. Red Handle	U.S.A. List	DESCRIPTION
740	745	$0.75	Screw Term.
750	755	$0.70	Clamp Term.
Metal Handle			
770		$1.05	Screw Term.
780		$1.00	Clamp Term.

MICRO-PLUG

Miniature phone plug, only 1 1/64" long; .097" dia. finger; ¼" dia. body. Mates with "MICRO-JAX." Accepts various cable types and O.D. up to 7/64". Anodized aluminum handle. Solder term., with cable clamp.

Part No.	U.S.A. List Price	DESCRIPTION
850	$0.75	2-cond. Nat. Alum. Handle
855	$0.75	2-cond. Red Handle
880	$0.75	2-cond. Black Handle

For detailed information request Switchcraft Catalog P-201.

"EXTENSION JAX"

Features a clamp type terminal providing a cable anchor. Spring tempered nickel silver springs, designed to properly "hold" mating plug. Exterior metal parts N.P.: Terminals mechanically interlock. High grade insulation. Available in 2 and 3-conductor types, solder lug or screw type terminals. Bakelite or Brightly Nickel Plated Brass handles. Mates with any ⅛ standard plug. S-128 mates with S-250 plug. S-830 and S-1230 .210 I.D. bushing to mate with PJ-068 plug. No. 125 is Ext. Jax for Tini Plug. 13/64" O.D. Built-in cable clamp is cable support and sleeve terminal.

No's. 121 and 131, accepts ¼" dia. "Littel Plugs"; shell dia. same as Littel Plugs. Features cable clamp.

Part No.	U.S.A. List	Handle	Description
80	$1.15	Black	2-cond. Screw Term.
88	$1.00	Black	2-cond. Lug. Term.
120	$1.55	Shielded	2-cond. Screw Term.
121	$1.60	Shielded	2-cond. Lug Term.
125	$1.25	Shielded	2-cond. Lug. Term.
126	$1.80	Shielded	2-cond. for R-280 Plug
128	$1.40	Shielded	2-cond. Lug. Term.
131	$2.00	Shielded	3-cond..Lug Term.
830	$1.55	Black	3-cond. Screw Term.
S-830	$2.00	Black	3-cond. Screw Term.
838	$1.40	Black	3-cond. Lug. Term.
1230	$1.95	Shielded	3-cond. Screw Term.
S-1230	$2.50	Shielded	3-cond. Screw Term.
1238	$1.80	Shielded	3-cond. Lug. Term.
S-128	$1.50	Shielded	2-cond. Spec. Lug. Ter.

For detailed information request Switchcraft Catalog P-201.

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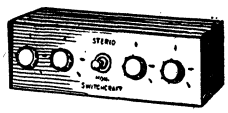
SWITCHCRAFT INC.

CHICAGO, ILLINOIS

MICROPHONE MIXERS
"MINI-MIX" "MIX AMP"
"CONNECTORS"
"SPEAKER VOLUME CONTROLS"

MICROPHONE MIXERS

Tan finish. Brown knobs with gold metallic inserts. Rubber feet. Shielded. Input Jacks on back, with Phono Jax for output to recorder or amplifier. CAUTION: Do not use in output circuit to directly control the volume of individual speakers. Size: 2" x 3⅝" x 6".



MIXER, MONAURAL—4-channel, high imp. For mixing up to 4 signals, such as Mics., Phonos, Tuners, etc., into a single output. Inputs 2-cond. Phone Jacks. Output Phono Jax.
PART NO. 301 **U.S.A. LIST $19.50**

MIXER, STEREO-MONAURAL—Same as No. 301, except has Lev-R-Switch for use as 4-channel audio mixer for monaural, or as 2 sep. inputs for each of 2 Stereo channels. Jacks accept 2-cond. Phone Plugs; high imp. circuits. Two Phono Jax for output to Amp. or Tape Rec. When used monaurally, output Jax are common.
PART NO. 306 **U.S.A. LIST $22.50**

TRANSISTORIZED MIXER—4-channel, high imp., same design features as No. 301, except has built-in transistor amplifier for feeding up to four mics., or combinations of sound sources, into a single "input" of Recorder or Amp. Individual gain adjustment for each channel. Transistor amplifier (powered by 9 volt battery included) overcomes usual loss of resistance type mixer and actually provides a 6 db. gain; permits use up to 30 feet from Recorder or Amp. Accepts input signals up to 1.5 volts. (Use a Switchcraft Molded Cable Assembly with proper connection to fit your equipment—not included.) Low noise level; low distortion. Response 20 to 20,000 cycles.
PART NO. 301TR **U.S.A. LIST $30.00**

TRANSISTORIZED STEREO-MONAURAL MIXER—Similar to the No. 306, except has built-in transistor amplifier in each of two Stereo channels. Accepts input signals up to 1.5 volts in either Stereo or Monaural position. (9 volt battery included.) ON-OFF Switch to shut-off amplifiers when not in use. Provides 6 db. gain; permits use up to 30 feet from Recorder or Amp. For Stereo, requires two cables for attachment to Recorder or Amp.
PART NO. 306TR **U.S.A. LIST $37.50**

CABLE ASSEMBLY—A 3-foot long chrome-grey shielded cable with molded Phone Plug on one end, molded Phono Plug other end. Ideal for use with above Mixers where Input of Recorder or Amplifier has a standard two-conductor Phone Jack. (For other terminations, see Cable Assemblies.)
PART NO. 05AF25 **U.S.A. LIST $1.50**

"MIX-AMP"—Miniature Transistorized Amplifier designed for use with resistance type MIXERS, such as the Switchcraft "Mini-Mix" and four-channel Microphone Mixers overcoming the usual "losses" in such mixers and actually providing a 3 db. gain. When used with a "Mini-Mix", will accept signals up to 2 volts. Has a "HI-LO" Impedance Switch; in "HI" position, when used as a straight amplifier (without mixer) has a 200,000 ohm input and provides a 6 db. gain and in "LO" position has a 25 db. gain with input impedance of 5,000 ohms. Compact, approximately size of package of cigarettes; completely portable, requires 9 volt battery (included). Has standard 2-cond. Phone Jack Input and 2-cond. Phone Plug Output. Can also be used at a microphone, using cables up to 30 feet long, without serious loss of high frequencies.
Frequency response 20 to 20,000 cycles. Also ideal for Phono Pickups (Magnetic and Crystal).
PART NO. 501 **U.S.A. LIST $20.00**

"MIX-AMP"—Same as above, but Input and Output have microphone connectors (Switchcraft Series 2500 or Amphenol Series 75).
PART NO. 502 **U.S.A. LIST $20.00**

For detailed information request Switchcraft Catalog A-401.

"MICROPHONE CONNECTORS"

Series 2500, standard size Microphone Connector, designed for use with single conductor microphone cable; panel receptacle mounts in .385" hole, Series 3500, phono connector, used for phono connections.

Series 5500, **"Mini-Con,"** a miniature MIC connector, approx. ½ the size of series 2500. Accepts cable up to 5/16" dia; panel receptacle. 5501MP mounts in 5/16" dia. hole, in panels up to ¼" thick; 5501MF mounts in ⅜" dia. hole with locknut on front of panel.

"MICROPHONE CONNECTORS"—Series 2501

Part No.	U.S.A. List	Fig.	DESCRIPTION
2501F	$0.60	A	1-contact, female, coupling ring.
2501M	$0.45		1-contact, male.
2501MP	$0.35	H	Panel Connector, male
2501MPC	$0.45		Panel Connector, closed ckt. male.
44	$0.50		Plug Adapter.
25Y	$1.65	E	Two male to one female.
2501FT	$0.80	F	Double female, for connecting 2 cables with male Connectors.
2501MT	$0.70	G	Double male, for connecting 2 cables with female Connectors.
2501FL	$2.25	N	Straight Conn., 2 screw term., female, 2-pc. handle/built in cable clamp.
2501FS	$1.65	O	StraightConn.; same 2501FL, except no cable clamp.

"MINI-CON" CONNECTORS—Series 5501

5501F	$0.60		1-contact, female, coupling ring.
5501M	$0.45		1-contact, male.
5501MF	$0.45		Panel Conn., male, mounts front side panel.
5501MP	$0.35		Panel Conn., male, mounts back side.
5501MPC	$0.45		Same as 5501MP, except shorting type.

For detailed information request Switchcraft Catalog C-501.

"PHONO CONNECTORS"

Part No.	U.S.A. List	Fig.	DESCRIPTION
3501F	$0.15	B	Phono Jack—2 conductor.
3501M	$0.10	C	Phono Plug—2 conductor.
3501MC	$0.15	C	Phono Plug—2 conductor (cable clamp type).
3501FP	$0.35	P	Phono Jax—1/16" O.D. for back panel mounting.
3501FR	$0.40	R	Phono Jax—5/8" O.D. for front of panel mounting.
3502	$0.50	S	Phono Plug Removable handle. Cable clamp. Shielded. N.P.
3503	$0.60	T	Phono Ext. Jax. Removable Handle. Cable clamp. Shielded. N.P.

"RF-JAX" & "RF-PLUGS"

Nylon insulation. See illus. under "Phono Connectors."

Part No.	U.S.A. List	
3504M	$0.20	RF-Plug—Similar No. 3501M.
3505F	$0.60	RF-Phono Jax—Similar No. 3501FP.
3506	$2.00	Adapter-Connector—COAX Plug to Phono Jack.
3507	$0.80	RF-Plug—Similar to No. 3502.

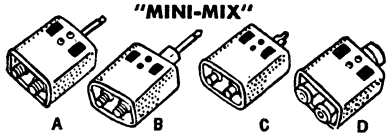
For detailed information request Switchcraft Catalog C-501.

STEREO LINE BALANCE CONTROLS

Part No.	U.S.A. List	DESCRIPTION
366	$3.95	**"Volume Control Adapter"** Single channel, high imp. circuits only (Crystal Mic., Phono, etc.). Phono Jack Input to Phono Plug Output. Shielded. N.P. Use in unbalanced Stereo channels, or in pairs for dual Stereo channel control.
367	$7.50	**"Dual Volume Control Adapter".** Twin-channel, high imp. circuits only. 2 Phono Jack Inputs and 2 Phono Plug Outputs. Separate volume controls. Shielded.

For detailed information request Switchcraft Catalog A-401.

"MINI-MIX"



Resistance type mixer for tape recorders to mix 2 different sound sources or music with voice. Accommodates 2 high imp. inputs. Loss factor approx. 3 db. Separate volume controls recessed inside housing—in line with each input. Average size 2¼" x 1 13/16" x 1 1/16".

Part No.	U.S.A. List	Fig. No.	DESCRIPTION
310	$7.95	A	2-cond. Phone Jack inputs with 2-cond. Plug output (For equipment where Jack is recessed, use 8266 Cable Assembly Adapter).
311	$8.95	B	2-cond. plug output. Long plug makes suitable for recorders with Jacks recessed such as latest Wilcox Gay, Webster Electric, V.M., etc.
312	$8.95	B	Spc. size plug and jacks, for use with Am. Geloso Model G-255-S Tape Recorder.
313	$8.95		2-cond. special short plug output. Special input jacks to accept short plug as used with Revere and Wollensak recorders.
315	$7.95	D	2-cond. Phone Jack Inputs with female Mic. Conn. Output.
316	$7.95	C	2 Phono Jax Inputs to Phono Plug Output.
320	$7.95	D	Microphone Connector inputs and output mating with standard mic. connectors.
325	$9.95		For use with recorders using Jones type connectors. Fits Early Webcor Recorders.
326	$9.95	B	3-cond. Jack Inputs with long 2-cond. Plug Output. For Webcor Recorders Series 2020, 2110, and 2130.
8266	$3.75		Cable assembly for recessed Jack. Used with 310 Mini-Mix. No. 280 "Littel Plug" one end; No. 128 Ext. Jax other end.

For detailed information request Switchcraft Catalog A-401.

SPEAKER VOLUME CONTROLS

Brushed brass wall plate mounts on std. outlet box. Constant imp. T-pad volume controls. Control speaker volume of Stereo, Hi-Fi, or P.A. system from remote location. Rated at 4 Watts (15 Watt peak audio). Ivory knob, black-white lettered escutcheon. Screw term. Mounting screws and instructions furnished.

Part No.	U.S.A. List	DESCRIPTION
651	$9.95	8 ohm control for single 8 ohm speaker, or two 16 ohm speakers in parallel, or two 4 ohm speakers in series. Screw term.
651S	$9.95	Same as 651, except with brushed stainless steel wall plate.
652	$9.95	16 ohm T-pad control for single 16 ohm speaker, or two 8 ohm speakers connected in series.
652S	$9.95	Same as 652, except with brushed stainless steel wall plate.
653	$12.00	Speaker Volume Control with Jack Connection. 8 ohm control for single 8 ohm spkrs., or two 16 ohm spkrs., in parallel. Jack input permits use of ext. spkr. or headset. Jack accepts std. 2 cond. phone plug. Brushed Brass Wall Plate. As illustrated above.
654	$12.00	Same as 653, except with 16 ohm control.
655	$5.50	**"Multi-Speaker Selector Switch".** 7 position switch. Selects any of 3 speakers; all, or any 2 of 3. Also mounts on speaker cabinet. Constant imp., regardless of switch position.
655S	$5.50	Same as 655, except with brushed stainless steel wall plate.
656	$6.95	L-pad Volume Control to prevent mismatch to amplifier at different volume settings. When turned all the way counter-clockwise, completely shuts off the speaker. Solder lug terminals. 10 Watts Peak Audio—8 ohm.
656S	$6.95	Same as 656, except with brushed stainless steel wall plate.

For detailed information request Switchcraft Catalogs A-401.

Trade Discount Applies To List Prices Only
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SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"STROBOLAMP"
STEREO-MONAURAL CONTROLS
MICROPHONE CABLES
ADAPTERS — CONNECTORS

ADAPTERS — CONNECTORS

Part No.	U.S.A. List	DESCRIPTION
25Y	$1.65	"Y Adapter". Connects 2 cables (with std. mic. conn.) in parallel to 1 single conn.
44	$0.50	Male Mic. Input to Phone Plug Output.
49	$1.50	"Silent Plug". 2 cond. plug with circuit closing device. When removed from jack, shorts input of Amp., eliminating "squeals". Patented.
169	$1.75	Same as No. 49, but 1" long shielded handle.
328A	$2.95	To connect Ceramic Phono Cartridge to audio amplifier designed for magnetic cartridge. Phono Jack Input, Phono Plug Output.
329	$6.95	"Microphone Volume Control Adapter". For use in high imp. circuits to adjust volume. Mic. conn. input and output.
330F	$1.75	"Y Adapter". 2 Phono Jax Connectors, in parallel to a std. Phono Plug.

FLEXIBLE "Y" CONNECTORS
(Phono Jack and Plug Type)

For converting Stereo Player to Monaural. Can be used for tap-in meter monitor conn. Required on some Tape Rec. (4" long. Grey. Shielded cable.)

330F1	$2.00	Phono Plug connected to 2 Phono Jacks.
330F2	$2.00	Phono Plug connected to 1 Phono Jax and 1 Phono plug.
330F3	$2.00	Phono Plug connected to 2 Phono plugs.
330M	$1.90	"Y Adapter". 2 male Mic. Conn. in parallel to a std. 2-cond. Phone Plug. Shielded.
330PJ	$1.90	"Y-Adapter". 2 Phono Jax conn. in parallel to a std. Phone Plug.
331A	$15.00	"ADAPTER CADDY KIT." A plastic case containing one each of: 25AF25 Cable, 345A, 336B, 330F1, 332A, 334A, 336A, 25Y. Two each of: 44 and 349A.
332A	$1.75	2-cond. Phone Jack Input to female Mic. Output. Body ½" O.D. N.P. Shielded.
333	$2.35	Std. ¼" 2-cond. Jack Input to special plug that mates with jack in Am. Geloso Rec.
334A	$1.25	Phono Jax Input to female Mic. Conn. Output. ½" O.D. N.P. Shielded.
334B	$1.25	Same as 334A less ring. Phono Jax Input to male Mic. Conn. Output.
335	$2.95	2-cond.—Input has our 2501MP (Amphenol 75PCL1M) Output is Cannon XL-3-11. Has internal wire unsoldered at one end for connecting terminal.
336A	$1.45	2-cond. Phone Jack Input to Phono Plug Output. Body ½" O.D. N.P. Shielded.
338A	$1.00	Phono Plug one end. male Mic. Conn. at other.
338B	$1.00	Phono Plug one end, female Mic. Conn. at other. Body ½" O.D. N.P. Shielded.
339	$2.95	Same as 335, but output our 2501F (Amphenol 75-MC1-F) to input. Cannon XL-3-12.

Part No.	U.S.A. List	DESCRIPTION
340	$3.75	"Y Adapter" (in case). Two 2-cond. jack inputs conn. in parallel to 2-cond. plug output.
341	$2.95	"Silent Plug Adapter". 2-cond. jack input to 2-cond. plug output, with circuit closing device, When removed Jack shorts input of Amp. eliminating "squeals". Patented.
342	$2.60	Dual-purpose Binding Post/Banana Jack Input to Phone Plug Output.
343	$1.95	"Phono Adapter". (Sim. No. 250 "Littel Plug" with female Phono Jack in end of handle.) Internal resistor circuit to adapt crystal Phono pickup or pickup from terminals of radio or TV set to input of Tape Rec. Use as adapter with magnetic Phono—open plug and twist together opposite leads of resistor.
345A	$1.25	Phone Plug Output to Phono Jack Input. Grey molded housing. Shielded.
346	$2.15	Tip Jack Input to Phone Plug Output.
349A	$1.00	"Phono Plug Coupler". Phono Jack at each end. Grey plastic. Shielded.
361	$2.25	"Phone Plug Coupler". 2-cond. Phone Jack in each end. Shielded. N.P.
362	$2.75	"Phone Plug Coupler". 3-cond. Phone jacks in each end.
363	$2.00	"Coupler". A 2-cond. Phone Plug at each end. Shielded.
364	$1.45	2-cond. Tini-Jax Input to std. size (¼" O.D. sleeve) Phone Plug Output. Body 11/16" O.D. Shielded.
365	$1.45	2-cond. Tini-Jax Input to a Phono Plug Output. Body 13/32" O.D. N.P. Shielded.
368	$4.50	"Input Volume Control Adapter". Phono Jax Input to 2-cond. Phone Plug Output. Built-in volume control circuit. High volume signals, phonos, tuners, etc., can be connected into high gain Input Jax of Tape Rec., without overloading recorder. N.P. Shielded.
369	$2.00	Ext. Jax Adapts short Revere/Wollensak Plug (R-280) to standard 2-cond. plug.
370	$1.40	Adapts standard phono plug to small "Tini-Plug." 2-cond. "Tini-Plug," (5/16" dia. O.D.) finger output to phono jack input.
371	$0.95	Thick Panel Phono Jack Adapter. Special long bushing permits mounting #3501P Phono Jax in panels up to 1¼" thick. Complete with hardware and instructions.

"PLUG-IN" MICROPHONE CABLES

For adding extra lengths of cable to most public address, tape recorder or studio microphones. Cables can be attached to existing microphone cables or to microphones without tools, wiring or soldering.

Part No.	U.S.A. List Price	DESCRIPTION
91BU92	$12.50	25', 2-cond. shielded cable Cannon XL3-11 and XL3-12 Plugs.
93BU94	$9.75	25', 2-cond. shielded cable Amphenol MC3M and MC3F Plugs.

STEREO-MONAURAL SELECTORS
PHONO-TUNER ADAPTER
SPEAKER PHASE CONTROL

Part No.	U.S.A. List	DESCRIPTION
661 (A)	$3.00	"Stereo-Monaural Selector". Switches from monaural to stereo. Two Phono Jax Inputs and two Phono Jax Outputs. Dual channel feed-through for Stereo (Outputs connected together in monaural position). Tan finish.
662 (B)	$3.50	"Stereo-Monaural Selector with Reverse". Same as No. 661 with channel reversing feature.
663 (A)	$2.50	"Phono-Tuner Adapter". To modernize old sound equipment. Two Phono Jax Inputs, switch selects either input. Phono Jax Output for connecting to amplifier.
664 (B)	$4.95	"Multiple Selector Control". Accepts up to 5 Input circuits. Selector switch connects any one circuit to one Phono Jax Output. Inputs labeled AM, FM, PHONO, TAPE, and AUX. 5 input and one output Phono Jack. Shielded.
665 (A)	$2.50	"Speaker Phase Control". For multiple or Stereo Speaker installations for proper phasing of speakers. Screw terminals. Shielded.
666 (C)	$6.50	Speaker Volume Control with L-Pad. Quality L-Pad speaker volume control to reduce mismatch to amplifier at different volume settings. 5 watts peak—8 ohm. For mtg. on speaker cabinet or at remote spkr. Screw terminals.
667 (B)	$4.25	Speaker Selector Switch. For connecting remote speakers to Radio, T.V. or Hi-Fi set. Three position selector switch permits selection of either or both spkrs. at same time. Screw terminals. Shielded.
668 (B)	$6.25	Stereo Selector Switch. Accepts three Stereo input circuits and one output circuit for Stereo Amplifier. Allows selection of both channels of any one of three stereo sources. Phono jacks inputs and outputs. Completely wired.
669 (C)	$6.50	Stereo Volume Control. Specially matched tandem control for high impedance circuits. For use as a master volume control for ceramic stereo phono cartridges, stereo tape dealers, etc., when connecting to separate amplifiers. Also, for use as dual-volume control on 2 microphones for stereo recordings. Phono jacks inputs and outputs.
670 (B)	$6.25	Stereo Speaker Selector Switch. For connecting 2 remote pairs of Stereo speakers to a Stereo Amplifier. Three position selector switch permits you to select either or both pairs of Stereo speakers at the same time. Screw terminals.
671 (B)	$5.50	Monaural Speaker Selector Switch. Accepts up to five remote, monaural speakers. A 5 position tap switch allows you to connect any one of 5 speakers to a monaural amplifier. Inputs are labeled 1 thru 5. Five inputs and one output Phono Jax. Electrically the same as No. 664.

"STROBOLAMP"

Incorrect turntable speeds cause Wow and Distortion. Check the speed of your turntable the easy and simple "Strobolamp" way. "Strobolamp" quickly tells you if 16⅔, 33⅓, 45 or 78 rpm. speeds are correct. Consists of strobosconic disc and molded neon lamp with 6 ft. A.C. cord.

Part No. 669 U.S.A. List Price $1.95

For more detailed information on these products request Switchcraft Catalog A-401.

SWITCHCRAFT INC.
CHICAGO, ILLINOIS

MOLDED CABLE ASSEMBLIES
(Audio Jumpers)
(Interconnecting Cords)

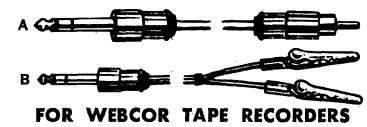
Various Molded Cable Combinations.

Part No.	U.S.A. List	Conn. or Term. One End	Other	Length	Cable
Straight 2 Cond. Phone Plug to Various Connections					
05AC05	$1.60	K	K	18″	Shield.
05AD05	$1.75	K	K	24″	Shield.
05AK05	$2.60	K	K	6′	Shield.
05AN05	$3.50	K	K	10′	Shield.
05AU05	$4.75	K	K	25′	Shield.
05AK15	$2.60	K	A	6′	Shield.
05AN15	$3.50	K	A	10′	Shield.
05AK25	$2.00	K	B	6′	Shield.
05AN25	$2.75	K	B	10′	Shield.
05AR25	$3.00	K	B	15′	Shield.
05AK30	$2.00	K	F	6′	Shield.
05AN30	$2.75	K	F	10′	Shield.
05AK80	$2.60	K	D	6′	Shield.
05AN80	$3.50	K	D	10′	Shield.
05AR80	$4.00	K	D	15′	Shield.
05AU80	$4.75	K	D	25′	Shield.
05AK82	$2.20	K	C	6′	Shield.
05AN82	$3.00	K	C	10′	Shield.
05AR82	$3.25	K	C	15′	Shield.
05AK87	$2.60	K	E	6′	Shield.
05AN87	$3.50	K	E	10′	Shield.
05AU87	$4.75	K	E	25′	Shield.
05AK84	$1.75	K	G	6′	Shield.
05AN84	$2.25	K	G	10′	Shield.
05AR84	$2.75	K	G	15′	Shield.
05CK84	$1.40	K	G	6′	Unshield.
05CN84	$1.90	K	G	10′	Unshield.
05CK85	$1.50	K	H	6′	Unshield.
05CN85	$2.00	K	H	10′	Unshield.
05CK86	$1.90	K	J	6′	Unshield.
05CN86	$2.40	K	J	10′	Unshield.
05CR86	$2.65	K	J	15′	Unshield.
05CT86	$3.00	K	J	20′	Unshield.
Straight 3 Cond. Phone Plug to Various Connections					
10BD10	$3.25	K	K	24′	Shield.
10BK10	$4.80	K	K	6′	Shield.
10BN10	$6.00	K	K	10′	Shield.
10BU10	$8.75	K	K	25′	Shield.
10BK81	$4.80	K	D	6′	Shield.
10BN81	$6.00	K	D	10′	Shield.
10BU81	$8.75	K	D	25′	Shield.
Right Angle 2 Cond. Phone Plug to Various Connections					
15AK15	$2.60	A	A	6′	Shield.
15AN15	$3.50	A	A	10′	Shield.
15AU15	$4.75	A	A	25′	Shield.
15AK25	$2.00	A	B	6′	Shield.
15AN25	$2.75	A	B	10′	Shield.
15AR25	$3.00	A	B	15′	Shield.
15AK30	$2.00	A	F	6′	Shield.
15AN30	$2.75	A	F	10′	Shield.
15AK80	$2.60	A	D	6′	Shield.
15AN80	$3.50	A	D	10′	Shield.
15AU80	$4.75	A	D	25′	Shield.
15AK82	$2.20	A	C	6′	Shield.
15AN82	$3.00	A	C	10′	Shield.
15AK87	$2.60	A	E	6′	Shield.
15AN87	$3.50	A	E	10′	Shield.
15AK84	$1.75	A	G	6′	Shield.
15AN84	$2.25	A	G	10′	Shield.
15AR84	$2.75	A	G	15′	Shield.
15CK85	$1.50	A	H	6′	Unshield.
15CN85	$2.00	A	H	10′	Unshield.
15CK86	$1.90	A	J	6′	Unshield.
15CN86	$2.40	A	J	10′	Unshield.
Straight Phono Plug to Various Connections					
25AC25	$1.05	B	B	18″	Shield.
25AF25	$1.20	B	B	36″	Shield.
25AH25	$1.35	B	B	4′	Shield.
25AK25	$1.50	B	B	6′	Shield.
25AN25	$2.00	B	B	10′	Shield.
25AR25	$2.50	B	B	15′	Shield.
25AT25	$3.00	B	B	20′	Shield.
25AU25	$3.50	B	B	25′	Shield.
25AC30	$1.05	B	F	18″	Shield
25AF30	$1.20	B	F	36″	Shield.
25AK30	$1.50	B	F	6′	Shield.
25AN30	$2.00	B	F	10′	Shield.
25AU30	$3.50	B	F	25′	Shield.
25AK80	$2.00	B	D	6′	Shield.
25AN80	$2.75	B	D	10′	Shield.
25AR80	$3.25	B	D	15′	Shield

Part No.	U.S.A. List	Conn. or Term. One End	Other	Length	Cable
25AC82	$1.25	B	C	18″	Shield.
25AF82	$1.35	B	C	36″	Shield.
25AH82	$1.60	B	C	4′	Shield.
25AK82	$1.75	B	C	6′	Shield.
25AN82	$2.00	B	C	10′	Shield.
25AR82	$2.50	B	C	15′	Shield.
25AT82	$3.00	B	C	20′	Shield.
25AU82	$3.50	B	C	25′	Shield.
25AK87	$2.45	B	E	6′	Shield.
25AN87	$3.35	B	E	10′	Shield.
25AU87	$4.60	B	E	25′	Shield.
25AC84	$0.80	B	G	18″	Shield.
25AF84	$0.95	B	G	36″	Shield.
25AH84	$1.00	B	G	4′	Shield.
25AK84	$1.15	B	G	6′	Shield.
25AN84	$1.65	B	G	10′	Shield.
25AR84	$2.25	B	G	15′	Shield.
25AT84	$2.75	B	G	20′	Shield.
25AU84	$3.25	B	G	25′	Shield.
25CF84	$0.75	B	G	36″	Unshield.
25CK84	$0.90	B	G	6′	Unshield.
25CN84	$1.40	B	G	10′	Unshield
25CK85	$1.00	B	H	6′	Unshield.
25CN85	$1.50	B	H	10′	Unshield.
25CK86	$1.75	B	J	6′	Unshield
25CN86	$2.25	B	J	10′	Unshield.
25CR86	$2.35	B	J	15′	Unshield.
25CT86	$2.60	B	J	20′	Unshield.
2 Straight Phono Plugs on Same End to Various Conn.					
25FF25	$3.25	M	M	36″	Shield.
25FK25	$3.75	M	M	6′	Shield.
25FN25	$4.50	M	M	10′	Shield.
25FF84	$2.90	M	N	36″	Shield.
25FK84	$3.25	M	N	6′	Shield.
25FN84	$3.75	M	N	10′	Shield.
Straight Phono Plug (Long Handle) to Various Conn.					
26AF26	$1.30	BB	BB	36″	Shield.
26AK26	$1.60	BB	BB	6′	Shield.
26AN26	$2.10	BB	BB	10′	Shield.
26AR26	$2.60	BB	BB	15′	Shield.
26AK05	$2.20	BB	K	6′	Shield.
26AN05	$2.75	BB	K	10′	Shield.
26AF82	$1.50	BB	C	36″	Shield.
26AK82	$1.95	BB	C	6′	Shield.
26AN82	$2.25	BB	C	10′	Shield.
26AR82	$2.75	BB	C	15′	Shield.
26AF84	$1.10	BB	G	36″	Shield.
26AK84	$1.30	BB	G	6′	Shield.
26AN84	$1.80	BB	G	10′	Shield.
Right Angle Phono Plug to Various Connections					
30AC30	$1.05	F	F	18″	Shield.
30AF30	$1.20	F	F	36″	Shield.
30AH30	$1.35	F	F	4′	Shield.
30AK30	$1.50	F	F	6′	Shield.
30AN30	$2.00	F	F	10′	Shield.
30AR30	$2.50	F	F	15′	Shield.
30AT30	$3.00	F	F	20′	Shield.
30AU30	$3.50	F	F	25′	Shield.
30AK80	$2.00	F	D	6′	Shield
30AN80	$2.75	F	D	10′	Shield.
30AC82	$1.25	F	C	18″	Shield.
30AF82	$1.35	F	C	36″	Shield.
30AK82	$1.75	F	C	6′	Shield.
30AN82	$2.00	F	C	10′	Shield.
30AF84	$0.95	F	G	36″	Shield.
30AK84	$1.15	F	G	6′	Shield.
30AN84	$1.65	F	G	10′	Shield.
30CF84	$0.75	F	G	36″	Unshield.
30CK84	$0.90	F	G	6′	Unshield.
30CN85	$1.50	F	H	10′	Unshield.
30CK86	$1.75	F	J	6′	Unshield.
30CN86	$2.25	F	J	10′	Unshield.
Straight Tini Plug to Various Connections					
41EF75	$2.00	KK	L	36″	2-cond.
41EH75	$2.25	KK	L	4′	Hearing Aid
45AN25	$2.75	KK	B	10′	Shield.
45AR25	$3.25	KK	B	15′	Shield.
45AU25	$4.25	KK	B	25′	Shield.
Right Angle Tini Plug to Various Connections					
50EF75	$2.25	AA	L	36″	2-cond.
50EH75	$2.50	AA	L	4′	Hearing Aid

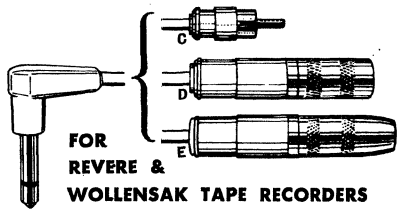
Part No.	U.S.A. List	Conn. or Term. One End	Other	Length	Cable
Extension Jax Cords					
82AC82	$1.50	C	C	18″	Shield.
82AF82	$1.65	C	C	36″	Shield.
82AK82	$1.95	C	C	6′	Shield.
83DK05	$2.75	DD	K	6′	Shield.
Cords with Spade Lugs and Alligator Clips					
85CN85	$0.90	H	H	10′	Unshield.
85CT85	$1.50	H	H	20′	Unshield.
85CU85	$1.75	H	H	25′	Unshield.
86CN86	$1.70	J	J	10′	Unshield.
86CU86	$2.55	J	J	25′	Unshield.
Microphone Connector to Various Connections					
87AF87	$2.00	E	E	36″	Shield.
87AK87	$2.50	E	E	6′	Shield.
87AP87	$3.50	E	E	12′	Shield.
87AU87	$5.00	E	E	25′	Shield.
87AK80	$2.75	E	D	6′	Shield.
87AK82	$2.00	E	C	6′	Shield.
87AN82	$2.75	E	C	10′	Shield.
87AU82	$4.75	E	C	25′	Shield.
87AF84	$1.50	E	G	36″	Shield.
87AK84	$1.75	E	G	6′	Shield.
87AN84	$2.25	E	G	10′	Shield.
87AU84	$4.25	E	G	25′	Shield.

SPECIAL PURPOSE INTERCONNECTING CORDS



FOR WEBCOR TAPE RECORDERS

Part No.	U.S.A. List Price		DESCRIPTION
11AK26	$3.25	Fig. A	3-cond. phone plug with internal resistor to phono plug. 6′ shielded cable. (Webcor No. 2925)
11AN26	$4.00	Fig. A	Same as 11AK26, except 10′.
11CN86	$3.25	Fig. B	3-cond. phone plug with internal resistor to alligator clips. 10′ unshielded cable. (Webcor No. 2934).



FOR REVERE & WOLLENSAK TAPE RECORDERS

Part No.	U.S.A. List Price		DESCRIPTION
12HK25	$2.50	Fig. C	Short right angle 2-cond. phone plug to std. 2-cond. phono plug. 6′ white shielded cable.
12HR79	$5.00	Fig. D	Short right angle 2-cond. phone plug to std. 2-cond. short ext. jack. 15′ white shielded cable.
12HU79	$5.95	Fig. D	Same as 12HR79, except 25′.
12HD80	$3.95	Fig. E	Short right angle 2-cond. phone plug to phone extension jax. 24′ white shielded cable.

For detailed information request Switchcraft Catalog A-401

Standard cable assemblies, as listed above, are available through leading electronics distributors. Should you require variations of the above cable assemblies, please request Catalog M-701, which illustrates the most commonly used Phone and Phono Plugs, Extension Jax and microphone connectors that can be molded to cables. Due to the flexibility of Switchcraft's manufacturing methods, the variety of molded cable assemblies is virtually unlimited.

Trade Discount Applies To List Prices Only
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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

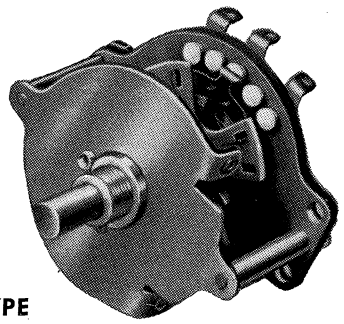
Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

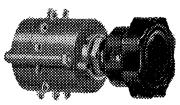
SWITCH TO TECH LABS for Precision Electrical Resistance Instruments

TAP SWITCHES



TYPE 2A & 2M

Standard control switch with phenolic or Melamine insulation, 3-5 amp. rating.



TYPE 3A MINIATURE TAP SWITCH

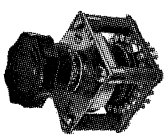
Specifications

Size: 1" diameter. 1¼" with terminals. 1 deck, 1 1/16" long, ½" for each additional deck.
Weight: 1 deck, 30 grams. 10 grams for each additional deck.
Rating: 1200 volts rms, 2000 VDC, 5 amps. (carrying) 115 V.
Insulating resistance: 100 megohms minimum at 500 volts DC.
Life: 1.5 — 2 million revolutions.
Contact resistance (standard): 6-10 milliohms. (silver): 3-5 milliohms.
Temperature range: —65°C to 100°C.
Mounting: single hole.
Meets MIL-S-3786 and applicable paragraphs of MIL-E-5272C.

CAM SWITCHES

TYPE 8A CAM SWITCH

A new development of great interest. Small size, long life and great flexibility. Have been made with from one to 30 contact springs. Will carry 3 amp. Standard unit has four contact springs and 10 positions, price $12.50.



TYPE 10A TAP SWITCH

A multi-deck switch of small dimensions, 1⅜" sq. This is a precision switch designed to meet high requirements in smallest possible space. Up to 24 positions, shorting. Price approx. $10 per deck, plus frame $5.

The following standard switches are representative of those produced by Tech Laboratories, all of which meet government specifications. Write or teletype for further information.

The Type 2A is the standard control switch for electronic instruments and high quality equipment. It is made in a number of combinations with as many as four poles per deck and 24 positions. Insulation is phenolic. The Type 2M is identical except for Melamine insulation. In the table, Code No. "S" stands for "shorting" and "N" for "non-shorting".

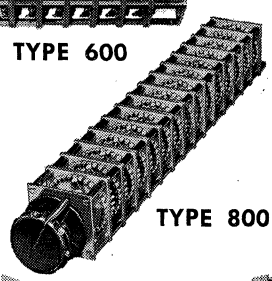
TYPE	CODE	DIA.	RATING	NO. POS.	NO. DECKS	POLD.	PRICE
2A	A1S24	1¾"	3A	24	1	1	$4.50
2A	A4S5	1¾"	3A	4	1	4	$6.00
2A	A1N10-2	1¾"	3A	10	2	1	$7.00
2M	M1S24	1¾"	3A	24	1	4	$5.50
2M	M4N3	1¾"	3A	3	1	4	$7.00

The new Type 3A molded miniature switch for use in all military and commercial applications in which a superior instrument switch is required, can be furnished with as many as eight decks and up to twelve positions per deck, single pole, or six positions double pole. It has adjustable stops for any lower number of steps.

The switch, 1¼" in diameter, carries 5 amp and is furnished "Shorting", with "non-shorting" types available on request. It can be supplied solenoid-operated and hermetically sealed. Write for details and prices.

SQUARE SWITCHES

TYPE 600



TYPE 800

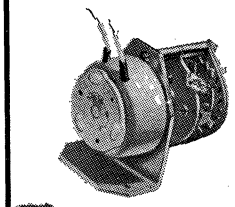
TYPE 900

These standard rugged control switches are the standby for equipment calling for dependable switches in a hurry. Will meet all standard government specs. All parts carried in stock. An infinite number of combinations possible. Teletype your specs.

The price of the basic frame is the same for all, viz. $4.00 each. The type 600 and 800 are priced at $8.00 per deck plus frame price, and the type 900 switches are $9.50 per deck plus frame $4.00.

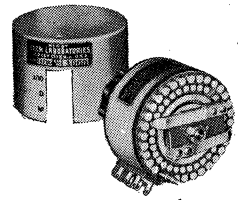
Type	Size	Rating	Max. Pos. Short.	Max. Pos. Non-Short.
600	1⅞" sq.	5A.	24	12
800	2¼" sq.	5A.	32	16
900	2¾" sq.	10A.	48	24

OTHER TECH LAB SWITCHES



STEPPING SWITCHES

TECH LAB switches are now standard equipment in most missiles as well as in ground controls. Furnished sealed to meet all specs. Write for details. Prices on request.



ATTENUATORS

A complete line of audio and r.f. attenuators with both manual and REMOTE CONTROL. We will design components to meet your specific requirements, if standard units are inadequate. Please write for catalogue and send us your specs for estimate.

WRITE FOR NEW BULLETINS ON SWITCHES • DECADE RESISTORS • POTENTIOMETERS

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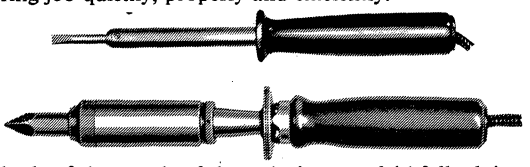
American Beauty ELECTRIC SOLDERING IRONS

A soldering iron for every soldering need!

American Beauty Electric Soldering Irons are made in *one* quality only—*the best*—and only *the best* gives you *the most!* No matter what the requirements—there's an American Beauty in the right model, correct tip size, proper watt input, to do any soldering job quickly, properly and efficiently.

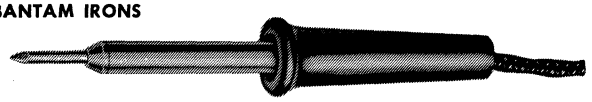


Hundreds of thousands of these devices are faithfully doing their jobs every day in the year—on production lines and work benches of industrial plants all over the world. Also widely used in telephone, telegraph, radio and television manufacturing and servicing everywhere.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3128†	¼"	60	7½ oz.	$ 7.20
3125†	¼"	60	7½ oz.	8.20
3138	⅜"	100	16 oz.	11.00
3138-X	⅜"	175	16 oz.	12.70
3138-XY	¼"	175	16 oz.	12.70
3158	⅝"	200	28 oz.	13.20
3158-X	⅝"	250	28 oz.	14.30
3178	⅞"	300	42 oz.	17.60
3198	1⅛"	550	60 oz.	22.00
	(3138 is made also in 130- and 150-watt input.)			

Available in standard voltages and many special voltages.
†Made also in 75-watt input.

BANTAM IRONS



Small, compact, lightweight—designed especially for the electronic industry. They provide ample heat for fine and medium-fine soldering jobs of all kinds. Bantam "X" Series is intended for special applications on *production lines* of radio, television and electronic plants. They should be placed only on Production Lines—where high soldering rates are maintained—or where similar heat-dissipating conditions exist.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3114	¼"	60	8 oz.	$ 9.50
3118-SC/3118-SCP	⅛"	*30	6 oz.	6.60
3120-SC/3120-SCP	3/16"	*30	6 oz.	6.60
3118	⅛"	*30	6¼ oz.	6.60
3120	3/16"	*30	6½ oz.	6.60
3118-X/3118-XP	⅛"	50	6 oz.	7.30
3120-X/3120-XP	1/16"	50	6 oz.	7.30
(*Optional wattage (40 watts) available without extra cost. SPECIFY.)				

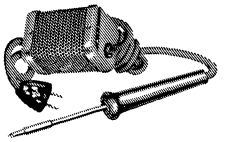
Available in standard voltages.

COPPER TIPS

All American Beauty copper tips are made from commercially pure drawn copper rod—heavily nickeled to resist corrosion and oxidation. All are obtainable with special American Beauty iron-plating—for even longer life than standard nickel-coating—at nominal extra cost. All are plug type and available in either diamond or chisel point.

Cat. No.	Diameter	Length
3718	⅛"	3"
3720	3/16"	3¼"
3728	¼"	3½"
3728-S	¼"	3½"
3738	⅜"	4⅜"
3738-S	⅜"	4½"
3758	⅝"	4 11/16"
3778	⅞"	5 5/32"
3798	1⅛"	5⅜"

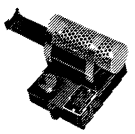
TRANSFORMER TYPE IRONS



The T-12 Series is intended primarily for fine precision soldering on miniature and subminiature electronic components and similar assemblies. The T-30 Series is designed especially for *production line* use; intended for heavy duty, fine, precision soldering requiring extremely high tip-temperatures constantly maintained.

Cat. No.	Tip Diameter	Watts	Net Weight	List
T-12	1/16"	*17	1 lb., 3 oz.	$20.00
T-12	⅛"	*17	1 lb., 3 oz.	20.00
T-12	¼"	*17	1 lb., 3 oz.	20.00
T-12	3/32"	12	1 lb., 2 oz.	20.50
T-30	1/16"	*30	1 lb., 12 oz.	22.00
T-30	⅛"	*30	1 lb., 12 oz.	22.00
T-30	¼"	*30	1 lb., 12 oz.	22.00

*T-12 also available in 20 watts—T-30 also available in 25 watts.

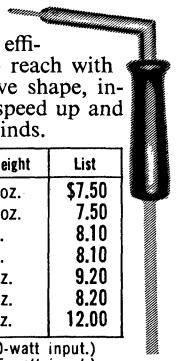


TEMPERATURE REGULATING STANDS

These automatic devices regulate and control the tip-temperature of an electric soldering iron while the iron is connected to current and at idle. The controlled soldering iron is maintained at all times at just the right heat to meet the requirements of the job or the needs of the user. Suffix "SG" after catalog number indicates stand is equipped with safety guard.

Cat. No.	Watts (Max.)	Net Weight	List
475	660	1¾ lbs.	$ 9.30
475-SG	660	2 lbs.	11.50
476	660	1¾ lbs.	9.30
476-SG	660	2 lbs.	11.50

ANGLE TYPE IRONS



These models are equipped with angle type casings—providing more efficient operation in places difficult to reach with straight-casing irons. Their distinctive shape, ingenious design and perfect balance speed up and simplify tough soldering jobs of all kinds.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3118-A	⅛"	30*	6¼ oz.	$7.50
3120-A	3/16"	30*	6¼ oz.	7.50
3118-XA	⅛"	50	6 oz.	8.10
3120-XA	3/16"	50	6 oz.	8.10
3125-A	¼"	60**	10 oz.	9.20
3128-A	¼"	60**	10 oz.	8.20
3138-A	⅜"	100***	16 oz.	12.00

(*Nos. 3118-A and 3120-A are made also in 40-watt input.)
(**Nos. 3125-A and 3128-A are made also in 75-watt input.)
(***No. 3138-A is made also in 150-watt input.)

CORDS—American Beauty superflexible heater cord, cord sets and plugs are available as original equipment as well as for replacement or repair purposes. Ideal for use with many industrial tools where quality of the cord and plug are important considerations on the part of the user. Cord available in both conventional two-conductor and three-conductor types and cord sets and plugs in many types and sizes.

INDUSTRIAL USERS DISCOUNT

List Invoice Value	Discount
to $199.00	30%
$200.00 to 999.00	33%
Plus $1000.00	40%

Write for illustrated catalog containing full information on our complete line of electric soldering irons—including their use and care.

AMERICAN ELECTRICAL HEATER COMPANY • • DETROIT, MICHIGAN

→ **Also a complete line of resistance soldering units (100 to 2500 Watts) and wire strippers — write for bulletin W-50.** ←

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MULTICORE SOLDER

Five separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder. Guaranteed continuity of the flux stream prevents "dry" joints, i.e., those having high electrical resistance.

Although there are five cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders. Very rapid melting results from the multiple core construction which provides thinner walls of solder than are found in the same gauge single cored solder. Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to thin rapidly produces perfect joints with less solder. Greater coverage per pound.

ERSIN FLUX

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high grade, water white rosin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original rosin. Soldered joints made with Ersin Flux do not corrode even after prolonged exposure to any degree of humidity. Ersin Flux reduces the surface tension of molten solder, causing it to wet metals rapidly, increasing speed of operation with resultant production economies. Free from objectionable odor. Nontoxic in use. Leaves nothing but pure rosin on the work after soldering, and may be used wherever plain rosin is specified.

COPPER-LOADED SAVBIT ALLOY

Copper-loaded SAVBIT is one of a number of solder alloys developed for the industry by Multicore, it is entirely different—and, it is patented. SAVBIT alloy contains its own copper, and therefore will not take the copper of the soldering iron tip into the molten solution during soldering. This absorption of copper when any standard alloy is used is a basic reason for the wearing out of the expensive copper tips, and the need for constant refinishing of the tip.

Comparative tests with solders having pure tin/lead alloys and the new Ersin Multicore copper-loaded SAVBIT alloy have been made on assembly lines of electronic plants. Results of these tests have proven that startling production efficiencies and economies may be realized when the wear and corrosion of copper soldering iron tips is curbed, using SAVBIT alloy. Equally as important . . . a higher standard of soldering quality is assured for a much longer period of time.

SAVBIT alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, and 18 gauge. Its melting point is virtually the same as standard tin/lead alloys.

Alloys and Melting Points

Alloy	B. S. Grade	Multicore Color Code	Melting Temp. °C	Melting Temp. °F	Recommended Bit Temp. °C	Recommended Bit Temp. °F
60/40	K	Red	188	370	228	442
50/50	F	Yellow	212	414	252	476
45/55	(M)	Crimson/ Buff	215	419	255	491
40/60	G	Green	234	453	274	525

Approximate lengths per pound in feet

S.W.G.	Dia-meter	Dia. M/Ms	60/40	50/50	45/55	40/60
14	.080	2.032	65.7	62.6	61	60
16	.064	1.626	102	98	97	94.5
18	.048	1.219	182	174	172	167
20	0.36	.914	324			
22	0.28	.711	536			

New! HAND-CRAFTED *Gold Lion* Custom Tubes

Produced by General Electric Co. Ltd. of England

A completely new series of plug-in replacement tubes, *hand-crafted* to give *higher power, lower distortion* and longer life.

In contrast to mass-produced tubes, which often vary widely in their characteristics, new Gold Lion tubes are made to extremely close tolerances, and individually 100% tested for major characteristics, including operation tests, noise and microphony. For the first time . . . an individual test report is packed with each tube, certifying measured production characteristics.

CROSS REFERENCE REPLACEMENT CHART

Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types
B309	B739	EZ81	U709	6BX4	U707	5721	B759	6201	B739
D77	D717	EZ90	U707	6CA4	U709	5726	D717	6202	U707
EAA91	D717	E81CC	B739	6CA7	KT77	5751	B759	6203	U707
EB91	D717	GZ30	U77	6CF8	Z729	5814	B749	6267	Z729
ECC81	B739	GZ32	U77	6CN5	KT66	5931	U52	6550	KT88
ECC82	B749	GZ33	U77	6L6	KT66	5932	KT66	6663	D717
ECC83	B759	GZ34	U77	6L6G	KT66	5881	KT66	6679	B739
EF86	Z729	U78	U707	6L6GB	KT77	5993	U707	6680	B749
EL34	KT77	5AR4	U77	6L6GC	KT88	6057	B759	6681	B759
EL35	KT66	5T4	U52	6X4	U707	6058	D717	7025	B759
EL36	KT66	5U4G	U52	12AT7	B739	6060	B739	7027	KT66
EL37	KT66	5V4	U77	12AU7	B749	6063	U707	7027A	KT88
EL39	KT66	5Z4	U77	12AX7	B759	6067	B749	7247	B759
EL84	N709	6AL5	D717	1614	KT66	6097	D717	7581	KT77
		6BQ5	N709	1622	KT66	6189	B749		

BRITISH INDUSTRIES CORPORATION - PORT WASHINGTON, N. Y.

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BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

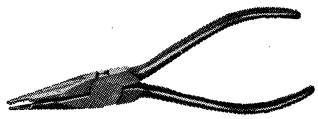
WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

H. BOKER & CO., INC. • NEW YORK, N. Y.

RADIO AND TV NOSE CUTTING PLIERS

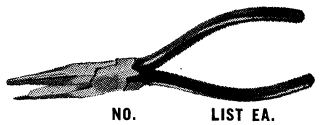
Reaches into tight spots to cut small wires, and to grip at the tips.



NO.	LIST EA.	NO.	LIST EA.
539-4½"	3.75	639-4½"	4.05
539-6"	3.75	639-6"	4.05
939-4½"	3.75	739-4½"	4.25
939-6"	3.75	739-6"	4.25

SIDE TIP NOSE CUTTING PLIERS

Cuts flush at left side of tips. Turn tool over to cut flush at right side.



NO.	LIST EA.	NO.	LIST EA.
S539-4½"	4.00	S639-4½"	4.30
S539-6"	4.00	S639-6"	4.30
S939-4½"	3.80	S739-4½"	4.50
S939-6"	4.00	S739-6"	4.50

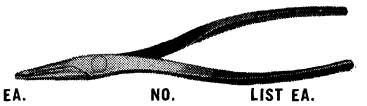
TRANSVERSE END CUTTING PLIERS

For clean, flush cutting of small wires where ordinary cutters are too bulky.

NO.	LIST EA.	NO.	LIST EA.
532-6"	3.65	632-6"	3.95
932-6"	3.65	732-6"	4.15

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.



NO.	LIST EA.	NO.	LIST EA.
579-8"	4.15	679-8"	4.45
979-8"	4.15	779-8"	4.65

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.

WITH SIDE CUTTERS

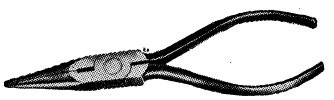
NO.	LIST EA.	NO.	LIST EA.
53-5"	3.15	63-5"	3.45
93-5"	3.15	73-5"	3.65

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-5"	2.65	630-5"	2.95
930-5"	2.65	730-5"	3.15

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.



WITH SIDE CUTTERS

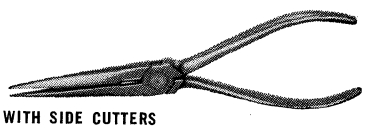
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.40	63-6"	3.70
93-6"	3.40	73-6"	3.90

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-6"	2.70	630-6"	3.00
930-6"	2.70	730-6"	3.20

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



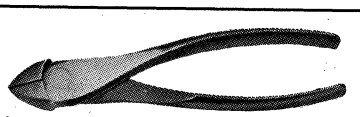
WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-7"	4.20	63-7"	4.50
93-7"	4.20	73-7"	4.70

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-7"	3.10	630-7"	3.40
930-7"	3.10	730-7"	3.60

HEAVY DUTY DIAGONAL CUTTING PLIERS



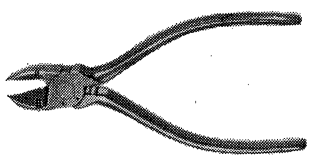
NO.	LIST EA.	NO.	LIST EA.
591-7"	3.50	691-7"	3.80
991-7"	3.50	791-7"	4.00

DIAGONAL CUTTING PLIERS

NO.	LIST EA.	NO.	LIST EA.
51-4½"	2.80	61-4½"	3.10
91-4½"	2.80	71-4½"	3.30
51-5"	3.05	61-5"	3.35
91-5"	3.05	71-5"	3.55
51-5½"	3.30	61-5½"	3.60
91-5½"	3.30	71-5½"	3.80
51-6"	3.45	61-6"	3.75
91-6"	3.45	71-6"	3.95
51-7½"	3.80	61-7½"	4.10
91-7½"	3.80	71-7½"	4.30

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

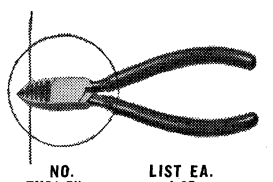
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.



NO.	LIST EA.
517-5½"	4.00
917-5½"	4.00
617-5½"	4.30
717-5½"	4.50

"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.	NO.	LIST EA.
TH51-4½"	4.40	TH91-5"	4.65
TH91-4½"	4.40	TH91-5½"	4.90
TH51-5"	4.65	TH51-7½"	5.40

SPECIAL THROAT-HOLD TYPE PLIERS

NO.	LIST EA.	
THB981-4½"	5.20	Bent (offset) Handles
THC981-4½"	5.00	Flush cutting edges

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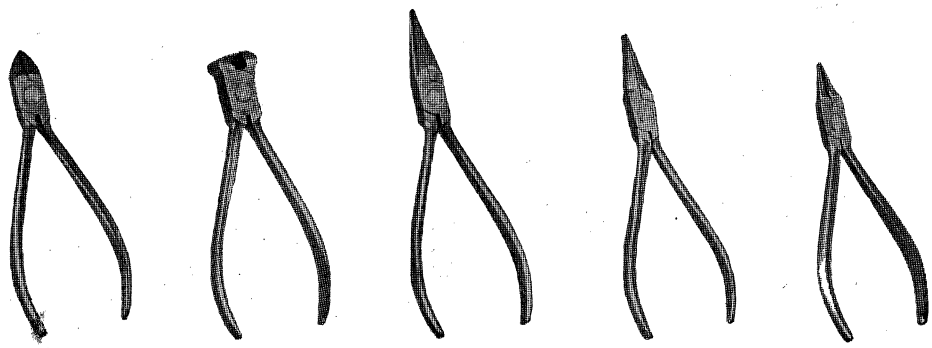
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

JEWELERS' 4½" PRECISION PLIERS

JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4½" Pliers.

NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	10.95
C64	One ea. 681, 683, 684, 6517	13.25
C65	One ea. 681, 682, 683, 684, 685	18.05
C73	One ea. 781, 783, 784	11.30
C93	One ea. 981, 983, 984	10.65
C95	One ea. 981, 982, 983, 984, 985	17.55

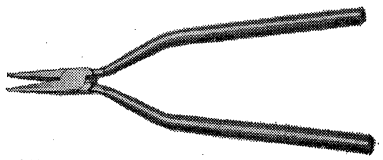


	POLISHED HEAD, GUN METAL HANDLES		POLISHED HEAD, CUSHION-GRIP HANDLES		FULL NICKEL AND CHROME PLATED		NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES	
	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.
Diagonal Cutting Pliers	581	3.10	981	3.20	681	3.30	781	3.35
End Cutting Nippers	582	3.60	982	3.80	682	3.90	782	3.95
*Needle Nose Pliers	583	2.90	983	3.10	683	3.20	783	3.35
*Flat Nose Pliers	584	2.90	984	3.10	684	3.20	784	3.35
*Round Nose Pliers	585	2.90	985	3.10	685	3.20	785	3.35

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

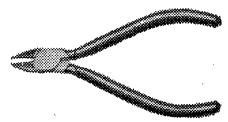
Midget jaws, extra long handles, to reach into deep areas normally inaccessible.



NO.	LIST EA.	DESCRIPTION
L903S-8"	5.95	Extra Fine Needle-Nose Pliers (as 903-4½")
L981S-8"	6.05	Diagonal Cutters
L983S-8"	5.95	Needle Nose Pliers
L984S-8"	5.95	Flat-Nose Pliers
L781S-8"	6.20	Diagonal Cutters
L783S-8"	6.20	Needle-Nose Pliers
L784S-8"	6.20	Flat-Nose Pliers
L703S-8"	6.20	Extra Fine Needle-Nose Pliers (as 703-4½")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.



NO.	LIST EA.
A981-4½"	3.70

STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4½"	3.40

SHORT NOSE, FLUSH CUTTING DIAGONALS

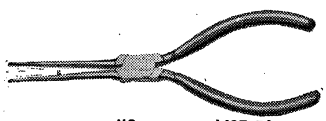
NO.	LIST EA.
E981-4½"	3.60

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

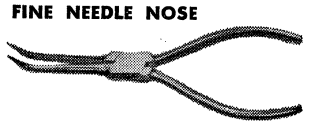
EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.



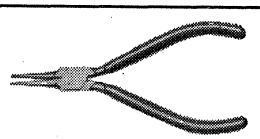
NO.	LIST EA.	NO.	LIST EA.
ST903-6"	3.50	ST703-6"	4.00

CURVED EXTRA FINE NEEDLE NOSE



NO.	LIST EA.
508-6"	3.90
908-6"	3.90
603-6"	4.20
708-6"	4.40

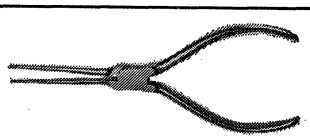
SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.
503-4½"	3.10
903-4½"	3.10
603-4½"	3.40
703-4½"	3.35

EXTRA FINE NEEDLE NOSE PLIERS

Long, very slim, spring tempered jaws for assembling miniature parts.



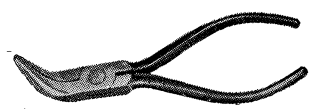
NO.	LIST EA.	NO.	LIST EA.
503-6"	3.10	603-6"	3.40
903-6"	3.10	703-6"	3.60

LONG NEEDLE NOSE PLIERS

Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.

No.	LIST EA.	No.	LIST EA.
533-6"	3.15	633-6"	3.45
933-6"	3.15	733-6"	3.65

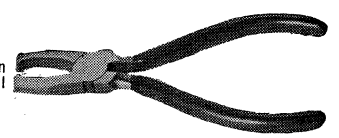
CURVED NEEDLE NOSE PLIERS



NO.	LIST EA.
538-6"	3.50
938-6"	3.50
638-6"	3.80
738-6"	4.00

END CUTTERS AND LEAD-IN STRIPPERS

Quickly strips TV transmission cable. Full throat for general purpose cutting.



NO.	LIST EA.	NO.	LIST EA.
902-6"	3.95	702-6"	4.50
602-6"	4.25		

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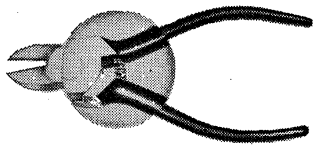
BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

PLIERS WITH SPRING IN HANDLES

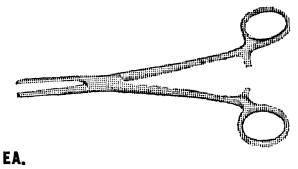
Bauer type coil spring keeps pliers in open position, ready-to-work.



Specify "S" as a Suffix to tool number (i.e., **91S-5"**)
Additional List Ea. .30

HOLDING FORCEPS

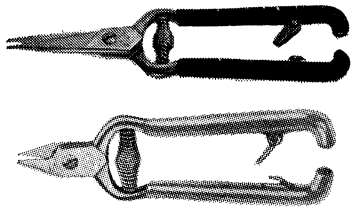
Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.



NO.	LIST EA.	
HF-5¼"	4.50	Straight pattern
HF-6¼"	4.35	Straight pattern
HFC-6¼"	5.00	Curved pattern

ELECTRONIC SNIPS

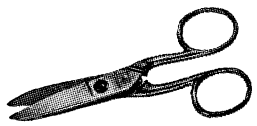
Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics. spring keeps blades open, ready-to-work.



NO.	LIST EA.	
P4-7⅛"	3.60	Long Blades
P4E-6½""	4.25	Short Blades

ELECTRICIANS' SNIPS

Scraper, file on back of blade.



NO.	LIST EA.
709-5"	2.75

Nickel Plated

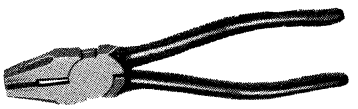
SHORT JAW, LONG HANDLE, NEEDLE NOSE PLIERS

NO.	LIST EA.	NO.	LIST EA.
573-8"	3.20	673-8"	3.50
973-8"	3.20	773-8"	3.70

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

No.	LIST EA.	No.	LIST EA.
574-8"	3.15	974-8"	3.15

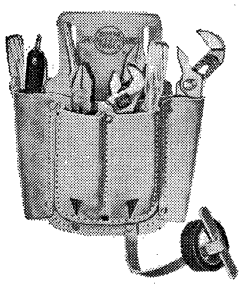
ELECTRICIANS' SIDE CUTTING PLIERS



NO.	LIST EA.	NO.	LIST EA.
92-6"	3.25	62-7"	3.90
92-7"	3.65	62-8"	4.25
92-8"	4.00	72-7"	4.10

LEATHER TOOL HOLSTER

Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.



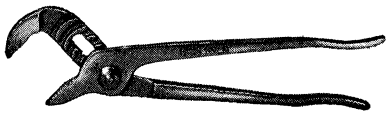
NO.	LIST EA.
99	4.95

MIDGET "GROOVE-GRIP" PLIERS

Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.

NO.	LIST EA.	
6517-5"	2.25	Nickel, Chrome Plated
P6517-5"	2.35	Nickel, Chrome Plated, Cushion Grips

"GROOVE-GRIP" 5-ADJUSTMENT PLIERS



NO.	LIST EA.	
6507-6½"	2.65	Nickel and Chrome Plated
6507-8"	2.90	
6507-10"	3.25	
P5507-6½"	2.60	Polished Head Cushion-Grip Handles
P5507-8"	2.85	
P5507-10"	3.20	
P5507-14" 7 Adjustment	4.25	

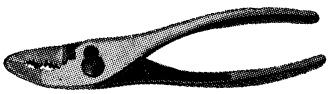
COMBINATION SLIP-JOINT PLIERS

NO.	LIST EA.	
6041-6½"	1.40	Nickel and Chrome Plated
6041-8"	1.80	
6041-10"	2.60	

THIN NOSE COMBINATION PLIERS

NO.	LIST EA.	
6042-6½"	1.60	Nickel, Chromed

BENT THIN NOSE COMBINATION PLIERS



NO.	LIST EA.	
6043-6½"	1.85	Nickel, Chromed

PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.

NO.	LIST EA.	
6395-7½"-	3.75	Nickel, Chromed

THIN, ALLOY STEEL ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	LIST EA.	NO.	LIST EA.
6W-4"	2.64	5W-4"	2.10
6W-6"'	2.64	5W-6"	2.10
6W-8"	3.10	5W-8"	2.52
6W-10"	3.95	5W-10"	3.12
6W-12"	5.75	5W-12"	4.70
6W-15"	8.75	5W-15"	7.36
6W-18"	14.50	5W-18"	10.95

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4"	2.72	P6W-10"	4.35
P6W-6"	2.72	P6W-12"	6.25
P6W-8"	3.45	P6W-15"	9.00

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BOKER U.S.A. IN-DUS-TRONIC TOOLS QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

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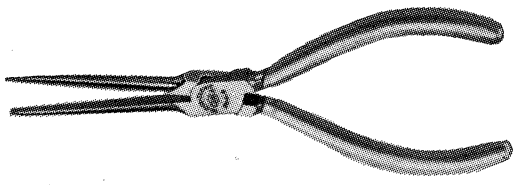
EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



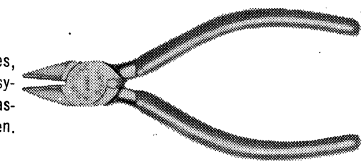
NO.	LIST EA.	NO.	LIST EA.
504-6"	3.60	604-6"	3.90
904-6"	3.60	704-6"	4.00

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST504-6"	4.00	ST604-6"	4.30
ST904-6"	4.00	ST704-6"	4.40

NEEDLE POINT DIAGONAL CUTTING PLIERS

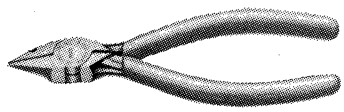
Narrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½"	4.25	613-5½"	4.55
913-5½"	4.25	713-5½"	4.75

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

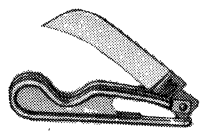
Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.



NO.	LIST EA.	NO.	LIST EA.
RA51-5½"	4.50	RA61-5½"	4.80
RA91-5½"	4.50	RA71-5½"	4.90

WIRE JACK POCKET KNIFE

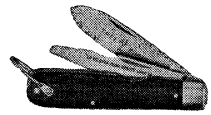
Rugged construction, unbreakable spring. Chrome Vanadium steel blade.



NO.	LIST EA.
75-3¾"	1.00

ELECTRICIANS' UTILITY KNIFE

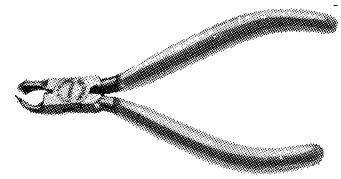
One blade and one self-locking Screwdriver and Insulation Scraper.



NO.	LIST EA.	
9229	2.75	3¾" long

ELECTRONIC DIAGONAL END NIPPERS

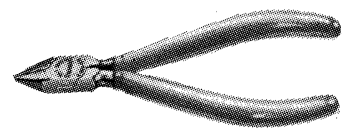
Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½"	6.00	XA682-4½"	6.30
XA982-4½"	6.00	XA782-4½"	6.50

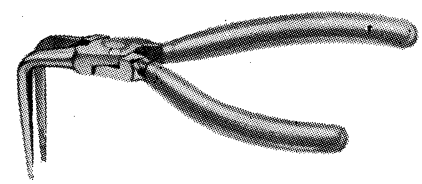
THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower. Flush edges.



NO.	LIST EA.	
XA981-4½"	4.00	Pointed jaws
XC981-4½"	3.70	Standard shape jaws, slightly shortened

BENT EXTRA FINE NEEDLE NOSE PLIERS



NO.	LIST EA.	NO.	LIST EA.
B508-6"	3.90	B608-6"	4.20
B908-6"	3.90	B708-6"	4.40

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
STB508-6"	4.30	STB608-6"	4.60
STB908-6"	4.30	STB708-6"	4.80

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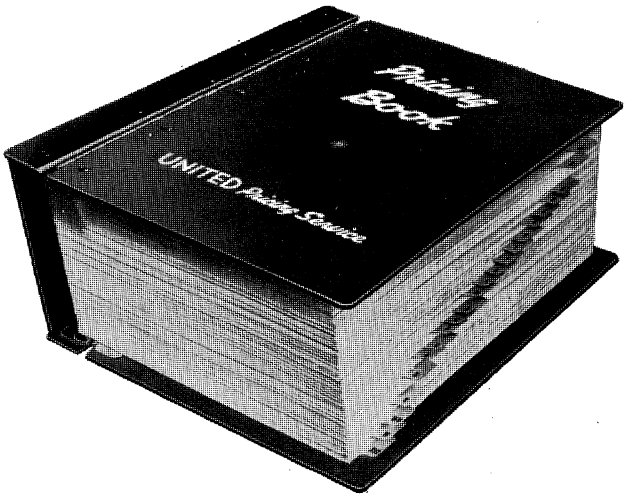

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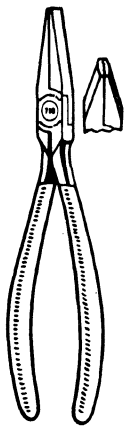
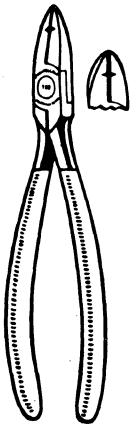
Specially Designed **ELECTRONICS PLIERS**

You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers by name.



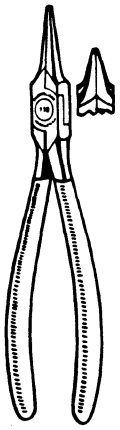
No. 718 FLAT-NOSE PLIER

Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places. LIST $3.10



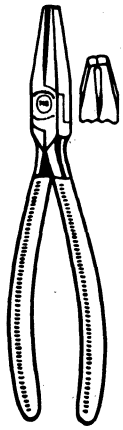
No. 728 DIAGONAL CUTTER

A wire-stripping notch (Patent Pending) that **really works!** LIST $3.50



No. 738 ROUND-NOSE PLIER

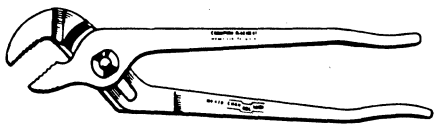
You can **pick up a human hair** with these precision-machined points. LIST $3.10



No. 748 END CUTTER

Fine enough to cut a human hair—sturdy enough to cut 12 gauge copper wire. LIST $3.50

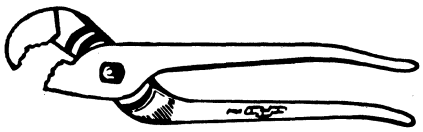
MULTI-PURPOSE PLIER



The handiest and most popular multi-purpose plier ever designed. Five patented, non-slip undercut channels. Terrific gripping power. Particularly useful on aerial construction jobs. Polished steel finish.

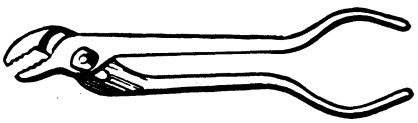
No.	Size	Capacity	List
420	9½″	1½″	$3.20
426	6½″	⅞″	$2.40

HEAVY DUTY PLIER



A heavy duty, self-gripping plier . . . actually a combination plier and wrench. Terrific gripping power in tight places you can't reach with a pipe wrench. Length 9½″. Four adjustments. Capacity 1⅛″. Polished steel finish. No. 410 . . . LIST $3.40.

"MIGHTY MIDGET" PLIER

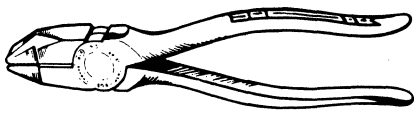


A midget plier that gives you popular Channellock gripping power for a wide number of small, hard-to-get at electronics jobs. Length 4½″. Four adjustments. Capacity ½″. Polished steel finish. No. 424 . . . LIST **$2.30**

HEATSORB CLAMP

A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5″. No. 46 . . . LIST $1.50

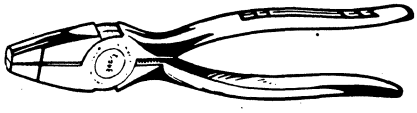
LINEMEN'S PLIER—Bevel Nose



Polished steel finish. Knurled grips. Side cutter.

No.	Size	List
3046	6″	$3.50
3047	7″	$4.00
3048½	8½″	$5.00

LINEMEN'S PLIER—Rounded Nose



Polished steel finish. Knurled grips. Side cutter.

No.	Size	List
346	6″	$3.50
347	7″	$4.00
348½	8½″	$5.00

CHANNELLOCK PLIERS Are Made Only By Champion DeArment Tool Co., Meadville, Pa.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

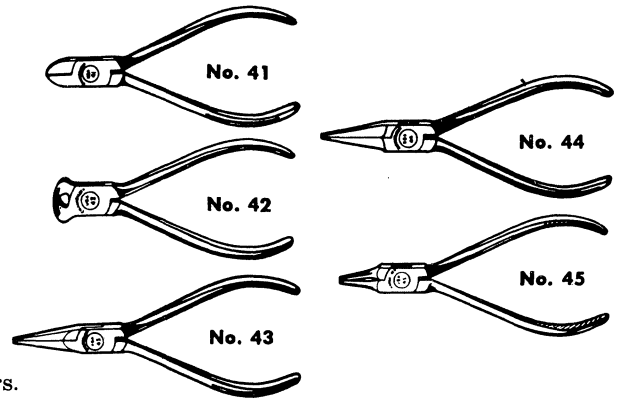
Pliers by CHANNEL LOCK®

Little Champ PRECISION PLIERS

Highest quality precision pliers for fine bench work in electronics, model making, jewelry and watch repair. Polished steel finish. Also available at no extra cost with blue, dipped plastic, cushion-grip handles.

No.	Style	Size	List
41	Diagonal Cutter	4½″	$3.14
42	End Cutter	4½″	$3.60
43	Needle Nose	4½″	$2.90
44	Flat Nose	4½″	$3.00
45	Round Nose	4½″	$3.00

Attractive, Velvet-lined case for Little Champ Pliers. No charge when ordered with set of pliers.



LONG-NOSE PLIER

Point 3/32″ round. Polished steel finish. Knurled grips.

No.	Size	Side-Cutter	List
317½	7½″	With	$4.10
3017½	7½″	Without	$3.10
326	6″	With	$3.50
3026	6″	Without	$2.76

DIAGONAL CUTTING PLIER

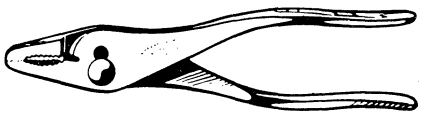
Precision-honed cutting edges. Polished steel finish. Knurled grips.

No.	Size	List
435	5″	$3.10
436	6″	$3.50
437	7″	$3.86

"DIPPED" PLASTIC GRIPS FOR PLIERS

All Channellock Pliers can be ordered with blue, dipped-plastic, cushion-grip handles. Our 700 Series Pliers, shown on page 1, are offered only with dipped grips. "Little Champ" Pliers on page 2 are available either with or without dipped grips at no difference in price. On all other Channellock Pliers, dipped grips are optional at slight extra cost.

SLIP-JOINT PLIER—With Cutter



Heavy duty. Polished steel finish. Knurled grips.

No.	Size	List
546	6″	$2.30
548	8″	$2.84
5410	10″	$3.46

END CUTTER

Precision-honed cutting edges. Polished steel finish.

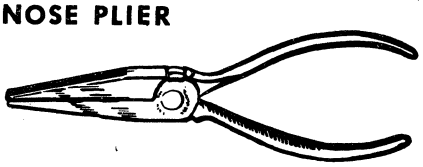
No.	Size	List
356	6″	$3.50
357	7″	$4.00

"SUPERIOR" PLASTIC GRIPS

For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

Plier Size	Grip Size	List	Plier Size	Grip Size	List
6″	Small	65c pr	8″, 9½″		
7″	Medium	70c pr	10″	Large	75c pr.

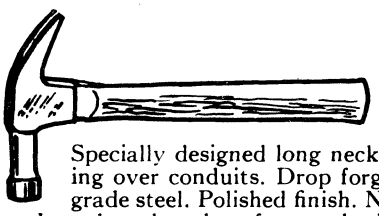
FLAT-NOSE PLIER



Precision-matched jaws. Polished steel finish.

No.	Size	Side-Cutter	List
366	6″	With	$3.70
3066	6″	Without	$2.80

ELECTRICIANS' HAMMER



Specially designed long neck for hammering over conduits. Drop forged from high grade steel. Polished finish. NuRed enamel neck and under claw for good visibility. Best quality hickory handle. No. 88, 18 oz. LIST $3.76

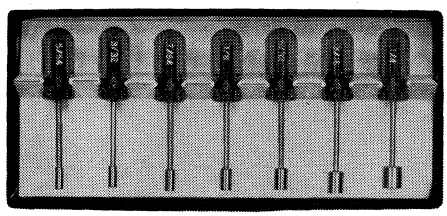
CHANNELLOCK PLIERS Are Made Only By Champion DeArment Tool Co., Meadville, Pa.

© U.C.P., Inc.

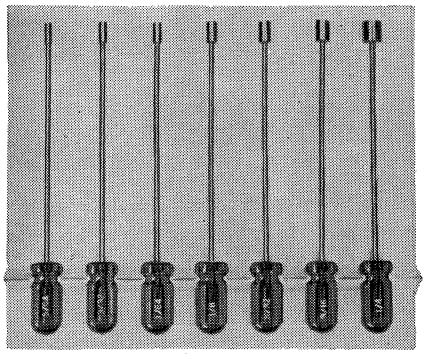
PROPERLY PROPORTIONED MINIATURE TOOLS

For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

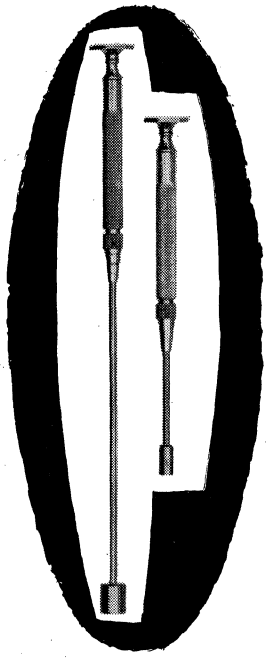
DESCO "7" Sizes across flats
5/64 3/32 7/64 1/8 5/32 3/16 1/4

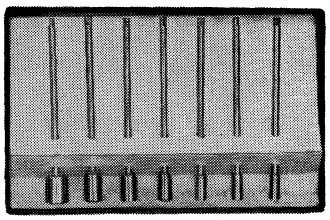


Set HS 7 List $5.95

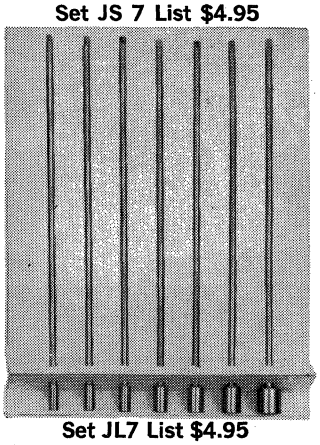


Set HL 7 List $5.95





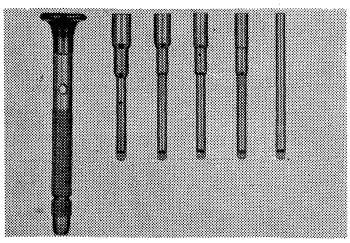
Set JS 7 List $4.95



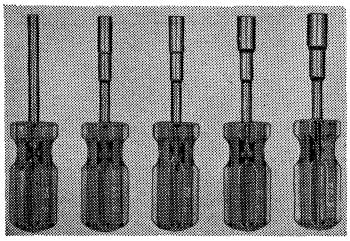
Set JL7 List $4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only. Specify "No-Mag" with the code number — same prices.

INTRODUCING THE DESCO "5" Series of Miniature Tools

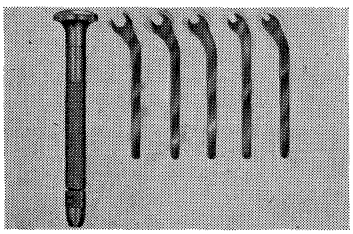


Set JD 5 List $3.50



Set HD 5 List $4.50

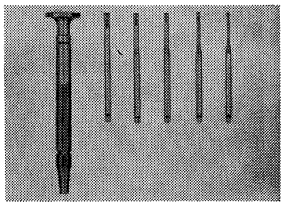
Deeper and more rugged than the "7" Series. Made only in 5/64, 3/32, 7/64, 1/8 and 5/32.



Set EW 5 Steel List $2.50

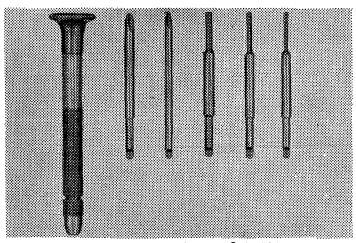
Set EWN 5 Non-Magnetic List $2.50

A practical miniature end wrench to fit the smallest nuts made 5/64 3/32 7/64 1/8 5/32.

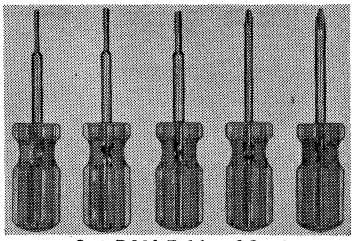


Set SS 5 List $1.98

Contains four screw driver blades and a fine scriber.



Set PA 5 List $2.50



Set PAH 5 List $3.50

Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

* T. M.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO., GLENDALE, CALIF.

© U.C.P., Inc.

Insist on the Finest -- They Last Longer

"There is Nothing Finer Than a DIAMOND"

Depend On These Trade Marks of Quality

DIAMALLOY®

DIAMOND®

DIAMOND®

Narrow tapered nose . . . ideal for confined places

3 Sizes

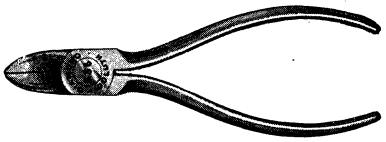
S54RG - 4 inch

S55RG - 5 inch

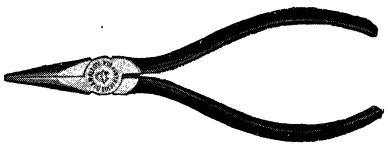
S56RG - 6 inch

DIAMALLOY CUTTING PLIERS

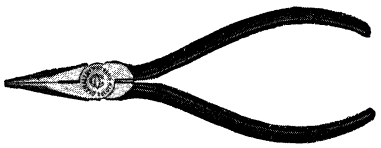
Diamalloy Electronic Pliers



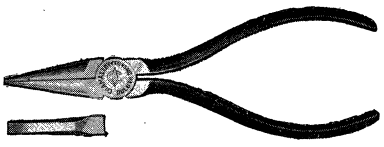
Diagonal Cutting. Electronically hardened cutting edges. S54 size 4 in. S55 size 5 in. S56 size 6 in.



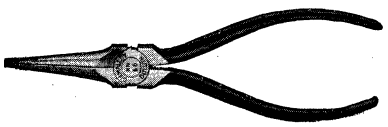
Long Nose with finely serrated jaws 1⅛ in. long. Tips 1/16". LN54 size 4 in. LN56 size 6 in. LN57 size 7 in.



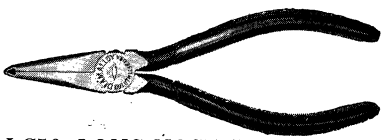
Long Nose with side cutter. Same as LN54 except has side cutter in jaw. SN54 size 4 in. SN56 size 6 in. SN57 size 7 in.



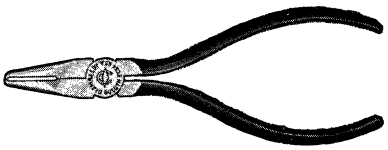
DN54—FLAT NOSE with smooth jaws. Size 4 in.



NN56—NEEDLE NOSE with long slender jaws and strong gripping ability. End of jaws diamond scored. Size 6 in. NN57—7 in.

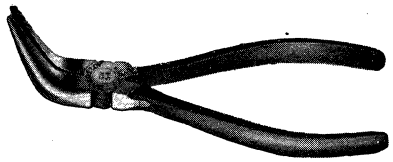


LC56—LONG NOSE SPECIAL with very fine cutter on end of nose for cutting very fine wire in confined places. Size 6 in.

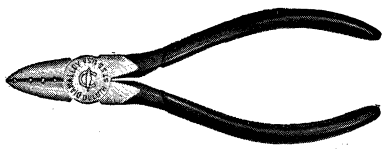


EC54—TRANSVERSE END CUTTER for cutting close to printed circuit boards. Easily resharpened. Size 4 in.

MS54—DIAGONAL CUTTER with extremely sharp cutting edges, ½" long for cutting fine wires. Size 4 in.



Curved Needle Nose. Same as LN54 except nose is bent 90°. Ideal for confined places. CN54 size 4 in. CN56 size 6 in.



ST55—WIRE STRIPPER with 3 holes accurately drilled and counterbored for 18, 20, 22 gauge wire. Size 5 in.

SOLD THROUGH LEADING ELECTRICAL SUPPLY WHOLESALERS AND INDUSTRIAL DISTRIBUTORS

DIAMOND TOOL *and Horseshoe Co.*

DULUTH · MINNESOTA Established 1908 **TORONTO · ONTARIO**

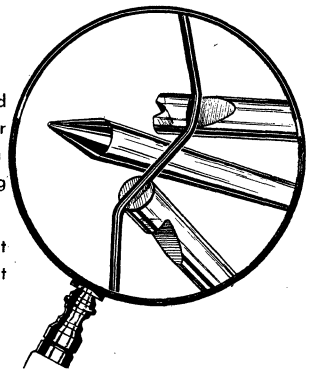
© U.C.P., Inc.

Norseman
ELECTRONIC TOOLS

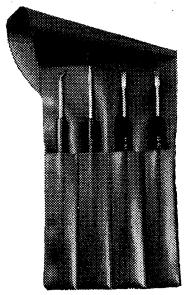
JIGGLE STICKS

Probes of Lucite, 1 end forked for pushing other end pointed for probing notched on side for pulling wires.

PR 532-6 5/32" dia. .30 net
PR 316-8 3/16" dia. .35 net



NORSEMAN SOLDERING AID KIT



Red Vinyl plastic kit, packed with 4 Norseman Soldering Aids (TN-22, TN-33, TN-44, TN-55) as illustrated.
TNSA-4 complete kit ..... $4.35 net

Kit with 4 Norseman Soldering Aids with unbreakable aluminum handles (AL-22, AL-33, AL-44 & AL-55).
ALSA-4 complete kit ..... $4.35 net

NORSEMEN SOLDERING AIDS

Red Handle

TN-22 Tenite II Handle ..... $ .75 net
AL-22 Aluminum Handle ..... $ .75 net

Black Handle

TN-44 Tenite II Handle ..... $ .90 net
AL-44 Aluminum Handle ..... $ .90 net

Green Handle

TN-33 Tenite II Handle ..... $ .75 net
AL-33 Aluminum Handle ..... $ .75 net

Blue Handle

TN-55 Tenite II Handle ..... $ .90 net
AL-55 Aluminum Handle ..... $ .90 net

PLASTIC HANDLES-(TN-22, TN-33, TN-44, TN-55) are of Tenite II, 4" x 3/8" hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4" x 3/8" hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

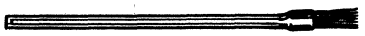
FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. 1/8" forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

WIRE BRUSH—has approx. 200 bristles of stainless wire .0035 in dia. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.



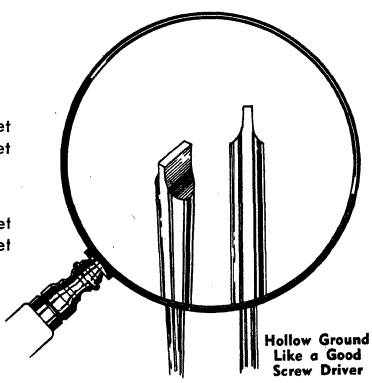
STAINLESS STEEL WIRE BRUSHES
on steel shaft approximately 2" long overall. Can be used in a regular pin vise. **.33 net**
Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite 5/32" dia.
LU-53210 10" long ..... .25 net
LU-53214 14" long ..... .35 net

Rigid Vinyl 3/16" dia.
RV-31610 10" long..... .25 net
RV-31614 14" long..... .35 net

Fibre Glass 1/8" dia.
FG-1810 10" long..... .35 net
FG-1814 14" long..... .50 net
FG-1818 18" long..... .65 net

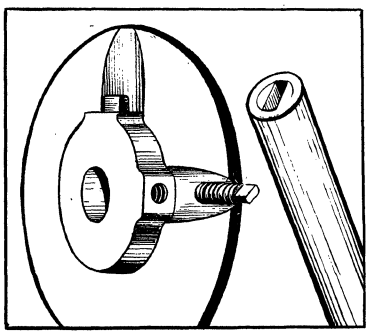


Hollow Ground Like a Good Screw Driver

SLAB-HEAD DRIVERS

Drivers for SLAB-HEAD screws as used in Delco auto radios, Zenith & Arvin TV and 1956 models of Webcor recorders.

246-P ..... $1.80 net



Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY, PICO, CALIF.

Net
© U.C.P., Inc.

Norseman ELECTRONIC TOOLS

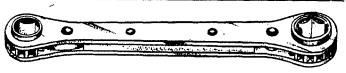
STICKLE-BACK DRILSAWS

TEC IMPORTS STICKLEBACK

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.

#0—5 x 5/32" dia.	$ .98 net
#1—7 x 3/16" dia.	1.85 net
#2—10 x 1/4" dia.	2.45 net
#3—13 x 5/16" dia.	2.95 net
#4—15 x 3/8" dia.	3.25 net
#5—13 x 1/2" dia. (saw rasp)	2.25 net

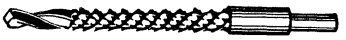
REVERSIBLE RATCHETS



A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.

1/4" x 5/16"	$2.35 net	5/8" x 11/16"	$3.90 net
3/8" x 7/16"	2.65 net	5/8" x 3/4"	3.90 net
1/2" x 9/16"	3.60 net	3/4" x 7/8"	4.50 net

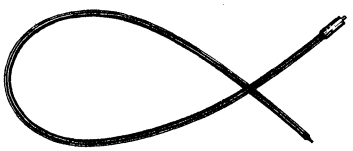
DRILL ROUTERS



Another "Stickle-back" tool, similar to the Drilsaw, but for use in electric drills.

#318-1 2 3/8" x 1/4" dia.	$1.40 net
#318-2 4 1/2" x 1/4" dia.	1.60 net

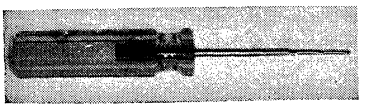
TIPPY STICKS



Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.

ST-186	6" long	.40 net
ST-1810	10" long	.45 net
ST-1814	14" long	.50 net

TRI-TAPS

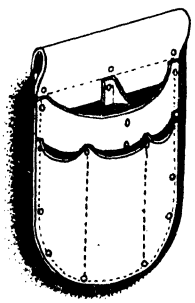


The original 3-in-1 tool with 6/32", 8/32" and 10/32" taps to clean or cut three of the most common threads used in electronic work.

T-3 ..... $2.25 net T-4 tap only for HT-24 1.65 net

HT-24 with replaceable tap ..... $2.85 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6" x 9 1/4" ..... $4.95 net

Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape.

#17 10" x 9" ..... $4.95 net

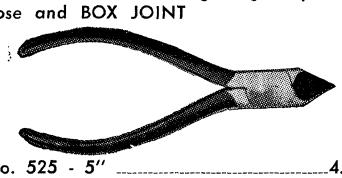
12 OTHER POUCHES AVAILABLE

Berg SWEDISH STEEL PLIERS

MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

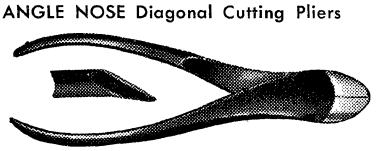
Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT



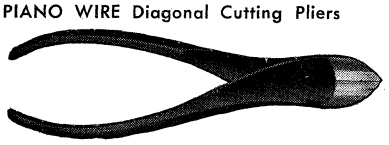
No. 525 - 5" 4.40

ANGLE NOSE Diagonal Cutting Pliers



No. 2528 ..... 6 1/2" 3.70 7 1/2" 4.20

PIANO WIRE Diagonal Cutting Pliers



No. 1528	4 1/2"	5 1/2"	6 1/2"	7 1/2"
	2.50	3.20	3.70	4.20

PIANO WIRE Side Cutting Nippers with replaceable blades

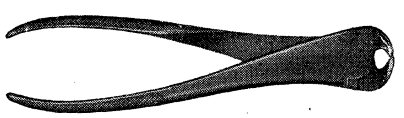
No. 1518	9"	5.50	10"	6.50
Extra Blades	9"	2.30	10"	2.55

PIANO WIRE End Cutting Nippers with replaceable blades

No 1519 - 9" 7.50

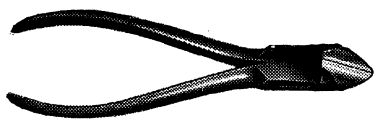
Extra Blades 2.60

PIANO WIRE End Cutting Nippers



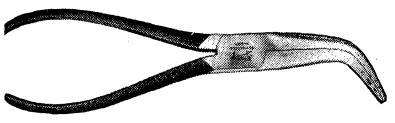
No. 527 ..... 6" 3.10 7" 3.65

Straight Cutting Pliers with extended jaws



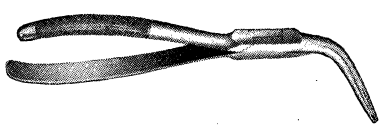
No. 1529 - 6 1/2" 3.75

Special Bent Nose Pliers



No. 2533-B - 8" 4.75

Curved Nose Pliers



No. 1631 - 5 1/2" 3.75

50 OTHER SIZES AND TYPES AVAILABLE

ERIKSON SPECIALIZED TOOL COMPANY, PICO, CALIF.

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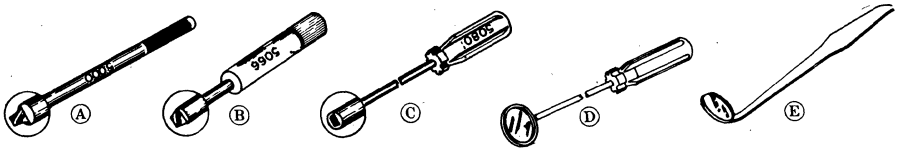
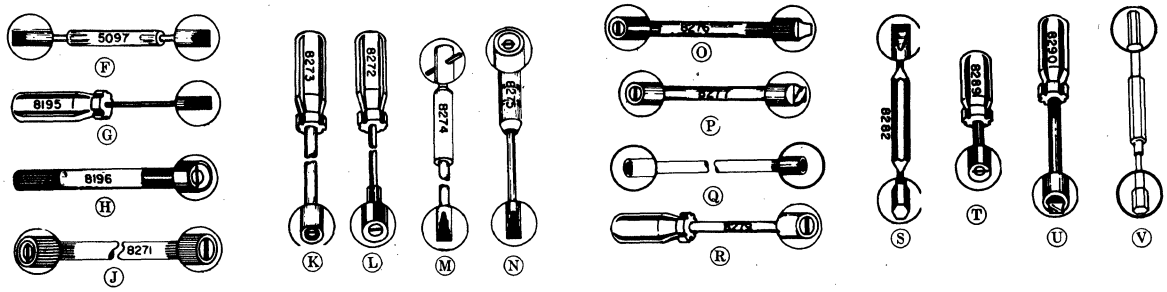
GC ELECTRONICS ALIGNMENT TOOLS . . .





(A) G-C ALIGNMENT SCREWDRIVER—Low inductance metal tip screwdriver made of Butyrate material.
Cat. No. 5000 ¼" Diameter x 6" Tool
Net $ .42

(B) G-C TV ALIGNMENT TOOL—Very short, sturdy tool with a fine metal screwdriver blade.
Cat. No. 5066 2½" long, 3/16" Shaft Dia.
Net $ .37

(C) G-C TV ALIGNING WRENCH—New tool with ⅛" square socket wrench, 7/32" shaft with insulated handle.
Cat. No. 5080 Net $ .53

(D) G-C INSPECTION MIRROR—Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle.
Cat. No. 5090 7⅞" Inspection Mirror
Net $ .42

(E) G-C NEW ALL-PLASTIC INSPECTION MIRROR—Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting.
Cat. No. 5090-P 7⅞" Plastic Mirror Net $ .38

(F) G-C K-TRAN TOOL — Specially designed for K-tran and I.F. transformers. Butyrate material, screwdriver on both ends.
Cat. No. 5097 6" long, 5/32" Fibre Tip, ⅛" metal Tip Net $ .78

(G) G-C TV CHANNEL TUNING TOOL—Completely insulated, non-metallic tool with long ⅛" narrow blade. Made of bone fibre.
Cat. No. 8195 7¼" long, ⅛" shaft dia.
Net $ .72

(H) G-C TV AND FM TUNING TOOL—Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate.
Cat. No. 8196 2½" long, 7/32" shaft dia.
Net $ .38

(J) G-C TV CORE ALIGNER—For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end.
Cat. No. 8271 6" long, 7/32" shaft dia.
Net $ .57

(K) G-C TV I.F. OSCILLATOR ALIGNER—Specially made for I.F. and oscillator adjustments. Will fit all makes of sets—R.C.A., G.E., Philco, Admiral and others.
Cat. No. 8272 6½" long, ¼" tip dia.
Net $1.12

(L) G-C TV ALL-PURPOSE ALIGNER — Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws.
Cat. No. 8273 8" long, 7/32" shaft dia.
Net $ .68

(M) G-C TV LONG REACH ALIGNER—Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach.
Cat. No. 8274 9" long, ⅛" shaft dia.
Net $ .83

(N) G-C TV ZENITH UNIVERSAL ALIGNER—Specially designed for Zenith and other sets. Made of bone fibre and plastic handle.
Cat. No. 8275 5" long, ⅛" shaft dia., ¼"
Net $ .52

(O) G-C TV DUPLEX ALIGNER—An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips.
Cat. No. 8276 6" long, 7/32" shaft dia.
Net $ .52

(P) G-C TV "SHORTY" DUPLEX ALIGNER—Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool.
Cat. No. 8277 2½" long, 7/32" shaft dia.
Net $ .52

(Q) G-C TV TUNING WAND—Brass insert on end reduces inductance and iron core on other end increases the inductance.
Cat. No. 8278 6" long, 7/32" shaft dia.
Net $ .53

(R) G-C TV CORE ALIGNER—Tool has a recessed steel milled slot to fit over the Stackpole and other type stud cores that are not slotted.
Cat. No. 8279 7½" long, 7/32" shaft dia.
Net $ .68

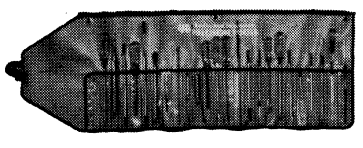
(S) G-C NEW ZENITH TV WRENCH & ALIGNER—New nylon plastic molded special tool made specially for Zenith TV sets.
Cat. No. 8282 5 7/16" long, .100 Dia. Hex Wrench, .109 Screw Driver Dia. Net $ .37

(T) G-C "SHORTY" TV ALIGNMENT SCREW DRIVER—Only 2" long overall to adjust hard-to-get-at places under TV tubes, etc.
Cat. No. 8289 2" long, 7/32" shaft dia.
Net $ .45

(U) G-C UNIVERSAL SCREW DRIVER ALIGNER—Made of unbreakable flexible clear plastic shaft and an amber plastic handle.
Cat. No. 8290 7" long, 7/32" shaft dia.
Net $ .63

(V) G-C ZENITH-ADMIRAL NYLON HEX WRENCH—New nylon hex wrench alignment tool for Zenith, Admiral and other sets.
Cat. No. 8606 5" wrench, 11" long Net $ .48
8606-L 11" wrench, 11" long

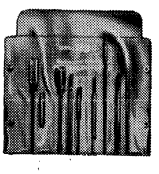
GC ALIGNMENT TOOL KITS



MASTER DELUXE TOOL KIT—A super-deluxe kit in a superior leatherette roll type case. Contains 25 tools and includes all TV alignment tools except the extra long ones (over 9") which would not fit in the case.
Cat. No. 8283 Net $14.17

DELUXE ALIGNMENT TOOL KIT—Case is made of durable leatherette that will give long service. The steel tips are all extra thin and are of the best grade hardened spring steel that will give you service. Kit contains one each of 16 tools you need.
Cat. No. 8280 Net $8.63

G-C ALL-PURPOSE TV ALIGNMENT KIT—A handy, all-purpose TV kit put up in a convenient plastic container. Kit contains four basic essential tools that will service the majority of TV sets.
Cat. No. 8457 Net $1.95



STANDARD ALIGNMENT TOOL KIT—Made to last and wear—a quality kit. Kit contains 9 essential tools in roll type case.
Cat. No. 8455 Net $4.77

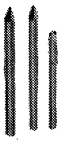
G-C No. 5040 TOP 12 TOOL KIT—12 most popular TV alignment tools. Plastic roll-up case.
Cat. No. 5040 Net $7.50

G-C CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operation conditions.
Cat. No. 9339 Net $ .75

NEW TINNERMAN NUT REMOVER—The new G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts.
Cat. No. 9355 Net $ .93

G-C ILLUMINATED INSPECTION AND SERVICE MIRROR—A hinge-mounted mirror fastens to a 6" transparent lucite rod which transmits light from a small anodized aluminum flashlight.
Cat. No. 8725 ⅞" Mirror, frame O.D. 1 1/16"
Net $2.02

G-C SPEEDEX SLIM-TYPE SOLDER IRON TIPS—A new high-heat, turned-down tip made of one-piece copper. Will fit ⅜" irons. Tips 4½" long.
Cat. No. 8741 Net $ .60



G-C SOLDER IRON TIPS—Bright plated to resist corrosion. These tips are made of best grade hard-drawn copper.

		Dia.	Long	
Cat. No.	724	¼"	x3"	Net $ .37
	725	5/16"	x4½"	.45
	726	⅜"	x4½"	.57

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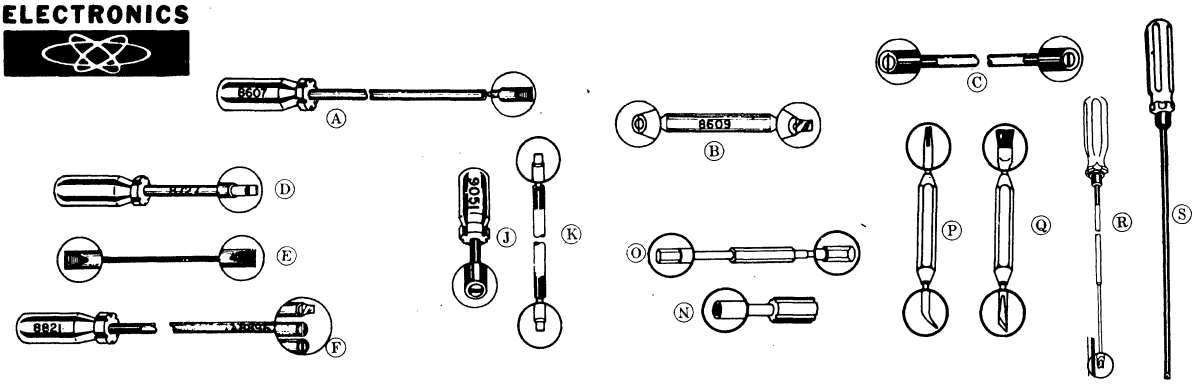
GC ELECTRONICS ALIGNMENT TOOLS . . .



(A) G-C NEW NYLON TV LONG-REACH ALIGNER—Handy new long-reach TV aligner with insulated metal shaft and nylon tip. 12¼" long overall, .195 Shaft Dia.
Cat. No. 8607 TV Tool Net **$1.50**

(B) G-C ALIGNMENT TOOL—Handy to align and adjust TV sets, radio sets, etc. Made of clear plastic 5" long x ⅜" dia.
Cat. No. 8609 Net $ **.63**

(C) G-C TV 2-IN-1 LONG-REACH DUPLEX ALIGNER—Made of clear, unbreakable plastic material. Ends colored red and blue for size identification. Tips are made of spring steel recessed for easy location of stud.
Cat. No. 8721 9" long, 7/32" Shaft Dia. Net $ **.78**
8722 7" long, 7/32" Shaft Dia. Net $ **.67**

(D) NEW G-C K-TRAN TELEVISION ALIGNER—Specially made for K-Tran I.F. Transformer tuner slugs. Precision made of bone fibre.
Cat. No. 8727 6¼" long, 5/32" Tip Dia. Net $ **.60**

(E) TV LONG REACH ALIGNMENT SCREW DRIVERS—Made of bone fibre, extra thin ⅛" diameter screw drivers for adjustment of TV receivers. Screw drivers tip on both ends —can be re-ground and used over.
Cat. No. 8728A ⅛"x7" long Net $ **.43**
8728 ⅛"x12" long **.53**
8729 ⅛"x16" long **.70**

(F) G-C LONG ARM TV TOOL PLASTIC SHAFT—New, extra-long-reach alignment tool for Zenith sets and others where adjustments are had to get at. Tool is 18" long overall. 18" long, 7/32" Shaft Dia.
Cat. No. 8821 TV Tool (Type A) Net $ **.93**
8896 TV Tool (Type B) **.93**
8897 TV Tool (Type C) **.93**

(J) NEW ZENITH-RCA ALIGNING TOOL WITH HANDLE—Handle affords a better grip and easier adjustments. Length is 2½" with a 1½" shaft length. 7/32" diameter blade with recessed slot in blade end.
Cat. No. 9051 Net $ **.48**

(K) NEW G-C STANDARD COIL SLUG TUNER ADJUSTING TOOL—A new special slug tuning tool especially made for adjusting Standard Tuners, etc. Completely insulated. 7½" long, ¼" shaft diameter, shaft ends .170 diameter.
Cat. No. 9087 Net $ **.67**

(N) G-C ADJUSTABLE SHORTY—Recessed tip TV alignment tool. Adjustable from 1¼" to 2" in length, for those hard-to-get-at places.
Cat. No. 9090 Net $ **.58**

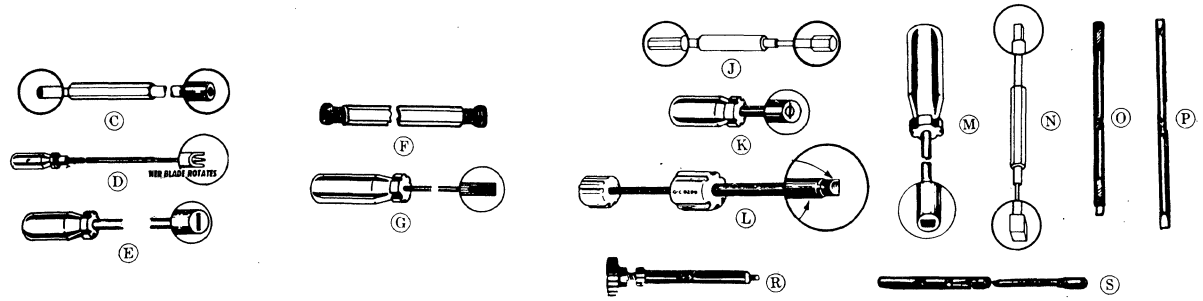
(O) G-C DOUBLE END IRON CORE TOOL—All nylon hex tool made to fit cores with .125 hex opening. One end of tool undercut so it can reach the bottom slug in coils without turning the top slug.
Cat. No. 9091 5" long Net $ **.48**
9091-L 11" long **.63**

(P) G-C PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 8" Length Net **$1.00**

(Q) G-C PRINT-KOTE BRUSH AND SCRAPER—Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.
Cat. No. 9094 8" Length Net $ **.98**

(R) G-C SLUG RETRIEVER TOOL—A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.
Cat. No. 9096 12" Retriever Net **$2.58**
9097 15" Retriever **3.00**

(S) G-C MINI-HOLD SCREWDRIVERS—Speeds replacing of phono cartridges. Designed with exclusive "Wedge Action" enabling secure gripping of tiny screws. (Nos. 0, 1, 2, 3 and No. 8 set screws and smaller) Special short length (2⅞" when in use).
Cat. No. 9346 3¼" long, 2⅞" in use Net **$1.72**
9347 7" long, 6¾" in use 2.25



(C) G-C RCA TV ALIGNMENT TOOL—Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.
Cat. No. 9150 6" Length Net $ **.93**

(D) G-C SCREW STARTER SCREW DRIVER—A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.
Cat. No. 9148 12" Net **$2.58**

(E) G-C TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **$1.08**

(F) G-C DUAL NUT STARTER—New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits ¼" and 5/16" hex nuts.
Cat. No. 9147 Net **$1.65**

(G) G-C FIBREGLASS SCREWDRIVER—Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places. Cat. No. 9291 7" Net $ **.75**

(J) G-C NYLON HEX TOOLS—For the adjustment of iron cores inside mounted chassis, and the tuner adjustment of iron and brass slugs with hex heads. Has .100" hex and 5/32" handle.
Cat. No. 9295 11"x.100" Hex Net $ **.63**
9296 11"x.075" Hex **.63**
9297 11"x.075" Hex **.63**

(K) G-C SHORTY ALIGNMENT TOOL—A convenient tool for hard-to-get-at places. Has 3/16" shaft, 2" length. Overall length of tool 4".
Cat. No. 9298 Net $ **.48**

(L) G-C COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot. Cat. No. 9299 Net **$1.33**

(M) G-C RCA WRENCH FOR VHF CHANNEL SELECTOR—Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis.
Cat. No. 6035 Net **$1.08**

(N) G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL—One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores.
Cat. No. 9440 11¾" long Net $ **.63**

(O) G-C RCA ALIGNING TOOL—Made of 7/32" Butyrate rod, narrow screwdriver on one end and screw nib inserted on other end.
Cat. No. 5003 Net $ **.53**

(P) G-C NO-METAL INSULATING ADJUSTMENT SCREW DRIVER—Made of black bone fibre. Indispensable for aligning all-wave sets.
Cat. No. 5004 7" long Net $ **.48**
LOW-LOSS POLYSTYRENE TYPE—Ideal for U.H.F. Sets.

(R) G-C NEUTRALIZING TOOL—Combination screw driver and 5/16" hex wrench. Approved by U. S. Army Signal Corps.
Cat. No. 5027 Net **$2.10**

(S) G-C 4-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, ¼" hex wrench slotted and 5/16" hex wrench on other end.
Cat. No. 5014 Net $ **.87**

G-C 5-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16" hex wrench, ¼" hex wrench slotted, with metal screw driver on one end.
Cat. No. 5015 Net **$1.17**

G-C 6-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5/16" hex wrench, ¼" hex side wrench and ¼" hex end wrench slotted.
Cat. No. 5016 Net **$1.20**

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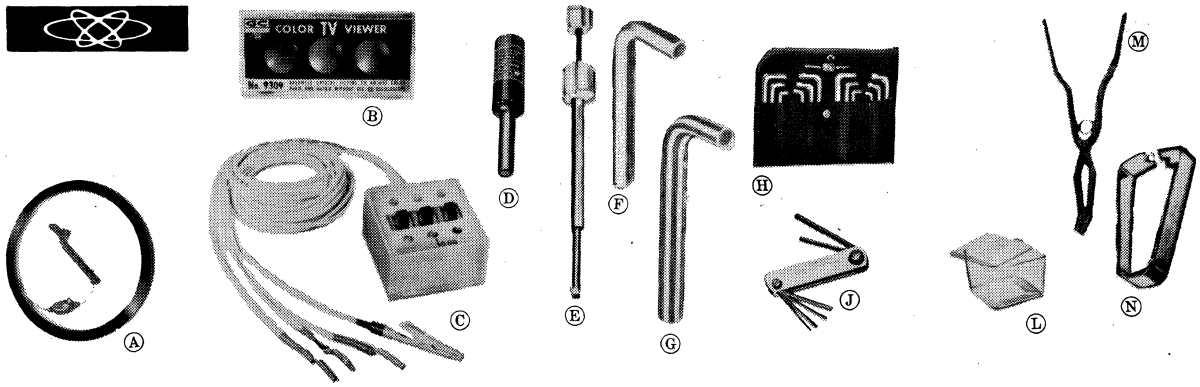
GC ELECTRONICS SERVICE AIDS



(A) DEGAUSSING COIL—For Color TV receivers. The G-C Degaussing Coil serves to demagnetize the magnetic fields set up in the color CRT due to the sensitivity of the tube.
Cat. No. 9317 Net **$17.97**

(B) NEW G-C COLOR TV VIEWER—Has three transparent optical filters sealed in permanent plastic. Simplifies phase and matrix adjustments on color TV sets using a saturated color for signal. Makes adjustments possible in the home.
Cat. No. 9309 Net **$1.50**

(C) G-C COLOR TV TEST BOX—Test color tubes with black-and-white test equipment. Extra long leads allow test box to be placed in front or rear of set.
Cat. No. 9318 Net **$5.10**

(D) G-C COLOR TV CHEATER—A safety device for color TV receiver work. Used when applying Hi-voltage Probe through cheater.
Cat. No. 5650 Net **$ .60**

(E) COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner-drive penetrates to the inside slot.
Cat. No. 9299 Net **$1.33**

(F) G-C HEXAGON KEY WRENCHES KITS and ASSORTMENTS

Cat. No. H1600-F	Plastic Box of 4	Net **$ .60**
5029	Kit 5 Assorted Wrenches in Leatherette Case.	**$1.05**

(G) SPLINE KEY WRENCHES KITS and ASSORTMENTS

Cat. No. H1602-F	Plastic Box of 4	Net **$ .37**
5070	Kit of 6 Assorted Wrenches in Leatherette Case	**.80**

INDIVIDUAL WRENCHES

Cat. No. 5071	No. 4 Set Screw	Net **$ .12**
5071-A	No. 5 Set Screw	**.12**
5072	No. 6 Set Screw	**.12**
5073	No. 8 Set Screw, No. 4 Cap Screw	**.12**
5074	No. 10 Set Screw, No. 5-6 Cap Screw	**.13**

(H) G-C HEX-KEY AND SPLINE WRENCH KIT—A complete wrench kit for both hex and spline type screws. Twelve wrenches in an attractive leatherette case.
Cat. No. 5028 Net **$1.35**

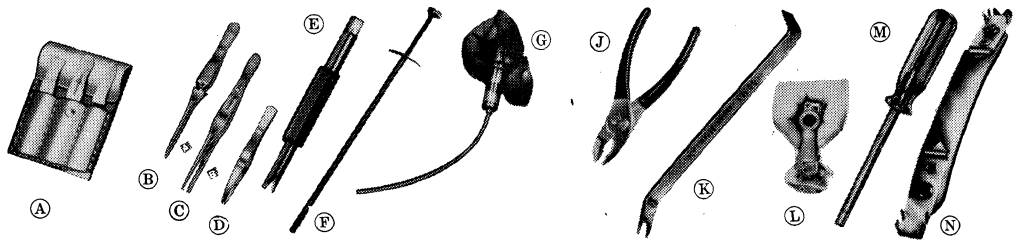
(J) G-C POCKET HEX KEY WRENCH SET— Seven popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.
Cat. No. 9124 Net **$1.83**

(L) G-C PLASTIC BOXES—Clear plastic boxes for stocking small parts, screws, nuts, bolts, condensers, resistors, etc.

Cat. No. 8022	4"x4"x2½" deep	Net **$ .40**
8023	4"x4"x8" deep	Net **$ .77**

(M) G-C LONG NOSE CLAMP PLIERS—Like an extra hand. Spring tension keeps the jaws closed unless handles are squeezed.
Cat. No. 5192 Straight Nose Pliers Net **$ .75**
5193 Curved Nose Pliers Net **$ .82**

(N) G-C TV-RADIO KNOB PULLER—Simply slip the G-C Puller behind the knob and pull it off. Saves time, the cabinet and the knob.
Cat. No. 24-954 Net **$ .30**



(A) G-C TWEEZER KIT—For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.
Cat. No. 7950 Net **$2.28**

(B) G-C TWEEZERS
Cat. No. 7946 6½" Self-closing tweezer opens when squeezed; serrated, blunt points. Net **$ .78**

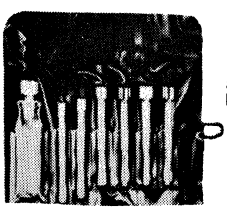
(C) G-C TWEEZERS
Cat. No. 7947 6½" Heavy-duty type, with slide lock feature; holds wires or parts tight like an extra finger; serrated, blunt points. Net **$ .90**

(D) G-C TWEEZERS
Cat. No. 7948 4½" Precision tweezer, narrow pointed ends for delicate work. Net **$ .52**

(E) G-C AUTO RADIO TUNER—A tuner tool to adjust auto radios and turn the controls when the radio is removed.
Cat. No. 8285 Net **$ .30**

(F) G-C HANDY PICK-UP TOOL—One of the handiest tools you can have in your home, shop, office or farm. Tool is 15 inches long.
Cat. No. 5089 Net **$ .98**

1. G-C TV 3-WAY ANTENNA KLIP—Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X Bag of 10 Net **$1.43**



2. G-C INTERCHANGEABLE HEX NUT DRIVER KIT—6 assorted nut drivers in a handy plastic case. Handle is non-inflammable amber plastic with a quick change chuck.
Cat. No. 9206 Net **$3.30**

(G) G-C LONG-REACH TV AND RADIO LUBRICATOR—For radio and TV controls, bearings, phono motors, etc. Buy them by the pair—one for grease and one for light oil.
Cat. No. 8690 Net **$ .53**

(J) G-C NO-JOLT TOOL GRIPS—Modernizes old tools with new safety grip handles. Grease and oil resistant.

Cat. No. 5647	Small No-Jolt Plastic Tool Grips (1 pair)	Net **$ .23**
5648	Medium No-Jolt Plastic Tool Grips (1 pair)	**.27**
5649	Large No-Jolt Plastic Tool Grips (1 pair)	**.33**

(K) G-C PRY-UP TUBE LIFTER—Handy tool for removing tight tubes. Saves the fingers and the tubes.
Cat. No. 9213 Net **$ .30**

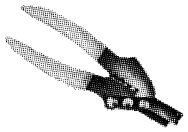
(L) G-C 4-in-1 TUBE GADGET—Four tools in one. Pure rubber, will not break.
Cat. No. 9130 Net **$ .92**

(M) G-C NEW TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **$1.08**

(N) G-C NEW LOW LOSS TV LINE KLIP—A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.
Cat. No. 9055 Net **$ .15**
9055-X Bag of 10 **1.47**

6. G-C DUAL SHEET METAL PUNCH—Punches holes for Tube Sockets and Condensers for hand or power operation. Two punches 7/8" and 1 3/32" for one price.
Cat. No. 9260 Net **$4.93**

7. G-C DUAL SHEET METAL PUNCH JR.—Punch neat, clean holes in chassis for tube sockets, condensers and for mounting other components. For ½" and ¾" holes.
Cat. No. 9261 Net **$3.80**



8. NEW G-C PRECISION 300-OHM TOOL—This specially designed tool cuts, slots, strips and crimps. Has shockproof, oil resistant plastic grips.
Cat. No. 9220 Net **$4.05**

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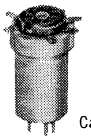
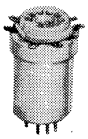
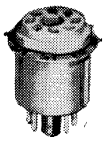


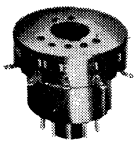
G-C 7-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9247 Net **$1.65**



G-C 9-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9249 Net **$1.87**



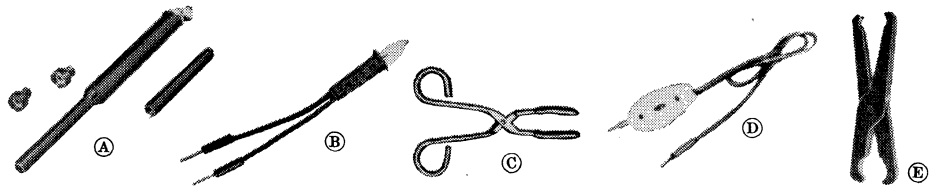
G-C 8-PIN OCTAL TEST SOCKET ADAPTER
Cat. No. 9248 Net **$1.57**



G-C DUO-DECAL TV TUBE TEST SOCKET ADAPTER — Designed for making measurements of voltage, resistance and video from the base of the picture tube. It is inserted between C.R. tube base and its socket.
Cat. No. 9251 Net **$1.95**

G-C TEST SOCKET ADAPTER KIT—This handy kit contains all 4 of G-C's Test Socket Adapters.
Cat. No. 9250 Net **$6.98**

G-C ANGLE ANODE LEAD—A better anode lead with special "Ozone Proof" rubber. Cat. No. 8637 Net **$.42**



(A) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust. Complete kit includes Gun, Adapter for extra long shanks, Adapter for ½-28 thread, and Auto Adapter for 7/16-28 thread.
Cat. No. 9285 Net **$4.50**
Uses G-Control Kleener.
Cat. No. 65-16 16 oz. Bottle Net **$1.95**
65-G 1 Gallon Net **$9.00**

G-C CONTROL GUN—Designed to clean and lubricate noisy volume controls in one sure, fast and easy operation. Gun nozzle fits over the control shaft and screws securely over the control base threads.
Cat. No. 9280 Net **$3.75**

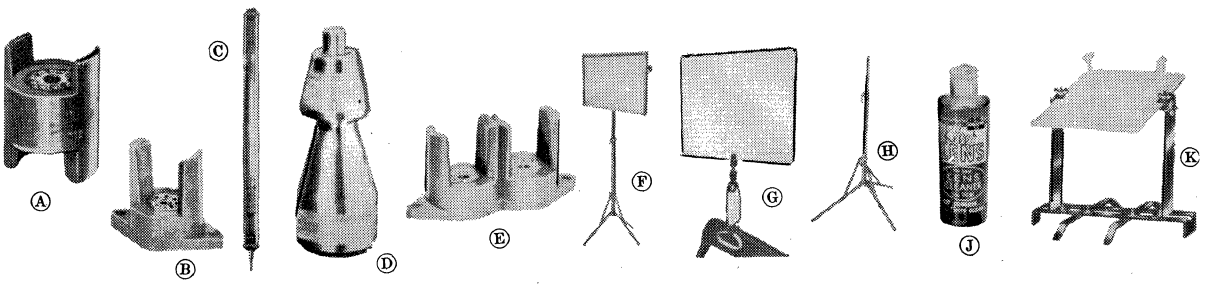
G-C CONTROL GUN ADAPTERS—Aluminum—won't rust when used with normal electronic chemicals.
Cat. No. 9281 To fit control shafts with ½-28 thread. Net **$ .50**
9283 To fit control shafts with 7/16-28 thread. Net **$ .50**
9282 For use on controls with extra long shanks Net **$ .50**

(B) G-C NE-O-LITE—A simple, safe, dependable electrical circuit tester—easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.
Cat. No. 5100 Net **$ .45**

(C) G-C TUBE & PARTS EXTRACTOR—Originally designed by the U. S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.
Cat. No. 5092 Net **$ .98**

(D) G-C DANDY LITE TESTER—Your hand touches the lead to only one side of the line for extra safety. A simple, dependable tester for tracing electrical circuits, grounded lines, shorts, etc.
Cat. No. 8585 Net **$ .82**

(E) G-C SPEEDEX FUSE PULLERS—Inexpensive—non-slip, fuse puller. Safe and handy for cartridge fuses.
Cat. No. 5525 Midget Size—for fuses ¼" to ½" dia. Net **$ .60**
5526 Pocket Size—for fuses ½" to 1½" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts Net **$1.30**



(A) G-C DUAL TUBE PIN STRAIGHTENER—A handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Accurately machined metal inserts on either end of the tool body, each made of hardened metal to assure accuracy and long life.
Cat. No. 9092 Net **$1.27**

(B) G-C MINIATURE TUBE PIN STRAIGHTENER—Precision-constructed steel die, designed for straightening pins on fragile miniature tubes of the 1S5, 6AK5, 9002 variety.
Cat. No. 5191 For 7-pin Min. Tubes (red base) Net **$ .75**
8105 For 9-pin Jumbo Tubes (blue base) Net **$ .75**

(C) G-C TV "HIGH-VOLT" SAFETY PROBE & TESTER—A new handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.
Cat. No. 8836 Net **$2.13**

(D) G-C AMO MINIATURE TUBE PULLER—AMO makes it possible to easily remove or insert miniature tubes such as 6AG5, 50B5, etc. It works on the suction and vacuum principle.
Cat. No. 5093 For 7-Pin Tubes Net **$1.30**
8106 For 9-Pin Tubes Net **$1.30**

(E) G-C DUPLEX TUBE PIN STRAIGHTENER—The handiest tube pin straightener for both miniature and jumbo miniature tubes of the 7- and 9-pin types.
Cat. No. 8655 Net **$1.50**

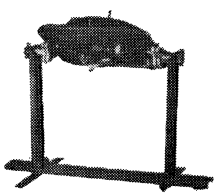
(F) G-C THIRD EYE DELUXE GLASS TV MIRROR—Here's a deluxe TV service mirror for adjusting and servicing TV sets. It is made with an adjustable and collapsible telescoping stand and 12" x 10" glass mirror that avoids distortion of the image.
Cat. No. 8390 Third Eye Mirror, Stand Net **$5.25**
8391 Glass Mirror Only **2.97**
8199 Soft Bag for Mirror **1.05**

(G) G-C TV PORTO MIRROR—TV service mirror for adjusting rear controls and settings of TV sets. Supplied with a rubber lined spring clamp.
Cat. No. 8198 TV Metal Mirror, Spring Clamp Net **$2.70**
8199 Soft Bag for Mirror Net **$1.05**

(H) G-C TELEVISION MIRROR & EXTENSION LAMP COLLAPSIBLE STAND—Handy metal collapsible and adjustable stand for No. 8391 mirror or for clamping on metal mirrors or extension lamps.
Cat. No. 8392 Net **$3.30**

(J) G-C KLEER LENS—A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.
Cat. No. 9081 6-oz. Net **$ .75**

(K) G-C "QUICK-RIG" RADIO-PHONO CHASSIS REPAIR CRADLE—Complete 360° rotation to lock chassis at best working angle. Clamps securely, makeshift setups, all metal.
Cat. No. 5212 Net **$7.50**



G-C PHONO TURNTABLE STAND—Stand raises the turntable about 15 inches above the bench so you can easily look under the mechanism to check it while in operation. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.
Cat. No. 5205 Net **$4.95**

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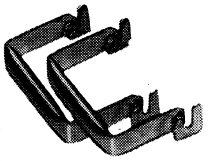
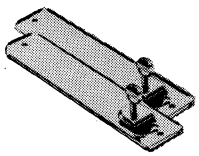
GC ELECTRONICS SERVICE AIDS . . . COMPONENTS

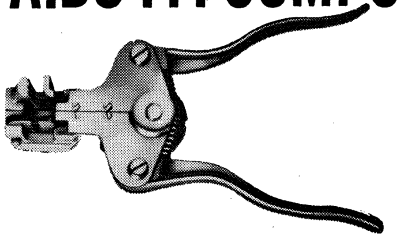


G-C TV CHASSIS SERVICE HANDLES. Here's a safe way of carrying TV Chassis. Handles made of smooth tubular steel simply lock on to chassis as chassis is lifted. Handles will not slip off until released.
Cat. No. 9023 Per Pair Net **$2.13**



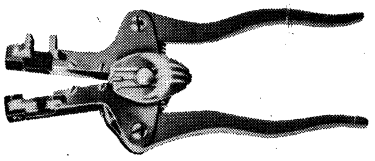
G-C TV CHASSIS SUPPORT. Prop chassis to easy working position on your bench or in the home. Simply slip it on the flange of chassis, tighten thumb screws and tilt chassis to position desired.
Cat. No. 9176 Per Pair Net **$1.80**

SPEEDEX STANDARD WIRE STRIPPER. This is the popular inexpensive Speedex model that will work on 90% fo all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges.



No.	For Sizes Listed Below
733	12 to 20 Wire
733-A	14 to 30 Wire
733-B	10 to 18 Wire
733-C	8 to 10 Wire
733-D	16, 18, 20, 22 Wires
733-E	14, 16, 18 Wires
733-F	10, 12, 14 Wires
733-G	For No. 18 POSJ or Parallel Wire
733-H	For 300 ohm TV and FM twin transmission line
733-I	10, 12, 14, 16, 18, 20, 22 Wire
733-M	10 to 20 Wire
733-N	Straight Cutter Blades

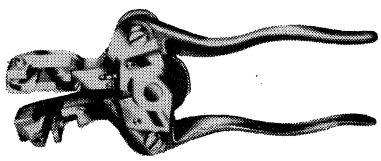
Cat. No. 733 Net **$4.77**



SPEEDEX AUTOMATIC WIRE STRIPPER. Equipped with "Trig-O-Matic" Stay-Open feature. Stay-Open features keeps wires from being crushed.

No.	For Sizes Listed Below
744	12 to 20 Wire
744-A	14 to 30 Wire
744-B	10 to 18 Wire
744-C	8 to 10 Wire
744D	16, 18, 20, 22 Wire
744-E	14, 16, 18 Wire
744-F	10, 12, 14 Wire
744-G	For No. 18 POSJ or Parallel Wire
744-H	For 300 ohm TV and FM twin transmission line
744-1	10, 12, 14, 16, 18, 20, 22 Wire
744-M	10 to 20 Wire
744-N	Straight Cutter Blades

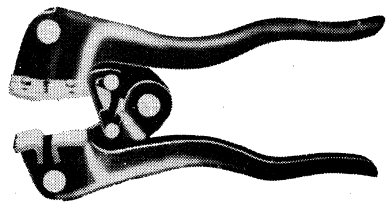
Cat. No. 744 Net **$5.93**



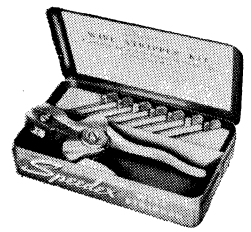
SPEEDEX SPEED-O-MATIC WIRE STRIPPER. Fully automatic delayed return action to prevent crushing fine wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers.

No.	For Sizes Listed Below
766	12 to 20 Wire
766-A	14 to 30 Wire
766-B	10 to 18 Wire
766-C	8 to 10 Wire
766-D	16, 18, 20, 22 Wire
766-E	14, 16, 18 Wire
766-F	10, 12, 14 Wire
766-G	For No. 18 POSJ or Parallel Wire
766-H	For 300 ohm TV and FM twin transmission line
766-I	10, 12, 14, 16, 18, 20, 22 Wire
766-M	10 to 20 Wire
766-N	Straight Cutter Blades

Cat. No. 766 Net **$5.93**

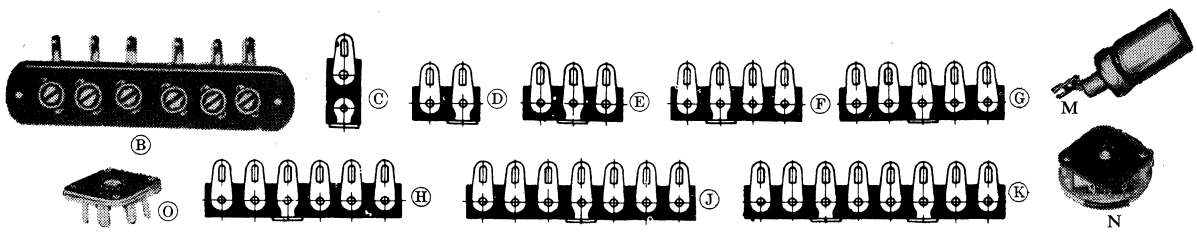


SPEEDEX WHIZ WIRE STRIPPER. All new economy model—a perfect all round general use wire stripper. Precision milled, hardened steel cutters.
Cat. No. 788 3 Hole Blade, Gauges 12 thru 22
788-B 3 Hole Blade, Gauges 10 thru 16
788-D 4 Hole Blade, Gauges 14 thru 24
788-H 300 ohm Blade forT win Lead-In
Cat. No. 788 Net **$3.97**



SPEEDEX WIRE STRIPPER KITS. Kits complete with Wire Strippers and seven different size blades neatly put up in a special permanent plasitc box. Very handy kit for the tool box, home workshop, maintenance and production.
Cat. No. 733-K Standard Stripper Kit Net $ **9.57**
744-K Auotmatic Stripper Kit Net **$11.97**
766-K Speed-O-Matic Stripper Kit Net **$11.97**

ELECTRONIC COMPONENTS



(B) G-C SCREW TYPE TERMINAL STRIPS. Mounted on laminated bakelite strips, rigidly constructed, terminals will not turn and short.

Contacts		
Cat. No. 1772	2	Net $ **.08**
1772-C	(100-1772)	**8.10**
1773	3	**.12**
1773-C	(100-1773)	**10.05**
1774	4	**.15**
1774-C	(100-1774)	**13.20**
1775	5	**.17**
1775-C	(100-1775)	**16.05**
1776	6	**.22**
1776-C	(100-1776)	**19.05**
1777	7	**.25**
1777-C	(100-1777)	**23.85**
1778	8	**.30**
1778-C	(100-1778)	**27.00**
1779	9	**.33**
1779-C	(100-1779)	**30.00**
1780	10	**.37**
1780-C	(100-1780)	**33.45**

G-C STANDARD TERMINAL STRIPS. Insulation 1/16" Thick, 3/8" Spacing.

(C)
Cat. No. 1781 1 Lug Net $ **.03**
1781-C 100 No. 1781 **2.70**

(D)
Cat. No. 1782 2 lugs Net $ **.03**
1782-C 100 No. 1782 **2.70**

(E)
Cat. No. 1783 3 lugs Net $ **.05**
1783-C 100 No. 1783 **2.82**

(F)
Cat. No. 1784 4 lugs Net $ **.05**
1784-C 100 No. 1784 **3.90**

(G)
Cat. No. 1785 5 lugs Net $ **.07**
1785-C 100 No. 1785 **4.50**

(H)
Cat. No. 1786 6 lugs Net $ **.08**
1786-C 100 No. 1786 **4.80**

(J)
Cat. No. 1787 7 lugs Net $ **.13**
1787-C 100 No. 1787 **$8.70**

(K)
Cat. No. 1788 8 lugs Net $ **.15**
1788-C 100 No. 1788 **9.60**

SPECIAL TERMINALS AVAILABLE IN QUANTITIES. SEND PRINTS FOR QUOTATIONS

(M) G-C EXTENSION JACK & CONNECTOR. Special jack used in extending radio antenna cables and phonograph attachments.
Cat. No. 1744 Net $ **.10**
1744-C 100 **$8.93**

(N) G-C HIGH VOLTAGE ANTI-CORONA TV SOCKETS. Eight-prong octal and nine-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.
Cat. No. 9070 8-prong octal Net $ **.53**
9071 9-pin miniature **.53**

(O) G-C 9-PIN MINIATURE WAFER SOCKET. High quality plastic wafer socket, 9-pin type with phosphor bronze contacts. Standard 1 1/8" mounting centers.
Cat. No. 1543 9-pin Wafer Sockets Net $ **.12**
1544 9-pin Wafer Socket with Grounding Strap Net $ **.13**

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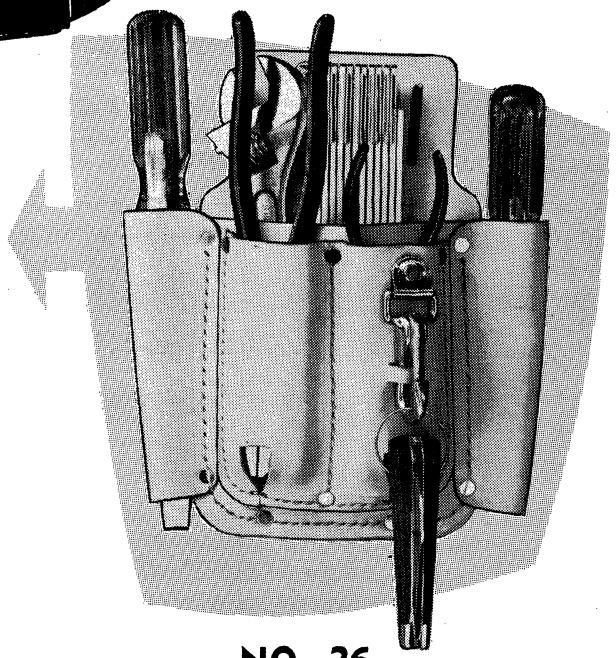
INDUSTRIAL SAFETY BELT CORPORATION

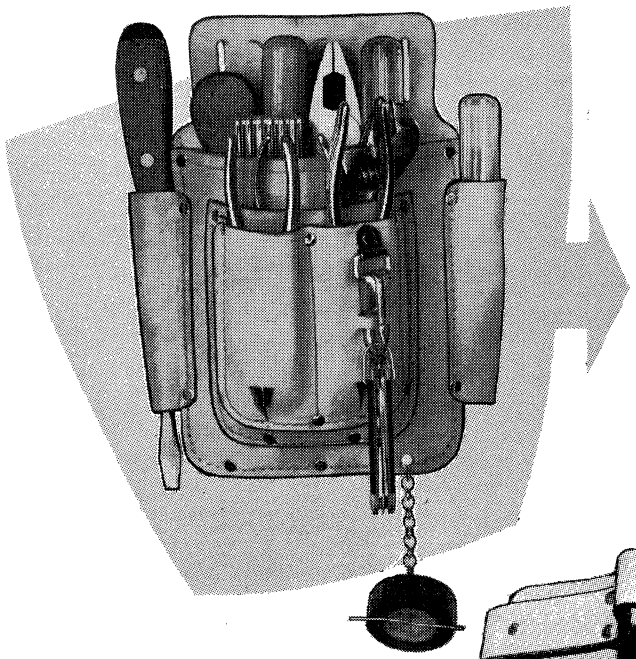
NO. 25
ELECTRICIAN HOLSTERS

5 POCKETS

Stitched with seven cord top quality linen hot wax thread, locked to solid leather back with steel rivets. Pockets made of pliable form fitting Russet Leather.
Special designed snap allows knife to be removed by use of a one hand upward motion. Overall dimensions are: 8 x 9 inches.

No. 25 (Without Tools) **List Price $5.00 each**

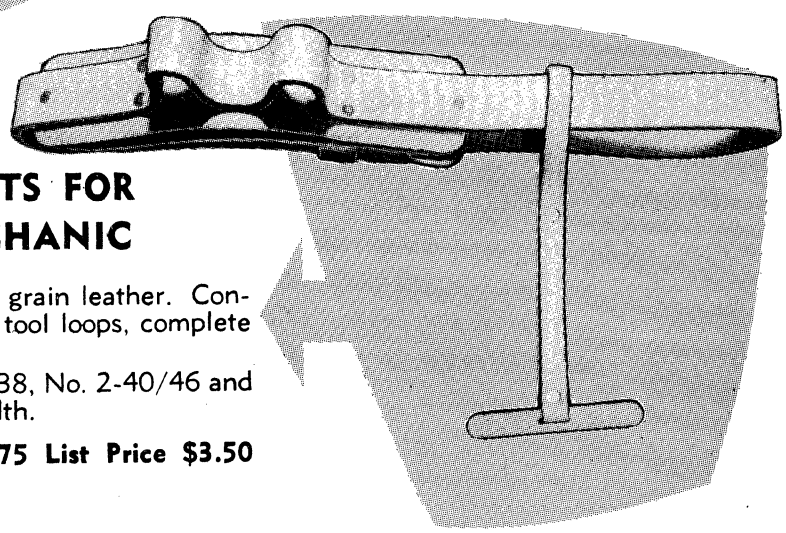




NO. 26
EXTRA LARGE TOOL HOLSTER

Carry all your tools in one . . . 6 pockets, reinforced at 20 points, with steel rivets. Specially Tanned Top Grain Russet Leather, Weighs Only 14 ounces.
Special designed knife snap. Stitched with top quality seven cord, hot wax linen lock-stitch thread. Six pockets.

No. 26 (Without Tools) **List Price $7.50 each**



NO. 175 TOOL BELTS FOR ELECTRICIAN - MECHANIC

Made of extra heavy superb grade full grain leather. Consists of body pad for comfort, and two tool loops, complete with tape holder.
Belt available in three sizes: No. 1-30/38, No. 2-40/46 and No. 3-46/52. Body belt is 1¼" width.

No. 175 List Price $3.50

© U.C.P., Inc.

SOLDERING IRONS

Equipped with Quick, Long-Life Calrod® Heaters

FOR MANUFACTURING AND SERVICE OF RADIO AND ELECTRONIC EQUIPMENT

ASK YOUR GENERAL ELECTRIC DISTRIBUTOR FOR A COPY OF BULLETIN GEC-1545.

HEAVY-PRODUCTION SOLDERING IRONS

(Listed by Underwriters' Laboratories)

6A160 Series — 75 to 140 Watts

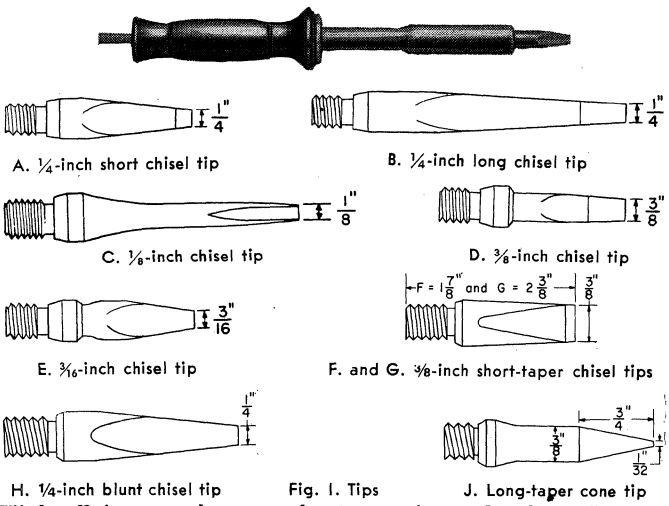


Fig. 1. Tips

Soldering Iron, Less Tip					Renewal Heater†	
Cat. No.	Rating* Volts	Watts	List Price Each‡	Standard Package	Cat. No.	List Price Each‡
6A161	115	75	$14.95	6	6A31	$4.50
6A162	115	100	14.95	6	6A32	4.50
6A162G6	115	110	14.95	6	7C342	4.50
6A162G3	115	125	14.95	6	8A88	4.50
6A162G12	115	140	14.95	6	7C474	4.50

* Also available for 230-volt operation. † Renewal heaters standard package is 6.

Tips				
Cat. No.	Tip Width (Fig. 1)	Type	List Price Each‡	Standard Pkg. Qty.
6808345AAP2	A	Calorized	$1.05	12
6851775P21	A	Ironclad	1.85	12
6808345AAP3	B	Calorized	1.75	12
6851775P22	B	Ironclad	3.55	12
111A4195P2	C	Ironclad	1.75	12
6851732P21	D	Calorized	1.05	12
6851732P22	D	Ironclad	1.85	12
9817171P22	E	Ironclad	1.85	12
111A4196P1	F	Ironclad	2.30	12
111A4196P2	G	Ironclad	2.75	12
40A100466P2	H	Ironclad	2.20	12
125A8448P1	J	Ironclad	1.80	12

Note: All of the interchangeable tips listed above will fit any iron in the 6A161 and 6A162 series.

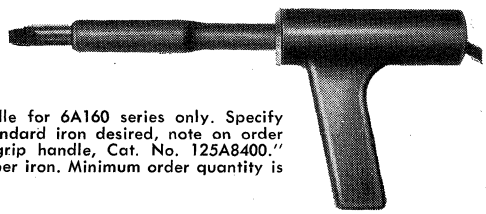
High efficiency and reserve-heat capacity make these General Electric soldering irons well-suited for continuous-production soldering as well as intermittent duty.

Quick, dependable heating provided by General Electric Calrod cartridge heating elements.

Ironclad tips for high-speed repetitive soldering last up to ten times as long as plain copper tips. Ironclad construction combines the fast heat transfer of copper and long wearing qualities of iron.

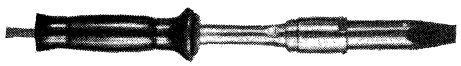
Calorized copper tips—For **ordinary** soldering requirements, these tips will last much longer than plain copper tips.

All copper parts are Calorized—Calorized surfaces retard the harmful effects of high temperature on copper.



Pistol-grip handle for 6A160 series only. Specify Cat. No. of standard iron desired, note on order "Except pistol-grip handle, Cat. No. 125A8400." Add $1.30 List per iron. Minimum order quantity is six.

6A200 Series — 100 to 300 Watts

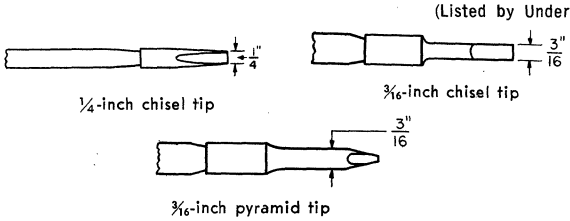


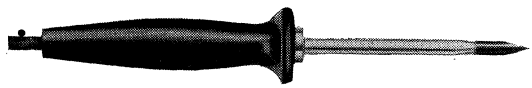
Tip Size and Type	Soldering Iron, Including Tip■ Rating Volts*	Watts	Cat. No.●	List Price Each, ‡	Std Pkg	Renewal Heaters▲ Cat. No.	List Price	Renewal Tips Cat. No.	List Price Each, ‡	Std Pkg
¾-in.—Calorized	115	100	6A200	$18.60	6	6A32	$4.50	6827994P21	$2.75	6
¾-in.—Ironclad	115	100	6A200G7	21.75	6	6A32	4.50	8381902P21	5.00	6
1-in.—Calorized	115	200	6A201	21.85	6	9A77	6.15	6827994P22	4.00	3
1-in.—Ironclad	115	200	6A201G7	24.90	6	9A77	6.15	8381902P22	5.70	3
1¼-in.—Calorized	115	300	6A202	27.09	6	9A78	7.00	6827994P23	6.00	3
1¼-in.—Ironclad	115	300	6A202G7	29.70	6	9A78	7.00	8381902P23	7.70	3

●Includes 6-foot cord.
▲Renewal heaters standard package is 6.
*Also available for 230-volt operation.
■For iron less tip, order Root Cat. No., specify G-11.

MEDIUM-PRODUCTION SOLDERING IRONS

(Listed by Underwriters' Laboratories)





SOLDERING IRON (Complete)* 120 V, 60 W

Cat. No.	Tip Dia. In Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
6A273	¼ Chisel	$14.20	6
6A283	3/16 Pyramid	14.20	6
6A283G23	3/16 Chisel	14.20	6

* Lightweight industrial irons have Ironclad tips only. Price includes 6-foot Type SJ cord.

RENEWAL TIP AND HEATER

Cat. No.	Tip Dia. In Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
6A300	¼ Chisel	$6.95	6
6A301	3/16 Pyramid	6.95	6
6A301G4	3/16 Chisel	6.95	6

TIP ONLY

Cat. No.	Tip Dia. In Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
326A964P21	¼ Chisel	$1.80	12
326A964P22	3/16 Pyramid	1.80	12
166V707P21	3/16 Chisel	1.80	12

Solders easily in tight places because the thin, 5/16-inch diameter shank gets the ¼-inch tip into places a regular iron can't reach.

Reduces operator fatigue—Iron weighs only 8½ ounces, is well balanced and has comfortable handle.

Produces uniformly strong soldered joints because iron's quick heat recovery produces enough heat for hard, continual use.

Saves on maintenance—Fewer interruptions in production result because iron's sturdy construction and long-life ironclad tip eliminates need for frequent repairs.

Tip renewal is easy and inexpensive—Unscrew shank from handle and replace with new, low-cost assembly in seconds. New tips can be brazed to heater assembly if desired.

‡ Manufacturer's suggested resale price.

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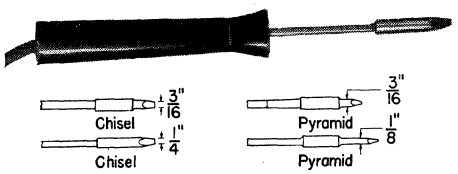
GENERAL ELECTRIC

SOLDERING IRONS

LIGHT TO MEDIUM-PRODUCTION MIDGET SOLDERING IRONS

Midget Irons and parts listed in these tables are new design introduced in May, 1961, and are **not** interchangeable with the former design. For ordering information and prices for replacement parts on the former design, refer to your authorized G-E Distributor.



Improves operator efficiency—Handles like a pencil, weighs only 1¾ oz.
Cuts maintenance costs—Ironclad tips last up to ten times longer than conventional tips.
Increases production—Heater is built into tip for quick heat recovery, fast heat transfer.
Provides greater versatility with four tip sizes.
Tip renewal is easy, fast—Complete tip and heater assembly can be changed in five seconds.

IRONS WITH INTEGRAL TIP AND HEATER

Tip Description	Handle and Cord Set Cat. No.	List Price Each‡	Tip and Heater Assy. Cat. No.	List Price Each‡
½" chisel	6D200	$3.65	6D211	$3.95
⅛" cone	6D200	3.65	6D213	3.95
3/16" pyramid	6D200	3.65	6D215	3.95
3/16" chisel	6D200	3.65	6D217	3.95

NOTE: Handle and Cordset **and** Tip and Heater Assemblies are ordered separately.

IRONS WITH THREADED TIP HOLDER AND INTERCHANGEABLE TIPS

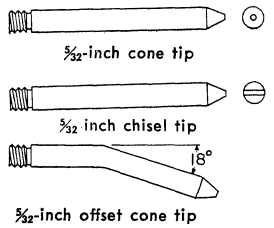
Description	Handle and Cord Set Cat. No.	List Price Each‡	Tip Holder and Heater Cat. No.	List Price Each‡
3" shank	6D200	$3.65	6D219	$3.95
4¼" shank	6D200	3.65	6D219G2	3.95

NOTE: Handle and Cordset **and** Tip Holder and Heater are ordered separately.

THREADED TIPS FOR 6A219 SERIES

Cat. No.	Tip Size (Inches)	List Price Each‡
40A100139P1	5/32 Cone	$0.60
40A100139P2	5/32 Chisel	.60
50A100139P3	5/32 Offset Cone	.60

Material is nickel-plated copper 5/32-inch diameter.



45-WATT TIP AND HEATER ■

Cat. No.	Tip Size (Inches)	List Price Each‡
6A211G31	⅝ Chisel	$4.50

■ Designed especially for users of Midget Irons who have some applications which require greater heat reserve or a higher repetitive soldering rate than can be supported by the standard tip and heater assemblies. Fits standard Midget handle.

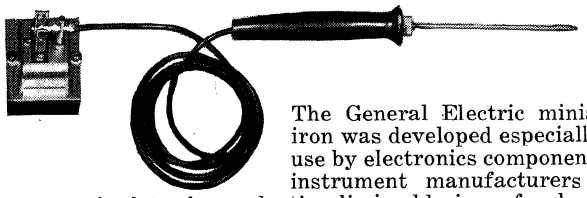
TRANSFORMERS

Three transformer types are available for use with the General Electric Midget irons. The single-heat type provides 35 watts for ordinary requirements. The four-heat type permits a range of heats from 26, 28, 32 and 35 watts by changing the tap connections. Where lower heat is required for printed circuit board or where there are long periods of idling, the three-heat transformer with switch should be used. The LOW heat position provides temperature suitable for printed-circuit soldering. The MEDIUM and HIGH positions supply 28 and 35 watts respectively. The switch provides an easy means for changing heats. With this transformer the iron is completely isolated, thus preventing injury to low-voltage components such as transistors and diodes.

Description	Primary Voltage■	Cat. No.	List Price Each‡	Std Pkg Quantity
Single-heat tap	115	6A362G2	$ 6.90	6
Four-heat tap	115	6A364G2	9.20	6
Three-heat with switch●	115	6A434	17.00	6

■Single- and four-tap transformers are available with 230-volt primary in quantities of 24 or more. Specify catalog number desired and note on order "except with 230-volt primary."
●Use of this transformer requires special cord set with plug. Order catalog number 9218864G8 for handle and cord set, **List Price Each, $4.15.** In addition, order tip and heater assembly desired.

MINIATURE SOLDERING IRONS



The General Electric miniature iron was developed especially for use by electronics component and instrument manufacturers who are required to do production-line soldering of subminiature equipment, printed circuits, and instruments. The Miniature, because it has a tubular heater built into the tip, provides fast, efficient heat to produce uniform joints, with little heat loss to adjacent areas. In addition, the Miniature's ⅛-in. tip and shank will go into congested areas to solder critical points inside the equipment with minimum damage to surrounding insulation, joints, and wiring.

Improves operator efficiency—Weighs less than 1½ oz, reduces operator fatigue, increases production.

Portable—Transformer integral part of cord set, plugs into any standard 115-v outlet.

SOLDERING IRON 6 V, 12 W

Cat. No.	Description	Tip & Heater Dia. (In.)	Shank Length (In.)	List Price Each‡	Std. Pkg. Qty.
6A428G3	Complete iron including tip and heater assembly, 6-ft cord and transformer.	⅛ Chisel	3	$15	6
6A428G4		⅛ Chisel	6	15	6
6A428G7		⅛ Pyramid	3	15	6
6A428G8		⅛ Pyramid	6	15	6
6A428G5	Complete iron, less transformer (includes tip, heater assembly, and 6-ft cord set with terminals).	⅛ Chisel	3	9	6
6A428G6		⅛ Chisel	6	9	6

RENEWAL TIP AND HEATER ASSEMBLY

Cat. No.	Tip Diameter (Inches)	Shank Length (Inches)	List Price Each‡	Std. Package Quantity
6A429G3	⅛ Chisel	3	$5.50	6
6A429G4	⅛ Chisel	6	5.50	6
6A429G5	⅛ Pyramid	3	5.50	6
6A429G6	⅛ Pyramid	6	5.50	6

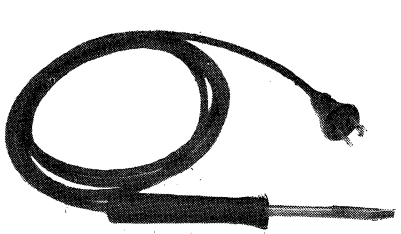
RENEWAL TRANSFORMERS*

Cat. No.	List Price Each‡	Std. Pkg. Qty.
6A430	$7.80	6

* Includes 6-foot integral cord set.

PENCIL SOLDERING IRONS

In August 1961, General Electric introduced a completely new addition to its line. The line is rated 115 volts, 30 and 50 watts, and is comparable in size to the Midget. Included are tip and heater assemblies, and tip holder and heater assemblies with a wide range of interchangeable screw-in tips.
The rugged construction, long life, efficiency and mobility of the irons make them ideally suited to either continuous production line operation, intermittent operation, or maintenance work.
Ask your local G-E Distributor for a copy of GEC-1545.



ACCESSORIES (Minimum Order Quantity is 6)

Three-conductor Cord Set—6-foot length with NEMA standard plug. Specify Cat. No. of standard iron desired, note on order "Except three-conductor cord set with NEMA standard plug, Cat. No. 351A524P21. Add **$1.20** List per iron.

Coiled Cord Set—6-foot extended length, two-conductor with standard plug. Specify Cat. No. of standard iron desired, note on order "Except with coiled cord set, two-conductor, standard plug, Cat. No. 111A4642." Add **$1.75** List per iron.

‡ Manufacturer's suggested resale price.

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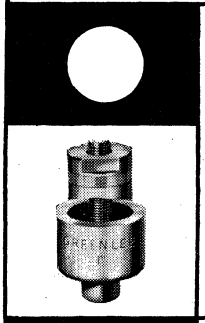
TOOLS FOR CRAFTSMEN

GREENLEE

CHASSIS PUNCHES

ROUND, SQUARE, "KEY," AND "D" TYPES

Greenlee Tool Co., Rockford, Illinois

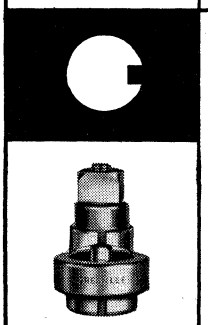


NO. 730 ROUND PUNCH

Swiftly cuts clean, accurate holes in radio chassis for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power . . . just insert in a small drilled hole and turn drive screw. No reaming or filing . . . hole is smooth, perfect. 27 sizes from ½" to 3" diameter. New Ball-Bearing Drive available for even easier, speedier operation.

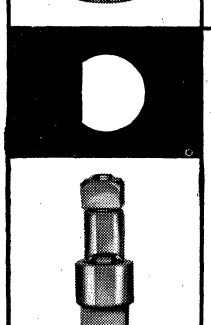
NO. 731 SQUARE PUNCH

Cuts square or oblong openings as desired. Available in five sizes for making ½", 5/8", ¾", ⅞", and 1" square holes. Drive screw fits into ½" hole, which can be drilled or made with ½" No. 730 GREENLEE Round Punch. Operates with an ordinary wrench for drive power. Individually packed.



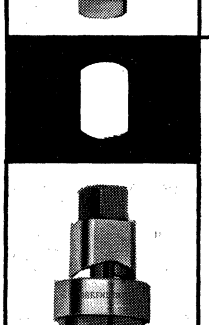
NO. 732 "KEY" PUNCH

Quickly, easily cuts holes for keyed radio sockets. Operates on same principle as other GREENLEE Radio Chassis Punches . . . an ordinary wrench supplies the drive power. In five sizes to make openings of 15/32", 15/16", 1 11/64", 1 17/64", 1 21/64". Drive screw fits into ½" hole. Individually packed.



NO. 733 "D" PUNCH

Simplifies and speeds the work of making "D"-shaped openings for high-frequency, miniature tube sockets and other equipment using this type opening. Available in ½" and 5/8" sizes. Operates on same principle as other GREENLEE Radio Chassis Punches with an ordinary wrench supplying the drive power. Drive screw fits into ⅜" drilled hole. Individually packed.



NO. 734 DOUBLE "D" PUNCH

Quickly makes standard electrical receptacle openings. Cuts standard hole 1⅛" dia. across parallel sides, 1⅜" dia. across rounded ends. Simply insert into a ½" hole and turn with an ordinary wrench. Does the work in less than five minutes . . . eliminates all tedious hand filing . . . gives a smooth, perfect opening.

PRICES . . . Nos. 730, 731, 732, 733, 734

No. 730 ROUND PUNCH

Size	Price	Size	Price
½"	$2.60	1¾"	$5.50
9/16"	2.60	1⅞"	6.85
5/8"	2.60	2"	7.40
11/16"	2.60	2⅛"	11.00
¾"	2.60	2¼"	7.95
13/16"	2.60	2½"	13.00
⅞"	2.60	2¾"	18.00
15/16"	2.85	2 25/32"	12.50
1"	2.85	3"	25.00
1 1/16"	3.00	Following sizes also available with larger drive screw for cutting thicker metals (No. 730X)	
1⅛"	3.00		
1 5/32"	3.00		
1 3/16"	3.00		
1 7/32"	5.50	1⅛"	$5.50
1¼"	3.00	1 3/16"	5.50
1⅜"	3.60	1¼"	5.50
1½"	4.10	1⅜"	6.25
1⅝"	4.85	1½"	7.25

NO. 731 SQUARE PUNCH

Size	Price	Size	Price
½"	4.85	⅞"	$6.55
5/8"	5.00	1"	6.80
¾"	5.70		

No. 732 "KEY" PUNCH

Size	Price	Size	Price
15/32"	5.00	1 17/64"	$6.55
15/16"	5.00	1 21/64"	6.90
1 11/64"	5.80		

No. 733 "D" PUNCH

Size	Price	Size	Price
½"	4.50	5/8"	$4.75

No. 734 DOUBLE "D" PUNCH

Size	Price
1⅛" x 1⅜"	$32.00

Trade Discount Applies to List Prices Only

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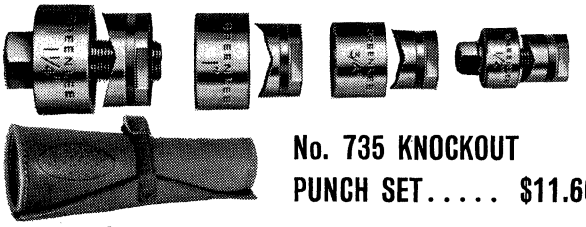
TOOLS FOR CRAFTSMEN

GREENLEE KNOCKOUT PUNCHES AND DRIVERS

Greenlee Tool Co., Rockford, Illinois

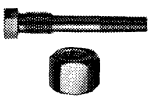


No. 735 KNOCKOUT PUNCH SET..... $11.60

Designed primarily for the electrical trade to permit fast, easy enlarging of knockouts and cutting of holes for conduit in metal boxes and cabinets. Also excellent for automobile work where holes are needed for heater pipes and other accessories. Simply insert the tool in a knockout or small drilled hole and give the screw a few turns with an ordinary wrench. No. 735 set has four punches for cutting ⅞, 1 3/32, 1 11/32, 1 11/16-inch holes for ½, ¾, 1, 1¼-inch conduit. Set is neatly packed in leather case illustrated. Weight, 2½ lb.

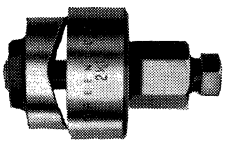
Heavy-Duty Drive for ½" punch..... $1.40

To increase length of service of the ½-inch Knockout Punch in cutting ⅞-inch holes in heavier gauge sheet metals, the No. KR5 Drive Screw with No. KR4 Drive Nut illustrated is recommended. Weight, ¼ lb.



No. 737 KNOCKOUT PUNCH SET..... $12.50

Similar to the No. 735 set, but consists of only two punches for cutting holes to accommodate 1½" and 2" conduit. Packed in leather case. Weight, 3½ lb.



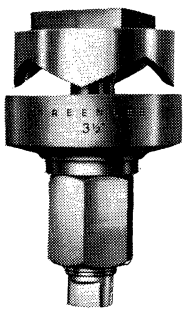
KNOCKOUT PUNCHES

No. 738 for 2½" conduit $16.25
No. 739 for 3" conduit .. $22.00

For cutting holes to accommodate 2½" and 3" conduit. Design is similar to that of smaller GREENLEE Knockout Punches: insert in a knockout or drilled hole and turn drive nut with an ordinary wrench. Packed and sold individually. Weight, No. 738, 4½ lb. No. 739 6½ lb.

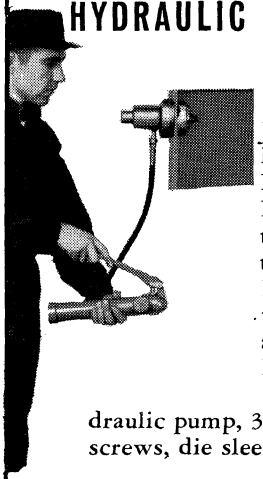
KNOCKOUT PUNCHES

No. 741 for 3½" conduit.. $43.00
No. 742 for 4" conduit.... $53.00
No. 743 for 5" conduit.... $80.00



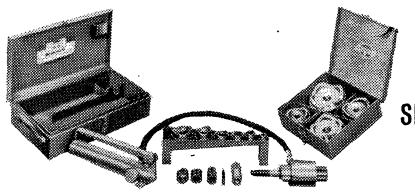
For quickly making smooth openings for 3½", 4" and 5" conduit. Hole is clean, no filing of burrs necessary. Operation is similar to that of other GREENLEE Knockout Punches. Simply insert in hole for 1" conduit and turn drive nut with an ordinary wrench. Weights, No. 741, 10⅜ lb; No. 742, 12⅛ lb; No. 743, 17⅞ lb.

HYDRAULIC PUNCH DRIVER AND SETS



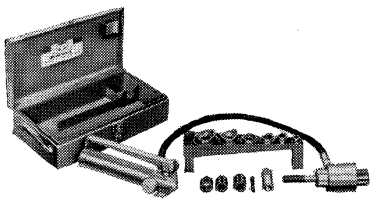
Just a few easy strokes on the handle of the GREENLEE No. 7646A Hydraulic Knockout Punch Driver and the punch slices cleanly through 10-gauge metal. Handy driver develops 11 tons of ram force. Use it with all GREENLEE Knockout Punches for conduit ½" to 5". Comes complete with hydraulic pump, 3-foot hose, one ram, adapter screws, die sleeves, and metal carrying box.

No. 7646 A HYDRAULIC KNOCKOUT PUNCH DRIVER.... $100.00



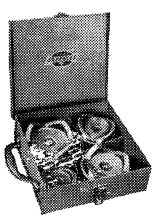
SET No. 7310 $233.50

Hydraulic hand pump, hose, complete drive, and ten punches and dies for ½" through 4" conduit, plus two metal carrying cases.



SET No. 7306 $123.50

Hydraulic pump, six punches and dies for ½" to 2" conduit, plus metal carrying case.



SET No. 7304.... $110.00

Four knockout punches and dies for 2½", 3", 3½", and 4" conduit in metal carrying case.

© U.C.P., Inc.

HEXACON LONG-LIFE SOLDERING TIPS
OUTLAST COPPER TIPS UP TO 20 TO 1

HEXACON

THE WORLD'S LEADING PRODUCER
OVER 1,000 SIZES AND SHAPES

MOST MODERN TIP COATING PLANT
400,000 TIPS CARRIED IN STOCK

ADVANTAGES No filing or costly tip changes because there is no pitting or erosion. Original shape is maintained. Tips always perform "like new"—deliver the same heat consistently for more uniform joints. Overall cost is greatly reduced.

IRON COATED

HEXCLAD—LAST UP TO 10 TIMES LONGER THAN COPPER TIPS

A heavy durable coating of Iron Alloy over copper base on all exposed surfaces. Inserted part also has a protective coating which is sufficiently thin so that good heat transfer to the tip is maintained.

IRON COATED AND IMMUNIZED

XTRADUR—LAST UP TO 20 TIMES LONGER THAN COPPER TIPS

Mult-coated for extra long wear by a new exclusive process which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface at end of tip—prevents creeping of solder into tip hole and spilling of solder on components.

IRON COATED AND IMMUNIZED

DUROTHERM (PAT. PENDING) Non-Freezing Tips

For HI-TEMPERATURE Irons, Anti-corrosion design absolutely prevents tips from sticking. The most wear-resistant yet developed. No need to remove tips daily to prevent sticking. Minimum heat delivery loss. Have XTRADUR multi-coated, immunized features.

BASIC TIP SHAPES—YOUR SPECIAL TIPS QUOTED ON REQUEST—FIT ALL MAKES

HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

DIMENSIONS	STYLE OF POINT	TIP NO.
1/8" x 2 1/4" Fit Iron Nos. 25S, P25, 25H	Pyramid	HT248X
	Chisel, short	HT249X
	Chisel, long	HT376X
	Semi-chisel	HT560X
	Conical, blunt	HT222X
	Conical, sharp	HT331X
	Round, bevel	HT638X
	Conical, TT 1/16"	HT361X
	R. B., TT 1/16"	HT693X
	Conical, bent	HT221X
	RB, groove	HT555X
3/16" x 2 1/4" Fit Iron Nos. 26S, P26, 26H	Pyramid	HT251X
	Chisel, short	HT294X
	Chisel, long	HT195X
	Semi-chisel, N	HT207X
	Semi-chisel, W	HT190X
	Conical, blunt	HT214X
	Conical, sharp	HT281X
	Pyramid, TT 1/8"	HT288X
	Chisel, TT 1/8"	HT290X
	S-Chisel, N, TT 1/8"	HT548X
	Conical TT 1/8"	HT479X
1/4" x 2 1/4" Fit Iron Nos. 24S, P24, 24H	Pyramid	HT325X
	Chisel, short	HT553X
	Semi-chisel, W	HT313X
	Semi-chisel, M	HT397X
	Semi-chisel, N	HT417X
	Conical, blunt	HT418X
	Round, bevel	HT315X
	Conical, S-chisel	HT586X
	Chisel, TT 1/16"	HT691X
	S-chis, Lg, TT 1/8"	HT699X
	Chisel, L, TT 1/8"	HT451X
	Chisel, S, TT 1/8"	HT324X
	Conical, TT 1/8"	HT513X
	Chisel, L, TT 3/16"	HT463X
	S-chis, N, TT 1/8"	HT841X
	Chisel, L, TT 1/8"	HT692X
	Chisel, L, TT 1/8"	HT519X
1/4" x 2 3/4" Fit Iron Nos. P30, 30H	Pyramid	HT252X
	Chisel, short	HT253X
	S-chisel, Wide	HT202X
	S-chisel, N	HT426X
	Conical, sharp	HT131X
	Pyramid, TT 1/8"	HT263X
	Chisel, Sh, TT 1/8"	HT264X
	Chisel, M, TT 1/8"	HT356X
	Chisel, Lg, TT 1/8"	HT685X
	Conical, TT 1/8"	HT452X
	Conical, TT 3/16"	HT580X
	Chisel, TT 3/16"	HT473X
	Round, bevel	HT130X
1/4" x 3" Extra long for P30, 30H Also for competitive makes	Chisel, long	HT468X
	Semi-chisel, W	HT299X
	Semi-chisel, N	HT328X
	S-chisel, N, Lg	HT708X
	Conical, bevel	HT453X
	Chisel, Lg, TT 5/32"	HT234X
	Chisel, Lg, TT 1/8"	HT487X
	Conical groove	HT362X
1/4" x 3 3/4" Extra long for P30, 30H; also for competitive makes	Pyramid, long	HT563X
	Chisel, long	HT188X
	Semi-chisel, W	HT382X
	Conical, blunt	HT414X
	Pyramid, TT 1/8"	HT626X
	S-chis, TT 1/8"	HT698X
	Chisel, Lg, TT 1/8"	HT603X
	Semi-chisel, N	HT391X
	Chisel, Lg, TT 3/16"	HT277X
1/4" x 4" Fit Irons P114, P154, P214	Chisel, long	HT496X
	Semi-chisel, N	HT494X
	Chisel, Lg, TT 3/16"	HT495X
1/4" x 4 1/2" Fit Irons P114, P154, P214	Pyramid	HT258X
	Chisel, short	HT259X
	Semi-chisel, W	HT230X
	Conical, bevel	HT460X
3/8" x 4 9/16" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H	Pyramid	HT255X
	Chisel, short	HT493X
	Chisel, long	HT151X
	Semi-chisel, W	HT231X
	Semi-chisel, N	HT183X
	Conical, sharp	HT108X
	Conical, blunt, Sm	HT114X
	Conical, blunt, M	HT240X
	Conical, blunt, L	HT245X
	Semi-chisel, W	HT374X
	Pyramid, TT 1/4"	HT265X
	Chisel, Sh, TT 1/4"	HT266X
	Chisel, Lg, TT 1/4"	HT335X
	S-chis, W, TT 1/4"	HT177X
	S-chis, N, TT 1/4"	HT577X
	Chisel, Sh, TT 3/16"	HT145X
	S-chis, N, TT 3/16"	HT475X
	Pyramid, TT 1/8"	HT289X
	S-chisel, bent	HT528X
3/8" x 4" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H; Extra long for P70, 70H; Also other makes	Pyramid	HT566X
	Chisel, short	HT198X
	S-chis, Sh, M	HT918X
	S-chis, Lg, N	HT370X
	Semi-chisel, W	HT140X
	Round, bevel	HT430X
	S-chis, N, TT 1/4"	HT319X
	Chisel, N. Sh., TT 1/8"	HT481X
3/8" x 3 3/4" Fit Iron Nos. P70, 70H; Also fit other makes	Pyramid	HT254X
	Chisel, short	HT488X
	Semi-chisel, W	HT129X
	Conical, sharp	HT510X
	Conical, blunt	HT309X
	Conical, S-chis	HT458X
	Ball Point	HT529X
	S-chis, N, TT 1/4"	HT339X
	Chisel, Sh, TT 1/4"	HT581X
	Chisel, Lg, TT 1/4"	HT498X
	S-chis, W, TT 1/4"	HT291X
	Chisel, Lg, TT 3/16"	HT497X
1/2" x 4 9/16" Fit Iron Nos. P151, P212, P151H	Pyramid	HT257X
	Chisel, short	HT293X
	Chisel, short, blunt	HT323X
	Semi-chisel, N	HT163X
	S-chis, Lg, Taper	HT446X
	Pyramid, bent	HT534X
	S-chis, N, TT 3/8"	HT123X
5/8" x 4" Fits Iron No. P125	Pyramid	HT256X
	Chisel, long	HT891X
	Semi-chisel, W	HT178X
5/8" x 4 9/16" Fit Iron Nos. P200, 200H P250	Pyramid	HT260X
	Chisel, long	HT499X
	Semi-chisel, N	HT371X
	Pyramid, TT 3/8"	HT539X
7/8" x 4 3/4" Fit Iron Nos. P300, 300H	Chisel, short	HT261X
	Semi-chisel, W	HT179X
1 1/8" x 5 1/4"	Chisel, Fits No. 500	HT262X

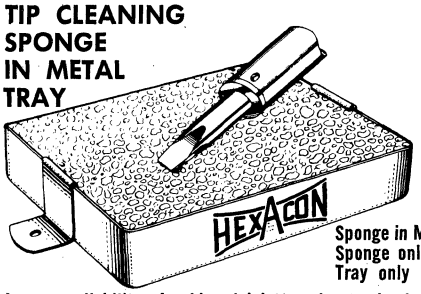
CATALOG NOS. shown are for **XTRADUR.** For **HEXCLAD** drop "X"; for **DUROTHERM** substitute "D" for "X".
ABBREVIATIONS: TT, Turned to; S-chis, Semi-chisel; W, Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel.
SAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SCREW TIPS
All Conventional Semi-chisel Types

DIA.	THREAD	Fits HEXACON Iron No.	TIP NO.
7/16"	1/4-20	50	HT267X
1/2"	5/16-18	60 and 85	HT268X
5/8"	5/16-18	120	HT269X
7/8"	1/2-13	130	HT270X
1"	1/2-13	170	HT271X
1 1/8"	5/8-11	225	HT272X
1 3/8"	5/8-11	350	HT273X
1 5/8"	5/8-11	500	HT274X
1 3/4"	5/8-11	700	HT275X

SOLDERING ACCESSORIES

TIP CLEANING SPONGE IN METAL TRAY



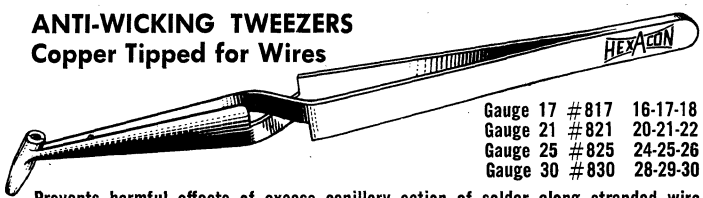
Sponge in Metal Tray #810
Sponge only #8101
Tray only #8102

Insures reliability of soldered joints and extends tip life. Eliminates contamination caused by wiping rags. Pure cellulose sponge contains no harmful acids.

FIBRE SOLDER AID No. 800P

For inspecting, probing, unsoldering and assembly of printed circuits and other components. Non-conductive. Eliminates scratched circuit boards and broken wire strands.

ANTI-WICKING TWEEZERS Copper Tipped for Wires

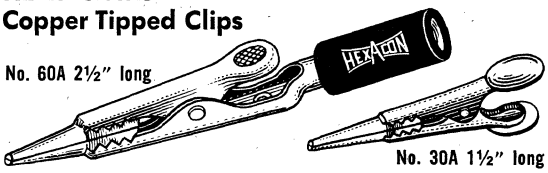


Gauge 17 #817 16-17-18
Gauge 21 #821 20-21-22
Gauge 25 #825 24-25-26
Gauge 30 #830 28-29-30

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation. Order tool number by wire size being used.

HEAT SINKS Copper Tipped Clips

No. 60A 2½" long



No. 30A 1½" long

Protect heat sensitive components such as transistors and diodes from thermal damage.

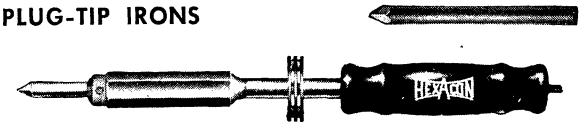
© U.C.P., Inc.

HEXACON ELECTRIC SOLDERING IRONS

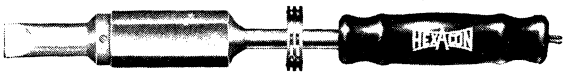
VOLTAGE RANGE: 6 to 250 OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
STANDARD VOLTAGES 110/120, 121/130, 220/250 SPECIFY VOLTAGE ON ORDER

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS



No.	Watts	Tip Dia.	Ship. Wt.	No.	Watts	Tip Dia.	Ship. Wt.
P70	80	3/8"	1 1/8 lb.	P151	175	1/2"	1 5/8 lb.
P100	100	3/8"	1 3/8 lb.	P200	200	5/8"	2 3/8 lb.
P125	130	5/8"	1 5/8 lb.	P250	250	5/8"	2 3/8 lb.
P150	150	3/8"	1 1/2 lb.				



No. P-300 300 WATTS TIP DIA. 7/8" SHIP WT. 3 LB.
No. P-550 550 WATTS TIP DIA. 1 1/8" SHIP WT. 4 3/8 LB.

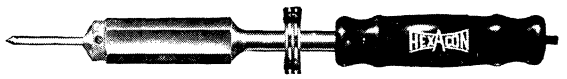
SCREW TIP IRONS

No. 50 50 WATTS TIP DIA. 7/16" SHIP WT. 1 LB.

No. 60 60 WATTS TIP DIA. 1/2" SHIP WT. 1 1/8 LB.
No. 85 90 WATTS TIP DIA. 1/2" SHIP WT. 1 1/8 LB.
No. 120 120 WATTS TIP DIA. 5/8" SHIP WT. 1 3/8 LB.
No. 130 130 WATTS TIP DIA. 7/8" SHIP WT. 1 1/2 LB.
No. 170 175 WATTS TIP DIA. 1" SHIP WT. 2 1/4 LB.

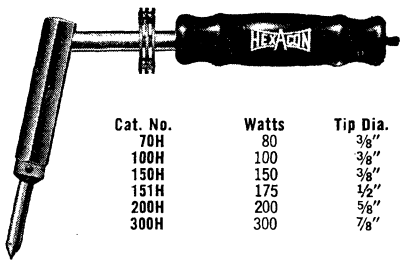
No. 225 250 WATTS TIP DIA. 1 1/8" SHIP WT. 2 3/4 LB.
No. 350 350 WATTS TIP DIA. 1 3/8" SHIP WT. 3 1/2 LB.
No. 500 500 WATTS TIP DIA. 1 5/8" SHIP WT. 4 3/8 LB.
No. 700 700 WATTS TIP DIA. 1 3/4" SHIP WT. 5 5/8 LB.

SUPER-POWERED IRONS HIGHER SPEED SMALLER TIPS



No.	Watts	Tip Dia.	Ship. Wt.	No.	Watts	Tip Dia.	Ship. Wt.
P114	100	1/4"	1 3/8 lb.	P238	200	3/8"	2 1/4 lb.
P154	150	1/4"	1 1/2 lb.	P212	200	1/2"	2 1/4 lb.
P214	200	1/4"	2 1/8 lb.	P338	300	3/8"	2 3/4 lb.

HATCHET TYPE IRONS

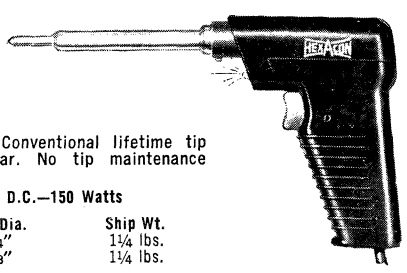


Perfect Balance Less Fatigue See What You Solder

Cat. No.	Watts	Tip Dia.	Ship Wt.
70H	80	3/8"	1 3/8 lbs.
100H	100	3/8"	1 1/2 lbs.
150H	150	3/8"	1 5/8 lbs.
151H	175	1/2"	1 5/8 lbs.
200H	200	5/8"	2 1/4 lbs.
300H	300	7/8"	3 lbs.

FEATHERWEIGHT INSTANT SOLDER GUNS

For intermittent soldering, electrical maintenance, laboratory use, repairing electronic equipment, etc. For shop or home.



Solders in seconds. Conventional lifetime tip cannot bend or wear. No tip maintenance required.

120 Volts, A.C. or D.C.—150 Watts

Cat. No.	Tip Dia.	Ship Wt.
G14	1/4"	1 1/4 lbs.
G148	1/8"	1 1/4 lbs.

SUPER-PENCIL IRONS

HOT TIP **COOL HANDLE**

Weighs only 2 oz. **Short Reach 3"**

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickel-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Cat. No.	Watts	Tip Dia.	Ship. Wt.
25S	25	1/8"	1/2 lb.	26S	30	3/16"	1/2 lb.
25S20	20	1/8"	1/2 lb.	26S35	35	3/16"	1/2 lb.
25S30	30	1/8"	1/2 lb.	26S40	40	3/16"	1/2 lb.
25S35	35	1/8"	1/2 lb.	26S50	50	3/16"	1/2 lb.
25S50	50	1/8"	1/2 lb.				

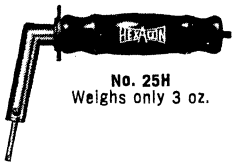
FASTEST AND MOST DURABLE PENCIL IRON. Weighs but 2 oz.

24S*	50	1/4"	1/2 lb.	24S60*	60	1/4"	1/2 lb.
24S*	40	1/4"	1/2 lb.				

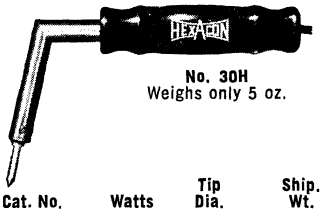
*Standard equipment XTRADUR LONG-LIFE TIP

BANTAM HATCHET IRONS

PERFECT BALANCE **FOR INACCESSIBLE PLACES**



No. 25H
Weighs only 3 oz.



No. 30H
Weighs only 5 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Cat. No.	Watts	Tip Dia.	Ship. Wt.
25H	25	1/8"	1/2 lb.	24H	50	1/4"	1/2 lb.
25H35	35	1/8"	1/2 lb.	24H40	40	1/4"	1/2 lb.
25H50	50	1/8"	1/2 lb.	24H60	60	1/4"	1/2 lb.
26H	30	3/16"	1/2 lb.	30H**	60	1/4"	1/2 lb.
26H35	35	3/16"	1/2 lb.	30H40**	40	1/4"	1/2 lb.
26H50	50	3/16"	1/2 lb.	30H50**	50	1/4"	1/2 lb.
				30H70**	70	1/4"	1/2 lb.
				30H75**	75	1/4"	1/2 lb.

**Extra 1/8" tip furnished with each iron.

PINPOINT SOLDERING IRONS

(Weigh Only 3 oz.)

FOR PINPOINT ACCURACY ON PRECISION SOLDERING

Long Reach 4 1/2"

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Cat. No.	Watts	Tip Dia.	Ship. Wt.
P25	25	1/8"	1/2 lb.	P24	50	1/4"	1/2 lb.
P2530	30	1/8"	1/2 lb.	P2440	40	1/4"	1/2 lb.
P2535	35	1/8"	1/2 lb.	P2460	60	1/4"	1/2 lb.
P2550	50	1/8"	1/2 lb.				
				P30**	60	1/4"	1/2 lb.
P26	30	3/16"	1/2 lb.	P3040**	40	1/4"	1/2 lb.
P2635	35	3/16"	1/2 lb.	P3050**	50	1/4"	1/2 lb.
P2640	40	3/16"	1/2 lb.	P3070**	70	1/4"	1/2 lb.
P2650	50	3/16"	1/2 lb.	P3075**	75	1/4"	1/2 lb.

**Extra 1/8" tip furnished with each iron.

3-CONDUCTOR CORD (with ground wire)
Safe For Transistor Circuits

Ground wire contact screw standard equipment on all HEXACON Irons, facilitates a change-over to 3-conductor grounded cord at any time without returning irons to factory.

All irons are available factory equipped with 3-wire cord and 3-wire plug; or less plug with ends stripped ready for assembly to your own plug.

Also 3-wire cords with or without plug may be ordered separately for installation by user.

Unless otherwise specified 3-wire cord sets with moulded on plug will be furnished.

All standard 3-wire plugs available, to be attached to cord.

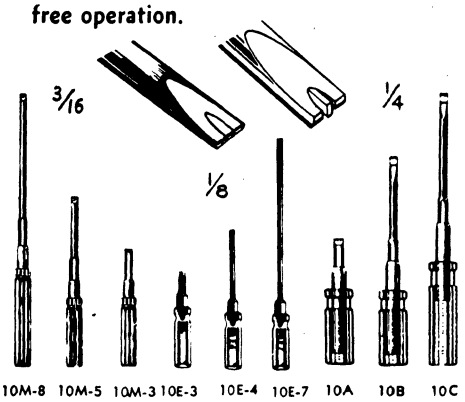
© U.C.P., Inc.

ELECTRONIC TOOLS

HUNTER TOOLS ...the name to watch

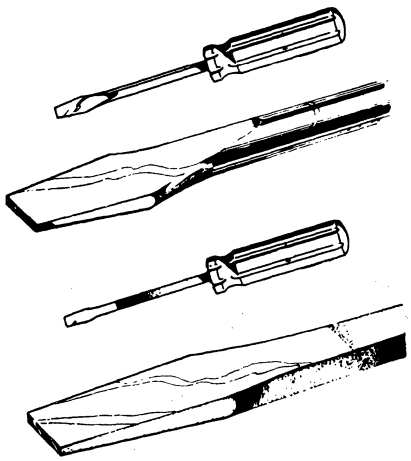
MAGIC-TIPS

One tool starts the screw and drives it. To operate one merely places the tip of the Magic-Tip in the slot of the screw and pushes gently . . . the screw becomes firmly fastened to the blade—easy to start even in places inaccessible to the fingers. No bulky claws to get in the way because the mechanism is internal and fully automatic. Hardened steel locking pin, tough chromoly steel tip, plus sturdy OVER ALL construction assures long trouble-free operation.



Stock #	Overall Length	Width of Point	Thickness of Point	Slot Fits Screw	Diam. Handle	Blade Length	List
10 E-3	2½"	1/8"	.017	#00 to #2	9/16"	1"	$2.05
10 E-4	4"	1/8"	.017	#00 to #2	9/16"	2¼"	2.05
10 E-7	7"	1/8"	.017	#00 to #2	9/16"	5¼"	2.30
10 M-3	3½"	3/16"	.030	#3 to #6	9/16"	½"	1.80
10 M-5	5¼"	3/16"	.030	#3 to #6	9/16"	2¾"	2.00
10 M-8	8¼"	3/16"	.030	#3 to #6	9/16"	4¾"	2.30
10 M-12	11¼"	3/16"	.030	#3 to #6	9/16"	7½"	2.65
10 A	4"	¼"	.038	#6 to #10	⅞"	¾"	1.95
10 B	6¼"	¼"	.040	#7 to #10	⅞"	3¼"	2.30
10 C	7½"	¼"	.040	#7 to #10	⅞"	3¾"	2.50
10 D	11¼"	¼"	.040	#7 to #10	⅞"	7"	2.90

SCREWDRIVERS



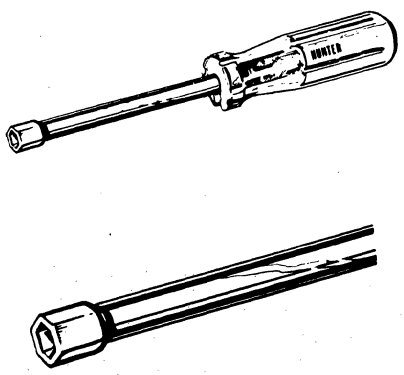
Round Blades

Stock #	Blade Size	List
14	1/8" x 2"	$ .36
14A	1/8" x 3"	.42
14B	3/16" x 4"	.70
14C	3/16" x 6"	.80
14D	3/16" x 8"	.88
14E	3/16" x 10"	.95
14F	1/4" x 1¼"	.70
14G	1/4" x 4"	.92
14H	1/4" x 6"	1.00
14I	1/4" x 8"	1.10
14J	#1 Recess	.86
14K	#2 Recess	.96
14L	#3 Recess	1.24
14M	#0 Phillips	.98
14N	#1 Phillips	1.10
14P	#2 Phillips	1.20

Square Blades

Stock #	Blade Size	List
15	1/8" x 2"	$ .68
15A	1/8" x 3½"	.76
15B	1/8" x 5½"	.80
15C	3/16" x 2"	.96
15D	3/16" x 4"	1.00
15E	3/16" x 6"	1.08
15F	3/16" x 8"	1.20
15G	1/4" x 1½"	1.08
15H	1/4" x 4"	1.20
15I	1/4" x 6"	1.30
15J	1/4" x 8"	1.44
15K	1/4" x 10"	1.48
15L	5/16" x 4½"	1.52
15N	5/16" x 8½"	1.64
15P	3/8" x 6½"	1.90
15Q	3/8" x 10"	2.26
15M	5/16" x 6½"	1.55

NUTDRIVERS



Regular Shaft

Stock #	Hexagon Size	Color	List
20	3/16"	Black	$ .98
20A	7/32"	Red	.98
20B	1/4"	Yellow	.98
20C	9/32"	Green	.98
20D	5/16"	Blue	.98
20E	11/32"	Brown	.98
20F	3/8"	Orange	.98

Hollow Shaft

21	3/16"	Black	1.20
21A	7/32"	Red	1.20
21B	1/4"	Yellow	1.20
21C	9/32"	Green	1.20
21D	5/16"	Blue	1.20
21E	11/32"	Brown	1.20
21F	3/8"	Orange	1.20

Economy Champ Nut Drivers

Stock #	Hex Size	Overall	List
23	3/16"	6"	$ .78
23A	7/32"	6"	.78
23B	1/4"	6"	.78
23C	9/32"	6"	.78
23D	5/16"	6"	.78
23E	11/32"	6"	.78
23F	3/8"	6"	.78

Pocket Nut Driver

Only 3½" overall in size — fits your shirt pocket. Has handy clip.

Stock #	Size	List
22	1/4"	$ .66
22A	3/16"	.66
22B	5/32"	.66

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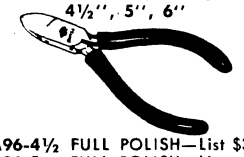
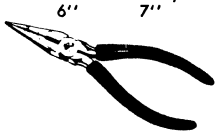
PART OF AMERICA'S MOST COMPLETE LINE

DIAGONAL CUTTING
4½", 5", 6"



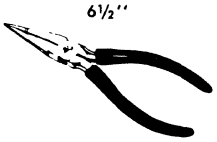
A96-4½ FULL POLISH—List $3.85
A96-5 FULL POLISH—List 4.05
A96-6 FULL POLISH—List 4.50

LONG CHAIN NOSE W/CUTTER
6" 7"



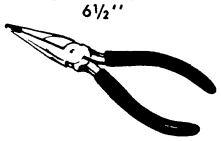
A61-6 FULL POLISH—List $4.25
A61-7 FULL POLISH—List 4.90

LONG CHAIN NOSE
6½"



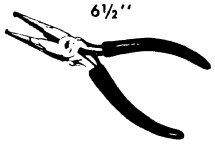
A8 FULL POLISH—List $3.68

RADIO AND IGNITION
6½"



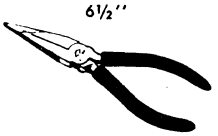
A2 FULL POLISH—List $5.15

TRANSVERSE FLUSH END-CUTTING WITH LEAF SPRING
6½"



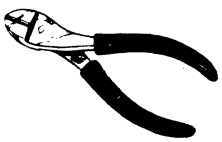
A7L FULL POLISH—List $4.95

LONG REACH FLAT NOSE
6½"



A9 FULL POLISH—List $3.62

DIAGONAL CUTTER

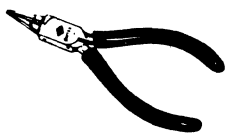


Stock #A87-4½—List $4.95

CHAIN NOSE

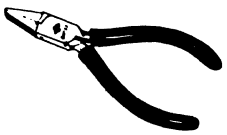
Stock #A17-4½—List $3.10

ROUND NOSE



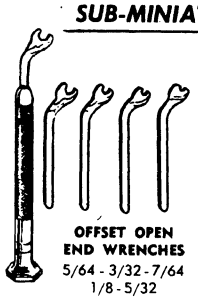
Stock #A16-4½—List $3.40

FLAT NOSE



Stock #A15-4½—List $3.35

SUB-MINIATURE TOOLS

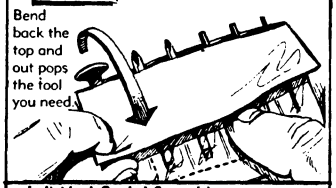


OFFSET OPEN END WRENCHES
5/64 - 3/32 - 7/64
1/8 - 5/32

In New 'Pop-Out' Kit

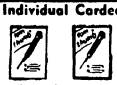
Stock #	List
K24	$2.50

ALL SUB-TOOLS PACKAGED IN THIS NEW **'POP-OUT' KIT**

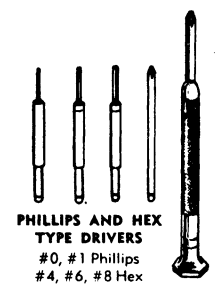


Bend back the top and out pops the tool you need.

Individual Corded Screwdrivers



	Stock #	List
SMALL	24N	$ .68
FINE	24P	.68

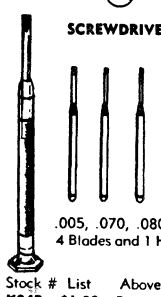


PHILLIPS AND HEX TYPE DRIVERS
#0, #1 Phillips
#4, #6, #8 Hex

In New 'Pop Out' Kit

Stock #	List
K24A	$2.50

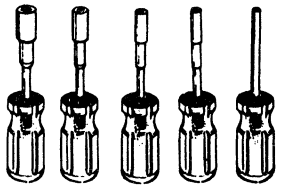
SCREWDRIVERS



.005, .070, .080, .100
4 Blades and 1 Handle

Stock #	List	
K24B	$1.98	Above in Pop-up Kits

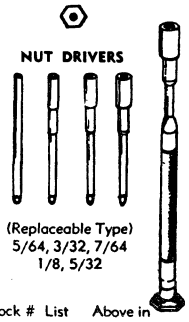
NUT DRIVERS WITH HANDLES



Stock #	Size	Stock #	Size
24C	5/64	24F	1/8
24D	3/32	24G	5/32
24E	7/64	24H	Set

Card of one complete set—**24H**—List $4.50

NUT DRIVERS

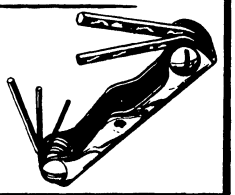


(Replaceable Type)
5/64, 3/32, 7/64
1/8, 5/32

Stock #	List	
K24I	$3.50	Above in Pop-up Kits

SPECIALTY NUMBERS!!!

"SMITTY" FOLDING SOCKETHEAD WRENCH SETS



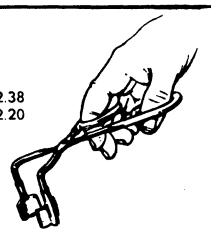
IP6—Small set .050-5/32"
6 Blades, List **$1.55**
IP5—Medium Set 3/32"-7/32"
5 Blades, List **$1.55**

HEX DRIVERS

Stock #	Size	List
5	— 050	$ .65
5A	— 1/16	.65
5B	— 5/64	.65
5C	— 3/32	.75
5D	— 1/8	.75

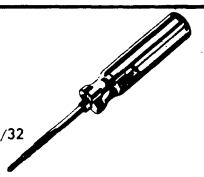
K5N—All of the above kit—**$3.95**

HOT TUBE PULLERS



Stock #		
57A	—90° Angle	List $2.38
57	—Straight	List 2.20

"TRI-TAP"
Three Popular Size Taps in One Tool



47A — List $2.50
6/32, 8/32, 10/32

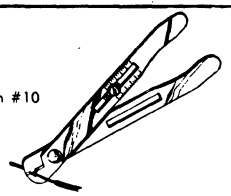
PANAVISE

Height 6½", Width 5½", Jaw Width 2½", Opening 2"
62 —List $14.95

ATOM
3-IN-1 NUT DRIVER

#8 (¼) - #10 (5/16) - #12 (3/8)
55 List $1.69

"WIRE-STRIPPER"

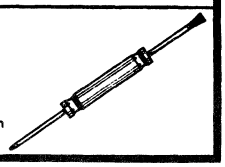


Strip-It for any size wire from #10 to #20.
55A List $1.16

TENSION-TWEEZIE

Permanent tension.
56 —Tweezie Only List $ .50
56A—Tweezie with Handle List .70

SOLDER-AID TOOLS
FORK and BRUSH



51A—List $1.20—Shown.
51 —List $1.20—Same as above only small curved hook in place of brush.

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IDEAL WIRE STRIPPERS

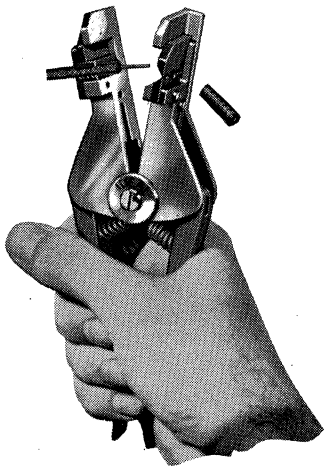
FOR ALL TYPES OF THERMO-PLASTIC INSULATIONS . . . EVEN TOUGH TEFLON*

IDEAL Wire Strippers, both hand and production models, are engineered with unique design features that speed up and simplify the stripping of most types of insulation.

IDEAL Stripmaster®

2 SECOND "ONE SQUEEZE" OPERATION

Unexcelled for fast assembly work, this 10 oz. stripper can be used all day without fatigue. Exclusive "automatic" feature holds jaws open after stripping to permit removal of wire and to prevent crushing. No nicking, fraying, or cutting of wire ends possible. 7 models for all wire gauges from 8 to 30.

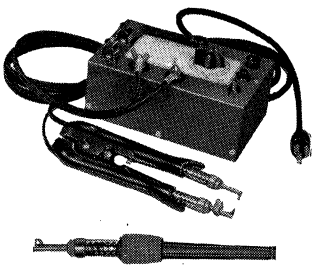


MODELS FOR ALL WIRE GAUGES — FROM 8 TO 30

Catalog No.	Wire Gauge	No. of Holes	List Price◆	Suggested Resale
45-090	8 to 12	3	$9.60	$5.75
45-091	10 to 18	4	9.60	5.75
45-092	10 to 22	6	9.60	5.75
45-093	14 to 22	4	9.60	5.75
*45-095	16 or 18, and POSJ	-	9.60	5.75
45-097	16 to 26	6	9.60	5.75
45-098	20 to 30	6	9.60	5.75

*Also strips 2 and 3-conductor low-voltage wire used in G.E. and Touchplate remote control wiring systems.

New THERMO-STRIP • CANNOT HARM WIRE



Damage-Free Removal of All Thermo-Plastic Insulation—Even Teflon*

For critical stripping where *no* wire damage is permissible. Melts and removes insulation without nicking, cutting or scraping wire. Choice of tools: plier-type Pincer Tool for all normal production use; probe-type Single Loop Tool for miniaturized or crowded assemblies. Heavy-duty power unit can be run continuously, has infinitely variable heat control, heats elements immediately.

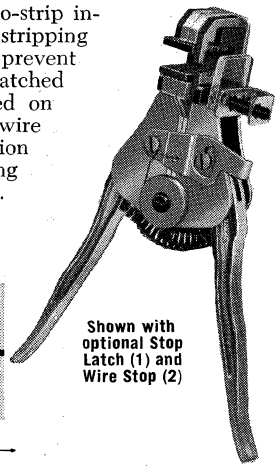
Cat. No.	Item	List Price	Sugg. Resale
45-130	Pincer Tool & Power Unit	$112.00	$67.20
45-131	Single Loop Tool & Power Unit	93.35	56.00
45-133	Power Unit Only	75.75	45.45
45-140	Pincer Tool Only	36.15	21.70
45-141	Single Loop Tool Only	17.50	10.50

IDEAL CUSTOM Stripmaster®

Patented No. 2,889,728

FOR PRECISION WIRE STRIPPING

Removes Teflon* and other hard-to-strip insulation. New "concentric hole" stripping blades and special design of jaws prevent damage to insulation and wires. Matched sets of blades are precision drilled on watchmaker's equipment to exact wire sizes. Chucking action on insulation guides conductor through stripping hole, preventing nicks and scrapes. 3 models, wire sizes from 10 to 30.

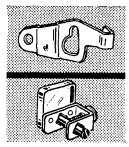


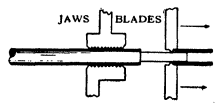
Shown with optional Stop Latch (1) and Wire Stop (2)

EXTRA FEATURES (optional)

"SHORT-STOP" LATCH protects wire by limiting stroke to 5/32" – disengages without removal for full 7/8" strip.

"SEE-THRU" WIRE STOP assures uniform lengths by adjusting to strip length desired.



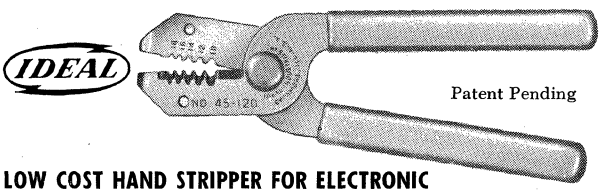


Counterbored stripping hole "chucks" insulation

FOR GENERAL PURPOSE STRIPPING OF PLASTIC, FIBRE GLASS AND OTHER HARD-TO-STRIP INSULATIONS

WIRE GAUGE	NO. OF HOLES	CATALOG NO. (without stop latch and wire-stop)	CATALOG NO. (with stop latch and wire-stop)
		List $28.25 Suggested Resale $16.95	List $34.60 Suggested Resale $20.75
10 to 14	3	45-170	45-180
16 to 26	6	45-171	45-181
26 to 30	3	45-172	45-182
FOR TYPE EE — 1000 VOLT TEFLON* WIRE			
10 to 14	3	45-173	45-183
16 to 26	6	45-174	45-184
26 to 30	3	45-175	45-185
FOR TYPE E — 600 VOLT TEFLON* WIRE			
10 to 14	3	45-176	45-186
16 to 26	6	45-177	45-187
26 to 30	3	45-178	45-188

*Reg. Trademark of DuPont



Patent Pending

LOW COST HAND STRIPPER FOR ELECTRONIC AND APPLIANCE PRODUCTION STRIPPING

For quick, easy, clean stripping of wires used in electronic instruments and appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. Comfortable plastic grips for sure handling and safety.

	Cat. No.	List	Sugg. Resale
T-5 MODEL, strips 10, 12, 14, 16 and 18 gauge wires	45-120	$3.25	$1.95
T-6 MODEL, strips 16, 18, 20, 22, 24 and 26 gauge wires	45-121	$3.75	$2.25

IDEAL INDUSTRIES Inc., Sycamore, Illinois

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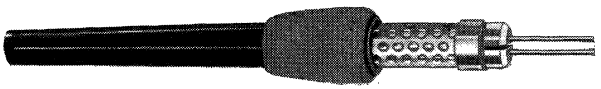
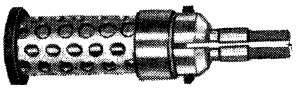
RESISTANCE SOLDERING TOOLS IDEAL

COMPLETE THERMO-TIP ATTACHMENTS AND POWER UNITS



"Pencil" Type attachment with double metal electrodes. "Feed-thru" electrodes, adjustable for length.

Cat. No. 12-167 with double metal electrodes. List Price $17.50 ◆ Suggested Resale $10.50.



DOUBLE CARBON ATTACHMENTS

Carbons provide more heat than metal tips. Available in two sizes — 1/8" for small work, 3/16" for larger work.

Cat. No. 12-166 Pencil Grip with 1/8" carbons. List Price $17.50 ◆ Suggested Resale $10.50

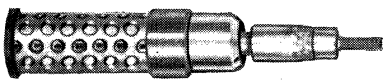
Cat. No. 12-165, Pencil Grip with 3/16" carbons. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. 12-176 Pistol Grip with 1/8" carbons. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. 12-175 Pistol Grip with 3/16" carbons. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. L-4866 3/16" dia. replacement carbons for **12-165** and **12-175**, six per pkg. Shipping wt., 2 oz. List Price $2.00 ◆ Suggested Resale $1.20.

Cat. No. L-4848 1/8" dia. replacement carbons for **12-166** and **12-176**, six per pkg. Shipping wt., 2 oz. List Price $1.10 ◆ Suggested Resale $.65.



SINGLE CARBON ATTACHMENTS

Collet chuck holds feed-thru carbon. Permits adjustment. Complete with ground-clamp and lead assembly for jig-soldering.

Cat. No. 12-168 Pencil grip. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. 12-178 Pistol grip. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. L-5202 Replacement Carbons 1/8"x3" for **12-168** and **12-178**, packaged 6 per tube. Shipping wt., 2 oz. List Price $3.75 ◆ Suggested Resale $2.25.

FOOT SWITCH Cat. No. 12-146

List Price $11.35 ◆ Sugested Resale $6.80

Used to eliminate arcing at point of electrode contact. Also permits the use of electrodes to position or hold work after heat has been applied. Small and convenient to use (3⅝" dia. x 1⅛" high). Wired normally open (with series plug). Rated 5 amps., 115V. Shipping Wt., 12 oz.

CHISEL TIP IRONS

Cat. No. 12-151 Handle and Lead Assembly. List Price $7.40 ◆ Suggested Resale $4.45.

Cat. No. 12-144 1/4" Chisel-Tip. List Price $12.15 ◆ Suggested Resale $7.30.

Cat. No. 12-143 — 1/8" Chisel-Tip. List Price $12.15 ◆ Suggested Resale $7.30.

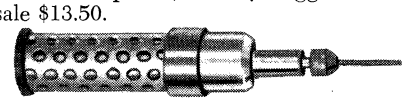
Rapid heating characteristics and corrosion-resistant special plating provide long life. Irons are locked into handle with set screws. Resistance element in the iron provides continuous, controlled heat.

NOTE: Handle assembly and Irons are sold separately.

Lightweight, Resistance Soldering Tools especially designed for faster, positive production soldering of miniature and subminiature parts. All attachments available with either "Pencil" or "Pistol-Grip" type handles. Complete with 5' cord. Soldering Irons with "Pencil" type handle only.

"Pistol-Grip" attachment. Double metal electrodes are feed-thru type, adjustable for length.

Cat. No. 12-177 with double metal electrodes. List price $22.60 ◆ Suggested Resale $13.50.



SINGLE METAL ATTACHMENT

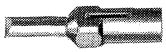
Collet chuck holds feed-thru electrode. For smallest work. Complete with ground clamp and lead assembly for jig-soldering.

Cat. No.12-169 Pencil grip. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. 12-179 Pistol grip. List Price $17.50 ◆ Suggested Resale $10.50.

Cat. No. L-5241 Replacement Electrodes for **12-169** and **12-179**, packaged 6 per tube. Shipping wt., 2 oz. List Price $.85 ◆ Suggested Resale $.50.

REPLACEMENT CARBON HOLDERS

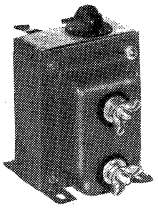


Cat. No. L-5246 — 3/16" Dia. List Price $1.10 ◆ Suggested Resale $.65.

Cat. No. L-5247 — 1/8" Dia. List Price $.60 ◆ Suggested Resale $.35.

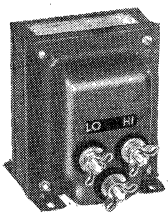
Provides easy replacement of only part attacked by corrosive fluxes. Holders can be used interchangeably with either the 12-165, 12-166, 12-175 or 12-176, depending on diameter of carbons desired.

POWER UNITS



125-Watt Power Unit. **Cat. No. 12-124**
List Price $30.35 ◆ Sug. Resale $18.20

For light production and intermittent work. Selector switch for choice of three heats. Complete with power cord and clip for holding pencil style attachments. 115V — 60 cy.



250-Watt Power Unit. **Cat. No. 12-123**
List Price $40.85 ◆ Sug. Resale $24.50

For heavier production work. Faster. Handles larger components than 12-124. Choice of two heats through "high" and "low" secondary connections. Complete wih power cord. 115V — 60 cy.

500-Watt Power Unit
Cat. No. 12-163
List Price $72.35
Suggested Resale $43.40

For continuous production work. Widest selection of heats — nine choices through 3-position selector switch plus "high", "medium" and "low" secondary terminals. Complete with power cord and pilot light. 115V — 60 cy.

IDEAL INDUSTRIES, Inc. Sycamore, Illinois

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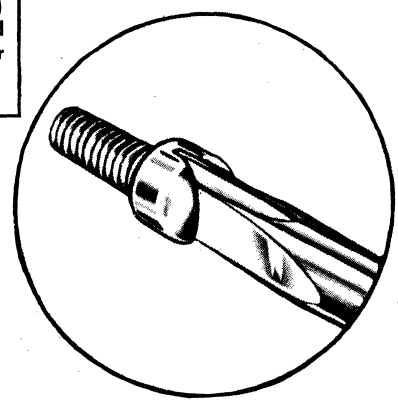
Quick-Wedge SCREW-HOLDING Screwdrivers

14 DIFFERENT SIZES — A SIZE FOR EVERY JOB!

Holds — Starts — Drives the Screw — America's Handiest!

ELECTRICAL SIZES

Any of the 14 sizes (except No. 1732) available with shockproof, plastic covered tubing at a cost of 15¢ additional per screwdriver.

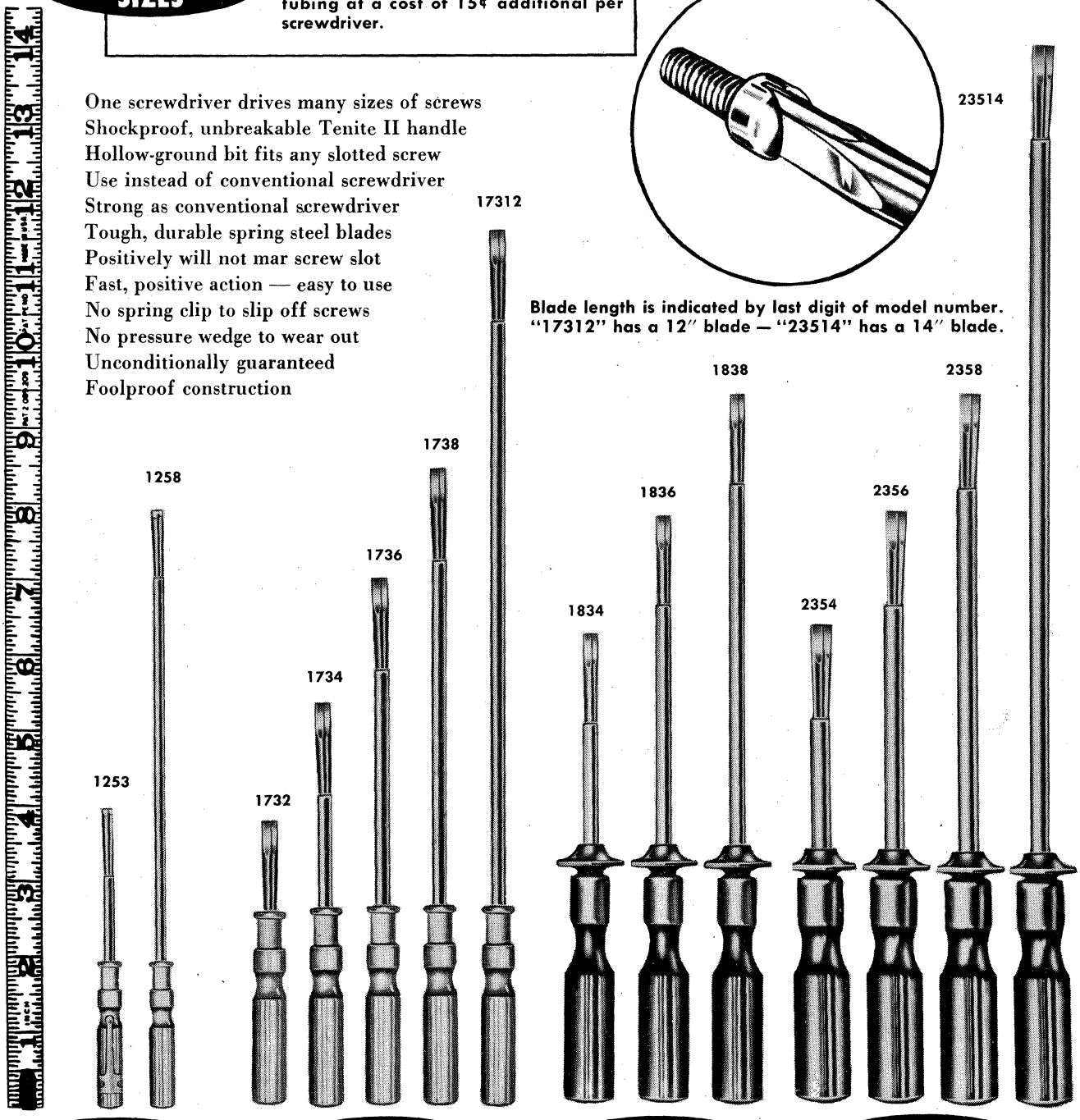


23514

One screwdriver drives many sizes of screws
Shockproof, unbreakable Tenite II handle
Hollow-ground bit fits any slotted screw
Use instead of conventional screwdriver
Strong as conventional screwdriver
Tough, durable spring steel blades
Positively will not mar screw slot
Fast, positive action — easy to use
No spring clip to slip off screws
No pressure wedge to wear out
Unconditionally guaranteed
Foolproof construction

17312

Blade length is indicated by last digit of model number. "17312" has a 12″ blade — "23514" has a 14″ blade.



MIDGET SIZES **SMALL SIZES** **MEDIUM SIZES** **HEAVY DUTY SIZES**

KEDMAN COMPANY • **Salt Lake City, Utah**

Other Kedman Products--The Famous Huntsman Welding Shields

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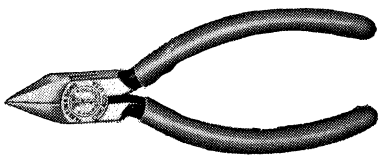
Mathias Established 1857 **KLEIN** & Sons Chicago, Ill., U.S.A. CHICAGO ILLINOIS

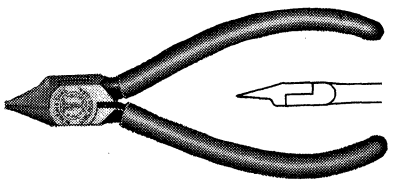
INCORPORATED

OBLIQUE CUTTING PLIER
Lightweight Pointed Nose
Flush Cutting



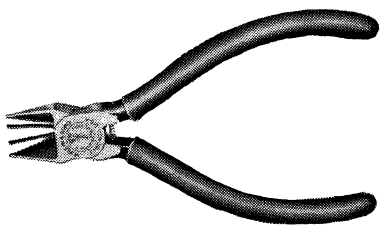
No. D209-4 Handles red plastisol covered
No. D209-4 Size 4 3/16 in.
No. 209-5 Size 5 in.
Available with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting
Handles red plastisol covered



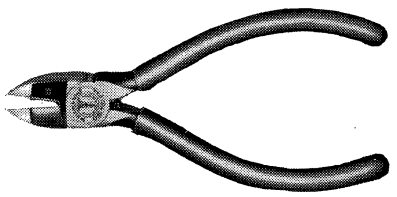
No. D219-4 Size 4 3/16 in.
No. D219-5 Size 5 in.
Available with coil spring

WIRE GRIPPING OBLIQUE CUTTER
Flush Cutting
Pat. No. 2,938,266
Handles red plastisol covered



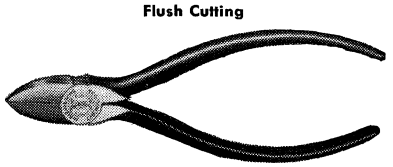
No. D229-4C Size 4 3/16 in.
No. D229-5C Size 5 in.
Supplied with coil spring

OBLIQUE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles red plastisol covered



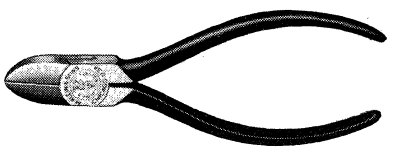
No. D207-5C Size 5 1/2 in.
077-K Replacement Blade
Supplied with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting



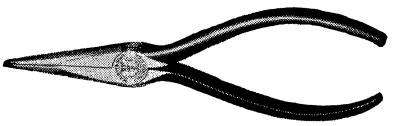
No. 210-5 Size 5 1/2 in.
No. 210-6 Size 6 1/16 in.
Available with coil spring

OBLIQUE CUTTING PLIER



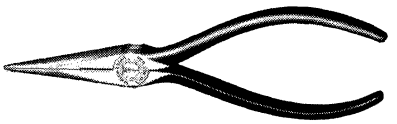
No. 245-5 Size 5 in.
Available with coil spring

LONG NOSE PLIER



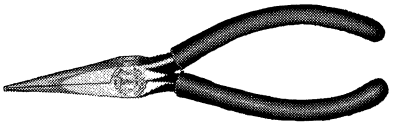
No. 301-5 Size 5 1/16 in.
No. 301-6 Size 6 5/8 in.
No. 301-7 Size 7 1/8 in.
Available with coil spring

LONG NOSE SIDE CUTTING PLIER



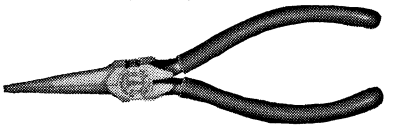
No. 203-5 Size 5 1/16 in.
No. 203-6 Size 6 5/8 in.
No. 203-7 Size 7 1/8 in.
Available with coil spring

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



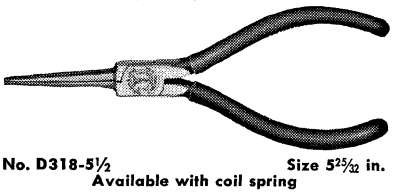
No. D307-5 1/2 Size 5 13/16 in.
Available with coil spring
No. D221-5 1/2 C with side cutting knives (1/32" point) Size 5 13/16 in.
Supplied with cail spring.

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



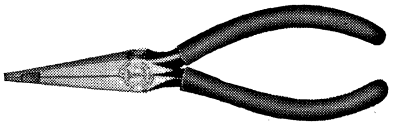
No. D310-6 Size 6 5/8 in.
Available with coil spring

LONG NEEDLE NOSE PLIER
Handles yellow plastisol covered



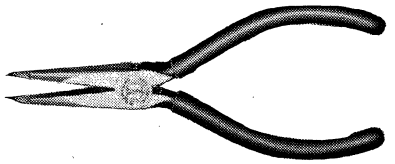
No. D318-5 1/2 Size 5 25/32 in.
Available with coil spring

LONG NOSE PLIER, KNIFE AT POINT
Handles yellow plastisol covered



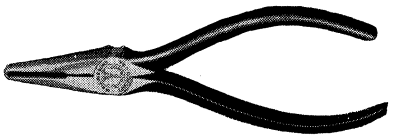
No. D301-6P Size 6 5/8 in.
No. D317-6P Size 6 in.
Available with coil spring

END CUTTING TRIMMER PLIER
Handles green plastisol covered



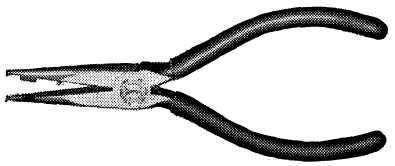
Cutting edges at tip set at 45° angle.
Supplied with coil spring
No. D211-6C Size 6 1/2 in.

TRANSVERSE END CUTTING PLIER



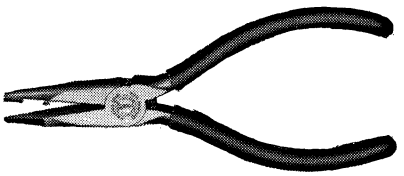
No. 204-6 Size 6 1/4 in.
Available with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,724
Handles yellow plastisol covered



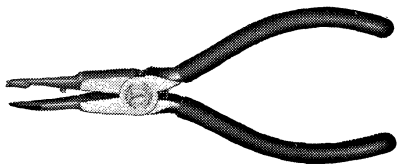
No. D208-6PC Size 6 5/8 in.
Supplied with coil spring

ALL-PURPOSE ELECTRONIC PLIER
Pat. No. 2,903,790
Semi-Flush Cutting
Handles yellow plastisol covered



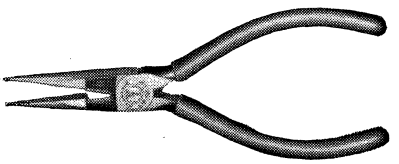
No. D260-6C Size 6 3/8 in.
Supplied with coil spring

NEEDLE NOSE ELECTRONIC PLIER
Pat. No. 2,903,790
Semi-Flush Cutting
Handles yellow plastisol covered



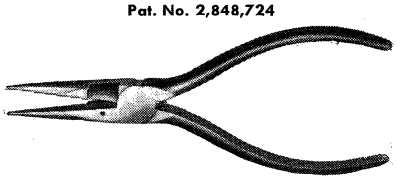
No. D261-6C Size 6 3/4 in.
Supplied with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles yellow plastisol covered



No. D208-6C Size 6 5/8 in.
078-K Replacement Blade
Supplied with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,724



No. 208-6NC Size 6 5/8 in.
078-K Replacement Blade
Supplied with coil spring

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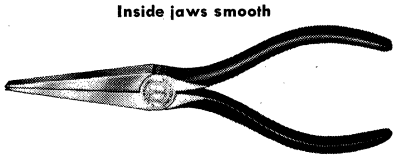
Mathias Established 1857 **KLEIN** & Sons Chicago, Ill., U.S.A. CHICAGO ILLINOIS

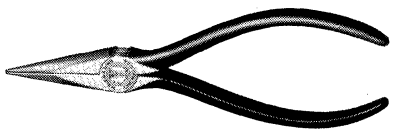
INCORPORATED

DUCK BILL PLIER
Inside jaws smooth



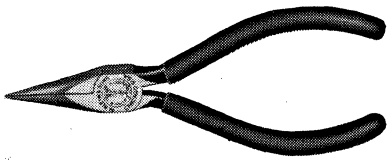
No. 304-6 Size 6½ in.
No. 205-6 with side cutting knives Size 6½ in.

CHAIN NOSE PLIER



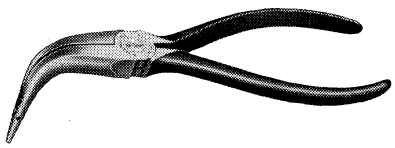
No. 317-6 Size 5 15/16 in
No. 217-6 with side cutting knives Size 5 15/16 in.

CHAIN NOSE PLIER
Handles yellow plastisol covered



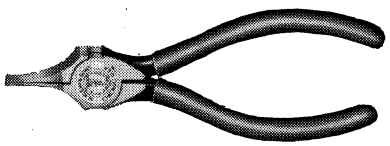
No. D317-5 Size 5¼ in.
Available with coil spring

CURVED NOSE PLIER



No. 302-6 Size 6¼ in.

RELAY SPRING ADJUSTING PLIER
Inside jaws smooth
Handles yellow plastisol covered



No. D325-5 Size 5 1/16 in.

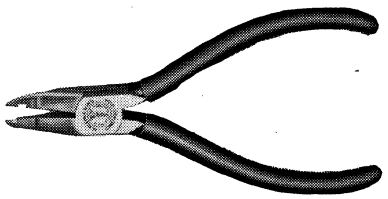
8-INCH LONG NOSE PLIER

No. 314-8 with knurl Size 8 in.

8-INCH DUCK BILL PLIER

No. 315-8 with knurl Size 8 in.
No. 312-8 without knurl Size 8 in.

SPECIAL SKINNING PLIER
Handles red plastisol covered



No. D317-5P Size 5¼ in.

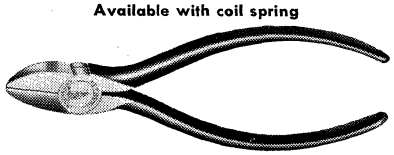
SIDE CUTTING PLIER
NE Type (Streamlined)

No. 201-5NE Size 5 in.
No. 201-6NE Size 6 in.
No. 201-7NE Size 7 in.
No. 201-8NE Size 8 in.
No. 201-9NE Size 9 in.

KLEIN KUT* HIGH LEVERAGE PLIER
Pat. No. 2,746 145

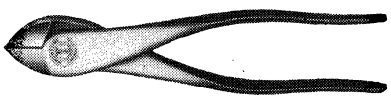
No. 213-9NE Size 9¼ in.

OBLIQUE CUTTING PLIER
Narrow Nose
Available with coil spring



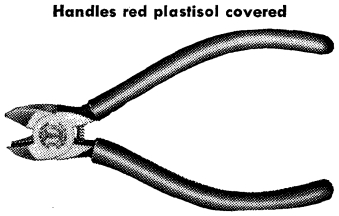
No. 202-5 Size 5½ in.
No. 202-6 Size 6 1/16 in.

HIGH LEVERAGE OBLIQUE CUTTING PLIER



No. 228-8 Size 8 in.

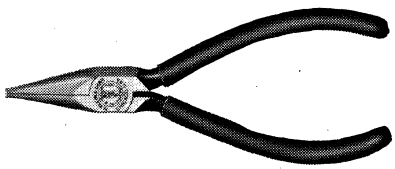
PRINTED CIRCUIT PLIER
Handles red plastisol covered



No. D052-C Size 5⅛ in.
Supplied with coil spring

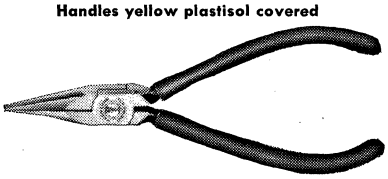
*Trade-Mark

MIDGET ELECTRONIC PLIERS
Long Nose Plier



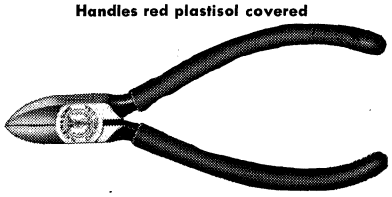
No. D321-4½ Handles yellow plastisol covered
No. D322-4½ Handles blue plastisol covered
No. D321-4½ Size 4¾ in.
No. D322-4½ (without knurl) Size 4¾ in.
Available with coil spring

FLAT NOSE PLIER
Inside jaws smooth
Handles yellow plastisol covered



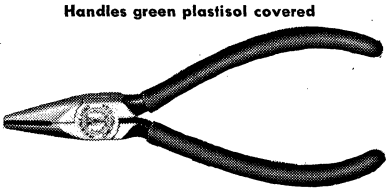
No. D323-4½ Size 4¾ in.
Available with coil spring

OBLIQUE CUTTING PLIER
Handles red plastisol covered



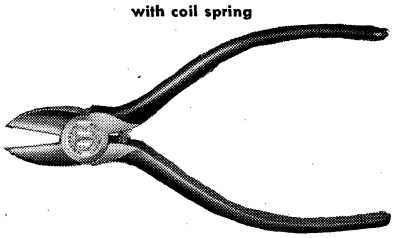
No. D257-4 Size 4 3/16 in.
Available with coil spring

TRANSVERSE END CUTTING PLIER
Semi-Flush Cutting
Handles green plastisol covered



No. D224-4½ Size 4⅝ in.
Available with coil spring

COIL SPRING PLIERS
Pliers listed below are supplied with coil spring



Oblique Cutters		Long Nose
D209-4C	204-6C •	D321-4½C •
• 209-5C	D260-6C •	D322-4½C •
D219-4C	D261-6C •	D323-4½C •
D219-5C	D318-5½C •	D310-6C •
• 202-5C	• 203-5C •	D301-5C •
202-6C	• 203-6C •	D301-6C •
• 210-5C	• 203-7C •	D301-7C •
• 210-6C	D221-5½C	D301-6PC •
• 245-5C	(½" point)	D317-6PC •
D257-4C	D307-5½C •	D317-5C •

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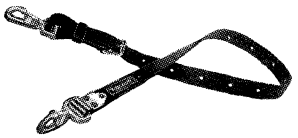
Mathias Established 1857 **KLEIN** & Sons Chicago, Ill., U.S.A. CHICAGO ILLINOIS

INCORPORATED

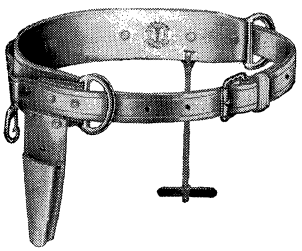
"KLEIN-KORD" NYLON SAFETY STRAP



A strong high-quality safety strap made of nylon possessing excellent dielectric characteristics. Klein Red Center for safety.

Cat. No.	Size	Av. Wgt. Per Doz.
Standard Snaps		
5294	1¾" x 5'8"	34 lb.
5294-7	1¾" x 7'	38 lb.
"Klein-Lok" Snaps		
KL-5294	1¾" x 5'8"	34 lb.
KL-5294-7	1¾" x 7'	38 lb.

LEATHER TOOL BELTS



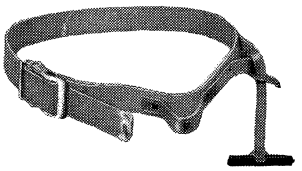
Finest-quality harness leather "D" rings, solid drop forgings. All rivets solid copper.

Cat. No.	Width	Av. Wgt. Per Doz.
5204-DE	3½"	34 lb.

Be sure to specify size

One of a complete line of Klein tool belts.

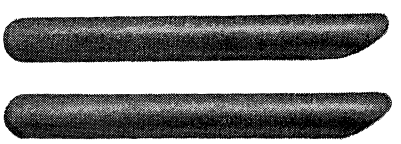
KLEIN ELECTRICIANS' WAIST BELTS



Lightweight belt of heavy web belting. Leather tool loops. Friction buckle.

No. 5227-M Size 32 to 40 in.
5227-L 40 to 48 in.

SLIP-ON HANDLES



Plastic handles available in the following colors —Red, Yellow, Green and Blue.

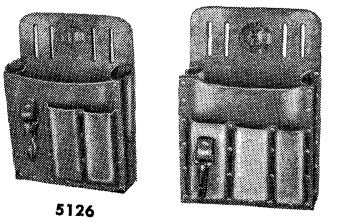
Easy to slip on to plier handles providing a comfortable grip.

No. 34	To fit 4 in. - 4½ in. pliers
35	To fit 5 in. - 5½ in. pliers
36	To fit 6 in. - 6½ in. pliers
46	36 pr. assorted sizes and colors

DIPPED HANDLES

Dipped plastic coating provides comfortable handles. See Klein catalog for colors and prices.

KLEIN COMBINATION TOOL POCKETS

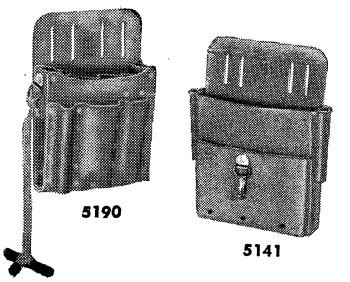


5126 5127

Two of the many leather tool pockets available in the Klein line. See Klein catalog for other pockets.

No. 5126 Leather Size 8½ in. high, 6½ in. wide
5127 Leather 10 in. high, 7 in. wide

KLEIN UTILITY TOOL POCKETS

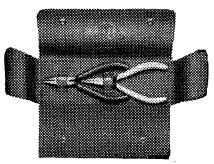


5190 5141

No. 5190 is made of high-grade leather with ten separate compartments. No. 5141 is of polyvinyl chloride.

No. 5190 Size 8¾ in. x 6 in.
5141 Plastic 10 in. high, 8 in. wide

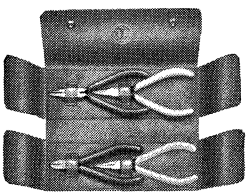
KLEIN POCKET TOOL KIT



Holds two pliers.
1 D321-4½ Long Nose Plier
1 D257-4 Oblique Cutting Plier

No. 1305-5 Size 7 x 2½ x ½

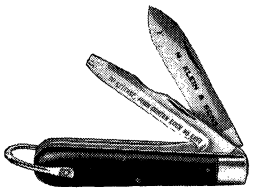
KLEIN POCKET TOOL KIT



A handy kit that holds four midget pliers. Case is of top leatherette with two snaps. Contains following tools:
1 No. D257-4 Oblique Cutting Plier
1 No. D224-4½ End Cutting Plier
1 No. D321-4½ Long Nose Plier
1 No. D323-4½ Duck Bill Plier

No. 1305-4 Size 7 x 2¾ x 1

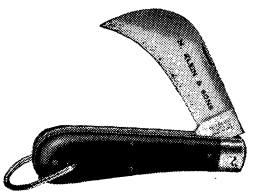
KLEIN "XELA" ELECTRICIAN'S KNIFE



Has utility blade and screwdriver blade. Made of finest cutlery steel. Handle special plastic.

No. 1550-2 Length Closed 4 in.

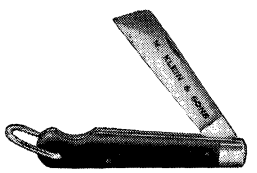
KLEIN "XELA" LINEMAN'S KNIFE



Single 3-in. blade of finest cutlery steel. Handle special plastic.

No. 1550-4 Length Closed 4 in.

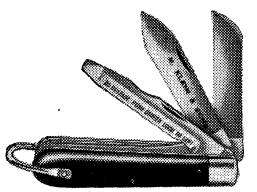
KLEIN "XELA" SKINNING KNIFE



Particularly useful in telephone work. Hardwood handle.

No. 1550-5 Length Closed 3½ in.

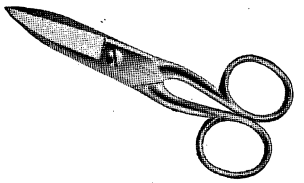
"XELA" 3-BLADE KNIFE



Spearpoint blade, sheepsfoot blade and screwdriver blade. Handle special plastic.

No. 1550-6 Length Closed 3¾ in.

"XELA" ELECTRICIAN'S SCISSORS



Made of high-grade steel carefully tempered. Screw hinge allows for adjustment.

Cat. No. 2100-5 Size 5 in.

5100 Pocket for scissors, not illustrated

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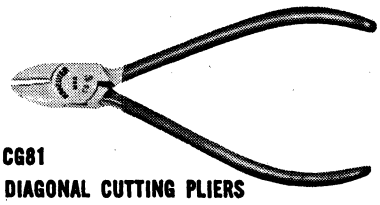
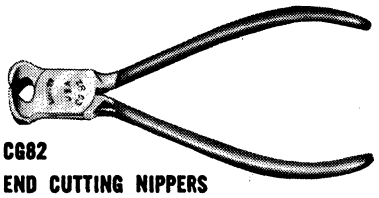
kraeuter

TOOLS FOR TECHNICIANS

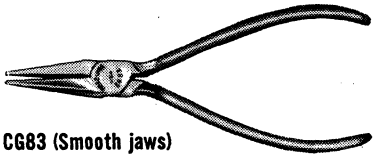
FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960



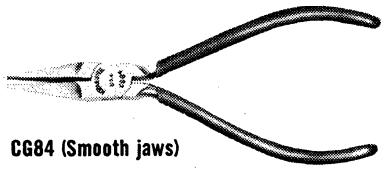
CG81
DIAGONAL CUTTING PLIERS
4½" R List ea. 3.40



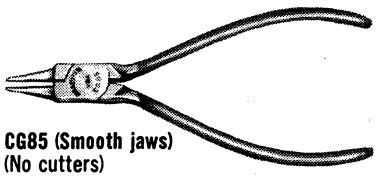
CG82
END CUTTING NIPPERS
4½" G List ea. 3.96



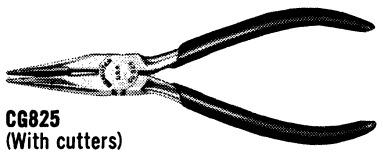
CG83 (Smooth jaws)
(No cutters) **CHAIN NOSE PLIERS**
4½" R List ea. 3.20



CG84 (Smooth jaws)
(No cutters) **FLAT NOSE PLIERS**
4½" DB List ea. 3.20



CG85 (Smooth jaws)
(No cutters)
ROUND NOSE ROUND JAW PLIERS
4½" G List ea. 3.20
No. 83-84-85 supplied with milled jaws when specified.



CG825
(With cutters)
MEDIUM NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
5" DB List ea. 4.42
CG835
(No cutters)
5" G List ea. 4.20

KRAEUTER PRECISION AND PROFESSIONAL PLIERS
FULL POLISHED FINISH

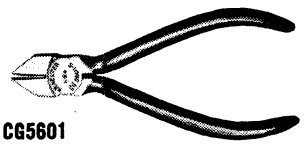
Extra fine pliers designed for exacting work. Drop forged from selected tool steel, accurately machined and carefully heat treated. In the hands of skilled radio and electronics technicians, these tools may be depended upon for exceptional service.

Precision and Professional Pliers illustrated show vinyl cushion grips (prefix "CG" with stock number) which are furnished at NO extra cost (factory bonded). Color: G-Green; O-Orange; R-Red; LB-Light Blue; DB-Dark Blue.

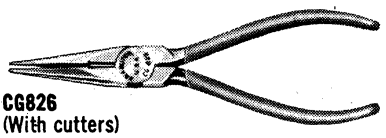
KRAEUTER VINYL CUSHION GRIP "CG" HANDLES AT NO EXTRA COST

All the "CG" Kraeuter tools listed on these pages have the Cushion Grips bonded on at the factory... actually become part of the tool. Won't crack, peel or chip. They're brightly colored to help you find them when you need them... easier to hold, easier to use... cushion your hand so you do the job with less effort. Cushion Grips give pliers the "feel" of comfortable, more accurate control. And they come to you at **no extra cost.**

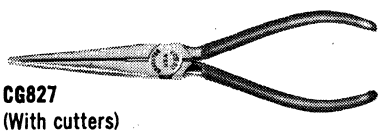
BETTER FEEL! BETTER GRIP!



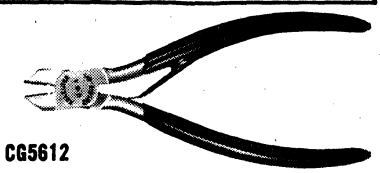
CG5601
NEEDLE POINT DIAGONAL CUTTING PLIERS
4½" R List ea. 4.00
5" DB List ea. 4.25
6" G List ea. 5.10



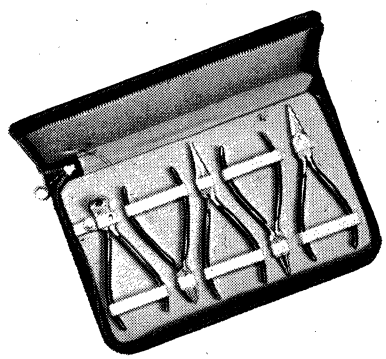
CG826
(With cutters)
LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
6" G List ea. 4.60
CG836
(No cutters)
6" O List ea. 3.60



CG827
(With cutters)
EXTRA LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
7" O List ea. 5.30
CG837
(No cutters)
7" LB List ea. 4.20



CG5612
NEEDLE POINT DIAGONAL CUTTING PLIERS
Wire stripping notch, spring return handles.
6½" O List ea. 5.00



CG90
PLIER SET
Five pliers in black zipper case. Size 5-3/4" x 9-1/4" when closed. One each Nos. CG81, CG82, CG83, CG84 and CG85.
List ea. 19.50

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS... SEND FOR CATALOG

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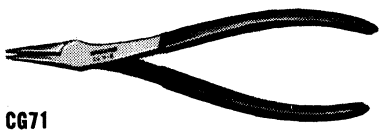
kraeuter
TOOLS FOR TECHNICIANS

FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960

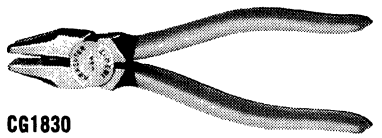
KRAEUTER INDUSTRIAL PLIERS
FULL POLISHED HEADS—
VINYL CUSHION GRIP HANDLES

Designed for use in the Radio and Electronics fields. Hammer forged from high grade tool steel, individually fitted, tempered, adjusted and tested. Furnished with Cushion Grips (factory bonded) at no extra cost. Colors: G-Green; O-Orange; R-Red; DB-Dark Blue; LB-Light Blue.



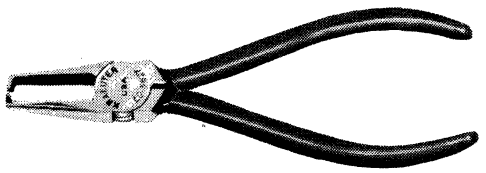
CG71
(With cutters)
SHORT JAW NOSE-CUTTING PLIERS
Extra long, narrow handles, cutters at tip of jaws.

8″	DB	List ea. 4.98



CG1830
ELECTRICIANS' SIDE CUTTING PLIERS
For electric wiring and repair work.

		List ea.
4″	R	3.54
5″	DB	3.65
6½″	O	3.30
7″	LB	3.78
8″	DB	4.16

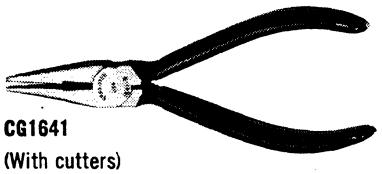


CG5627
END CUTTING RESISTOR PLIERS
Resistor terminal cutters for cutting the terminal ends of packaged assembly type resistors. Pliers sever terminal wires which are inaccessible except from over the resistor.

5½″	R	List ea. 4.95

CG2612
WIRE STRIPPING DIAGONAL CUTTING PLIERS
Strips fine wire. Spring return handles.

6½″	LB	List ea. 4.62

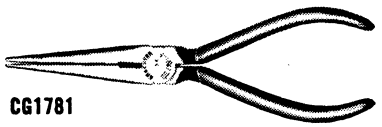


CG1641
(With cutters)
SHORT CHAIN NEEDLE NOSE PLIERS
Short nose, extra leverage, for open wiring.

5″	R	List ea. 3.36

CG1643
(No cutters)

5″	DB	List ea. 3.25



CG1781
(With cutters)
EXTRA LONG CHAIN NOSE PLIERS
Jaw length reaches 2-3/4″, narrow pointed nose.

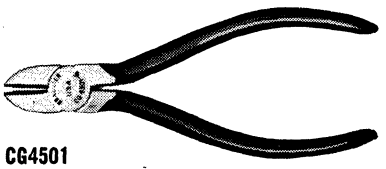
7″	O	List ea. 4.40

C-CG1781
(Cross Coil Spring)

7″	O	List ea. 4.70

CG1771
(No cutters)

7″	LB	List ea. 3.25

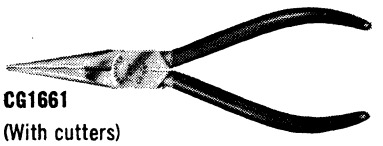


CG4501
DIAGONAL "OBLIQUE" CUTTING PLIERS
For close cutting in radio, TV, telephone work.

		List ea.
4½″	DB	2.94
5″	O	3.20
6″	R	3.70

C-CG4501
(Cross coil spring)

4½″	DB	3.24
5″	O	3.50
6″	R	4.00



CG1661
(With cutters)
LONG CHAIN NEEDLE NOSE PLIERS
Radio and TV's most extensively used pliers.

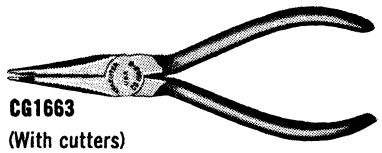
6″	DB	List ea. 3.65

C-CG1661
(Cross Coil Spring)

6″	DB	List ea. 3.95

CG1671
(No cutters)

6″	G	List ea. 2.85



CG1663
(With cutters)
RADIO AND IGNITION NOSE-CUTTING PLIERS
Grips at tip of nose, cutters 1/4″ back.

6″	O	List ea. 4.85

C-CG1663
(Cross Coil Spring)

6″	O	List ea. 5.15

CG4502
7-IN. DIAGONAL CUTTING PLIERS WITH FULL-FASHIONED HANDLES
High leverage and comfort for continuous cutting.

7″	DB	List ea. 4.29

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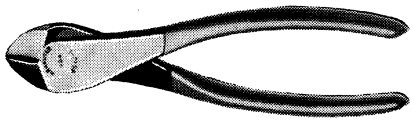
kraeuter
TOOLS FOR TECHNICIANS

FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960

INDUSTRIAL PLIERS

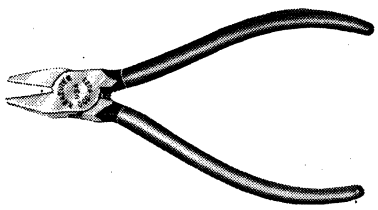


CG4610

HEAVY DUTY DIAGONAL CUTTING PLIERS

Added leverage for easier cutting.

5″ LB ..... List ea. 3.57
7″ G ..... List ea. 3.57



C-CG4625

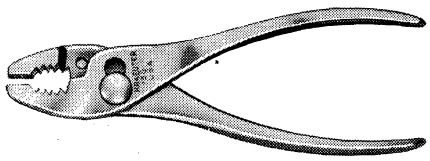
NEEDLE POINT DIAGONAL CUTTING PLIERS

Narrow tapered nose for close cutting. Cross Coil Spring in handle.

5″ R ..... List ea. 4.70

COMBINATION PLIERS

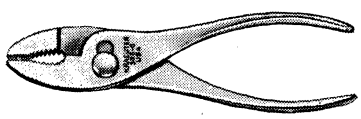
Drop forged from special analysis steel, KRAEUTER slip joint pliers have sharp, milled teeth and notches for better gripping and wire cutting. Knurled handles are shaped to fit the hand comfortably and provide maximum leverage. Studs and nuts are machined from solid bar steel and carefully hardened for longer wear.



KRAEUTER "BRITE" LINE

Fine quality slip joint pliers in 2 different finishes.

			List ea.
056—6″		Satin Chrome Plated Finish	.85
8″		Satin Chrome Plated Finish	1.12
156—6″		Chrome Plated Finish	1.25
8″		Chrome Plated Finish	1.60
10″		Chrome Plated Finish	1.96

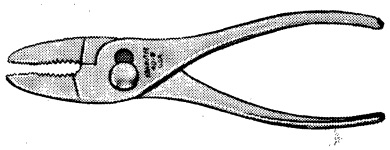


GRIPTITE COMBINATION PLIERS

Designed for heavy duty service.

5½″ & 6″ sizes, 2 position slip joint adjustments.
8 ″ & 10″ sizes, 3 position slip joint adjustments.

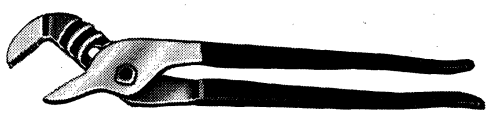
		List ea.
356—5½″	Nickel Plated	2.65
356—6″	Nickel Plated	2.65
356—8″	Nickel Plated	3.35
356—10″	Nickel Plated	4.25



THIN NOSE COMBINATION PLIERS

Tapered thin jaws for confined areas.

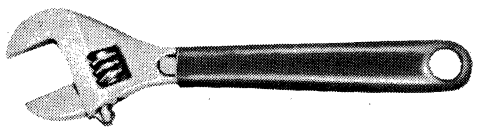
40—6″ Nickel Plated ..... List ea. 2.06



TONGUE-N-GROOVE JOINT PLIERS
POLISHED FACES — "CG" VINYL CUSHION GRIP HANDLES

Parallel adjustments make these pliers extremely versatile with maximum utility, leverage and strength. Furnished with Cushion Grip handles.

			List ea.
CG707—6-1/2″	**G**	Max. Jaw Capacity 1″	2.80
CG710—10″	**R**	Max. Jaw Capacity 1-1/2″	3.50
CG714—14″	**O**	Max. Jaw Capacity 2-13/16″	4.25

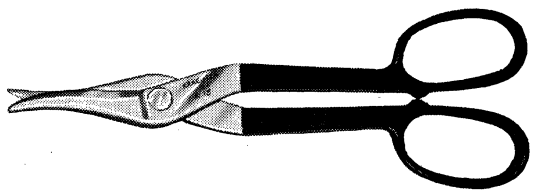


ALLOY STEEL ADJUSTABLE WRENCH

THIN PATTERN—SMOOTH ACTION—CHROME PLATED

With "CG" VINYL Cushion Grip.

		List ea.
CG31—4″	R	2.70
CG31—6″	DB	2.70
CG31—8″	O	3.45
CG31—10″	G	4.35
CG31—12″	LB	6.25
CG31—15″	R	9.00



COMBINATION PATTERN SNIP

Cuts straight, curved shapes in metal, etc. Polished Blades, Hard Black Enameled Handles.

K13—7″ Pocket Size, Cut 1-5/8″ ..... List ea. 2.39

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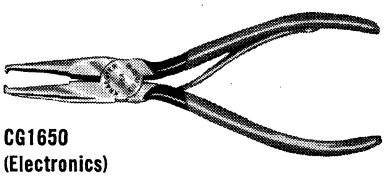
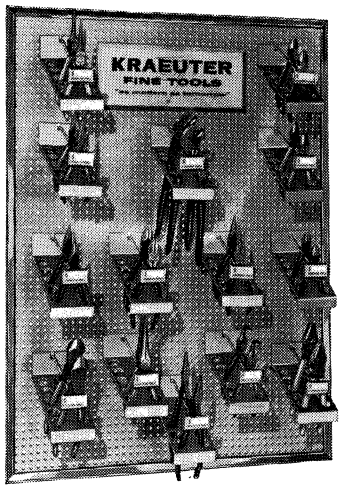
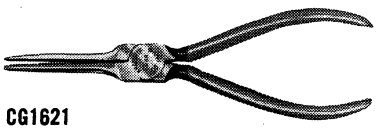


CG1650
(Electronics)
TRANSVERSE END-CUTTING PLIERS
Long jaws reach confined areas, cut wires at tips. Leaf Spring in handle.
6" 0 List ea. 4.85

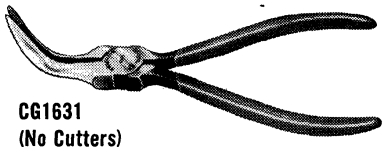


RADIO AND ELECTRONIC BRACKET K1-2E ASSORTMENT
Includes 2 each of 14 popular pliers, permanent peg-board display and 14 Kraeuter metal tool brackets. Shipping weight—25 lbs.
List ea. 106.96

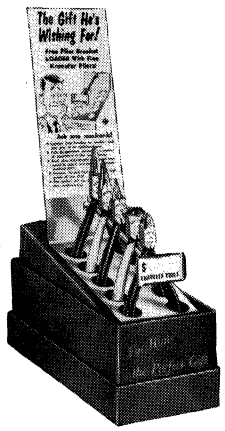


CG1621
(No Cutters)
LONG NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws; inside length 2-3/32" tapering to 1/16" at points.
6" LB List ea. 3.40

K-5
5-PLIER ASSORTMENT WITH FREE DISPLAY BRACKET AND GIFT BOX
Set includes:
1—CG1830-6½" Electrician's Side Cutter
1—CG4610-7" Heavy Duty Diagonal
1—CG4501-6" All Around Diagonal
1—CG1661-6" Needle Nose with Cutter
1—CG83-4½" Chain Nose "Hobby"
1 to 5-plier bracket (no charge)
Shipping weight—2 lbs. 5 oz. List ea. 17.42

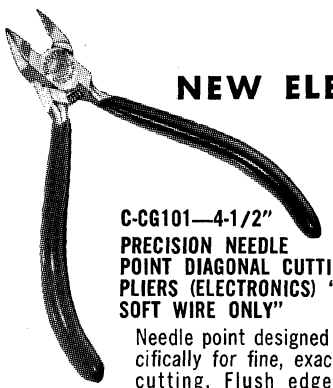


CG1631
(No Cutters)
CURVED NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws tapering to 1/16" at point, curved to reach inaccessible areas.
5-1/2" G List ea. 3.90

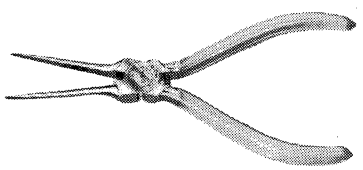


P-35
5-PLIER ASSORTMENT WITH FREE DISPLAY BRACKET AND REVERSIBLE POINT-OF-SALE DISPLAY CARD
Set includes:
1—CG81 Diagonal Cutting Pliers
1—CG82 End Cutting Nipper
1—CG83 Chain Nose Pliers
1—CG84 Flat Nose Pliers
1—CG85 Round Nose, Round Jaw Pliers
Shipping weight 1 lb. List ea. 16.96

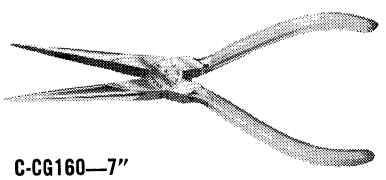
NEW ELECTRONIC COMPONENT ASSEMBLY PLIERS



C-CG101—4-1/2"
PRECISION NEEDLE POINT DIAGONAL CUTTING PLIERS (ELECTRONICS) "FOR SOFT WIRE ONLY"
Needle point designed specifically for fine, exact tip cutting. Flush edge for close square cut. Specially designed cutting edge to facilitate re-sharpening and maintaining of tip cutting alignment. Furnished only with cross coil spring in handle.
4-1/2" LB List ea. 5.00



C-CG140—6"
LONG NOSE PLIERS 1/32" TIP (Electronics)
Fine milled jaws, inside length 2" — tapering to 1/32" at the tip, reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
6" LB List ea. 4.25



C-CG160—7"
EXTRA FINE LONG NOSE PLIERS 1/16" POINT (Electronics)
Extra fine long nose pliers, milled jaws, inside length 2-5/8" tapering to 1/16" at the point. Fine point designed to reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
7" LB List ea. 3.55

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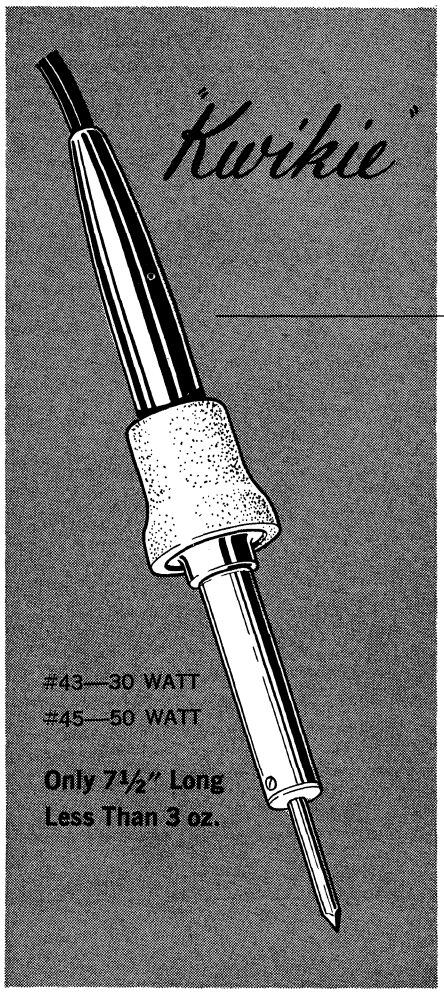
NEW *Kwikie*

PENCIL SOLDERING IRON

KWIKHEAT'S Smaller, Lighter Pencil Iron for Densely Packed Printed Circuit Production.
Only 7½ inches long . . . less than 3 oz. weight! This really small iron is ideal for general precision use in large or small shops. Heat insulated handle. Combination of wattage and tip size gives proper temperature for job.

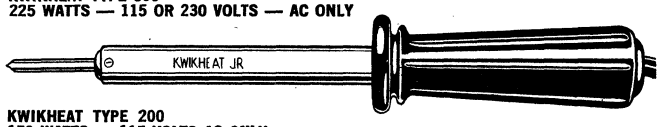


KWIKHEAT SOLDERING IRONS

Built-in Vanatta Automatic Thermostat

THERMOSTATIC MODELS

KWIKHEAT TYPE 300
225 WATTS — 115 OR 230 VOLTS — AC ONLY



KWIKHEAT TYPE 200
150 WATTS — 115 VOLTS AC ONLY

REAL PRODUCTION IRONS
No. 200 lightweight and No. 300 heavy duty irons are both real production tools for high speed soldering. Tips are easily replaced with a screwdriver, or wrench.

HOT IN 90 SECONDS
Very high watt density with less heat radiation, under complete control of built-in thermostat.

TEMPERATURE
No. 200 is factory preset to 700°F for intermittent standby work or 800°F for constant high speed soldering. No. 300 can be preset to any temperature between 275° and 875°F, at additional charge of $1.00 each for 1 to 49 irons or 50c each for 50 to 99 irons. No extra charge for 100 or more. Alloys used reduce temperature creep.

CORROSION RESISTANT
Tips, core assemblies, and outer shells are made of stainless steel or plated forged tellurium copper alloy.

KWIKHEAT TYPE 200
150 WATTS — 115 VOLTS AC ONLY

Weight with Tip	7½ oz.
Shipping Weight with ⅜" x ¼" dia. Tip and Resting Stand	1 lb. 2 oz.
Length with ⅜" x ¼" dia. Tip	12¾"
Length of Heater Cord	6 ft.

LIST PRICE

Iron complete with Tip	$9.95
Replacement Element	6.95

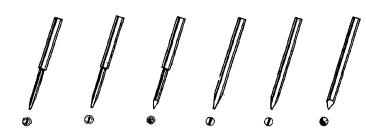
KWIKHEAT TYPE 300
225 WATTS — 115 OR 230 VOLTS — AC ONLY

Weight with Standard No. 1 Tip	14 oz.
Shipping Weight with No. 1 Tip and Resting Stand	1½ lb.
Length with No. 1 Tip	13"
Length of Heater Cord	6 ft.

LIST PRICE

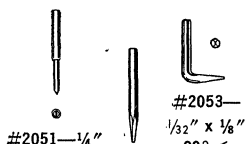
Iron complete with Tip	$14.95
For other AC voltages or with 3-Conductor Cord, add	$2.75
Replacement Element	$10.85
Tips, according to style	$1.80 to $2.70

Kwikie 6 INTERCHANGEABLE TIPS



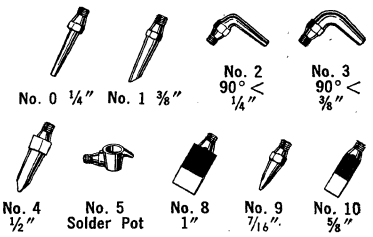
diameter			diameter		
1/8"	1/8"	1/8"	3/16"	3/16"	3/16"
Screwdriver	Chisel	Pyramid	Screwdriver	Chisel	Pyramid

TYPE 200 TIPS



#2051—¼" $1.10
#2052—1/32" x ⅛" $0.80
#2053—1/32" x ⅛" 90° < $0.90

9 INTERCHANGEABLE TIPS FOR NO. 300



No. 0 ¼" No. 1 ⅜" No. 2 90° < ¼" No. 3 90° < ⅜"
No. 4 ½" No. 5 Solder Pot No. 8 1" No. 9 7/16" No. 10 ⅝"

#20 ANTIFREEZE COMPOUND
A lubricant for all soldering iron tips. Prevents sticking, increases conductivity between tip and core.

PLEASE CONTACT YOUR JOBBER FOR TRADE DISCOUNTS

KWIKHEAT MANUFACTURING CO. GLENDALE CALIFORNIA

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The Best Miniature Soldering Iron in the World...

ACTUAL SIZE

CHISEL or SPADE
Tips available 3/64" to 3/16" in diameter

Precision MINIATURE SOLDERING IRON!

Weighs **one** ounce . . . operates on 110-115 volts. No transformer. Longest lasting sealed element made . . . maintains constant temperature around 626°F. without oxidation.

- Ultra-flexible 3-wire cord . . . grounded . . . 50 megohms between element and tip protects components and operator.
- Bright "safety" yellow handle remains cool — stands more than 1000°F.
- Easy slide-on tips . . . stay hot under production speeds — made of tungsten-copper alloy; nickel or iron plated.
- 45-second heat-up time — cools off in 3 minutes.

Irons furnished less plugs: heavy duty 2 or 3-pronged plugs available. All parts replaceable at low cost.

$4.35 Each

In lots of 6 — Tips extra

M. M. NEWMAN CORPORATION

Marblehead, Massachusetts

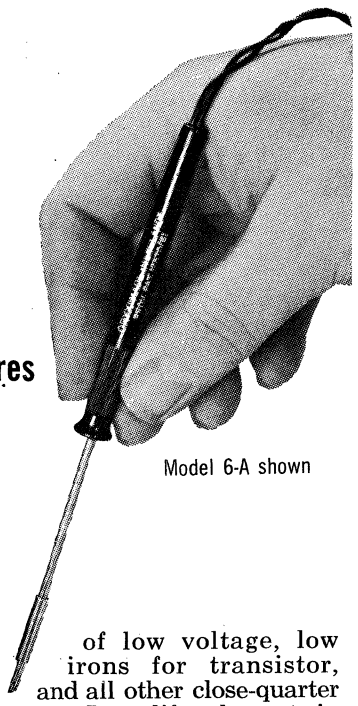
© U.C.P., Inc.

ORYX

PRECISION SOLDERING INSTRUMENTS

Low Voltage Irons

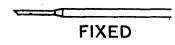
high temperatures
long life
replaceable tips



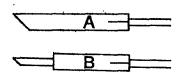
Model 6-A shown

A complete line of low voltage, low maintenance irons for transistor, printed circuit and all other close-quarter soldering applications. Long-life element in handle operates on any AC or DC source. Operating temperatures from 540°F to 1000°F available. Push-on replacement tips furnished in a variety of sizes. All irons furnished with 4½ ft. cord. From the world-famous Oryx Electrical Laboratories, Ltd. of England (protected by U. S. patents).

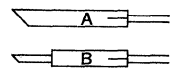
MODEL 6—6-volt 6-watt iron with 1/16" fixed tip for transistor and diode soldering, rf coils, hair spring movements and fine subassemblies. 542°F maximum temperature. **$4.95**
(12 or more **$4.45** ea.)



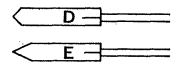
MODEL 6A—Combines lightweight advantages of Model 6 with convenience of replaceable tips. Furnished with B tip (3/32"). Also takes A tip. Maximum temperature is 602°F. 6-volts, 6-watts. **$4.95**
(12 or more **$4.45** ea.)



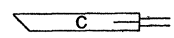
MODEL 9-6—6-volt, 8.3-watt iron furnished with A tip (5/32") for complex circuitry applications requiring high heat capacity. Also available in 12-volt Model 9-12 and 24-volt Model 9-24 with identical performance. Max. temperature is 614°F. Also takes B tip. **$4.95**
(12 or more **$4.45** ea.)



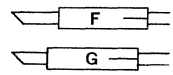
MODEL 11—Special featherweight high temperature iron develops 813°F heat. 6-volt 10-watt iron is furnished with 5/32" solid nickel D tip to reduce oxidation. Also takes E tip. **$6.95**
(12 or more **$6.45** ea.)



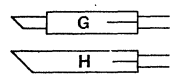
MODEL 12-6—Standard model for production soldering in radio, TV, radar, switchboard and instrument assembly. 652°F max. temperature, 6-volt, 12-watt iron with 3/16" C tip. Also available in 12-volt Model 12-12, 24-volt Model 12-24, with identical performance. **$4.95**
(12 or more **$4.45** ea.)



MODEL 18—Equivalent in performance to standard 80-watt iron, but weighs only ¾ oz. No hand fatigue! 6-volt 18-watt iron has max. heat of 674°F. Furnished with 3/16" F tip (also takes G tip with solid nickel end). **$7.50**
(12 or more **$7.05** ea.)



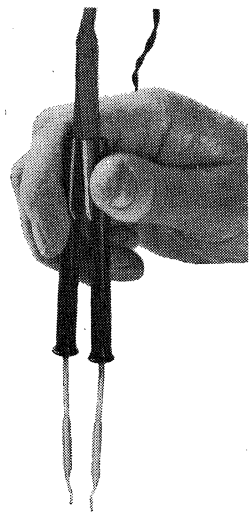
MODEL 25-12—High performance iron for continuous operation at 1000°F. Replaceable heavy duty copper alloy tip with 3/16" solid nickel end provides low maintenance operation. Also takes 1/4" H tip. 12-volts, 25-watts. **$8.00**
(12 or more **$7.55** ea.)



Model TW-6 Microminiature Soldering Tweezers

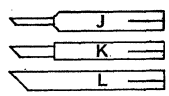
Unique precision instrument for soldering diodes, transistors and other semiconductors. Separate 6-watt long-life element in each arm. 600°F temperature with 3/32" fixed concave tips, designed for low temperature solders. Operates on 6 volts AC or DC.

$14.95 each
complete with 4½ ft. cord



NEW PENCIL-TYPE 115V AC SOLDERING INSTRUMENTS FROM ORYX

Available in two models: Model 115-10W heats to 672°F in 70 seconds. Furnished with 3/32" J tip (also takes K tip). Model 115-15W heats to 717°F in 50 seconds. Furnished with 5/16" K tip (also takes L tip).



$6.95 each
complete with 4½ ft. cord

REPLACEMENT TIPS AND ACCESSORIES

TIP	MATERIAL	TIP DIAM.	NET PRICE
A	Nickel plated copper alloy	5/32"	$ .50
B	Nickel plated copper alloy	3/32"	.50
C	Nickel plated copper alloy	3/16"	.50
D	Solid nickel	5/32"	1.80
E	Solid nickel	3/32"	1.80
F	Nickel plated copper alloy	3/16"	1.25
G	Solid nickel end	3/16"	1.85
H	Nickel plated copper alloy	1/4"	2.35
J	Nickel plated copper alloy	3/32"	1.55
K	Nickel plated copper alloy	5/32"	1.70
L	Nickel plated copper alloy	1/4"	2.25

6-volt transformer—Model 54203-6V. Operates on 110v AC. Output 18-watts 3 amps. For use with all Oryx 6-volt irons. Furnished with 4½ ft. AC cord and clip-holder for iron. ..... **$5.50** each

12-volt transformer—Model 5420-12V, same as above except for use with all Oryx 12-volt irons. Output 25 watts, 2 amps..... **$6.45** each

Model 115-10E Replacement Element ..... Net cost, each **$3.60**

Model 115-15E Replacement Element ..... Net cost each, **$3.60**

Model TW-6 Replacement Assembly—Includes element, tip and bushing (for one tweezer arm only)..... Net cost, each **$5.30**

THE ORYX COMPANY — National Sales Agency, Sherman Oaks, California

Net

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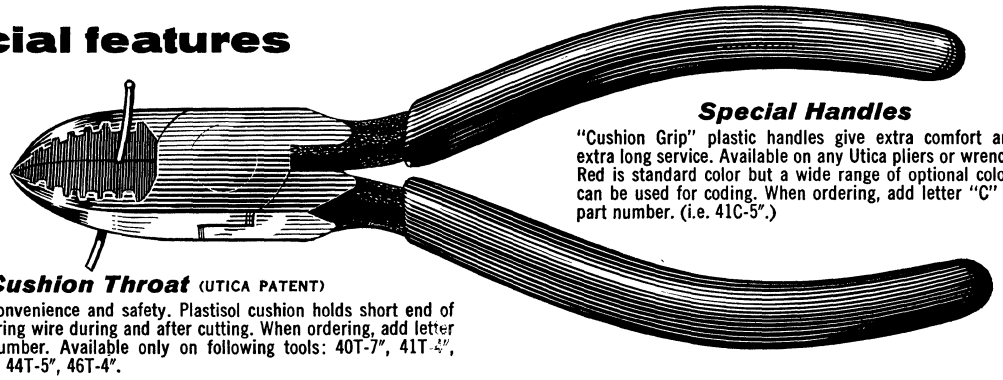
UTICA

DROP-FORGED • INDUCTION-HARDENED • BACKED BY FULL GUARANTEE

special features

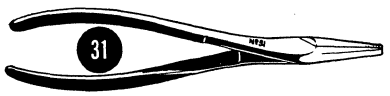


Special Handles

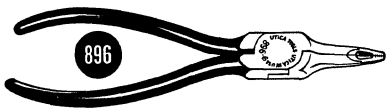
"Cushion Grip" plastic handles give extra comfort and extra long service. Available on any Utica pliers or wrench. Red is standard color but a wide range of optional colors can be used for coding. When ordering, add letter "C" to part number. (i.e. 41C-5".)

Ribbed Cushion Throat (UTICA PATENT)

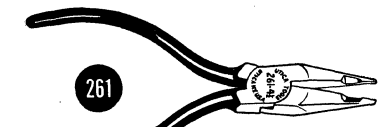
Designed for convenience and safety. Plastisol cushion holds short end of electrical or spring wire during and after cutting. When ordering, add letter "T" to part number. Available only on following tools: 40T-7", 41T-4½", 41T-5", 41T-6", 44T-5", 46T-4".



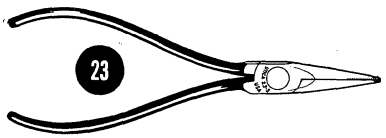
No. 31 DUCK BILL WIRING PLIERS
Long reach duck bill pliers. Serrated jaws. Size: 8".



No. 896 RADIO AND IGNITION CUTTING PLIERS
For cutting and forming wire. Center cutter near tip of jaws. Size: 6".

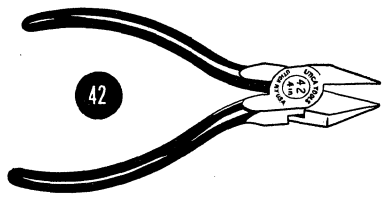


No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS
Flush cutter near tip of jaws for close cuts. Size: 4½" (formerly custom tool No. B801).



No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS
Very thin nose for delicate electronic subminiature assembly. Sizes: 4", 4½", 5".

No. 46 MIDGET DIAGONAL PLIERS
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4".



No. 42 DIAGONAL PLIERS
Heavy pattern diagonal. Flush cutting edges, tapered jaws for cutting in confined areas. Size: 4".

No. 1033 LONG CHAIN NOSE PLIERS
For general wiring. 3/32" nose and deep serrated jaws. Sizes: 6", 7".

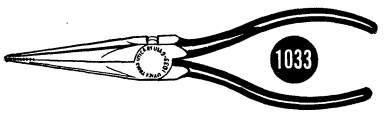
No. 654 LONG CHAIN NOSE SIDE CUTTING PLIERS
Same as 1033 but with side cutter. Sizes: 6" 7".

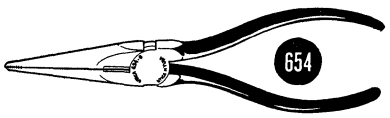
No. 777 LONG NEEDLE NOSE PLIERS
Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6".

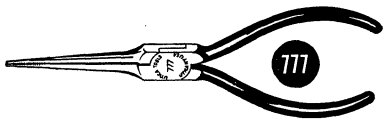
No. 776 CURVED LONG NEEDLE NOSE PLIERS
Fine, spring tempered pliers with bent nose for offset work. Size: 6".

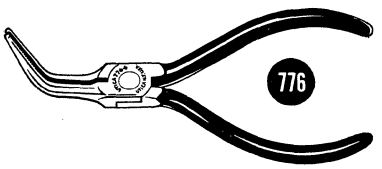
No. 38 SPECIAL DIAGONAL PLIERS
Exceptionally fine construction of nose for precision work. Semi-flush edges. Size: 4" (formerly custom tool No. B644).

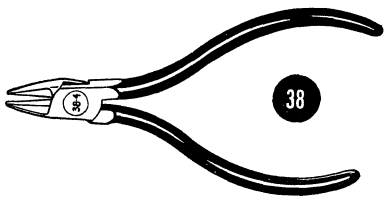
No. 47 MIDGET DIAGONAL PLIERS
Fine tapered nose for delicate work in confined areas. Flush jaws for close cutting. Size: 4".

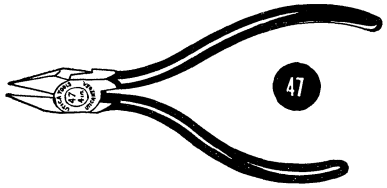












USE **UTICA**...*the tools the experts use!*

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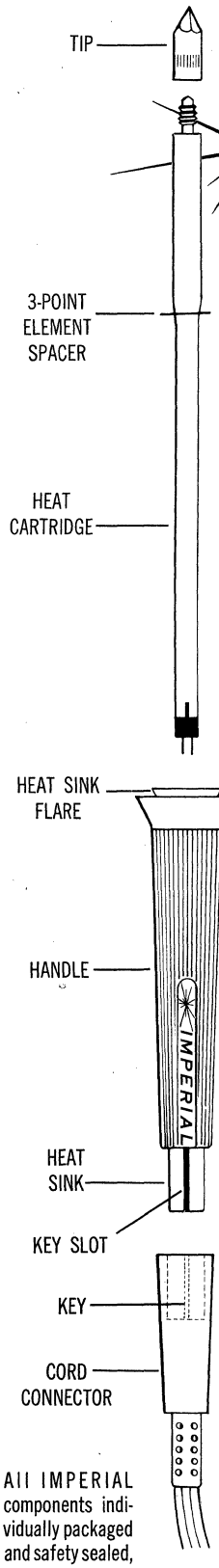
REVOLUTIONARY NEW SOLDERING IRON FROM THE



All IMPERIAL components individually packaged and safety sealed, complete with instructions.

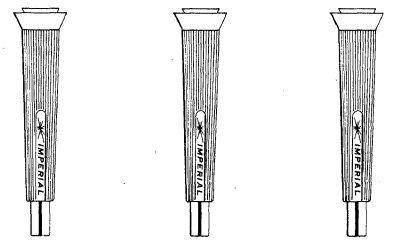
Introducing IMPERIAL Ungar®

The most versatile soldering iron ever invented...

COOL, LIGHT-WEIGHT, EASY-HANDLING

Ungar . . . developers of the industry's first miniature, low wattage, high temperature, pencil type iron . . . now brings you the ultimate in time-saving, money-saving soldering irons.

Perma Cool Colored Handles



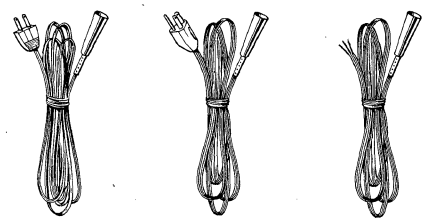
#6100 Turquoise **$1.28** each

#6100 Beige **$1.28** each

#6100 Ivory **$1.28** each

Interchangeable Cord Sets

Standard or Grounded

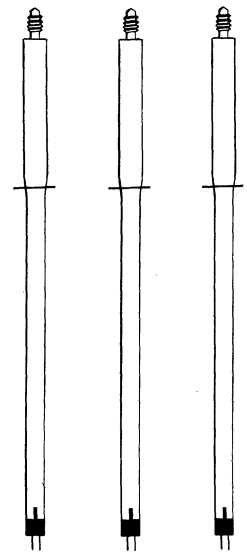


Standard Turquoise, Beige, Ivory **#6102** **$1.28** each

Grounded Nema Turquoise, Beige, Ivory **#6103** **$2.08** each

Grounded stripped ends Turquoise, Beige, Ivory **#6104** **$1.92** each

Interchangeable "Long Life" Heating Cartridges 25, 30, 40 watt



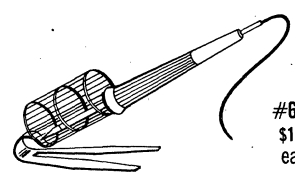
#6202 25w **$3.12** each

#6201 30w **$3.12** each

#6200 40w **$3.12** each

Specially designed IMPERIAL HOLDER

Rugged holder, built specifically for the IMPERIAL, protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink.



#6800 **$1.60** each

All Prices Shown On This Page are USER NET

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LEADER IN INDUSTRIAL SOLDERING EQUIPMENT

Ungar®

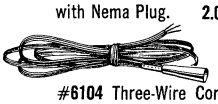
42 IMPERIAL® "MINI-TIP"® thread-on soldering tips

All easy-thread tips are completely interchangeable. Available in tellurium copper. Armco iron and iron clad. Iron clad tips are gold plated 24 karat insuring easier tinning and better alloying. There's an IMPERIAL "Mini-Tip" thread-on soldering tip for your job.

#6100 Basic Handle (available ivory, beige, turquoise). **1.28** ea.

#6102 Two-Wire Cord Set. **1.28** ea.

#6103 Three-Wire Cord Set with Nema Plug. **2.08** ea.



#6104 Three-Wire Cord Set with Stripped Ends. **1.92** ea.

#6200 40 Watt Heat Cartridge. **3.12** ea.

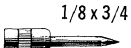
#6201 30 Watt Heat Cartridge. **3.12** ea.

#6202 25 Watt Heat Cartridge. **3.12** ea.

#6304 Iron Clad, Gold Plated (24 kt.), 3/64 x 1/2 — Microchisel (User can bend to make Offset). **.80** ea.

#6305 Iron Clad, Gold Plated (24 kt.), 3/64 x 1/2 — Microspade (User can bend to make Offset). **.80** ea.

#6312 Tellurium Copper, 1/8 x 3/4 — Pencil. **.28** ea.

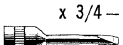


#6313 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Pencil. **.80** ea.

#6315 Tellurium, 1/8 x 3/4 — Pencil Offset. **.28** ea.

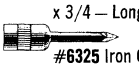
#6316 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Pencil Offset. **.80** ea.

#6318 Tellurium Copper, 1/8 x 3/4 — Long Taper Chisel. **.28** ea.



#6319 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Long Taper Chisel. **.80** ea.

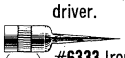
#6324 Tellurium Copper, 1/8 x 3/4 — Long Taper Pyramid. **.28** ea.



#6325 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Long Taper Pyramid. **.80** ea.

#6330 Tellurium Copper, 1/8 x 3/4 — Screwdriver. **.28** ea.

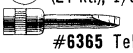
#6331 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Screwdriver. **.80** ea.



#6333 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Needle. **.80** ea.

#6335 Tellurium Copper, 1/8 x 3/4 — Spade. **.28** ea.

#6336 Iron Clad, Gold Plated (24 kt.), 1/8 x 3/4 — Spade. **.80** ea.



#6365 Tellurium Copper, 3/16 x 3/4 — Long Taper Chisel. **.28** ea.

#6366 Iron Clad, Gold Plated (24 kt.), 3/16 x 3/4 — Long Taper Chisel. **1.00** ea.

#6368 Tellurium Copper, 3/16 x 3/4 — Long Taper Pyramid. **.28** ea.

#6369 Iron Clad, Gold Plated (24 kt.), 3/16 x 3/4 — Long Taper Pyramid. **1.00** ea.

#6371 Tellurium Copper, 3/16 x 3/4 — Screwdriver. **.28** ea.

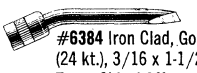
#6372 Iron Clad, Gold Plated (24 kt.), 3/16 x 3/4 — Screwdriver. **1.00** ea.

#6373 Mallory/3 Copper 3/16 x 3/4—Slotted. **.80** ea.

#6381 Tellurium Copper, 3/16 x 1-1/2 — Long Taper Chisel. **.28** ea.

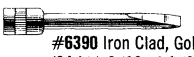
#6382 Iron Clad, Gold Plated (24 kt.), 3/16 x 1-1/2 — Long Taper Chisel. **1.00** ea.

#6383 Tellurium Copper, 3/16 x 1-1/2 — Long Taper Chisel Offset. **.28** ea.



#6384 Iron Clad, Gold Plated (24 kt.), 3/16 x 1-1/2 — Long Taper Chisel Offset. **1.00** ea.

#6389 Tellurium Copper, 3/16 x 1-1/2 — Screwdriver. **.28** ea.

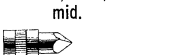


#6390 Iron Clad, Gold Plated (24 kt.), 3/16 x 1-1/2 — Screwdriver. **1.00** ea.

#6403 Tellurium Copper, 1/4 x 3/8 — Short Taper Chisel. **.28** ea.

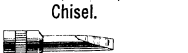
#6406 Solid Armco Iron, Silver Plated, 1/4 x 3/8 — Short Taper Chisel. **.80** ea.

#6407 Tellurium Copper, 1/4 x 3/8 — Short Taper Pyramid. **.28** ea.



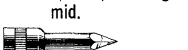
#6410 Solid Armco Iron, Silver Plated, 1/4 x 3/8 — Short Taper Pyramid. **.80** ea.

#6423 Tellurium Copper, 1/4 x 3/4 — Long Taper Chisel. **.28** ea.



#6424 Iron Clad, Gold Plated (24 kt.), 1/4 x 3/4 — Long Taper Chisel. **1.00** ea.

#6427 Tellurium Copper, 1/4 x 3/4 — Long Taper Pyramid. **.28** ea.



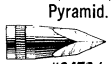
#6428 Iron Clad, Gold Plated (24 kt.), 1/4 x 3/4 — Long Taper Pyramid. **1.00** ea.

#6473 Tellurium Copper, 3/8 x 3/4 — Long Taper Chisel. **.28** ea.

#6474 Iron Clad, Gold Plated (24 kt.), 3/8 x 3/4 — Long Taper Chisel. **1.00** ea.

#6476 Solid Armco Iron, Silver Plated, 3/8 x 3/4 — Long Taper Chisel. **.80** ea.

#6477 Tellurium Copper, 3/8 x 3/4 — Long Taper Pyramid. **.28** ea.



#6478 Iron Clad, Gold Plated (24 kt.), 3/8 x 3/4 — Long Taper Pyramid. **1.00** ea.

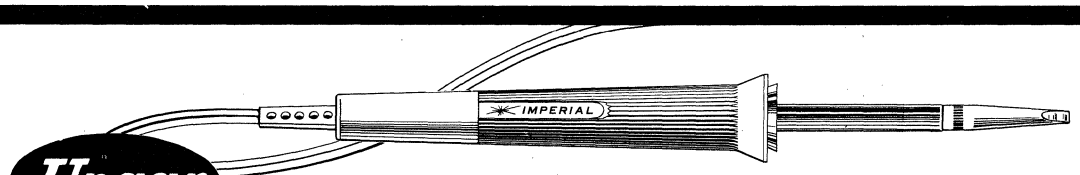
#6480 Solid Armco Iron, Silver Plated, 3/8 x 3/4 — Long Taper Pyramid. **.80** ea.

#6800 Black with Gold Cage, Soldering Iron Holder. **$1.60** ea.

HEAT SEAL

Heat Seal on threads on units and "Mini-Tips" gives maximum heat transfer, reduces oxidation. Convenient 3-oz. can. #6801, $ .80 each.

WRITE TODAY for free 8-page catalog #1-100-61



Ungar® ***...leader in industrial soldering equipment***

All Prices Shown On This Page are USER NET

OTHER TESTED, JOB-PROVEN PRODUCTS BY Ungar®

New UNGAR HEATING UNITS AND THREAD-ON TIPS for Hi-Speed Repeat Soldering

Ungar's exclusive new development provides these important advantages...

- New passivated plating reduces barrel oxidation and surface flaking
- New UC_{47} copper Tips, iron clad, nickel plated or unplated, chisel or pencil
- 100% increase in heat recovery rate
- 4 times greater heat transfer
- Positive seal between Heating Unit and Tip

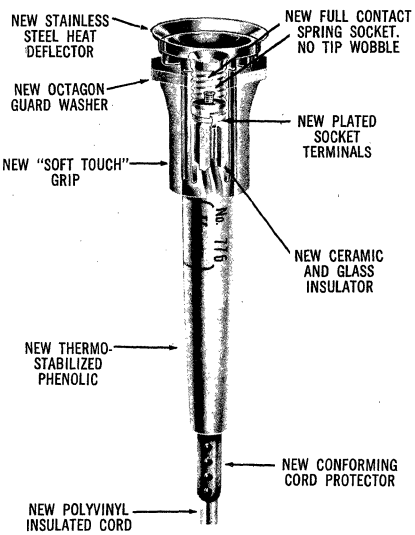
#4037 — Hi-Speed Heating Unit — 850° to 900°F. 47-1/2 Watts. **$2.40**
#1237 — Hi-Speed Heating Unit — 750° to 800°F. 37-1/2 Watts. **$1.20**

All electrical components are for use on 115 v. AC-DC.

PENCIL TIP. 3/4" long, 1/8" O.D. New UC_{47} copper body. **#PL 111** Iron clad, nickel plated. **.60**; **#111** Unplated. **.20**

CHISEL TIP. 3/4" long, 1/8" O.D. New UC_{47} copper body. **#PL 113** Iron clad, Nickel plated. **.60**; **#113** Unplated. **.20**

Improved #776 handle with 9 great improvements



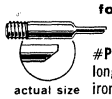
All these plus features... still only **$1.20**

UNGAR fast, safe De-Soldering Tips

Helps remove components 70% faster. Melts solder on all terminals at once. For use with **#4045** Heating Unit. **.60** each

#270 UNGAR De-Soldering Kit. Complete, 7 pieces including lightweight **#776** handle, Super Hi-Heat Unit **#4045**, five De-Soldering Tips in metal case. **$5.35**

UNGAR TIPLET® Soldering Tips for Heating Units shown below

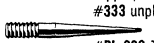


#PL 340 Micro-Needle. 3/64" tip, 3/4" long, for microscopic soldering. UC_{47} copper, iron clad, nickel plated. **.48**

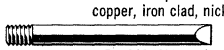
#PL 331 Pencil. 1" long. UC_{47} copper, iron clad, nickel plated. **.48**
#331 unplated. **.16**

#PL 332 Pencil Offset. 1" long. UC_{47} copper, iron clad, nickel plated. **.48**
#332 unplated. **.16**

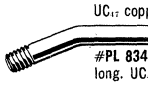
#PL 333 Chisel, Long Taper. 1" long. UC_{47} copper, iron clad, nickel plated. **.48**
#333 unplated. **.16**



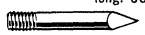
#PL 338 Tapered Needle. 1-3/4" long. UC_{47} copper, iron clad, nickel plated. **.48**



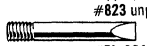
#PL 833 Chisel, Long Taper. 1-3/4" long. UC_{47} copper, iron clad, nickel plated. **.80**



#PL 834 Chisel, Long Taper, Offset. 1-3/4" long. UC_{47} copper, iron clad, nickel plated. **.80**



#PL 823 3/16" O.D. Pyramid. 1" long. UC_{47} copper, iron clad, nickel plated. **.48**
#823 unplated. **.16**

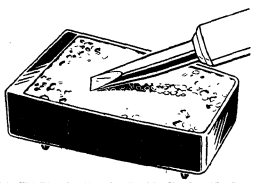


#PL 824 3/16" O.D. Chisel, Long Taper. UC_{47} copper, iron clad. nickel plated. **.48**
#824 unplated. **.16**

800 series TIPLETS fit Ungar **#4045** heating unit only.

KLEEN-TIP SPONGE

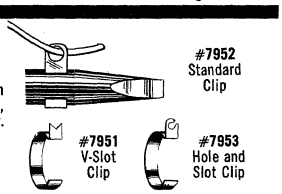
Removes oxidation, doubles life of tips. **#400** with tray. **$1.00**
#455 refill sponges (2). **.40**



REVOLUTIONARY WIRE STRIPPER

Snaps to soldering iron barrel, strips quickly, cleanly, inexpensively. 3 styles: **.60** each

FOR USE WITH IMPERIAL ALSO



Ungar Interchangeable Tips...the right tip at the right temperature.

TIP TEMPERATURES	CHISEL TIP LONG TAPER	PYRAMID TIP	CHISEL TIP SHORT TAPER	THREAD-IN HEATING UNITS For use with Tiplets shown below
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 watt	**#4033** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, iron clad, silver plated **$2.40**	**#4036** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad. **$2.40**	**#4039** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad, silver plated. **$2.40**	**#4035** Steel body, silver plated. 1/8" tap for use with 300 Series Tiplets. **#4045** Steel body, silver plated. 3/16" tap for use with 800 Series Tiplets. **$2.40** ea.
750° to 800° F. #1200 Hi-Heat Series 37-1/2 watt	NEW **#1233** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, unplated. **$1.20**	**#1236** Tip 1-1/8" long, 5/16" diameter. Pure solid Armco Iron, silver plated. **$1.20**	**#1239** Tip 1-1/9" long, 3/8" diameter. Pure solid Armco iron, silver plated. **$1.20**	**#1235** Steel body, silver plated. 1/8" tap. **$1.20**
650° to 750° F. #500 Standard Series 23-1/2 watt	NEW **#533** Tip 1-5/8" long, 3/16" wide. UC_{47} copper, unplated. **$1.00**	**#536** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated. **$1.00**	**#539** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated. **$1.00**	**#535 Steel body,** silver plated. 1/8" tap. **$1.00**

See UNGAR's revolutionary new IMPERIAL® soldering iron on preceding pages!

All Prices Shown On This Page are USER NET

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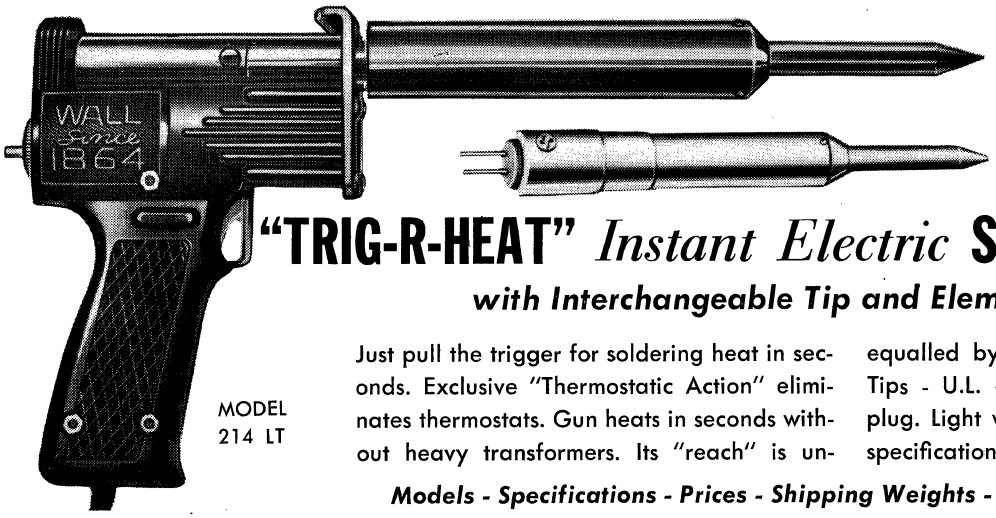
Proven Best by Test for Almost a Century

SOLDERING GUNS

Industrial Irons - Pencils - Tips - Heads
Replacement Elements and Parts

THERMOSTATIC "BRAIN" — TRIPLE LIFE PRECISION WOUND ELEMENTS

1. Built to withstand "Production-line Punishment"!
2. "Thermostatic Action" prevents tip burning!
3. Heats 4 times faster than most other industrial irons!
4. No radionic interference while iron is in use!
5. Underwriters' Laboratories and Canadian Standards approved!
6. Successfully passed the 65 below zero test!
7. Precision wound on pure mica sheet!
8. More economical in use than others of like wattage!
9. Operates on 110-120 volts, AC or DC!
10. Meets all rigid government specifications!



MODEL 214 LT

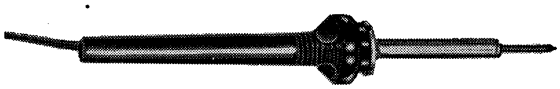
UNOBSTRUCTED LIGHT!
NO FRAGILE THERMOSTATS!
SPOTLIGHT SWITCH!
AC OR DC 110-120 VOLTS!

"TRIG-R-HEAT" *Instant Electric* SOLDERING GUNS

with Interchangeable Tip and Element Assemblies

Just pull the trigger for soldering heat in seconds. Exclusive "Thermostatic Action" eliminates thermostats. Gun heats in seconds without heavy transformers. Its "reach" is unequalled by any other gun. "Walloy Life" Tips - U.L. approved 3000 cycle cord and plug. Light weight - meets rigid government specifications.

Models - Specifications - Prices - Shipping Weights - Packaging on following page



No. 18 Series — 1 ounce without cord

No. 14 Series — 2 ounces without cord

PENCIL TYPES

Ideal for Printed Circuits

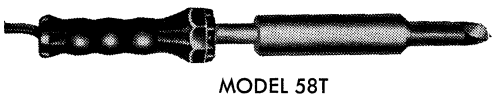
For delicate, precision work on radio, TV, electronics, small metals, jewelry, light or intricate electrical connections. Recovers faster and reduces fatigue on the production line.

Models - Specifications - Prices - Shipping Weights - Packaging on following pages

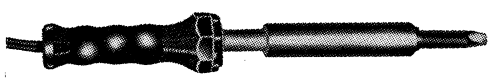
Extra Heavy Duty

PRODUCTION IRONS

Made to withstand uninterrupted soldering service of medium and medium heavy metals. Heavy metal electrical connections. Heavy duty . . . but light in weight.



MODEL 58T



MODEL 78T

Models - Specifications - Prices - Shipping Weights - Packaging on following pages

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INDUSTRIAL PRICES AND SPECIFICATIONS

subject to change without notice

Production SOLDERING PENCILS with Thermostatic Brain

Model Number	Wattage Range	Voltage AC - DC	Tip Size and Type	Shipping Case Qty.	Shipping Case Wt.	Suggested List Price	Price Each Less than 12	Price Each 12 to 99	Price Each 100 to 499	Price Each 500 to 999
14T	125-40	115 or 130	¼" Copper	50	19 lbs.	8.85	5.90	5.31	4.78	4.43
14TW	125-40	115 or 130	¼" Walloy	50	19 lbs.	9.95	6.63	5.97	5.37	4.98

PLEASE SPECIFY VOLTAGE REQUIRED

Extra Heavy Duty for Continuous and Prolonged Production Use

18HD	25	115 or 130	⅛" Copper	50	17 lbs.	8.85	5.90	5.31	4.78	4.43
18HDW	25	115 or 130	⅛" Walloy	50	17 lbs.	9.95	6.63	5.97	5.37	4.98
14HD	40	115 or 130	¼" Copper	50	19 lbs.	9.50	6.33	5.70	5.13	4.75
14HDW	40	115 or 130	¼" Walloy	50	19 lbs.	10.60	7.07	6.36	5.72	5.30

PLEASE SPECIFY VOLTAGE REQUIRED

Industrial Production SOLDERING IRONS with Thermostatic Brain

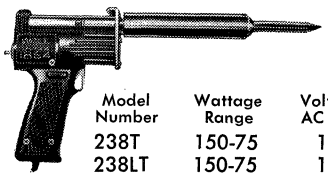
38T	225-80	115 or 130	⅜" Copper	50	61 lbs.	11.00	7.33	6.60	5.94	5.50
38TW	225-80	115 or 130	⅜" Walloy	50	61 lbs.	12.15	8.10	7.29	6.56	6.08
12T	300-125	115 or 130	½" Copper	50	73 lbs.	14.00	9.33	8.40	7.56	7.00
12TW	300-125	115 or 130	½" Walloy	50	73 lbs.	14.80	9.87	8.88	7.99	7.40
58T	500-200	115 or 130	⅝" Copper	25	50 lbs.	15.00	10.00	9.00	8.10	7.50
58TW	500-200	115 or 130	⅝" Walloy	25	50 lbs.	16.00	10.66	9.60	8.64	8.00
78T	750-300	115 or 130	⅞" Copper	25	70 lbs.	19.00	12.67	11.40	10.26	9.50
78TW	750-300	115 or 130	⅞" Walloy	25	70 lbs.	19.60	13.07	11.76	10.58	9.80

PLEASE SPECIFY VOLTAGE REQUIRED

Extra Heavy Duty Irons for Continuous, Prolonged Production Use

38HD	80	115 or 130	⅜" Copper	50	61 lbs.	12.00	8.00	7.20	6.48	6.00
38HDW	80	115 or 130	⅜" Walloy	50	61 lbs.	13.15	8.77	7.89	7.10	6.58
12HD	125	115 or 130	½" Copper	50	73 lbs.	15.00	10.00	9.00	8.10	7.50
12HDW	125	115 or 130	½" Walloy	50	73 lbs.	15.80	10.53	9.48	8.53	7.90
58HD	200	115 or 130	⅝" Copper	25	50 lbs.	16.00	10.66	9.60	8.64	8.00
58HDW	200	115 or 130	⅝" Walloy	25	50 lbs.	17.00	11.33	10.20	9.18	8.50
78HD	300	115 or 130	⅞" Copper	25	70 lbs.	21.00	14.00	12.60	11.34	10.50
78HDW	300	115 or 130	⅞" Walloy	25	70 lbs.	21.60	14.40	12.96	11.66	10.80

PLEASE SPECIFY VOLTAGE REQUIRED



Instant TRIG-R-HEAT GUNS and IRONS with Thermostatic Brain

Model Number	Wattage Range	Voltage AC - DC	Tip Size and Type	Shipping Case Qty.	Shipping Case Wt.					
238T	150-75	115	¼" Walloy	50	50 lbs.	7.50	5.62	5.00	4.50	4.05
238LT	150-75	115	¼" Walloy	50	50 lbs.	7.98	5.99	5.32	4.79	4.31
214LT	400-150	115	9/32" Copper	24	43 lbs.	14.95	11.21	9.97	8.97	8.07
212LT	650-300	115	7/16" Copper	24	57 lbs.	16.95	12.71	11.30	10.17	9.15

PLEASE SPECIFY VOLTAGE REQUIRED

WALL REPLACEMENT ELEMENTS

Element Assembly for 14T and 14TW Irons—Specify voltage required	5.00	3.33	3.00	2.70	2.50
Element Assembly for 38T and 38TW Irons—Specify voltage required	5.75	3.83	3.45	3.10	2.88
Element Assembly for 18HD, 18HDW, 14HD, 14HDW Irons—Specify voltage required	5.75	3.83	3.45	3.10	2.88
Element Assembly for 38HD, 38HDW Irons—Specify voltage required	6.50	4.33	3.90	3.51	3.25
Element Assembly for 12T, 12TW Irons—Specify voltage required	7.00	4.67	4.20	3.78	3.50
Element Assembly for 12HD, 12HDW, 58T, 58TW Irons—Specify voltage required	8.00	5.33	4.80	4.32	4.00
Element Assembly for 58HD, 58HDW, 78T, 78TW Irons—Specify voltage required	8.50	5.67	5.10	4.59	4.25
Element Assembly for 78HD, and 78HDW Irons—Specify voltage required	10.60	7.07	6.36	5.72	5.30
Tip and Element Assembly (all one piece) for 238 Series	4.50	3.00	2.70	2.43	2.25
Tip and Element Assembly (all one piece) for 214 Series	5.75	3.83	3.45	3.10	2.88
Tip and Element Assembly (all one piece) for No. 212LT	8.98	5.99	5.39	4.85	4.49

1000 Units or more: Prices on request
FREIGHT ALLOWANCE: On orders of 100 lbs. or more.
SPECIAL CORDS AND PLUGS: 3-wire with plug add $1.50 to list price.
SPECIAL VOLTAGES: Add 10% to unit price. Except voltages from 110-130.

NOTE: When ordering please specify tip diameter or number and type of tip desired. If Walloy coated tips are wanted, add the letter "W" to your specifications. All irons are equipped with non-freeze tips.

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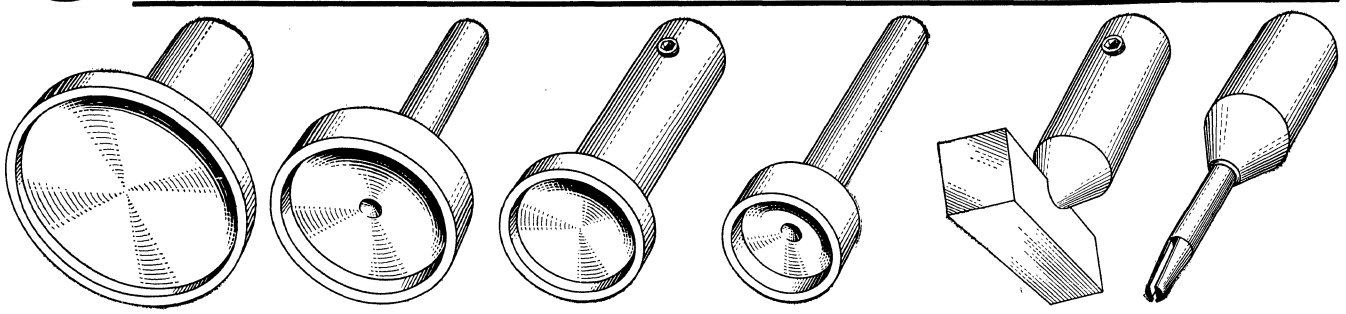
DE-SOLDERING HEADS

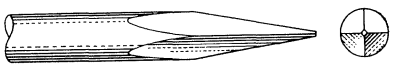
For Use with **PENCIL IRONS**



Suggested List Price	Less than 12 — ea.	12 to 99 — ea.	100 to 499 — ea.	500 to 999 — ea.	Model No.	Dimensions	Type	For Use With:
1.00	.66	.60	.54	.50	358	5/8"	Round	No. 863 Pencil
1.00	.66	.60	.54	.50	354	3/4"	Round	No. 863 Pencil
1.00	.66	.60	.54	.50	310	1"	Round	No. 863 Pencil
1.00	.66	.60	.54	.50	31516	1 5/16"	Round	No. 863 Pencil
1.00	.66	.60	.54	.50	3112	1 1/2"x3/8"	Square	No. 863 Pencil
1.00	.66	.60	.54	.50	3316	3/16"	Slotted	No. 863 Pencil
1.00	.66	.60	.54	.50	858	5/8"	Round	No. 18 Pencil
1.00	.66	.60	.54	.50	834	3/4"	Round	No. 18 Pencil
1.00	.66	.60	.54	.50	810	1"	Round	No. 18 Pencil
1.00	.66	.60	.54	.50	81516	1 5/16"	Round	No. 18 Pencil
1.00	.66	.60	.54	.50	8112	1 1/2"x3/8"	Square	No. 18 Pencil
1.00	.66	.60	.54	.50	8316	3/16"	Slotted	No. 18 Pencil
1.00	.66	.60	.54	.50	458	5/8"	Round	Any 1/4" Insert Tip
1.00	.66	.60	.54	.50	434	3/4"	Round	Any 1/4" Insert Tip
1.00	.66	.60	.54	.50	410	1"	Round	Any 1/4" Insert Tip
1.00	.66	.60	.54	.50	41516	1 5/16"	Round	Any 1/4" Insert Tip
1.00	.66	.60	.54	.50	4112	1 1/2"x3/8"	Square	Any 1/4" Insert Tip
1.00	.66	.60	.54	.50	4316	3/16"	Slotted	Any 1/4" Insert Tip

Illustrated: Standard Shapes WALL NON-FREEZE TIPS

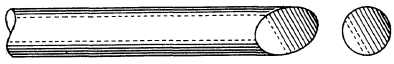
All styles and shapes available on request



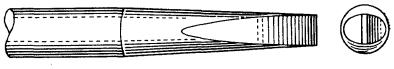
"P" (Pyramid) Series

"S" (Chisel) Series

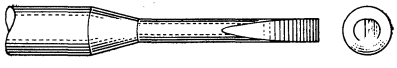
"L" (Conical) Series



"B" (Bevel) Series



"C" (Tapered Chisel) Series



"K" (Turned Down) Series (with any style point)

Non-Freeze COPPER TIPS — *Any Point Style*

Description	List	Under 12	12 to 99	100 to 499	500 to 999
1/8" No. 18 Series	.21	.14	.13	.12	.11
1/4" No. 14 Series	.39	.26	.23	.21	.19
3/8" No. 38 Series	.60	.40	.36	.33	.30
1/2" No. 12 Series	1.20	.80	.72	.66	.60
5/8" No. 58 Series	1.50	1.00	.90	.82	.75
7/8" No. 78 Series	3.00	2.00	1.80	1.65	1.50

Non-Freeze Walloy COATED TIPS

Description	List	Under 12	12 to 99	100 to 499	500 to 999
1/8" "W" "N" No. 18 Series	1.35	.90	.81	.73	.68
1/4" "W" "N" No. 14 Series	1.50	1.00	.90	.81	.75
3/8" "W" "N" No. 38 Series	1.75	1.17	1.05	.94	.87
1/2" "W" "N" No. 12 Series	2.00	1.33	1.20	1.08	1.00
5/8" "W" "N" No. 58 Series	2.50	1.67	1.50	1.35	1.25
7/8" "W" "N" No. 78 Series	3.60	2.40	2.16	1.94	1.80

MISCELLANEOUS REPLACEMENT PARTS:

Part	List	Under 12	12 to 99	100 to 499	500 to 999
Pisto-Grip Handle Half (right or left)	1.20	.80	.72	.66	.60
Light Socket (all instant gun models)	1.20	.80	.72	.66	.60
Trigger Switch (all instant gun models)	2.70	1.80	1.62	1.48	1.35
Light Switch (all instant gun models)	1.35	.91	.82	.75	.68
Light Bulb (all instant gun models)	.40	.27	.24	.22	.20
Handle Assembly, Models 214 & 212	12.00	8.00	7.20	6.60	6.00
Handle Assembly—Model 238	6.00	4.00	3.60	3.30	3.00
Cord Ass'y—All Models (2-wire & plug)	1.20	.80	.72	.66	.60
Cord Ass'y—All Models (3-wire & plug)	2.20	1.47	1.32	1.21	1.10
Handles No. 18 or No. 14 Series Irons	.90	.60	.54	.49	.45
Handles No. 38, 12, 58 or 78 Series Irons	2.40	1.60	1.44	1.32	1.20

P. WALL MANUFACTURING CO.
GROVE CITY, PA.

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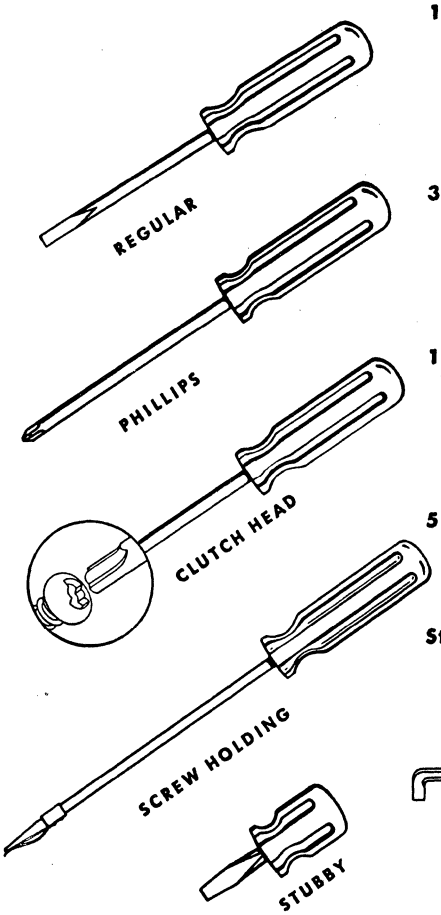
Net

VACO® Screw Drivers Nut Drivers

The Industry's Finest and Most Complete Line



1/8" Cabinet Style—Round Blades

Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	$ .70
A 216-6	1/8"x6"	.72
A 216-8	1/8"x8"	.78
A 216-10	1/8"x10"	.86

3/16" Cabinet Style—Round Blades

A 316-4	3/16"x4"	.92
A 316-5	3/16"x5"	.98
A 316-6	3/16"x6"	1.02
A 316-8	3/16"x8"	1.08
A 316-10	3/16"x10"	1.18

1/4" General Service—Round Blades

A 416-4	1/4"x4"	1.12
A 416-5	1/4"x5"	1.14
A 416-6	1/4"x6"	1.18
A 416-8	1/4"x8"	1.24
A 416-10	1/4"x10"	1.36

5/16" Heavy Duty—Round Blades

A 516-6	5/16"x6"	1.50
A 516-8	5/16"x8"	1.58
A 516-10	5/16"x10"	1.78

Stubbys

A 132	1/4"x1-1/4"	.84
A 135	5/16"x1-3/4"	1.10

Phillips Drivers

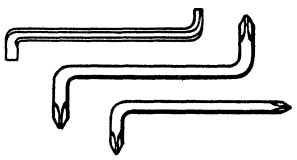
Stock Number	Point No.	Blade Diam. and Length	Price
P 01	0	1/8"x2-1/2"	$ .74
P 1	1	3/16"x3"	1.00
P 2	2	1/4"x4"	1.26
P 3	3	5/16"x6"	1.72
P 5 (Stub)	2	1/4"x1-3/4"	1.10
P 6 (Stub)	1	3/16"x1-1/4"	1.00
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.76

Clutch Head Drivers

Stock Number	Bit Point Diameter and Blade Length	
CH 43	1/8"x3"	1.30
CH 54	5/32"x4-1/4"	1.30
CH 64	3/16"x4-1/4"	1.30
CH 86	1/4"x6"	1.72
CH 106	5/16"x6"	2.22
Stub Styles		
CH 51	5/32"x1-1/2"	1.16
CH 61	3/16"x1-1/2"	1.16

Screw Holding Drivers

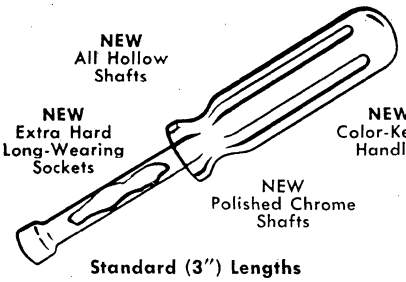
Stock Number	Blade Diam. & Length	
OK 23	1/8"x3"	.98
OK 24	1/8"x4"	1.02
OK 26	1/8"x6"	1.08
OK 28	1/8"x8"	1.12
OK 34	3/16"x4"	1.30
OK 36	3/16"x6"	1.36
OK 38	3/16"x8"	1.42



Offset Screw Drivers

Stock No.	Type	Blade	Price
VO 1	Regular	5/32"x3"	$ .48
VO 2	Regular	1/4"x4"	.78
P 120	Phillips	#1 point one end, #2 point other end	.68
P 111	Phillips	#1 point both ends	.54
P 222	Phillips	#2 point both ends	.60

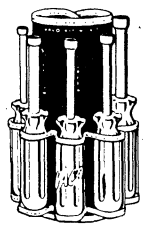
VACO® NEW DESIGN NUT DRIVERS—With All Hollow Shafts



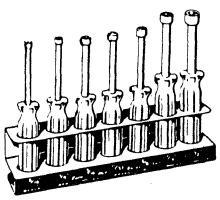
Standard (3") Lengths

Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6 5/8"	Black	$ .96
S 8	1/4"	6 5/8"	Red	.96
S 10	5/16"	6 5/8"	Yellow	.96
S 11	11/32"	6 5/8"	Green	.96
S 12	3/8"	6 5/8"	Blue	.96
S 14	7/16"	7"	Brown	1.18
S 16	1/2"	7"	Orange	1.18

ALSO AVAILABLE
Stubby sizes 1/4", 5/16", 3/8"
Odd sizes 7/32", 9/32"
Extra Large sizes 9/16", 5/8"



K-7 Self-Standing Kit.....$8.60
Includes 7 nut drivers (3" lengths) each in own holder marked for size and color.



S 700 Bench Stand.....$8.00
All metal for permanent attachment to bench or wall. 7 drivers.

VACO Nut Drivers Feature

4-STAR DESIGN

- ★ Extra Large Colored-for-Size Handles
- ★ Beautiful Polished Chrome Finish
- ★ All Hollow Shafts
- ★ Extra Hard Tempered Sockets

with COLORED HANDLES

Available in 24 types and sizes

Trade Discount Applies to List Prices Only
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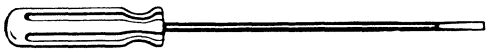
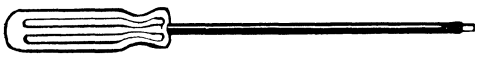
Beryllium Copper Drivers



Round Blade, Non-Spark, Non-Magnetic

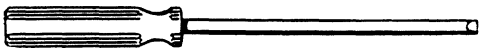
Stock Number	Blade Diameter and Length	Price
VB 26	1/8″x6″	$1.34
VB 210	1/8″x10″	1.48
VB 38	3/16″x8″	2.36
VB 46	1/4″x6″	2.94
VB 48	1/4″x8″	3.24

Insulated Blade Screw Drivers



VR 241	1/8″x4″	.84
VR 261	1/8″x6″	.96
VR 281	1/8″x8″	1.00
VR 361	3/16″x6″	1.12
VR 381	3/16″x8″	1.16

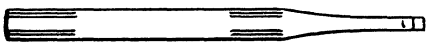
Non-Metallic Radio and TV Aligners



Bone Fiber Blade

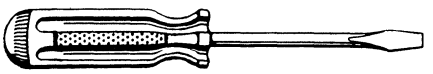
AT 55	5/32″x5″	.74
AT 510	5/32″x10″	.86

Non-Magnetic *Metal Tip* Radio and TV Aligner



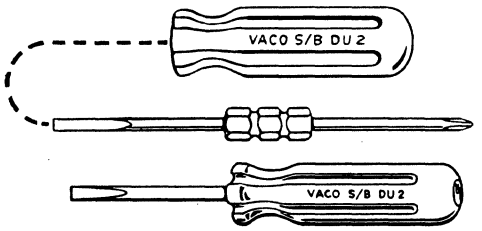
Stock Number	Body Size	Bit Diameter	Capacitance	Price
AT 45	3/8″x5-1/2″	3/16″	Slight	$ .60

Neon Light Screw Drivers



Stock Number	Blade Diameter and Length	Price
AN 44	1/4″x4″	$1.78
AN 2 (Pocket Clip)	1/8″x3″	1.08

Duplex "*Reversible*" Drivers



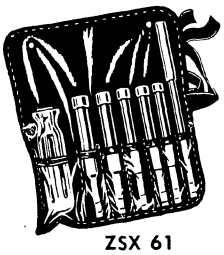
Stock Number	Blade Size and Type	Price
DU 2	No. 1 Phillips, One End 3/16″ Regular, Other End	$1.46
DUH 4	No. 2 Phillips, One End 1/4″ Regular, Other End	1.76
DUP 12	No. 1 Phillips, One End No. 2 Phillips, Other End	1.94

VACO RADIO and TV KITS

ZBX 51

ZBX 51 Screw Driver Kit.....$5.22

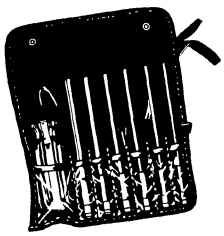
A fine, all-purpose kit of interchangeable regular and Phillips blades that fit same handle. 6″ extension makes 10 combinations possible. In durable leatherette bag.



ZSX 61

ZSX 61 Nut Driver Kit.....$6.30

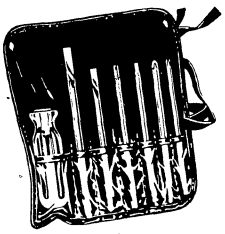
A most versatile and complete hexagon wrench kit for radio, television or any other work requiring speedy nut setting. All sockets are super hard for maximum utility and long life. 6″ extension makes 10 blade lengths possible. In handy leatherette tool roll.



ZA 70

ZA 70 Allen Driver Kit.....$5.12

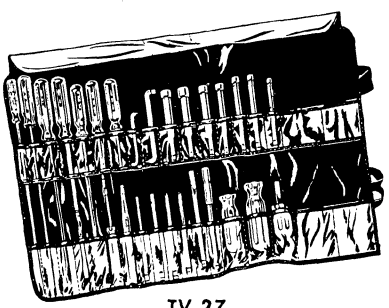
This useful kit consists of 6 hexagon drivers, handle and bag. Will service hexagon recessed opening screws Nos. 4, 5, 6, 8, 10, 1/4″, 5/16″ and 3/8″. Each bit is extra long and may ground back as wear occurs.



ZU 75

ZU 75 Universal Driver Kit.....$5.22

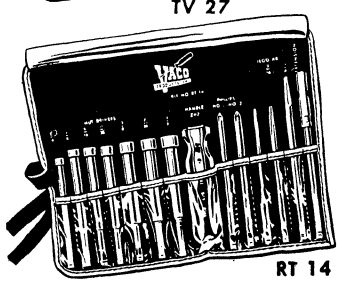
Here is a kit that is universal in its applications since it will serve all three types of the most popular screws in use today—regular slotted, Phillips, and clutch head. All popular size blades are included—3/16″ and 1/4″ for regular slotted screws; No. 1 and No. 2 Phillips; 5/32″ x 3/16″ clutch head.



TV 27

27-Piece TV and Radio Kit.....$26.42

NO. TV 27 KIT—Contains practically every hand tool necessary for television and radio work, *plus* extra pockets for pliers and other personal tools according to individual preferences. Contains one each of the following: ZH 1 medium duty handle; ZH 2 heavy duty handle; ZX 56 extension; A 132 1/4″ stub; 1/4″, 3/16″, 1/8″ regular bits; No. 1 Phillips and No. 2 Phillips bits; 3/16″, 1/4″, 5/16″, 11/32″, 3/8″, 7/16″ and 1/2″ hex. wrenches; AT 45 metal tip aligner; A 116-2 3/32″ pocket clip; P 01 #0 Phillips thin blade; OK 24 1/8″ screw holding; VR 261 1/8″ insulated blade; OK 38 3/16″ screw holding; VR 381 3/16″ insulated blade; VB 210 1/8″ x 10″ non-magnetic adjuster; AT 510 5/32″ fiber aligner; VO 2 medium offset; VO 1 small offset.



RT 14

14-Piece TV and Radio Kit $11.98

NO. RT 14 KIT—Here's a handy, convenient kit for radio and TV service men. Contains nut drivers, Phillips and regular drivers, plus ZH 2 heavy duty handle and famous Vaco 6″ extension which doubles the usefulness of each driver. In durable leatherette tool roll.

VACO PRODUCTS CO., Chicago Illinois

In Canada: Vaco-Lynn Products (of Canada) Ltd.

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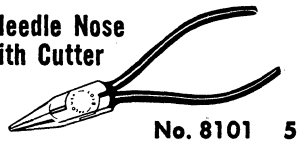
NEW VACO Individually Tested PLIERS

- **Milled jaws for sure grip**
- **Hand honed side cutters**
- **Fitted grip handles**
- **Unconditional factory guarantee**

24 Popular Styles from Which to Choose

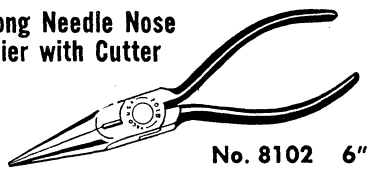
Short Needle Nose Plier with Cutter



No. 8101 5"

This plier is intended for general use where a short nose is desired for getting into difficult places.....$3.50

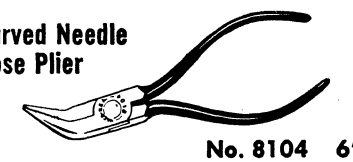
Long Needle Nose Plier with Cutter



No. 8102 6"
No. 8103 7"

An exceptional handy and useful plier, well proportioned with long thin nose, designed for reaching into tight places. No. 8102....$3.65. No. 8103....$4.40

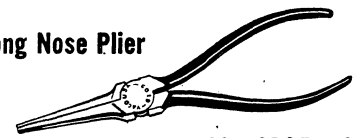
Curved Needle Nose Plier



No. 8104 6"

A long, bent, thin nose plier. The angle is arranged to give full clearance and prevent skinning of knuckles.....$3.75

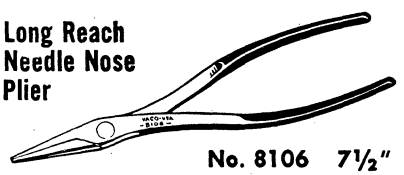
Long Nose Plier



No. 8105 6"

Newly designed long nose plier suitable for working in confined places.....$3.65

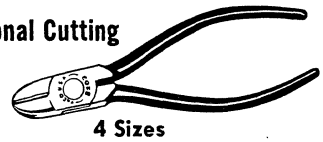
Long Reach Needle Nose Plier



No. 8106 7½"

Has long, thin, sure-grip jaws to reach into places where fingers and ordinary pliers will not go.....$3.65

Diagonal Cutting Plier

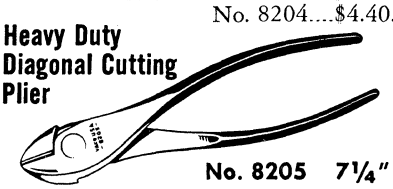


4 Sizes

No. 8201 4½" **No. 8203 6"**
No. 8202 5" **No. 8204 7½"**

Specially designed for electricians, radio and TV service men and automotive mechanics. Powerful jaws cut close and quickly.....No. 8201....$3.50. No. 8202....$3.50. No. 8203....$3.75. No. 8204....$4.40.

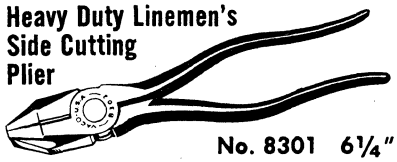
Heavy Duty Diagonal Cutting Plier



No. 8205 7¼"

One of the most powerful diagonal pliers made. Long handles give a 20 to 1 ratio of leverage to cut with minimum effort.....$4.10

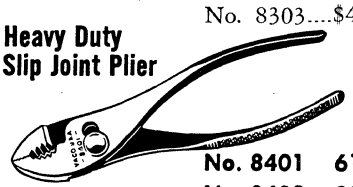
Heavy Duty Linemen's Side Cutting Plier



No. 8301 6¼"
No. 8302 7½" **No. 8303 8¾"**

One of the most popular pliers in use today. Has extra powerful leverage and reinforced cutting knives..... No. 8301.... $3.65. No. 8302....$4.10. No. 8303....$4.85.

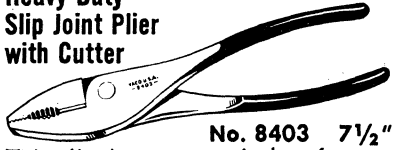
Heavy Duty Slip Joint Plier



No. 8401 6½"
No. 8402 8"

A top quality slip joint combination plier. Has all the quality features of higher priced cutting pliers at modest cost.....No. 8401....$1.70. No. 8402....$2.30.

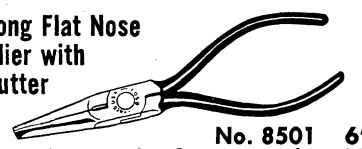
Heavy Duty Slip Joint Plier with Cutter



No. 8403 7½"

This plier incorporates the best features of a regular side cutter with the versatility of a slip joint combination plier.....$4.10

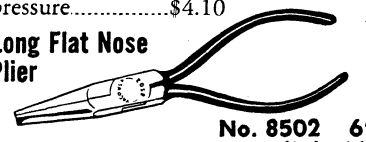
Long Flat Nose Plier with Cutter



No. 8501 6"

Extra long, wide, flat nose makes this an especially useful tool. Plier is tempered so jaw will not spring under pressure.....$4.10

Long Flat Nose Plier



No. 8502 6"

Same as No. 8501 except supplied without cutter.....$3.50

Long Reach Flat Nose Plier

No.8503 7½"

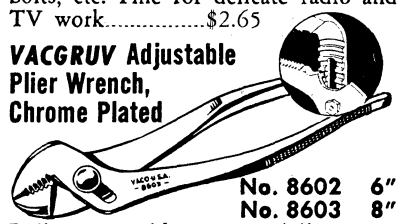
Fitted with duckbill type jaws wider and heavier than those of the ordinary flat nose for firmer gripping service..$3.65

VACGRUV Adjustable Ignition Plier Wrench, Chrome Plated

No. 8601 5"

Especially designed 3-position jaws accommodate small to medium large nuts, bolts, etc. Fine for delicate radio and TV work.....$2.65

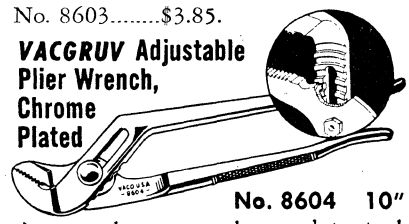
VACGRUV Adjustable Plier Wrench, Chrome Plated



No. 8602 6"
No. 8603 8"

Built to provide an especially secure grip on medium to large bolts, nuts, pipes, etc. 3-position jaws open to—⅜", ¾", respectively.....No. 8602....$3.50. No. 8603.....$3.85.

VACGRUV Adjustable Plier Wrench, Chrome Plated



No. 8604 10"

A general purpose, heavy duty tool with 5-position jaws that open to 1⅛". Doubles as pipe wrench, gripping plier and hand vise.....$4.40.

VACO PRODUCTS CO., Chicago Illinois
In Canada: Vaco-Lynn Products (of Canada) Ltd.

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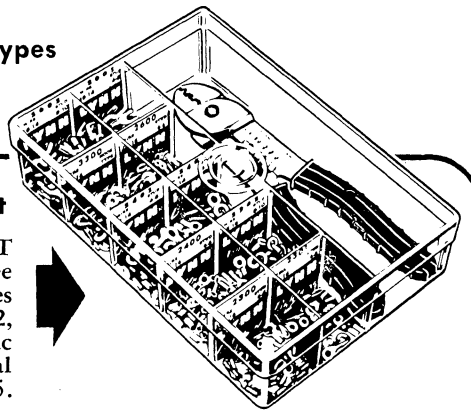
VACO® Solderless Terminals

Now Available in 2 Lines– Insulated and Non-Insulated

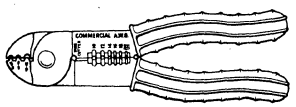
71 different types and sizes



No. 2195 Service Kit

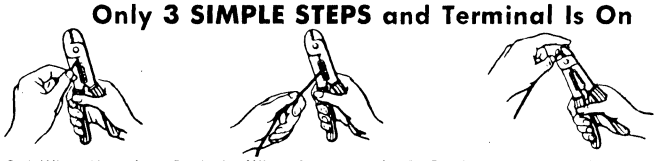
A GENERAL PURPOSE ELECTRICAL, RADIO AND TV KIT containing everything needed for making clean, fast, trouble-free electrical connections. No soldering! No fuss or muss! Kit includes .. No. 1900 Crimping Tool and Terminals Nos. 2300, 2301, 2302, 2400, 2401, 2402, 2600, 2601, 2602, and 3300 ... all in a clear plastic box with tight-fitting lid. Individual bins marked with terminal stock number cards.....$8.95.

No. 1900 Crimping Tool



No solder ... no iron ... no heating ... a perfect connection every time with this tool and Solderless Terminals by Vaco! Crimping tool has wire cutters, indenting die, wire-stripping die, shock-proof, slip-proof plastic handle sleeves. For No. 22 to No. 10 gauge wire. $3.95

Only 3 SIMPLE STEPS and Terminal Is On



1. Cut Wire. Use the wire cutter built into the crimping tool to cut wire proper length.

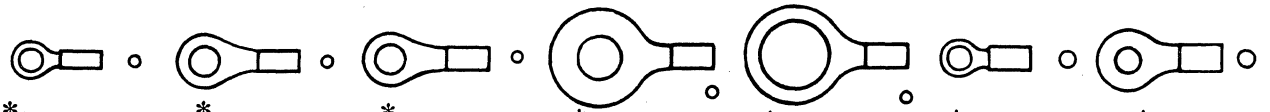
2. Strip Wire. Insert end of wire into proper wire stripping opening, close jaws, rotate tool one-half turn, then pull insulation off wire.

3. Crimp Terminal. Insert stripped portion of wire into terminal barrel, place barrel in proper crimping nest with seam directly opposite crimping tooth and close tool like pliers.

Extra long barrel on terminal provides easy crimp and perfect contact. Only ONE crimp necessary. Barrel always remains round.

Quick Reference Chart for Easy Terminal Identification

RING TONGUE TERMINALS



*No. 2300 — Hole Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 22 - 16

*No. 2301 — Hole Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 22 - 16

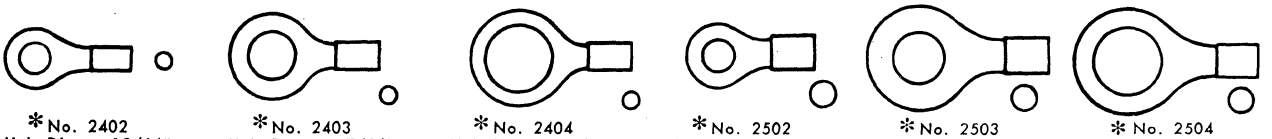
*No. 2302 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 22 - 16

*No. 2303 — Hole Dia. — 17/64" — Stud Size — 12 - 1/4 — Wire Size — 22 - 16

*No. 2304 — Hole Dia. — 13/32" — Stud Size — 3/8 — Wire Size — 22 - 16

*No. 2400 — Hole Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 16 - 14

*No. 2401 — Hole Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 16 - 14



*No. 2402 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 16 - 14

*No. 2403 — Hole Dia. — 17/64" — Stud Size — 12 - 1/4 — Wire Size — 16 - 14

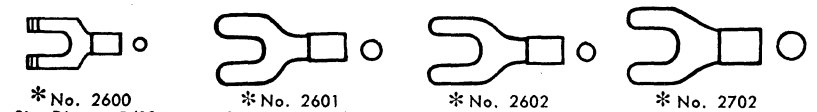
*No. 2404 — Hole Dia. — 13/32" — Stud Size — 3/8 — Wire Size — 16 - 14

*No. 2502 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 12 - 10

*No. 2503 — Hole Dia. — 17/64" — Stud Size — 12 - 1/4 — Wire Size — 12 - 10

*No. 2504 — Hole Dia. — 13/32" — Stud Size — 3/8 — Wire Size — 12 - 10

SPADE TONGUE TERMINALS



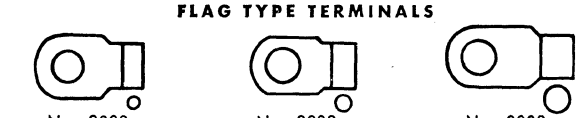
*No. 2600 — Slot Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 22 - 16

*No. 2601 — Slot Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 16 - 14

*No. 2602 — Slot Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 16 - 14

*No. 2702 — Slot Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 12 - 10

FLAG TYPE TERMINALS



No. 2802 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 22 - 16

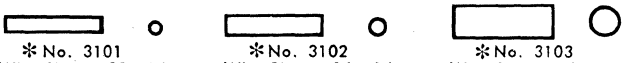
No. 2902 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 16 - 14

No. 3002 — Hole Dia. — 13/64" — Stud Size — 8 - 10 — Wire Size — 12 - 10

HOOK TYPE TERMINAL

No. 3300 — Slot Dia. — 5/32" — Stud Size — 4 - 6 — Wire Size — 22 - 16

BUTT CONNECTORS



*No. 3101 — Wire Size — 22 - 16

*No. 3102 — Wire Size — 16 - 14

*No. 3103 — Wire Size — 12 - 10

*** These types available in insulated style ... use prefix 6 instead of 2. Thus 2300 becomes 6300.**

CONVENIENT $ PAK

All Lynn Lightning Terminals are available in convenient $ Paks. When any of the "bins" of the service kit are empty, user merely purchases a refill just right for replacing stock. Refill Paks are well marked for trouble-free handling, and designed with "window" for easy identification $1.00

BULK PAK

Also available in bulk—packed 100 pieces to a package or in new "Bulko" Paks of 1000 each.

VACO PRODUCTS CO. Chicago Illinois, U.S.A.

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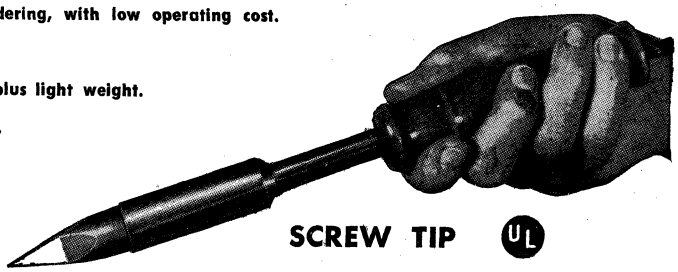
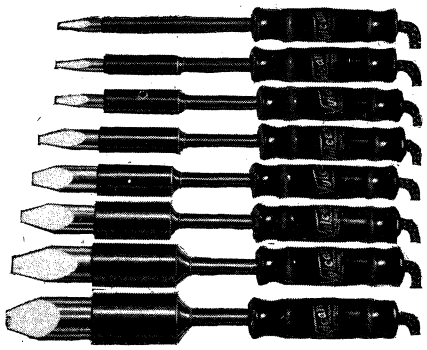
VULCAN
ELECTRIC SOLDERING TOOLS

- High-powered Soldering Tools, designed for fast soldering, with low operating cost.
- Tips are of finest forged copper.
- The "Hang" or balance good mechanics appreciate, plus light weight.
- Cool handles of selected birch, shaped to fit the hand.
- 6 ft. heater cord, with unbreakable rubber plug.
- Fireproof terminals.
- Heating elements easily replaced.
- Operate equally well on AC or DC.



SCREW TIP (UL)

CAT. No.	WATTS	TIP	LIST
20	50	7/16"	6.90
30	60	1/2"	9.40
40	90	1/2"	10.30
50	130	7/8"	12.20
60	175	1"	14.00
70	220	1 1/8"	16.30
80	310	1 3/8"	18.60
90	430	1 5/8"	21.20
900	700	1 3/4"	39.20



Pygmy PENCIL TYPE

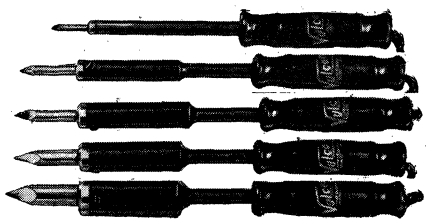
A very efficient tool for fine soldering of instruments, meters, gauges, small radios, etc. or any spots where space is cramped or there is little clearance. The cool, tapering wood handle permits "writing grip." Flexible coil also assures coolness. Equipped with approved cord and unbreakable rubber plug. Standard tip is 1/4" but 3/16" or 1/8" tips are available, as well as special tips, bent to any angle or in various shapes.

Cat. No.	Watts	Tip	Weight	Length	List
Pygmy	25	1/4"	7 oz.	8 1/4"	$5.10

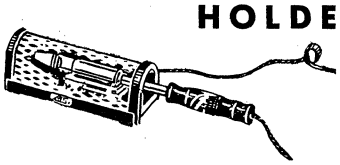
PLUG TIP — All parts replaceable (UL)

CAT No.	WATTS	TIP	LIST
* 25	50	1/4"	$6.55
35	100	3/8"	10.30
453	150	3/8"	11.20
45	150	1/2"	11.70
55	200	5/8"	12.10
* 75	300	7/8"	15.80

*Heating element replaceable at Factory only.



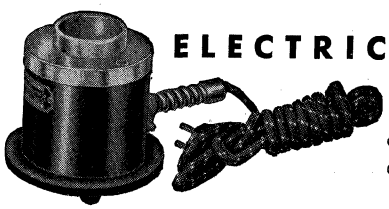
SOLDERING TOOL HOLDER



Holds and guards the Soldering Tool and keeps the tip at soldering temperature as long as it remains in the holder. Has a cord and attached plug cap for connection to current and a receptacle for plugging in the Tool. A convenient adjusting screw sets the Holder thermostat to maintain proper temperature. AC only

No. 2100 without thermostat **$4.95**
No. 2100T with thermostat **$8.00**

ELECTRIC SOLDER POTS



Both single and three-temperature Pots in a variety of sizes and wattages, all with cord and plug approved at Underwriters' Laboratories.

CAT. No.	WATTS HIGH	WATTS MEDIUM	WATTS LOW	CAPACITY SOLDER APPROXIMATE	LIST
1700	200	120	80	1 1/4 lbs.	$28.60
1702	250	150	100	5 lbs.	32.85
1704	500	250	125	10 lbs.	41.25
1600	150	Single Heat		14 oz.	9.90
1606	350	Single Heat		3 lbs.	11.55
1701	250	Single Heat		4 lbs.	21.10
1703	200	Single Heat		1 1/2 lbs.	16.10

Other sizes up to 6000 watts, single heat.

"DUREVER" Soldering Tips are pure forged copper, shaped to your favorite style, with a special metal coating that will preserve the original shape of the tip by protecting the copper from corrosion and oxidation. Will outlast copper tips, cannot amalgamate with solder, do away with the necessity for dressing or filing. Can be readily tinned without filing and hold their original shape. Circular on request.

VULCAN ELECTRIC COMPANY

DANVERS, MASS.

ELECTRIC SOLDERING TOOLS • SOLDER POTS • GLUE POTS • BRANDING IRONS • HEATING UNITS

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SECTION 5400

VULCAN

ELECTRIC SOLDERING TOOLS

LOW PRICE, LONG DISCOUNT

JACKSON

STANDARD — PLUG TIP

Jackson "Standard" Electric Soldering Irons are scientifically designed for that "balanced feel" which reduces fatigue. All elements used in Jackson Standard Irons are made of the finest quality nichrome wire, wound on heat conductive cores and insulated with selected high grade amber mica. Equipped with 6 ft. approved heater cords and plugs. Stand included with every iron.

CAT. No.	WATTS	TIP	LIST
149	85	5/16"	**$5.65**
145	100	3/8"	**6.55**
0145	125	3/8"	**7.75**
146	150	1/2"	**9.30**
147	225	5/8"	**10.70**
148	350	7/8"	**12.55**

COMET — PLUG TIP

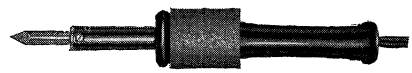
Comet Irons are equipped with a 6 ft. approved Heater Cord and Plug. Heating element is made of high quality Nichrome Wire, wound with mica on a core. Handles are black finish. All irons are packed one in a box, stand included. 50 to a standard shipping container. All irons are made for 115 volts. If higher voltage is desired, there will be a slight extra charge.

CAT. No.	WATTS	TIP	LIST
65 P	65	1/4"	**$2.75**
85 P	85	5/16"	**3.25**
100 P	100	3/8"	**4.00**
125 P	125	7/16"	**4.90**

DE-LUXE ELECTRIC SOLDERING PENCIL

A soldering pencil for all light work such as Radio, Television, Jewelry, Instruments and Electronics. Handle is cork-filled composition, 100% air cooled: 1/2" steel tubing, perforated for air cooling. Element is wound on a heat conductive core, for efficient heating. High grade mica and nichrome wire. Underwriters approved 6 ft. rubber cord and plug.

CAT. No.	WATTS	VOLTS	TIP	LENGTH	WEIGHT	LIST
230 D	25	115	1/4"	7"	3 oz.	**$3.45**



STANDARD ELECTRIC SOLDERING PENCIL

Wood handle, rich black finish with cork sleeve. 1/2" steel tubing gun metal finish. Element is wound on heat conductive core. High grade mica and nichrome wire. 6 ft. rubber cord and plug.

CAT. No.	WATTS	VOLTS	TIP	LENGTH	WEIGHT	LIST
230	25	115	1/4"	7"	3 oz.	**$2.90**

VULCAN "EVEN-DIP" SOLDER POTS

DESIGNED AND DEVELOPED BY SPECIALISTS FOR PRINTED CIRCUIT SOLDER OPERATIONS

- **16 Crucible Sizes.**
- **High Fidelity thermostat control—Adjustable 150-600° F.**
- **Surface Temperature does not vary beyond ± 2° F.**
- **Localized "hot spots" completely eliminated.**
- **Replaceable heavy-duty heating elements.**

Send for free, detailed specifications.

VULCAN

ELECTRIC COMPANY

DANVERS, MASS.

ELECTRIC SOLDERING TOOLS • SOLDER POTS • GLUE POTS • BRANDING IRONS • HEATING UNITS

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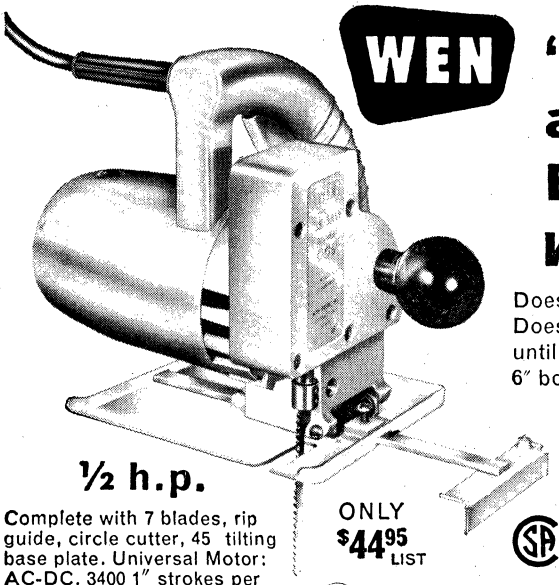
WEN ...Tools you will sell the most

PROMOTED THE YEAR 'ROUND | Reader's Digest—Life, Saturday Evening Post—Esquire, Popular Mechanics, Popular Science, Mechanix Illustrated



WEN

"All-Saw"...Cuts 4 x 4 at 45°...6" Log... Fine Scroll Work... WITH COMPLETE SAFETY!

Does Everything a Pattern Saw Will Do; More Than A Circular Saw Does! Does many things a band saw or nibbler will do—and many things that, until now, only a chain saw could. No other portable electric-saw can cut a 6" board or a 6" log, yet cut any pattern, too!

Cuts 2 x 4, 4 x 4, 6 x 6—all metals, including steel thin gauge to ½" —pipe and thin wall up to 2" in diam. Cuts curves, circles, straight cuts, fine pattern work in Masonite, Bakelite, wood, metals, tiles, Formica, wallboard, Plexiglas, plaster board, asbestos. Knife blade cuts all materials cut with knife.

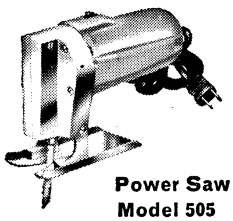
Curved foot plate enables inside cut anywhere; cutting blade in line of sight; air stream clears dust from line of cut; powerful ½ H.P. motor; 3 wire 8 cord with adaptor; heavy duty hardened gears; heavy duty roller and oilite bearings.

½ h.p.

Complete with 7 blades, rip guide, circle cutter, 45 tilting base plate. Universal Motor: AC-DC, 3400 1" strokes per minute. Length 8", Width 7" Height 7½", Wt. 6½ lbs.

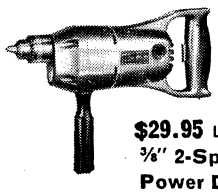
ONLY **$44.95** LIST

UL listed under Industrial Classification



Power Saw Model 505 $26.95 LIST

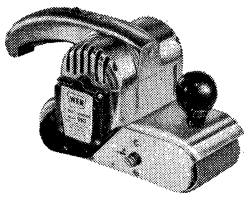
Does work of rip, jig, crosscut, band, hack, coping, scroll, keyhole saws. Cuts 2 x 4 in seconds, cuts plastics, etc.; cuts ½" steel plate. 1.8 amp. motor. 2650 ⅝" strokes per minute under load. Motor fan keeps guideline free from sawdust. Handy, beautifully balanced. 3 blades included. Also available in kit form (505K) with metal carrying case.



$29.95 LIST **⅜" 2-Speed Power Drill Model 808**

A 2-speed ⅜" Power Drill by Wen—and only Wen. Here in one tool is everything needed in an electric drill. Easy to change speeds. 1000 RPM to 3000 RPM. Husky, powerful, but streamlined design. Genuine ⅜" Geared Chuck. Universal 2 amp. Motor. Size 12¼" x 4¾" x 2½". Weight 4½ lbs.

NEW INDUSTRIALLY RATED



Full 3" Belt Sander

At Home Workshop Price **$44.95**

Finally, the complete answer to home-workshop sanding. Powerful cool-running 4¼ amp. motor turns belt at 850 surface ft. per min. Completely gear driven with permanently lubricated precision needle and oversize sleeve bearings. Unique tension device maintains peak efficiency, enables quick change of belts. Exclusive casting design combines with forced air currents to cause dust accumulation at rear—keeps work clean, easy to see. Balanced weight, contour grip handle minimize fatigue. Die cast polished aluminum housing. Total weight 7 lbs. Comes with 3 sanding belts: coarse, medium, fine.

STRAIGHT-LINE VIBRATOR SANDERS

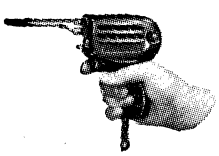
Model 202—$13.95
Small, light, quiet. Strong black plastic case. 14,400 strokes per minute. In display carton with 6 abrasive sheets, 2 polishing pads.

Model 303—$16.95
General utility model in red plastic. 14,400 strokes per minute. In gold metal Kit Box with 12 abrasive sheets, 2 polishing pads.

Model 404—$19.95
Heavy duty with special motor for amazing power. 14,400 strokes per minute. Ebony plastic in metal Kit Box with 15 abrasive sheets, 2 polishing pads, instruction book.

"Quick Hot" Soldering Guns...8 standard and special tips

Promotionally Priced



$7.95 LIST **Model 199**

General purpose gun. Heats 2½ seconds. Weighs 1½ lbs. Has long, durable tips, spotlight, sturdy red plastic case. Kit includes gun, extra tips for hot-cutting, smoothing, rosin core solder, all in strong metal box.

$9.95 LIST **Model 199K**

Heats in 5 seconds, far beyond 200 watt rating. Light (2¼ lbs.) Has long reach, long life tips, spotlight, strong shatterproof handle and case.

$9.95 LIST **Model 288**

Famous WEN 250 Watt Heavy Duty Model. 567 hours continuous operation. Heats in 5 seconds. Spotlights work. With special rip cuts plastic tile. Strong black plastic case. Comes in attractive Self-Display Carton. Also available in kit form (250K) with metal carrying case.

$12.95 LIST **Model 250**

$5.95 LIST **Model 100**

Feather-light (19 oz.) Slim-line (1¹¹⁄₁₆" cross section) 100 Watts power. Heats 2½ seconds. Built-in spotlight focused on work. Long reach, long life tips, replaceable and interchangeable with special purpose tips. Lustrous black plastic housing.

WEN PRODUCTS, INC. Chicago, Ill

Trade Discount Applies To List Prices Only

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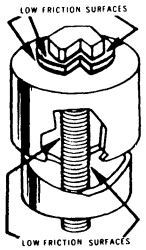
Walsco ELECTRONICS CHASSIS PUNCHES

NEW *"LT" (LOW TORQUE) CHASSIS PUNCHES

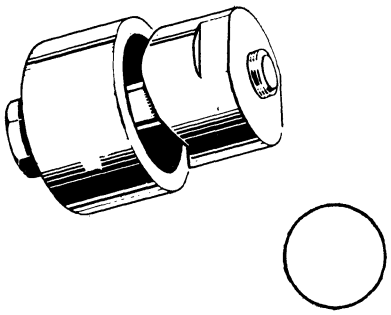
A brand-new electro-coating process (which can't wear off) reduces friction, thus lowers torque. You get a much cleaner hole with much less effort. The Walsco "L.T." Chassis Punch requires no lubrication of any kind and will give perfect service almost indefinitely.

50% LESS EFFORT REQUIRED THAN COMPETITIVE PUNCHES



ROUND CHASSIS PUNCHES

Made of hardened, precision-ground, tool steel. Quick and easy to operate. Saves hours of hard work.

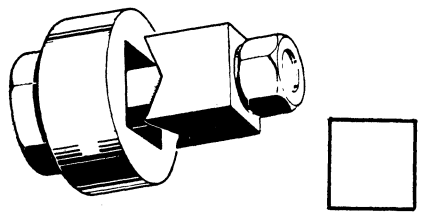


Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Dealer Net
3050-R	1/2"	1/4	5/16"	$2.60
3062-R	5/8"	5/16	3/8"	2.63
3069-R	11/16"	3/8	7/16"	2.60
3075-R	3/4"	3/8	7/16"	2.60
3087-R	7/8"	3/8	7/16"	2.60
3100-R	1"	3/8	7/16"	2.85
3106-R	1 1/16"	3/8	7/16"	3.00
3112-R	1 1/8"	3/8	7/16"	3.00
3116-R	1 5/32"	3/8	7/16"	3.00
3117-R	1 11/64"	3/8	7/16"	3.00
3119-R	1 3/16"	3/8	7/16"	3.00
3125-R	1 1/4"	3/8	7/16"	3.00
3137-R	1 3/8"	1/2	9/16"	4.17
3150-R	1 1/2"	1/2	9/16"	4.92
3225-R	2 1/4"	3/4	7/8"	9.92

* LOW TORQUE

SQUARE CHASSIS PUNCHES

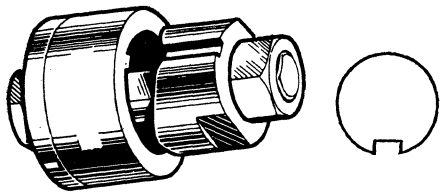
Very handy for mounting I.F. transformers, or for "nibbling" larger square holes such as may be required for power transformers, tuning condensers, etc. Finest quality steel.

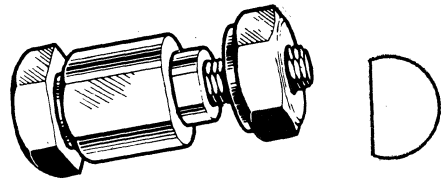


Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Dealer Net
3062-S	5/8"	3/8	1/2"	$5.42
3069-S	11/16"	3/8	1/2"	5.85
3075-S	3/4"	3/8	1/2"	5.92
3087-S	7/8"	3/8	1/2"	6.55
3100-S	1"	3/8	1/2"	7.50

* LOW TORQUE

KEY AND "D" CHASSIS PUNCHES





KEY 3117-K	1-11/64"	1/2"	9/16"	6.08

Cuts a special keyed hole for key-type sockets and other components where turning or twisting is not desired. The "D" shape punch is especially helpful in the mounting of power and output transformers. Provides ample space to pass wire and insulation through the chassis.

* LOW TORQUE

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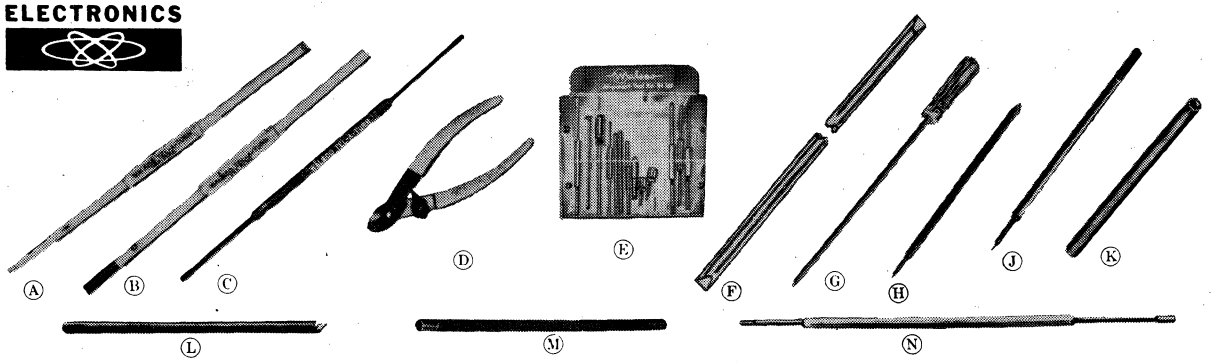
Walsco ELECTRONICS ALIGNMENT AND SPECIAL TOOLS



(A) I.F. Aligner and also double-ended. One end fits a #4 stud, the other end fits a #6 stud.
Cat. No. 2586 Tel-A-Turn Tool Net $ **.98**

(B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings.
Cat. No. 2587 Tel-A-Turn Tool Net $ **.98**

(C) A double ended Hex Aligner that turns both top and bottom slugs. One end has .100" hex, the other end is .125" hex.
Cat. No. 2588 Tel-A-Turn Tool Net $ **.98**

(D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Strips and clips all wires ranging from 14 to 26 gauge.
Cat. No. 595 Net **$1.38**

(E) "LUCKY 13" ALIGNMENT TOOL KIT. Carefully selected as the most needed tools, for the Service-Technician in Electronics, TV, Hi-Fi and Printed Circuit Work.
Cat. No. 582 Net **$8.73**

(F) NEW "SLIM-FIBREGLASS STICKS." New precision made Walsco Slim-Sticks are made of durable fibreglass. Completely non-metallic.
Cat. No. 2531-X 1/8" Dia. x 12" Long Net $ **.42**
2532-X 1/8" Dia x 16" Long **.57**
2534-X 5/32" Dia. x 12" Long **.48**
2535-X 5/32" Dia. x 16" Long **.72**

(G) WALSCO "GLAS-STICKS." Precision made machined fiberglas reinforced polyester alignment screwdriver.
Cat. No. 2537 5/32" Dia., 7" blade Net $ **.72**
2538 5/32" Dia., 14" blade **1.05**

(H) DUPLEX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long.
Cat. No. 2520 Net $ **.62**

(J) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings.
Cat. No. 2541 5 3/4" long Net $ **.51**

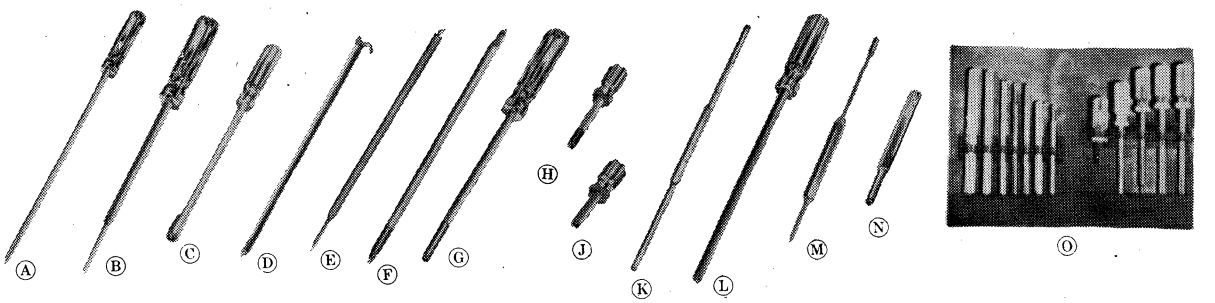
1/4" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7 1/2" long, 3/8" round O.D.
Cat. No. 2503 Net $ **.37**

(K) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life. 7 1/2" long, 7/16" O.D.
Cat. No. 2508 Net $ **.37**

(L) METAL TIP ALIGNMENT SCREWDRIVER. Combines low capacitance desirable in alignment tool with mechanical strength of metal screwdriver. Butyrate handle, 7/32" diameter, 6" long over all.
Cat. No. 2525 Net $ **.42**

(M) WALSCO TUNING WAND. Butyrate rod with one end made of brass, the other loaded with powdered iron—for checking coils.
Cat. No. 2540 Net $ **.53**

(N) DOUBLE END NYLON HEX IRON CORE TOOLS—For .075", .100" and .125" Cores. Turn both top and bottom coil slugs with this one handy tool. One end under cut for turning bottom slug separately.
Cat. No. 2542 .125" Hex, 5" long, Hex Handle Net $ **.48**
2543 .100" Hex, 5" long, Hex Handle **.48**
2544 .100" Hex, 11" long, knurled 1/4" Handle **.63**
2545 .100" Hex, 11" long, thin, 5/32" Handle **.63**
2546 .075" Hex, 11" long, knurled 1/4" Handle **.63**
2547 .075" Hex, 11" long, thin, 5/32" Handle **.63**



(A) "THE LONG RANGER." A full 12", slim, completely insulated tuner alignment tool. Features tough, replaceable, molded nylon tip.
Cat. No. 2523 Net **$1.50**

(B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners.
Cat. No. 2522 Net $ **.92**

(C) PHILCO TUNER TOOL. A special tool for 1946-48 front-end tuners.
Cat. No. 2518 Net **$1.12**

(D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" Butyrate handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip.
Cat. No. 2512 Net $ **.45**

(E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Tran miniature I.F. transformers.
Cat. No. 2515 Net $ **.60**

(F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design.
Cat. No. 2528 7 1/2" long Net $ **.67**

(G) SLOTTED STUD DRIVER. An 8 1/4" long precision screwdriver with blade to fit No. 6 studs.
Cat. No. 2516 Net $ **.92**

(H) I.F. ALIGNER. 2 1/2" long molded high-impact styrene . . . for RCA, Zenith and others.
Cat. No. 2527 Net $ **.58**

(J) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs.
Cat. No. 2517 Net $ **.58**

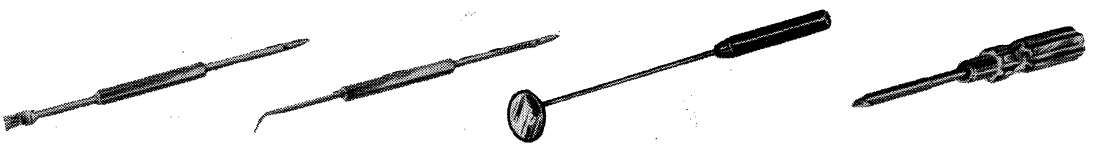
(K) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off.
Cat. No. 2519 Net $ **.67**

(L) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets.
Cat. No. 2524 Net $ **.87**

(M) DOUBLE ENDER. A 5 1/2" long, molded-nylon tool, with one end to fit hex studs, the other end being a very small screwdriver.
Cat. No. 2526 Net $ **.37**

(N) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded nylon. 5 1/2" long.
Cat. No. 2521 Net $ **.48**

(O) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walsco tools and come in a handy leatherette case or wall rack for mounting above work bench.
Cat. No. 580 Leatherette case. Net **$7.20**
581 in wall rack **7.50**



WALSCO SPECIAL TOOLS

SOLDER-AID TOOL. Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8"long plastic handle Net **$1.00**

SOLDER-AID TOOL. Similar to #2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net **$1.00**

INSPECTION MIRROR. High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net $ **.42**

MINI-HOLD SCREWDRIVERS. Designed primarily to speed replacing phono cartridges. Exclusive "wedge-action" securely grips extremely small screws (#1 to #4) "Mini-hold" measures just 2 7/8" when in use.
Cat. No. 2568 2 7/8" long, "Open" length 3 1/4" Net **$1.72**
2569 7" long **2.25**

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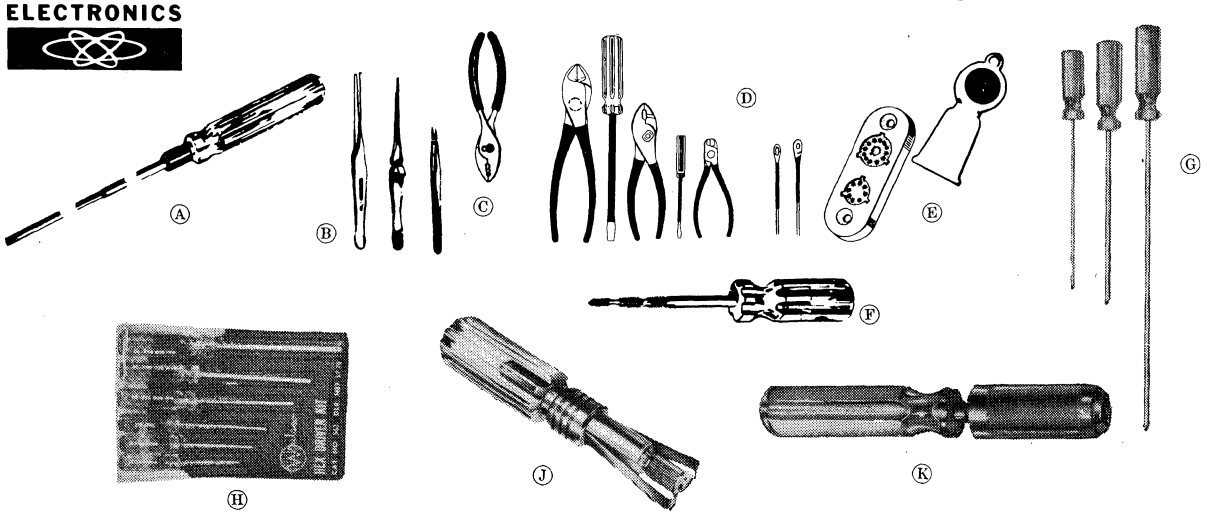
Walsco ELECTRONICS ALIGNMENT AND SPECIAL TOOLS



(A) WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL — Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.
Cat. No. 2565 11" Lgh. Net **$2.58** ea.
Cat. No. 2566 15" Lgh. Net **$3.00** ea.
Cat. No. 2567 19" Lgh. Net **$3.75** ea.

(B) WALSCO SERVICE TWEEZERS — For handling small parts in crowded spaces. Walsco Tweezers are indispensable. They are made of forged steel, polished nickel-plated.

Cat. No. 570 Self-Closing Tweezer with cross-over action, 6½" long, serrated, blunt points. Net **$ .78**

Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature. 6½" length, serrated, blunt points. Net **$ .90**

Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4½". Net **$ .52**

Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net **$2.28**

(C) EASY-ON TOOL GRIP — Designed for pliers, cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.
Cat. No. 521 Small Net **$ .23** per pr.
Cat. No. 522 Med. Net **$ .27** per pr.
Cat. No. 523 Large Net **$ .33** per pr.

(D) WALSCO PROTECTO TUBE — Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walsco Protecto Tube.
Cat. No. 18K Net **$1.20**

(E) WALSCO STRAIGHT'N PULL TUBE PIN STRAIGHTENER AND PULLER — Compact tube pin straightener for seven and nine pin miniature tubes combined with an ingenious tube puller.
Cat. No. 565 Net **$1.08**

(F) 3-STEP TAP — Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6/32, 8/32 and 10/32.
Cat. No. 2574 Net **$3.50**

(G) NON-MAGNETIC BERYLLIUM SCREWDRIVERS — Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.
Cat. No. 2560 ⅛" Dia., 9" Overall Length Net **$ .83**
Cat. No. 2561 ⅛" Dia., 13" Overall Length Net **$ .90**
Cat. No. 2562 3/16" Dia., 9" Overall Length Net **$1.48**
Cat. No. 2564 3/16" Dia., 13" Overall Length Net **$1.65**

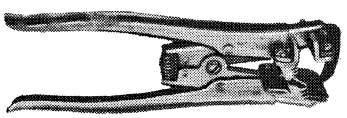
(H) HEX DRIVERS — Blades are made of high torque, heat treated, alloy steel and are permanently embedded in shock and chip-proof plastic handles.

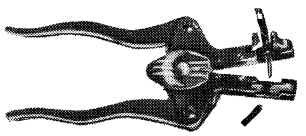
Cat. No.	Size of Hex across flat	Overall Length	Net
562-01	.050"	3⅜"	**$ .30**
562-02	1/16"	3⅝"	**.30**
562-03	5/64"	4⅜"	**.30**
562-04	3/32"	5⅛"	**.35**
562-05	⅛"	5¾"	**.35**
562-06	5/32"	6½"	**.45**

COMPLETE KIT containing all six above drivers in attractive plastic case.
Cat. No. 563 Net **$2.97**

(J) TWISTO WIRE STRIPPER — A low-cost, pocket-size, precision stripper. Operating on an entirely new principle, the Walsco Twisto Wire Stripper permits stripping insulation right up next to a soldered connection, plug or socket.
Cat. No. 592-00 Net **$2.70**
Cat. No. 592-03 Replacement Blades **$ .60** per set

(K) WALSCO KNURL-TITE WRENCH — Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.
Cat. No. 2581 ⅜" Dia. nut Net **$4.83**
Cat. No. 2582 ½" Dia. nut Net **$4.83**
Ca. No. 2583 ⅝" Dia. nut Net **$4.83**





ALL-PURPOSE WIRE STRIPPER — Has "Stay-open" feature to prevent crushing fine wires. An improved tool for automatically stripping insulation from wires neatly and quickly. Strips ends or at any point along a wire. Very sturdy. Especially hardened steel, precision ground blades.

Cat. No. 590-000 Electronic type for wire sizes 12 through 20, plus 300 ohm twin lead. Also cuts wire. Net **$5.93**

Cat. No. 590-01 Replacement Blade set for No. 590. Net **$1.65**

Cat. No. 591-00 "Wide-Range" Model. Strips wire from #10 through #22. Will not strip twin lead and has no cutter. Net **$5.93**

Cat. No. 591-01 Replacement Blade Set for No. 591. Net **$1.65**

SPEED-O-MATIC WIRE STRIPPERS—With fully automatic—delayed-action return that prevents the crushing of fine stranded wires. Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from #10 to #30 wires by easy exchange of cutter blades.

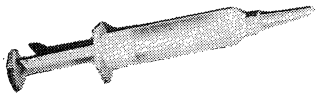
Cat. No. 594-01 For #10 to #22 Net **$5.93**
Cat. No. 594-02 For #10 to #18 **5.93**
Cat. No. 594-03 For #14 to #30 **5.93**
Cat. No. 594-04 For #16 to #22 **5.93**
Extra Blades for Above set **1.43**

TRIG-O-MATIC WIRE STRIPPERS — Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.

Cat. No. 593-01 For #10 to #22 Net **$5.93**
Cat. No. 593-02 For #10 to #18 **5.93**
Cat. No. 593-03 For #14 to #30 **5.93**
Cat. No. 593-04 For #16 to #22 **5.93**
Extra Blades for Above set **1.35**

NEW WALSCO VIBRA-PULL — The quickest, easiest safest way to pull auto radio vibrators. Exclusive design offers absolute protection against damage to vibrator prongs, sockets and adjacent electronic components.
Cat. No. 566 Net **$1.60**

WALSCO OILETTE — Filled with high grade Walsco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.
Cat. No. 986 Net **$ .83**
Cat. No. 986-22 Refill for Oilette Net **$ .33**



NEW WALSCO CHEM-O-JECTOR — A new type applicator for lubricants, greases, certain adhesives and many cleaning fluids used in electronics. Uses the "hypodermic" plunger principal, which makes it possible to reach "hard-to-get-at" places.
Cat. No. 987 Net **$ .30**

Weller®

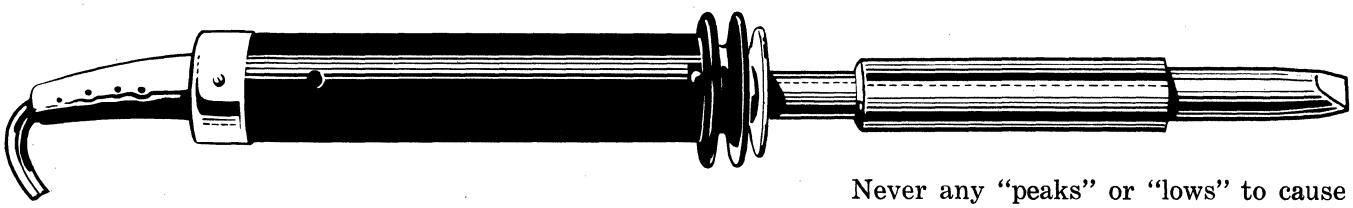
MAGNASTAT SOLDERING IRONS

Easton, Penna.

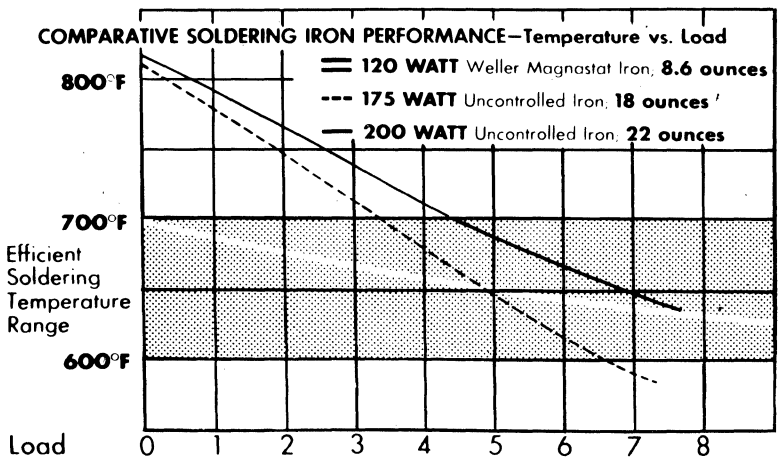
TEMPERATURE CONTROLLED SOLDERING IRONS

Weller®

. . . the only soldering irons with built-in MAGNASTAT temperature control in the tip



THIS CHART SHOWS HOW A WELLER TC1202 IRON DOES THE WORK OF UNCONTROLLED IRONS OF APPROXIMATELY 3 TIMES ITS WEIGHT



White line—Weller TC1202 Magnastat Soldering Iron stability as compared with two typical uncontrolled irons.

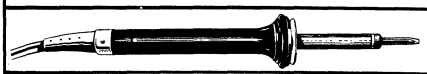
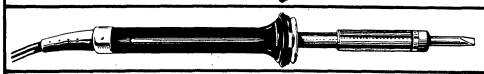
Never any "peaks" or "lows" to cause faulty soldering. Tip temperature automatically remains constant. Magnastat Irons also weigh only half as much as uncontrolled irons and give greater heat efficiency with lower wattage.

Plus these advanced features for greater adaptability, longer life:

- Various tip types available
- Tip retaining nut minimizes freezing
- Rubber shock absorber prevents sliding
- Rugged, non-arcing snap switch
- Handle remains cool
- Cord connection locks securely
- 2 or 3-wire cords for all models
- 2 soldering temperatures are provided by model TC552. Accomplished by interchanging high and low heat tips.

3 MODELS COVER ALL TYPES OF ELECTRICAL SOLDERING

All models are 110-120 volts, AC

with **tip** and **3-wire cord**	model	watts	tip temperature controlled to:	weight of iron	list price
	TC552-3	55	600° or 700°F.	3 oz.	**$10.00**
	TC602-3	75	700°F.	3½ oz.	**$11.00**
	TC1202-3	120	700°F.	6 oz.	**$12.50**

With tip and 2-wire cord: Model TC552-2, **$9.00** list. Model TC602-2, **$10.00** list. Model TC1202-2, **$11.50** list.

Trade Discount Applies To List Prices Only

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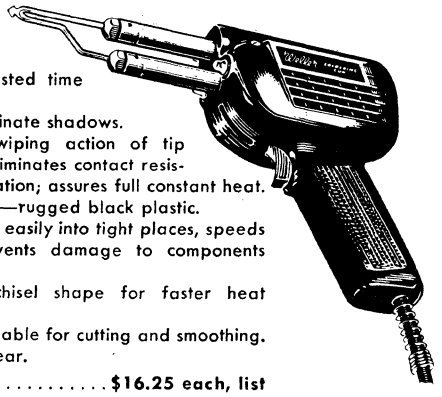
Weller®

DUAL HEAT MODELS

IMPORTANT WELLER GUN FEATURE

DUAL HEAT—saves time and money; tip life greatly increased by using high heat only when necessary. Switch instantly to high or low heat as job requires.

Model D-550



200/275 watts
Instant heat—no wasted time or current.
Twin spotlights—eliminate shadows.
Exclusive tip-grip—wiping action of tip fastening unit eliminates contact resistance and oxidation; assures full constant heat.
Shatterproof housing—rugged black plastic.
Longer reach—slides easily into tight places, speeds work and prevents damage to components and insulation.
Replaceable tips—chisel shape for faster heat transfer.
Accessory tips—available for cutting and smoothing.
Guaranteed—one year.

PRICE ..... **$16.25 each, list**

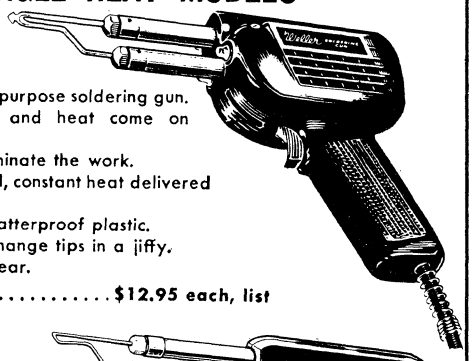
Model D-440

100/150 watts
Instant heat—full capacity heat in 5 seconds.
Twin spotlights—locate the work quickly.
Tip-grip—exclusive feature, assures full constant heat.
High-impact housing—longer reach slips between wiring; handles difficult locations with ease.
Low-cost tips—replacement tips attach quickly and securely.
Special tips—accessories available for cutting and smoothing jobs.
Guaranteed—for one year.

PRICE ..... **$12.95 each, list**

SINGLE HEAT MODELS

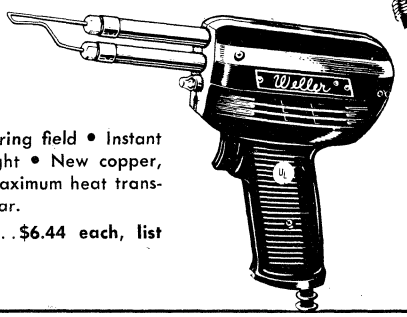
Model 8250A



250 watts
Heavy-duty general purpose soldering gun.
Instant heat—lights and heat come on together.
Twin spotlights—illuminate the work.
Tip-grip—assures full, constant heat delivered to the tip.
Rugged housing—shatterproof plastic.
Replaceable tips—change tips in a jiffy.
Guaranteed—one year.

PRICE ..... **$12.95 each, list**

Model 8100 B



100 watts

Value leader in the soldering field • Instant heat • Prefocused spotlight • New copper, iron-plated tip provides maximum heat transfer • Guaranteed—one year.

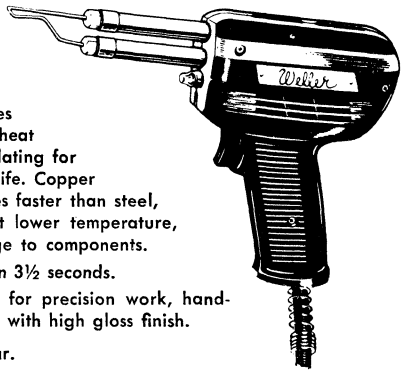
PRICE ..... **$6.44 each, list**

INSTANT HEAT TYPE

SOLDERING GUNS AND KITS

Easton, Penna.

"EXPERT" SOLDERING KIT with new DUAL HEAT GUN



Model 8200K
90/125 watts
Prefocused spotlight
Newest tip design—utilizes copper for superior heat transfer, plus iron plating for rigidity and longer life. Copper conducts heat 5 times faster than steel, permits operation at lower temperature, and prevents damage to components.
Instant heat—gun heats in 3½ seconds.
New design—streamlined for precision work, handsome modern styling with high gloss finish.
Guaranteed—for one year.
Kit includes - cleaning brush, soldering aid solder and dual heat gun.

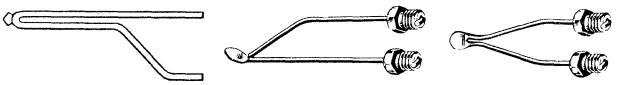
PRICE ..... **$7.95 each, list**

HEAVY DUTY SOLDERING KIT

Model 8250AK
250 watts
Kit includes:
250 watt, instant heat **soldering gun.**
Supply of first-quality **solder.**
Long-life **soldering tip.**
Cutting tip for cutting thermoplastics, etc.
Smoothing tip for heat sealing, etc.
Tip interchange wrench.
Instruction booklet
All-metal storage and **carrying case** a $17.00 value.

PRICE ..... **$14.95 each, list**

WELLERTIPS FOR ALL MODELS



GUN	SOLDERING TIP
8100B	No. 8125, pkg of 2—50c list
8250A	No. 7250, pkg. of 2—50c list
8200	No. 8125, pkg. of 2—50c list
D440	No. 7135, pkg. of 2—35c list
D550	No. 7250, pkg. of 2—50c list

GUN	SMOOTHING TIP
8100B	No. 6120, with nuts—50c list
8250A	No. 6140, with nuts—50s list
8200	No. 6120, with nuts—50c list
D440	No. 6120, with nuts—50c list
D550	No. 6140, with nuts—50c list

GUN	CUTTING TIP
8100B	No. 6110, with nuts—50c list
8250A	No. 6130, with nuts—50c list
8200	No. 6110, with nuts—50c list
D440	No. 6110, with nuts—50c list
D550	No. 6130, with nuts—50c list

WELLER SOLDERING AID

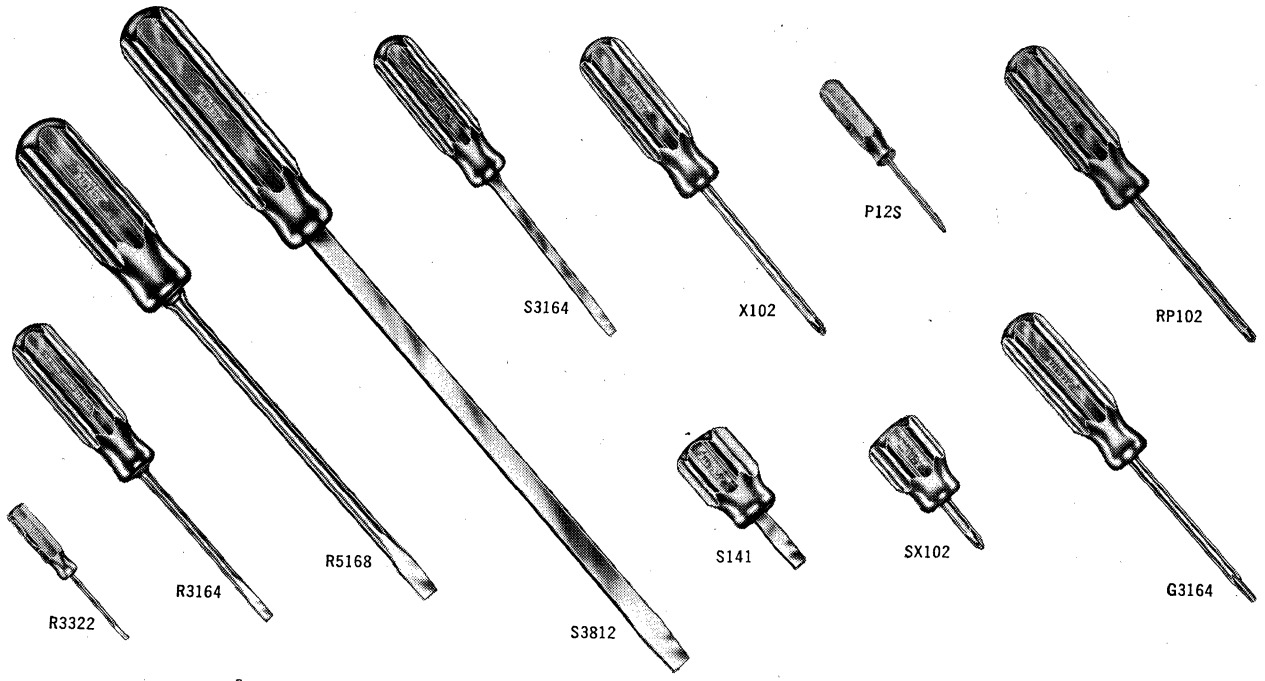
Special soldering aid widely used for opening old joints, holding down wires, twisting and looping, etc.—always handy.

PRICE ..... **50c each**

XCELITE® QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	List
	Regular	
R182	1/8″ x 2″	$ .55
R184	1/8″ x 4″	.65
R186	1/8″ x 6″	.70
R188	1/8″ x 8″	.90
R1810	1/8″ x 10″	1.00
R5323	5/32″ x 3″	.75
R5324	5/32″ x 4″	.75
R5325	5/32″ x 5″	.75
R5328	5/32″ x 8″	1.00
R3163	3/16″ x 3″	.95
R3164	3/16″ x 4″	1.05
R3166	3/16″ x 6″	1.20
R3168	3/16″ x 8″	1.40
R31610	3/16″ x 10″	1.50
R142	1/4″ x 2″	1.15
R144	1/4″ x 4″	1.30
R146	1/4″ x 6″	1.40
R148	1/4″ x 8″	1.50
R1410	1/4″ x 10″	1.60
R5164	5/16″ x 4″	1.45
R5166	5/16″ x 6″	1.65
R5168	5/16″ x 8″	1.80
	Pocket Clip Style	
R3322	3/32″ x 2″	.30
R3323	3/32″ x 3″	.45
R3324	3/32″ x 4″	.45
R181	1/8″ x 2″	.30
R183	1/8″ x 3″	.45
R184½	1/8″ x 4″	.45

SQUARE BLADE

Number	Size Blade	List
	Regular	
S3163	3/16″ x 3″	$1.10
S3164	3/16″ x 4″	1.15
S3166	3/16″ x 6″	1.35
S3168	3/16″ x 8″	1.50
S31610	3/16″ x 10″	1.65
S142	1/4″ x 2″	1.25
S144	1/4″ x 4″	1.45
S146	1/4″ x 6″	1.55
S148	1/4″ x 8″	1.70
S5162	5/16″ x 2″	1.35
S5164	5/16″ x 4″	1.65
S5166	5/16″ x6″	1.75
S5168	5/16″ x 8″	1.90
S51610	5/16″ x 10″	2.10
S51612	5/16″ x 12″	2.30
S388	3/8″ x 8″	2.30
S3812	3/8″ x 12″	2.30
S3818	3/8″ x 18″	3.55
S7166	7/16″ x 6″	2.70
S71612	7/16″ x 12″	3.30
S71618	7/16″ x 18″	3.55
S1424	1/4″ x 24″	3.00
	Stubby	
S3161	3/16″ x 1″	.75
S141	1/4″ x 1″	.85
S5161	5/16″ x 1″	.85

PHILLIPS

Number	Point Size	Size Blade	List
		Extra Long	
X1010	1	3/16″ x 10″	$1.75
X1020	2	1/4″ x 10″	1.95
		Regular	
X100	0	1/8″ x 2″	.75
X101	1	3/16″ x 3″	1.15
X108	1	3/16″ x 6″	1.25
X102	2	1/4″ x 4″	1.45
X103	3	5/16″ x 6″	1.95
X104	4	3/8″ x 8″	2.45
		Stubby	
SX101	1	3/16″ x 1 3/8″	1.05
SX102	2	1/4″ x 1 3/8″	1.15
		Pocket Clip Style	
P12S	0	1/8″ x 2″	.65

REED & PRINCE

RP101	1	3/16″ x 3″	$1.10
RP102	2	1/4″ x 4″	1.40
RP103	3	5/16″ x 6″	1.85

CLUTCH HEAD

Type G No.	Point Size	Size Blade	List
G3324	3/32″	1/8″ x 4″	$1.20
G183	1/8″	3/16″ x 3″	1.20
G5324	5/32″	1/4″ x 4″	1.35
G3164	3/16″	1/4″ x 4″	1.35
G146	1/4″	5/16″ x 6″	1.75
G5166	5/16″	3/8″ x 6″	2.15

BERYLLIUM-COPPER

Non-sparking. Non-magnetic.
Higher fatigue resistance than steel.

Number	Size Blade	List
BR186	1/8″ x 6″	$1.25
BR1810	1/8″ x 10″	1.35
BR3168	3/16″ x 8″	2.20
B8146	1/4″ x 6″	2.75
BR148	1/4″ x 8″	2.95
BR1410	1/4″ x 10″	3.25

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XCELITE® QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.
Patented spring holds blades securely. 7/16" hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	List
CR1 — No. 25 handle & RB1 blade	$2.30
CR2 — No. 25 handle & RB2 blade	2.30
CR3 — No. 25 handle & RB3 blade	2.30
Stubby Type	
CS1 — No. 26 handle & SB1 blade	2.05
CS2 — No. 26 handle & SB2 blade	2.05

HANDLES ONLY

25 — Regular	1.00
26 — Stubby	.90

BLADES ONLY

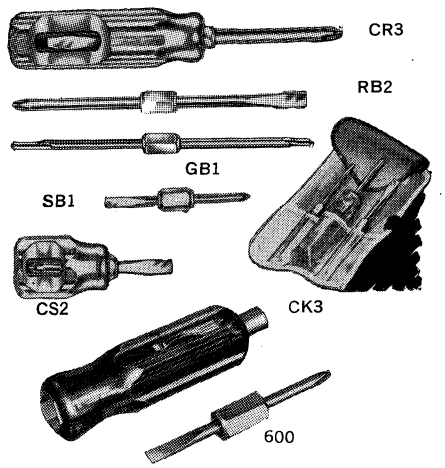
Regular Type	
RB1 — No. 1 Phillips & 3/16" Slotted	1.30
RB2 — No. 2 Phillips & 1/4" Slotted	1.30
RB3 — No. 3 Phillips & 5/16" Slotted	1.30
RB12—No. 1 & No. 2 Phillips	1.45
GB1 — 3/16"G & 5/32"G Clutch	$1.45
GB2 — 5/16"G & 1/4"G Clutch	1.45
Stubby Type	
SB1 — No. 1 Phillips & 3/16" Slotted	1.15
SB2 — No. 2 Phillips & 1/4" Slotted	1.15

ROLL KIT COMBINATIONS

	List
CK2 with No. 25 combination handle and RB1 and RB2 reversible blades	$4.50
CK3 Same as CK2, plus RB3 blade	5.80
CK5 Same as CK2, plus RB3, GB1, and GB2 blades	8.70

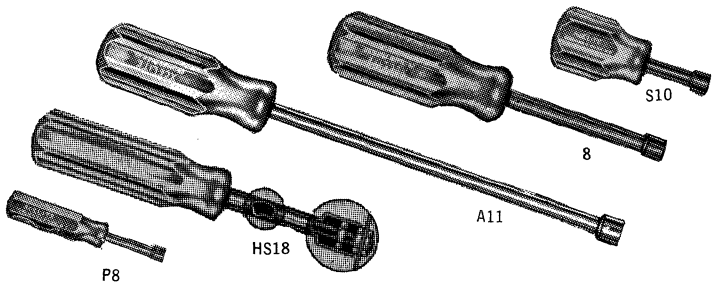
COMBINATION SCREW AND NUTDRIVER TOOL

600 — Handy 4-way tool with pocket clip. 1/4" and 7/16" hex openings. Reversible SB1 blade ..... List $2.30



NUTDRIVERS (Color-Coded Handles)

Polished-plated, High Carbon Steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



REGULAR (6" Overall Length)

Number	Handle Color	Hex Opening	List
6	Black	3/16"	$1.25
7	Brown	7/32"	1.25
8	Red	1/4"	1.25
9	Orange	9/32"	1.25
10	Amber	5/16"	1.25
11	Green	11/32"	1.25
12	Blue	3/8"	1.25
14	Brown	7/16"	1.60
16	Red	1/2"	1.60

EXTRA LONG (9" Overall Length)

A6	Black	3/16"	$1.45
A7	Brown	7/32"	1.45
A8	Red	1/4"	1.45
A9	Orange	9/32"	1.45
A10	Amber	5/16"	1.45
A11	Green	11/32"	1.45
A12	Blue	3/8"	1.45

STUBBY (3 1/4" Overall Length)

S6	Black	3/16"	$1.05
S8	Red	1/4"	1.05
S10	Amber	5/16"	1.05
S11	Green	11/32"	1.05
S12	Blue	3/8"	1.05

HOLLOW SHAFT

Number	Handle Color	Hex Opening	List
HS6	Black	3/16"	$1.55
HS7	Brown	7/32"	1.55
HS8	Red	1/4"	1.55
HS9	Orange	9/32"	1.55
HS10	Amber	5/16"	1.55
HS11	Green	11/32"	1.55
HS12	Blue	3/8"	1.55
HS13	Amber	13/32"	1.75
HS14	Brown	7/16"	1.75
HS15	Amber	15/32"	1.80
HS16	Red	1/2"	1.80
HS17	Amber	17/32"	1.90
HS18	Orange	9/16"	1.90
HS19	Amber	19/32"	2.10
HS20	Amber	5/8"	2.10
HS22	Amber	11/16"	2.65
HS24	Amber	3/4"	2.65

POCKET CLIP STYLE

P3	Amber	3/32"	$ .80
P4	Red	1/8"	.80
P5	Amber	5/32"	.80
P8	Red	1/4"	.80
P10	Amber	5/16"	.80
P12	Blue	3/8"	.80

NUTDRIVER SETS

Choice of heavy gage steel stands and racks with large readable size indexes. Color-coded, shockproof, breakproof, plastic (UL) handles.

No. 17 BENCH STAND

Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

	List
17 — Regular Polished-Plated Finish	$ 9.40
17C — Deluxe Nickel-Chrome Finish	10.25

No. 137 BENCH STAND

Contains Nos. 6, 8, 10, 11, 12, HS16 and HS18 color-coded nutdrivers.

	List
137 — Regular Polished-Plated Finish	$11.10
137C — Deluxe Nickel-Chrome Finish	12.10

No. 127 LOCKABLE WALL RACK

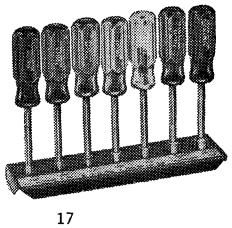
Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

	List
127 — Regular Polished-Plated Finish	$ 9.95
127C — Deluxe Nickel-Chrome Finish	11.05

No. 147 BENCH STAND (Hollow Shaft)

Contains Nos. HS8, HS9, HS10, HS11, HS12, HS14, and HS16 hollow shaft, color-coded nutdrivers.

	List
147 — Regular Polished-Plated Finish	$12.45
147C — Deluxe Nickel-Chrome Finish	13.45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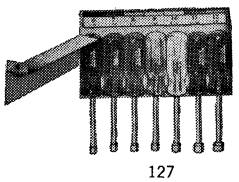
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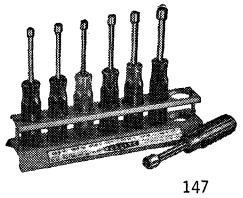
147

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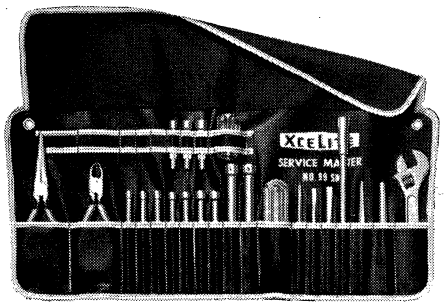
XCELITE® QUALITY PROFESSIONAL TOOLS

SERVICE KITS

Available in three standard selections. Regular handle accommodates all blades, single-end and reversible. Junior and Stubby handles can be used only with single-end blades. Extension shaft fits all 3 handles.



No. 99SM SERVICE MASTER

Contains 52CG long nose cushion grip plier, 55CG 5″ diagonal cushion grip plier, 99-3 handle (Stubby) with three nutdrivers (¼″, 5/16″, 3/8″), 46C adjustable wrench, 99-1 handle (Regular) with nine interchangeable nutdrivers (99-6 thru 99-16), one Phillips and two slotted screwdrivers, 99-X10 extension shaft, and two chrome-plated reamers.

99 SM ..... List **$38.15**
99 SMK, Kit only ..... List **3.20**

No. 99 PR ROLL KIT

Contains nine nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99 PR ..... List **$14.45**
99 K, Kit only ..... List **1.60**

No. 99 JR ROLL KIT

Contains seven nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

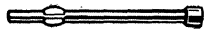
99 JR ..... List **$12.50**
99 KJR, Kit only ..... List **1.60**

SERIES 99 BLADES AND HANDLES

99-1 Handle (Regular) ..... List **$1.15**

99-2 Handle (Junior) **1.00**

99-3 Handle (Stubby) ..... **.90**

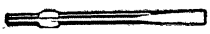


Nutdriver Blades: 99-6 (3/16″), 99-7 (7/32″), 99-8 (¼″), 99-9 (9/32″), 99-10 (5/16″), 99-11 (11/32″), 99-12 (⅜″) ..... **.90**
99-14 (7/16″), 99-16 (½″) **1.20**

99-81 Slotted Screwdriver Reversible Blade (3/16″ & 9/32″) **1.50**

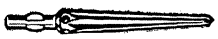
99-82 Phillips Screwdriver Reversible Blade (#1 & #2) **1.50**
99-83 Reed & Prince Screwdriver Reversible Blade (3/16″ & 9/32″) **1.50**

99-84 Clutch "G" Screwdriver Reversible Blade (3/16″ & 5/32″) **1.50**

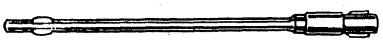


Slotted Screwdriver Blades: 99-811 (3/16″), 99-812 (9/32″) ..... **.90**

Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2) ..... **.90**



Reamers: 99-38 (⅛″-⅜″) **2.20**
99-39 (¼″-½″) **2.75**



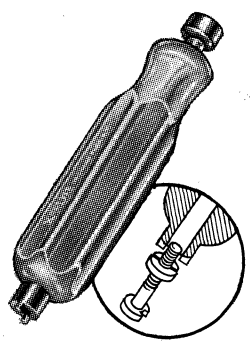
99-X10 Extension Shaft. Adds 7″ reach to single-end blades **1.45**

Stubby Nutdriver Blades: 99-S8, 99-S10, 99-S12 ..... **.80**

No. 110 DISTRIBUTOR TOOL

A 2-in-1 tool speeds adjustment and replacement of Delco distributor points (Chevrolet, etc.). Nutdriver end turns 11/32″ hex nut on lead wire from coil. Pronged end engages slot in circular nut to release or adjust the points. Shockproof, breakproof, plastic (UL) handle. Convenient pocket clip.

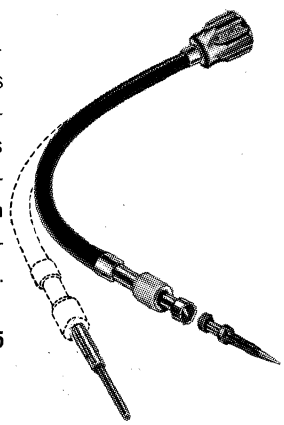
List $1.65



No. 112 CARBURETOR AND DISTRIBUTOR TOOL

Flexible, 2-way tool speeds motor tune-ups. Hooded screwdriver bit permits quick "hairline" adjustment of carburetor idle. Allen bit quickly adjusts Delco Remy distributors. Plastic-covered shaft snakes into hard-to-reach areas. Positive, no-lag action. Shockproof, breakproof, plastic (UL) handle. Length including bits, 14 3/8″.

List $3.95



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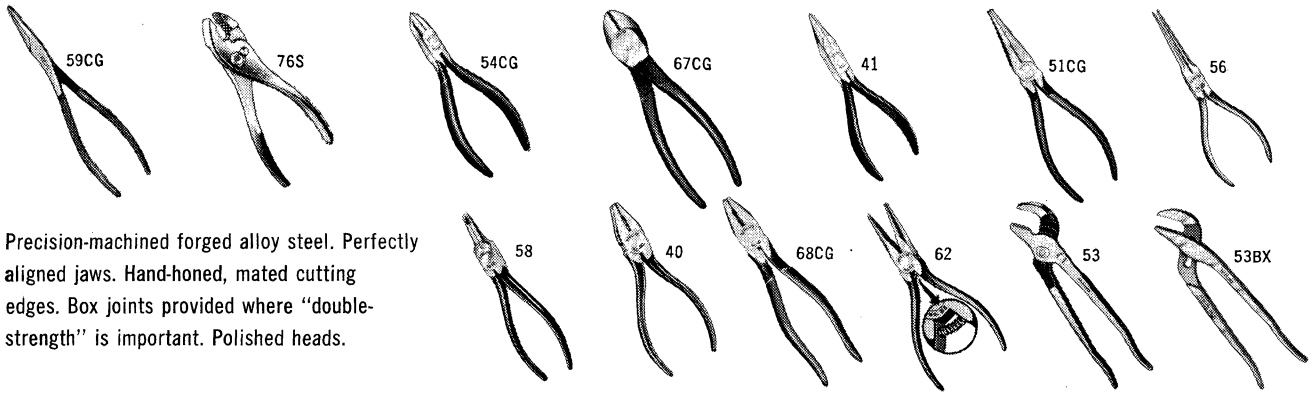
XCELITE® QUALITY PROFESSIONAL TOOLS

PLIERS



Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Box joints provided where "double-strength" is important. Polished heads.

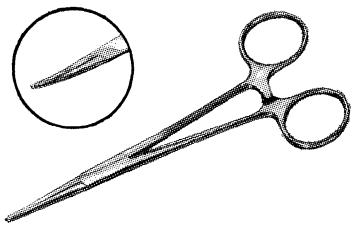
		List
59	—CHAIN NOSE ELECTRICIANS PLIER (8″)	$3.80
	59CG—Cushion Grip	4.30
75C	—COMBINATION SLIP JOINT PLIER (5″)—Chrome-Plated	1.62
76C	—COMBINATION SLIP JOINT PLIER (6″)—Chrome-Plated	1.62
	76S—Satin Finish	.94
78C	—COMBINATION SLIP JOINT PLIER (8″)—Chrome-Plated	2.16
54	—DIAGONAL PLIER (Midget 4″), Box Joint	3.58
	54CG—Cushion Grip	4.02
55	—DIAGONAL PLIER (5″)	3.34
	55CG—Cushion Grip	3.78
66	—DIAGONAL PLIER (6″)	3.86
	66CG—Cushion Grip	4.30
67	—DIAGONAL PLIER (7″)	3.96
	67CG—Cushion Grip	4.66
41	—LONG NOSE PLIER (Midget 4″), Box Joint, Without Side Cutters	3.20
	41CG—Cushion Grip	3.64
52	—LONG NOSE PLIER (6″) Without Side Cutters	2.98
	52CG—Cushion Grip	3.42
51	—LONG NOSE PLIER (6″) With Side Cutters	3.84
	51CG—Cushion Grip	4.30

		List
56	—NEEDLE NOSE PLIER (6″)	$3.52
	56CG—Cushion Grip	3.96
58	—RADIO AND TV PLIER (6″)	4.40
	58CG—Cushion Grip	4.82
40	—SIDE CUTTING PLIER (Midget 4″)	3.10
	40CG—Cushion Grip	3.46
60	—SIDE CUTTING PLIER (6″)	3.58
	60CG—Cushion Grip	4.02
68	—SIDE CUTTING PLIER (8″)	4.30
	68CG—Cushion Grip	4.86
62	—TRANSVERSE CUTTING PLIER (6″)	4.38
	62CG—Cushion Grip	4.84
53	—UTILITY PLIER (6″), Forged Rib-Lock	2.54
	53CG—Cushion Grip	2.96
53BX	—UTILITY PLIER (7″), Thin Pattern, Double-Strong Box Joint	2.75
63	—UTILITY PLIER (10″), Forged Rib-Lock	3.36
	63CG—Cushion Grip	4.32
63BX	—UTILITY PLIER (10″), Thin Pattern, Double-Strong Box Joint	3.50

SEIZER

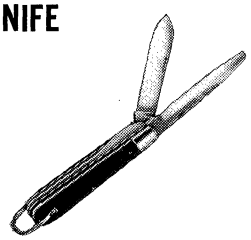
Outreaches, outholds needle nose pliers. Clamps tightly. Holds wires for soldering, retrieves small parts from hard-to-reach places. It's a heat sink. Two-position snap-lock. Stainless steel, box-joint construction. 6″ length. Precision machined and tempered.

42H Straight Nose ..... **List $5.70**
43H Curved Nose ..... **List 5.90**



No. K22 ELECTRICIAN'S KNIFE

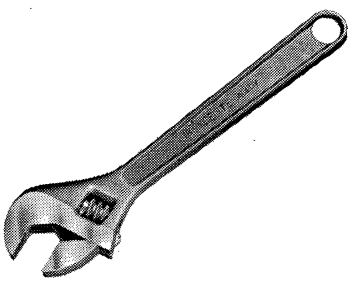
Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open ..... **List $3.35**



ADJUSTABLE WRENCHES

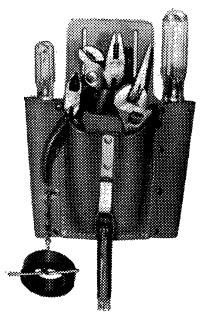
Thin-pattern permits access to close-quarter work. Chrome-plated forged alloy steel. Polished heads.

No.	Size	List
44C	4″	$2.88
46C	6″	2.88
48C	8″	3.30
40-10C	10″	4.20
40-12C	12″	6.20



No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets ..... **List $5.25**



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PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

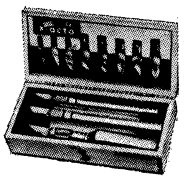
x-acto® Precision hand tools

The line of tools that "fit-the job" to save you time and money

x-acto "Refill-Blade" KNIVES

Always Sharp...Safe To Use! Wherever a Sharp Knife is Used

- Famous X-acto **"Interchangeable Blade" Knife Feature!** Just "twist the chuck" and insert new blade.
- **Versatility!** X-acto knife handles accommodate more than 28 different styles of Blades, Gouges, Routers and Punches.
- **So Safe!** Fingers are never near the cutting edge.

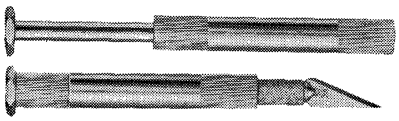


No. 83

KNIFE SETS

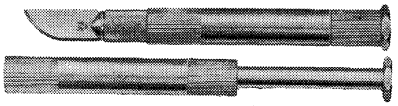
No. 83 DeLuxe Knife Chest: Nos. 1, 2, & 6 Knives plus 18 asst'd Blades in wood chest.....**$6.00**
No. 82 Knife Chest: Nos. 1, 2, & 5 Knives plus 9 asst'd Blades in wood chest.....**$4.50**
No. 81 Knife Set: Nos. 1, 2, & 5 Knives plus 10 asst'd Blades in plastic case.....**$3.75**
No. 62 Knife Set: Nos. 1 & 2 Knives plus 10 asst'd Blades in plastic case.....**$2.75**
No. 52: No. 2 Knife plus 5 asst'd Blades.....**$1.35**
No. 51: No. 1 Knife plus 5 asst'd Blades.....**$1.20**

No. 1 Knife



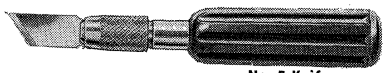
No. 1-G Knife

No. 2 Knife

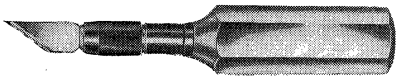


No. 2-G Knife

No. 3-ST PenKnife



No. 5 Knife



No. 6 Knife

No. 8 Utility Knife

No. 66 Pocket Knife

No. 4 Stencil Knife

No. 1 KNIFE—Aluminum Handle. For Light to Medium work with #11 Blade.....**60c**
No. 1-G KNIFE (Pat.)—Aluminum Construction. Ideal for depth gauge cutting. For Light to Medium work. With #11 Blade.....**$1.20**
No. 2 KNIFE—Aluminum Handle. For Medium to Heavy Work. With #22 Blade.....**75c**
No. 2-G KNIFE (Pat.)—Same as #1-G Knife except Knife is for medium to heavy work. With #22 Blade.....**$1.50**

No. 3-ST PENKNIFE—For Light to Medium work. With #10 Blade.....**$1.00**
No. 4 STENCIL KNIFE—Metal Handle with detachable blade.....**30c**
No. 5 KNIFE—Plastic Handle, metal blade lock. With #19 Blade.....**$1.20**
No. 6 KNIFE—For Heavy Work. With #24 Blade.....**$1.80**
No. 8 UTILITY KNIFE—Steel Handle, reversible blade. With #8 Blade.....**29c**
No. 66 POCKET KNIFE—Push button operation. With #122 Blade.....**59c**

LOCK-GRIPLIER®

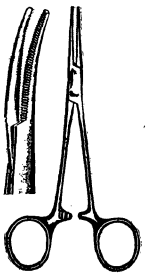
(Pat. No. 2,766,646)

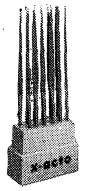
The "third hand" for small assemblies. Serves as a Heat Sink, Plier, Vise, Stripper, Crimper, Tweezer, Wrench.
No. 800.....**$3.50**

RETRIEVER CLAMPS

Multi-purpose tools with scores of uses in soldering, wiring & small parts assembly. Made of Swedish Steel. Box Lock assures perfect alignment.

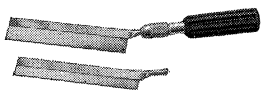
5½" Length
No. 810-S..... **$5.75** Straight Nose
No. 810-C..... **$5.90** Curved Nose
6¼" Length
No. 813-S..... **$6.75** Straight Nose
No. 813-C..... **$6.90** Curved Nose





SWISS NEEDLE FILES

No. 60S—Swiss Needle File Set: Complete Set of 12 assorted styles.....**$3.95**

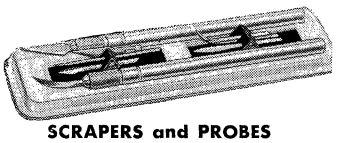


RAZOR SAWS

No. 53—Razor Saw Set: No. 5 Handle with #34 and #35 Razor Saw Blades.....**$1.75**
No. 34—¾" Razor Saw Blade.....**40c**
No. 35— 1" Razor Saw Blade.....**45c**

JEWELER'S SCREW DRIVERS

No. 70—Screw Driver Set: Aluminum handle with positive locking chuck and 5 assorted "interchangeable" steel blades.....**$1.75**

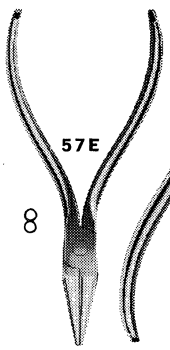


SCRAPERS and PROBES

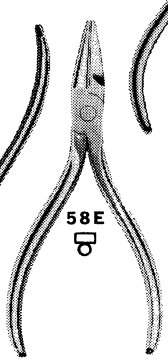
No. 63—Scraper Set: 2 handles, 6 asst'd scraper points, 2 straight edge cutting blades in plastic case.....**$2.75**
(Scraper points and handles also available separately)

Royal Swedish PLIERS

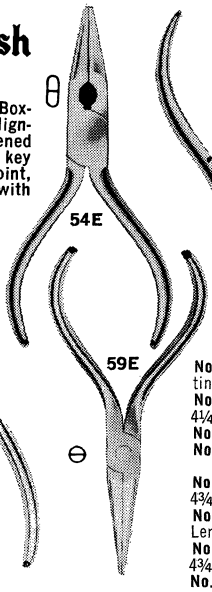
Tempered Swedish Steel. Box-joint assures perfect jaw alignment. Scientifically hardened and tempered in all three key areas (1) Jaws, (2) Box Joint, (3) Handles. Also available with non-slip insulated handles.



57E

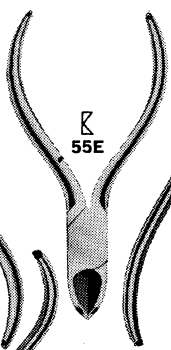


58E

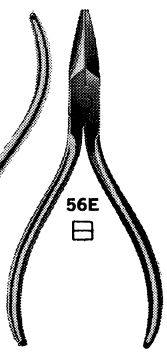


59E

54E



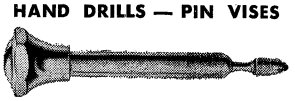
55E



56E

No. 54E—Long nose, side cutting. Length 4¾".....**$4.00**
No. 55E—Diagonal cutting. Lgth 4¼".....**$3.50**
No. 555—5" Length.....**$5.00**
No. 56E—Flat nose. Length 4¾".....**$3.25**
No. 57E — Snipe-nose. Length 4¾".....**$3.25**
No. 58E — Combination nose. Length 4¾".....**$3.25**
No. 59E — Long-nose. Length 4¾".....**$3.50**
No. 596—6" Length.....**$4.50**

HAND DRILLS — PIN VISES

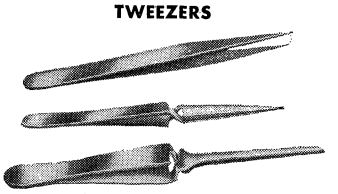


All-Aluminum handles with swivel knobs. Precision-tooled English Model Chucks.
No. 1D.....**$1.25**
(for #80 to #60 drill bits)
No. 2D.....**$1.25**
(for #63 to #50 drill bits)
No. 3D.....**$1.50**
(for #53 to #44 drill bits)
No. 21D.....**$1.00**
(with double end chuck)
No. 123D.....**$3.00**
(Precision chuck set for drill bits #44 to #80 and Pin Vise with interchangeable Standard Handle.)

DRILL CHUCK ADAPTERS

Precision-tooled English Models (1⅜" long). Fit standard hand drills, power drills and lathes.
No. 22A.....**75c**
(for #80 to #60 drill bits)
No. 22B.....**75c**
(for #63 to #50 drill bits)
No. 22C.....**75c**
(for #53 to #44 drill bits)

TWEEZERS



No. 36E—Plain Pointed (4¾" long).....**50c**
No. 37E—Cross-action, self locking, pointed (4¾" long).....**65c**
No. 38E—Cross-action, self locking, blunt (6½" long).....**70c**
(Other specialized tweezers also available)

HEAT SINKS

(also ideal for use as cross-action clamp and tweezer)
No. 349.....**60c card of 3**
3½" long all-aluminum

Write for complete catalog of X-acto Precision Hand Tools

HANDICRAFT TOOLS Inc. Division of X-ACTO, Inc. Long Island City 1, N. Y.
Nearly a Half-Century experience in precision manufacturing

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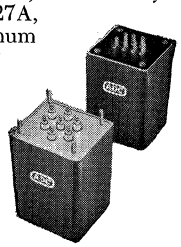
ADC PRODUCTS • MINNEAPOLIS, MINNESOTA
A Division of Magnetic Controls Company

POWER TRANSFORMERS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and production applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.



The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Plate Winding DC Ma	Plate Winding DC Volts	Filament Windings Volts/Amps		MIL Case
522A	523A	250-0-250 C Input	20	300	6.3 CT/5	2	FA
522B	523B	300-0-300 C Input	60	310	5	2	HA
					6.3 CT	2	
522C	523C	350-0-350 C Input	110	355	5	2	JA
		L Input		265	6.3 CT	4	
522D	523D	375-0-375 C Input	150	380	5	3	LA
		L Input		280	6.3 CT	5	
522E	523E	385-0-385 C Input	200	360	5	3	
		L Input		280	6.3 CT	5	
					6.3 CT	2	MA
522F	523F	500-0-500 L Input	300	400	6.3/5	6	
					6.3 CT	6	NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Plate Winding AC Volts	Filament Windings DC Ma	Volts / Amps		MIL Case
512A	513A	240-0-240 C Input	20	6.3 CT	1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT	2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT	5	GA
				6.3/5V	2	
512D	513D	350-0-350 C Input	150	6.3 CT	4	HA
				6.3/5V	3	
512E	513E	450-0-450 C Input	200	6.3 CT	8	JA
				6.3/5V	3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).

MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts #1	DC Ma	DC Volts	Sec #2 Volts/ Amps		Sec. #3 Volts/ Amps	
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5	2	6.3	3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5	2	6.3	4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3	5	5	3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5	3	6.3	8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5	3	6.3	8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	--	--	--	--
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	--	--	--	--
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	--	--	--	--

NOTE: 1. Primaries 105/115/125V., 54-66 CPS.
2. Secondary #1 DC voltage based upon inductive input filter.
3. Max. operating altitude 10,000 ft.
4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Secondary Amps	Insulation Volts RMS
MS-90016	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE: 1. Primaries 105/115/125 V., 54-66 CPS.
2. Max. operating altitude 10,000 ft.
3. These items are also available as Grade 1 components.

See Page 1330 for ADC Prices
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A Division of Magnetic Controls Company

INDUCTORS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current MA	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA

FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current Ma	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASESA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Inductance Parallel	DC Resistance Ohms		Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 3-4	295 350	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 3-4	300 370	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 3-4	450 570	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 3-4	145 185	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 3-4	225 235	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 3-4	240 295	5900
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 3-4	80 100	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 3-4	90 120	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 3-4	45 60	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 3-4	70 80	5900

ADC TOROIDS

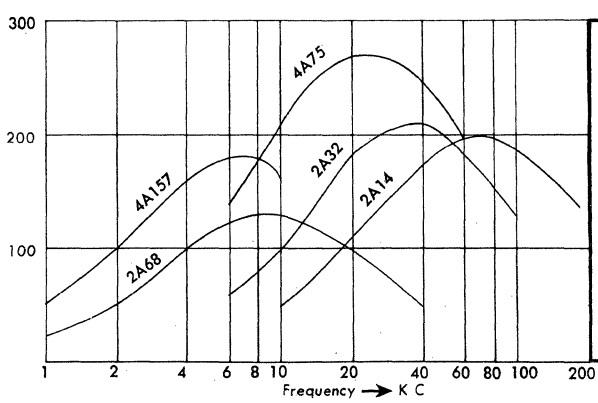
These toroids are readily available in the standard inductance ratings and sizes shown below. Typical characteristics are shown in the curves for each style of core. High inductance values will show an apparent decrease in Q at higher frequencies due to distributed capacitance.

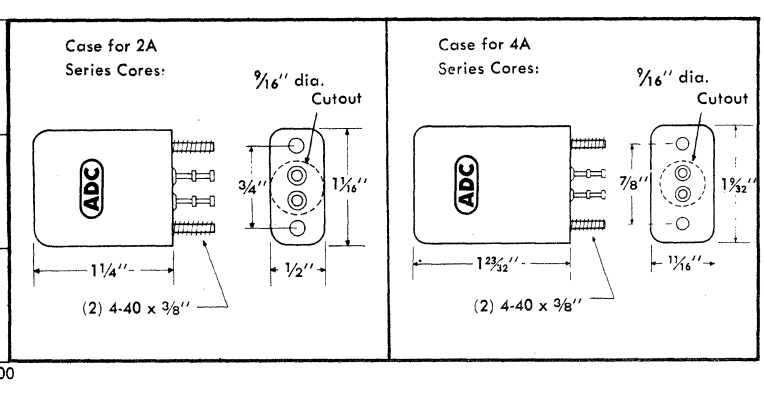
These are hermetically sealed to meet Military specifications in the drawn steel cases shown.

Available on 2A68 core: DCR—200 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 5.0 hy.	$\frac{400}{\sqrt{L}}$
Available on 2A32 core: DCR—430 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .002 to 1.0 hy.	$\frac{570}{\sqrt{L}}$
Available on 2A14 core: DCR—1000 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .001 to .5 hy.	$\frac{850}{\sqrt{L}}$
Available on 4A157 core: DCR—100 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 15 hy.	$\frac{570}{\sqrt{L}}$
Available on 4A75 core: DCR—220 ohm/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 5 hy.	$\frac{790}{\sqrt{L}}$

TABLE OF STOCKED INDUCTANCE VALUES (±1%) IN HENRIES

Inductance (henries)	Core Types 2A68	2A32	2A14	4A157	4A75
.0010			419EA		
.0015			419EC		
.0022		419CE	419EE		
.0033		419CG	419EG		
.0047		419CJ	419EJ		
.0068	419AL	419CL	419EL	419GL	419KL
.010	419AN	419CN	419EN	419GN	419KN
.015	419AQ	419CQ	419EQ	419GQ	419KQ
.022	419AS	419CS	419ES	419GS	419KS
.033	419AU	419CU	419EU	419GU	419KU
.047	419AW	419CW	419EW	419GW	419KW
.068	419AY	419CY	419EY	419GY	419KY
.10	419BA	419DA	419FA	419HA	419LA
.15	419BC	419DC	419FC	419HC	419LC
.22	419BE	419DE	419FE	419HE	419LE
.33	419BG	419DG	419FG	419HG	419LG
.47	419BJ	419DJ	419FJ	419HJ	419LJ
.68	419BL	419DL		419HL	419LL
1.0	419BN			419HN	419LN
1.5	419BQ			419HQ	419LQ
2.2	419BS			419HS	419LS
3.3	419BU			419HU	419LU
4.7	419BW			419HW	419LW
6.8				419HY	





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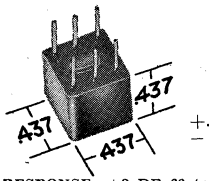
AUDIO TRANSFORMERS FOR MILITARY AND COMMERCIAL APPLICATIONS

"BLUE CHIP" TRANSISTOR TRANSFORMERS *for Printed Circuit Applications*

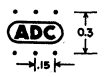
Five different sizes, from .08 to 1.2 cubic inches with a total of 64 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

These units are designed and built to meet MIL-T-27A Grade 5, Class S requirements.



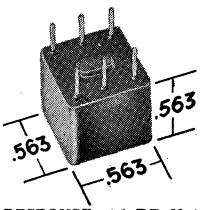
+.015 − 0

PIN LAYOUT



Pin Diameter: .020"
Pin Length: ¾"
Weight: 0.15 oz.

RESPONSE: ±3 DB 60 to 100,000 CPS.
DISTORTION: 10% at 1 MW, 60 to 100,000 CPS, or 10% at 30 MW, 300 to 100,000 CPS, except as noted.



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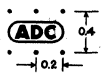

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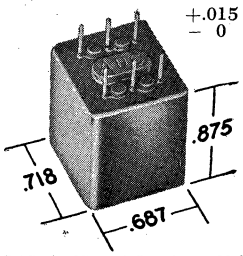
Pin Diameter: .030"
Pin Length: ½"
Weight: 0.4 oz.

RESPONSE: ±1 DB 60 to 50,000 CPS.
DISTORTION: 10% at 10 MW, 60 to 50,000 CPS, or 10% at 150 MW, 200 to 50,000 CPS.



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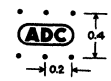
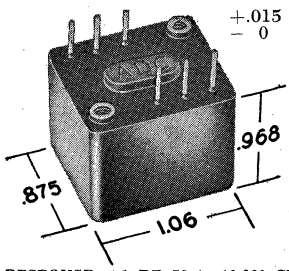
PIN LAYOUT



Pin Diameter: .030"
Pin Length: ½"
Weight: 0.9 oz.

RESPONSE: ±1 DB 60 to 30,000 CPS.
DISTORTION: 1.5% at 20 MW, 60 to 30,000 CPS, or 10% at 500 MW, 200 to 30,000 CPS, except as noted.



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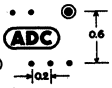
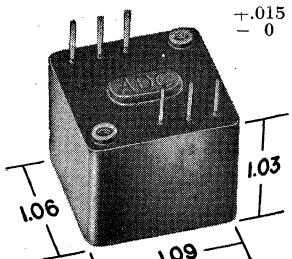
PIN LAYOUT



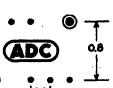
Pin Diameter: .040"
Pin Length: ½"
Weight: 1.5 oz.
Mounting: 2—4x40 inserts, 0.6"x0.8"

RESPONSE: ±1 DB 50 to 10,000 CPS.
DISTORTION: 1.5% at 60 MW, 60 to 10,000 CPS, or 10% at 3.5 W, 200 to 10,000 CPS, except as noted.



+.015 − 0

PIN LAYOUT



Pin Diameter: .040"
Pin Length: ½"
Weight: 2.5 oz.
Mounting: 2—4x40 inserts, 0.8"x0.8"

RESPONSE: ±1 DB 30 to 10,000 CPS.
DISTORTION: 1% at 250 MW, 60 to 10,000 CPS,or 10% at 10 W, 200 to 10,000 CPS, except as noted.

Catalog Number	Primary Impedance—Ohms	Secondary Impedance—Ohms	Primary-Secondary DC Resistance—Ohms		Max. DC in Primary—MA.
324–6A	★ 100K–CT	1000–CT	3000	70	0
324–6B	25K–CT	1000–CT	2800	120	0
124–6C	10K–CT	10K–CT	1100	1200	1
324–6D	10K–CT	1500–CT	1100	180	1
324–6E	10K–CT	600–CT	1100	75	1
224–6F	4000–CT	10K–CT	440	1200	1.5
324–6G	1000–CT	600–CT	110	75	3
324–6H	1000–CT	4	110	0.5	3
224–6J	600–CT	25K–CT	65	3000	4
124–6K	600–CT	600–CT	65	75	4
324–6L	600–CT	60	65	7	4
324–6M	600–CT	4	65	0.5	4
★Max. power level: 0.35 mw at 60 cps; 10 mw at 300 cps.					
324–5A	100K–CT	1000–CT	11000	120	0
324–5B	25K–CT	1000–CT	2800	120	0
124–5C	10K–CT	10K–CT	1100	1200	1
324–5D	10K–CT	1500–CT	1100	180	1
324–5E	10K–CT	600–CT	1100	75	1
224–5F	4000–CT	10K–CT	440	1200	1.5
324–5G	1000–CT	600–CT	110	75	3
324–5H	1000–CT	4	110	0.5	3
224–5J	600–CT	25K–CT	65	3000	4
124–5K	600–CT	600–CT	65	75	4
324–5L	600–CT	60	65	7	4
324–5M	600–CT	4	65	0.5	4
324–4A	★ 100K–CT	1000–CT	11000	120	0
324–4B	25K–CT	1000–CT	2800	120	0
124–4C	10K–CT	10K–CT	1100	1200	1
324–4D	10K–CT	1500–CT	1100	180	1
324–4E	10K–CT	600–CT	1100	75	1
324–4F	10K–CT	4	1100	0.5	1
224–4G	4000–CT	10K–CT	440	1200	1.5
324–4H	1500–CT	15	165	2	2.5
324–4J	1000–CT	600–CT	110	75	3
324–4K	1000–CT	4	110	0.5	3
224–4L	600–CT	25K–CT	65	3000	4
124–4M	600–CT	600–CT	65	75	4
324–4N	600–CT	60	65	7	4
324–4P	600–CT	15	65	2	4
324–4Q	600–CT	4	65	0.5	4
224–4R	250	600–CT	30	75	7
★Max. power level: 150 mw.					
324–3A	10K–CT	10K–CT	800	1100	1
324–3B	10K–CT	600–CT	800	65	1
324–3C	10K–CT	4	800	0.5	1
324–3D	1500–CT	15	120	2	2.5
324–3E	1000–CT	600–CT	80	65	3
324–3F	1000–CT	4	80	0.5	3
224–3G	★ 600–CT	25K–CT	50	2800	4
124–3H	600–CT	600–CT	50	65	4
324–3J	600–CT	60	50	7	4
324–3K	600–CT	15	50	2	4
324–3L	600–CT	4	50	0.5	4
224–3M	250	600–CT	20	65	7
★Max. power level: 2.5 w.					
124–2A	★ 10K–CT	10K–CT	700	900	1
324–2B	★ 10K–CT	600–CT	700	55	1
324–2C	★ 10K–CT	4	700	0.5	1
324–2D	1500–CT	15	105	1.5	2.5
324–2E	1000–CT	600–CT	70	55	3
324–2F	1000–CT	4	70	0.5	3
224–2G	★★ 600–CT	25K–CT	45	2400	4
124–2H	600–CT	600–CT	45	55	4
324–2J	600–CT	60	45	6	4
324–2K	600–CT	15	45	1.5	4
324–2L	600–CT	4	45	0.5	4
224–2M	250	600–CT	20	55	7
★Max. power level: 6 w. ★★Max. power level: 2.5 w.					

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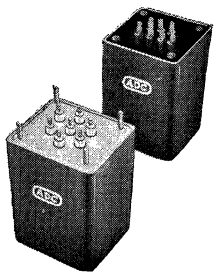
AUDIO TRANSFORMERS *FOR MILITARY AND COMMERCIAL APPLICATIONS*

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ±½ db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and rated for dependable continuous duty operation.



These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.

INPUT TRANSFORMERS Response ±½ db, 30-15,000 cps

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
222A	223A	Line to Single or Push Pull Grids.	600[1]	60,000[1] Split	+ 10 dbm	—65 db	AJ
222B	223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	—65 db	AJ
222C	223C	Line and Bridging to Single or Push Pull Grids. [3-4]	150/600/15,000	60,000[1] Split	+ 10 dbm	—65 db	AJ
222D	223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000[1] Split	+ 22 dbm	—35 db	EA
222E	223E	Push Pull Plates to Push Pull Grids.	20,000[1] Split	90,000[1] Split	+ 24 dbm	—35 db	EA

IMPEDANCE TRANSFORMERS Response ±½ db, 30-15,000 cps

122A	123A	Line to Line	600[1]/250[1] (150/62.5)	600[1]/250[1] (150/62.5)	+ 15 dbm	—65 db	AJ
122B	123B	Bridging and Line to Line.[3]	10,000[1]/600[1] (2500/150)	600[1]/250[1] (150/62.5)	+ 15 dbm	—65 db	AJ
122C	123C	Line to Line	600[1]/150[1] (150/37.5)	600/150 (150/37.5)	+ 15 dbm	—65 db	AJ
122D	123D	Line to Voice Coil	Impedances 3000/2500/2000/ 1000/500/250 ohm to 16/8/4		+ 40 dbm (10 W)		FA
122E	123E	Line to Voice Coil	3000/2500/2000/ 1000/500/250 ohm to 16/8/4		+ 45 dbm (30 W)		JA
122F	123F	Auto Matching	600/500/440/400/ 333/250/220/140/ 75/50/43/37/ 22/16/10/8/ 6/3/2/1		+ 43 dbm (20 W)		GA
122G		Hybrid —50 db bal.	600 to 600 (300 Ohm Amp.)		+ 10 dbm	—35 db	EA

INTERSTAGE TRANSFORMERS Response ±½ db, 30-15,000 cps

222F	223F	Transistor to Transistor	500/100CT Split[2] (25 MA DC)	200/300CT Split[2]	+ 15 dbm	—15 db	AJ
222G	223G	Transistor to Transistor	1000/250CT Split[2] (10 MA DC)	500/200CT Split[2]	+ 15 dbm	—15 db	AJ

NOTES:
[1]Balanced Center Tap
[2]Bifilar Wound
[3]All bridging transformers have built-in primary resistors, balanced to 0.1% or better, making the bridging impedance twice the primary impedance.
[4]For single grid input, response 15 ±1 db, 30-15,000 cps.

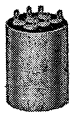
OUTPUT TRANSFORMERS Response ±½ db, 30-15,000 cps (Power Response at Rated Output)

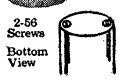
Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A	323A[6]	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5)[2]	+ 20 dbm (.1 W)	EB
322B[5]	323B[5]	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C	323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5)[2]	+ 30 dbm (1 W)	EB
322D	323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150)[2] 16/8/4	+ 40 dbm (10 W)	GA
322E	323E[1]	Push Pull Plates to Voice Coil[4]	9,000/2,250 Split[2]	16/8/4	+ 40 dbm (10 W)	GA
322F	323F[1]	Push Pull Plates to Voice Coil[3]	10,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322G	322G[1]	Push Pull Plates to Voice Coil[4]	8,000/1,600 Split[2]	16/8/4	+ 42 dbm (15 W)	JB
322H	323H[1]	Push Pull Plates to Voice Coil[4]	5,000/3,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322J	323J[1]	Push Pull Plates to Voice Coil[4]	6,600/1,650 Split[2]	16/8/4	+ 45 dbm (30 W)	KA
322K	323K[1]	Push Pull Plates to Voice Coil[4]	3,500/700 Split[2]	16/8/4	+ 48 dbm (70 W)	LA
322L	323L[1]	Push Pull Par Plates to Voice Coil	2,500/1,500 Split[2]	16/8/4	+ 49 dbm (80 W)	MA
322M	323M[1]	Push Pull Class A Transistors to Voice Coil	48/16/8 Split[2]	16/8/4	+ 47 dbm (50 W)	KA
322N	323N[1]	Class A Transistor to Voice Coil	10 (125a. DC)	16/8/4	+ 38 dbm (7 W)	JB
322P	323P[1]	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:
[1]These items are not normally carried in stock.
[2]"Split" indicates 2 separate, symmetrical windings. Impedances shown are for series connection. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.
[3]Balanced, for Williamson type circuit operation.
[4]Has primary taps suitable for Screen loading
[5]Power response ±½ db, 50-15,000 cps.
[6]Response is ±1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.

MINIATURE AUDIO TRANSFORMERS



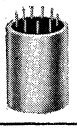


These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as well as variety and flexibility in mechanical arrangement. All electrical ratings are shown for continuous duty at full specified power levels.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Response
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	±1 db 30-15,000
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	±1 db 30-15,000
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	±1 db 30-15,000
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	±1 db 30-15,000
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±1 db 30-10,000
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	±3 db 200-3000
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/ 1000CT	+ 10 dbm	±2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	±1 db 40-15,000
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	±2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6600	+ 10 dbm	±1 db 30-15,000
308H	Output	Class B Transistors to Voice Coil	2000/ 500CT	16/8/4	+ 23 dbm	±1 db 100-10,000
408D	Inductor	200 Hy @ 0 DC; ;100 Hy @ 2MA DC; 50 Hy @ 4MA DC; 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:
1. Mumetal case 15/16" dia. by 1-5/16" high. 35 db shielding.
2. Mumetal case plus 1 Mumetal shield 1-1/16" dia. by 1½" high. 65 db shielding.



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AUDIO TRANSFORMERS

SUB-MINIATURE *FOR COMMERCIAL APPLICATION*

LISTED BELOW: are 18 typical sub-miniature transformers and chokes available as stock items in production quantities. Others may be designed to specifications for general audio and carrier frequency equipment. Power level for voice range without unbalanced DC, up to 3-5 watts, or for single tube output, up to 1 watt. All listed units in mumetal cases except 320Y and 320Z.

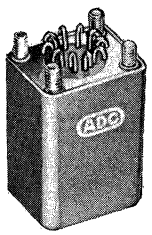
INPUT TRANSFORMERS

Cat. No.	Primary Impedance[1]		Secondary Impedance[1]	Primary Inductance (±5% at 10 mv 50 cps.)
220A	500 (125) ohms	to	150,000 ohms CT	8.5 hy.
220B	60 (15) ohms	to	150,000 ohms CT	1.0 hy.
220C	500 (125) ohms	to	300,000 ohms CT	8.5 hy.
220D	60 (15) ohms	to	300,000 ohms CT	1.0 hy.

OUTPUT TRANSFORMERS

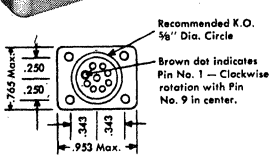
320A	20,000 ohms CT	to	16/8/4/2 ohms	50 cps.) 310 hy.
320B	20,000 ohms CT	to	16/8/4/2 ohms	1200 hy.
320C	20,000 ohms CT	to	16/8/4/2 ohms	1750 hy.
320D	20,000 ohms CT	to	500 (125) ohms	1750 hy.
320E	20,000 ohms CT	to	50/25/12½/ 6.25 ohms	1200 hy.
320F	20,000 ohms CT	to	50/25/12½/ 6.25 ohms	1750 hy.
320Y	15,000 ohms CT	to	600 (150) ohms 2 watts	1 db—250—15,000 cps.
320Z[2]	10,000 ohms (10 MA DC)	to	600 (150) ohms ½ watt	1 db—300—10,000 cps.

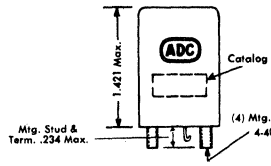
INDUCTORS



	Inductance	Percentag Taps	Q at 0.1 v 50 cps.
420A	1050/800/550/ 400/280 hy.	None	1050 hy.-.11; 280 hy.-.8
420D	1500 hy.	3 — 2%	12
420E	1000 hy.	3 — 2%	12
420F	850 hy.	3 — 2%	12
420G	600 hy.	3 — 2%	12
420H	500 hy.	3 — 2%	12

NOTES:
Inductance of middle tap is nominal ±2% at 0.1 volt, 50 cps.
[1]Impedance in parenthesis indicates parallel connected windings.
[2]Single plate, all other transformers push-pull.





MILITARY STANDARD AUDIO TRANSFORMERS

These Military Standard audio transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 1, Class R operating temperature, life expectancy X (10,000 hours minimum).

Catalog No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Operating Level	Pri. DCMA Bal.	Pri. DCMA Unbal.
221A	TF 1RX 15AJ001	MS-90000	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 90,000 CT 22,500 CT	15 dbm	--	10
121A	TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	--	--
221B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	--	--
121B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	--	--
321A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	--	40
321B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	--	40
321C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	--	10
321D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20	1
321E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20	1

QUALITY PLUS TRANSFORMERS

For many years ADC has offered these carefully chosen audio transformers which have gained wide acceptance in many quality performance applications. The very conservative ratings are based upon full power operation at 30 cycles, with response from 30 to 15,000 cycles within ½ db. Each is designed for low insertion loss and minimum hum pickup, with hum bucking construction used on all impedance, output and bridging types.

To remain consistent with the many units already in widespread use, these designs are again offered in the standard ADC type 14 case. This features fully enclosed construction in steel or cast cases, with heavy duty silver plated terminals on a phenolic terminal board. Detailed dimensions are shown below.

STANDARD LINE IMPEDANCES

Impedance values shown within parentheses following a higher value, as "600 (150) ohms," indicate the effect of connecting windings in parallel. In either case windings are well balanced, but center tap is available only when both windings are connected in series.

IMPEDANCE MATCHING TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. Level	DBM Case	Weight Lbs.
114A	600/250 (150/62.5)	600/250 (150/62.5)	2 mumetal shields	+ 16	14A	1½
114B	600/250 (150/62.5)	600/250 (150/62.5)	Cast case only	+ 20	14AD	2¼
114C	10,000/600 (2500/150)	600/250 (150/62.5)	Bridging and line to line 2 mumetal shields[1]	+ 16	14A	1½
114E	10,000 (2500)	600/150 (150/37.5)	Bridging to line 2 mumetal shields[1]	+ 16	14A	1½
114F	600/150 (150/37.5)	600/150 (150/37.5)	2 mumetal shields	+ 16	14A	1¾
114G	600/150 (150/37.5)	600/150 (150/37.5)	Cast case only	+ 20	14AD	2¼

INPUT TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance In Primary	Max. Level DBM	Case	Weight Lbs.
214A	600/250 (150/62.5)	80,000	Line to 1 grid 2 mumetal shields	0	+ 20	14A	1½
214B	600/250 (150/62.5)	80,000	Line to 1 grid. Cast case	0	+ 20	13AC	2½
214C	600/250 (150/62.5)	60,000 (15,000)	Line to PP grids 3 mumetal shields	0	+ 20	14A	2½

INTERSTAGE TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance In Primary	Max. Level DBM	Case	Weight Lbs.
214H	10,000	80,000 (20,000)	Single plate to PP grids. Humbucking. Cast case	0	+ 26	14AC	1¼
214J	20,000 (5000)	80,000 (20,000)	PP plates to PP grids. Humbucking. Cast case	1 MA	+ 30	14AC	2¼
214L	20,000 (5000)	20,000 (5000)	PP plates to PP grids. Humbucking. Cast case	1 MA	+ 30	14AC	2¼

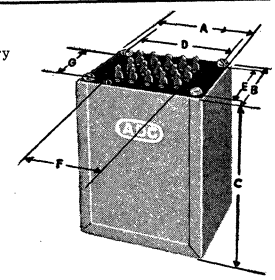
PLATE TO LINE, PRE-AMPLIFIER

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance in Primary	Max. Level DBM	Case	Weight Lbs.
314A	15,000	600/250 (150/62.5)	1 6J5, etc.	8	+ 23	14AD	2½
314B	20,000	600/250 (150/62.5)	PP 6J5, etc.	1	+ 27	14AD	2¼

TYPE 14 TRANSFORMER CASE DIMENSIONS

			Mounting Dimensions (6/32 Mounting Screws—Top or Bottom)		Chassis Knock-Out for Max. No. of Terminals		
Type	A	B	C	D	E	F	G
14AC*	2.375	2	3	1.875	1.5	2	1.125
14AD*	2.375	2	3.5	1.875	1.5	2	1.125
14A	2.375	2	3	1.875	1.5	2	1.125

*Heavy annealed cast iron for low shielding.
[1]All bridging transformers have built-in primary resistors, balanced to 0.1% or better, making the bridging impedance twice the primary impedance.



See Page 1330 for ADC Prices

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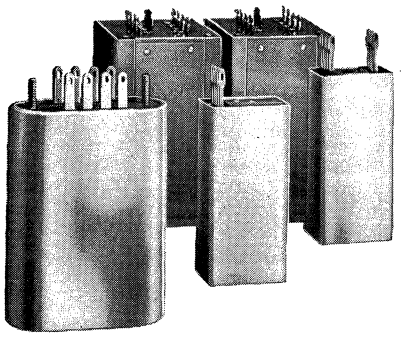
TELEPHONE COILS



For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.

ADC Inductors	W.E. Indr. or Ret.	Fig.
409BB	149B	2
409BC	149C	2
409BD	149D	2
409E	149E	2
409G	149G	2
409H	149H	2
409J	149J	2
409K	149K	2
409M	149M	2
409N	149N	2
409P	149P	2
409R	149R	2
405A	152B	*
405H	225A	*
405E	250C	*
412AC	274C	1A
412AD	274D	1A
412AG	274G	1A
412AH	274H	1A
412AJ	274J	1A
412AL	274L	1A
412AR	274R	1A
412AS	274S	1A
412BB	274AB	1A
412T	307B	1A
412C	307C	1A
412F	307F	1A
412G	307G	1A
412H	307H	1A
412J	307J	1A
412K	307K	1A
412L	307L	1A
412M	307M	1A
412B	307N	1A
412A[1]	307P	1A
412R	307R	1A

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
118A	67E	*
113A	91A	5
113A	93A	5
113B	93B	5
113F	93F	5
113G	93G	5
113H	93H	5
113J	93J	5
109S[1]	94E	2
109T	94F	2
109J	94G	2
109K[1]	93H	2
109V	94K	2
109W	94L	2
109Y	94N	2
109Z	94P	2
109BB	94S	2
109BC	94T	2
109BD	94U	2
109BE	94W	2
109BF	94Y	2
109BG[1]	94AA	2
118F	106A	*
118S	119C	*
118U	119E	*
109B[1]	120C	2
109C[1]	120D	2
109D[1]	120E	2
109E[1]	120F	2
109F[1]	120H	2
109G[1]	120J	2
109H[1]	120K	2
109P[1]	120L	2
109L	146A	*
109M	146U	*
119P	170A	*

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
119C	177C	*
119D	177D	*
112G	189A	1
112B	189D	1A
112C	189E	1A

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	*
112A[1]	181B	1
112E	181C	1
112H	D166840	1A

[1]These represent most commonly used items and are normally carried in stock.
*Space did not permit outline drawings for all types. Dimensions will be sent on your request.

Fig. 1 and 1A

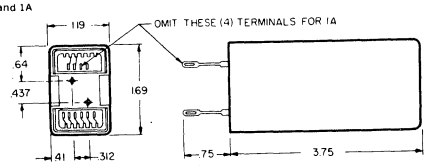


Fig. 2

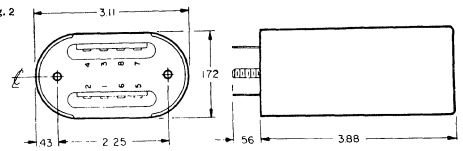
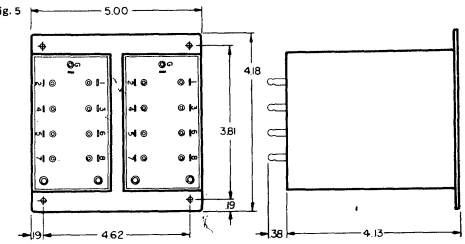
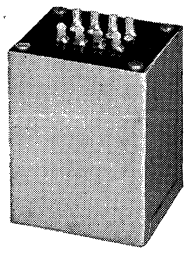


Fig. 5



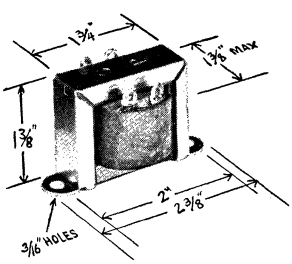


ADC REPEATING COILS

104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all cross-talk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

Type	PRI. DCR 1-2	PRI. DCR 3-4	SEC. DCR 5-6	SEC. DCR 7-8	Case	Mounting Screw	Mounting Centers
104A	10.3	16.5	12.5	14.5	2"x1 11/16x3½ high	(4) 6-32	1⅜x1⅛
104B	16.5	20	24	24	2⅜x2⅜x3½ high	(4) 8-32	1⅞x2¼



INDUCTION COILS

103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.

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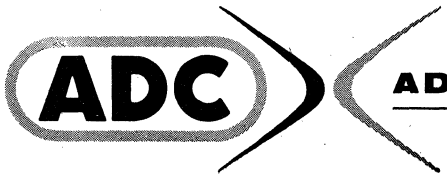
See Page 1330 for ADC Prices



ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

NET PRICE LIST

Prices subject to change without notice

CATALOG NO.	NET PRICE
108A	8.25
109B thru H	14.72
109K	11.32
109P	14.72
109S	10.28
109BG	11.32
112A	11.85
114A	23.85
114B	19.80
114C	23.85
114E	23.85
114F	23.85
114G	18.00
121A	14.40
121B	14.40
122A	24.30
122B	25.20
122C	24.30
122D	16.80
122E	19.80
122F	15.90
122G	22.20
123A	26.40
123B	27.30
123C	26.40
123D	17.40
123E	21.30
123F	16.80
124-2A	8.10
124-2H	7.20
124-3H	6.90
124-4C	7.20
124-4M	6.60
124-5C	6.90
124-5K	6.90
124-6C	6.60
124-6K	6.00
208A thru F	7.50
208G	9.00
214A	23.70
214B	16.20
214C	23.70
214H	15.45
214J	16.80
214L	16.80
220A thru D	20.85
221A	15.45
221B	13.20
222A	22.50
222B	22.50
222C	25.20
222D	19.80
222E	19.80
222F	17.40
222G	17.40
223A	24.90
223B	24.90
223C	28.20
223D	21.60
223E	21.60
223F	18.30
223G	18.30
224-2G	8.10
224-2M	6.60
224-3G	7.80
224-3M	6.30
224-4G	7.20
224-4L	7.80
224-4R	6.00
224-5F	6.90
224-5J	7.80
224-6F	6.60
224-6J	7.20
308E, F	7.50
308G, H	9.00
314A	20.40
314B	18.00
320A thru F	20.85
320Y, Z	20.85
321A thru E	12.90
322A	11.70
322B	16.80
322C	15.90
322D	17.40
322E	17.40
322F	19.80
322G	21.00
322H	20.40
322J	22.80
322K	31.50
322L	33.90
322M	23.70
322N	21.60
322P	17.10
323A	13.50
323B	20.70
323C	17.40
323D	21.60
324-2B	7.80
324-2C	7.20
324-2D	6.60
324-2E	7.20
324-2F	6.60
324-2J	6.60
324-2K	6.60
324-2L	6.60
324-3A	7.80
324-3B	7.50
324-3C	6.90
324-3D	6.30
324-3E	6.90
324-3F	6.30
324-3J	6.30
324-3K	6.30
324-3L	6.30
324-4A	7.80
324-4B	7.80
324-4D	7.20
324-4E	7.20
324-4F	6.60
324-4H	6.00
324-4J	6.60
324-4K	6.00
324-4N	6.00
324-4P	6.00
324-4Q	6.00
324-5A	8.70
324-5B	7.80
324-5D	6.90
324-5E	6.90
324-5G	6.90
324-5H	5.70
324-5L	5.70
324-5M	5.70
324-6A	7.50
324-6B	7.20
324-6D	6.60
324-6E	6.60
324-6G	6.00
324-6H	5.40
324-6L	5.40
324-6M	5.40
408D	6.75
412A	9.30
419AL thru AW	6.75
419AY thru BE	7.50
419BG thru BN	8.25
419BQ thru BS	9.00
419BU	9.75
419BW	10.50
419CE thru CS	8.25
419CU thru DA	8.70
419DC thru DG	9.00
419DJ	9.75
419DL	10.50
419EA thru EN	6.75
419EQ thru EY	7.50
419FA thru FC	8.25
419FE	8.70
419FG	9.00
419FJ	9.75
419GL thru GY	7.50
419HA thru HG	8.25
419HJ thru HN	8.70
419HQ thru HS	9.00
419HU	9.75
419HW	10.50
419HY	11.25
419KL thru LC	9.75
419LE thru LJ	10.50
419LL thru LN	11.25
419LQ thru LS	12.00
419LU	12.45
419LW	12.90
420A thru H	17.64
421A	11.10
421B	12.30
421C	13.20
421D	14.10
421E	14.70
421F	20.10
421G	21.30
421H	24.90
421J	36.90
421K	30.00
422A	5.40
422B	6.00
422C	6.45
422D	6.45
422E	6.90
422F	7.95
422G	9.60
422H	10.20
422J	12.90
422K	12.00
422L	10.20
422M	12.90
422V	7.05
422W	6.00
422X	6.00
422Y	6.90
422Z	7.20
423A	6.60
423B	7.65
423C	8.10
423D	8.10
423E	9.15
423F	10.20
423G	12.00
423H	12.90
423J	15.90
423K	14.70
423L	12.90
423M	15.90
423V	7.80
423W	7.50
423X	7.50
423Y	8.70
423Z	9.00
512A	11.70
512B	12.60
512C	17.10
512D	18.90
512E	20.55
512FA	9.00
512FB	9.60
512FC	10.35
512FD	10.80
512FE	12.90
512FF	10.65
512FG	11.25
513A	12.60
513B	14.25
513C	21.45
513D	23.70
513E	25.65
513FA	11.25
513FB	12.15
513FC	12.90
513FD	13.50
513FE	16.20
513FF	13.20
513FG	13.80
521A	22.20
521B	21.30
521C	23.70
521D	26.70
521E	30.90
521F	19.80
521G	24.90
521H	29.70
521M	13.80
521N	14.10
521P	12.90
521Q	15.60
521R	13.20
521S	15.60
521T	18.00
521U	22.05
521V	21.30
521W	22.20
522A	13.50
522B	15.00
522C	17.40
522D	18.30
522E	26.70
522F	26.70
522FA	10.80
522FB	13.20
522FC	14.40
522FD	11.70
522FE	12.90
522FF	21.30
522FG	10.80
522FH	11.70
522FJ	14.10
522FK	18.30
522FL	11.70
523A	15.90
523B	19.80
523C	21.00
523D	21.60
523E	32.80
523F	32.80
523FA	12.90
523FB	16.20
523FC	20.10
523FD	14.70
523FE	15.90
523FF	27.60
523FG	12.60
523FH	14.70
523FJ	17.10
523FK	21.30
523FL	14.70

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ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

HST TRANSFORMERS

TYPE TT

MINIATURIZED TRANSISTOR TRANSFORMERS

MIL-T-27A, CLASS R
GRADE 5 SPECIFICATION

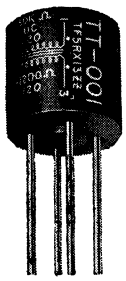
The HST line of type "TT" Transistor Transformers is the most complete available.

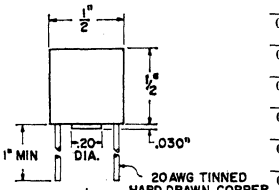
Standard types cover practically all applications: interstage, output, output to line, input, single or push-pull output, reactors, mixing and matching. All designs can be used reversed, input to secondary. The "TT" Series are vacuum molded in green epoxy resin with schematic diagrams and transformer parameters permanently and legibly marked on all units.

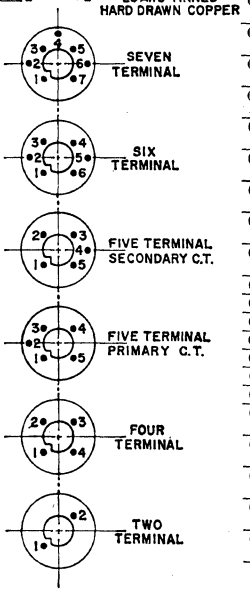
Standard 0.10" spacing is used on terminal leads. No bulky clamps are required for mounting, saving valuable board area.

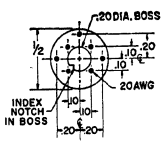
All "TT" Transformers have been tested to the requirements of MIL-T-27A, Class R, Grade 5 specifications. Reliability of operation is insured by continuous reassurance testing. The meticulous plant conditions under which the "TT" series is manufactured insure the maximum quality obtainable. A magnetic shield is available for all TT units. The TT-101 Shield offers approximately 20 db of attenuation. The shield is designed to "snap-lock" onto the unit, or in addition, can be permanently cemented with a drop of epoxy resin.

MECHANICAL PARAMETERS









MOUNTING TEMPLATE

TT #	Mil Type	Application	Pri Imp.	D.C. MA* In Pri.	Sec. Imp.	Nom. Pri. Res.	MW Level @ 1 KC
001	TF5RX13ZZ	Interstage	20,000 30,000	.5 .5	800 1200	850	50
002	TF5RX17ZZ	Output	500 600	3 3	50 60	60	100
003	TF5RX13ZZ	Output	1000 1200	3 3	50 60	115	100
004	TF5RX17ZZ	Output	600	3	3.2	60	100
005	TF5RX13ZZ	Output	1200	2	3.2	115	100
006	TF5RX13ZZ	Output	10,000	1	3.2	790	100
007	TF5RX16ZZ	Input Other Application	200,000 500	0 0	1000 100,000	8500 —	25
008	TF5RX20ZZ	Reactor 3.5 HY @ 2MADC, 1HY @ 5MADC				630	
009	TF5RX13ZZ	Output or Driver	10,000 12,000	1 1	500CT 600CT	800	100
010	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 1500CT	800	100
011	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 2500CT	800	100
012	TF5RX17ZZ	Single or PP Output	150CT 200CT	10 10	12 16	11	500
013	TF5RX17ZZ	Single or PP Output	300CT 400CT	7 7	12 16	20	500
014	TF5RX17ZZ	Single or PP Output	600CT 800CT	5 5	12 16	43	500
015	TF5RX17ZZ	Single or PP Output	800CT 1070CT	4 4	12 16	51	500
016	TF5RX13ZZ	Single or PP Output	1000CT 1330CT	3.5 3.5	12 16	71	500
017	TF5RX13ZZ	Single or PP Output	1500CT 2000CT	3 3	12 16	108	500
018	TF5RX13ZZ	Single or PP Output	7,500CT 10,000CT	1 1	12 16	505	500
019	TF5RX17ZZ	Output to Line	300CT	7	600	19	500
020	TF5RX17ZZ	Output or line to Line or Mixing	500CT	5.5	600	31	500
021	TF5RX17ZZ	Output to Line	900CT	4	600	53	500
022	TF5RX13ZZ	Output to Line	1500CT	3	600	86	500
023	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	800CT 1200CT	850	100
024	TF5RX16ZZ	Input Other Application	200,000CT 500CT	0 0	1000CT 100,000CT	8500 —	25
025	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	1500CT 1800CT	800	100
026	TF5RX20ZZ	Reactor 6HY @ 2MADC 1.5HY @ 5MADC				2100	
027	TF5RX20ZZ	Reactor 1.25HY @ 2MADC, .5HY @ 11MADC				100	
028	TF5RX20ZZ	Reactor. 3HY @ 4MADC .15HY @ 20MADC				31	
029	TF5RX17ZZ	Single or PP Output	120CT 150CT	10 10	3.2 4	10	500
030	TF5RX17ZZ	Single or PP Output	320CT 400CT	7 7	3.2 4	20	500
031	TF5RX17ZZ	Single or PP Output	640CT 800CT	5 5	3.2 4	43	500
032	TF5RX17ZZ	Single or PP Output	800CT 1000CT	4 4	3.2 4	51	500
033	TF5RX13ZZ	Single or PP Output	1060CT 1330CT	3.5 3.5	3.2 4	71	500
034	TF5RX13ZZ	Single or PP Output	1600CT 2000CT	3 3	3.2 4	109	500
035	TF5RX13ZZ	Single or PP Output	8000CT 10,000CT	1 1	3.2 4	505	100
036	TF5RX13ZZ	Isolation or Interstage	10,000CT 12,000CT	1 1	10,000CT 12,000CT	950	100
037	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	1200CT 1500CT	800	100
038	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	2000CT 2500CT	800	100
039	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	500CT 600CT	800	100
040	TF5RX16ZZ	Input	100,000	0	1000	1700	70
041	TF5RX13ZZ	Driver	20,000	.5	1000	1000	100
042	TF5RX13ZZ	Driver	20,000	.5	1200CT	1000	100
043	TF5RX17ZZ	Output	1000	3	50	60	100
044	TF5RX17ZZ	Output	400	3	50	30	100
045	TF5RX17ZZ	Output	400	3	11	30	100
046	TF5RX17ZZ	Single or PP Output	400CT	3	11	30	500
047	TF5RX20ZZ	Reactor 10HY @ 0 MADC 8HY @ .5MADC				650	
048	TF5RX13ZZ	Isolation or Interstage Ratio 1 : 1 : 1	2000CT 2500CT	3 3	8000 split 10,000 split	195	100
049	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	2000 split 2400 split	560	100
050	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	1000 split 1500 split	800	100
051	TF5RX13ZZ	Interstage	40,000CT 50,000CT	.25 .25	400 split 500 split	1700	50
052	TF5RX17ZZ	Interstage or Output	400CT 500CT	8 6	400 split 500 split	46	500
053	TF5RX17ZZ	Interstage	400CT 500CT	8 6	120 split 150 split	46	500
054	TF5RX17ZZ	Interstage	400CT 500CT	8 6	40 split 50 split	46	500
055	TF5RX17ZZ	Interstage	80CT 100CT	12 10	32 split 40 split	9.8	500
101		Drawn Mu-Metal Shield 20 to 30 db					

*DCMA shown is for single ended usage (under 5% distortion —100 MW —1KC) . . . for push pull, DCMA can be any balanced value taken by .5W transistors (under 5% distortion —500MW —1KC).

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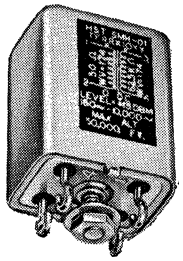
HST TRANSFORMERS

TYPES SMH, MH

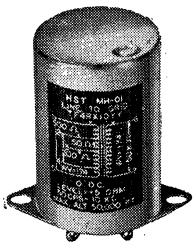
Hermetically Sealed AUDIO TRANSFORMERS



Type SMH | MIL-T-27A

The SMH series of HST Transformers offers the ultimate in miniaturized metal cased, hermetically sealed, iron core components. Glass-to-metal seals are used to insure reliability. Mounting is provided for by a single stud on the header surface. All units are furnished in attractive grey with schematic diagrams permanently and legibly marked on all cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ± 2db	Max. Level
SMH-01	TF4RX10YY	Input to Grid	50	0	62,500	150-10,000	±13dbm
SMH-02	TF4RX10YY	Plate to Grid	10,000	0	90,000	300-10,000	20MW
SMH-03	TF4RX13YY	Plate to Line	10,000 25,000	3MA 1.5MA	200 500	300-10,000	20MW
SMH-04	TF4RX13YY	Plate to Low Imp.	30,000	1MA	50	300-10,000	30MW
SMH-05	TF4RX20YY	Reactor	100HYS @0 DC, 50HYS @1 MADC, 4400 Ohms				
SMH-06	TF4RX13YY	Transistor Interstage	25,000 (DCR 800)	.5MA	1000 (DCR 110)	300-10,000	10MW
SMH-07	TF4RX17YY	Transistor Output	500CT (DCR 50)	3.5MA	50 (DCR 5)	300-10,000	30MW
SMH-08	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	1200CT	300-10,000	30MW
SMH-09	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	2000CT	300-10,000	30MW
SMH-10	TF4RX17YY	Transistor Output	500CT (DCR 26)	10MA	600CT	300-10,000	30MW
SMH-11	TF4RX13YY	Transistor Output	1500CT (DCR 71)	7MA	600CT	300-10,000	30MW
SMH-12	TF4RX13YY	Isolation or Transistor Interstage	10,000CT	1MA	10,000CT	300-10,000	100MW



Type MH | MIL-T-27A

The "MH" transformers illustrated and described on these pages have excellent application in the fields of military electronics, communications, public address systems and anywhere that quality audio components are necessary. The "MH" series transformers and reactors are enclosed in a compact, easy mounting case with glass-to-metal seals to insure reliability of operation. High permeability cores result in excellent frequency response for such small units. All units are furnished in attractive grey finish with schematic diagrams permanently and legibly marked on case.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ±2db	Max. Level
MH-01	TF4RX10YY	Mike, Line to Grid	50,200CT, 500CT*	0	50,000	50-10,000	+5dbm
MH-02	TF4RX11YY	Mike to Grid	82	50MA	135,000	250-8000	+18dbm
MH-03	TF4RX10YY	Plate to Grid	15,000	0	60,000	50-10,000	4MW
MH-04	TF4RX15YY	Plate to Grid	15,000	4MA	60,000	200-10,000	25MW
MH-05	TF4RX10YY	Plate to PP Grids	15,000	0	95,000CT	50-10,000	3MW
MH-06	TF4RX15YY	Plate to PP Grids	15,000	4MA	95,000 split	200-10,000	12MW
MH-07	TF4RX13YY	Plate or PP to Line	20,000CT	4MA	600/150	200-10,000	125MW
MH-08	TF4RX16YY	Mixing or Matching	600/150	0	600CT	50-10,000	+8dbm
MH-09	TF4RX10YY	Input to Grid	600/150	0	1 Megohm	±4db 200-3000	+10dbm
MH-10	TF4RX10YY	Plate to Grid	10,000	0	1 Megohm	±4db 200-3000	10MW
MH-11	TF4RX20YY	Reactor	300 HYS @ 0 DC; 50 HYS @ 3 MADC; 6000 Ohms				
MH-12	TF4RX10YY	Mike, Line to PP Grids	50,200CT, 500CT*	0	50,000CT	50-10,000	+5dbm
MH-13	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	2K/500 split	100-10,000	100MW
MH-14	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	4K/1K split	100-10,000	100MW
MH-15†•	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	50-12,000	0dbm
MH-16†	TF4RX16YY	Plate to Line	15,000	0	600/250/50	50-15,000	+10dbm
MH-17†	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	300-7000	+10dbm
MH18†•	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	50-15,000	+10dbm

* 200 ohm termination can be used for 150 or 200 ohms, 500 ohm termination for 600 ohms.
† Layer wound coils in a MU-metal case.
• Electrostatic shield between windings.

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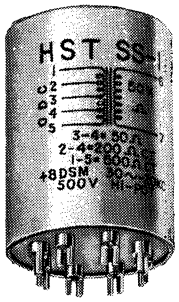
HST TRANSFORMERS

TYPE SS

Space Savers AUDIO TRANSFORMERS



Type SS

SS series Components fill the need for economical, compact, quality transformers. These units, which weigh one ounce, are fully impregnated and sealed in a drawn aluminum housing 7/8" in diameter . . . mounting opposite terminal board. SS series items are ideal for portable broadcast, aircraft, mobile service, and similar applications. Additional magnetic shielding (25 db) available by use of SS-17 mu-metal shield. (See photo at middle left.) High-fidelity characteristics are provided, uniform within approximately 1 db from 30 to 20,000 cycles, except for SS-14, SS-15 and units carrying DC which are intended for voice frequencies. All units are furnished in an attractive anodized finish with schematic permanently and legibly marked on the case. (For MIL-T-27A Styles, see HST Type "MH").

	Type No.	Application	Pri. Imp. Ohms	DCMA Unbal.	Sec. Imp. Ohms	Pri. Res.	Response ±1db	Max. Level
INPUT AND MIXING TRANSFORMERS	SS-1	Low Imp. to Grid	50,000/250, 500/600	0	50,000	52	30-15,000	+8dbM
	SS-2	Low Imp. to PP Grids	50,200/250, 500/600	0	50,000CT	52	30-15,000	+8dbM
	SS-3	Low Imp. to Grid	7.5/30	0	50,000	4.5	30-15,000	+8dbM
	SS-11	Crystal to Line	50,000	0	50,200/250, 500/600	3900	30-15,000	+8dbM
	SS-12	Mixing, Matching	50,200/250	0	50,200/250, 500/600	12	30-20,000	+8dbM
	SS-14	Low Imp. to Grid	200	0	½ Megohm	10	200-3000	+8dbM
	SS-16	Low Imp. to Grid	250CT	0	50,000	40	30-15,000	+8dbM
		This Transformer provides very low Hum Pick-up . . . Employs two heavy gauge Mu-Metal shields, plus orientable mounting. Primary CT is balanced to 1%. Can be used for 150, 200, 250, 500 or 600 ohm sources . . . 200:1 impedance ratio. (See photo upper left.)						
	SS-25	Transistor Input	600/150 split	0	2000/500 split	70	60-15,000	+15dbM
INTERSTAGE TRANSFORMERS	SS-4	Plate to Grid	15,000	0	60,000	710	50-20,000	6.3MW
	SS-5	Plate to Grid	15,000	4	60,000	710	200-10,000	6.3MW
	SS-6	Plate to PP Grid	15,000	0	95,000CT	690	40-15,000	6.3MW
	SS-7	Plate to PP Grid	15,000	4	95,000CT	690	300-10,000	6.3MW
	SS-15	Plate to Grid	15,000	0	1 Megohm	330	150-3000	6.3MW
	SS-18	Transistor Interstage	10K/2.5K split	4	2000/500 split	800	150-20,000	100MW
	SS-19	Transistor Interstage	10K/2.5K split	4	4K/1K split	800	150-20,000	100MW
	SS-26	Transistor Interstage	10,000CT	4	10,000CT	700	150-15,000	100MW
	SS-27	Transistor Interstage	10,000CT	4	500/125 split	750	150-20,000	100MW
	SS-28	Transistor Interstage	50,000CT	2	500/125 split	3200	150-20,000	100MW
	SS-29	Trans. Inter. or Chopper	100,000CT	1	500/125 split	3200	200-20,000	100MW
	SS-30	Transistor Interstage	500/125 split	20	500/125 split	37	150-15,000	1W*
	SS-31	Transistor Interstage	500/125 split	20	150/37.5 split	35	150-15,000	1W*
	SS-32	Transistor Interstage	500/125 split	20	50/12.5 split	37	150-15,000	1W*
	SS-33	Transistor Interstage	100/25 split	40	40/10 split	9	150-15,000	1W*
OUTPUT TRANSFORMERS	SS-8	Plate to Line	15,000	0	50,200/250, 500/600	950	30-15,000	6.3MW
	SS-9	Plate to Line	15,000	4	50,200/250, 500/600	950	200-10,000	6.3MW
	SS-10	PP to Line	30,000CT	0	50,200/250, 500/600	2000	40-20,000	6.3MW
	SS-20	Transistor to Line	1500CT	8	500/125 split	100	150-20,000	100MW
	SS-21	Transistor to Voice Coil	2000CT 4000CT	4	8 16	200	150-20,000	100MW
	SS-22	Transistor to Voice Coil	400CT 500CT	20	3.2 4	35	150-15,000	1W*
REACTORS	SS-13	Reactor	300 HYS . . . 0 DC; 50 HYS . . . 3 MADC; 6000 Ohms					
	SS-23	Reactor	7 HYS . . . 3 MADC; 3.5 HYS . . . 10 MADC; 230 Ohms					
	SS-24	Reactor	1.6 HYS . . . 3 MADC; .8 HY . . . 10 MADC; 25 Ohms					
	SS-17	Mu-Metal Shield	Slip Fit Over Space Saver. Provides 25db Shielding.					

* At 200 CPS, ¼ watt at 150 CPS.

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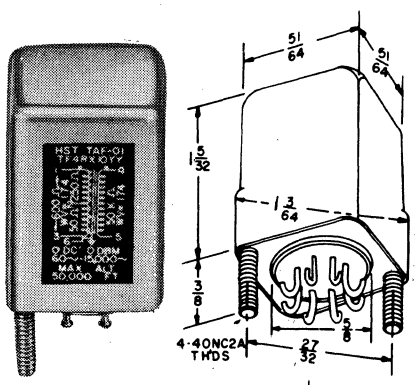
HST TRANSFORMERS

TYPE TAF

Hermetically Sealed AUDIO TRANSFORMERS

Type TAF — To MIL-T-27A SPECIFICATIONS



UNIT WEIGHT 2½ OZ. MAX.

The HST series TAF Transformers and Reactors are all housed in deep drawn mu-metal cases offering maximum magnetic shielding obtainable in a single enclosure. All units are vacuum impregnated and potted with high quality compounds. Excellent frequency response is obtained by use of high nickel content laminations and special winding techniques. Glass-to-metal seals are used to insure positive hermetic sealing. All units furnished in attractive grey finish with schematics permanently and legibly marked on cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Response	Max. Level
TAF-01*	TF4RX10YY	Line to Grid	600/250/50	0	50,000	100	3200	60-15,000	0dbm
TAF-02*	TF4RX10YY	Line to Grid	600/250/50	0	250,000	48	3600	150-7000	0dbm
TAF-03	TF4RX10YY	Line to PP Grids	600/250/50	0	60,000CT	125	3600	60-15,000	0dbm
TAF-04*	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	10	4100	60-12,000	0dbm
TAF-05	TF4RX10YY	Plate to Grid	15,000	0	50,000	1100	2860	60-15,000	+10dbm
TAF-06	TF4RX10YY	Plate to PP Grids	15,000	0	60,000CT	1350	2700	60-15,000	+10dbm
TAF-07	TF4RX15YY	Plate to PP Grids	15,000	3MA	95,000CT	1450	3050	350-7000	+10dbm
TAF-08*	TF4RX10YY	Line to Grid	200	0	500,000	100	4900	350-5000	0dbm
TAF-09	TF4RX10YY	Plate to Grid	15,000	0	1 Megohm	550	4450	350-5000	+10dbm
TAF-10	TF4RX16YY	Plate to Line	15,000	0	600/250/50	1330	58	60-15,000	+10dbm
TAF-11	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	1330	58	350-7000	+10dbm
TAF-12	TF4RX16YY	PP Plates to Line	20,000CT	0	600/250/50	2600	84	60-15,000	+10dbm
TAF-13*	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	80	85	60-15,000	+10dbm
TAF-14*	TF4RX21YY	HI-Imp. Line to Line	5000CT	0	5000CT	2150	2190	60-15,000	+10dbm
TAF-15	TF4RX20YY	Reactor	50 HYS @ .75 MADC			4800			

* Electrostatic shield between windings.

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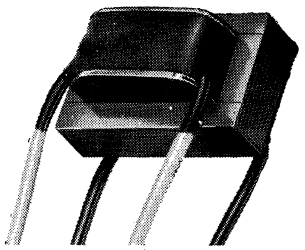
HST TRANSFORMERS

TYPE SMO

SUB-SUB MINIATURE TRANSFORMERS



Type SMO

The SMO series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available.

Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Max. Level
SMO-1	Input	200 50	0	250K 62.5K	13.5	3600	+7dbM
SMO-2	Interstage/3:1	10K	0.25	90K	710	3150	30MW
SMO-3	Plate to Line	10K 25K	3MA 1.5MA	200 500	2500	34	100MW
SMO-4	Output	30K	1MA	50	2875	50	100MW
SMO-5	Reactor	50 HYS. @ 1 MADC 4400 Ohms D.C.R.					
SMO-6	Output	100K	.5MA	60	3500	3.3	100MW
SMO-7	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	800	110	100MW
SMO-8	Transistor to P.P. Sec.	10K	1MA	200CT	1200	45	100MW
SMO-9	Transistor to V.C.	10K	2MA	16	800	2.7	100MW
SMO-10	Transistor to V.C.	10K	2MA	3.2	800	.65	100MW
SMO-11	Transistor Output	500 600	3.5MA 3.5MA	50 60	50	5	100MW
SMO-12	Transistor Output	1000 1200	3MA 3MA	50 60	90	5	100MW
SMO-13	Crystal to Transistor	200K	0	1000	4000	190	+7dbM
SMO-14	Transistor Interstage	10KCT 25KCT	2MA 1MA	200CT 500CT	650	22	100MW
SMO-15	Transistor Interstage	20KCT 30KCT	1MA 1MA	800CT 1200CT	800	110	100MW
SMO-16	Output	1200 1500	3MA 3MA	3.2 4	70	.45	100MW
SMO-17	Output or Driver	10K 12.5K	2MA 2MA	500CT 600CT	800	95	100MW
SMO-18	Single or PP Output	7.5KCT 9.4KCT	4MA 4MA	3.2 4	770	.73	100MW
SMO-19	Output or Matching	500CT	10MA	600CT	26	70	100MW
SMO-20	Output	1.5KCT	7MA	600CT	70	65	100MW
SMO-21	Crystal/Chopper	200KCT	0	1000CT	4000	200	+7dbM
SMO-22	Interstage	10KCT 12KCT	4MA 4MA	1500CT 1800CT	800	300	100MW
SMO-23	Reactor	8 HYS @ 2 MADC, 4 HYS @ 5 MADC 650 Ohms DCR					
SMO-24	Reactor	3.5 HYS @ 2 MADC, 1.5 HYS @ 5 MADC 160 Ohms DCR					
SMO-25	Transistor Interstage	10KCT 12KCT	1MA 1MA	10KCT 12KCT	560	650	100MW
SMO-26	Transistor Interstage	40KCT 50KCT	.5MA .5MA	400 split 500 split	1900	43	100MW
SMO-CH	Channel Frame	Mounting Frame for any of above SMO Units.					

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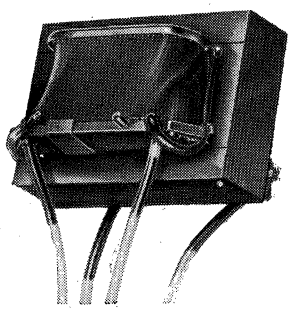
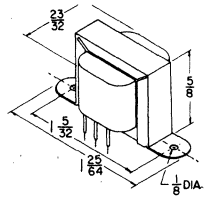
HST TRANSFORMERS

TYPES SSM, RM

Sub-Miniature TRANSFORMERS





Type SSM

The SSM series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available (HST type SSM-CH) as shown in sketch at left.

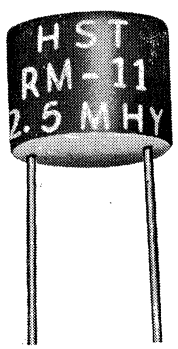
Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Max. Level
SSM-1*	Input	200 50	0 0	250K 62.5K	16	2500	+10dbM
SSM-2	Interstage/3:1	10K	0.25	90K	215	1850	100MW
SSM-3*	Plate to Line	10K 25K	3MA 1.5MA	200 500	1225	30	200MW
SSM-4	Output	30K	1MA	50	1850	3.8	200MW
SSM-5	Reactor	50 HYS @ 1 MADC		2675 Ohms DCR			
SSM-6	Output	100K	.5MA	60	3400	3.7	200MW
SSM-7*	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	450	32	200MW
SSM-8	Transistor to P.P. Sec.	10K	1MA	2000CT	1000	40	200MW
SSM-9	P.P. Transistor to V.C.	500CT	0	3.2	15	.35	250MW
SSM-10*	P.P. Transistor to V.C.	2000CT 4000CT	4MA 2MA	8 16	290	2	250MW
SSM-11	Transistor Interstage	400CT 500CT	8MA 8MA	400 split 500 split	20	45	250MW
SSM-12	Transistor Interstage	400CT 500CT	8MA 8MA	120 split 150 split	20	12.6	250MW
SSM-13	Transistor Interstage	400CT 500CT	8MA 8MA	40 Split 50 split	20	4.5	250MW
SSM-14	Transistor Interstage	80CT 100CT	16MA 16MA	32 split 40 split	4.9	3.2	250MW
SSM-CH	Channel Frame	Mounting Frame for any of above SSM Units.					

* Impedance ratio is fixed. Any impedance between values shown may be employed.

Sub-Miniature TOROIDS

Printed Circuit Design

MIL-T-27A



Type RM

RM TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
RM-1	3.0 Mhy	50
RM-2	5.0 Mhy	40
RM-3	8.0 Mhy	30
RM-4	12.5 Mhy	25
RM-5	20.0 Mhy	20
RM-6	30.0 Mhy	16
RM-7	60.0 Mhy	11
RM-8	120.0 Mhy	8
RM-9	0.6 Mhy	90
RM-10	1.5 Mhy	57
RM-11	2.5 Mhy	44
RM-12	6.0 Mhy	28
RM-13	10.0 Mhy	22
RM-14	15.0 Mhy	18
RM-15	25.0 Mhy	14
RM-16	40.0 Mhy	11

HST sub-miniature toroids, type "RM", are specifically designed for printed circuit applications in transistor circuits. These units are ideal companion design components for use with HST type "TT" transformers.

Proper choice of core types and winding techniques insures maximum "Q" performance. See curves below for further pertinent data. All inductance values shown are adjusted to a tolerance of ±2%. All units are marked with inductance values. The "RM" series are epoxy molded.

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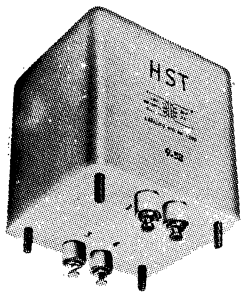
HST TRANSFORMERS

TYPE PX, PY, RS

ISOLATION TRANSFORMERS

MIL-T-27A, CLASS R, GRADE 4

IMMEDIATE DELIVERY FROM AUTHORIZED HST DISTRIBUTOR STOCKS



The HST isolation transformers listed below are designed to offer maximum utility to the user in requirements for electrical isolation. All units have electrostatic shields.

Vacuum impregnation and potting is employed in all units.

The PX series is for use in the frequency range of 380 to 1000 cycles.

The PY series is for use in the frequency range of 50 to 60 cycles. All enclosures are MIL-T-27A, standard sizes of deep drawn steel.

All units are finished in an attractive grey with schematic diagrams permanently and legibly marked on the case.

ISOLATION TRANSFORMERS

Primaries 115 Volts 380 to 1000 Cycles

Type No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PX-60	26	0.2	500	AH	O.15
PX-100	26	1.0	2500	FA	1.5
PX-200	26	2.0	2500	GB	1.75
PX-300	26	4.0	2500	GA	2.0
PX-320	26	6.5	1000	JA	6.0
PX-360	115	0.3	2000	EA	0.75
PX-400	115	1.0	2500	GA	2.0
PX-500	115	2.0	2500	JA	6.0

ISOLATION TRANSFORMERS

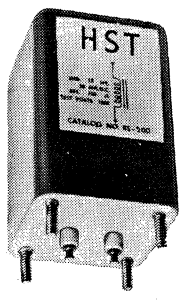
Primary 115 Volts 50/60 Cycles

Catalog No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PY-100	115	0.2	2000	GA	2.0
PY-200	115	0.5	2000	HA	3.5
PY-300	115	1.0	2000	KA	8.5
PY-400	115	2.5	2000	MA	13.0
PY-500	26	1.0	2000	GA	2.0
PY-600	26	2.0	2000	HA	3.5
PY-700	26	4.0	2000	KA	8.5

FILTER REACTORS

MIL-T-27A

CLASS R, GRADE 4



The 4RS series HST reactors have been designed specifically for use in 400 cycle circuits. Their small size versus ratings are ideal for 800 cycle ripple reduction.

The RS series of HST reactors offers a wide selection of inductance values, DC resistance ranges and current ratings.

All units are housed in deep drawn steel cases, MIL-T-27A standard sizes. All units are vacuum impregnated and potted with the finest materials obtainable.

Cases are finished in an attractive grey with schematic diagrams permanently and legibly marked on all units.

FILTER REACTORS — 400 Cycle Application

Type No.	Inductance Henries	Current D.C. Ma.	D.C. Resistance (Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
4RS-100	2	55	210	2500	AH	0.15
4RS-200	2	70	240	2500	AJ	0.25
4RS-300	2	120	105	2500	EA	0.75
4RS-400	2	165	80	2500	FB	1.0
4RS-500	2	200	77	2500	FA	1.5

FILTER REACTORS — Gèneral Application

Catalog No.	Inductance (Henries)	Current D.C. (Max.)	D.C. Resistance (Max. Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
RS-100	15	10	700	1000	AJ	.25
RS-200	15	20	700	1000	AJ	.25
RS-300	15	40	460	2500	EA	.75
RS-400	25	50	1400	2500	GA	2.0
RS-500	10	60	230	2500	FA	1.5
RS-600	30	60	900	2500	HA	3.5
RS-700	10	85	195	2500	FA	1.5
RS-800	8	105	100	2500	GA	2.0
RS-900	8	150	100	2500	HA	3.5
RS-1000	10	150	150	2500	JA	6.0
RS-2000	8	200	90	2500	KB	6.5
RS-3000	5	250	220	2500	JA	6.0
RS-4000	8	250	95	3000	LA	11.0
RS-5000	8	300	55	3500	MA	13.0
RS-6000	4	600	20	3500	MA	13.0
RS-7000	0.5	1200	6	3500	MA	13.0

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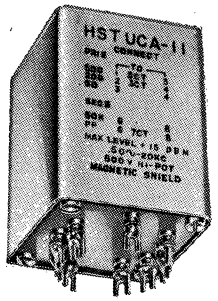
HST TRANSFORMERS

TYPE UCA

COMMERCIAL GRADE COMPONENTS



Type UCA

INPUT TRANSFORMERS

Type No.	Application	Primary Imp. Ohms	Unbal. D.C.	Secondary Imp. Ohms	Response ±2db	Pri. Res. Ohms	Max. Level
UCA-10	Low Imp. to Grid	50,125/150,200/250, 333,500/600	0	50,000 split	20-20,000	59	+15dbM
UCA-11*	Low Imp. to 1 or 2 Grids	50,200,500	0	50,000CT	20-20,000	52	+5dbM
UCA-12	Low Imp. to PP Grids	50,125/150,200/250, 333,500/600	0	80,000 split	20-20,000	60	+15dbM
UCA-20†	Mixing, Matching	50,125/150,200/250, 333,500/600	0	50,125/150,200/250, 333,500/600	10-50,000	64	+15dbM
UCA-21*†	Mixing, Matching	50,200/250,500/600	0	50,200/250,500/600	40-30,000	28	+15dbM
UCA-27	Xtal/Hi. Imp. to Line	100,000 split	0	50,125/150,200/250, 333,500/600	30-20,000 with res. source	3700	+15dbM
UCA-39*	Line to Transistors	600/150 split	0	2000/500 split	20-20,000	70	+10dbM

* Multiple alloy shield for extremely low hum pickup. † High electrostatic shielding.

INTERSTAGE AND OUTPUT TRANSFORMERS

UCA-15	Transistor Interstage	10,000/2500 split	8MA	2000/500 split	40-20,000	600	1 Watt
UCA-16	Plate to Grid	15,000	0	60,000	20-20,000	800	30MW
UCA-17	Plate to Grid	15,000	8MA	60,000	40-20,000	3340	30MW
UCA-18	Single or PP Plates to PP Grids	15,000 split	0	80,000 split	20-15,000	1040	30MW
UCA-19	Plate to PP Grids	15,000	8MA	80,000 split	40-15,000	2900	30MW
UCA-22	Transistor Interstage or Output	500CT	20MA	500/125 split	40-20,000	36	1 Watt
UCA-23	Transistor Interstage or Output	500CT	20MA	16/4 split	40-20,000	36	1 Watt
UCA-24	Single or PP Plates to Line	15,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	1430	30MW
UCA-25	Plate to Line	15,000	8MA	50,125/150,200/250, 333,500/600	40-20,000	1580	30MW
UCA-26	Single or PP Plates to Line	30,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	2520	30MW
UCA-28	Transistor to V.C.	48CT	750 MA Bal.	16 split 8, 4	40-20,000	5	5 Watts
UCA-34	Transistor Interstage	25,000/6250 split	3MA	500/125 split	30-20,000	1620	1 Watt
UCA-35	Transistor Interstage	10,000/2500 split	8MA	500/125 split	30-20,000	610	1 Watt
UCA-36	Transistor Interstage	500/125 split	20MA	150/37.5 split	40-20,000	36	1 Watt
UCA-37	Transistor Interstage	500/125 split	20MA	50/12.5 split	40-20,000	36	1 Watt
UCA-38	Transistor Interstage	100/25 split	40MA	40/10 split	40-20,000	6.2	1 Watt

The HST commercial grade UCA Series has been designed and manufactured to the same exacting quality standards as the HST Military line. The excellent frequency response and low distortion inherent with these units makes them ideally suited for high-fidelity application, portable broadcast and other uses. Check the advantages listed below:

1. Rugged die-cast cases providing mounting from both ends. See photo above.
2. Excellent Frequency Response.
3. Hum-bucking coil construction on all units except those with DC in primary.
4. Additional magnetic shielding (20 db) available by use of UCA-33 mu-metal shield. See photo above.
5. Vacuum impregnated and sealed with high quality potting compound.
6. Schematic diagrams permanently marked on all units.
7. Attractive grey finish offering maximum eye-appeal in equipment.

REACTORS AND FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Type No.	Application	
UCA-30	Audio Choke	450 HYS @ 0 MA, 250 HYS @ 5 MA—6000 Ohms; 65 HYS @ 10 MA—1500 Ohms.
UCA-32	Filter Choke	60 HYS @ 15 MA—2000 Ohms; 15 HYS @ 30 MA—500 Ohms.
UCA-41	Filter Choke	240 MHY. @ .2A—6 Ohms; 60 MHY. @ .4A—1.5 Ohms.
UCA-40	Power Transformer	115 V 60 CPS to Two 6.3 VCT @ .2A Secondaries.
UCA-33	Mu-Metal Shield	Slip Fit Over UCA Case, Provides Approximately 20db Shielding.

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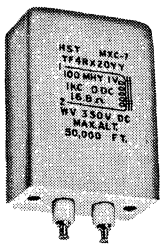
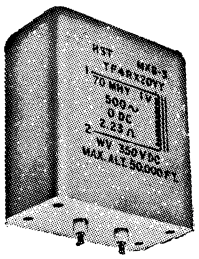
HST TRANSFORMERS

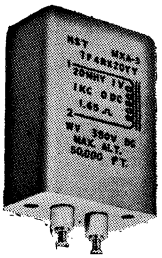
TYPES MXA, TXA MXB, MXC

ADVANCED "MX" SERIES OF HIGH "Q" TOROIDS

MIL-T-27A







MXA and TXA:

Length	1 9/32
Width	1 1/16
Height	1 21/32
Mounting	7/8 x 9/32
Screws (two)	4-40
Cutout-MXA	5/16 x 1/2
Cutout-TXA	5/16 x 3/4
Unit Weight	4 oz.

MXB:

Length	2 9/16
Width	1 3/16
Height	2 13/16
Mounting	2 1/16 x 1 1/16
Screws (four)	6-32
Cutout	7/8 x 1/2
Unit Weight	14 oz.

MXC:

Length	1 1/16
Width	1/2
Height	1 7/32
Mounting	3/4
Screws (two)	4-40
Cutout	5/16 x 1/2
Unit Weight	1.5 oz.

The new advanced "MX" series of HST standard toroids provides the highest "Q" factors, inductance stability and linearity obtainable in the industry. Permalloy dust cores are used in all units; core types selected for maximum efficiency at specified frequency ranges. All units are individually adjusted to ±1% tolerance. Enclosures are made of high permeability steel for magnetic shielding.

The TXA series toroids are center tapped for use in "capacitor multiplying tuned circuits," oscillator circuits," etc.

All units are furnished in an attractive grey finish with schematics permanently and legibly marked on cases.

MXA and TXA TYPES

Type No.	Ind. (0 DC)	DC MA Max.	Center Tapped Type No.
MXA-1	7.0 Mhy	250	TXA-1
MXA-2	12.0 Mhy	200	TXA-2
MXA-3	20.0 Mhy	150	TXA-3
MXA-4	30.0 Mhy	125	TXA-4
MXA-5	50.0 Mhy	100	TXA-5
MXA-6	70.0 Mhy	80	TXA-6
MXA-7	120.0 Mhy	60	TXA-7
MXA-8	0.2 Hy	50	TXA-8
MXA-9	0.3 Hy	40	TXA-9
MXA-10	0.5 Hy	30	TXA-10
MXA-11	.07 Hy	25	TXA-11
MXA-12	1.0 Hy	20	TXA-12
MXA-13	1.5 Hy	17	TXA-13
MXA-14	2.5 Hy	13	TXA-14
MXA-15	4.0 Hy	10	TXA-15
MXA-16	6.0 Hy	9	TXA-16
MXA-17	10.0 Hy	7	TXA-17
MXA-18	15.0 Hy	5	TXA-18
MXA-19	22.0 Hy	4	TXA-19
MXA-20	35.0 Hy	3	TXA-20

MXB TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXB-1	10.0 Mhy	400
MXB-2	30.0 Mhy	250
MXB-3	70.0 Mhy	170
MXB-4	120.0 Mhy	120
MXB-5	0.5 Hy	60
MXB-6	1.0 Hy	40
MXB-7	2.0 Hy	30
MXB-8	3.5 Hy	22
MXB-9	7.5 Hy	16
MXB-10	12.0 Hy	11
MXB-11	18.0 Hy	9
MXB-12	25.0 Hy	8
MXB-13	40.0 Hy	6
MXB-14	60.0 Hy	4

MXC TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXC-0	4.0 Mhy	160
MXC-1	7.0 Mhy	135
MXC-2	12.0 Mhy	100
MXC-3	20.0 Mhy	80
MXC-4	30.0 Mhy	65
MXC-5	50.0 Mhy	50
MXC-6	70.0 Mhy	40
MXC-7	100.0 Mhy	35
MXC-8	150.0 Mhy	30
MXC-9	0.25 Hy	22
MXC-10	0.4 Hy	17
MXC-11	0.6 Hy	14
MXC-12	0.9 Hy	12
MXC-13	1.5 Hy	9
MXC-14	2.0 Hy	8
MXC-15	2.8 Hy	7.2
MXC-16	4.0 Hy	5

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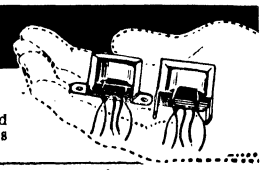

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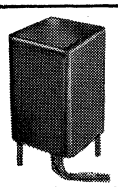
Efficiently designed to meet the needs of miniaturization and engineered to provide more power handling capacity and improved frequency response with minimum distortion. All are nickel-steel laminations. Applications under "TYPE" column shows typical use. Many units may be used for other applications as well. Average net weight 1¼ oz.; average shp. wt., 4 oz.

ARGONNE NUMBER	TYPE	IMPEDANCE PRIMARY OHMS	IMPEDANCE SECONDARY OHMS	UNBALANCED CURRENT PRI. D.C. MA	POWER MILLI-WATTS	D.C. RESISTANCE PRI. OHMS	D.C. RESISTANCE SEC. OHMS	OVERALL SIZE
AR-141	Input	500,000	1,500 CT	.3	350	3500	60	1"x¾"x¾"
AR-142	Input	500,000	200 CT	.3	350	3500	20	1"x¾"x¾"
AR-143	Input	250,000	200 CT	.5	350	3500	20	1"x¾"x¾"
AR-144	Input	200,000	1,500 CT	.5	350	3000	65	1"x¾"x¾"
AR-100	Input	200,000	1,000	.5	100	3600	90	1"x¾"x¾"
AR-126	Input	150,000	1,500 CT	2.	100	3700	55	1"x¾"x¾"
AR-101	Input	100,000	3,000 CT	.5	100	3600	60	1"x¾"x¾"
AR-145	Input	100,000	2,000 CT	.5	350	3000	50	1"x¾"x¾"
AR-102	Input	100,000	1,500 CT	.5	100	3600	40	1"x¾"x¾"
AR-146	Input	100,000	50	.5	350	3000	1.6	1"x¾"x¾"
AR-127	Input	50,000	3,000 CT	1.	100	2000	50	1"x¾"x¾"
AR-128	Input	50,000	1,500 CT	2.	100	3000	50	1"x¾"x¾"
AR-129	Input	50,000	1,000	2.	100	2500	20	1"x¾"x¾"
AR-148	Input	50,000	500 CT	1.	175	1300	20	¾"x⅝"x⅝"
AR-149	Input	50,000	200 CT	1.	175	1300	10	¾"x⅝"x⅝"
AR-147	Input	50,000	30 CT	1.	175	1300	1.5	¾"x⅝"x⅝"
AR-150	Input	40,000	100	1.	175	850	6	¾"x⅝"x⅝"
AR-103	Driver	20,000	2,000 CT	1.	100	400	50	1"x¾"x¾"
AR-104	Driver	20,000	1,000	1.	100	400	50	¾"x⅝"x⅝"
AR-151	Driver	20,000	800 CT	1.5	175	600	60	¾"x⅝"x⅝"
AR-105	Driver	20,000	400	1.	100	600	30	1"x¾"x¾"
AR-130	Output	20,000	8	.5	100	400	0.6	¾"x⅝"x⅝"
AR-131	Output	20,000	3.2	.5	100	400	0.3	¾"x⅝"x⅝"
AR-106	Driver	16,000	4,000	1.	100	620	350	¾"x⅝"x⅝"
AR-152	Driver	15,000	200 CT	1.5	175	550	10	¾"x⅝"x⅝"
AR-107	Driver	15,000	200	1.5	250	1000	20	1"x¾"x¾"
AR-108	Driver	10,000	3,000 CT	1.5	100	200	100	¾"x⅝"x⅝"
AR-109	Driver	10,000	2,000 CT	1.5	100	500	50	¾"x⅝"x⅝"
AR-153	Driver	10,000	200 CT	2.	175	400	10	¾"x⅝"x⅝"
AR-110	Output	10,000	16	2.	150	600	2.5	¾"x⅝"x⅝"
AR-132	Output	10,000	8	1.	100	600	.6	¾"x⅝"x⅝"
AR-133	Output	10,000	3.2	1.	100	600	.3	¾"x⅝"x⅝"
AR-158	Input	5,000 CT	80,000	2.	175	350	1800	¾"x⅝"x⅝"
AR-157	Input	5,000	45,000	2.	175	250	1600	¾"x⅝"x⅝"
AR-156	Input	5,000	30,000	2.	175	150	1300	¾"x⅝"x⅝"
AR-155	Input	5,000	10,000	2.	175	150	450	¾"x⅝"x⅝"
AR-154	Input	5,000 CT	7,500 CT	2.	175	150	400	¾"x⅝"x⅝"
AR-173	Driver	5,000	3,000 CT	2.	350	200	90	1"x¾"x¾"
AR-111	Output	5,000	100	1.	100	600	10	¾"x⅝"x⅝"
AR-134	Output	4,000 CT	8	4.	250	150	.8	1"x¾"x¾"
AR-135	Output	4,000 CT	3.2	4.	250	150	.3	1"x¾"x¾"
AR-112	Output	3,500	200	1.	150	120	25	1"x¾"x¾"
AR-113	Driver	3,000 CT	1,000	9.	150	100	60	¾"x⅝"x⅝"
AR-114	Output	2,500	11	10.	150	50	1.1	¾"x⅝"x⅝"
AR-115	Input	2,000 CT	8,000 CT	2.	150	150	660	1"x¾"x¾"
AR-116	Output	2,000	200	4.	250	120	20	1"x¾"x¾"
AR-175	Driver	2,000	1,500 CT	2.	350	150	60	1"x¾"x¾"
AR-159	Driver	1,500	500 CT	4.	175	100	20	¾"x⅝"x⅝"
AR-136	Output	1,000 CT	100	4.	250	120	10	1"x¾"x¾"
AR-137	Output	1,000 CT	8	4.	250	120	.9	1"x¾"x¾"
AR-138	Output	1,000 CT	3.2	4.	250	120	.3	1"x¾"x¾"
AR-160	Output	800 CT	3.2	5.	175	40	.3	¾"x⅝"x⅝"
AR-161	Output	650 CT	16	5.	175	27	1.3	¾"x⅝"x⅝"
AR-162	Output	500 CT	500 CT	5.	350	18	18	1"x¾"x¾"
AR-163	Output	500 CT	150 CT	5.	175	18	8	¾"x⅝"x⅝"
AR-165	Output	500 CT	50	5.	175	18	4	¾"x⅝"x⅝"
AR-117	Output	500 CT	30	5.	100	20	1.5	¾"x⅝"x⅝"
AR-118	Output	500 CT	16	5.	100	20	1.5	¾"x⅝"x⅝"
AR-164	Output	500 CT	8	5.	175	18	.8	¾"x⅝"x⅝"
AR-119	Output	500 CT	3.2	5.	100	20	.3	¾"x⅝"x⅝"
AR-166	Output	400 CT	16	5.	175	16	1.3	¾"x⅝"x⅝"
AR-120	Output	400 CT	11	1.	150	20	.9	¾"x⅝"x⅝"
AR-167	Output	400 CT	8 or 3.2	5.	175	16	.6/.3	¾"x⅝"x⅝"
AR-168	Output	300 CT	16	6.	175	12	1.4	¾"x⅝"x⅝"
AR-121	Output	300 CT	3.2	6	150	20	.25	¾"x⅝"x⅝"
AR-139	Output	250 CT	8	2.	250	15	.7	1"x¾"x¾"
AR-122	Output	250 CT	3.2	2	150	11	.3	1"x¾"x¾"
AR-123	Input	200	2,000 CT	2.	150	11	50	1"x¾"x¾"
AR-124	Output	200 CT	16	2.	250	20	1.3	¾"x⅝"x⅝"
AR-169	Output	200 CT	8 or 3.2	7.	175	9	.6/.3	¾"x⅝"x⅝"
AR-140	Output	200 CT	3.2	2.	100	10	.3	¾"x⅝"x⅝"
AR-170	Output	160 CT	8 or 3.2	8.	350	10	.6/.3	1"x¾"x¾"
AR-176	Output	125 CT	8	8.	350	4	.7	1"x¾"x¾"
AR-174	Output	125 CT	3.2	8.	350	6	.3	1"x¾"x¾"
AR-171	Output	100 CT	10 CT	10.	175	4	.8	¾"x⅝"x⅝"
AR-172	Output	48 CT	8 or 3.2	15.	350	2.3	.6/.3	1"x¾"x¾"
AR-125	Input	3	4,000	15.	250	14	50	¾"x⅝"x⅝"

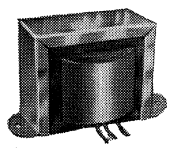


HIGH FIDELITY TRANSISTOR TRANSFORMERS

Driver and output transformers, completely encased. Response 20-20,000 cps ± 0.25 db. Output transformer 1.5 watts on 20-20,000 cps ± 2 db. Size 1-5/16" x 1-5/16" x 1¾". Shpg. wt., 9 oz.

MODEL AR-500 DRIVER TRANSFORMER: 5000 ohm primary, 3000 ohm CT secondary; dc resistance of primary 50 ohms, secondary 75 ohms; unbalanced primary dc current 20 ma
List Price 9.60

MODEL AR-501 OUTPUT TRANSFORMER: Primary 125 ohms CT, secondary 8 ohms; primary dc resistance 4 ohms, secondary 0.8; unbalanced primary current 50 ma. dc.....List Price 9.60



HIGH POWER TRANSISTOR AUDIOS

For the new high-output transistors

MODEL AR-503 OUTPUT TRANSFORMER: 6 watts, 70-20,000 cps ± 2 db. Primary 48 ohms CT, secondary 3.2 ohms; primary dc resistance 1.1 ohms, secondary 0.3; unbalanced primary current 200 ma. dc. Size 1-9/16" x 1⅞" x 1-9/16". Shpg. wt., 1 lb.
List Price 2.95

MODEL AR-504 INPUT TRANSFORMER: 2 watts, 70-20,000 cps ± 2 db. Primary 100 ohms, secondary 200 ohms CT. Primary dc resistance 1.8 ohms, secondary 2.7; unbalanced primary current 200 ma. dc .....List Price 2.50

Write to Factory For Complete Catalog Of Audio & Miniaturization Products

Argonne ELECTRONICS MFG. CORP. ○ SYOSSET, L. I. NEW YORK

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TRANSFORMERS

This group of transformers and filter reactors are designed to meet the full requirements of MIL-T-27A specifications, and are hermetically sealed in standard MIL-T-27A case sizes. They provide the highest standard of quality necessary for military and professional requirements.

The range includes the specific types standardized by the Armed Services Standards Agency as well as a group of standard types for 400 cycle power supplies.

Transformers and reactors meeting MIL-T-27A specifications Grade 1 through 6, Class Q, S, T, or U can be supplied on special order.

A wide range of transformers and reactors of all varieties are regularly manufactured, including the more economical types for commercial use.

If the ratings you require are not listed, we can offer prompt competitive quotations on designs to your specifications.

All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

MILITARY STANDARD FILAMENT TRANSFORMERS Input 105/115/125 Volts 60 Cycles ± 10%

Cat. No.	MIL Types	Military Standards No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	List Price
FMF 20	TF1RX01EB002 or TF4RX01EB002	MS90016-1 or 2	2.5	3	2500	EB	1	$16.80
FMF 21	TF1RX01GB003 or TF4RX01GB003	MS90017-1 or 2	2.5	10	2500	GB	2.125	22.60
FMF 22	TF1RX01FB004 or TF4RX01FB004	MS90018-1 or 2	5.0	3	2500	FB	1.5	18.50
FMF 23	TF1RX01HB005 or TF4RX01HB005	MS90019-1 or 2	5.0	10	2500	HB	3.125	24.60
FMF 24	TF1RX01FB006 or TF4RX01FB006	MS90020-1 or 2	6.3	2	2500	FB	1.25	18.50
FMF 25	TF1RX01GB007 or TF4RX01GB007	MS90021-1 or 2	6.3	5	2500	GB	2.125	21.00
FMF 26	TF1RX01JB008 or TF4RX01JB008	MS90022-1 or 2	6.3	10	2500	JB	5	29.00
FMF 27	TF1RX01KB009 or TF4RX01KB009	MS90023-1 or 2	6.3	20	2500	KB	7.75	35.00
FMF 28	TF1RX01JB012 or TF4RX01JB012	MS90024-1 or 2	2.5	10	10,000	JB	4.25	27.00
FMF 29	TF1RX01KB013 or TF4RX01KB013	MS90025-1 or 2	5.0	10	10,000	KB	6	34.00

MILITARY STANDARD PLATE AND FILAMENT TRANSFORMERS

Input 105/115/125 Volts 60 Cycles ± 10%. Choke Input Filter

Cat. No.	MIL Types	Military Standards No.	FIL 1	FIL 2	Plate (RMS)	Current	Case	Wt. Lbs.	List Price
FMP 30	TF1RX03HA001 or TF4RX03HA001	MS90026-1 or 2	6.3/5v 2a	6.3v 3a	200-100-0-100-200	.07A.DC	HA	3.75	$33.00
FMP 31	TF1RX03JB002 or TF4RX03JB002	MS90027-1 or 2	6.3/5v 2a	6.3v 4a	325-0-325	.07A.DC	JB	5.125	29.00
FMP 32	TF1RX03KB006 or TF4RX03KB006	MS90028-1 or 2	5v 3a	6.3v 5a	325-0-325	.150A.DC	KB	7.25	34.00
FMP 33	TF1RX03LB003 or TF4RX03LB003	MS90029-1 or 2	5v 3a	6.3v 8a	400-0-400	.175A.DC	LB	9.5	40.00
FMP 34	TF1RX03MB004 or TF4RX03MB004	MS90030-1 or 2	5v 3a	6.3v 8a	450-0-450	.250A.DC	MB	12.125	46.00
FMP 35	TF1RX02KB001 or TF4RX02KB001	MS90031-1 or 2			350-0-350	.250A.DC	KB	7.125	31.00
FMP 36	TF1RX02LB002 or TF4RX02LB002	MS90032-1 or 2			550-0-550	.250A.DC	LB	9.5	36.00
FMP 37	TF1RX02NB003 or TF4RX02NB003	MS90036-1 or 2			800-0-800	.250A.DC	NB	14.75	48.00

400 Cycle Transformers

FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles

Cat. No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	List Price
FF 440	6.3 ct	2	1500	AJ	.625	$16.20
FF 41	6.3 ct	5	1500	EA	1	19.60
FF 42	6.3 ct	5	2500	FA	2	22.00
	6.3	5	2500			
FF 43	5/6.3	3	2500	EB	.95	19.00
FF 44	5 ct	6	2500	EA	1	19.60
FF 45	2.5 ct	10	5000	HB	2.75	25.60

PLATE AND FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles. Choke Input Filter

Cat. No.	Plate RMS	DC Amps	Filaments	Case	Wt. Lbs.	List Price
FP 40	250-0-250	.070	5/6.3V 2A 6.3Vct 3A	GB	1.875	$27.50
FP 41	325-0-325	.120	5V 3A 6.3 ct 5A	JB	4.625	33.00
FP 42	400-0-400	.200	5V 3A 6.3Vct 6A	KB	6.625	37.50
FP 43	350-0-350	.250	——	JB	4.625	27.50
FP 44	500-0-500	.250	——	KB	6.25	30.00

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TRANSFORMER DIVISION
INDUSTRIAL PARK
PLAINVIEW, N. Y.

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TRANSFORMERS

MILITARY STANDARD AUDIO TRANSFORMERS

Frequency Response 300-10,000 c.p.s. ± 2DB

Weight — 0.72 Lbs. Max. Altitude — 50,000 Ft. Max.

All units are hermetically sealed in MIL-T-27A case size AJ and are designed to meet the full requirements of the MIL-T-27A specification. All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

Cat. No.	Function	Type Designation	Military Standards No.	IMPEDANCE LEVEL (in ohms) Primary	Secondary	Max. Power Level	Pri. D.C. Per Side in MA	Max. D.C. Unbalance	List Price
FMA 550	Interstage, Single or P.P. plates to single or P.P. grids	TF1RX15AJ001	MS 90000	10,000 CT	90,000 split and CT	+15 DBM	10	10	$20.80
FMA 551	Matching, 600 ohm line to voice coil	TF1RX16AJ002	MS 90001	600 split	4, 8, 16	2 watt	0	0	20.30
FMA 552	Input, 600 ohm line to single or P.P. grids	TF1RX10AJ001	MS 90002	600 split	135,000 CT	+15 DBM	0	0	20.80
FMA 553	Matching, 600 ohm line to 600 ohm line	TF1RX16AJ001	MS 90003	600 split	600 split	+15 DBM	0	0	20.30
FMA 554	Output, single plate 7600 ohm or 4800 ohm to 600 ohm line	TF1RX13AJ001	MS 90004	7600 tap @ 4800	600 split	2 watt	40	40	19.80
FMA 555	Output, single plate 7600 ohm or 4800 ohm to voice coil	TF1RX13AJ002	MS 90005	7600 tap @ 4800	4, 8, 16	2 watt	40	40	19.80
FMA 556	Output, single or P.P. plates to 600 ohm line	TF1RX13AJ003	MS 90006	15,000 CT	600 split	2 watt	10	10	19.80
FMA 557	Output, P.P. plates to 600 ohm line	TF1RX13AJ004	MS 90007	24,000 CT	600 split	1 watt	10	1	20.30
FMA 558	Output, P.P. plates to 600 ohm line	TF1RX13AJ005	MS 90008	60,000 CT	600 split	0.5 watt	10	1	20.30

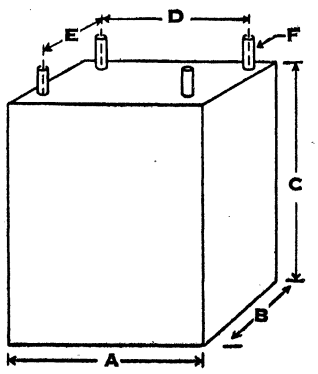
FILTER REACTORS

FOR 60 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	List Price
FC 410	.020	30	930	1500	AJ	.625	$14.50
FC 11	.070	15	260	2500	GB	2.25	14.00
FC 12	.150	10	110	2500	JB	4.75	20.00
FC 13	.200	8	90	2500	KB	6.25	21.00
FC 14	.300	10	95	2500	LB	9.625	28.50

FOR 400 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	List Price
FC 440	.070	3	225	1500	AJ	.625	$14.00
FC 41	.120	3	145	2000	EB	1	15.00
FC 42	.200	3	115	2000	FB	1.5	15.50
FC 43	.250	3	65	2000	GB	2.25	17.50



MIL-T-27A CASE AND MOUNTING DIMENSIONS

Case	A	B	C	D	E	F
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32
EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32
JB	3 5/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20

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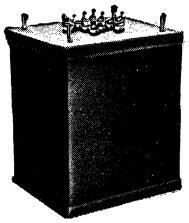
BROADCAST QUALITY COMPONENTS

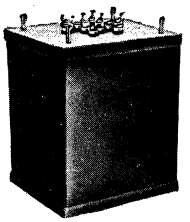
CASE DIMENSIONS

DC-2B CASE



Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32
Knockout: 1½" dia

DC-4A CASE



Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32
Knockout: 2" dia.

INPUT TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 1	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	70	0	0	DC-2B
QGA 2	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	90	0	0	DC-2B
QGA 3	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	70	0	0	DC-2B
QGA 4	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	90	0	0	DC-2B
QGA 5	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	70	0	0	DC-2B
QGA 6	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	90	0	0	DC-2B

U-60 IMPEDANCES IN OHMS:
2.5, 5, 10, 15, 20, 30, 40, 60

U-500 IMPEDANCES IN OHMS:
50, 125, 200 CT, 250, 330, 500 CT.
125 and 500 ohms can be used for 150 and 600 ohms.

HYBRID AND REPEAT COILS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 7	Hybrid. Unbalanced 500/600 ohm lines to 600 ohms.	Total Pri 1200/1000 split 300/250 300/250	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 8	Hybrid. Balanced 500/600 ohm lines to 600 ohms. Longitudinal balance 70 DB	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	600/150 or 500/125 split	+10	1.41·1	70	0	0	DC-2B
QGA 9	Hybrid. Unbalanced 500/600 ohm lines to triode plate. No. D.C. in secondary.	Total Pri 1200/1000 split 300/250 300/250	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 10	Hybrid. Balanced 500/600 ohm lines to triode plate. No. D.C. in secondary. Longitudinal balance 70 DB.	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 11	Repeat coil for low frequency ringing. Longitudinal balance 70 DB.	600/500 split	600/500 split Balanced		1·1	90	0	0	DC-A4

INTERSTAGE TRANSFORMERS

Frequency Response 20-20,000 C.P.S ±1 0 D.B.
***50-20,000 C P.S. ±1.0 D.B.**

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 12	Bridging line to single or push-pull grids.	10,000	60,000 split	+10	1:2.45	70	0	0	DC-2B
QGA 13	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids. Shunt feed.	15,000	60,000 split	+18	1:2	45	0	0	DC-2B
QGA 14*	Single 6C4, 6J5, ½ 6SN7 triode to push-pull grids.	15,000	60,000 split	+18	1:2	45	8	8	DC-2B
QGA 15	Push-pull triode plates to push-pull class A grids.	20,000 split	45,000 split	+25	1:1.5	30	8	0.5	DC-4A

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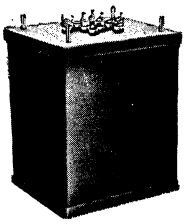
BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS



DC-2B CASE
Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32
Knockout: 1½" dia.

DC-4 CASE
Height: 4"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32
Knockout: 2" dia.

DC-4A CASE
Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32
Knockout: 2" dia.

DC-5B CASE
Height: 4½"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32
Knockout: 2½" dia.

DC-6A CASE
Height: 4⅞"
Width: 5"
Depth: 4⅛"
Mtg. Cen.: 3¾"x3"
Studs: 4 10-32
Knockout: 3" dia.

DC-6B CASE
Height: 6"
Width: 5"
Depth: 4⅛"
Mtg. Cen.: 3¾"x3"
Studs: 4 10-32
Knockout: 3" dia.

DC-7A CASE
Height: 5⅜"
Width: 5½"
Depth: 5"
Mtg. Cen.: 4⅜"x3¾"
Studs: 4 ¼"-20
Knockout: 3" dia.

LOW LEVEL OUTPUT, MIXING, MATCHING TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB
*50-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 16	Single plate or bridging line to Universal 500 ohm line. Shunt feed.	15,000	U-500	+18	5.5:1	70	0	0	DC-2B
QGA 17*	Single plate to Universal 500 ohm line.	15,000	U-500	+18	5.5:1	70	8	8	DC-2B
QGA 18	Push-pull triode plates to Universal 500 ohm line.	20,000 C.T.	U-500	+25	6.3:1	70	8	0.5	DC-2B
QGA 19	Mixing, low impedance microphone or line to Universal 500 ohm line.	U-500	U-500	+12	1:1*	70	0	0	DC-2B
QGA 20	Line level mixing and matching.	U-500	U-500	+30	1:1	70	0	0	DC-2B
QGA 21	High mu triode photo-cell to Universal 500 ohm line.	100,000	U-500	+12	14.1:1	70	0	0	DC-2B

DRIVER TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Maximum Power Level D.B.M.	Turn Ratio Pri.: ½ Sec.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 22	Universal 500 ohm line to Class B grids.	U-500	+40	1:1	0	0	DC-4A
QGA 23	Push-pull 6J5, etc. to push-pull 2A3's, 6L6's, etc.	20,000 C.T.	+30	3.2:1	8	0.5	DC-2B
QGA 24	Push-pull 2A3, 6B4 to push-pull 809, T2-40, 4/125A.	5,000 C.T.	+40	3.1:1	50	5	DC-4A

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 20-30,000 C.P.S. ±0.5 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Max. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 25	PP 5881, 6B4, 6L6, 300A, 275A to Universal 500 ohm line.	5,000 split	U-500	+42	15	3.16:1	70	7	DC-5B
QGA 26	As above to Universal voice coil.	5,000 split	U-16	+42	15	17.7:1	70	7	DC-5B
QGA 27	Push-pull 6V6, 6AQ5, 7C5, 6N7 to Universal 500 ohm line.	8,000 split	U-500	+42	15	4:1	50	5	DC-5B
QGA 28	As above to Universal voice coil.	8,000 split	U-16	+42	15	22.4:1	50	5	DC-5B
QGA 29	P.P. 6F6, 6V6, 6AQ5, 7C5, 7B5, 6AR5, 6K6, 6L6 to Universal 500 ohm line.	10,000 split	U-500	+42	15	4.47:1	40	4	DC-5B
QGA 30	As above to Universal voice coil.	10,000 split	U-16	+42	15	25:1	40	4	DC-5B
QGA 31*	PP. 807, 1614, KT-66, (Williamson Amplifier) to Universal 500 ohm line.	10,000 split	U-500	+45.5	36	4.47:1	60	6	DC-6A
QGA 32*	As above to Universal voice coil.	10,000 split	U-16	+45.5	36	25:1	60	6	DC-6A
QGA 33	P.P. Parallel, 6A5G, 300A to Universal 500 ohm line.	2,500 split	U-500	+45.5	36	2.24:1	100	10	DC-6A
QGA 34	As above to Universal voice coil.	2,500 split	U-16	+45.5	36	12.5:1	100	10	DC-6A
QGA 35	P.P. 6L6 or P.P. Parallel 6L6 to Universal 500 ohm line.	3,800 split	U-500	+47	50	2.75:1	140	14	DC-6B
QGA 36	As above to Universal voice coil.	3,800 split	U-16	+47	50	15.4:1	140	14	DC-6B
QGA 37	High level multiple line to Universal voice coil.	U-500	U-16	+42	15	5.6:1	0	0	DC-5B
QGA 38	High level multiple line to Universal voice coil.	U-500	U-16	+47	50	5.6:1	0	0	DC-6B
QGA 39*	5881 or 6146 Class AB1 to Universal 500 ohm line.	6,600 split	U-500	+45.5	36	3.64:1	70	7	DC-6A
QGA 40*	5881 or 6146 Class AB1 to Universal voice coil.	6,600 split	U-16	+45.5	36	20:1	70	7	DC-6A
QGA 41	6550 AB1 or 6146 AB2. to Universal 500 ohm line.	5,000 split	U-500	+50	100	3.16:1	140	14	DC-7A
QGA 42	6550AB1 or 6146AB2 to Universal voice coil.	5,000 split	U-16	+50	100	17.7:1	140	14	DC-7A

*These units supplied with taps for applying screen feedback.
U-16 IMPEDANCES IN OHMS: 2, 4, 8, 12 16.
U-500 IMPEDANCES IN OHMS. 50, 125, 200 C.T., 250, 330, 500 C.T. 125 and 500 ohms can be used for 150 and 600 ohms.

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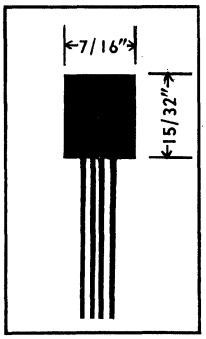
FREED TRANSFORMER COMPANY, INC.

SUBMINIATURE TRANSISTOR TRANSFORMERS

Frequency Response: ± 2 DB, 300 ~ to 10 KC
Power Level: 500 MW

These high quality, subminiature transistor transformers are designed for maximum efficiency and minimum size. These units are constructed to meet MIL-T-27A specifications. Encapsulation and potting compounds provide maximum protection and reliability.



Catalog No.	MIL Type	IMPEDANCE (OHMS)		Unbalanced DC in Primary (Ma.)
		Primary	Secondary	
TSA-1	TF4RX17YY	150-600 *	3.2	6-3 *
TSA-2	TF4RX17YY	150-600 *	12	6-3 *
TSA-3	TF4RX17YY	150-600 *	150-600 *	6-3 *
TSA-4	TF4RX17YY	300-1200 *	3.2	4-2 *
TSA-5	TF4RX17YY	300-1200 *	12	4-2 *
TSA-6	TF4RX17YY	300-1200 *	150-600 *	4-2 *
TSA-7	TF4RX17YY	500-2000 *	3.2	3-1.5 *
TSA-8	TF4RX17YY	500-2000 *	12	3-1.5 *
TSA-9	TF4RX17YY	500-2000 *	150-600 *	3-1.5 *
TSA-10	TF4RX13YY	1K-4K *	3.2	2-1 *
TSA-11	TF4RX13YY	1K-4K *	12	2-1 *
TSA-12	TF4RX13YY	1K-4K *	150-600 *	2-1 *
TSA-13	TF4RX13YY	2.5K-10K *	3.2	1-.5 *
TSA-14	TF4RX13YY	2.5K-10K *	12	1-.5 *
TSA-15	TF4RX13YY	2.5K-10K *	150-600 *	1-.5 *
TSA-16	TF4RX13YY	10K	10K (Ct.)	.5
TSA-17	TF4RX13YY	50K	500	.3
TSA-18	TF4RX13YY	50K	6	.3
TSA-19	TF4RX13YY	100K	1.2K	.2
TSA-20	TF4RX13YY	50K	1.2K	.3
TSA-21	TF4RX13YY	25K	1.2K	.4
TSA-22	TF4RX17YY	150-600 *	1.2K	6-3 *
TSA-23	TF4RX13YY	25K	600	.4
TSA-24	TF4RX13YY	4K	150-600 *	1
TSA-25	TF4RX17YY	20K	50	.4
TSA-26	TF4RX17YY	1K	50	2
TSA-27	TF4RX16YY	100K	1K	0

*Indicates a split winding; can be used either in parallel (First values) or in series connection with a Ct. (Second values).

Note: All units can be supplied in Mu Metal cases. Add $1.00 to unit cost.

Net
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MINIATURE AUDIO TRANSFORMERS

These high quality, miniature transformers feature hermetically sealing for maximum protection from moisture penetration with subsequent electrolysis and corrosion of fine wires. While primarily intended for non-military equipment, these units are constructed in accordance with MIL-T-27A Specifications.

Frequency response: ± 2DB 30-20,000 CPS.
***± 2DB 200-10,000 CPS.**

CASE DIMENSIONS

DM-20 CASE

Height: 1 9/16"
Dia.: 15/16"
Mtg. Cen.: 1 1/8" to 1 17/32"
Mtg. 2 holes: .166 x .120
Flange Lgth.: 1 13/32"
Flange D.: .975"

Catalog No.	Application	MIL Type	Impedance Level Ohms Primary	Secondary	Max. Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PMA 1	Line or microphone to single or push-pull grids.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11		0	0	DM-20
PMA 2	Dynamic microphone or speaker voice coil to single or P.P. grid.	TF4RX10YY	4/8	60,000 C.T.	+8	1:86.6		0	0	DM-20
PMA 3	Line or microphone to single or push-pull grids. Magnetically shielded.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11	30	0	0	DM-20
PMA 4	Single triode plate to single or push-pull grids.	TF4RX10YY	15,000	60,000 C.T.	+8	1:2		0	0	DM-20
PMA 5*	Single triode plate to push-pull grids.	TF4RX12YY	15,000	60,000 C.T.	+8	1:2		2	2	DM-20
PMA 6	Single triode plate to multiple line.	TF4RX16YY	15,000	50/200/500	+8	5.48:1		0	0	DM-20
PMA 7*	Single triode plate to multiple line.	TF4RX12YY	15,000	50/200/500	+8	5.48:1		2	2	DM-20
PMA 8	Push-pull triode plates to multiple line.	TF4RX12YY	30,000 C.T.	50/200/500	+8	7.75:1		2	0.25	DM-20
PMA 9	Crystal mike or pickup to multiple line.	TF4RX16YY	60,000 C.T.	50/200/500	+8	11:1		0	0	DM-20
PMA 10	Mixing or matching.	TF4RX16YY	50/200	50/200/500	+8	1:1.50		0	0	DM-20
PMA 11	Parallel Feed Reactor.	TF4RX20YY	40 hy, 3 ma dc, 3500 ohms d. c. resistance.							DM-20

CASE DIMENSIONS

DM-O1 CASE

Height: 2"
Width: 1 1/2"
Depth: 1 1/2"
Mtg. Cen.: 1 1/16" x 1 1/16"
Studs: 4 6-32
Knockout: 1 3/8" dia.

UNCASED DIMENSIONS

TMO 1 TO 14

Height: 13/16"
Width: 1 1/16"
Depth: 21/32"
Mtg. Cen.: 1 3/8"
2 Mtg. Holes: .120 dia.
Flange Lght.: 1 5/8"

TMO 15 TO 18

Height: 21/32"
Width: 9/16"
Depth: 13/16"

TMO-19

Height: 13/16"
Width: 1 15/32"
Depth: 1 1/4"
Mtg. Cen.: 1 3/4"
2 Mtg. Holes: 3/16" dia.
Flange Lgth.: 2 1/16"

MINIATURE TRANSISTOR TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetically sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications.

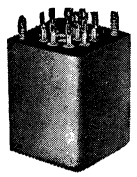
Transistor Transformers can also be supplied in an open or encapsulated type of construction.

Catalog No.	MIL Type	Impedance Ohms Pri.	Ct.	Sec.	Ct.	Frequency Response ±D.B.	C.P.S.	Unbalanced Primary Current M.A./D.C.	D.C. Resistance Ohms Pri.	Sec.	Max. Power Output M.W.	Case No.
TMA 1*	TF4RX16YY	500		500		1	200 to 15,000	0	18	24	250	DM-20
TMA 2*	TF4RX12YY	50K		500		2	300 to 15,000	3	2,200	49	250	DM-20
TMA 3*	TF4RX13YY	50K		6		2	300 to 15,000	3	2,200	.55	250	DM-20
TMA 4*	TF4RX12YY	100K		1.2K	√	3	300 to 15,000	1	2,790	95	100	DM-20
TMA 5*	TF4RX12YY	25K		1.2K	√	2	200 to 15,000	3	1,740	110	250	DM-20
TMA 6*	TF4RX12YY	50K		1.2K	√	2	300 to 15,000	3	2,200	106	250	DM-20
TMA 7*	TF4RX17YY	600/150		1.2K	√	1	200 to 15,000	4	30	95	250	DM-20
TMA 8*	TF4RX12YY	25K		600		2	200 to 15,000	3	1,740	61	250	DM-20
TMA 9*	TF4RX12YY	4K	√	600/150	√	1	200 to 15,000	1	274	43	250	DM-20
TMA 10*	TF4RX13YY	2K		3.2		2	200 to 15,000	10	160	.28	250	DM-20
TMA 11*	TF4RX13YY	4K	√	3.2		1	200 to 15,000	1	274	.26	250	DM-20
TMA 12*	TF4RX13YY	20K		50		2	300 to 15,000	4	1,340	2.9	250	DM-20
TMA 13*	TF4RX17YY	1K		50		2	300 to 15,000	8	42.6	2.5	250	DM-20
TMA 14*	TF4RX16YY	100K		1K		2	300 to 15,000	0	1,550	16.8	100	DM-20
TMO 15		20K		50		2	300 to 15,000	1	2,215	7.25	40	open
TMO 16		20K		600		2	300 to 15,000	1	2,215	102	40	open
TMO 17		1K		50		2	300 to 15,000	3	93	5.6	60	open
TMO 18		100K		1K		2	300 to 15,000	0	3,000	57.5	100	open
TMA 19*	TF4RX13YY	1K		3.2		2	200 to 15,000	20	38	.19	1000	DM-01

***When ordering open units specify TMO — when ordering encapsulated units specify TMC.**

FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS



DM-01B CASE

Height: 2¼″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 2 6-32
Knockout: 1⅜″ dia.

PROFESSIONAL GRADE COMPONENTS

This group of components has been designed for use in high fidelity and professional equipment and for public address service. Freed has developed this series of units employing the latest design techniques and the best commercially available materials. Except for units carrying unbalanced direct current the frequency response is ± 1 DB from 30 to 15,000 cps. All units feature excellent performance characteristics combined with minimum size and weight.

All units are vacuum varnished and then potted in compound to insure long life and trouble free performance.

Professional Grade components are supplied cased. Upon request these units can be supplied open or in shell type construction.

All cased Professional Grade Components supplied with terminals meet "EIA" standards

Transformers PGA 1 through PGA 10 are supplied in hermetically sealed cases.

INPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 1	Universal 500 ohm line to single grid.	U-500	50,000	+12	1:10	50	0	0	DM-01B
PGA 2	Universal 500 ohm line to push-pull grids.	U-500	60,000 split	+12	1:11	50	0	0	DM-01B
PGA 3	Universal 500 ohm line to push-pull grids.	U-500	100,000 split	+12	1:14.1	50	0	0	DM-01B
PGA 4	Bridging line to single grid.	10,000	60,000	+12	1:2.45	50	0	0	DM-01B
PGA 5	Bridging line to push-pull grids.	10,000	60,000 center tap	+12	1:2.45	50	0	0	DM-01B
PGA 6	Low level line matching.	U-500	U-500	+18	1:1	50	0	0	DM-01B

LOW LEVEL OUTPUT AND MIXING TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 7	Single triode plate to Universal 500 ohm line. Shunt feed.	15,000	U500	+18	5.48:1	0	0	DM-01B
PGA 8	Single triode plate to Universal 500 ohm line.	15,000	U500	+18	5.48:1	8	8	DM-01B
PGA 9	Push-pull triode plates to Universal 500 ohm	20,000 CT	U500	+30	6.32:1	8	0.5	DM-01B
PGA 10	Low level line matching.	U500	U500	+18	1.1	0	0	DM-01B

U-500 IMPEDANCES IN OHMS: 50, 125, 200 CT, 250, 330, 500 CT. 125 and 500 ohms can be used for 150 and 600 ohms.

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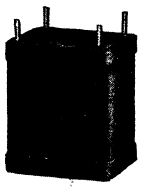
PROFESSIONAL GRADE COMPONENTS

CASE DIMENSIONS



DC-1A CASE
Height: 2½"
Width: 2 1/16"
Depth: 1 13/16"
Mtg. Cen. 1½"x1¼"
Studs: 4 8-32
Knockout: 1¼" dia.

DC-2A CASE
Height: 3"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen. 2"x1¾"
Studs: 4 8-32
Knockout: 1½"x1⅜"

DC-2B CASE
Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen. 2"x1¾"
Studs. 4 8-32
Knockout: 1½"x1⅜"

DC-4A CASE
Height: 3¾"
Width. 3⅛"
Depth: 3"
Mtg. Cen 2½"x2½"
Studs: 4 8-32
Knockout: 2"x1¾"

DC-5A CASE
Height· 3⅞"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.. 3⅛"x2⅝"
Studs: 4 10-32
Knockout: 2½"x2"

DC-6A CASE
Height· 4⅞"
Width: 5"
Depth: 4⅛"
Mtg. Cen.: 3¾"x3"
Studs: 4 10-32
Knockout: 3"x2½"

DRIVER TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Turn Ratio Pri: ½ Sec.	Max. Level DBM	Max. Pri. D.C. Per Side Ma.	Max. D.C. Unbalance Ma.	Case Number
PGA 11	Universal 500 ohm line to push-pull grids.	U500	1:1	+40	0	0	DC-2A
PGA 12	Push-pull 6C4, 6SN7 triodes to push-pull 2A3, 6L6 grids.	20,000 C.T.	3.0:1	+30	10	1	DC-1A
PGA 13	Push-pull 2A3, 6B4, 6A5G to push-pull 809, TZ-40, 4/125A	5,000 C.T.	3.2:1	+40	50	5	DC-2A

All units supplied with leads.

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Watts	Ratio	Max. Pri. D.C. Per Side Ma	DC Unbalance Ma	Case Number
PGA 14	P.P. 6K6, 6AR5, 7B5 Class A to Universal voice coil.	12,000 C.T.	U16	+40	10	27.4:1	40	4	DC-2B
PGA 15	P.P. 6F6 Cl. AB_2, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1, 6L6 or 5881 Triode to Universal voice coil.	10,000 C.T.	U16	+43	20	25:1	50	5	DC-4A
PGA 16	P.P. 6L6 Cl. AB_2, self bias to Universal 500 ohm line.	9,000	U500	+44.8	30	4.23:1	50	5	DC-4A
PGA 17	As above to Universal voice coil.	9,000	U16	+44.8	30	23.7:1	50	5	DC-4A
PGA 18	P.P. 6N7 Cl. B, P.P. 6V6, 6AQ5, 7C5, Cl. AB_1 to Universal voice coil.	8,000 C.T.	U16	+41.8	15	22.3:1	45	5	DC-4A
PGA 19†	P.P. 6L6, fixed bias, Cl. AB_1, to Universal 500 ohm line.	6,600 C.T.	U500	+44.8	30	3.63:1	70	7	DC-4A
PGA 20	As above to Universal voice coil.	6,600 C.T.	U16	+44.8	30	20.3:1	70	7	DC-4A
PGA 21	P.P. 6L6 Cl. A, P.P. 2A3, 6A5G, 6B4 self bias P.P. Par. 6V6 Cl. AB_1 to Universal voice coil.	5,000 C.T.	U16	+43	20	17.7:1	80	8	DC-4A
PGA 22	P.P. Par 6L6 Cl. AB_1, self bias P. P. 6L6 Cl. AB_2 fixed bias PP807 Cl. AB_2 to Universal 500 ohm line.	4000 C.T.	U500	+47	50	2.83:1	100	10	DC-5A
PGA 23	As above to Universal voice coil.	4000 C.T.	U16	+47	50	15.8:1	100	10	DC-5A
PGA 24	P.P. 6A5G, 6B4, 2A3, fixed bias Universal voice coil.	3000 C.T.	U16	+41.8	15	13.7:1	75	7.5	DC-4A
PGA 25	P.P. Par. 807 Cl. AB_2 to Universal 500 ohm line.	2100 C.T.	U500	+51.8	150	2.05:1	240	12	DC-6A
PGA 26	P.P. Par 2A3, 6A5G, fixed bias 6B4, 300A Cl. AB_1, P.P. Par 6L6 Cl. A to Universal 500 ohm line.	1500 C.T.	U500	+44.8	30	1.73:1	160	15	DC-4A
PGA 27	As above to Universal voice coil.	1500 C.T.	U16	+44.8	30	9.7:1	150	15	DC-4A
PGA 28	Matching line to Universal voice coil.	U500	U16	+44.8	30	5.6:1	0	0	DC-4A
PGA 29	Matching line to Universal voice coil.	U500	U16	+47	50	5.6:1	0	0	DC-5A
PGA 30	Matching line to Universal voice coil.	U500	U16	+50	100	5.6:1	0	0	DC-6A

†Available with taps to apply screen feedback.

U-16 IMPEDANCES IN OHMS:
2, 4, 8, 12, 16

U-500 IMPEDANCES IN OHMS:
50, 125, 200 C.T., 250, 330, 500 C.T., 125 and 500 ohms can be used for 150 and 600 ohms.

A 70 volts level can be obtained for the following impedances:
500 ohms — 10 watts + 40 DBM
330 ohms — 15 watts + 42 DBM
250 ohms — 20 watts + 43 DBM
200 ohms — 25 watts + 44 DBM
125 ohms — 40 watts + 46 DBM
50 ohms — 100 watts + 50 DBM

*PGA 28, 29 & 30 supplied with terminals, all other units with leads.

FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS

DM-01 CASE
Height: 2"
Width: 1½"
Depth: 1½"
Mtg. Cen.. 1 1/16"x1 1/16"
Studs: 4 6-32

DC-1A
Height: 2½"
Width: 2 1/16"
Depth: 1 13/16"
Mtg. Cen.: 1½"x1¼"
Studs: 4 8-32

DC-2A
Height: 3"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-2B
Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-4A
Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen. 2½"x2½"
Studs: 4 8-32

DC-5A CASE
Height: 3⅞"
Width: 4⅛"
Depth: 3 ½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32

DC-5B
Height: 4½"
Width: 4⅛"
Depth: 3½"
Mtg. Cen. 3⅛"x2⅝"
Studs: 4 10-32

DC-6A CASE
Height: 4⅞"
Width: 5"
Depth: 4⅛"
Mtg. Cen. 3¾"x3"
Studs: 4 10-32

7B CASE
Height: 6¾"
Width: 5½"
Depth: 5"
Mtg. Cen. 4⅜"x3¾"
Studs: 4¼-20

PROFESSIONAL GRADE COMPONENTS

FILTER REACTORS

Inductance measured at 50V, 60 cycles with rated direct current in the winding.

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 1	40	15	2000	1000	DM-01
PGC 2	12	40	400	1000	DC-1A
PGC 3	8	50	300	1000	DC-1A
PGC 4	20	50	425	2500	DC-2A
PGC 5	10	70	250	2500	DC-2A
PGC 6	6	100	160	2500	DC-2A
PGC 7	6	150	115	2500	DC-2B
PGC 8	10	150	160	2500	DC-4A
PGC 9	5.5	200	95	2500	DC-4A
PGC 10	10	200	150	2500	DC-4A
PGC 11	10	250	135	2500	DC-5B
PGC 12	8	300	95	2500	DC-5B
PGC 13	7	400	60	2500	DC-5B
		PARALLEL FEED	AUDIO CHOKES		
PGC 14	100	10	3500	1000	DM-01
PGC 15	30	50	650	1500	DC-2A
PGC 16	400	1	6000	1000	DM-01

SWINGING INPUT REACTORS

Catalog No.	Inductance in Henries *	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 17	5-20	150	160	1500	DC-4A
PGC 18	5-20	250	135	1500	DC-5B
PGC 19	3-15	300	95	1500	DC-5B
PGC 20	3-15	400	60	1500	DC-5B

*Inductance values for 100% and 10% of rated Direct Current

POWER TRANSFORMERS

ALL PRIMARIES ARE FOR 115V., 50/60 c.p.s.

Temperature rises range from45° to 50°C.

Catalog No.	Py Va	Hi Volt	Choke Input D.C.V.	Choke Input D.C. Ma	Cond. Input D.C.V.	Cond. Input D.C. Ma.	Bias Tap.	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
PGP 1	15	440V C.T.	Low flux density, hum-bucking. For Preamplifier service.		270	15		6X4	6.3VCT@0.6A	6.3V @ 0.3A		DC-2B
PGP 2	30	550V C.T.	Low flux density, hum-bucking. For Preamplifier service.		310	35		6X4	6.3VCT@0.6A	6.3VCT@0.9A		DC-4A
PGP 3	45	500V C.T.			270	40		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		DC-4A
PGP 4	57	600V C.T.			330	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		DC-4A
PGP 5	64	650V C.T.			370	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 6	73	600V C.T.			320	70		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 7	110	650V C.T.	225	140	330	100		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 8	76	700V C.T.	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		DC-5A
PGP 9	108	700V C.T.	250	125	370	90		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 10	127	700V C.T.	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 11	146	700V C.T.	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	DC-6A
PGP 12	207	800V C.T.	295	280	400	200		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		DC-6A
PGP 13	225	800V C.T.	295	280	400	200	80	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 14	268	840V C.T.	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 15	320	900V C.T.	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-7B
PGP 16	127	900V C.T.	360	150				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 17	150	900V C.T.	350	200				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 18	203	1100V C.T.	400	250				5R4GY	5V @ 3A	6.3V @ 5A		DC-6A
PGP 19	248	1100V C.T.	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-6A
PGP 20	310	1280V C.T.	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-7B

All units supplied with leads.

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PQC HIGH Q REACTORS

CASE DIMENSIONS

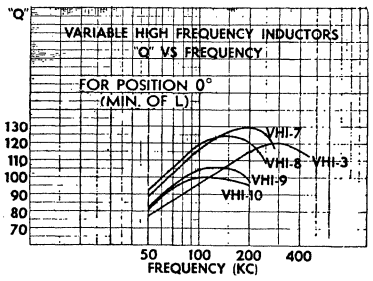
DM-02 CASE

Height: $1\frac{21}{32}$"
Width: $1\frac{21}{32}$"
Depth: $1\frac{13}{32}$"
Flange L: $2\frac{3}{8}$"
Mtg. Cen.: 2"

PQC-Reactors are low-priced High Q components designed for use in selective circuits such as wave filters, wave traps, and noise suppressors.

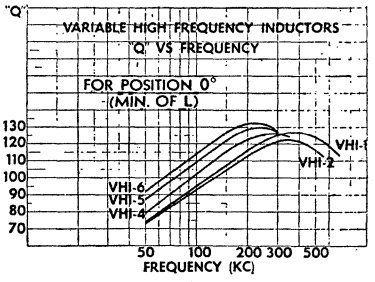
Catalog No.	Application	Rated Ind. in Henries	Q	Tuning Capacitor (Mf)	Case Size
PQC 1	60 cps resonant trap	14.00	10	.5	DM-02
PQC 2	400 cps resonant trap	1.58	15	.1	DM-02
PQC 3	1000 cps resonant trap	1.00	20	.025	DM-02
PQC 4	Dynamic noise suppression inductor	2.40	20 @ 4 KC		DM-02
PQC 5	Dynamic noise suppression inductor	2.00	15 @ 4 KC		DM-02
PQC 6	Dynamic noise suppression inductor	1.30	15 @ 4 KC		DM-02
PQC 7	Dynamic noise suppression inductor	.80	15 @ 4 KC		DM-02
PQC 8	Dynamic noise suppression inductor	.60	15 @ 4 KC		DM-02
PQC 9	Dynamic noise suppression inductor	.40	15 @ 4 KC		DM-02

MINIATURE VARIABLE HIGH FREQUENCY INDUCTORS



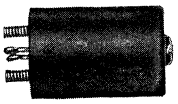
- VARIABLE for ± 20% of its nominal inductance.
- FREQUENCY RANGE: 20 to 500 Kilocyles.
- Q practically constant over whole range of inductance variation.
- Miniature size.
- Hermetically sealed.

Variable high frequency inductors with any inductance from 1 to 50 mhy with a variation of appr. ± 20% can be made on special order.



CASE DIMENSIONS

VI-1



Height: 1"
Diameter: $\frac{3}{4}$"
2 Studs: 4-40
Mtg. Cen.: $\frac{3}{8}$"

Catalog No.	Nominal Inductance* MHY @ 100 KC		Variation of Q @ 100 KC		RDC ohms ±15%	Max. Non-destructive Current MA	Self-resonant Freq. MC	Case Des.
	Min.	Max.	Min.	Max.				
VHI-1	1.1	1.75	93.5	100.5	.75	250	2.2	VI-1
VHI-2	1.7	2.5	94.5	96.2	1.1	200	1.9	VI-1
VHI-3	2.3	3.7	94.5	97.2	1.4	200	1.6	VI-1
VHI-4	3.	4.5	100.75	101.75	1.9	160	1.4	VI-1
VHI-5	4.	5.7	107.	108.	2.2	160	1.3	VI-1
VHI-6	5.5	7.5	112.	119.	3.1	130	1.	VI-1
VHI-7	7.	10.5	116.	120.5	4.5	100	.9	VI-1
VHI-8	10.	15.	106.	109.	6.6	80	.85	VI-1
VHI-9	14.5	20.5	101.	101.5	9.2	60	.6	VI-1
VHI-10	20.	30.	105.	115.	13.7	50	.55	VI-1

QGC HIGH Q REACTORS

QGC-Reactors are designed for low audio frequency application requiring very high Q and inductance stability. These units are impregnated with a special compound and mounted in **hermetically sealed** cases. A hum reducing lamination structure used in these reactors results in an extremely low pickup of extraneous stray fields. A very low temperature coefficient is achieved by a specially developed impregnation and assembly process. All QGC High Q Reactors have an extremely low voltage coefficient.

All Resistance values are nominal and can vary by ±20%.

Inductance values are given within ±2%.

Closer Tolerances and Inductances other than the standard Catalog items can be supplied on special orders.

Inductance Values up to 400 Henries can be supplied.

The graphs showing the coil characteristics make use of the following formulas:

1. "Q" versus frequency was measured with voltages given by the expression:

$$V = K\frac{\sqrt{LH}}{1H} \times \frac{FKC}{1KC}$$

K—a constant listed in every chart
LH—inductance in Henries
FKC—frequency in kilocycles at which the measurements were made.

2. Variation of inductance versus normalized Direct Current.
The normalized DC is given by

$$In = Idc\sqrt{LH}$$

where Idc is the dc current in MA and LH the inductance in Henries.

3. Variation of Inductance versus normalized AC voltage.
The normalized AC voltage is given by

$$Vn = \frac{V}{\sqrt{LH}} \times \frac{60\ cps}{Fcps}$$

Vn—normalized AC voltage
V—voltage across the coil
LH—inductance in Henries
F—frequency of measurement in cps

* ± 5%

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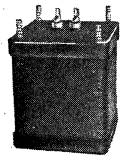
CASE DIMENSIONS

DC-2A CASE



Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1″

AJ CASE

Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen.: 1 1/16″x1 1/16″
Studs: 4 6-32

AH CASE

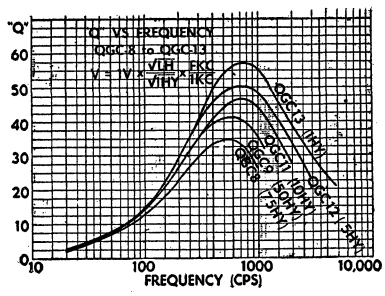
Height: 1¾″
Width: 1 5/16″
Depth: 1 5/16″
Mtg. Cen.: 1¼″ dia.
Studs: 2 6-32

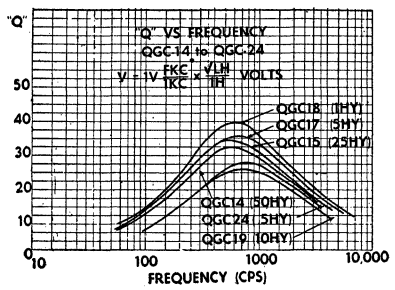
DM-20 CASE

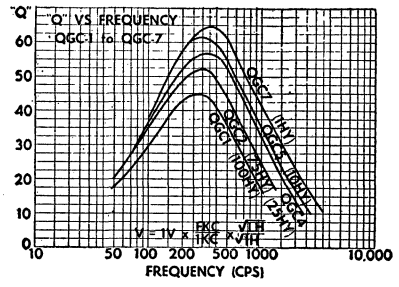
Height: 1 9/16″
Dia.: 15/16″
Flange L.: 1 13/32″
Flange D.: 0.975″
Mtg. Cen.: 1⅛″to 1 7/32″
2 Holes: .147 wide
Knockout: .875

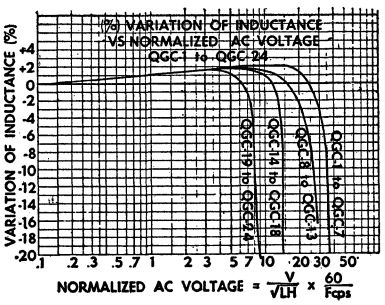
QUALITY GRADE HIGH Q REACTORS

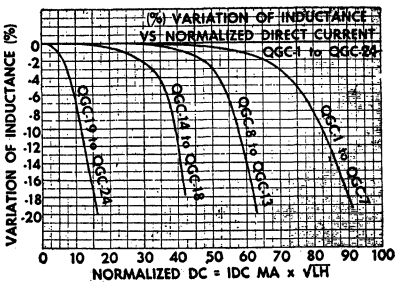
Catalog No.	Inductance Hy.	RDC Ohms Tolerance ± 20%	Self-resonant Frequency KC	Current Capacity MA	Case No.
QGC-1	100	1,611	2.2	40	DC-2A
QGC-2	75	1,054	2.6	50	DC-2A
QGC-3	50	878	3.2	50	DC-2A
QGC-4	25	378	4.5	80	DC-2A
QGC-5	10	117	7.2	160	DC-2A
QGC-6	5	78	10.2	160	DC-2A
QGC-7	1	15	22.6	400	DC-2A
QGC-8	75	3,400	.82	16	AJ
QGC-9	50	2,050	1.00	20	AJ
QGC-10	25	1,250	1.41	25	AJ
QGC-11	10	460	2.25	40	AJ
QGC-12	5	210	3.20	65	AJ
QGC-13	1	40	7.20	160	AJ
QGC-14	50	2,900	4.60	13	AH
QGC-15	25	1,300	6.60	20	AH
QGC-16	10	570	10.70	25	AH
QGC-17	5	280	15.20	40	AH
QGC-18	1	50	35.00	100	AH
QGC-19	10	760	10.70	20	DM-20
QGC-20	7.5	700	12.20	20	DM-20
QGC-21	5	450	15.20	25	DM-20
QGC-22	2.5	235	22.00	32	DM-20
QGC-23	1	90	35.00	63	DM-20
QGC-24	0.5	45	51.00	80	DM-20











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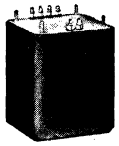
CASE DIMENSIONS

AJ CASE
Height: 2 3/8"
Width: 1 5/8"
Depth: 1 5/8"
Mtg. Cen.: 1 3/16" x 1 3/16"
Studs: 4 6-32
Cut Out: 1 1/8" D



EB CASE
Height: 2 7/16"
Width: 1 15/16"
Depth: 1 13/16"
Mtg. Cen.: 1 3/8" x 1 1/4"
Studs: 4 6-32

FB CASE
Height: 2 1/2"
Width: 2 5/16"
Depth: 2 1/16"
Mtg. Cen.: 1 11/16" x 1 7/16"
Studs: 4 6-32

GB CASE
Height: 2 13/16"
Width: 2 3/4"
Depth: 2 3/8"
Mtg. Cen.: 2 1/8" x 1 3/4"
Studs: 4 6-32

HA CASE
Height: 4 1/4"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64" x 1 55/64"
Studs: 4 8-32

HB CASE
Height: 3 3/16"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64" x 1 55/64"
Studs: 4 8-32

JB CASE
Height: 3 7/8"
Width: 3 9/16"
Depth: 3 1/16"
Mtg. Cen.: 2 5/8" x 2 1/8"
Studs: 4 8-32

KB CASE
Height: 4 5/16"
Width: 3 15/16"
Depth: 3 3/8"
Mtg. Cen.: 3" x 2 7/16"
Studs: 4 10-32

LB CASE
Height: 4 1/2"
Width: 4 5/16"
Depth: 3 11/16"
Mtg. Cen.: 3 5/16" x 2 11/16"
Studs: 4 10-32

MB CASE
Height: 4 15/16"
Width: 4 11/16"
Depth: 4"
Mtg. Cen.: 3 11/16" x 3"
Studs: 4 1/4-20

NB CASE
Height: 5 1/2"
Width: 5 1/16"
Depth: 4 5/16"
Mtg. Cen.: 4 1/16" x 3 5/16"
Studs: 4 1/4-20

STANDARD MILITARY TRANSFORMERS

This group comprises audio and power units designed to meet MIL-T-27 A specifications.
The functional characteristics of these transformers were established by the Armed Service Standardization Program. These units are supplied in standard MIL cases.

Transformers meeting MIL-T-27A specifications Grade 1 through 6 with temperature characteristics of Class S, T, or U can be supplied on special order.

Encapsulated units using either Epoxy-Resins or Fosterite can be supplied for Grade 2 and 5.

Class U components can be supplied molded in special high temperature Freed resin.

STANDARD MILITARY AUDIO TRANSFORMERS

Frequency Response 300-10,000 C.P.S. ±2 DB

Catalog No.	Application	Type Designation	Impedance Level in Ohms Primary	Secondary	Ratio	Max. Power Level DBM	Pri. D.C. Per Side in Ma	Max. D.C. unbalance	Case
MGA 1	Transformer; interstage, single or P.P. plates to single or P.P. grids.	TF4RX15AJ	10,000 C.T.	90,000 split and C.T.	1:3 overall	+15	10	10	AJ
MGA 2	Transformer; matching 600 ohm line to voice coil.	TF4RX16AJ	600 split	4, 8, 16	6.12:1 overall	+33	0	0	AJ
MGA 3	Transformer; input, 600 ohm line to single or P.P. grids.	TF4RX10AJ	600 split	135,000 C.T.	1:15	+15	0	0	AJ
MGA 4	Transformer; matching, 600 ohm line to 600 ohm line.	TF4RX16AJ	600 split	600 split	1:1	+15	0	0	AJ
MGA 5	Transformer; output, single plate 7,600 ohm, 4,800 ohm to 600 ohm line.	TF4RX13AJ	7,600 tap @ 4,800	600 split	3.56:1	+33	40	40	AJ
MGA 6	Transformer; output, single plate 7,600 ohm, 4,800 ohm to voice coil.	TF4RX13AJ	7,600 tap @ 4,800	4, 8, 16	21.8:1	+33	40	40	AJ
MGA 7	Transformer; output, single or P.P. plates to 600 ohm line.	TF4RX13AJ	15,000 C.T.	600 split	5:1	+33	10	10	AJ
MGA 8	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	24,000 C.T.	600 split	6.32:1	+30	10	1	AJ
MGA 9	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	60,000 C.T.	600 split	10:1	+27	10	1	AJ

STANDARD MILITARY POWER TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Hi Volt.	D.C. Volts	D.C. Amps.	Fil. No. 1	Fil. No. 2	Case
MGP 1	TF4RX03HA001	200/100/0/100/200	185	.070	5/6. 3V @ 2A	6. 3V @ 3A	HA
MGP 2	TF4RX03JB002	650 C.T.	260	.070	5/6. 3V @ 2A	6. 3V @ 4A	JB
MGP 3	TF4RX03KB006	650 C.T.	245	.150	6. 3V @ 5A	5V @ 3A	KB
MGP 4	TF4RX03LB003	800 C.T.	318	.175	5V @ 3A	6. 3V @ 8A	LB
MGP 5	TF4RX03MB004	900 C.T.	345	.250	5V @ 3A	6. 3V @ 8A	MB
MGP 6	TF4RX02KB001	700 C.T.	255	.250			KB
MGP 7	TF4RX02LB002	1100 C.T.	419	.250			LB
MGP 8	TF4RX02NB003	1600 C.T.	640	.250			NB

STANDARD MILITARY FILAMENT TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER

Catalog No.	MIL-T-27 Type Designation	Secondary Volts	Secondary Current Amps	Secondary Test Volts RMS	Case
MGF 1	TF4RX01EB002	2.5	3.0	2,500	EB
MGF 2	TF4RX01GB003	2.5	10.0	2,500	GB
MGF 3	TF4RX01FB004	5.0	3.0	2,500	FB
MGF 4	TF4RX01HB005	5.0	10.0	2,500	HB
MGF 5	TF4RX01FB006	6.3	2.0	2,500	FB
MGF 6	TF4RX01GB007	6.3	5.0	2,500	GB
MGF 7	TF4RX01JB008	6.3	10.0	2,500	JB
MGF 8	TF4RX01KB009	6.3	20.0	2,500	KB
MGF 9	TF4RX01JB012	2.5	10.0	10,000	JB
MGF 10	TF4RX01KB013	5.0	10.0	10,000	KB

*Standard Military Filament and Power Transformers are also available in Grade 4.

FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS

DM-8 CASE
Height: 1½"
Width: 1 3/32"
Flange D.: 1¼"

DM-01 CASE
Height: 2"
Width: 1½"
Depth: 1½"
Mtg. Cen.: 1 1/16" x 1 1/16"
Studs: 4 6-32
Knockout: 1⅜" dia.

DM-20 CASE
Height: 1 9/16"
Diameter: 15/16"
Flange L.: 1 13/32"
Flange D.: 0.975"
Mtg. Cen.: 1⅛" to 1 7/32"
2 Holes: .147 wide
Knockout: .875

DM-18 CASE
Height: 1"
Width: 2¼"
Depth: 1⅛"
Mtg. Cen.: 9/16"
Studs: 2 6-32

MM-1
Length: ¾"
Diameter: ½"

MM-2
Length: 23/32"
Width: 23/32"
Height: ½"

MM-3
Length: 1¼"
Width: 1¼"
Height: ½"
Mtg. Cen.: 1½"
Mtg. Flange: 1¾"

MM-4
Length: 1 13/16"
Depth: 1¼"
Height: ½"
Mtg. Cen.: 2⅛"
Mtg. Flange: 2½"

MOLDED DIMENSIONS

MMO-1
Diameter: 11/16"
Thickness: 29/64"

MMO-2
Diameter: 13/16"
Thickness: 19/32"

HERMETICALLY SEALED PULSE TRANSFORMERS

Hermetically sealed Pulse Transformers for use in blocking oscillator, low level interstage coupling, and modulator output circuits. These components meet MIL-T-27 A specifications. The pulse transformers are designed for maximum power, efficiency, and optimum pulse performance. Balanced coil structures permit series or parallel connection of windings for turn ratios other than unity. Pulse characteristics, voltages and impedance levels will depend upon the interconnections made.

PULSE TRANSFORMERS

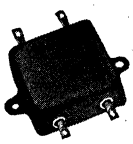
Catalog No.	MIL Type	Blocking Osc.	Inter-stage Coupling	Low Power Output	Pulse Voltage Kilovolts	Pulse Duration Micro-seconds	Duty Rate	No. of Windings	Test Voltage KV. RMS	Character-istic Impedance Ohms	Case No.
MPT-1	TF4RX35YY	√	√		0.25/0.25/0.25	0.2-1.0	.004	3	0.7	250	DM-20
MPT-2	TFR4X35YY	√	√		0.25/0.25	0.2-1.0	.004	2	0.7	250	DM-20
MPT-3	TF4RX35YY	√	√		0.5/0.5/0.5	0.2-1.5	.002	3	1.0	250	DM-18
MPT-4	TF4RX35YY	√	√		0.5/0.5	0.2-1.5	.002	2	1.0	250	DM-18
MPT-5	TF4RX35YY	√	√		0.5/0.5/0.5	0.5-2.0	.002	3	1.0	500	DM-20
MPT-6	TF4RX35YY	√	√		0.5/0.5	0.5-2.0	.002	2	1.0	500	DM-20
MPT-7	TF4RX35YY	√	√	√	0.7/0.7/0.7	0.5-1.5	.002	3	1.5	200	DM-18
MPT-8	TF4RX35YY	√	√	√	0.7/0.7	0.5-1.5	.002	2	1.5	200	DM-18
MPT-9	TF4RX35YY	√	√	√	1.0/1.0/1.0	0.7-3.5	.002	3	2.0	200	DM-18
MPT-10	TF4RX35YY	√	√	√	1.0/1.0	0.7-3.5	.002	2	2.0	200	DM-18
MPT-11	TF4RX35YY	√	√	√	1.0/1.0/1.0	1.0-5.0	.002	3	2.0	500	DM-01
MPT-12	TF4RX35YY	√	√	√	0.15/0.15/0.3/0.3	0.2-1.0	.004	4	0.7	700	DM-8

ULTRA MINIATURE PULSE TRANSFORMERS

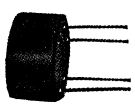
- Meet all requirements of MIL-T-27 A.
- Negligible weight.
- Exceedingly small size.
- Encapsulated or hermetically sealed.

MM-1

MM-2



MM-3
MM-4



MMO-1
MMO-2

Catalog No.	MIL Type	Application	Pulse Volts	Pulse Width usec	Rise time usec	Inductance Prin. uhy	Inductance Leakage uhy	PPS. Mcs	Turns Ratio	Zo ohms	Case Des.
EPT-1	TF4RX31YY	Impedance matching & Interstage coupling	20	.07	.03	125	12	2	1:1	200	MM-1
EPT-2	TF4RX31YY		20	.07	.03	150	15	2	2.1	200	MM-1
EPT-3	TF4RX31YY		20	.07	.03	160	15	2	3.1	100	MM-1
EPT-4	TF4RX31YY		20	.07	.03	200	20	2	4.1	100	MM-1
EPT-5	TF4RX31YY		17	.10	.04	200	6	2	4.1	100	MM-1
EPT-6	TF4RX31YY		15	.10	.04	200	5	2	5:1	100	MM-1
EPT-7	TF4RX31YY		25	.50	.05	1,200	20	1	7:1:1		MM-1
EPT-8	TF4RX31YY		10	10	.04	12,000	70	.01	5:1		MM-2
EPT-9	TF4RX31YY		10	5	.04	7,500	22	.01	3:1	100	MM-2
EPT-11	TF4RX35YY	Blocking oscillator	100	.25	.02	200	2	.012	1:1		MM-1
EPT-12	TF4RX35YY		50	.33	.07	240	2	.002	1:1		MM-1
EPT-13	TF4RX35YY		40	.5	.07	6,000	15		2:1		MM-2
EPT-14	TF4RX35YY		15	6	.1	16,000	15	.0004	1:1.4		MM-2
EPT-15	TF4RX36YY	Memory core & Current driver	5	1.5	.25	4,000	300		5:5:1PP	10	MM-4
EPT-16	TF4RX36YY		2.5	2.4	.2	2,800	200		3.3:3.3:1PP	6	MM-4
EPT-17	TF4RX36YY	Current driver	21	1-4	.22	18,000	800	.250	6:1	200	MM-3
EPT-18	TF4RX36YY	Current transformer	10	6	.2	90,000	200	.05	11:1	75	MM-3
EPT-19	TF4RX36YY	Pulse inversion	22	1-7	.25	55,000	300	.05	6:1:1	400	MM-3

When ordering encapsulated units add "M" to the catalog number.

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PULSE TRANSFORMERS

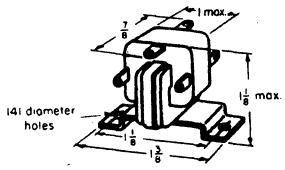
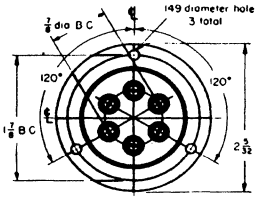
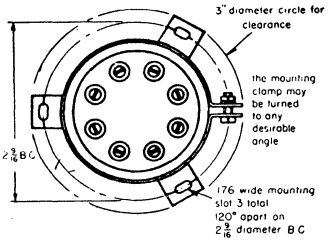


figure 2





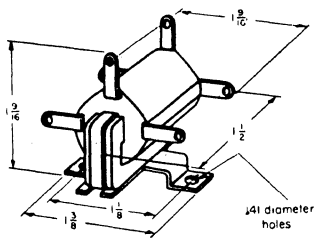


figure 1

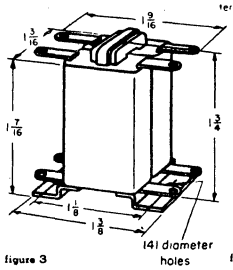


figure 3

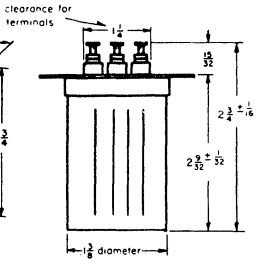


figure 4

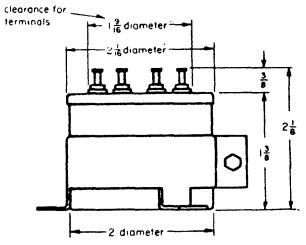


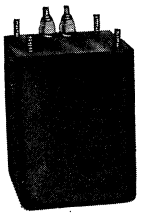
figure 5

Freed No.	Radiation Laboratory No.	Westinghouse No.	Dimension Figure	Guidance Values: Pulse Voltage (KV)	Guidance Values: Pulse Duration (Microseconds)	Maximum Duty Ratio	Load Impedance (Ohms)	Test Voltage (60 Cycle RMS)
BLOCKING OSCILLATOR, REGENERATIVE DRIVER OR COUPLING TRANSFORMERS								
MPT-13C	132AW2	1P1	1					
MPT-13M	132AW2F	7P1	1	1.0/1.0/1.0	0.3 to 1.5	0.002	250	1000
MPT-13H	132AW2P	4P101	4					
MPT-14C	132BW2	1P2	1					
MPT-14M	132BW2F	7P2	1	0.5/0.5/0.5/0.15	0.3 to 1.5	0.002	200	1000
MPT-14H	132BW2P	4P102	5					
MPT-15C	132DW2	1P3	1					
MPT-15M	132DW2F	7P3	1	0.5/0.5/0.5	0.1 to 0.5	0.002	300	1000
MPT-15H	132DW2P	4P103	4					
MPT-16C	134BW2	1P4	3	2.5/2.5; 2.5/1.25	1 to 2.5	0.002	1500	1500
MPT-16M	134BW2F	7P4	3	1.5/1.5; 1.5/0.75	1 to 5	0.002	1500	
MPT-16H	134BW2P	4P104	5					
MPT-17C	134CW2	1P5	1	2.0/2.0/1.0	1 to 2.5	0.002	1200	1000
MPT-17M	134CW2F	7P5	1	1.5/1.5/0.75	1 to 5	0.002	1200	
MPT-17H	134CW2P	4P105	4					
MPT-18C	134EW2	1P6	2	2.0/2.0/1.0	0.3 to 1	0.002	800	
MPT-18M	134EW2F	7P6	2	1.5/1.4/0.75	0.3 to 1.5	0.002	800	750
MPT-19C	145CW2	1P7	1					
MPT-19M	145CW2F	7P7	1	0.5/0.5/0.5	1.0 to 5	0.002	500	1000
MPT-19H	145CW2P	4P107	4					
MPT-20C	145EW2	1P8	1					
MPT-20M	145EW2F	7P8	1	1.0/1.0/1.0	1.0 to 5	0.002	800	1000
MPT-20H	145EW2P	4P108	4					
MPT-21C	166AW2	1P9	1					
MPT-21M	166AW2F	7P9	1	1.0/0.67/0.67	1.0 to 5	0.002	800	1000
MPT-21H	166AW2P	4P109	4					
MPT-22C	176AW2	1P10	1					
MPT-22M	176AW2F	7P10	1	2.0/1.0/1.0	1 to 2.5	0.002	1000	1000
MPT-22H	176AW2P	4P110	4	1.5/0.75/0.75		0.002	1000	
MPT-23C	187AW2	1P11	1					
MPT-23M	187AW2F	7P11	1	1.0/0.5/0.5	0.5 to 2	0.002	400	1000
MPT-23H	187AW2P	4P111	4					
MPT-24C	224AW2	1P12	2					
MPT-24M	224AW2F	7P12	2	1.0/1.0/1.0/0.3	0.1 to 0.5	0.002	1000	750
PULSE TRIGGERING OR CURRENT TRANSFORMERS								
MPT-25C	139DW2	1P13	1					
MPT-25M	139DW2F	7P13	1		0.25 to 5	0.002		1000
MPT-25H	139DW2P	4P113	4					
PULSE OUTPUT TRANSFORMERS								
MPT-26C	148CW2	1P14	3	0.2/2.0	0.6 to 3	0.002	1600	
MPT-26M	148CW2F	7P14	3	0.4/2.0	0.25 to 1.25	0.002	1000	1500
MPT-26H	148CW2P	4P114	5	0.4/2.0	0.5 to 2.5	0.002	2000	
MPT-27C	148DW2	1P15	3	0.29/2.0	0.5 to 2.5	0.002	1200	
MPT-27M	148DW2F	7P15	3	0.57/2.0	0.2 to 1.0	0.002	800	1500
MPT-27H	148DW2P	4P115	5	0.57/2.0	0.4 to 2.0	0.002	1500	

C Indicates — varnish impregnated commercial construction.
M Indicates — encapsulated or molded construction to MIL-T-27A Grade 5 Class R.
H Indicates — hermetically sealed to MIL-T-27A Grade 4 Class R.

FREED TRANSFORMER COMPANY, INC.

HERMETICALLY SEALED FILTER REACTORS



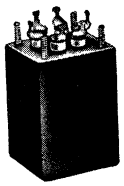
Case	Height	Depth	Width	Mtg. Centers	Studs
AJ	2 3/8	1 5/8	1 5/8	1 3/16 x 1 3/16	4 6-32
EB	2 7/16	1 13/16	1 11/16	1 3/16 x 1 1/4	4 6-32
FA	3 1/8	2 1/16	2 5/16	1 11/16 x 1 7/16	4 6-32
GA	3 5/16	2 3/8	2 3/4	2 1/16 x 1 3/4	4 6-32
HB	3 3/16	3 1/16	2 5/8	2 19/64 x 1 55/64	4 8-32
JA	3 5/8	3 1/16	4 7/8	2 5/8 x 2 1/8	4 8-32
JB	3 7/8	3 1/16	3 5/16	2 5/8 x 2 1/8	4 8-32
KB	4 5/16	3 3/8	3 11/16	3 x 2 7/16	4 10-32
LA	5 5/16	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
LB	4 1/2	3 11/16	4 5/16	3 5/16 x 2 11/16	4 10-32
MB	4 11/16	4	4 11/16	3 11/16 x 3	4 1/4-20

MEET MIL-T-27A SPECIFICATIONS

Catalog No.	MIL Type	Inductance Henry	Rat. Current DC Ma.	DC Res. Ohms	Test Volt Kilovoltas	Case No.
MGC 1	TF4RX04AJ	100	10	3,500	1.	AJ
MGC 2	TF4RX04AJ	4	50	230	1.	AJ
MGC 3	TF4RX04EB	10	50	325	1.	EB
MGC 4	TF4RX04FA	20	50	475	1.5	FA
MGC 5	TF4RX04FA	30	50	650	1.5	FA
MGC 6	TF4RX04AJ	3	75	175	1.	AJ
MGC 7	TF4RX04EB	6	75	235	1.5	EB
MGC 8	TF4RX04FA	12	75	265	1.5	FA
MGC 9	TF4RX04EB	3.5	100	145	1.	EB
MGC 10	TF4RX04FA	8	100	180	1.5	FA
MGC 11	TF4RX04GA	12	100	190	2.	GA
MGC 12	TF4RX04EB	2	150	92	1.5	EB
MGC 13	TF4RX04FA	4	150	115	1.5	FA
MGC 14	TF4RX04GA	8	150	125	2.	GA
MGC 15	TF4RX04JB	11	150	120	2.5	JB
MGC 16	TF4RX04FA	2.5	200	70	1.5	FA
MGC 17	TF4RX04GA	4	200	80	2.	GA
MGC 18	TF4RX04HB	7	200	135	2.	HB
MGC 19	TF4RX04JA	10	200	125	2.5	JA
MGC 20	TF4RX04GA	2.5	300	50	2.	GA
MGC 21*	TF4RX04HB	4	300	62	2.5	HB
MGC 22	TF4RX04JB	6	300	85	2.5	JB
MGC 23*	TF4RX04KB	8	300	65	2.5	KB
MGC 24	TF4RX04LA	10	300	100	2.5	LA
MGC 25*	TF4RX04HB	2	400	37	2.5	HB
MGC 26	TF4RX04KB	6	400	60	2.5	KB
MGC 27*	TF4RX04JA	2	500	35	2.5	JA
MGC 28	TF4RX04KB	4	500	45	2.5	KB
MGC 29*	TF4RX04MB	7	500	50	2.5	MB
MGC 30*	TF4RX04LB	2	700	20	2.5	LB
MGC 31*	TF4RX04MB	1.75	1,000	12.5	2.5	MB

*Not stocked, available on short delivery.
Above units available in Grade 4.

SERIES 1950 NULL "T" FILTERS



The Freed Series 1950 Null T networks consist of two resistance capacitance networks, whose outputs completely cancel each other at the balance frequency. They may be used as rejection networks particularly at low frequencies where LC filters become excessively large and unstable.

Standard models are available for 30, 60 and 120 cycles in a wide range of impedances. Each network will give a minimum of 50 db attenuation at the null frequency.

The null frequency is adjusted to a tolerance of ±2%.

All Null T Filters are hermetically sealed.

Prices on request.

Catalog No.	Frequency
NTF- 30	30 cps
NTF- 60	60 cps
NTF-120	120 cps

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FREED TRANSFORMER COMPANY, INC.

TOROIDAL INDUCTORS

Using the latest developments in the field of magnetic materials and new impregnation and molding techniques the Freed Transformer Co. makes available to the industry the most extensive line of toroidal inductors.

Freed toroids are available in three types of constructions. Open units coated with a special high temperature extremely low loss compound, hermetically sealed in metal cases or molded in special **Freed Epoxy Resin.** Both hermetically sealed and molded units meet the latest military specification MIL-T-27A (graded 1 or 4 and 2 or 5 respectively). Freed toroidal inductors are supplied with either molypermalloy or carbonyl iron powder cores.

1. Temperature Stabilization:

The molypermalloy and carbonyl iron powder cores have a temperature coefficient of inductance. Depending upon the degree of temperature stabilization the cores have different temperature coefficients. The degree of stabilization is denoted by a two-letter code.

SN Non-stabilized cores, maximum inductance variations ± 2% from −55°C to + 85°C
SE Temperature-stabilized cores, maximum inductance variations + .1% to −.4% from −1.5°C to +54°C
SB Temperature-stabilized cores, maximum inductance variations ± .1% from +13°C to +35°C
SD Temperature-stabilized cores, maximum inductance variations ± .1% from −1.5°C to +54°C
SW Temperature-stabilized cores, maximum inductance variations ± .25% from −54°C to +85°C
SP Temperature stable carbonyl iron cores, maximum inductance variations ± .3% from −55°C to +85°C

The temperature (stabilization) coefficient of an inductor will depend upon the nominal inductance value, operating frequency and A.C. voltage across the coil. Therefore some coils may have a lower temperature coefficient than the one corresponding to the core stability characteristic. Under some unfavorable working conditions the temperature coefficient of inductance corresponding to a given stability characteristic may be exceeded.

2. Self Resonant Frequency F_o:

This frequency is defined as the resonant frequency of L — Inductance and C_d — distributed capacity of the winding. Self resonant frequency may have a variation of ±10% from unit to unit.

3. Nominal and Apparant Inductance:

All toroidal inductors are adjusted at a frequency well below the self resonant frequency "F_o." Since all toroids have a voltage coefficient of inductance they are adjusted with a low A.C. voltage in the region of the initial permeability of the core material.

The apparent inductance at any frequency F is given by the expression

$$L_{app} = \frac{L}{1-\left(\frac{f}{f_0}\right)^2}$$

Where L is the nominal inductance. For frequencies "F" well below the self resonant frequency "F_o" the fractional increase of inductance due to the self resonant frequency is

$$\frac{\triangle L}{L} = \left(\frac{f}{f_0}\right)^2 = w^2 L C_d$$

4. "Q":

The "Q" or quality factor of the coil is shown for every toroid type. Since the "Q" depends both upon the frequency and the A.C. voltage across the coil, the "Q" vs. frequency graphs show the "Q" variations for a given voltage applied across the coil. This voltage is defined by the expression,

$$V = K_q \sqrt{L_H} \times \frac{F_{KC}}{1_{KC}}$$

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5. Variations of Inductance vs Normalized A.C. Voltage:

All toroidal inductors have an A.C. voltage coefficient. The variations of inductance vs applied A.C voltage can be computed from the expression of normalized voltage.

$$V_{norm.} = \frac{V}{\sqrt{L_H}} \times \frac{60 \text{ cps.}}{F \text{ cps.}} \times \frac{1}{K_V}$$

V — A.C. voltage across the coil
L_h — Inductance in henries.
F — Measurement frequency in cycles.
K_v — is the voltage coefficient (a variable parameter for different coils) listed in the graph. For high frequency toroids the expression for normalized voltage is changed to,

$$V_{norm.} = \frac{V}{\sqrt{L_H}} \times \frac{1K_C}{F_{KC}} \times K_V$$

6. Variations of Inductance vs Normalized D.C. Current:

The incremental permeability of the coil and consequently the inductance depends upon the magnetizing D.C ampere turns The variations of inductance vs D.C. current can be computed from the expression for the normalized D.C current

$$I_{norm.} = I_{dc} \sqrt{L_H} \times K_i$$

Where I_{dc} — current in M.A. thru the coil
L_h — inductance in henries.
K_I — current coefficient (a variable parameter for different coils) listed in the graph.

7. Maximum Current:

This is the maximum non-destructive current that a coil can tolerate without overheating and consequent failure It is defined as

$$I_{mas} = \sqrt{I^2_{RMS} + I^2_{dc}}$$

The maximum current is listed for each type of toroidal inductors and is computed by dividing the parameter of the numerator by the square root of the inductance in millihenries. This current will affect the inductance value and may partially or completely saturate the inductor. The inductances variations due to I_{dc} and V_{ac} must be computed from the expressions of paragraphs 5 and 6.

Toroids with special requirements such as tapped toroids, toroidal transformers, molded and cased units with dimensions other than standard sizes and high temperature toroids can be supplied upon request. Our engineering and laboratory facilities are available for consultation, research and development.

CASE DIMENSIONS

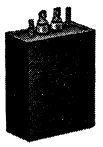
DT-1 CASE

Height:	1 7/32"
Width:	1/2"
Length:	1 1/16"
Mounting:	2 4-40 inserts
Mtg. Centers:	3/4"
Cutout:	5/16" x 1/2"

DT-2 CASE

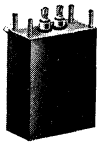
Height:	1 3/4"
Width:	13/16"
Length:	1 7/16"
Mounting:	2 6-32 studs
Mtg. Centers:	7/8" x 9/32"
Cutout:	3/8" x 11/16"

DT-3 CASE



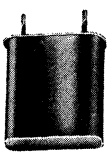
Height:	2"
Width:	7/8"
Length:	1 25/32"
Mounting:	2 6-32 studs
Mtg. Centers:	1 1/4" x 3/8"
Cutout:	3/8" x 3/4"

DT-4 CASE



Height:	3 1/8"
Width:	1 5/16"
Length:	2 3/4"
Mounting:	4 8-32 studs
Mtg. Centers:	2 1/16" x 1 1/16"
Cutout:	3/4" x 3/8"

DST-1 CASE



Height:	25/32"
Width:	11/32"
Length:	3/4"
Pins:	1/4" long
To fit:	1/2" crystal socket

DT-5 CASE

Height:	1 3/16"
Diameter:	1 13/16"
Mounting:	2 6-32 inserts
Mtg. Centers:	1 1/8"
Cutout:	3/8" x 1"

DM-2 CASE

Height:	1"
Diameter:	1 1/8"
Mounting:	2 4-40 inserts
Mtg. Centers:	5/8"
Cutout:	3/8" x 7/8"

DM-11 CASE

Height:	1 1/2"
Diameter:	1 3/8"
Mounting:	2 6-32 inserts
Mtg. Centers:	7/8"
Cutout:	3/8" x 7/8"

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FREED TRANSFORMER COMPANY, INC.

TOROIDAL INDUCTORS
FREQUENCY RANGE: UP TO 15 Kc

TYPE	TI-16		TI-5		TI-4		TI-1		TI-1A		TI-12		TI-11	
Temperature Stabilization	SN		SN, SE, SD		SN, SD, SW		SN		SN, SD, SW		SN, SD, SW		SN, SD, SW	
Ω/1H Max.	650		260		110		70		68		45		29	
I Max. (Amp.)	$\frac{.32}{\sqrt{LMH}}$		$\frac{.85}{\sqrt{LMH}}$		$\frac{2}{\sqrt{LMH}}$		$\frac{4.5}{\sqrt{LMH}}$		$\frac{4}{\sqrt{LMH}}$		$\frac{8}{\sqrt{LMH}}$		$\frac{13}{\sqrt{LMH}}$	
Nominal Inductance	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc
1 MH	F2050	650							F1500	350	F1655	500	F1747	1100
2 MH									F1501	250	F1656	380	F1748	740
3 MH	F2051	410							F1502	200	F1657	300	F1749	560
4 MH									F1503	180	F1658	250	F1750	470
5 MH	F2052	330	F1700	420	F850	170	F800	270	F1504	150	F1659	220	F1751	410
7.5MH									F1505	120	F1660	180		
10 MH	F2053	240	F1701	270	F851	130	F801	192	F1506	100	F1661	150	F1752	260
15 MH	F2054	200	F1702	215	F852	110	F802	155	F1507	90	F1662	120	F1753	200
30 MH	F2055	150	F1703	140	F853	83	F803	109	F1508	60	F1663	80	F1754	130
50 MH	F2056	122	F1704	105	F854	67	F804	82	F1509	50	F1664	60	F1755	95
75 MH	F2057	105	F1705	81	F855	57	F805	66	F1510	40	F1665	47	F1756	75
100 MH	F2058	90	F1706	68	F856	51	F806	56	F1511	33	F1666	40	F1757	64
150 MH	F2059	80	F1707	54	F857	43	F807	45	F1512	29	F1667	31	F1758	48
200 MH	F2060	70	F1708	40	F858	38	F808	39	F1513	23	F1668	27	F1759	40
300 MH	F2061	60	F1709	35	F859	32			F1514	20	F1669	21	F1760	31
400 MH	F2062	52	F1710	29	F860	28			F1515	18	F1670	18	F1761	26
500 MH	F2063	48	F1711	26	F861	26.5	F809	24	F1516	15	F1671	16	F1762	22
600 MH			F1712	22	F862	24			F1517	14	F1672	14		
700 MH			F1713	21	F863	23								
750 MH	F2064	40					F810	19	F1518	12	F1673	12.5	F1763	17.5
800 MH			F1714	19	F864	22								
900 MH			F1715	17.5	F865	21								
1 Hy	F2065	36	F1716	16.5	F866	20	F811	16.5	F1519	10	F1674	10.6	F1764	14.5
1.25 Hy	F2066	33	F1717	15	F867	18.5	F812	15						
1.5 Hy	F2067	30	F1718	13.5	F868	17	F813	13	F1520	9	F1675	8.5	F1765	11.5
1.75 Hy	F2068	28	F1719	12.2	F869	16	F814	12.2						
2 Hy	F2069	27	F1720	11	F870	15.5	F815	11	F1521	8	F1676	8.2	F1766	9.6
2.25 Hy					F871	14.5	F816	10.5						
2.5 Hy					F872	14	F817	10.3	F1522	7	F1677	6.3	F1767	8.2
2.75 Hy					F873	13.5	F818	9.8						
3 Hy					F874	12.5	F819	9.2	F1523	6.2	F1678	5.7	F1768	7.4
3.5 Hy					F875	12	F820	8.5	F1524	5.8	F1679	5.2	F1769	6.6
4 Hy					F876	11.5	F821	8	F1525	5.5	F1680	4.8	F1770	6.1
4.5 Hy					F877	11	F822	7.5	F1526	5.1	F1681	4.5	F1771	5.7
5 Hy					F878	10.5	F823	7	F1527	4.9	F1682	4.2	F1772	5.3
6 Hy							F824	6.4	F1528	4.5	F1683	3.8		
7 Hy							F825	5.9	F1529	4.1	F1684	3.5		
7.5 Hy													F1773	4.1
8 Hy							F826	5.5	F1530	3.9	F1685	3.25		
9 Hy							F827	5	F1531	3.7	F1686	3		
10 Hy							F828	4.8	F1532	3.4	F1687	2.9	F1774	3.4
12 Hy									F1533	3.1	F1688	2.6		
15 Hy							F829	3.9	F1534	2.8	F1689	2.3	F1775	2.6
17 Hy									F1535	2.6	F1690	2.1		
20 Hy							F830	3.9	F1536	2.4	F1691	1.95	F1776	2.2
25 Hy									F1537	2.2	F1692	1.75	F1777	1.9
30 Hy									F1538	2	F1693	1.5	F1778	1.7
40 Hy													F1779	1.4
50 Hy													F1780	1.25

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FREED TRANSFORMER COMPANY, INC.

FREQUENCY RANGE: 10 Kc TO 50 Kc || 10 Kc TO 100 Kc

TYPE	TI-17		TI-7		TI-6		TI-2		TI-13		TI-15		TI-14	
Temperature Stabilization	SN		SN		SN, SD, SW		SD		SN		SN		SN	
Ω/1 MH Max.	1.2		.48		.23		.16		.055		1.0		.3	
I Max. (Amp.)	$\frac{.25}{\sqrt{LMH}}$		$\frac{.7}{\sqrt{LMH}}$		$\frac{2}{\sqrt{LMH}}$		$\frac{2.5}{\sqrt{LMH}}$		$\frac{5.8}{\sqrt{LMH}}$		$\frac{.5}{\sqrt{LMH}}$		$\frac{1.3}{\sqrt{LMH}}$	
Nominal Inductance (MH)	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc
.100	F2100	4300									F1870	1800		
.200	F2101	2800									F1871	1300		
.300	F2102	2200									F1872	1100		
.400	F2103	1800									F1873	940		
.500	F2104	1600	F1781	1300							F1874	850		
1	F2105	1000	F1782	880	F1726	820	F1800	550	F1629	400	F1875	620	F1920	560
2	F2106	670	F1783	600	F1727	550	F1801	400	F1630	280	F1876	450	F1921	390
3	F2107	520	F1784	470	F1728	450	F1802	320	F1631	230	F1877	370	F1922	310
4	F2108	440			F1729	380	F1803	280	F1632	200	F1878	320	F1923	270
5	F2109	380	F1785	350	F1730	330	F1804	250	F1633	180	F1879	290	F1924	240
7.5	F2110	290	F1786	280	F1731	260			F1634	145	F1880	240	F1925	200
10	F2111	250	F1787	240	F1732	220	F1805	170	F1635	130	F1881	210	F1926	170
15	F2112	190	F1788	190	F1733	180	F1806	140	F1636	105	F1882	175	F1927	140
20	F2113	160	F1789	165	F1734	150					F1883	150	F1928	120
25			F1790	145							F1884	140		
30	F2114	120	F1791	135	F1735	115	F1807	100	F1637	73	F1885	125	F1929	96
40			F1792	110							F1886	110		
50	F2115	90	F1793	100	F1736	86	F1808	76	F1638	57	F1887	100	F1930	74
75	F2116	70	F1794	80	F1737	68	F1809	62	F1639	47	F1888	.082	F1931	60
100	F2117	58	F1795	68	F1738	58	F1810	53	F1640	40	F1889	.072	F1932	52
150			F1796	55	F1739	46	F1811	43	F1641	33			F1933	42
200			F1797	47	F1740	40	F1812	37	F1642	28			F1934	36
250					F1741	35							F1935	32
300					F1742	31	F1813	30	F1643	23			F1936	30
400					F1743	23.5	F1814	26	F1644	20				
500							F1815	23	F1645	18				

30 Kc TO 75 Kc || 50 Kc TO 200 Kc

TYPE	TI-18		TI-8		TI-10		TI-9		TI-19		TI-3		TI-3A	
Temperature Stabilization	SN		SN, SD		SB		SB		SN		SD		SB	
Ω/1 MH Max.	2.6		1.5		.43		.15		4.5		.6		.31	
I Max. (Amp.)	$\frac{.15}{\sqrt{LMH}}$		$\frac{.4}{\sqrt{LMH}}$		$\frac{2}{\sqrt{LMH}}$		$\frac{5}{\sqrt{LMH}}$		$\frac{.12}{\sqrt{LMH}}$		$\frac{1.3}{\sqrt{LMH}}$		$\frac{2.5}{\sqrt{LMH}}$	
Nominal Inductance (MH)	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc	Catalog No.	Fo Kc
.1	F2140	2500	F1821	5600					F2180	4000	F1846	2150		
.2	F2141	1700	F1822	3600					F2181	2500	F1847	1500		
.3	F2142	1400	F1823	2800					F2182	1900	F1848	1250		
.4	F2143	1200	F1824	2300					F2183	1550	F1849	1070		
.5	F2144	1050	F1825	2000					F2184	1350	F1850	960		
.6									F2185	1200				
.7									F2186	1070				
.8									F2187	1000				
.9									F2188	900				
1	F2145	700	F1826	1250	F1579	500	F1554	500	F2189	850	F1851	680		
2	F2146	500	F1827	800	F1580	350	F1555	350	F2190	540	F1852	480		
3	F2147	400	F1828	600	F1581	300	F1556	290	F2191	400	F1853	390		
4	F2148	340	F1829	500	F1582	260	F1557	250	F2192	340	F1854	330		
5	F2149	300	F1830	440	F1583	240	F1558	220	F2193	290	F1855	300		
7.5	F2150	240	F1831	330	F1584	200	F1559	175			F1845	210		
10	F2151	200	F1832	280	F1585	170	F1560	150			F1844	250	F1856	190
15	F2152	160	F1833	210	F1586	140	F1561	120					F1857	150
20	F2153	140	F1834	175									F1858	125
25			F1835	150										
30	F2154	110	F1836	135	F1587	105	F1562	82					F1859	96
40			F1837	110									F1860	80
50	F2155	85	F1838	95	F1588	82	F1563	62					F1861	70
75	F2156	65	F1839	75	F1589	68	F1564	50					F1862	54
100	F2157	58	F1840	60	F1590	60	F1565	42					F1863	45
150					F1591	50	F1566	34						
200					F1592	43	F1567	29						
250														
300							F1568	23.5						
400							F1569	20						
500							F1570	18						

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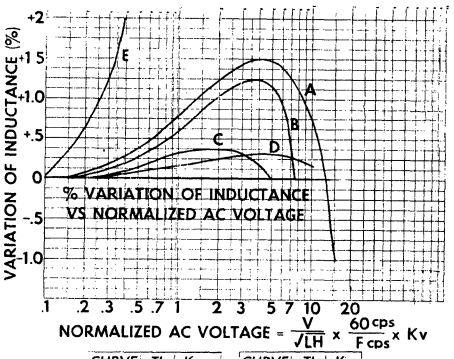
FREED TRANSFORMER COMPANY, INC.

TOROIDAL INDUCTORS

FREQUENCY RANGE:

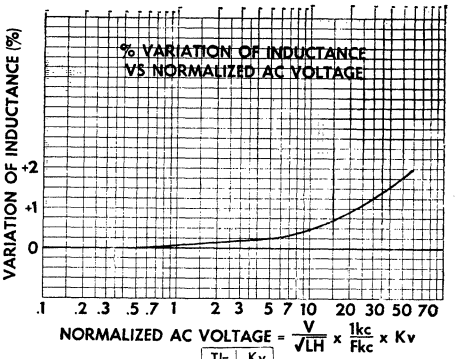
20 Kc to 2 Mc	50 Kc to 5 Mc	50 Kc to 5 Mc	100 Kc to 10 Mc

TYPE	TI-20		TI-22		TI-23		TI-21	
Temp. Stab.	SP		SP		SP		SP	
Ω/1 MH (±20%) Max.	2.75		5.6		7		12	
I Max. (Amp.)	$0.2/\sqrt{LMH}$		$0.11/\sqrt{LMH}$		$0.11/\sqrt{LMH}$		$0.05/\sqrt{LMH}$	
Nominal Inductance (MH)	Catalog No.	Fo Mc	Catalog No.	Fo Mc	Catalog No.	Fo Mc	Catalog No.	Fo Mc
.010			F2270	13.5	F2301	11.5	F2240	17.0
.015			F2271	10.5	F2302	9.2	F2241	13.5
.020			F2272	9.0	F2303	8.0	F2242	11.5
.030			F2273	7.0	F2304	6.3	F2243	8.8
.040			F2274	6.0	F2305	5.4	F2244	7.4
.050	F2201	4.3	F2275	5.3	F2306	4.8	F2245	6.5
.075			F2276	4.1	F2307	3.8	F2246	5.0
.100	F2202	3.0	F2277	3.5	F2308	3.2	F2247	4.2
.125							F2248	3.6
.150			F2278	2.8	F2309	2.7	F2249	3.2
.200	F2203	2.1	F2279	2.4	F2310	2.3		
.300	F2204	1.7	F2280	1.9	F2311	1.8		
.400			F2281	1.6	F2312	1.5		
.500	F2205	1.3	F2282	1.4	F2313	1.4		
.600			F2283	1.25				
.700			F2284	1.1				
.750	F2206	1.1						
1	F2207	.9						
1.5	F2208	.75						
2	F2209	.65						
2.5	F2210	.55						
3	F2211	.52						
3.5	F2212	.48						
4	F2213	.45						
4.5	F2214	.42						
5	F2215	.4						



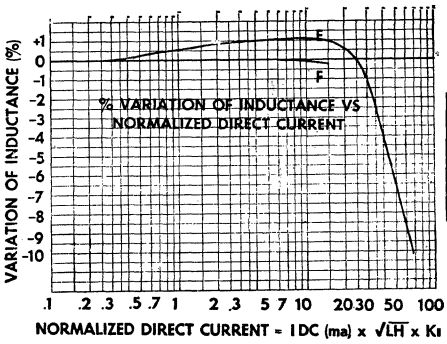
(1)

CURVE	TI	Kv
A	1	1
	1A	.65
	4	1
	5	2.7
	11	.43
	12	.8
	16	4.2
B	2	1.25
	6	1.25
	7	.8
	13	6.7
	17	2.5
C	8	1.1
	9	1
	10	.38
	18	2.2
D	3	2.2
	3A	1
	19	4.4
E	14	1
	15	2



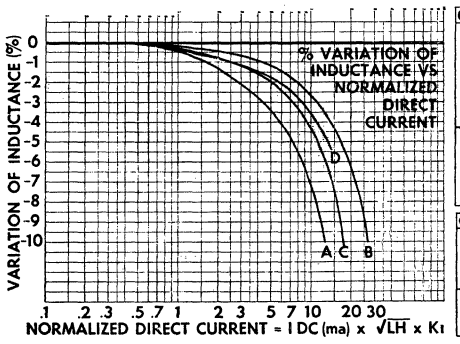
(2)

TI-	Kv
20	1
21	1
22	1
23	.55



CURVE	TI	KI
E	14	1
	15	2.7
F	20	1
	21	1
	22	1
	23	.55

(3)



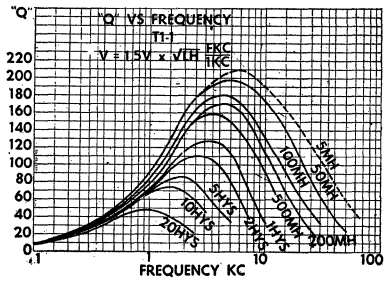
CURVE	TI	KI
A	1	.5
	1A	.2
	4	.4
	5	.66
	11	.25
	12	.18
	16	1
B	2	.42
	6	.66
	7	1
	13	.23
	17	2.2

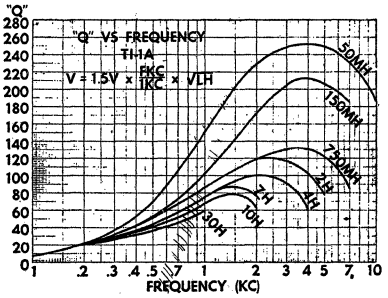
CURVE	TI	KI
C	8	.37
	9	.105
	10	.155
	18	1
D	3	.14
	3A	.077
	19	1

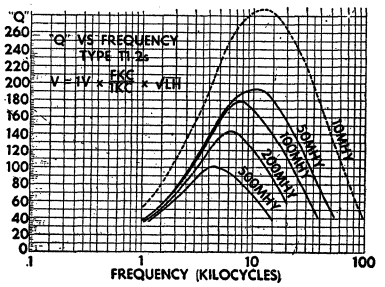
(4)

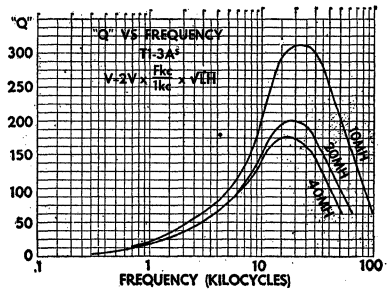
FREED TRANSFORMER COMPANY, INC.

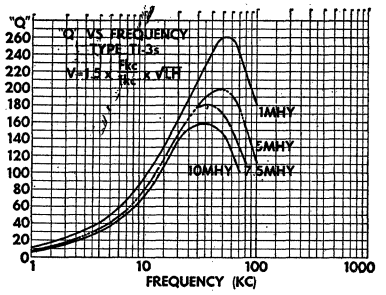
TOROIDAL INDUCTORS

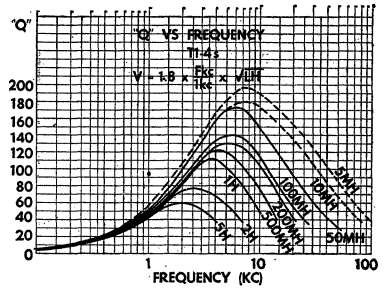


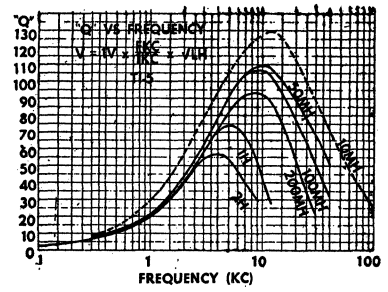


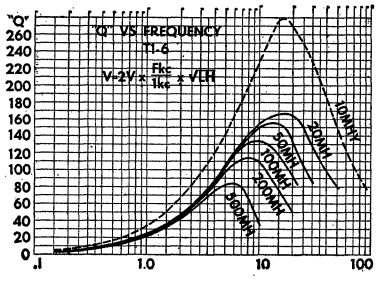


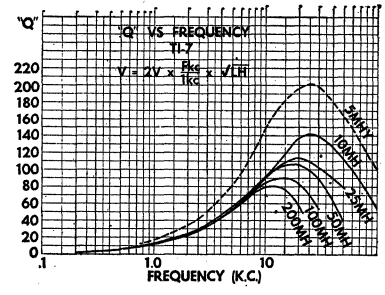


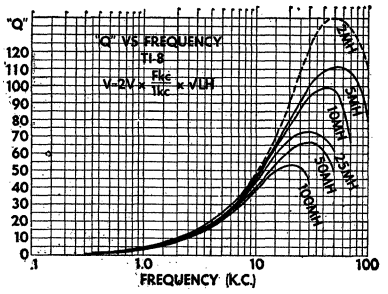


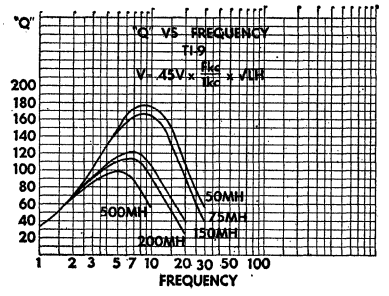


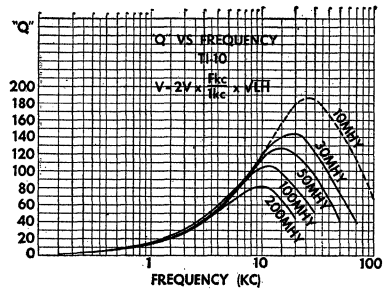


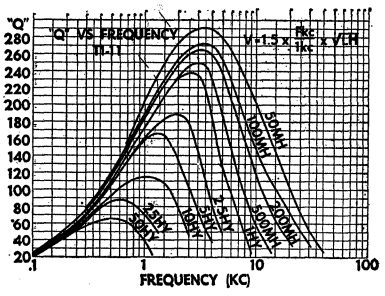


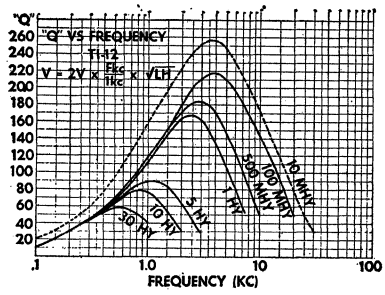












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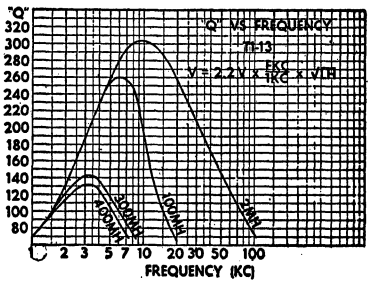
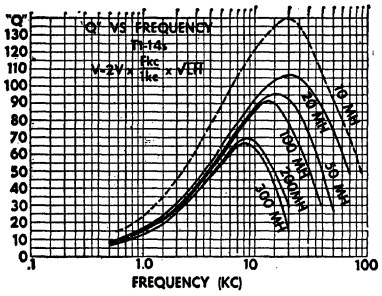
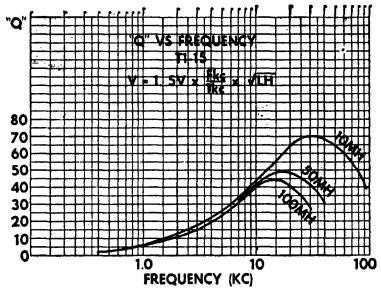
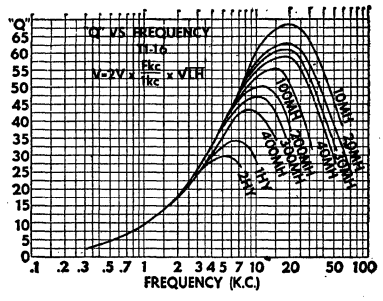
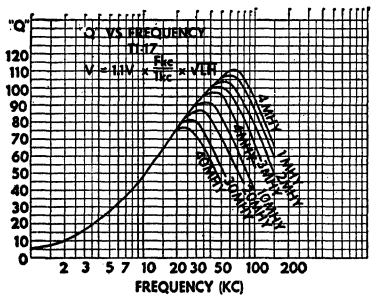
TOROIDAL INDUCTORS

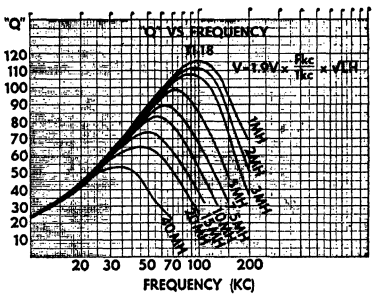


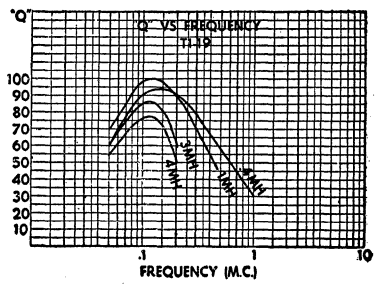


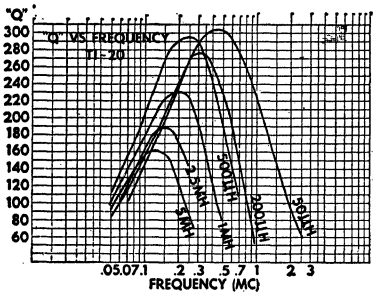


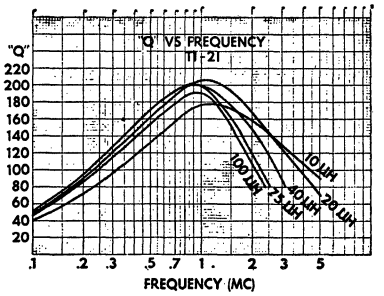


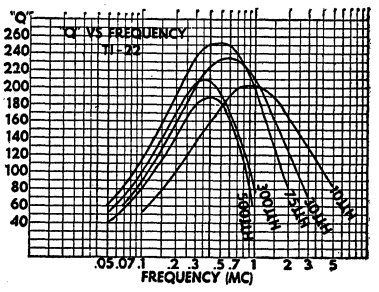


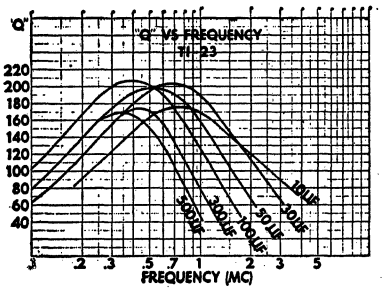










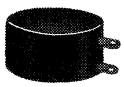


FREED TRANSFORMER COMPANY, INC.

CROSS REFERENCE GUIDE TO CASED, UNCASED AND MOLDED UNITS, SEE CHARTS A, B AND C.

Toroid Type	Case	Mold	Uncased Dimensions	Toroid Type	Case	Mold	Uncased Dimensions
TI-1	DT-3, DT-5	MR-6	OS-8	TI-12	DT-4	MR-8	OS-9
TI-1A	DT-4	MR-7	OS-9	TI-13	DT-4	MR-8	OS-9
TI-2	DT-3, DT-5	MR-5	OS-6	TI-14	DT-2, DM-11	MR-4	OS-5
TI-3	DT-3, DT-5	MR-5	OS-6	TI-15	DT-1, DM-2	MR-3	OS-3
TI-3A	DT-4	MR-8	OS-10	TI-16	DST-1	MR-1, MS-1	OS-1
TI-4	DT-2, DM-11	MR-4	OS-5	TI-17	DST-1	MR-1, MS-1	OS-1
TI-5	DT-1, DM-2	MR-3	OS-3	TI-18	DST-1	MR-1, MS-1	OS-1
TI-6	DT-2, DM-11	MR-4	OS-5	TI-19	DST-1	MR-1, MS-1	OS-1
TI-7	DT-1, DM-2	MR-3	OS-3	TI-20	DT-2	MR-3A	OS-4
TI-8	DT-1, DM-2	MR-3	OS-3	TI-21	DT-1	MR-1, MS-1	OS-1
TI-9	DT-4	MR-9	OS-10	TI-22	DT-1	MR-2	OS-2
TI-10	DT-3, DT-5	MR-5	OS-7	TI-23	DT-1	MR-2	OS-2
TI-11	DT-4	MR-10	OS-11				

MR-1



MR-2 to MR-10

[A] DIMENSIONS OF MOLDED UNITS

Molded Coil Code No.	OD"	H"	Clearance Hole H-Mounting
MR-1	7/8	13/32	Pig tails
MR-2	1 1/16	1/2	4-40
MR-3	1 3/16	1/2	6-32
MR-3A	1 3/16	1 1/16	6-32
MR-4	1 1/2	3/4	8-32
MR-5	1 7/8	1	8-32
MR-6	2 1/8	7/8	8-32
MR-7	2 3/8	1 5/16	10-32
MR-8	2 1/2	1 3/8	10-32
MR-9	2 5/8	1 7/16	10-32
MR-10	2 7/8	1 3/8	10-32
MS-1	25/32 x 25/32	13/32	Pig tails

MS-1

OS-1 to OS-11

[B] DIMENSIONS OF UNCASED UNITS

Open Coil Code No.	OD"	H"	
OS-1	5/8	5/16	All OS Units supplied with 4" long leads
OS-2	7/8	3/8	
OS-3	1	3/8	
OS-4	1	9/16	
OS-5	1 5/16	5/8	
OS-6	1 5/8	7/8	
OS-7	1 11/16	5/8	
OS-8	1 7/8	1 1/16	
OS-9	2 1/4	1 1/8	
OS-10	2 3/8	1 1/4	
OS-11	2 5/8	1 1/8	

[C] CASE DIMENSIONS

DT-1 CASE

Height: 1 7/32"
Width: 1/2"
Length: 1 1/16"
Mounting: 2 4-40 inserts
Mtg. Centers: 3/4"
Cutout: 5/16" x 1/2"

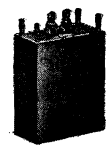
DT-2 CASE

Height: 1 3/4"
Width: 15/16"
Length: 1 7/16"
Mounting: 2 6-32 studs
Mtg. Centers: 7/8" x 3/32"
Cutout: 3/8" x 11/16"

DT-3 CASE

Height: 2"
Width: 7/8"
Length: 1 25/32"
Mounting: 2 6-32 studs
Mtg. Centers: 1 1/4" x 3/8"
Cutout: 3/8" x 3/4"

DT-4 CASE



Height: 3 1/8"
Width: 1 5/16"
Length: 2 3/4"
Mounting: 4 8-32 studs
Mtg. Centers: 2 1/16" x 11/16"
Cutout: 3/4" x 3/8"

DST-1 CASE

Height: 25/32"
Width: 11/32"
Length: 3/4"
Pins: 1/4" long
To fit: 1/2" crystal socket

DT-5 CASE

Height: 1 3/16"
Diameter: 1 13/16"
Mounting: 2 6-32 inserts
Mtg. Centers: 1 1/8"
Cutout: 3/8" x 1"

DM-2 CASE

Height: 1"
Diameter: 1 1/8"
Mounting: 2 4-40 inserts
Mtg. Centers: 5/8"
Cutout: 3/8" x 7/8"

DM-11 CASE

Height: 1 1/2"
Diameter: 1 3/8"
Mounting: 2 6-32 inserts
Mtg. Centers: 7/8"
Cutout: 3/8" x 7/8"

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FREED TRANSFORMER COMPANY, INC.

FREED MAGNETIC AMPLIFIERS & SATURABLE TRANSFORMERS

The ever increasing demand for reliability, ruggedness, miniaturization and high performance has made the magnetic amplifier an indispensable component of many military and industrial automatic control and servo systems. Recent advances in materials and techniques permit an even greater utilization of the well-known inherent advantages of magnetic amplifiers such as direct operation from line voltage, no warm-up time, long-life components, ease of signal mixing, and hermetic sealing.

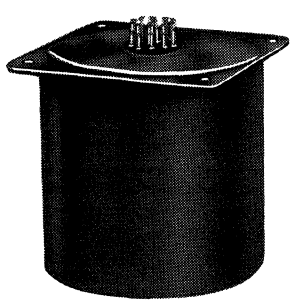
Freed Transformer Co. manufactures an extensive line of magnetic amplifiers, ranging from saturable transformers to half-wave type, fast-response servo amplifiers. Choice of catalog amplifiers assures standardization, lowest possible cost and rapid delivery.

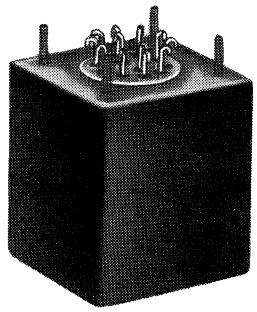
All standard units are designed for continuous operation and will operate in an ambient temperature range of −55°C to +75°C.

Vacuum tube and transistor preamplifiers can be supplied if very high impedance inputs are required.

In addition to standard items, Freed Transformer Co. has extensive facilities for the design and production of special amplifiers, saturable reactors and magnetic components.

ALL ITEMS LISTED ARE AVAILABLE FROM STOCK.



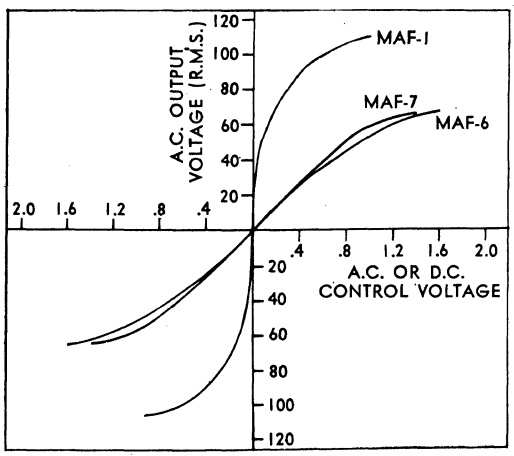


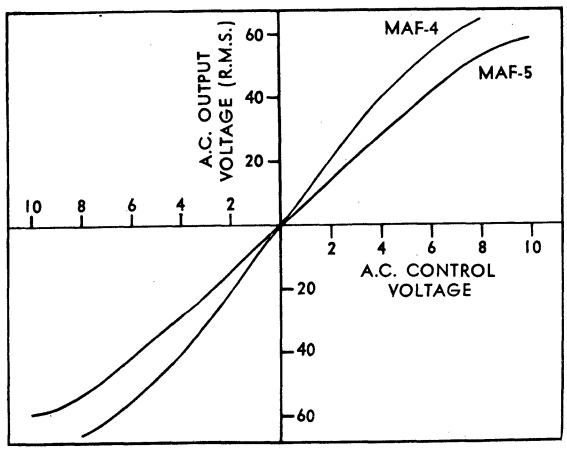
FAST RESPONSE FREED MAGNETIC AMPLIFIERS

THE MAF TYPE OF FAST RESPONSE MAGNETIC AMPLIFIERS COMBINES HIGH POWER GAIN, RUGGEDNESS, AND RELIABILITY WITH A MAXIMUM 2 CYCLE RESPONSE. ALL MAF UNITS ARE PHASE-REVERSIBLE.

FREED NO.	MAF-4	MAF-5	MAF-6	MAF-7
POWER SUPPLY	115V 400~	115V 400~	115V 400~	115V 400~
MAXIMUM OUTPUT WATTAGE	10	15	10	15
OUTPUT VOLTAGE	57.5V RMS	57.5V RMS	57.5V RMS	57.5V RMS
TYPICAL LOAD	Kearfott R110-2 Kearfott R111-2	Kearfott R112-2	Kearfott R110-2 Kearfott R111-2	Kearfott R111-2 Kearfott R112-2
INPUT SIGNAL REQUIRED FOR FULL OUTPUT	8V AC	8V AC	R110-2 10K 1K 1.2V .4V R111-2 10K 1K 1.6V .6V	R111-2 10K 1K 2.0V .6V R112-2 10K · 1K 2.5V 1.0V
CONTROL WINDING RESISTANCE	60 OHMS CT 150 OHMS CT	60 OHMS CT 150 OHMS CT	AC or DC 10,000 OHMS Min. 1,000 OHMS Min.	AC or DC 10,000 OHMS Min. 1,000 OHMS Min.
PHYSICAL DIMENSIONS	2 3/16" O.D. x 2 3/8" H	2 1/2" O.D. x 2 1/2" H	4 3/8" x 4 1/4" x 2 7/8" H	4 3/8" x 4 1/4" x 2 7/8" H
WEIGHT	13 oz.	18 oz.	4 1/2 lbs.	4 1/2 lbs.

Transfer characteristic curves

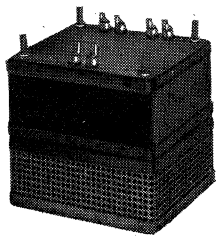




FREED TRANSFORMER COMPANY, INC.

FREED PUSH-PULL MAGNETIC AMPLIFIERS

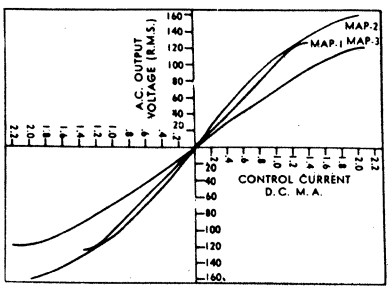
THE MAP LINE OF PUSH-PULL MAGNETIC AMPLIFIERS FEATURES HIGH GAIN, POLARITY-SENSITIVE AMPLIFICATION, AND A PHASE-REVERSIBLE OUTPUT.

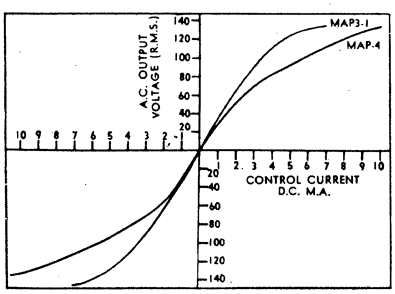


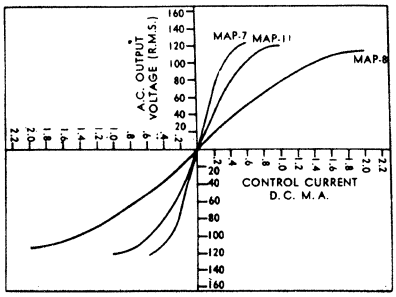
FREED NO.	MAP-1	MAP-2	MAP-3	MAP-3-1
POWER SUPPLY	115 V.A.C. 60 Cycles (To MAPT-1)	115 V.A.C. 60 Cycles (To MAPT-2)	115 V.A.C. 60 Cycles (To MAPT-3)	115 V.A.C. 60 Cycles (To MAPT-3-1)
MAXIMUM OUTPUT WATTAGE	2.8 watts	15 watts	50 watts	50 watts
VOLTAGE	140V	150V	120V	140V
TYPICAL LOAD	Kollsman 951-0160	Diehl FPE 25-11	Diehl FPF 49-9	Diehl FPF 49-9
INPUT SIGNAL REQ. FOR FULL OUTPUT	1.2 ma.	1 ma.	2 ma.	4.5 ma.
RESP. TIME	ON OFF 15 cycles 60	ON OFF 5 cycles 38	ON OFF 3 cycles 15	ON OFF 5 cycles 20
CONTROL WINDING RESISTANCE	620 ohms each	1230 ohms each	250 ohms each	1700 ohms each
PHYSICAL DIMENSIONS	3⅜" x 3¼" x 5⅞"H M.A. 2⅝" x 2¼" x 3"H T.	3⅞" x 4⅝" x 7"H M.A. 2¹⁵⁄₁₆" x 2¾" x 3¾"H T.	5⅛" x 6⅞" x 8"H M.A. 3⁹⁄₁₆" x 3⅞" x 4¼"H T.	5½" x 5" x 8"H M.A. 3⅝" x 4¼" x 3⅜"H T.
WEIGHT	6 lbs. M.A. 3 lbs. T.	11 lbs. M.A. 3½ lbs. T.	26½ lbs. M.A. 8 lbs. T.	20 lbs. M.A. 8 lbs. T.

FREED NO.	MAP-4	MAP-7	MAP-8	MAP-11
POWER SUPPLY	115 V.A.C. 60 Cycles (To MAPT-4)	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles (To MAPT-8)	115 V.A.C. 400 Cycles
MAXIMUM OUTPUT WATTAGE	175 watts	15 watts	50 watts	10 watts
VOLTAGE	130V	125V	115V	115V
TYPICAL LOAD	Diehl FPF 85-18-1	Kearfott R112-2A	Bendix CK-3000-1-A	Kearfott R111-2A
INPUT SIGNAL REQ. FOR FULL OUTPUT	8 ma.	.5 ma.	1.8 ma.	.9 ma.
RESP. TIME	ON OFF 17 cycles 66	ON OFF 5 cycles 15	ON OFF 45 cycles 60	ON OFF 4 cycles 75
CONTROL WINDING RESISTANCE	3000 ohms each	4,400 ohms each	320 ohms each	3300 ohms each
PHYSICAL DIMENSIONS	7¼" x 5" x 7⅞"H M.A. 4" x 4¾" x 5⅝"H T.	3¼" x 3⅝" x 7"H	3⅞" x 3⅞" x 7⅞"H M.A. 2¹⁵⁄₁₆" x 2¾" x 3¾"H T.	4⅛" x 3½" x 5¼"H
WEIGHT	35 lbs. M.A. 12 lbs. T.	7 lbs.	7½ lbs. M.A. 4 lbs. T.	5 lbs.

Transfer characteristic curves







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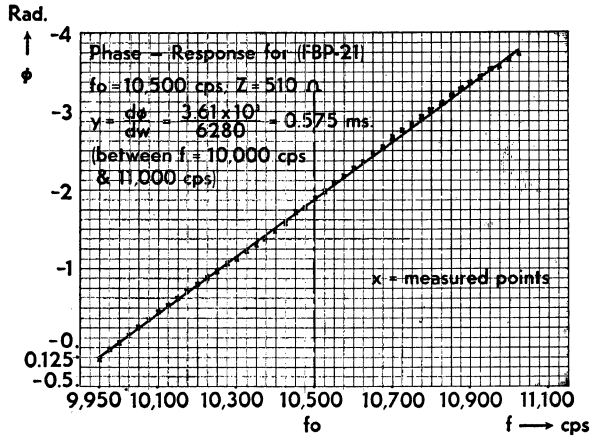
FREED TRANSFORMER COMPANY, INC.

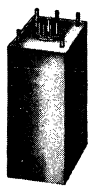
TELEMETERING COMPONENTS

A complete line of Band Pass Filters, Low Pass Filters and Discriminators is available for multi-channel telemetering applications. These components cover the frequency range from 400 cps to 70,000 cps. The filters feature linear phase response, excellent selectivity characteristics and plug-in construction. The Discriminators, either fixed or slug tuned, have exceptional linearity, high amplification, and utmost stability.



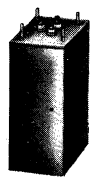
CASE DIMENSIONS

FA-5 CASE



Height: 4½″
Width: 3½″
Depth: 2⅛″
Mtg. Cen.: 2 1/16″ x 1 1/16″
Studs: 5—8-32x½″
Octal Header

FA-10 CASE



Height: 4½″
Width: 3½″
Depth: 2⅛″
Mtg. Cen.: 1 11/16″ x 1 1/16″
Studs: 4—8-32x½″
Knockout: 1½″ dia.

FA-15 CASE

Height: 4½″
Width: 2 7/8″
Depth: 2⅛″
Mtg. Cen.: 1 11/16″ x 1 1/16″
Studs: 4—8-32x ½″
Knockout: 1½″ dia.

TELEMETERING BAND PASS FILTERS

These filters cover the frequencies from 400 c.p.s. to 70KC. Narrow frequency B.P.F. have a band width of ±9¾% of center frequency and 45 DB (minimum) points at ±7½% of center frequency of higher or lower adjacent channels. Wide frequency B.P.F. have a band width of ±19½% of center frequency and 50 D.B. points at ±15% of center frequencies of higher or lower second adjacent channels.

Characteristic Impedance 500 Ω			
Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-10	400	± 9¾	FA-10
FBP-11	560	± 9¾	FA-10
FBP-12	730	± 9¾	FA-10
FBP-13	960	± 9¾	FA-10
FBP-14	1,300	± 9¾	FA-10
FBP-15	1,700	± 9¾	FA-10
FBP-16	2,300	± 9¾	FA-10
FBP-17	3,000	± 9¾	FA-15
FBP-18	3,900	± 9¾	FA-15
FBP-19	5,400	± 9¾	FA-15
FBP-20	7,350	± 9¾	FA-15
FBP-21	10,500	± 9¾	FA-15
FBP-22	12,300	± 9¾	FA-15
FBP-23	14,500	± 9¾	FA-15
FBP-24	22,000	± 9¾	FA-15
FBP-25	22,000	±19½	FA-15
FBP-26	30,000	± 9¾	FA-15
FBP-27	30,000	±19½	FA-15
FBP-28	40,000	± 9¾	FA-15
FBP-29	40,000	±19½	FA-15
FBP-30	52,500	± 9¾	FA-15
FBP-31	52,500	±19½	FA-15
FBP-32	70,000	± 9¾	FA-15
FBP-33	70,000	±19½	FA-15

Characteristic Impedance 2,500 Ω			
Catalog No.	Center Frequency c.p.s.	3 DB Band Width % of C.F.	Case No.
FBP-34	400	± 9¾	FA-5
FBP-35	560	± 9¾	FA-5
FBP-36	730	± 9¾	FA-5
FBP-37	960	± 9¾	FA-5
FBP-38	1,300	± 9¾	FA-5
FBP-39	1,700	± 9¾	FA-5
FBP-40	2,300	± 9¾	FA-5
FBP-41	3,000	± 9¾	FA-5
FBP-42	3,900	± 9¾	FA-5
FBP-43	5,400	± 9¾	FA-5
FBP-44	7,350	± 9¾	FA-5
FBP-45	10,500	± 9¾	FA-5
FBP-46	12,300	± 9¾	FA-5
FBP-47	14,500	± 9¾	FA-5
FBP-48	22,000	± 9¾	FA-5
FBP-49	22,000	±19½	FA-5
FBP-50	30,000	± 9¾	FA-5
FBP-51	30,000	±19½	FA-5
FBP-52	40,000	± 9¾	FA-5
FBP-53	40,000	±19½	FA-5
FBP-54	52,500	± 9¾	FA-5
FBP-55	52,500	±19½	FA-5
FBP-56	70,000	± 9¾	FA-5
FBP-57	70,000	±19½	FA-5

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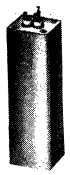
FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS

FA-1 CASE



Height: 4½″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 31/32″ sq.
4 Inserts 6-32
Knockout: 1″

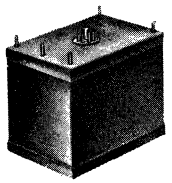
FA-185 CASE

Height: 4½″
Width: 1⅞″
Depth: 1⅝″
Mtg. Cen.: 1 15/64″ x 1 1/16″
4 Inserts: 6-32
Knockout: 1½″

FA-190 CASE

Height: 4½″
Width: 2¼″
Depth: 1⅝″
Mtg. Cen.: 1 7/32″ x 1 1/16″
4 Inserts: 6-32
Knockout: 1½″

FA-410 CASE



Height: 4½″
Width: 6″
Depth: 4″
Mtg. Cen.: 5¼″ x 3¼″
5 Studs: 10-32
Octal Header

DISCRIMINATOR INPUT LOW PASS FILTER

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-10	400	30,000	FA-1
LPI-11	560	30,000	FA-1
LPI-12	730	30,000	FA-1
LPI-13	960	30,000	FA-1
LPI-14	1,300	30,000	FA-1
LPI-15	1,700	30,000	FA-1
LPI-16	2,300	30,000	FA-1
LPI-17	3,000	30,000	FA-1
LPI-18	3,900	30,000	FA-1

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-19	5,400	30,000	FA-1
LPI-20	7,350	30,000	FA-1
LPI-21	10,500	30,000	FA-1
LPI-22	12,300	30,000	FA-1
LPI-23	14,500	30,000	FA-1
LPI-24	22,000	5,100	FA-1
LPI-25	30,000	5,100	FA-1
LPI-26	40,000	5,100	FA-1
LPI-27	52,500	5,100	FA-1
LPI-28	70,000	5,100	FA-1

LPI-10-23
Band Pass Attenuation: 0.05 DB ± 9¾% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

LPI-24-28
Band Pass Attenuation: 0.05 DB ± 15% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

DISCRIMINATOR OUTPUT LOW PASS FILTER

Catalog No.	Fo c. p. s.	Characteristic Impedance Ohms	Case No.
LPO-10	6	330	FA-410
LPO-11	8	330	FA-410
LPO-12	11	330	FA-410
LPO-13	14	330	FA-410
LPO-14	20	330	FA-410
LPO-15	25	330	FA-410
LPO-16	35	330	FA-410
LPO-17	45	330	FA-410
LPO-18	60	330	FA-410
LPO-19	81	330	FA-410
LPO-20	110	330	FA-410
LPO-21	160	330	FA-410
LPO-22	185	330	FA-410

Catalog No.	Fo c. p. s.	Characteristic Impedance Ohms	Case No.
LPO-23	220	330	FA-410
LPO-24	330	330	FA-410
LPO-25	450	330	FA-410
LPO-26	600	330	FA-410
LPO-27	660	330	FA-410
LPO-28	790	330	FA-410
LPO-29	900	330	FA-410
LPO-30	1,050	330	FA-410
LPO-31	1,200	330	FA-410
LPO-32	1,600	330	FA-410
LPO-33	2,100	330	FA-410
LPO-34	7,200	330	FA-410
LPO-35	10,000	330	FA-410

Attenuation: < 0.2 DB up to 0.5 times Fo
< 0.7 DB from 0.5 to 1. times Fo
> 20 DB at 2 Fo to 2.5 Fo
> 30 DB from 2.5 times Fo to 100 Kc.

SLUG TUNED DISCRIMINATORS

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-17	3.0	±8½	±0.5%	32.5	FA-190
DST-18	3.9	±8½	±0.5%	32.5	FA-190
DST-19	5.4	±8½	±0.5%	32.5	FA-190
DST-20	7.35	±8½	±0.5%	32.5	FA-190
DST-21	10.5	±8½	±0.5%	32.5	FA-190
DST-22	12.3	±8½	±0.5%	32.5	FA-190
DST-23	14.5	±8½	±0.5%	32.5	FA-190
DST-24	22.0	±8½	±0.5%	32.5	FA-190
DST-25	30.0	±8½	±0.5%	32.5	FA-190

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-26	40.0	± 8½	±0.5%	32.5	FA-190
DST-27	52.5	± 8½	±0.5%	32.5	FA-190
DST-28	70.0	± 8½	±0.5%	32.5	FA-190
DST-29	22.0	±15	±1.0%	26.0	FA-190
DST-30	30.0	±15	±1.0%	26.0	FA-190
DST-31	40.0	±15	±1.0%	26.0	FA-190
DST-32	52.5	±15	±1.0%	26.0	FA-190
DST-33	70.0	±15	±1.0%	26.0	FA-190

FIXED DISCRIMINATORS

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-10	400	±8½	±0.5%	32.5	FA-185
DST-11	560	±8½	±0.5%	32.5	FA-185
DST-12	730	±8½	±0.5%	32.5	FA-185
DST-13	960	±8½	±0.5%	32.5	FA-185

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-14	1,300	±8½	±0.5%	32.5	FA-185
DST-15	1,700	±8½	±0.5%	32.5	FA-185
DST-16	2,300	±8½	±0.5%	32.5	FA-185

Net
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FREED TRANSFORMER COMPANY, INC.

FREED FILTERS

Freed Standard Filters are **Hermetically Sealed Miniature** high performance components designed for both production and laboratory applications in the Communications and Electronic industry. In order to achieve attenuation requirements not obtainable with one single filter, one can combine several standard filters of different transmission characteristics. Wide Band Pass characteristics are obtainable by combining low and h gh Pass Units. The astatic construction of inductive components together with special shielding reduces the hum pick-up of the standard filters.

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40 db or more at 2 cut-off frequency.

ILP Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLP Line Low Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHP Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line High Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

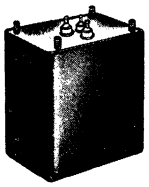
IBP Interstage Band Pass Filter. Nominal input impedance — 10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBP Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 9:1. (Output voltage to source voltage).

Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

CASE DIMENSIONS

DF-1 CASE

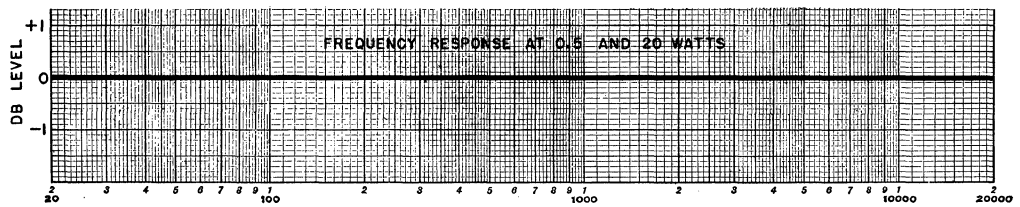


Height: 2½″
Width: 1 11/16″
Depth: 1 3/16″
Mtg. Cen.: 1¼″×¾″
Studs: 4—6-32×⅜″
Knockout: ⅞″ dia.

Catalog No.	Cut-off Frequency c.p.s.
ILP- 500	500
ILP- 750	750
ILP- 1,500	1,500
ILP- 1,600	1,600
ILP- 2,000	2,000
ILP- 2,500	2,500
ILP- 3,000	3,000
ILP- 7,000	7,000
ILP- 15,000	15,000
ILP- 20,000	20,000
LLP- 1,500	1,500
LLP- 1,600	1,600
LLP- 2,000	2,000
LLP- 2,500	2,500
LLP- 3,000	3,000
IHP- 300	300
IHP- 400	400
IHP- 1,000	1,000
IHP- 2,000	2,000
LHP- 300	300
LHP- 400	400
LHP- 1,000	1,000

Catalog No.	Center Frequency
IBP - 200	200
IBP - 250	250
IBP - 400	400
IBP - 800	800
IBP - 1,000	1,000
IBP - 1,500	1,500
IBP - 2,000	2,000
IBP - 3,000	3,000
IBP - 5,600	5,600
IBP -10,000	10,000
IBP -15,000	15,000
LBP- 300	300
LBP- 400	400
LBP- 600	600
LBP- 1,000	1,000
LBP- 1,500	1,500
LBP- 2,000	2,000
LBP- 3,000	3,000
LBP-10,000	10,000
LBP-20,000	20,000

NEW CIRCUIT REVISES WILLIAMSON HI-FIDELITY AMPLIFIER FOR IMPROVED PERFORMANCE.



- Frequency response; .1DB from 20 to 30,000 cps. at 20W.
- Harmonic distortion: 0.4% from 20 to 30,000 cps. at 20W.
- Two section L-C filter for improved stable performance.
- 20 Watt output connected as Williamson amplifier.
- 10 Watt output connected as ultra linear amplifier.

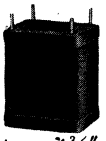
FREED supplies the following parts from stock.

Catalog No.	Application	Rating	Case No.
KA-10	output transf.	Prim: 10,000 Ω ct. Sec. 16/8 Ω	VS-506
KC-10	filter reactor	12Hy at 165MA, RDC 180 Ω	VS-304
KC-11	filter reactor	20Hy at 30MA, RDC 1,250 Ω	CH-40
KP-10	power transf.	Pri: 115V 60cps; Sec. 1: 1100 Vct at 150MA; Sec. 2:6.3Vct at 4A; Sec. 3: 5V at 3A.	VS-606

FREED TRANSFORMER COMPANY, INC.

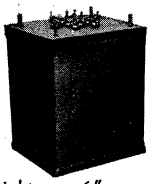
CASE DIMENSIONS

DC-4B CASE



Height: 4¾″
Width: 3⅛″
Length: 3″
Mounting: 4 8-32 Studs
Mtg. Cen.: 2½″ x 2½″
Cutout: (2)1⅜″ x ⅝″

DC-6B CASE



Height: 6″
Width: 5″
Length: 4⅛″
Mounting: 4 10-32 Sds
Mtg. Cen.: 3¾″ x 3″
Cutout: 3″ Dia.

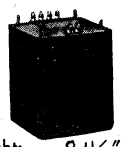
OL-MA-2 CASE

Height: 4″
Width: 4⅝″
Length: 3 15/16″
Mounting: 4 10-32 Sds
Mtg. Cen.: 2½″ x 3¾″
Cutout: (2)2¾″ x ¾″

OL-112-1 CASE

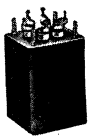
Height: 6″
Width: 5⅞″
Length: 4¾″
Mounting: 4 ¼-20 Sds
Mtg. Cen.: 4¾″x3⅝″
Cutout: 3″ dia.

FH-EA CASE



Height: 2 11/16″
Width: 1⅞″
Length: 1¾″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1⅜″ x 1¼″
Cutout: 1 5/16″

DM-03 CASE



Height: 2½″
Width: 1½″
Length: 1½″
Mounting: 4 6-32 Studs
Mtg. Cen.: 1 1/16″ x 1 1/16″
Cutout: 1¼″ Dia.

ULTRASONICS

New developments and applications of ultrasonics for industrial cleaning, soldering, welding, and mixing have created a demand for generators and components specifically designed for ultrasonic applications.

Using the latest developments in the field of special magnetic materials the FREED ultrasonic transformers are designed for greatest efficiency and maximum reliability. They feature small size, excellent performance and long life under continuous duty operation.

Transformers with an extended frequency range (frequencies up to 2 MC) can be supplied upon request.

ULTRASONIC DRIVER AND INPUT TRANSFORMERS

Frequency response: ± 1 DB 10 KC to 60 KC.

Catalog No.	Application	Primary Impedance Ohms	Ratio	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULI-20	Transducer to PP 811A	1, 2, 4	1:17.3	5		DM-03
ULD-20	PP 6CM6 to PP 811A	10,000	4.4:1	5	50	DM-03
ULD-50	PP 5881 to PP 8000	7,200	1.7:1	25	90	FH-EA

ULTRASONIC OUTPUT TRANSFORMERS

Frequency response: ± 1 DB 20 KC to 60 KC.

Catalog No.	Application	Impedance in Ohms Primary	Secondary	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULO-10	PP 6083 to transducer	7,600	1/4	100	120	DC-4B
ULO-11	Same	7,600	2/8	100	120	DC-4B
ULO-12	Same	7,600	4/16	100	120	DC-4B
ULO-13	Same	7,600	7.5/30	100	120	DC-4B
ULO-30	PP 811A to transducer	12,400	1/4	300	170	DC-4B
ULO-31	Same	12,400	2/8	300	170	DC-4B
ULO-32	Same	12,400	4/16	300	170	DC-4B
ULO-33	Same	12,400	7.5/30	300	170	DC-4B
ULO-34	Same	12,400	25	300	170	DC-4B
ULO-35	Same	12,400	125/500	300	170	DC-4B
ULO-36	Same	12,400	250/1000	300	170	DC-4B
ULO-37	Same	12,400	75/300	300	170	DC-4B
ULO-52	PP 8000 to transducer	10,800	4/16	500	230	OL-MA-2
ULO-53	Same	10,800	7.5/30	500	230	OL-MA-2
ULO-54	Same	10,800	25/100	500	230	OL-MA-2
ULO-55	Same	10,800	125/500	500	320	OL-MA-2
ULO-56	Same	10,800	250/1000	500	230	OL-MA-2
ULO-101	PP. Par. 8000 to transducer	5,400	25/100	1000	430	DC-6B
ULO-104	Same	5,400	75/300	1000	430	DC-6B
ULO-110	Same	5,400	18.8/75/300	1000	430	OL-112-1

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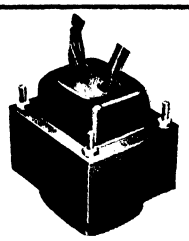
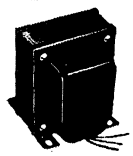
FREED TRANSFORMER COMPANY, INC.

COMMERCIAL GRADE COMPONENTS

CASE DIMENSIONS



Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
HS300	2⅝	3	2½	2½x2	(4) #6x⅜
HS303	2⅞	3	2½	2½x2	(4) "
HS306	3¼	3	2½	2½x2	(4) "
HS307	3⅝	3	2½	2½x2	(4) "
HS503	3⅝	3¾	3⅛	3⅛x2½	(4) "
HS505	3¾	3¾	3⅛	3⅛x2½	(4) "
HS603	3¾	4½	3¾	3¾x3	(4) "
HS605	4	4½	3¾	3¾x3	(4) "
HS606	4⅛	4½	3¾	3¾x3	(4) "
HS610	4⅝	4½	3¾	3¾x3	(4) "
HS612	4⅞	4½	3¾	3¾x3	(4) "
HS708	5¾	5¼	4⅜	4⅜x3½	(4) 5/16x31/32
HS709	6	5¼	4⅜	4⅜x3½	(4) "



Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Holes
VS300	3½	2⅝	2¾	2x1⅞	(4) #6x⅜
VS303	3½	2⅝	3	2x1⅞	(4) "
VS304	3½	4¼	3¼	2½x3	(4) "
VS306	3½	2⅝	3⅜	2x2¾	(4) "
VS307	3½	2⅝	3½	2x2¾	(4) "
VS503	3½	3¼	3⅝	2½x2⅝	(4) "
VS505	3½	3¼	3⅞	2½x2⅝	(4) "
VS506	3½	3¼	4¼	2¼x3	5/16x⅜
VS508	3⅝	2⅝	3⅛	2x2½	(4) "
VS603	4	3⅞	3⅞	3x2⅝	(4) "
VS605	4	3⅞	4⅛	3x2⅝	(4) "
VS606	4	3⅞	4¼	3x3⅛	(4) "
VS610	4	3⅞	4¾	3x3⅝	(4) "
VS612	4	3⅞	5	3x3⅝	(4) "
VS708	5⅜	4⅝	5¾	3½x4	(4) 5/16x31/32
VS709	5⅜	4⅝	5⅞	3½x4⅛	(4) "

These components are designed to meet the demand for low-cost replacement parts for commercial electronic equipment.

The best commercially available materials have been utilized in the design of these units, to insure reliability and excellent performance characteristics Vacuum impregnation with a non-hygroscopic varnish to prevent penetration of humidity are employed to give these units long life and trouble-free performance.

230-115 V, 50-60 C. P. S. Stepdown Transformers rated from 25 V A up to 5,000 V A Rating and line booster transformers are included in this series.

All units, with only a few exceptions, are uncased or of shell-type construction.

Isolation transformers and Stepdown transformers are equipped with line cord and receptacle

POWER TRANSFORMERS

All primaries designed for 115-volt, 50-60 cycle operation.

Catalog No.	Pv Va	Hi Volt	Choke Input D.C.V.	Choke Input D.C.Ma.	Cond. Input D.C.V.	Cond. Input D.C.Ma.	Bias Tap	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
RGP 1 RGP 2	45 "	500V CT "			270 "	40 "		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		VS300 HS300
RGP 3 RGP 4	57 "	600V CT "			330 "	50 "		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		VS303 HS303
RGP 5 RGP 6	64 "	650V CT "			370 "	50 "		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		VS303 HS303
RGP 7 RGP 8	73 "	600V CT "			320 "	70 "		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		VS306 HS306
RGP 9 RGP 10	110 "	650V CT "	225 "	140 "	330 "	100 "		5Y3, 5U4	5V @ 3A	6.3V @ 5A		VS503 HS503
RGP 11 RGP 12	76 "	700V CT "	260 "	100 "	385 "	70 "		5Y3	5V @ 2A	6.3V @ 2.5A		VS307 HS307
RGP 13 RGP 14	108 "	700V CT "	250 "	125 "	370 "	90 "		5Y3, 5U4	5V @ 3A	6.3V @ 5A		VS503 HS503
RGP 15 RGP 16	127 "	700V CT "	260 "	170 "	350 "	120 "		5U4	5V @ 3A	6.3V @ 5A		VS505 HS505
RGP 17 RGP 18	146 "	700V CT "	260 "	210 "	350 "	150 "		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	VS603 HS603
RGP 19 RGP 20	207 "	800V CT "	295 "	280 "	400 "	200 "		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		VS606 HS606
RGP 21 RGP 22	225 "	800V CT "	295 "	280 "	400 "	200 "	80 "	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	VS606 HS606
RGP 23 RGP 24	268 "	840V CT "	330 "	350 "	450 "	250 "	80 "	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	VS612 HS612
RGP 25 RGP 26	320 "	900V CT "	340 "	420 "	490 "	300 "	80 "	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	VS708 HS708
RGP 27 RGP 28	127 "	900V CT "	360 "	150 "				5U4	5V @ 3A	6.3V @ 5A		VS603 HS603
RGP 29 RGP 30	150 "	900V CT "	350 "	200 "				5U4	5V @ 3A	6.3V @ 5A		VS605 HS605
RGP 31 RGP 32	203 "	1100V CT "	400 "	250 "				5R4GY	5V @ 3A	6.3V @ 5A		VS610 HS610
RGP 33 RGP 34	248 "	1100V CT "	420 "	300 "				2-5R4GY	5V @ 4A	6.3V @ 7A		VS612 HS612
RGP 35 RGP 36	310 "	1280V CT "	480 "	350 "				2-5R4GY	5V @ 4A	6.3V @ 7A		VS709 HS709

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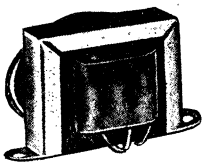
CASE DIMENSIONS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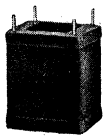
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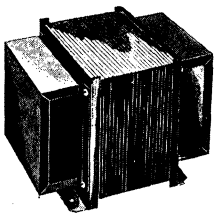
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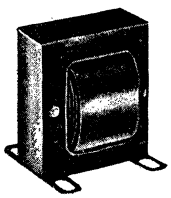
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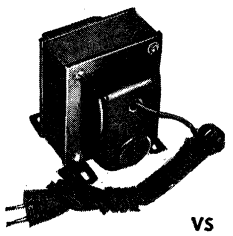
VS

Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
DC2B	3 1/16	2 5/16	2 1/4	2x1 3/4	(4)8-32
DC4A	3 3/4	3 1/16	3	2 1/32x2 1/2	(4)8-32
DC5C	4 7/16	4 1/16	3 1/2	3 1/16x2 5/16	(4)10-32
DC6A	4 7/16	5	4 1/16	3 3/4x3	(4)10-32
CH50	1 15/16	2 5/16	1 3/4	2 3/16	(2) #8
CH60	2	3 1/4	1 3/4	2 5/16	(2) #8
CH62	2	3 1/4	2 1/16	2 5/16	(2) #8
CH70	2 5/16	3 11/16	2 1/4	3 1/16	(2) #8
CH80	2 5/8	4	2 5/8	3 5/16	(2) #8
FV10	3 1/16	2 1/2	2 5/16	2x2	(4) 13/64x31/64
FV12	3 1/16	2 1/2	2 5/16	2x2 1/16	(4) 13/64x31/64
FV22	3 7/16	2 5/16	2 7/16	2 1/4x2 1/4	(4) 5/16x3/8
FV30	3 25/32	3 1/16	3	2 1/32x2 1/4	(4) 13/64x31/64
HB718	6 1/4	6 3/16	8 1/2	4 3/4x4 3/4	(4) 5/32x31/64
HB728	6 1/4	6 1/2	9 3/4	4 3/4x5 3/4	(4) 5/32x31/64
HB828	6 5/8	7 5/16	9 7/8	5 5/8x5 3/4	(4) 5/32x31/64
HB920	6 5/8	7 3/16	10 1/4	6 1/2x7 5/16	(4) 5/32x31/64
VS300	3 5/32	2 5/8	3	2x2	(4) 5/16x3/8
VS401	3 5/8	2 5/16	3 1/4	2 1/4x1 5/16	(4) 5/16x3/8
VS501	3 29/32	3 1/4	3 3/8	2 1/32x2 1/16	(4) 5/16x3/8
VS503	3 29/32	3 1/4	3 3/8	2 1/32x2 5/16	(4) 5/16x3/8
VS601	4 21/32	3 1/8	3 5/8	3x2 7/16	(4) 5/16x3/8
VS604	4 21/32	3 1/8	4	3x2 7/8	(4) 5/16x3/8
VS611	4 21/32	3 1/8	4 7/8	3x3 11/16	(4) 5/16x3/8
VS612	4 21/32	3 1/8	5	3x3 11/16	(4) 5/16x3/8
VS700	5 7/16	3 1/8	5	3 1/32x3 1/4	(4) 5/16x3/8
VS706	5 7/16	4 5/16	5 1/2	3 1/32x3 3/4	(4) 5/32x31/64
VS714	5 7/16	4 5/16	6 1/2	3 1/32x4 3/4	(4) 5/32x31/64
VS718	5 7/16	4 5/16	7	3 1/32x5 1/4	(4) 5/32x31/64
VS728	5 7/16	4 5/16	8 1/4	3 1/32x6 1/32	(4) 5/32x31/64

COMMERCIAL GRADE COMPONENTS

FILAMENT TRANSFORMERS

All primaries are for 115V, 50/60 c.p.s.

Catalog No.	Secondary Voltage	Secondary Current Amps.	Secondary Test Voltage RMS	Case Size
TF 1	2.5 (C.T.)	7.5	1500	CH60
TF 2	2.5 (C.T.)	10	1500	CH70
TF 3	2.5 (C.T.)	5	7500	DC2B
TF 4	2.5 (C.T.)	10	7500	DC4A
TF 5	5.0 (C.T.)	4	1500	CH60
TF 6	5.0 (C.T.)	6	1500	CH70
TF 7	5.0 (C.T.)	10	1500	CH80
TF 8	5.0 (C.T.)	10	1500	FV10
TF 9	5.0 (C.T.)	20	2500	FV30
TF 10	5.0 (C.T.)	20	10,000	DC6A
TF 11	6.3 (C.T.)	1.35	1500	CH50
TF 12	6.3 (C.T.)	3	1500	CH60
TF 13	6.3 (C.T.)	5	1500	CH70
TF 14	6.3 (C.T.)	7	1500	FV12
TF 15	6.3 (C.T.)	10	1500	FV22
TF 16	10 (C.T.)	5	2500	CH80
TF 17	10 (C.T.)	5	2500	FV10
TF 18	10 (C.T.) or 11 (C.T.) (tapped primary)	12 or 11	7500	DC-5C
TF 19	12.6 (C.T.)	2	1500	CH62

TF 3, 4 & 10 supplied with terminals. All others with leads.

AUTO TRANSFORMERS

To be used as step-down transformer. Equipped with standard receptacle and line cord.

Catalog No.	Transformation	VA Rating	Weight (lbs.)	Case Size
SDT 1*	230/115 V. 50/60 c.p.s.	25	1	CH-60
SDT 2*	230/115 V. 50/60 c.p.s.	50	1 1/4	CH-62
SDT 3	230/115 V. 50/60 c.p.s.	50	2 1/2	VS-300
SDT 4	230/115 V. 50/60 c.p.s.	100	3	VS-401
SDT 5	230/115 V. 50/60 c.p.s.	200	5	VS-501
SDT 6	230/115 V. 50/60 c.p.s.	300	6 1/2	VS-601
SDT 7	230/115 V. 50/60 c.p.s.	400	8	VS-604
SDT 8	230/115 V. 50/60 c.s.p.	500	11	VS-611
SDT 9	230/115 V. 50/60 c.p.s.	750	15	VS-706
SDT 10	230/115 V .50/60 c.p.s.	1000	23	VS-718
SDT 11	230/115 V. 50/60 c.p.s.	1500	29 1/2	VS-728
SDT 12*	230/115 V. 50/60 c.p.s.	2000	37	HB-718
SDT 13*	230/115 V. 50/60 c.p.s.	2500	47	HB-728
SDT 14*	230/115 V. 50/60 c.p.s.	3000	58	HB-828
SDT 15*	230/115 V. 50/60 c.p.s.	5000	72	HB-920

*Supplied with leads without line cord and receptacle.

ISOLATION TRANSFORMERS

Electrostatic shield between primary and secondary. Equipped with standard receptacle and line cord.

Catalog Number	Primary Voltage 50/60 c.p.s	Secondary Voltage	VA Rating	Case Size
IT 1	115	115	50	VS-401
IT 2	115	115	100	VS-503
IT 3	115	115	300	VS-700
IT 4	115	115	500	VS-714
IT 5*	220/440	110/220	250	VS-612
IT 6*	220/440	110/220	500	VS-714

*Supplied with leads without line cords and receptacle.

LINE BOOSTER TRANSFORMERS

Operates from 90 to 110 volts input to provide 10% step-up.

Catalog Number	Primary Voltage	Secondary Voltage	VA Rating	Case Size
LB-1	90-110	1.1 x input	350	VS-300
LB-2	90-110	1.1 x input	2000	VS-611

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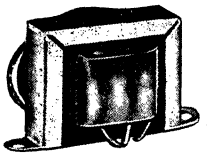
COMMERCIAL GRADE COMPONENTS

CASE DIMENSIONS

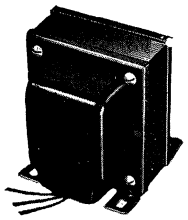


CH-40 CASE
Height: 1 1/16"
Width: 2 3/8"
Depth: 1 3/16"
Mtg. Cen.: 2"

CH-50 CASE
Height: 1 11/16"
Width: 2 13/16"
Depth: 1 3/4"
Mtg. Cen.: 2 3/8"

CH-60 CASE
Height: 2"
Width: 3 1/4"
Depth: 1 3/4"
Mtg. Cen.: 2 13/16"

CH-80 CASE
Height: 2 5/8"
Width: 4"
Depth: 2 5/8"
Mtg. Cen.: 3 9/16"



VS-100 CASE
Height: 2 11/32"
Width: 1 7/8"
Depth: 2 1/4"
Mtg. Cen.: 1 1/2" x 1 7/16"

VS-300 CASE
Height: 3 3/32"
Width: 2 5/8"
Depth: 2 3/4"
Mtg. Cen.: 2" x 1 11/16"

VS-303 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3"
Mtg. Cen.: 2 x 1 15/16
Mtg. Hole: (4) 3/16 x 3/8

VS-306 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3 3/8"
Mtg. Cen.: 2 x 2 5/16
Mtg. Hole: (4) 3/16 x 3/8

VS-308 CASE
Height: 3 33/64"
Width: 2 21/32"
Depth: 3 3/8"
Mtg. Cen.: 2" x 2 9/16"

AUDIO TRANSFORMERS

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Max. Power Level DBM or Power in Watts	Ratio	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Freq. Response C.P.S.	Case No.
RGA 1	Input, multiple line or double button mike to single or push-pull grids.	500 CT 200 CT	100.000 CT	+20	1:14.1	50	5	±2DB 200-5000	CH-40
RGA 2	Input, single button mike to single or push-pull grids.	100	100.000 CT	+20	1:31.6	50		±2DB 200-5000	CH-40
RGA 3	Input, voice coil to grid. Intercom	3.2	100,000	+20	1:179			±2DB 200-5000	CH-40
RGA 4	Mixing and matching line to line.	600 CT 500 CT 200 CT 150/125/50	600 CT 500 CT 200 CT 150/125/50	+20	1:1			±2DB 100-5000	CH-40
RGA 5	Interstage, single triode plate to single or P.P. grids.	10.000	90.000 CT	+30	1:3	10		±2DB 200-5000	CH-40
RGA 6	Output, single plate to line or mixer.	10.000	600 CT 500 CT 200 CT 150/125/50	+30	4.8:1	10		±2DB 200-5000	CH-40
RGA 7	Output, Push-pull plate to line or mixer.	20.000 CT	600 CT 500 CT 200 CT 150/125/50	+30	6.32:1	10	1	±2DB 200-5000	CH-40
RGA 8	Output, plate to V.C. 6AL6, 6L6, 6Y6, 25B6, 25C6, 35A5, 35B5, 35C5, 50B5, 50C5, 50C6, 50L6, 117N7.	2500	3.2	5W		70		±3DB 200-10000	CH-40
RGA 9	Output, plate to V.C. 6V6, 6AQ5, 6AS5, 7C5.	5000	3.2	5W		50		±3DB 200-10000	CH-40
RGA 10	Output, plate to V.C. 6AR5, 6K6, 6V6, 7B5, 14A5, 3S4, 3U4, 3Q4, 3Q5, 3C5, 3A4.	10.000 or 7500	3.2	5W		30		±3DB 200-10000	CH-40
RGA 11	Output, P.P. plates to V.C. P.P. 6V6, PP6K6.	12.000 CT or 8000 CT	3.2	15W		50	5	±2DB 200-8000	CH-60
RGA 12	Output: TP to V.C. 6V6, 6AQ5, 7C5, C1AB.	10,000 CT	3.2	10W	5.6:1	40	4	±3DB 200-10000	CH-60

COMMERCIAL GRADE CHOKES

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance	Dielectric Test Voltage	Case Number
RGC 17	40	15	2000	1000	CH-40
RGC 1	4	40	200	1000	CH-40
RGC 2	9	40	400	1000	CH-40
RGC 3	6	50	400	1000	CH-40
RGC 18	20	50	425	1500	CH-60
RGC 4	10	55	400	1500	CH-50
RGC 19	3	75	200	1500	CH-40
RGC 5	10	75	250	1500	CH-60
RGC 6	10	75	250	1500	VS-100
RGC 7	6	100	150	1500	CH-60
RGC 8	6	100	150	1500	VS-100
RGC 9	3.5	150	100	1500	CH-60
RGC 10	3.5	150	100	1500	VS-100
RGC 20	12	160	180	2500	VS-306
RGC 11	2	200	60	1500	CH-60
RGC 12	2	200	60	1500	VS-100
RGC 13	3.7	200	65	1500	CH-80
RGC 21	7	200	100	2500	VS-303
RGC 14	3.7	200	65	1500	VS-300
RGC 15	2.8	300	65	1500	CH-80
RGC 16	2.8	300	65	1500	VS-300
RGC 22	5	300	65	2500	VS-308

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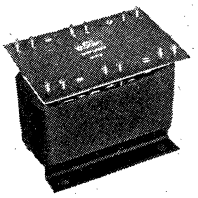
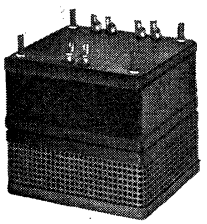
SINGLE ENDED MAGNETIC AMPLIFIERS

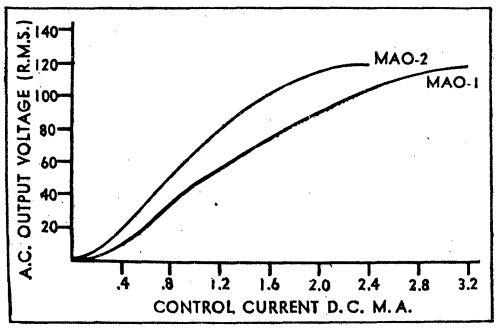
THE MAO LINE OF SINGLE-ENDED MAGNETIC AMPLIFIERS PROVIDES A SINGLE STAGE OF DC CONTROLLED AMPLIFICATION, UTILIZING POSITIVE FEEDBACK TO OBTAIN MUCH HIGHER GAIN THAN THAT OF A SATURABLE REACTOR.

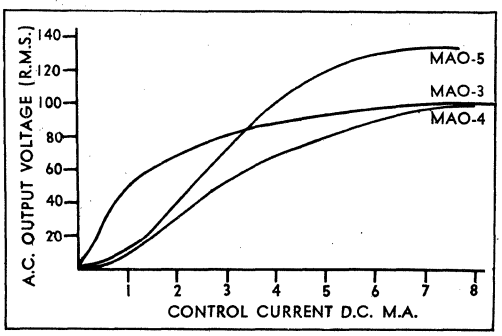


FREED NO.	MAO-1	MAO-2	MAO-3	MAO-4	MAO-5
POWER SUPPLY	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. to the MAO-T-5 Transformer 60 Cycles
MAXIMUM OUTPUT WATTAGE	4 watts	20 watts	100 watts	400 Watts	575 watts
VOLTAGE	120V	120V	100V	100V	135V
TYPICAL LOAD	4000 ohms	700 ohms	100 ohms	25 ohms	25 ohms
INPUT SIGNAL REQ. FOR FULL OUTPUT	3 ma.	1.8 ma.	9 ma.	9 ma.	6 ma.
CONTROL WINDING RESISTANCE	300 ohms each	700 ohms each	5600 ohms each	4,500 ohms each	4,500 ohms
PHYSICAL DIMENSIONS	3¾" x 4" x 3½"H	4¼" x 3⅝" x 6⅜"H	3¼" x 5½" x 4 13/16"H	5" x 7½" x 6"H	5" x 7½" x 6"H Transf. 3⅞" x 3⅞" x 3¾"H
WEIGHT	4 lbs.	7 lbs.	8½ lbs.	21 lbs.	21 lbs. Transf. 7¼ lbs.



Transfer characteristic curves





FREED TRANSISTOR CONVERTERS

THE FREED LINE OF HERMETICALLY SEALED DC TO AC AND DC TO DC TRANSISTOR CONVERTERS PROVIDE A HIGH EFFICIENCY VOLTAGE CONVERSION FROM BATTERY SOURCES TO AN AC LINE VOLTAGE OR HIGH DC VOLTAGE WITHOUT THE USE OF MOVING PARTS.

Freed Transformer Co. maintains a stock line of reliable, highly efficient static DC to DC and DC to AC converters.

DC TO DC converters in hermetically sealed cans. RF filters included inside case.

The MAC Line of Static DC to DC and DC to AC Converters provide a highly efficient voltage conversion from battery sources to AC or DC voltage without the use of moving parts.

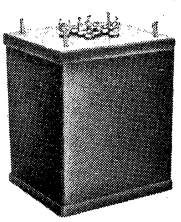
The output voltage and/or frequency is directly proportional to source voltage variation.

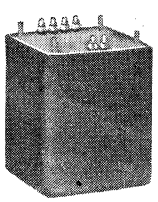
Special regulators can be supplied to compensate for this variation.

- **RUGGED, QUIET, MAINTENANCE FREE, LONG LIFE OPERATION.**
- **HIGH POWER TO WEIGHT RATIO, ARC-FREE OPERATION.**

DC TO DC CONVERTERS

All *TDC* units are Hermetically Sealed, Oil Filled. Mtg. base plate must be mounted on a sink of sufficient area to maintain a base temperature of 70°C. Maximum output regulation 5% from half load to full load. Ripple frequency 4 to 5 KC; Ripple content 0.1%.





UNREGULATED TDC STOCK UNITS

TYPE #	NOM. Vin	V out	MAX I out MA	Case Size
TDC 12-30-15	12v	300	150	3 1/16 x 3 3/16 x 3 7/8H
TDC 12-25-12	12v	250	120	3 1/16 x 3 3/16 x 3 7/8H
TDC 12-30-05	12v	300	50	2 5/8 x 2 1/4 x 3 1/2H
TDC 12-20-05	12v	200	50	2 5/8 x 2 1/4 x 3 1/2H
TDC 28-30-15	28v	300	150	3 1/16 x 3 3/16 x 3 7/8H
TDC 28-25-12	28v	250	120	3 1/16 x 3 3/16 x 3 7/8H
TDC 28-30-05	28v	300	50	2 5/8 x 2 1/4 x 3 1/2H
TDC 28-20-05	28v	200	50	2 5/8 x 2 1/4 x 3 1/2H

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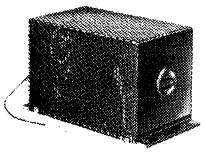
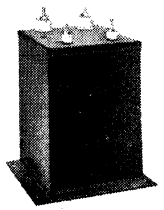
DC TO AC TRANSISTOR CONVERTERS

INPUT VOLTAGE — 12 VDC
OUTPUT FREQUENCY — 60 CPS. — SQUARE WAVE


OPEN CASE

FREED NO.	OUTPUT VOLTAGE	POWER	TYPE OF CASE	DIMENSIONS
MAC 12-3-60	115 VRMS	30 VA	OPEN	7 1/4 x 3 1/8 x 4 3/8
MAC 12-10-1	115 VRMS	100 VA	OPEN	7 1/4 x 4 x 5
MAC 12-10-2	115 VRMS	100 VA	SEALED	7 1/4 x 4 1/8 x 4 13/16
MAC 12-20-1	115 VRMS	180 VA	OPEN	6 x 4 1/8 x 6
MAC 12-20-2	115 VRMS	180 VA	SEALED	6 x 4 1/8 x 6
MAC 12-30-1	115 VRMS	250 VA	OPEN	5 7/8 x 6 1/8 x 7 1/16
MAC 12-30-2	115 VRMS	250 VA	SEALED	5 7/8 x 6 1/8 x 7 1/16


SEALED CASE

DC TO AC TRANSISTOR CONVERTER

- Output Waveform — Square Wave
- Output Frequency — 60 cps (Adjustment Control)
- Frequency Stability ±3%
- Hermetically Sealed
- Maximum Ambient Temperature 50°C
- Temperature of Base Mounting Plate must not exceed 70°C
- Output Voltage Variation
  a. Regulated Unit — ±5% for ±15% Input Variation — No Load to Full Load
  b. Unregulated Unit — Varies Directly with Input Voltage

	NOMINAL INPUT V.D.C.	OUTPUT @ 115 v VA	CASE UNREG.	CASE REG.*
TAC-12-50	12	50	4 1/8 x 3 1/2 x 4 1/2"H	—
TAC-12-90	12	90	4 1/8 x 3 1/2 x 4 7/8"H	—
TAC-12-175	12	175	5 x 4 1/8 x 6"H	—
TAC-28-50	28	50	4 1/8 x 3 1/2 x 4 1/2"H	4 1/8 x 3 1/2 x 4 7/8"H
TAC-28-100	28	100	4 1/8 x 3 1/2 x 4 7/8"H	5 x 4 1/8 x 6"H
TAC-28-175	28	175	5 x 4 1/8 x 6"H	—
TAC-28-250	28	250	5 1/2 x 5 x 6 3/4"H	—

*ADD "R" (SUFFIX) TO REGULATED UNITS.

DC TO AC INVERTERS WITH SINE WAVE OUTPUTS ARE AVAILABLE IN TYPES LISTED BELOW

INPUT VOLTAGE — 5 VOLTS
OUTPUT VOLTAGE — 5 VOLTS ± 5% (NOM)

FREED NO.	FREQUENCY	DISTORTION	POWER
MAC 5-2-F-1	600 cps.	4% Max.	.5 VA
MAC 5-1-F-2	1200 cps.	4% Max.	.5 VA
MAC 5-3-F-2	2400 cps.	4% Max.	.5 VA
MAC 5-4-F	4800 cps.	4% Max.	.5 VA

These units will operate in an ambient of 20 degrees C to 50 degrees C with the nominal output voltage constant within ± .15% over the temperature range.
Case size is 1 7/8" x 2" x 5" high. Connections are brought out to an octal plug.

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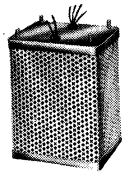
FREED TRANSFORMER COMPANY, INC.

CONSTANT VOLTAGE TRANSFORMERS

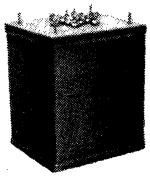
THE MCV LINE OF HERMETICALLY SEALED CONSTANT VOLTAGE TRANSFORMERS PROVIDES ACCURATE REGULATION AGAINST LINE AND/OR LOAD VARIATIONS, WITHOUT THE USE OF TUBES OR MOVING PARTS.

- MILITARY SPECIFICATIONS
- COMMERCIAL
- ACCURATE REGULATIONS
- FULLY AUTOMATIC
- NO TUBES
- NO MOVING PARTS
- FAST RESPONSE

Rated Output within 2% of Nominal Value. Regulation Automatically Maintained within plus/minus 1%. Regulation from 0 — to full load plus/minus 2% output waveform — 20% distortion.



COMMERCIAL



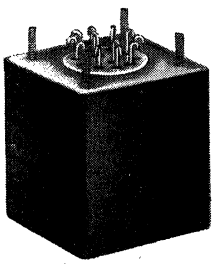
MILITARY

REG. OUTP in R.M.S. VOLTS	INP. RANGE in R.M.S. VOLTS	OUTPUT in V.A. P.F-1	CATALOG NUMBERS 60 Cycles Comm.	60 Cycles Military*	400 Cycles Comm.*	400 Cycles Military*
115	95-130	5	MCV65LC	MCV65LM	MCV45LC	MCV45LM
115	95-130	25	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	75	MCV675LC	MCV675LM	MCV475LC	MCV475LC
115	95-130	125	MCV6125LC	MCV6125LM	MCV4125LC	MCV4125LM
115	95-130	175	MCV6175LC	MCV6175LM	MCV4175LC	MCV4175LM
115	95-130	250	MCV6250LC	MCV6250LM	MCV4250LC	MCV4250LM
115	95-130	375	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	500	MCV6500LC	MCV6500LM	MCV4500LC	MCV4500LM
115	95-130	750	MCV6750LC	MCV6750LM	MCV4750LC	MCV4750LM
115	95-130	1000	MCV61000LC	MCV61000LM	MCV41000LC	MCV41000LM
26	95-130	5	MCV6-5-4FC	MCV6-5-4FM	MCV454FC	MCV454FM
26	95-130	25	MCV6254FC	MCV6254FM	MCV4254FC	MCV4254FM
26	95-130	75	MCV6754FC	MCV6754FM	MCV4754FC	MCV4754FM
26	95-130	125	MCV61254FC	MCV61254FM	MCV41254FC	MCV4125FM
6.4	95-130	5	MCV6-5FC	MCV6-5FM	MCV45FC	MCV45FM
6.4	95-130	25	MCV625FC	MCV625FM	MCV425FC	MCV425FM
6.4	95-130	75	MCV675FC	MCV675FM	MCV475FC	MCV475FM
6.4	95-130	125	MCV6125FC	MCV6125FM	MCV125FC	MCV4125FM

*Condensers are not provided with units. Where condensers are provided they are external to units.

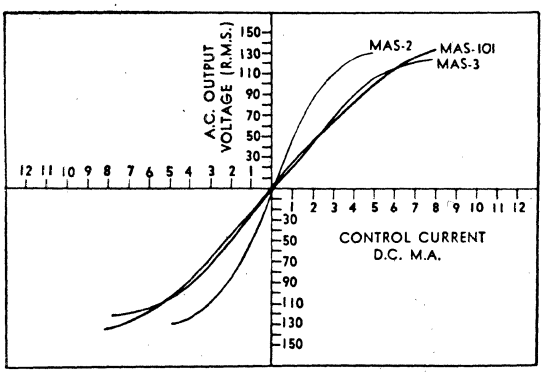
FREED SATURABLE TRANSFORMERS

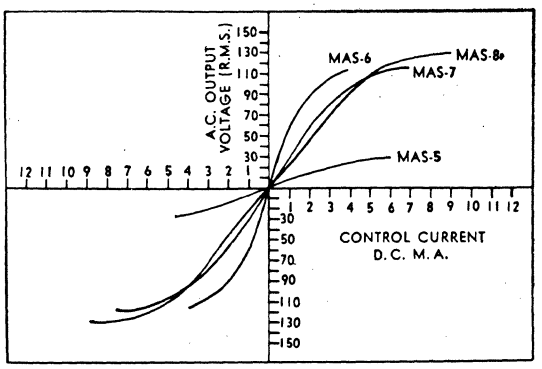
THE MAS LINE OF SATURABLE TRANSFORMERS, COMMONLY CONTROLLED BY DUAL-TRIODES OR TRANSISTORS, EMPHASIZES LOW COST, SMALL SIZE, EXTREME RELIABILITY (NO RECTIFIERS), AND PHASE-REVERSIBLE OUTPUT.



FREED NO.	MAS-1	MAS-2	MAS-3	MAS-5	MAS-6	MAS-7	MAS-8	MAS-101
POWER SUPPLY	115 V.A.C. 60 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 60 Cycles
MAXIMUM OUTPUT	15 watts	6 watts	30 watts	2.7 watts	30 watts	40 watts	10 watts	15 watts
WATTAGE VOLTAGE	130V	120V	120V	26V	120V	115V	125V	120V
TYPICAL LOAD	Diehl FPE 25-11	Kearfott R-110	Diehl FPE 49-7	Kearfott R-118	Diehl FPE 49-13-1	Bendix CK-3000-1A	Kearfott R-110 R-111	Diehl FPE 25-11
INPUT SIGNAL REQ. FOR FULL OUTPUT	6 ma.	3 ma.	8 ma.	4 ma.	4 ma.	6 ma.	11 ma.	9 ma.
RESP. TIME	ON OFF 2 cycles 5	ON OFF 3 cycles 6	ON OFF 3 cycles 30	ON OFF 10 cycles 35	ON OFF 12 cycles 9	ON OFF 12 cycles 9	ON OFF 6 cycles 3	ON OFF 3 cycles 6
CONTROL WINDING RESISTANCE	14 K ohms each	2000 ohms each	6800 ohms each	1500 ohms each	4000 ohms each	4000 ohms each	7000 ohms	3200 ohms each
PHYSICAL DIMENSIONS	3½" x 4⅛" x 5½"H	1¾" x 2⁹⁄₁₆" x 2¹³⁄₁₆"H	4¾" x 5⅞" x 5½"H	2¼" x 2⅛" 2¼"H	3¾" x 3¼" x 4"H	3¹³⁄₁₆" x 3¼" x 4"H	1⅝" x 2⅜" x 3⅛"H	3½" x 4⅛" x 5½"H
WEIGHT	9 lbs.	2 lbs.	18.5 lbs.	1.25 lbs.	6 lbs.	6 lbs.	21 oz.	9.75 lbs.

Transfer characteristic curves





Net

© U.C.P., Inc.

FREED TRANSFORMER COMPANY, INC. — PRICE LIST

Catalog No.	Net Price
EPT-1	7.50
EPT-2	7.50
EPT-3	7.50
EPT-4	7.50
EPT-5	7.50
EPT-6	7.50
EPT-7	7.50
EPT-8	9.50
EPT-9	9.50
EPT-11	7.50
EPT-12	7.50
EPT-13	9.50
EPT-14	9.50
EPT-15	12.50
EPT-16	12.50
EPT-17	11.50
EPT-18	11.50
EPT-19	11.50
Note—Molded Units $1.00 additional.	
IT-1	7.25
IT-2	10.55
IT-3	26.40
IT-4	31.95
IT-5	26.40
IT-6	34.95
KA-10	16.50
KP-11	9.05
KC-10	4.30
KC-11	1.45
LB-1	6.60
LB-2	19.20
MAC-12-3-60	29.95
MAC-12-10-1	43.50
MAC-12-10-2	59.00
MAC-12-20-1	62.00
MAC-12-20-2	70.00
MAC-12-30-1	85.00
MAC-12-30-2	110.00
MAC-5-2-F1	42.50
MAC-5-1-F2	42.50
MAC-5-3-F2	42.50
MAC-5-4F	42.50
MAF-4	78.00
MAF-5	80.00
MAF-6	180.00
MAF-7	180.00
MAO-1	70.00
MAO-2	102.00
MAO-3	110.00
MAO-4	155.00
MAO-5	175.00
MAP-1	90.00
MAP-2	150.00
MAP-3	225.00
MAP-3A	175.00
MAP-4	280.00
MAP-7	105.00
MAP-8	133.00
MAP-11	95.00
MAS-1	55.00
MAS-2	37.00
MAS-5	33.00
MAS-6	50.00
MAS-7	60.00
MAS-8	24.00
MAS-101	62.50
MCV-4-5LC	14.00
MCV-4-25LC	20.00
MCV-4-75LC	30.00
MCV-4-125LC	38.00
MCV-4-175LC	45.00
MCV-4-250LC	54.00
MCV-4-375LC	69.00
MCV-4-500LC	85.00
MCV-4-750LC	115.00
MCV-4-1000LC	143.00
MCV-4-5-4FC	14.00
MCV-4-25-4FC	20.00
MCV-4-75-4FC	30.00
MCV-4-125-4FC	38.00
MCV-4-5FC	15.00
MCV-4-25FC	21.00
MCV-4-75FC	31.00
MCV-4-125FC	39.00
MCV-4-5LM	22.00
MCV-4-25LM	28.00
MCV-4-75LM	39.00
MCV-4-125LM	48.00
MCV-4-175LM	55.00
MCV-4-250LM	66.00
MCV-4-375LM	81.00
MCV-4-500LM	100.00
MCV-4-750LM	131.00
MCV-4-1000LM	160.00
MCV-4-5-4FM	22.00
MCV-4-25-4FM	28.00
MCV-4-75-4FM	39.00
MCV-4-125-4FM	48.00
MCV-4-5FM	23.00
MCV-4-25FM	29.00
MCV-4-75FM	40.00
MCV-4-125FM	49.00
MCV-6-5LC	11.00
MCV-6-25LC	17.00
MCV-6-75LC	27.00
MCV-6-125LC	34.00
MCV-6-175LC	41.00
MCV-6-250LC	50.00
MCV-6-375LC	64.00
MCV-6-500LC	76.00
MCV-6-750LC	104.00

Catalog No.	Net Price
MCV-6-1000LC	128.00
MCV-6-54FC	11.00
MCV-6-25-4FC	17.00
MCV-6-75-4FC	27.00
MCV-6-125-4FC	34.00
MCV-6-5FC	12.00
MCV-6-25FC	18.00
MCV-6-75FC	28.00
MCV-6-125FC	35.00
MCV-6-5LM	20.00
MCV-6-25LM	26.00
MCV-6-75LM	37.00
MCV-6-125LM	45.00
MCV-6-175LM	53.00
MCV-6-250LM	62.00
MCV-6-375LM	76.00
MCV-6-500LM	90.00
MCV-6-750LM	123.00
MCV-6-1000LM	150.00
MCV-6-54FM	20.00
MCV-6-25-4FM	26.00
MCV-6-75-4FM	37.00
MCV-6-125-4FM	45.00
MCV-6-5FM	21.00
MCV-6-25FM	27.00
MCV-6-75FM	38.00
MCV-6-125FM	46.00
MGA-1	12.50
MGA-2	12.50
MGA-3	16.50
MGA-4	15.00
MGA-5	12.50
MGA-6	12.50
MGA-7	12.50
MGA-8	12.50
MGA-9	12.50
MGC-1	7.50
MGC-2	6.15
MGC-3	6.50
MGC-4	7.25
MGC-5	7.50
MGC-6	6.15
MGC-7	6.50
MGC-8	7.00
MGC-9	6.50
MGC-10	7.00
MGC-11	8.75
MGC-12	6.50
MGC-13	7.00
MGC-14	8.75
MGC-15	9.50
MGC-16	7.00
MGC-17	8.75
MGC-18	10.00
MGC-19	12.50
MGC-20	8.75
MGC-21	*
MGC-22	9.50
MGC-23	*
MGC-24	18.00
MGC-25	*
MGC-26	16.00
MGC-27	*
MGC-28	16.00
MGC-29	*
MGC-30	*
MGC-31	*
*Not stocked, available on short delivery. Prices on request.	
MGF-1	6.50
MGF-2	14.10
MGF-3	7.00
MGF-4	15.30
MGF-5	7.00
MGF-6	12.90
MGF-7	16.40
MGF-8	21.90
MGF-9	16.50
MGF-10	21.00
MGP-1	12.50
MGP-2	16.80
MGP-3	14.00
MGP-4	16.50
MGP-5	29.40
MGP-6	19.50
MGP-7	23.40
MGP-8	32.70
MPT-1	17.50
MPT-2	15.00
MPT-3	22.50
MPT-4	20.00
MPT-5	17.50
MPT-6	15.00
MPT-7	17.50
MPT-8	15.00
MPT-9	22.50
MPT-10	20.00
MPT-11	17.50
MPT-12	27.50
MPT-13C	11.60
MPT-13M	15.40
MPT-13H	19.20
MPT-14C	16.90
MPT-14M	20.90
MPT-14H	26.30
MPT-15C	15.60
MPT-15M	19.50
MPT-15H	26.50
MPT-16C	18.90
MPT-16M	22.90
MPT-16H	28.10

Catalog No.	Net Price
MPT-17C	19.50
MPT-17M	22.60
MPT-17H	26.60
MPT-18C	12.80
MPT-18M	16.60
MPT-19C	19.50
MPT-19M	22.60
MPT-19H	22.60
MPT-20C	14.80
MPT-20M	18.60
MPT-20H	24.00
MPT-21C	20.80
MPT-21M	23.50
MPT-21H	24.00
MPT-22C	19.50
MPT-22M	22.60
MPT-22H	26.60
MPT-23C	20.80
MPT-23M	23.50
MPT-23H	26.60
MPT-24C	13.70
MPT-24M	16.80
PGA-1	13.50
PGA-2	15.00
PGA-3	15.00
PGA-4	12.75
PGA-5	12.75
PGA-6	12.75
PGA-7	11.25
PGA-8	11.25
PGA-9	11.25
PGA-10	12.00
PGA-11	12.75
PGA-12	12.75
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PGA-16	18.75
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PGA-19	18.75
PGA-20	18.75
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PGP-1	9.25
PGP-2	13.50
PGP-3	6.60
PGP-4	6.90
PGP-5	7.25
PGP-6	7.90
PGP-7	9.25
PGP-8	8.60
PGP-9	9.25
PGP-10	10.20
PGP-11	13.85
PGP-12	16.50
PGP-13	18.15
PGP-14	21.80
PGP-15	25.35
PGP-16	11.55
PGP-17	13.50
PGP-18	18.15
PGP-19	21.80
PGP-20	27.00
PMA-1	9.90
PMA-2	8.10
PMA-3	11.40
PMA-4	8.10
PMA-5	8.10
PMA-6	9.90
PMA-7	9.90
PMA-8	9.90
PMA-9	9.90
PMA-10	9.30
PMA-11	7.20
PQC-1	6.00
PQC-2	6.00
PQC-3	6.00
PQC-4	6.00
PQC-5	6.00
PQC-6	6.00
PQC-7	6.00
PQC-8	6.00
PQC-9	6.00

Catalog No.	List Price
QGA-1	18.60
QGA-2	23.10
QGA-3	16.50
QGA-4	23.10
QGA-5	21.00
QGA-6	24.30
QGA-7	16.50
QGA-8	23.10
QGA-9	23.10
QGA-10	26.40
QGA-11	19.80
QGA-12	19.80
QGA-13	16.50
QGA-14	17.10
QGA-15	21.00
QGA-16	17.10
QGA-17	17.10
QGA-18	18.30
QGA-19	17.10
QGA-20	21.90
QGA-21	19.80
QGA-22	33.00
QGA-23	23.10
QGA-24	23.10
QGA-25	23.10
QGA-26	23.10
QGA-27	23.10
QGA-28	23.10
QGA-29	23.10
QGA-30	23.10
QGA-31	29.70
QGA-32	29.70
QGA-33	29.70
QGA-34	29.70
QGA-35	32.70
QGA-36	32.70
QGA-37	19.80
QGA-38	32.70
QGA-39	23.10
QGA-40	23.10
QGA-41	32.70
QGA-42	32.70
QGC-1	22.50
QGC-2	22.50
QGC-3	22.50
QGC-4	22.50
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QGC-7	22.50
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QGC-9	15.00
QGC-10	15.00
QGC-11	15.00
QGC-12	15.00
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QGC-18	13.50
QGC-19	11.50
QGC-20	11.50
QGC-21	11.50
QGC-22	11.50
QGC-23	11.50
QGC-24	11.50
RGA-1	3.60
RGA-2	2.90
RGA-3	2.90
RGA-4	5.10
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RGA-6	3.45
RGA-7	3.60
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RGA-9	1.65
RGA-10	1.98
RGA-11	3.60
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RGC-1	1.47
RGC-2	1.47
RGC-3	1.47
RGC-4	1.65
RGC-5	1.98
RGC-6	2.97
RGC-7	1.98
RGC-8	2.97
RGC-9	1.98
RGC-10	2.97
RGC-11	1.98
RGC-12	2.97
RGC-13	3.15
RGC-14	3.96
RGC-15	3.15
RGC-16	3.96
RGC-17	1.80
RGC-18	1.98
RGC-19	1.47
RGC-20	5.10
RGC-21	5.10
RGC-22	72.60
RGP-1	5.76
RGP-2	5.76
RGP-3	5.76
RGP-4	5.76
RGP-5	6.12
RGP-6	6.12
RGP-7	6.75
RGP-8	6.75
RGP-9	7.59
RGP-10	7.59
RGP-11	6.75
RGP-12	6.75
RGP-13	7.59

Catalog No.	Net Price
RGP-14	7.59
RGP-15	8.40
RGP-16	8.40
RGP-17	10.20
RGP-18	10.20
RGP-19	10.35
RGP-20	10.35
RGP-21	14.04
RGP-22	14.04
RGP-23	18.96
RGP-24	18.96
RGP-25	22.80
RGP-26	22.80
RGP-27	8.40
RGP-28	8.40
RGP-29	10.20
RGP-30	10.20
RGP-31	15.15
RGP-32	15.15
RGP-33	18.96
RGP-34	18.96
RGP-35	24.75
RGP-36	24.75
SDT-1	2.25
SDT-2	2.64
SDT-3	4.50
SDT-4	6.12
SDT-5	6.93
SDT-6	8.82
SDT-7	11.04
SDT-8	12.03
SDT-9	16.05
SDT-10	22.56
SDT-11	33.00
SDT-12	39.60
SDT-13	53.61
SDT-14	84.00
SDT-15	112.50
TAC-12-50	79.50
TAC-12-90	89.50
TAC-12-175	110.00
TAC-28-50	84.50
TAC-28-100	94.50
TAC-28-175	120.00
TAC-28-250	135.00
TAC-28-50R	109.50
TAC-28-100R	119.50
TDC-12-30-15	69.00
TDC-12-25-12	67.50
TDC-12-30-05	55.00
TDC-12-20-05	52.50
TDC-28-30-15	70.50
TDC-28-25-12	68.50
TDC-28-30-05	56.50
TDC-28-20-05	53.50
TF-1	2.91
TF-2	3.30
TF-3	9.90
TF-4	12.15
TF-5	2.97
TF-6	3.96
TF-7	4.35
TF-8	4.62
TF-9	7.59
TF-10	15.84
TF-11	1.98
TF-12	2.91
TF-13	3.96
TF-14	4.80
TF-15	5.10
TF-16	4.35
TF-17	4.62
TF-18	15.84
TF-19	3.30
TMA-1	7.50
TMA-2	9.60
TMA-3	7.80
TMA-4	9.90
TMA-5	9.90
TMA-6	9.90
TMA-7	8.10
TMA-8	9.60
TMA-9	7.80
TMA-10	7.50
TMA-11	7.80
TMA-12	9.90
TMA-13	7.50
TMA-14	9.90
TMO-15	3.90
TMO-16	3.90
TMO-17	3.30
TMO-18	3.90
TMA-19	7.50
ULD-20	10.00
ULD-50	15.65
ULI-20	10.00
ULO-10	25.00
ULO-11	25.00
ULO-12	25.00
ULO-13	25.00
ULO-30	32.50
ULO-31	32.50
ULO-32	32.50
ULO-33	32.50
ULO-34	32.50
ULO-35	32.50
ULO-36	32.50
ULO-37	32.50
ULO-52	75.00
ULO-53	75.00
ULO-54	75.00

Catalog No.	List Price
ULO-55	75.00
ULO-56	75.00
ULO-101	145.00
ULO-104	145.00
ULO-110	145.00
VHI-1	9.50
VHI-2	9.50
VHI-3	9.50
VHI-4	9.50
VHI-5	9.50
VHI-6	9.50
VHI-7	9.50
VHI-8	9.50
VHI-9	9.50
VHI-10	9.50

Filters and Discriminators

Catalog No.	Net Price
IBP*	25.00 / 35.00
IHP*	25.00 / 35.00
ILP*	25.00 / 35.00
LBP*	25.00 / 35.00
LHP*	25.00 / 35.00
LLP*	25.00 / 35.00

*Stock Frequencies are $25.00 Net.

Special Frequencies are $35.00 Net.

NTF-30	25.00
NTF-60	25.00
NTF-120	25.00
DST-10	50.00
DST-11	50.00
DST-12	50.00
DST-13	50.00
DST-14	50.00
DST-15	50.00
DST-16	60.00
DST-17	50.00
DST-18	50.00
DST-19	50.00
DST-20	50.00
DST-21	50.00
DST-22	50.00
DST-23	50.00
DST-24	60.00
DST-25	60.00
DST-26	60.00
DST-27	50.00
DST-28	60.00
DST-29	60.00
DST-30	60.00
DST-31	60.00
DST-32	60.00
DST-33	60.00
FBP-10	86.00
FBP-11	86.00
FBP-12	86.00
FBP-13	86.00
FBP-14	70.80
FBP-15	70.80
FBP-16	70.80
FBP-17	70.80
FBP-18	70.80
FBP-19	70.80
FBP-20	70.80
FBP-21	70.80
FBP-22	70.80
FBP-23	70.80
FBP-24	86.00
FBP-25	70.80
FBP-26	86.00
FBP-27	86.00
FBP-28	86.00
FBP-29	86.00
FBP-30	86.00
FBP-31	86.00
FBP-32	86.00
FBP-33	86.00
FBP-34	73.00
FBP-35	73.00
FBP-36	73.00
FBP-37	73.00
FBP-38	73.00
FBP-39	80.00
FBP-40	88.00
FBP-41	88.00
FBP-42	88.00
FBP-43	88.00
FBP-44	88.00
FBP-45	88.00
FBP-46	88.00
FBP-47	88.00
FBP-48	88.00
FBP-49	88.00
FBP-50	88.00
FBP-51	88.00
FBP-52	88.00
FBP-53	88.00
FBP-54	88.00
FBP-55	88.00
FBP-56	88.00
FBP-57	88.00
LPI-10	43.25
LPI-11	43.25

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Catalog No.	Net Price
LPI-12	43.25
LPI-13	43.25
LPI-14	43.25
LPI-15	43.25
LPI-16	43.25
LPI-17	43.25
LPI-18	43.25
LPI-19	43.25
LPI-20	43.25
LPI-21	43.25
LPI-22	43.25
LPI-23	43.25
LPI-24	43.25
LPI-25	43.25
LPI-26	43.25
LPI-27	43.25
LPI-28	43.25
LPO-10	93.30
LPO-11	85.50
LPO-12	81.30
LPO-13	85.00
LPO-14	72.00
LPO-15	68.85
LPO-16	64.50
LPO-17	62.50
LPO-18	61.60
LPO-19	62.80
LPO-20	61.15
LPO-21	55.60
LPO-22	55.60
LPO-23	48.20
LPO-24	47.10
LPO-25	47.10
LPO-26	47.10
LPO-27	48.20
LPO-28	47.10
LPO-29	47.10
LPO-30	47.10
LPO-31	48.20
LPO-32	47.10
LPO-33	47.10
LPO-34	47.10
LPO-35	47.10

Toroidal Inductors

Prices shown are Net for Hermetically Sealed. Deduct $1.50 from Net for Uncased units. Add $1.00 to Net for Encapsulated units.

Type TI - 1

Catalog No.	Net Price
F-800	6.65
F-801	6.65
F-802	6.65
F-803	7.10
F-804	6.60
F-805	6.60
F-806	8.50
F-807	8.50
F-808	8.50
F-809	9.50
F-810	9.50
F-811	10.50
F-812	10.50
F-813	10.50
F-814	10.50
F-815	10.50
F-816	11.00
F-817	11.50
F-818	12.00
F-819	12.35
F-820	12.65
F-821	12.75
F-822	13.00
F-823	13.30
F-824	13.75
F-825	14.25
F-826	14.50
F-827	14.80
F-828	15.20
F-829	16.15
F-830	17.10

Type TI - 4 and 4s

Catalog No.	Net Price
F-850	7.90
F-851	7.90
F-852	7.90
F-853	7.90
F-854	7.90
F-855	7.90
F-856	8.25
F-857	8.60
F-858	8.80
F-859	8.95
F-860	9.05
F-861	9.20
F-862	9.35
F-863	9.50
F-864	9.80
F-865	10.35
F-866	10.65
F-867	10.65
F-868	10.65
F-869	11.15
F-870	11.15
F-871	11.15
F-872	11.50
F-873	11.50
F-874	12.00
F-875	12.45
F-876	12.90
F-877	13.40
F-878	13.90

Type TI - 1A and As

Catalog No.	Net Price
F-1500	7.50
F-1501	7.50
F-1502	7.50
F-1503	7.50
F-1504	7.50
F-1505	7.50
F-1506	7.50
F-1507	7.75
F-1508	7.75
F-1509	7.75
F-1510	7.75
F-1511	7.75
F-1512	7.75
F-1513	7.90
F-1514	7.90
F-1515	7.90
F-1516	8.10
F-1517	8.10
F-1518	8.10
F-1519	8.35
F-1520	8.35
F-1521	8.55
F-1522	8.55
F-1523	8.75
F-1524	8.75
F-1525	9.05
F-1526	9.05
F-1527	9.25
F-1528	9.75
F-1529	10.10
F-1530	10.10
F-1531	10.35
F-1532	10.75
F-1533	11.25
F-1534	11.75
F-1535	11.75
F-1536	12.75
F-1537	13.10
F-1538	13.60

Type TI - 9s

Catalog No.	Net Price
F-1554	16.60
F-1555	16.80
F-1556	17.00
F-1557	17.30
F-1558	17.40
F-1559	17.50
F-1560	17.60
F-1561	17.80
F-1562	18.05
F-1563	18.30
F-1564	18.50
F-1565	18.50
F-1566	19.00
F-1567	19.50
F-1568	19.95
F-1569	20.40
F-1570	21.40

Type TI - 10s

Catalog No.	Net Price
F-1579	14.15
F-1580	14.15
F-1581	14.35
F-1582	14.45
F-1583	14.50
F-1584	14.60
F-1585	14.70
F-1586	14.80
F-1587	14.90
F-1588	15.00
F-1589	15.10
F-1590	15.30
F-1591	15.40
F-1592	15.60

Type TI - 13

Catalog No.	Net Price
F-1629	16.60
F-1630	16.80
F-1631	17.00
F-1632	17.30
F-1633	17.40
F-1634	17.50
F-1635	17.60
F-1636	17.80
F-1637	18.05
F-1638	18.30
F-1639	18.50
F-1640	18.50
F-1641	19.00
F-1642	19.50
F-1643	19.95
F-1644	20.40
F-1645	21.40

Type TI - 12 and 12s

Catalog No.	Net Price
F-1655	13.60
F-1656	13.60
F-1657	13.60
F-1658	14.05
F-1659	14.05
F-1660	14.05
F-1661	14.65
F-1662	14.65
F-1663	15.10
F-1664	15.10
F-1665	13.75
F-1666	13.75
F-1667	14.15
F-1668	14.15
F-1669	14.65
F-1670	14.65
F-1671	14.65
F-1672	15.10
F-1673	15.60
F-1674	16.05
F-1675	16.05
F-1676	16.50
F-1677	16.50
F-1678	17.00
F-1679	17.00
F-1680	17.50
F-1681	17.50
F-1682	17.50
F-1683	17.95
F-1684	17.95
F-1685	17.95
F-1686	18.45
F-1687	18.90
F-1688	19.50
F-1689	19.95
F-1690	20.40
F-1691	20.90
F-1692	21.40
F-1693	21.85

Type TI - 5

Catalog No.	Net Price
F-1700	5.70
F-1701	5.70
F-1702	5.70
F-1703	6.20
F-1704	6.65
F-1705	6.90
F-1706	7.10
F-1707	7.35
F-1708	7.60
F-1709	7.85
F-1710	8.05
F-1711	8.30
F-1712	9.00
F-1713	9.60
F-1714	9.80
F-1715	10.25
F-1716	10.60
F-1717	10.95
F-1718	11.20
F-1719	11.50
F-1720	11.90

Type TI - 5s

Catalog No.	Net Price
F-1700s	7.90
F-1701s	7.90
F-1702s	7.90
F-1703s	7.90
F-1704s	7.90
F-1705s	8.15
F-1706s	8.25
F-1707s	8.50
F-1708s	8.80
F-1709s	8.95
F-1710s	9.05
F-1711s	9.20
F-1712s	9.30
F-1713s	9.60
F-1714s	9.80
F-1715s	10.25
F-1716s	10.65
F-1717s	10.85
F-1718s	11.20
F-1719s	11.50
F-1720s	11.90

Type TI - 6 and 6s

Catalog No.	Net Price
F-1726	8.15
F-1727	8.15
F-1728	8.15
F-1729	8.15
F-1730	8.15
F-1731	8.15
F-1732	8.45
F-1733	8.45
F-1734	8.55
F-1735	8.55
F-1736	8.55
F-1737	9.00
F-1738	10.00
F-1739	10.00
F-1740	10.00
F-1741	10.00
F-1742	10.45
F-1743	11.90

Type TI - 11s

Catalog No.	Net Price
F-1747	14.20
F-1748	14.20
F-1749	14.20
F-1750	14.20
F-1751	14.20
F-1752	15.20
F-1753	15.20
F-1754	15.20
F-1755	15.20
F-1756	15.20
F-1757	14.20
F-1758	14.20
F-1759	14.65
F-1760	14.65
F-1761	15.20
F-1762	15.85
F-1763	16.15
F-1764	16.65
F-1765	17.10
F-1766	17.60
F-1767	17.80
F-1768	18.05
F-1769	18.45
F-1770	18.45
F-1771	18.45
F-1772	19.00
F-1773	19.50
F-1774	19.95
F-1775	20.40
F-1776	20.90
F-1777	21.85
F-1778	22.80
F-1779	23.75
F-1780	24.70

Type TI - 7

Catalog No.	Net Price
F-1781	7.90
F-1782	7.90
F-1783	7.90
F-1784	7.90
F-1785	7.90
F-1786	7.90
F-1787	8.05
F-1788	8.05
F-1789	8.25
F-1790	8.25
F-1791	8.45
F-1792	8.65
F-1793	8.65
F-1794	8.65
F-1795	9.00
F-1796	9.45
F-1797	10.00

Type TI - 2s

Catalog No.	Net Price
F-1800	14.20
F-1801	14.20
F-1802	14.20
F-1803	14.20
F-1804	14.20
F-1805	14.65
F-1806	14.65
F-1807	14.65
F-1808	14.65
F-1809	14.65
F-1810	14.65
F-1811	14.90
F-1812	14.90
F-1813	14.90
F-1814	14.90
F-1815	14.90

Type TI - 8 and 8s

Catalog No	Net Price
F-1821	8.65
F-1822	8.65
F-1823	8.65
F-1824	8.65
F-1825	8.65
F-1826	8.65
F-1827	8.65
F-1828	8.65
F-1829	8.65
F-1830	8.65
F-1831	8.65
F-1832	8.75
F-1833	8.85
F-1834	9.00
F-1835	9.00
F-1836	9.00
F-1837	9.10
F-1838	9.40
F-1839	9.50
F-1840	9.90

Type TI - 3s

Catalog No.	Net Price
F-1844	14.25
F-1845	14.25
F-1846	14.25
F-1847	14.25
F-1848	14.25
F-1849	14.25
F-1850	14.25
F-1851	14.25
F-1852	14.25
F-1853	14.25
F-1854	14.25
F-1855	14.25

Type TI - 3As

Catalog No.	Net Price
F-1856	20.00
F-1857	20.50
F-1858	20.50
F-1859	22.30
F-1860	22.80
F-1861	22.80
F-1862	23.30
F-1863	23.30

Type TI - 15

Catalog No.	Net Price
F-1870	7.25
F-1871	7.25
F-1872	7.25
F-1873	7.25
F-1874	7.25
F-1875	7.25
F-1876	7.25
F-1877	7.25
F-1878	7.25
F-1879	7.25
F-1880	7.25
F-1881	7.45
F-1882	7.45
F-1883	7.65
F-1884	7.65
F-1885	7.85
F-1886	8.05
F-1887	8.05
F-1888	8.05
F-1889	8.45

Type TI - 14

Catalog No.	Net Price
F-1920	7.40
F-1921	7.40
F-1922	7.40
F-1923	7.40
F-1924	7.40
F-1925	7.40
F-1926	7.85
F-1927	7.85
F-1928	7.95
F-1929	7.95
F-1930	7.95
F-1931	8.40
F-1932	8.75
F-1933	8.75
F-1934	9.00
F-1935	9.25
F-1936	9.75

Type TI - 16

Catalog No.	Net Price
F-2050	6.05
F-2051	6.05
F-2052	6.05
F-2053	5.85
F-2054	5.85
F-2055	6.30
F-2056	6.80
F-2057	7.05
F-2058	7.25
F-2059	7.35
F-2060	7.70
F-2061	8.00
F-2062	8.20
F-2063	8.45
F-2064	9.75
F-2065	10.80
F-2066	11.00
F-2067	11.40
F-2068	11.65
F-2069	12.00

Type TI - 17

Catalog No.	Net Price
F-2100	7.90
F-2101	7.90
F-2102	7.90
F-2103	7.90
F-2104	7.90
F-2105	7.90
F-2106	7.90
F-2107	7.90
F-2108	7.90
F-2109	7.90
F-2110	7.90
F-2111	8.05
F-2112	8.05
F-2113	8.25
F-2114	8.25
F-2115	8.65
F-2116	8.65
F-2117	9.05

Type TI - 18

Catalog No.	Net Price
F-2140	8.65
F-2141	8.65
F-2142	8.65
F-2143	8.65
F-2144	8.65
F-2145	8.65
F-2146	8.65
F-2147	8.65
F-2148	8.65
F-2149	8.65
F-2150	8.65
F-2151	8.75
F-2152	8.85
F-2153	9.00
F-2154	9.00
F-2155	9.20
F-2156	9.50
F-2157	9.70

Type TI - 19

Catalog No.	Net Price
F-2180	7.90
F-2181	7.90
F-2182	7.90
F-2183	7.90
F-2184	7.90
F-2185	7.90
F-2186	7.90
F-2187	7.90
F-2188	7.90
F-2189	7.90
F-2190	7.90
F-2191	7.90
F-2192	7.90
F-2193	7.90

Type TI - 20s

Catalog No.	Net Price
F-2201	6.40
F-2202	6.40
F-2203	6.95
F-2204	6.95
F-2205	6.95
F-2206	7.15
F-2207	7.45
F-2208	8.10
F-2209	8.10
F-2210	8.10
F-2211	8.10
F-2212	8.10
F-2213	8.10
F-2214	8.10
F-2215	8.10

Type TI - 21s

Catalog No.	Net Price
F-2240	6.00
F-2241	6.00
F-2242	6.00
F-2243	6.00
F-2244	6.00
F-2245	6.00
F-2246	6.40
F-2247	6.40
F-2248	6.40
F-2249	6.40

Type TI - 22s

Catalog No.	Net Price
F-2270	6.00
F-2271	6.00
F-2272	6.00
F-2273	6.00
F-2274	6.00
F-2275	6.00
F-2276	6.40
F-2277	6.40
F-2278	6.40
F-2279	6.40
F-2280	7.15
F-2281	7.15
F-2282	7.15
F-2283	7.15
F-2284	7.15

Type TI - 23s

Catalog No.	Net Price
F-2301	6.25
F-2302	6.25
F-2303	6.25
F-2304	6.25
F-2305	6.25
F-2306	6.25
F-2307	6.75
F-2308	6.75
F-2309	6.75
F-2310	6.75
F-2311	7.50
F-2312	7.50
F-2313	7.50

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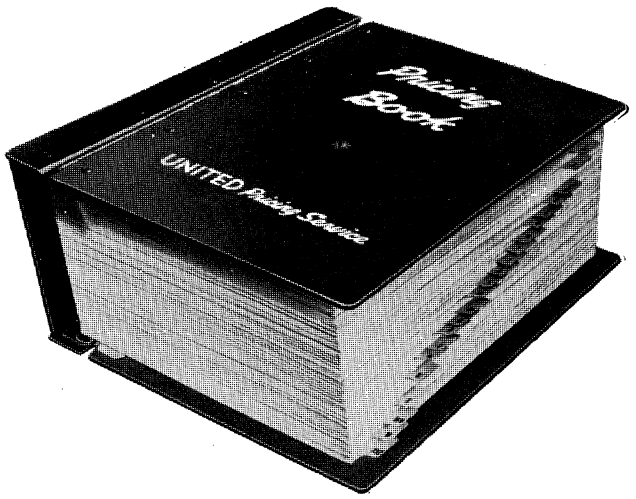

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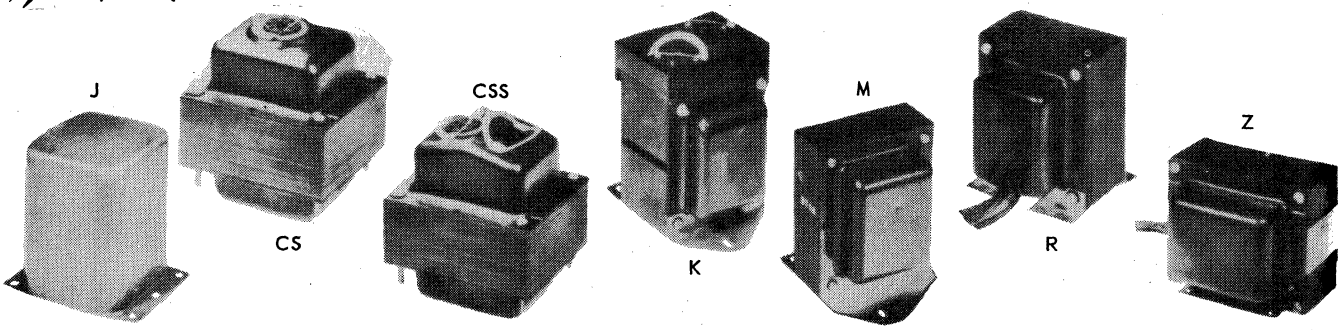
PLATE AND FILAMENT POWER TRANSFORMERS



Merit No.	Ref. No.	Plate Supply		Rectifier		Filament Wdgs.		Mtg. Type	Dimensions – Inches				Shpg. Wt. Lbs. Oz.	Net Price
		Volts	DCMA	Volts	Amps	Volts	Amps		Mtg. Centers	H	W	D		
P-3044	1	96	145			6.3	6.45	C	2 3/16	2 1/2	3	3	3- 0	$10.41
*P-2880	2	117	230			6.3 6.3	8.5 1.2	C	3 3/16 x 4 1/16	3 3/4	4 5/8	4	8- 0	11.25
P-2871	3	119.5	380			6.3 6.3	6.5 6.35	D	2 1/4 x 2 1/2	3 1/2	2 15/16	3 5/8	4- 8	6.00
P-3045	4	120	50			6.3	2.0	A	3 1/8	2 5/16	3 11/16	2 1/8	1- 7	3.84
P-3144	5	123**	200			6.3	10.3	D	2 x 2 11/16	3 1/8	2 1/2	3 1/2	4- 0	7.80
*P-3079	6	140 117 tap	300			6.3 6.3 6.3	9 2 1	C	3 x 3 3/4	3 3/4	4 1/2	3 3/4	8- 4	12.09
P-3046	7	150	25			6.3	.5	B	2	2	2 1/2	1 3/4	0-12	3.30
P-2892	8	210-210	240	5	3.0	6.3	8.0	C	3 5/16 x 4 1/16	3 3/4	4 1/2	3 7/8	8-10	7.32
P-3062	9	230-230	240	5	6.0	12.6	4.4	C	2 3/4 x 3 7/16	3 7/16	4 1/8	4 1/4	8- 6	13.26
P-2949	10	240-240	40	5	2.0	6.3c.t.	2.0	C	2 x 2 1/2	2 1/2	3	2 1/2	2- 6	5.76
P-3149	11	240-240	40	5	2.0	6.3c.t.	2.0	D	2 x 1 11/16	3 1/8	2 5/8	2 5/8	2- 7	5.43
P-3047	12	240-240	50			6.3	2.5	C	2 x 2 1/2	2 1/2	3	2 1/2	2- 0	4.92
P-3147	13	240-240	50			6.3	2.5	D	2 x 1 11/16	3 1/8	2 5/8	2 1/2	2- 4	4.86
P-2958	14	240-240	50	5	2.0	6.3	2.6	C	2 x 2 1/2	2 1/2	3	3	2-10	5.82
P-2830	15	253-253	300	5	6.0	6.3● 6.3● 6.3	6.0 6.0 1.25	C	3 x 3 3/4	3 3/4	4 1/2	4 7/8	11- 0	19.20
P-2893	16	260-260	70	5	2	6.3c.t.	3	D	2 x 2 1/8	3	2 1/2	3	3- 0	7.13
P-3051	17	260-260	70	5	2.0	6.3	3.0	C	2 x 2 1/2	2 1/2	3	3 1/8	3- 0	6.36
P-3048	18	260-260	90			6.3	4.7	C	2 x 2 1/2	2 1/2	3	3 3/16	3- 2	8.41
P-3148	19	260-260	90			6.3	4.7	D	2 x 2 3/16	3 1/8	2 5/8	3 1/4	3- 6	6.76
P-2870	20	276-276	200	5	3.0	6.3	8.5	C	2 11/16 x 3 5/16	3 1/8	3 3/4	3 1/2	5- 8	11.88
P-3060	21	265-265	260	5	3.0			C	2 11/16 x 3 5/16	3 1/8	3 3/4	4	6- 2	9.15
P-2873	22	265-265	265	5	3.0	12.6c.t.	5.1	C	2 1/2 x 3 1/8	3 1/8	3 3/4	4	6- 8	13.50
P-3135	23	265-265	300	5	6.0	12.6c.t.	5.5	K					11- 6	18.60
P-3083	24	265-265	300	5	6.0	12.6	4.7	C	3 x 3 3/4	3 3/4	4 1/2	5 1/4	11-14	15.00
*P-2841	25	265-265	320	5	6.0	12.6c.t.	4.9	R					10- 0	19.50
P-2883	26	265-265	380	5	6.0	12.6	6.4	K	3 x 4 1/4	5 3/4	3 3/4	4 5/8	12- 6	18.60
P-2872	27	268-268	260	5	3.0	6.3	10.6	C	2 1/2 x 3 1/8	3 1/8	3 3/4	3 5/8	6- 6	11.88
P-2885	28	268-268	260	5	3.0	6.3	8.0	D	2 1/2 x 2 15/16	4 3/16	3 7/16	4	7- 6	13.38
P-2869	29	270-270	200	5	3.0	6.4	8.4	C	2 11/16 x 3 5/16	3 1/8	3 3/4	4	7- 0	11.88
*P-3076	30	270-270 180-180	†300 200	5	3.0	6.3● 6.3●	6.5 6.5	C	3 x 3 3/4	3 3/4	4 1/2	5	13- 8	16.26
P-3136	31	270-270	270	5	3.0	12.6	4.4	M					8- 8	17.04
P-3154	32	275-275	50	5	2.0	6.3	2.6	D	2 x 2 3/16	3 1/8	2 5/8	3 1/16	3- 5	6.24
P-2832	33	275-275	220	5	3.0	7.0 6.3▲	.475 8.5	Z	3 x 3 5/8	3 3/4	4 1/8	3 1/2	7- 0	15.00
P-2879	34	275-275	280	5	4.8	6.3 6.3 6.3	9.5 1.2 0.6	C	3 3/16 x 4 1/16	3 3/4	4 5/8	5	9- 0	13.38
P-3049	35	275-275	270	5	3.0	6.3	12.6	CS	3 5/16 x 4	3 3/4	4 1/2	5	11- 0	13.20
*P-2839	36	276-276	290	5	6.0	6.3 6.3	11.5 3.6	CSS	3 x 3 3/4	3 3/4	4 1/2	5 1/2	13- 8	18.33
P-2874	37	277-277	210	5	3.0	13.3c.t.	4.0	C	2 1/2 x 3 1/8	3 1/8	3 3/4	3 1/4	6- 8	14.04
P-2876	38	277-277	305	5	5.0	6.3 6.3	8.5 1.2	C	3 x 3 3/4	3 3/4	4 1/2	4 15/16	12- 0	16.80
P-3084	39	285-285	220	5	3.0	6.3	8.0	R	2 3/4 x 3 7/16	3 7/16	4 1/8	4 5/16	9- 0	18.18
P-2878	40	279-279	265	5	5.0	6.3 6.3 6.3	7.1 1.2 0.9	C	3 3/16 x 4 1/16	3 3/4	4 5/8	5 1/4	12- 0	17.40
P-3052	41	280-280	90	5	2.0	6.3	5.0	C	2 1/4 x 2 13/16	2 13/16	3 3/8	3 1/4	4- 2	7.14
P-2849	42	280-280	205	5	3	6.3	9	C	3 x 3 11/16	3 7/16	4 1/2	3 3/4	8- 0	15.60
P-3058	43	280-280	315	5	6.0	6.3	11.5	C	3 3/16 x 4 1/16	3 3/4	4 1/2	5 1/2	11- 8	19.92
P-2882	44	281-281	250	5	3.0	6.3	9.5	Z	2 1/2 x 2 1/2	3 7/16	4 1/8	4 1/16	8- 0	14.34
P-3056	45	282-282	240	5	3.0	6.3	8.7	C	3 3/16 x 4 1/16	3 3/4	4 1/2	4 1/2	10- 0	16.80
P-2837	46	282-282	250	5	3.0	6.3 6.3	9.3 1.25	CS	3 x 3 3/4	3 3/4	4 1/2	5 1/16	10- 8	17.34
P-2862	47	285-285	300	5	3.0	12.6	5.6	D	2 1/2 x 3 1/8	3 1/8	3 1/8	4 1/4	8- 0	13.49
P-2842	48	286-286	210	5	3.0	6.3	8.0	C	2 3/4 x 3 1/2	3 1/2	4 1/8	2	8- 0	16.80
P-2867	49	290-290	230	5	3	6.3	12	C	3 7/16 x 2 3/4	4 1/8	3 7/16	4 3/4	11- 0	16.20
P-3134	50	290-290	270	5	3.0	12.6c.t.	4.8	D	3 x 3 1/8	4 1/8	3 3/4	4 1/8	8- 4	14.04
P-3064	51	290-290 275-275	340 310	5	6.0	12.6	6.1	C	3 x 3 3/4	3 3/4	4 1/2	5 1/4	13- 0	20.40
P-2844	52	292-292	285	5	3.0	6.3	8.5	C	2 3/4 x 3 1/2	4 1/4	3 1/2	4 3/4	8-14	18.60
P-2836	53	300-300	250	5	4.0	6.3 6.3	11.7 1.2	C	2 3/4 x 3 7/16	3 7/16	4 1/8	4 7/8	11- 0	16.20
P-3077	54	300-300	250	5	3.0	6.3	9.0	C	3 x 3 3/4	3 3/4	4 1/2	4 1/4	10- 2	15.60
P-3055	55	300-300	400	5	6.0	6.3 6.3	10.0 4.5	C	3 x 3 3/4	3 3/4	4 1/2	5 5/8	14- 4	19.91
*P-2833	56	305-305	300	5	6.0	6.3 6.3 6.3● 6.3●	.9 1.95 6.4 6.4	C	3 x 3 3/4	3 3/4	4 1/2	5 3/8	13- 5	18.78
*P-2847	57	306-306	460	5	6.0	6.3 46.0	11.4 .15	C	3 1/2 x 4 3/8	4 3/8	5 1/4	4 15/16	14- 0	16.20

*This unit will become obsolete when present supply is exhausted.

Net

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SECTION 5600

Merit No.	Ref. No.	Plate Supply		Rectifier		Filament Wdgs.		Mtg. Type	Dimensions – Inches				Shpg. Wt. Lbs. Oz.	Net Price
		Volts	DCMA	Volts	Amps	Volts	Amps		Mtg. Centers	H	W	D		
▲-2840	1	312-312	340	5	6.0	6.3● / 6.3● / 6.3● / 6.3●	5.1 / 5.1 / 1.5 / 1.5	CSS	3 x 3¾	3¾	4½	6¼	14- 0	$20.40
▲-2884	2	320-320	270	5	3.0	12.6c.t.	5.2	D	3 x 3½	4⁹⁄₁₆	3¾	4	9- 0	14.22
▲-3073	3	322-322 / 205-205	†180 / 70	5	3.0	6.3 / 6.3	10.0 / 2.7	CS	3 x 3¾	3¾	4½	5	12- 5	21.63
▲-2950	4	325-325	40	5	2.0	6.3	2.0	C	2 x 2½	2½	3	2⅞	2-14	5.76
▲-3150	5	325-325	40	5	2.0	6.3c.t.	2.0	D	2 x 1⅞	3⅛	2⅝	2¹³⁄₁₆	2-13	5.16
▲-2951	6	325-325	70	5	3.0	6.3c.t.	3.5	C	2 x 2½	2½	3	3⅜	3- 6	7.08
▲-3151	7	325-325	70	5	3.0	6.3c.t.	3.5	D	2½ x 1¹⁵⁄₁₆	3⅞	3¾	3⅜	4- 2	6.18
▲-2831	8	331-331 / 211-211	†250 / 90	5 / 5	3.0 / 2.0	6.3	13.0	C	3 x 3¾	3¾	4½	5⅜	13- 0	20.16
▲-2838	9	333-333	250	5	3.0	6.3● / 6.3● / 6.3 / 6.3	5.8 / 5.8 / 3.3 / .85	CS	3 X 3¾	3¾	4½	5½	15- 0	22.50
▲-2877	10	338-338	300	5	6.0	6.3 / 6.3	10.1 / 2.4	C	3¾₁₆ x 4¹⁄₁₆	3¾	4⅝	5¾	13- 0	38.70
▲-2887♦	11	356-356 / 268-268	180 / 148	5 / 5	3.0 / 3.0	12.6c.t.	6.0	D	4 x 3	4¾	3⅞	5	13- 0	16.50
▲-2957	12	350-350	50	5	2.0	6.3c.t.	2.6	C	2¼ x 2¹³⁄₁₆	2¹³⁄₁₆	3⅜	3	3- 0	7.50
▲-3160	13	350-350	50	5	2.0	6.3c.t.	2.6	D	2¼ x 2	3½	2¹⁵⁄₁₆	3¹⁄₁₆	3- 2	7.80
▲-2952	14	350-350	90	5	3.0	6.3c.t.	3.5	C	2¼ x 2¹³⁄₁₆	2¹³⁄₁₆	3⅜	4	5- 0	8.10
▲-3152	15	350-350	90	5	3.0	6.3c.t.	3.5	D	2¾ x 2⁹⁄₁₆	4¼	3⁷⁄₁₆	3⅜	5- 0	7.32
▲-3153	16	350-350	110	5	3.0	6.3c.t.	4.5	D	3 x 2¼	4⅝	3¹³⁄₁₆	3⁷⁄₁₆	5-12	8.82
▲-2953	17	350-350	120	5	3.0	6.3c.t.	4.7	C	2½ x 3¼	3¼	3¾	3¹³⁄₁₆	6- 0	8.70
▲-3173	18	350-350	150	5	3.0	6.3	6.5	D	2½ x 2⅞	3⅞	3¼	4⅛	6-12	10.32
▲-3054	19	350-350 / 220-220	†180 / 70	5	6.0	6.3 / 6.3	10.2 / 2.7	C	3 x 3¾	3¾	4½	5⅜	13- 4	14.91
▲-3165	20	350-350	200	5 / 5	2.0 / 3.0	6.3 / 6.3	0.6 / 7.0	D	3 x 3⅞	4⅝	3¾	5	11-10	14.34
▲-3069	21	350-350	225	5	3.0	6.3 / 6.3	10.0 / 2.7	CS	3 x 3¾	3¾	4½	4¾	9- 8	17.28
▲-3070	22	350-350	225	5	3.0	6.3 / 6.3	10.0 / 2.7	C	3 x 3¾	3¾	4½	4	9- 0	16.50
▲-3057	23	350-350	290	5	6.0	6.3 / 6.3 / 6.3	9.5 / 2.4 / 1.5	C	3¾₁₆ x 4¹⁄₁₆	3¾	4½	6¼	15- 0	18.78
▲-3071	24	360-360	180	5	3.0	6.3	9.0	CS	2¾ x 3⁷⁄₁₆	3⁷⁄₁₆	4⅛	5	9-10	15.00
▲-3072	25	360-360	180	5	3.0	6.3	9.0	C	2¾ x 3⁷⁄₁₆	3⁷⁄₁₆	4⅛	4⁵⁄₁₆	9- 6	14.16
▲-2834	26	360-360	225	5	6.0	6.3 / 6.3 / 6.3	1.2 / 3.0 / 9.0	C	3 x 3¾	3¾	4½	4⅞	11-14	16.65
▲-3059	27	360-360	250	5 / 5	2.0 / 3.0	6.3 / 6.3	2.7 / 9.0	C	3 x 3¾	3¾"	4½	5⅛	12- 5	16.65
▲-3063	28	360-360	250	5 / 5	3.0 / 2.0	6.3 / 6.3	9.0 / 1.2	C	3¾₁₆ x 4¹⁄₁₆	3¹³⁄₁₆	4⅝	5½	11-10	17.07
▲-3078	29	360-360	275	5	3.0	6.3 / 6.3 / 6.3 or 5	9.0 / 1.5 / 2.7	C	3 x 3¾	3¾	4½	5¼	11- 8	17.10
▲-3179	30	362-362 / 210-210	210 / 120	5 / 5	3.0 / 2.0	12.6c.t.	6.0	D	3 x 4¼	4⅝	3¹³⁄₁₆	5⅛	12-12	15.66
▲-3061	31	362-362	295	5 / 5	6.0 / 2.0	12.6c.t.	5.0	C	3¾₁₆ x 4¹⁄₁₆	3¹³⁄₁₆	4⅝	6⅝	15- 8	21.00
▲-2875	32	373-373	190	5	3.0	6.3 / 6.3	7.8 / 1.2	C	3 x 3¾	3¾	4½	4¹¹⁄₁₆	10- 6	17.91
▲-2954	33	375-375	150	5	3.0	6.3c.t.	5.0	C	2½ x 3⅛	3⅛	3¾	4⁵⁄₁₆	7- 6	9.60
▲-2886	34	375-375 / 220-220	190 / 100	5 / 5	3.0 / 2.0	12.6c.t.	6.0	D	3 x 3⁹⁄₁₆	4⁹⁄₁₆	3¾	4⅝	11- 6	16.20
▲-3053	35	375-375 / 325-325	†170 / 130	5 / 5	3.0 / 3.0	6.3● / 6.3● / 6.3 or 5	7.0 / 7.0 / 2.7	C	3 x 3¾	3¾	4½	5⅝	14- 8	18.90
▲-3066	36	375-375 / 325-325	†170 / 130	5 / 5 / 5	3.0 / 3.0 / 2.0	12.6c.t. / 6.3	5.0 / 2.6	C	3 x 3¾	3¾	4½	5⅜	13- 2	20.94
▲-3169	37	390-390 / 325-325	160 / 130	5 / 5 / 5	3.0 / 3.0 / 2.0	6.3 / 6.3	8.4 / 4.0	D	3 x 3⅝	4⅝	3¹³⁄₁₆	4¹³⁄₁₆	11-10	18.00
▲-2955	38	400-400	200	5	3.0	6.3c.t.	5.0	C	3 x 3¾	3¾	4½	4⅛	9- 0	12.30
▲-3155	39	400-400	200	5	3.0	6.3c.t.	5.0	D	3 x 3⁹⁄₁₆	4⅝	3¹⁵⁄₁₆	4¼	9- 6	12.54
▲-3067	40	400-400 / 212-212	†220 / 90	5 / 5 / 5	3.0 / 3.0 / 2.0	6.3 / 6.3	10.0 / 2.6	C	3 x 3¾	3¾	4½	5⅜	13- 9	18.15
▲-2843	41	185	260			86	.6	C	1¾ x 2¹³⁄₁₆	2¼	2¾	2¾	3- 0	6.45
*▲-3203	42	400-400	200			6.3c.t.	5.0	J	2½ x 4¾	5¼	4	4⅜	13- 0	20.76
▲-2881	43	280-280	250	5	3.0	6.3	9.5	C	1¹³⁄₁₆ x 2½	3¾	3⅛	3⁷⁄₁₆	6- 8	14.82
▲-2891	44	397-397 / Tap 51	310	5	6	5 / 6.3	2.0 / 9.3	D	3⅝ x 3¼	5¹⁵⁄₁₆	4⁷⁄₁₆	5⅛	11- 0	28.02
*▲-3174	45	405-405 / 325-325	240 / 200	5 / 5 / 5	3.0 / 3.0 / 3.0	6.3 / 6.3 / 6.3	6.0 / 6.0 / 2.6	D	3⅝ x 3⅞	5¹⁵⁄₁₆	4⁷⁄₁₆	5⅝	16- 8	26.40
▲-2835	46	420-420	250	5	3.0	6.3 / 6.3 / 6.3	8.0 / 3.0 / 1.2	C	3 x 3¾	3¾	4⅓	5⅛	12- 0	17.58
▲-2956	47	435-435 / 80 volt Bias Tap	250	5 / 2.5	3.0 / 10.0	6.3c.t. / 6.3 or 5	3.0 / 3.0	C	3 x 3¾	3¾	4½	4¾	11- 8	15.00
■▲-2897	48	560-560	250	5	3.0	6.3	8.5	R	2½ x 2½	3½	4⅛	3¹⁵⁄₁₆	7- 8	18.15
▲-3156	49	435-435 / 80 volt Bias Tap	250	5 / 2.5	3.0 / 10.0	6.3c.t. / 6.3 or 5	3.0 / 3.0	D	3 x 3¹³⁄₁₆	4⅝	3¹³⁄₁₆	4⅞	11-14	14.55
▲-3170	50	1750	2	2.5	2.0	6.3 or 2.5	.9 / 2.0	D	2 x 2¹⁄₁₆	3⅛	2⅝	2⅞	2-12	8.88
▲-3171	51	2500	5	2.5	2.0	6.3 or 2.5	3.0 / 3.0	D	2½ x 2⁵⁄₁₆	3⅞	3¾₁₆	3⅜	4- 4	11.85
■▲-4082	52	110	900			6.3	11	D	2½ x 2½	3⅛	3¾	3⅛	4- 3	22.67
■▲-4083	53	110	700			6.3	7.5	C	2¼ x 2¹³⁄₁₆	3⅝	3⅝	2¹³⁄₁₆	3- 0	22.87
■▲-3206	54	125	300					A	2⅜	1⅝	2¹³⁄₁₆	1⁷⁄₁₆	0-10	5.78

▲ Tapped

●Can be used in Series for 12.6 v c.t.

*This unit will become obsolete when present supply is exhausted.

■New Item

** Tapped primary

♦ Primary taps

†Max. MA High Tap Only.

¯Max. MA Low Tap Only.

	P-3053	P-2831	P-3054	
	P-3066	P-3067	P-3073	P-3076
	320	300	220	435
	340	340	325	500

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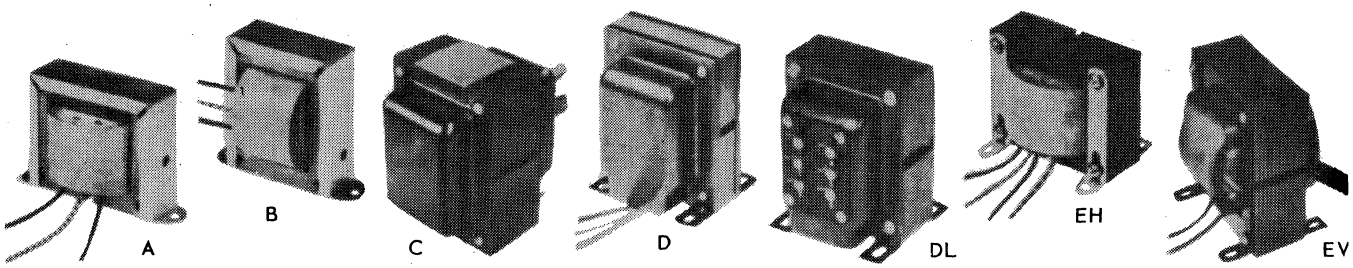
FILAMENT POWER TRANSFORMERS



Merit No.	Ref. No.	Sec. Volts	Sec. Amp.	Insulation Volts RMS	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs. Oz.	Net Price
					Mtg. Centers	H	W	D			
P-2939	1	2.5 c.t.	5	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$1\frac{5}{8}$	A	1- 4	$2.88
P-2940	2	2.5 c.t.	10	7500	$3\frac{1}{8}$	3	$3\frac{5}{8}$	$2\frac{1}{4}$	B	2- 2	4.86
P-3042	3	2.5 c.t.	10	10000	$2\frac{13}{16} \times 2$	$2\frac{7}{8}$	$2\frac{3}{8}$	$2\frac{3}{4}$	EH	2- 8	6.60
P-3040	4	5.0 c.t.	3	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$2\frac{1}{4}$	A	1- 4	4.26
P-2941	5	5.0 c.t.	6	2500	$3\frac{1}{8}$	$2\frac{1}{4}$	$3\frac{11}{16}$	$2\frac{1}{8}$	A	1-12	4.98
P-2942	6	5.0 c.t.	15	10000	$3 \times 2\frac{1}{2}$	$4\frac{1}{2}$	$3\frac{3}{4}$	$3\frac{1}{2}$	EV	6-12	9.15
P-2943	7	5.0 c.t.	30	2500	$2\frac{1}{2} \times 2\frac{7}{8}$	$3\frac{7}{8}$	$3\frac{3}{16}$	$4\frac{7}{8}$	DL	6- 4	12.66
P-2964	8	6.3	0.5	1500	2	$1\frac{3}{8}$	$2\frac{3}{8}$	$1\frac{1}{4}$	A	0- 6	2.01
P-2888	9	6.3	.85	1500	$2\frac{3}{8}$	$1\frac{5}{8}$	$2\frac{13}{16}$	$1\frac{7}{16}$	A	1- 0	2.61
P-2944	10	6.3 c.t.	1	2500	$2\frac{3}{8}$	$1\frac{5}{8}$	$2\frac{13}{16}$	$1\frac{1}{2}$	A	0-12	2.34
P-3074	11	6.3	1.2	5000	$2\frac{13}{16}$	2	$3\frac{1}{4}$	2	A	1- 4	2.91
P-2945	12	6.3 c.t.	2	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$1\frac{5}{8}$	A	1- 0	3.30
P-2946	13	6.3 c.t.	3	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$1\frac{7}{8}$	A	1- 6	4.62
P-3050	14	6.3	8.8	1500	$2 \times 2\frac{1}{16}$	$3\frac{1}{8}$	$2\frac{1}{2}$	3	D	3- 0	6.96
P-2947	15	6.3 c.t.	6	1500	$3\frac{1}{8}$	3	$3\frac{5}{8}$	$2\frac{1}{4}$	B	2- 4	5.10
P-2846	16	6.3	.7	1500	2	$1\frac{3}{8}$	$2\frac{3}{8}$	$1\frac{5}{8}$	A	0-10	2.61
P-2948	17	6.3 c.t.	10	2500	$2\frac{1}{4} \times 2\frac{3}{8}$	$3\frac{7}{16}$	$2\frac{13}{16}$	$2\frac{7}{8}$	EV	3-10	6.30
P-3141	18	6.3	10.3	1500	$2 \times 2\frac{3}{16}$	$3\frac{1}{8}$	$2\frac{1}{2}$	$3\frac{1}{8}$	D	3- 5	4.83
P-2845	19	6.3	13	1500	$2\frac{1}{4} \times 2\frac{3}{8}$	$3\frac{1}{2}$	$2\frac{15}{16}$	$3\frac{1}{2}$	D	5- 0	5.73
*P-2890†	20	6.3† 6.3 6.3	7.2 1.2 .6	2500	$2 \times 2\frac{1}{4}$	3	$2\frac{1}{2}$	$3\frac{1}{8}$	D	4- 0	6.00
P-3041	21	5.0 c.t. 6.3 c.t.	3 3.6	2500	$3\frac{9}{16}$	$2\frac{1}{2}$	4	$2\frac{1}{2}$	A	2- 2	4.77
*P-3043	22	5.0 6.3 6.3	3 3.5 10	3000	$2\frac{1}{2} \times 3\frac{1}{8}$	$3\frac{1}{8}$	$3\frac{3}{4}$	$4\frac{1}{16}$	C	5- 6	6.60
P-2961	23	6.3 c.t. 6.3 c.t.	3 3	2500	$3\frac{1}{8}$	3	$3\frac{5}{8}$	$2\frac{1}{4}$	B	2- 6	5.55
P-3082	24	6.3 6.3	8 .3	5000 2500	$3\frac{1}{8}$	$3\frac{1}{16}$	$3\frac{9}{16}$	$2\frac{1}{2}$	A	2- 8	6.00
*P-2868	25	6.7 6.7	5.1 3.6	1500	$2\frac{1}{4} \times 1\frac{7}{8}$	$3\frac{1}{8}$	$2\frac{5}{8}$	$2\frac{7}{8}$	D	3- 6	5.61
P-2864	26	6.7	9.6	2500	$2\frac{1}{4} \times 2\frac{1}{8}$	$3\frac{1}{16}$	$2\frac{1}{2}$	$3\frac{3}{16}$	D	3-10	6.96
P-2863	27	6.7 6.7	4.1 6.6	1500	$2\frac{1}{4} \times 2\frac{3}{8}$	3	$2\frac{1}{2}$	$3\frac{1}{8}$	D	3-14	6.00
*P-2866	28	6.7 6.7 25.2	6.4 6 .003	2500	$2\frac{1}{2} \times 2\frac{5}{16}$	$3\frac{7}{8}$	$3\frac{1}{4}$	$3\frac{9}{16}$	D	4- 8	11.25
P-2960	29	7.5 c.t.	4	2500	$2\frac{13}{16}$	$2\frac{5}{8}$	$3\frac{1}{8}$	$1\frac{7}{8}$	B	1-12	3.66
P-3143	30	7.5 c.t.	8	2500	$2\frac{1}{4} \times 2$	$3\frac{1}{2}$	$2\frac{15}{16}$	$3\frac{1}{8}$	D	3- 8	6.60
P-3145	31	10.0 c.t.	5	2500	$2\frac{1}{4} \times 2$	$3\frac{1}{2}$	$2\frac{15}{16}$	3	D	3- 1	6.78
P-3146	32	10.0 c.t.	10	3000	$2\frac{1}{2} \times 2\frac{7}{16}$	$3\frac{7}{8}$	$3\frac{3}{16}$	$3\frac{5}{8}$	D	5- 6	7.80
P-2959	33	12.6 c.t.	2	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$1\frac{7}{8}$	A	1- 4	3.36
P-2889	34	13.2 c.t.	5.7	1500	$2\frac{1}{4} \times 2\frac{5}{8}$	$3\frac{1}{2}$	$2\frac{15}{16}$	$3\frac{5}{8}$	D	5- 0	8.28
P-3142	35	12.6 6.3 6.3	.6 7.8 1.2	2500	$2 \times 2\frac{3}{4}$	3	$2\frac{1}{2}$	$3\frac{5}{8}$	D	4- 0	5.91
*P-2865	36	25V 6.7	.005 11.9	1500	$2\frac{1}{2} \times 2\frac{3}{16}$	$3\frac{7}{8}$	$3\frac{1}{4}$	$3\frac{1}{2}$	D	4- 4	8.10
P-2848	37	25.8 6.7 6.7	.3 6.5 .9	1500	$2 \times 1\frac{15}{16}$	$3\frac{1}{8}$	$2\frac{1}{2}$	3	D	2-15	5.40
P-2962	38	25.2	1	2500	$2\frac{13}{16}$	2	$3\frac{1}{4}$	$1\frac{7}{8}$	A	1- 6	3.78
P-2963	39	#12.6	7	2000	$2\frac{1}{4} \times 2\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{15}{16}$	$3\frac{5}{8}$	D	4-10	7.26

#Or 12.6V @ 3.5A, 12.6V @ 3.5A or 25.2V c.t. @ 3.5A. Primary 117V, 60 cycles. † Primary taps.

* This unit will become obsolete when present supply is exhausted.

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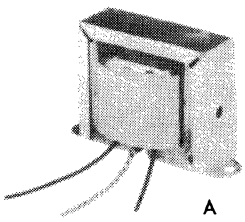
PLATE AND FILAMENT POWER TRANSFORMERS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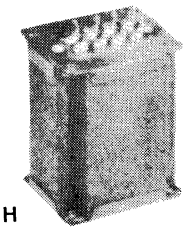
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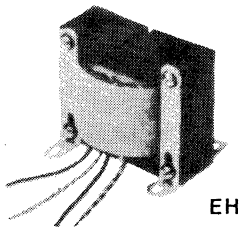
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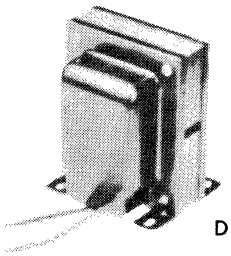
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Merit No.	Ref. No.	Sec. Rms. Volts	Sec. DC Volts	Sec. DC MA	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs.Oz.	Net Price
					Mtg. Centers	H	W	D			
P-3178	1	415-415	300	200	2½ x 2¼	3⅞	3⅜16	3⅝	D	4-15	$7.50
P-3175	2	550-550	400	150	2¼ x 2¾	3⅞16	3	3⅞	D	5- 4	7.50
P-3157	3	660-660 † 550-550	500 400	250	3 x 3⅝16	4⅝	3 13⁄16	4⅜	D	10- 0	14.40
P-3158	4	1080-1080 500-500	1000 ‡ 400	125 150	3 x 3 15⁄16	4⅝	3 13⁄16	5	D	11-12	16.80
P-3159	5	900-900 800-800	750 600	225	3 x 4 1⁄16	4⅝	3 13⁄16	5⅛	D	12- 6	13.50
P-3167	6	1450-1450 1175-1175	1200 1000	300	5¼ x 3	5¾	6⅛	5	EH	20- 8	28.65
P-3168	7	2100-2100 1800-1800	1750 1500	300	5¼ x 3¾	5¾	6⅛	6	EH	29- 0	42.60
P-4062	8	2900-2900 2385-2385	2500 2000	300	5¼ x 5¾	8¼	6 9⁄16	6 1⁄16	H	43-13	67.20

† Has 40V. Bias Tap. ‡ For dual operation with simultaneous use of both sec. ratings. Max. one winding only 275 M.A.

Plate

For small or medium powered amateur or commercial and industrial equipment transmitters. Designed to operate continuously at 50° C or less.

DC voltage ratings are approximate values obtained at output of a choke input filter.

Merit No.	Ref. No.	Plate Volts AC	DC MA	Filament Wdgs. Volts	Amps.	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs.Oz.	Net Price
						Mtg. Centers	H	W	D			
P-3095	10	600-600	200	5 6.3 6.3	3 3 3	3 x 3⅛	4⅝	3 13⁄16	4¼	D	9- 6	$13.68
*P-3166	11	400-400	300	5 5 12.6c.t.	3 6 10	3½ x 4¼	5⅜	4½	5¾	D	18- 3	21.00

Plate & Filament

To provide plate and filament power for small transmitters and industrial equipment.

Merit No.	Ref. No.	Secondary Volts	Second-ary Amps.	Insulation Volts RMS	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs.Oz.	Net Price
					Mtg. Centers	H	W	D			
▲P-3088	12	13	12	1500	3 ½ x 2⅝	3⅞16	4⅛	3¼	EH	6- 3	$6.00
▲P-3085	13	26	3	1500	2 13⁄16 x 2⅛	2 13⁄16	3⅜	2¾	EH	3- 4	6.48
▲P-3093	14	36c.t.	10	1500	4⅜ x 3½	4⅜	5¼	4¾	EH	15- 8	23.22
▲P-3094	15	72c.t.	10	1500	5 13⁄16 x 3¾	6 1⁄32	7 1⁄16	5¾	EH	30- 2	33.33
P-3087	16	78 tapped @ 26 & 52	6	1500	5¼ x 3¾	5 11⁄16	6⅛	5⅞	EH	26- 6	21.00
P-3086	17	104c.t.	3	1500	4¼ x 3	4⅜	5¼	4¼	EH	15- 0	12.00
P-3089	18	104c.t.	6	1500	5¼ x 4	5 11⁄16	6⅛	6⅝	EH	32- 5	21.00
P-3090	19	156 tapped @ 130	3	1500	5¼ x 3¼	5 11⁄16	6⅛	5⅞	EH	25- 6	21.60

Rectifier

For use with Selenium Rectifiers to suit a variety of low voltage industrial applications.

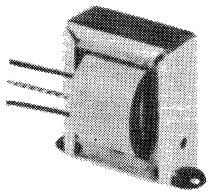
▲Matches Selenium Rectifiers in Federal's "All-Purpose" Assembly Kit. for 13V @ 3A, 13V @ 3A or 13V @ 6A.

Merit No.	Ref. No.	Input Voltage	Output		Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs.Oz.	Net Price
			Voltage	Amps.	Mtg. Centers	H	W	D			
P-3097	20	6.3	12.6 or 6.3	1 1.2	2 13⁄16	1⅞	3¼	2	A	1- 4	$3.09
Secondary insulated for 5000 V-RMS						To isolate the damper tube filament from all other filaments. Operates quietly and efficiently.					

* This unit will become obsolete when present supply is exhausted.

TV Isolation (Damper) Filament Transformer

POWER LINE TRANSFORMERS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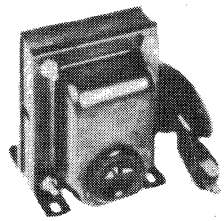
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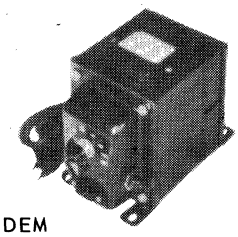
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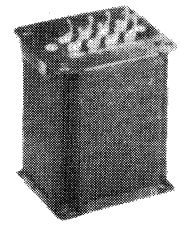
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Line Voltage Regulators

Used to adjust line voltages of 65-75-90-100-115-130-145 volts to constant 115 V at 50/60 cycles for radio, TV sets, or appliances.

Merit No.	Ref. No.	Input Voltage	Output Voltage ▲	Watts	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs. Oz.	Net Price
					Mtg. Centers	H	W	D			
P-3138	1	Dependent on line voltage	Dependent on line voltage and position of switch	350	3 x 5 7/16	4 7/8	3 13/16	7 1/2	DEM	10-10	$19.80
P-3139	2			750	3 1/2 x 6 7/8	5 7/8	4 1/2	9 1/2	DEM	19- 8	30.00

Equipped with voltmeter, line cord and plug, variable primary switch, indicator light and output receptacle. ▲See detailed instruction sheet packed with unit.

Step-Down Auto-Transformers

For reducing 220 volt line source to 117 volts at 50/60 cycles for export and industrial applications.

Merit No.	Ref. No.	Primary Volts	Secondary Volts	Output Watts	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs. Oz.	Net Price
					Mtg. Centers	H	W	D			
P-3161	3	220-250	110-125	80	2 1/4 x 1 7/8	3 1/2	2 15/16	3	DE	3- 6	$ 7.65
P-3162	4	220-250	110-125	150	2 1/2 x 2 7/16	3 7/8	3 3/16	3 5/8	DE	5- 3	9.15
P-3163	5	220-250	110-125	250	3 x 2 15/16	4 5/8	3 13/16	4	DE	8- 7	12.90
P-3164	6	220-250	110-125	500	3 x 3 5/16	4 5/8	3 13/16	4 3/8	DE	10- 2	18.03
P-4065	7	220-250	110-125	1000	4 7/8 x 5 3/4	7 1/4	6 5/8	5 5/8	H	35- 8	39.60

Conservatively rated, equipped with cord plug and receptacle.

Step-Down Transformers

Provides isolation as well as step down from primary to secondary. Designed conservatively for export and industrial applications. Primary 230 volts, 50/60 cycles.

Merit No.	Ref. No.	Primary Volts	Secondary Volts	Output Watts	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs. Oz.	Net Price
					Mtg. Centers	H	W	D			
P-3116	8	230	115	100	2 3/4 x 2 5/16	4 1/4	3 9/16	3 3/8	DE	5- 0	$14.04
P-3117	9	230	115	250	3 x 3 5/16	4 5/8	3 13/16	4 3/8	DE	9-10	20.82
P-3118	10	230	115	500	3 1/2 x 4 7/8	5 7/16	4 7/16	6 3/8	DE	21- 7	36.00

Fully static shielded. Equipped with primary cord and plug. Secondary Standard receptacle.

Standard Isolation Transformers

Separate windings. Provides complete isolation between primary and secondary. Primary for 50/60 cycles.

Equipped with primary cord and plug – secondary standard receptacle. Fully static shielded.

Merit No.	Ref. No.	Primary Volts	Secondary Volts	Output Watts	Dimensions – Inches				Mtg. Type	Shpg. Wt. Lbs. Oz.	Net Price
					Mtg. Centers	H	W	D			
P-3096	11	117	117	40	3 1/8	3 1/8	3 5/8	2 5/8	B	2- 4	$ 5.40
P-3197	12	117	117	80	2 1/2 x 2 5/16	3 7/8	3 3/16	3 1/2	D	5- 0	7.35
P-3177	13	117	105-115-125	350	3 1/2 x 3 3/4	5 5/16	4 1/2	5 1/4	DE	15-10	$ 23.52
P-3198	14	117	117	100	2 3/4 x 2 11/16	4 1/4	3 9/16	3 3/4	DE	6- 6	13.68
P-3202	15	117	117	175	2 3/4 x 3 7/8	4 1/4	4 7/16	3 5/8	J	7- 0	21.54
P-3199	16	117	117	250	3 x 3 13/16	4 5/8	3 13/16	4 7/8	DE	12- 2	23.34
P-3172	17	117	117	500	3 1/2 x 4 7/8	5 3/8	4 5/8	6 1/2	DE	21- 4	30.00

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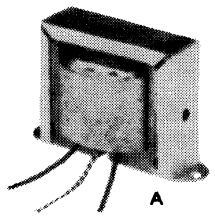
Merit AUDIO OUTPUT TRANSFORMERS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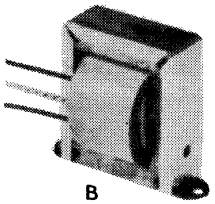
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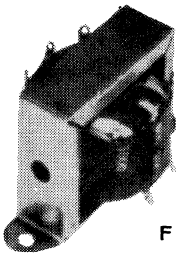
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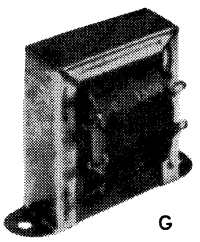
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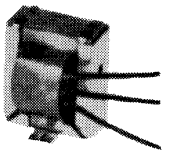
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Standard Type

Merit No.	Ref. No.	Tube	Ohms Impedance Primary	Ohms Impedance Sec.	Pri. Ma.	Max. Watts	Mtg. Type	Dimensions – Inches Mtg. Centers	H	W	D	Shpg. Wt. Lbs. Oz.	Net Price
A-2928	1	Single	2000	3.4	60	5	A	2	1 3/8	2 1/2	1 1/4	0- 6	$2.28
A-3025	2	Single	2500	3.4	50	3	A	1 3/4	1 3/16	2 1/16	1	0- 4	1.38
A-3018	3	Single	3500	3.4	60	8	A	2 3/8	1 5/8	2 13/16	1 1/2	0-10	2.40
A-3026	4	Single	5000	3.4	40	3	A	1 3/4	1 3/16	2 1/16	1	0- 4	1.50
A-2930	5	Single	5000	3.4	40	5	A	2	1 3/8	2 3/8	1 1/4	0- 8	1.56
A-3019	6	Single	5000	3.4	50	8	A	2 3/8	1 5/8	2 13/16	1 1/2	0-10	2.22
A-2935	7	Single or Push-Pull	5000c.t.	3.4	75	18	A	2 13/16	2	3 1/4	1 5/8	1- 0	3.18
A-2931	8	Single	7000	3.4	30	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	1.56
A-3020	9	Single	7000	3.4	40	8	A	2 3/8	1 5/8	2 13/16	1 1/2	0-10	2.40
A-2927	10	Single	8000	3.4	20	3	B	1 1/2	1 7/16	1 7/8	1	0- 4	1.35
A-2932	11	Single	10000	3.4	30	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	1.56
A-2938	12	Single or Push-Pull	10000c.t.	3.4	40	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	2.34
A-2936	13	Single or Push-Pull	10000c.t.	3.4	40	10	A	2 3/8	1 5/8	2 13/16	1 1/2	0-10	2.70
*A-2933	14	Single	12000	3.4	10	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	2.04
A-3021	15	Single or Push-Pull	14000c.t.	3.4	35	12	A	2 13/16	2	3 1/4	1 5/8	1- 0	2.85
A-2934	16	Single	15000	3.4	10	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	1.59
A-2937	17	Single or Push-Pull	25000c.t.	3.4	10	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	1.92
A-3012	18	Single or Push-Pull	10000c.t.	3.4	25	10	B	1 23/32	1 11/16	2	1 1/2	0-10	2.91
A-3017	19	Single or Push-Pull	50000c.t.	3.4	10	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	2.49

6-8 Ohm Speaker Transformers

●A-4080	20	Single	6000	6.8	45	5	G	1 1/2	1 7/16	1 3/16	1 1/8	0- 4	2.63
●A-4081	21	Push-Pull	5500c.t.	6.8	90	10	A	2 3/16	1 5/16	2 5/16	1 3/4	0- 6	3.74

Universal Type

A-2900	22	Single or Push-Pull	4000- 7000- 8000-10000- 14000c.t.	.17 to 32	35	4	F	2	1 3/8	2 3/8	1 1/2	0- 6	2.01
A-2901	23	Single or Push-Pull	4000- 7000- 8000-10000- 14000c.t.	.17 to 32	40	8	F	2 3/8	1 5/8	2 13/16	1 1/2	0-10	3.00
A-2902	24	Single	1500- 2000- 4000- 5000- 7000-10000	1 to 30	55	10	F	2 3/8	1 5/8	2 13/16	1 1/2	0-10	2.58
A-2903	25	Single	2000- 4500- 7000-10000	3.2	30	4	F	2	1 3/8	2 3/8	1 1/4	0- 6	2.70
A-2904	26	Single or Push-Pull	4000- 7000- 8000-10000- 14000c.t.	.17 to 32	40	18	G	2 3/8	2 1/4	2 7/8	1 7/8	1- 1	3.75
A-2905	27	Single or Push-Pull	3000- 5000- 7000- 8000- 10000c.t.	.17 to 32	70	24	F	3 1/8	2 1/4	3 11/16	2 1/8	1-10	4.50
A-2998	28	Single	3500- 5000- 7000-10000	3.2	35	3	F	1 3/4	1 1/8	2 1/8	1 1/8	0- 4	2.16
A-2999	29	Single	12000-15000- 18000-25000	3.2	10	3	F	1 3/4	1 1/8	2 1/8	1 1/8	0- 4	2.28

Filter Tapped

For use in receivers requiring humbucking filter taps.⊕

A-3031	30	Single	3000	3-4	50	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	1.98
A-3032	31	Single	6000	3-4	40	5	A	2	1 3/8	2 3/8	1 1/4	0- 6	2.13

⊕Primary has 30% and 6% humbucking taps.

Special Type

Medium power types to couple output tubes to speaker on line.

A-3027	32	PP6F6, 6V6, etc.	10000c.t.	‡	45▲	15	F	2 13/16	2	3 1/4	1 7/8	1- 0	4.41
A-3028	33	PP6L6, etc.	5000c.t.	‡	70▲	20	F	3 1/8	2 5/16	3 11/16	2	1- 8	5.01
A-3022	34	P-P6V6	10000	3.2	50▲	10	JS	1 1/4	1 15/16	1 5/8	1 1/2	0-10	2.95

‡Sec. Impedance 2-4-8-15-250-500 ohms. ▲Pri. M.A. Per Side.

*This unit will become obsolete when present supply is exhausted.

●New Items.

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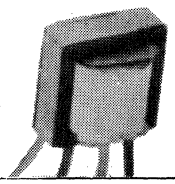
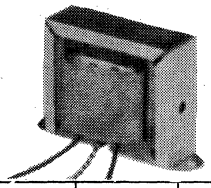
Merit

AA



A



TRANSISTOR AUDIO TRANSFORMERS

Merit No.	Ref. No.	Function	Impedance in Ohms		DC Pri. MA	Max. Level	Mtg. Type	Dimensions–Inches H	W	D	Mtg. Centers	Shpg. Wt.	Net Price
● A-2743	1	Output	24c.t.	8/4	600	10W	A	2	3 5/16	1 7/8	2 13/16	1.5lb	$ 3.52
● A-2745	2	Output	32c.t.	16/8/4	600	10W	A	2	3 5/16	1 7/8	2 13/16	1.5lb	3.46
● A-2747	3	Output	50c.t.	8/4	500	5W	A	2	3 5/16	1 7/8	2 13/16	1.5lb	3.78
● A-2749	4	Output	100c.t.	8/4	100	2W	A	1 3/16	2 1/8	1 1/4	1 3/4	1.8lb	3.05
● A-2751	5	Gen. Purpose	100c.t.	100c.t.	100	500MW	A	1 5/8	2 13/16	1 3/8	2 3/8	1 lb	2.80
● A-2753	6	Output	125c.t.	16/8/4	15	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.92
● A-2755	7	Output	200c.t.	8/4	60	2W	A	1 3/16	2 1/8	1 1/4	1 3/4	.8oz	3.11
● A-2757	8	Output	250c.t.	16/8/4	10	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.43
A-2705	9	Output	250c.t.	11	2	175MW	A	21/32	13/16	9/16	1 1/16	.7oz	4.14
A-2702▲	10	Output	450c.t.	3.2	2	100MW	A	25/32	1 1/32	3/4	1 3/8	2 oz	3.66
A-2706▲	11	Output	500	12	15	175MW	A	21/32	13/16	9/16	1 1/16	.7oz	4.14
● A-2759	12	Driver or Interstage	500c.t.	150c.t.	2	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.43
● A-2761	13	Output	500c.t.	16/8/4	10	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.59
A-2701▲	14	Output	725c.t.	3.2	1	175MW	A	25/32	1 1/32	3/4	1 3/8	2 oz	4.65
A-2760	15	Output	1,000	50/60	3	50MW	AA	3/8	3/8	3/8	–	.5oz	4.56
● A-2763	16	Output	1,000	16/8/4	10	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.46
● A-2765	17	Driver or Interstage	2,000c.t.	500c.t.	2	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.83
● A-2767	18	Output	2,000c.t.	16/8/4	10	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.59
● A-2769	19	Gen. Purpose	2,000c.t.	8,000c.t.	4	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.59
● A-2771	20	Driver or Interstage	3,000c.t.	1,000c.t.	4	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.59
● A-2773	21	Output	4,000c.t.	16/8/4	4	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.70
● A-2775	22	Gen. Purpose	5,000c.t.	50,000c.t.	1	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	4.39
● A-2777	23	Driver or Interstage	5,000	200c.t.	1	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.50
A-2704	24	Driver or Interstage	5,000	2,500c.t.	1.5	350MW	A	21/32	13/16	9/16	1 1/16	.7oz	4.50
A-2700▲	25	Driver or Output	10,000	16	2	20MW	A	5/8	25/32	5/8	1 1/16	.7oz	2.70
A-2703	26	Driver or Interstage	10,000	2,000c.t.	2	100MW	A	25/32	1 1/32	3/4	1 3/8	2 oz	3.66
● A-2779	27	Output	10,000	4	2	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.35
● A-2781	28	Driver or Interstage	10,000	2,000c.t.	1	100MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.89
● A-2783	29	Gen. Purpose	15,000	200	1.5	100MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.59
● A-2785	30	Gen. Purpose	16,000	4,000	1	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.59
● A-2787	31	Driver or Interstage	20,000c.t.	2,000c.t.	1	100MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	4.02
● A-2789	32	Driver or Interstage	20,000	800c.t.	.5	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.59
● A-2791	33	Output	20,000	8/4	.5	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.59
A-2740	34	Input or Interstage	20,000	1,000	.5	150MW	AA	3/8	3/8	3/8	–	.5oz	4.65
● A-2742	35	Driver or Interstage	50,000	3,000c.t.	.5	200MW	A	13/16	1 5/8	7/8	1 3/8	1.3oz	3.91
● A-2744	36	Driver or Interstage	50,000	500c.t.	.5	100MW	A	11/16	1 7/32	11/16	1	.7oz	3.65
A-2720	37	Input	200,000	1,000	0	-40DBM	AA	3/8	3/8	3/8	–	.5oz	4.65

●New Item
▲For printed circuit application

ATTENTION!

THE MERIT LINE INCLUDES FLYBACKS, YOKES, WIDTH AND LINEARITY COILS, VERTICAL OUTPUTS, VERTICAL BLOCKING OSCILLATORS, PEAKING COILS AND MANY OTHER TV AND RADIO COMPONENTS NOT LISTED IN THIS EDITION OF THE RADIO-ELECTRONIC MASTER.

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MERIT COIL AND TRANSFORMER CORPORATION
HOLLYWOOD, FLORIDA

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TRANSFORMERS CHOKES

HIGH CURRENT SMALL SIZE SELENIUM RECTIFIERS FULL WAVE BRIDGE

MAX. AMPS	0-26 VAC 0-20 VDC	0-52 VAC 20-40 VDC	0-78 VAC 40-60 VDC	0-130 VAC 60-100 VDC	0-156 VAC 100-120 VDC
0.6	1.50	2.50	3.25	4.50	6.25
1.5	2.30	3.25	4.75	8.25	10.00
2.2	3.20	5.00	5.75	11.25	13.25
3.4	4.15	6.00	8.25	14.00	16.50
4	7.00	11.00	15.00	24.00	27.00
6.6	8.00	12.00	18.00	32.00	35.00
10	12.00	19.00	25.00	41.00	48.00
12	15.00	21.00	29.00	44.00	51.00
15	18.00	28.00	38.00	53.00	63.00
20	22.00	35.00	46.00	75.00	88.00
24	30.00	42.00	53.00	83.00	93.00
30	34.00	53.00	70.00	115.00	133.00
36	45.00	65.00	84.00	140.00	185.00

SILICON RECTIFIERS FULL WAVE BRIDGE

STOCK No.	A.C. INPUT UP TO	D.C. OUTPUT UP TO	MAX. AMPS SELF COOLED	MAX. AMPS FAN COOLED	NET PRICE
G6S6	420	390	1.5	—	$ 4.66
G1-32-3	36	32	10	—	19.00
G2-125-3	140	125	10	—	28.00
G3-250-3	280	250	10	—	40.00
G1-32-5	36	32	40	80	30.00
G2-64-5	72	64	40	80	45.00
G3-95-5	105	95	40	80	85.00
G4-125-5	140	125	40	80	100.00
G1-32-5	36	32	50	100	32.00
G2-250-5	280	250	50	100	85.00
G1-32-6	36	32	75	100	58.00
G2-64-7	72	64	150	150	133.00
G3-95-6	105	95	75	150	155.00

RECTIFIER TRANSFORMERS

TYPE NO.	VOLTS	AMPS	PRICE
GT 36-2	36	2	$6.00
GT 36-5	36	5	7.60
GT 36-8	36	8	13.00
GT 36-10	36	10	14.75
GT 36-12	36	12	15.75
GT 36-15	36	15	21.50
GT 36-20	36	20	28.50
GT 36-30	36	30	42.00
GT 36-50	36	50	57.00

RECTIFIER TRANSFORMERS — ALL PRIMARIES 115 VAC 60 CYC. ALL GT TYPES ARE TAPPED TO DELIVER 36, 38, 40 VOLTS.

CHOKES

CHOKES	HY	D.C. RES.	PRICE
GH 2A	.04	.9	$ 5.50
GH 5A	.03	0.2	6.60
GH 8A	.012	0.05	11.00
GH 10A	.015	0.06	12.50
GH 12A	.005	0.01	13.95
GH 15A	.006	0.02	14.25
GH 20A	.007	0.03	15.00
GH 30A	.006	0.09	34.00
GH 50A	.004	0.015	43.00

ALL PRICES ARE NET

HIGH CAPACITY LOW VOLTAGE DURALYTIC CAPACITORS

M.F.D. CAPACITY	W.D.C.	SIZE	NET PRICE	BRACKETS	TYPE	PRICE
2,000	50	1⅜ x 4⅛	$ 3.75	2,000	FHL	$.20
4,000	50	2 x 4⅛	4.68	4,000	FJ	.25
10,000	50	3 x 4⅛	12.44	10,000	FD	.50

GATES ELECTRONIC CO.

NEW YORK, N. Y.

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MICROTRAN company, inc., VALLEY STREAM, N. Y.

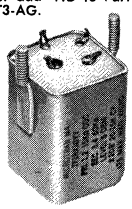
MINIATURE AUDIO TRANSFORMERS

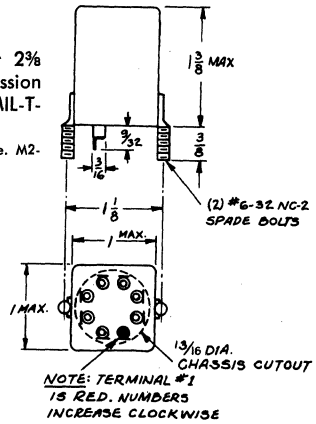
The ruggedized military type units shown on this and the accompanying page were developed to meet the demands of a growing miniaturization program. The various types shown are available from stock for immediate delivery. For use in miniaturized vacuum tube and Transistor circuitry.

MIL CASE M-AG

Grey enamel Finish. Weight 2⅜ oz. Supplied with compression sealed ceramic terminals in MIL-T-27 AG case.

To order add -AG to Part Number. i.e. M2-AG, MT3-AG.



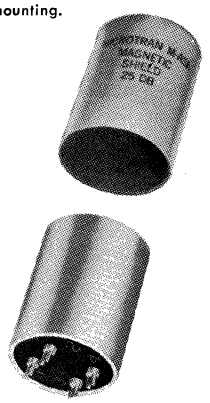


MIL DESIGNATION
TF4RX†† YY

††See Family Designation in Chart

MAGNETIC SHIELD M-A-Sh

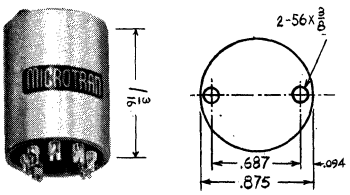
25 Db magnetic shield. 2 holes 11/16 centers to match—A can mounting.



ALUMINUM CASED M-A

Supplied with 2-56 Screws. Weight 1.25 oz.

To order add -A to Part Number. i.e. MT3-A, M1-A.



MIL DESIGNATION TF6RX†† ZZ

††See Family Designation in Chart

MINIATURE AUDIO TRANSFORMERS ("M" SERIES)

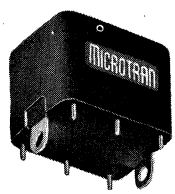
Part No.*	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Frequency Response ±2 db.	†† Family
M1-(*)	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20,20,000	10
M2-(*)	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20,20,000	10
M3-(*)	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20,20,000	10
M4-(*)	Single plate to 1 grid	15,000	60,000	0	6	20-15,000	10
M5-(*)	Single plate to 1 grid	15,000	60,000	4	14	200-20,000	15
M6-(*)	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20-15,000	10
M7-(*)	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200-20,000	15
M8-(*)	Single plate to line	15,000	50/250/600 C.T.	0	8	20-20,000	16
M9-(*)	Single plate to line	15,000	50/250/600 C.T.	4	21	150-20,000	13
M10-(*)	Push pull plates to line	30,000 P.-P.	50/250/600 C.T.	0	8	30-50,000	16
M11-(*)	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20-20,000	16
M12-(*)	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20-20,000	16
M13-(*)	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			6000 Ω D.C.R.	20
M14-(*)	50: 1 mike to grid	200	½ Megohm	0	9	80-3,000	10
M15-(*)	10: 1 plate to grid	10,000	1 Megohm	0	11	100-2,500	10

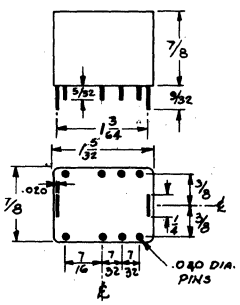
*Add either -AG, -H, -M, -P, -A, or -FB to part No. to designate construction. See photos.

MOLDED M-M

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight 1¾ oz.

To order add -M to Part Number. i.e. M2-M, MT3-M





MIL DESIGNATION TF5RX†† ZZ

††See Family Designation in Chart

MICROTRAN PAGE 1

See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

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MICROTRAN company, inc., VALLEY STREAM, N. Y.

The ruggedized military type units shown on this and the accompanying page were developed to meet the demands of a growing miniaturization program. The various types shown are available from stock for immediate delivery. For use in miniaturized vacuum tube and Transistor circuitry.

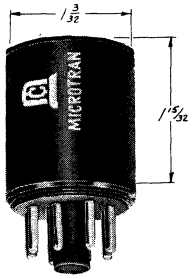
MINIATURE TRANSISTOR TRANSFORMERS

OCTAL PLUG-IN M-P

Sealed Plastic Housing

Weight 2 oz.

To order add -P to Part No. i.e. MT3-P, M1-P



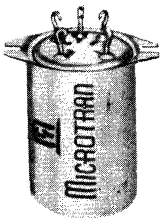
MIL DESIGNATION TF6RX†† YY

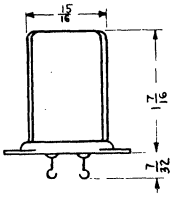
††See Family Designation in Chart

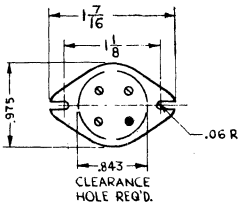
HERMETIC M-H

Grey Enamel Finish. Weight 1¼ oz. High Compression Glass Terminals. .120 holes instead of slots, available on special order.

To order add -H ot Part Number. i.e. M2-H, MT3-H.







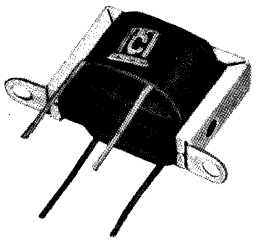
MIL DESIGNATION TF4RX†† YY

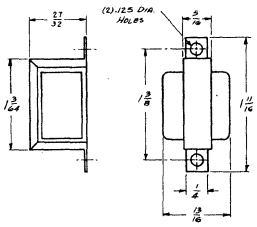
††See Family Designation in Chart

OPEN FRAME WITH CHANNEL M-FB

Weight 1.13 oz.

To order add -FB to Part No. i.e. MT3-FB, M1-FB





Available with plug-in tab channel, 1 1/32 mounting centers as Type M-FPB. On special order only. (See page 18 for photos).

Available without channel as type M-F ¾ x 1 x 13/16. Wt. 1 oz. On special order only.

MIL DESIGNATION TF6RX†† ZZ

††See Family Designation in Chart

MINIATURE TRANSISTOR TRANSFORMERS ("MT" SERIES)

Part No.*	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Frequency Response ±2 db.	†† Family
MT1-(*)	Line to Base	600	600	10	23	200-15,000	17
MT2-(*)	Coll. to P.P. Base 2N57	100	10 C.T./40 C.T.	100	27	200-20,000	17
MT3-(*)	Collector to Base or line	50,000	600	3	20	300-15,000	13
MT5-(*)	Collector to speaker	50,000	6	3	20	300-15,000	13
MT6-(*)	Collector to P.P. Base	100,000	1200 C.T.	1.4	17	200-15,000	13
MT7-(*)	Collector to P.P. Base	25,000	1200 C.T.	3	22	200-15,000	13
MT8-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1200 C.T.	3	20	300-15,000	13
MT9-(*)	Line to P.P. Base	600 C.T.	1200 C.T.	4	23	200-15,000	17
MT10-(*)	Collector to Base	25,000	600	3	22	200-15,000	13
MT11-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200-15,000	13
MT12-(*)	Output Coll. to speaker	2,000	3.4	10	32	200-15,000	13
MT13-(*)	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200-15,000	13
MT14-(*)	Coll. to Spkr. 2N179	400	10	50	25	200-20,000	13
MT15-(*)	P.P. Servo Output 2N57	500 C.T.	210	30	27	300-20,000	17
MT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200-15,000	13
MT20-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300-15,000	13
MT21-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200-15,000	13
MT22-(*)	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200-15,000	17
MT23-(*)	P.P. Coll. to Servo	250 C.T.	1000	10	30	300-15,000	17
MT24-(*)	Coll. to P.P. Base	2,500	600 C.T.	10	32	200-15,000	17
MT25-(*)	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200-15,000	12
MT26-(*)	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200-15,000	17

*Add either -AG, -H, -M, -P, -A, or -FB to part No. to designate construction. See photos.

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See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

MICROTRAN company, inc., VALLEY STREAM, N. Y.

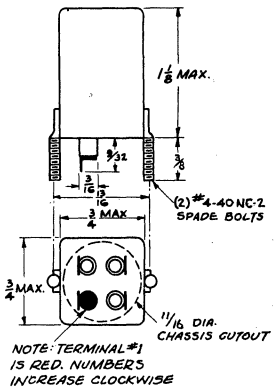
SUB MINIATURE TRANSFORMERS

The units shown on this page are suitable for rigid sub-miniaturization applications where the highest resistance to extremes of ambients must still be maintained. Available from stock for immediate delivery.

MIL CASE SM-AF

Grey Enamel Finish. Weight 1⅛ oz. Supplied with compression sealed ceramic terminals in MIL-T-27 AF case.

To order add -AF to Part Number. i.e. SM2-AF, SMT3-AF.



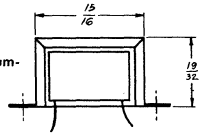
MIL DESIGNATION TF4RX†† YY

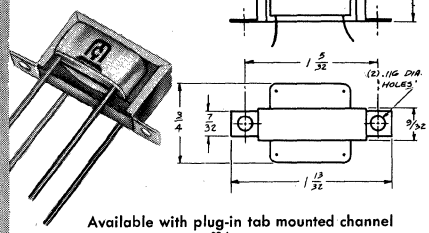
††See Family Designation in Chart

OPEN FRAME WITH CHANNEL SM-FB

Weight .710 oz.

To order add -FB to Part Number. i.e. SMT3-FB, SM1-FB.





Available with plug-in tab mounted channel as type SM-FPB 29/32 mtg. centers on special order only.

Available without channel as type SM-F 9/16 x 7/8 x ¾. Wt. .67 oz. On special order only.

MIL DESIGNATION TF6RX†† ZZ

††See Family Designation in Chart

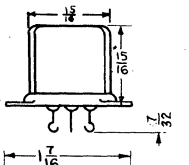
SUB-MINIATURE AUDIO TRANSFORMERS ("SM" SERIES)

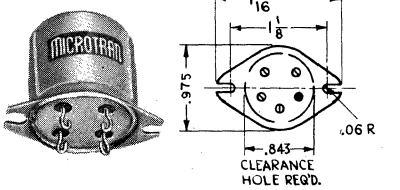
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
SM1-(*)	Input	200/50	250,000/62,500	0	6	80-10,000	10
SM2-(*)	Interstage 3:1	10,000	90,000	0	8	100-10,000	10
SM3-(*)	Plate to line	10,000	200	3	21	150-10,000	13
SM4-(*)	Output	30,000	50	1	21	150-10,000	13
SM5-(*)	Reactor 50 HY at 1 MIL. D.C.	3,000 ohms D.C. Res.					20
SM6-(*)	Output	100,000	60	0.5	21	150-10,000	13

HERMETIC SM-H

Grey Enamel Finish. Weight 1 oz. High Compression Glass Terminals.

To order add -H to Part Number. i.e. SM2-H, SMT3-H





MIL DESIGNATION TF4RX†† YY

††See Family Designation in Chart

SUB-MINIATURE TRANSISTOR TRANSFORMERS ("SMT" SERIES)

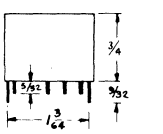
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
SMT1-(*)	Line to Base	600	600	9	23	200-15,000	17
SMT3-(*)	Coll. to Base or line	50,000	600	1	20	300-15,000	13
•SMT4-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	600 C.T.	2	20	200-15,000	13
SMT5-(*)	Coll. to speaker	50,000	6	1	20	300-15,000	13
SMT7-(*)	Coll. to P.P. Base	25,000	1,200 C.T.	1.5	20	200-15,000	13
•SMT8-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	2	20	200-15,000	13
•SMT9-(*)	Line to P.P. Base	600 C.T.	1,200 C.T.	18	23	200-15,000	17
SMT10-(*)	Collector to Base	25,000	600	2	20	200-15,000	13
SMT12-(*)	Output coll. to spkr.	2,000	3.4	5	30	200-15,000	13
SMT13-(*)	Output P.P. coll to spkr.	4,000 C.T.	3.4	5	30	200-15,000	13
SMT16-(*)	Coll. to P.P. Base	10,000	1,500 C.T.	1	23	200-15,000	13
•SMT17-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200-15,000	13
•SMT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	3	20	200-15,000	13
SMT19-(*)	Coll. to P.P. Base	2,500	2,500 C.T.	2.5	26	200-15,000	13
•SMT26-(*)	Line to Base	600 C.T.	600 C.T.	18	23	200-15,000	17

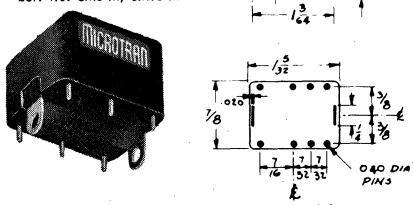
*Add either -AF, -H, -M, or -FB to Part No. to designate construction. See photos. •These items not available in -AF case.

MOLDED SM-M

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight 1 1/2 oz.

To order add -M to Part Number. i.e. SM5-M, SMT5-M





MIL DESIGNATION TF5RX†† ZZ

††See Family Designation in Chart

See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

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MICROTRAN company, inc., VALLEY STREAM, N. Y.

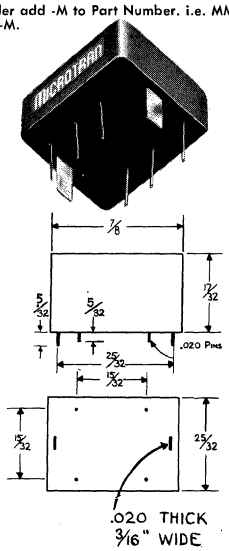
The units shown on this page are suitable for rigid sub-miniaturization applications where the highest resistance to extremes of ambients must still be maintained. Available from stock for immediate delivery.

MICRO MINIATURE TRANSFORMERS

MOLDED MM-M

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight ½ oz.

To order add -M to Part Number. i.e. MM2-M, MMT2-M.



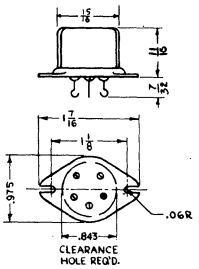
MIL DESIGNATION TF5RX†† ZZ

††See Family Designation in Chart

HERMETIC MM-H

Grey Enamel Finish. High Compression Glass Terminals. Weight ¾ oz.

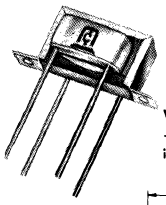
To order add -H to Part Number. i.e. MM2-H, MMT3-H.



MIL DESIGNATION TF4RX†† YY

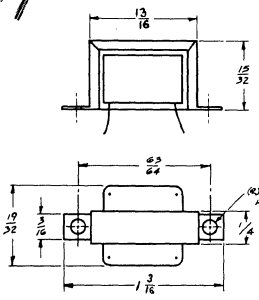
††See Family Designation in Chart

OPEN FRAME WITH CHANNEL MM-FB



Weight .415 oz.

To order add -FB to Part No. i.e. MMT3-FB, MM1-FB



Available with plug-in tab mounted channel as type MM-FPB, 25/32 mounting centers. On special order only. Available without channel as type MM-F ¾ x 7/16 x 19/32. Wt. .38 oz. On special order only.

MIL DESIGNATION TF6RX†† ZZ

††See Family Designation in Chart

MICRO-MINIATURE AUDIO TRANSFORMERS ("MM" SERIES)

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. DC. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
MM1-(*)	Input	200/50	250,000/62,500	0	4	200-10,000	10
MM2-(*)	Interstage 3:1	10,000	90,000	0	4	150-10,000	10
MM3-(*)	Plate to line	10,000	200	3	20	150-10,000	13
MM4-(*)	Output	30,000	50	1	20	150-10,000	13
MM5-(*)	Reactor 50 HY at 1 MIL. D.C.	4,700 ohms D.C. Res.					20
MM6-(*)	Output	100,000	60	0.5	20	250-10,000	13
MM7-(*)	Output	30,000	1,200	0.5	20	200-10,000	13

MICRO-MINIATURE TRANSISTOR SERIES ("MMT" SERIES)

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
MMT1-(*)	Line to Base	600	600	8	22	200-15,000	17
MMT3-(*)	Coll.to Base or line	50,000	600	0.7	20	200-15,000	13
MMT4-(*)	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200-15,000	13
MMT5-(*)	Collector to speaker	50,000	6	1	20	200-15,000	13
MMT7-(*)	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200-15,000	13
MMT8-(*)	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200-15,000	13
MMT9-(*)	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200-15,000	17
MMT10-(*)	Collector to Base	25,000	600	1	20	200-15,000	13
MMT11-(*)	P.P. col. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200-15,000	12
MMT12-(*)	Coll. to Spkr.	2,000	3.4	5	28	200-15,000	13
MMT13-(*)	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200-15,000	13
MMT16-(*)	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200-15,000	13
MMT17-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200-15,000	13
MMT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200-15,000	13
MMT19-(*)	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200-15,000	13
MMT21-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200-15,000	13
MMT25-(*)	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200-15,000	13
MMT26-(*)	Line to Base	600 C.T.	600 C.T.	16	22	200-15,000	17
MMT27-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200-15,000	13
MMT28-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200-15,000	13

*Add either -H, -M, or -FB to Part No. to designate construction. See Photos.

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See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

MICROTRAN company, inc., VALLEY STREAM, N. Y.

VERI & ULTRA MINIATURE TRANSFORMERS

On this page are listed units designed for the extremes in miniaturization. The 4 inch #27 color coded leads supplied are suitable for dip soldering in printed circuits. Thorough baking and resin impregnation assure reliable life. Insulating materials used are compatible for later epoxy potting of complete assemblies. Highest efficiency—space factor obtained by use of high permeability Nickel-Alloy Cores, Nylon Bobbins, Formvar Wire. Available from stock.

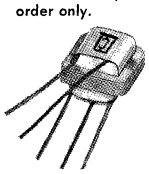
OPEN FRAME VM-F

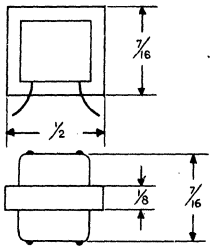
VERI-MINIATURE SIZE

Weight .16 oz.

To order add -F to Part Number. i.e. VM2-F

Available on special order only.





MIL DESIGNATION TF6RX††ZZ

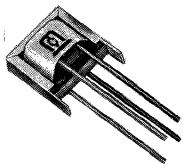
††See Family Designation in Chart

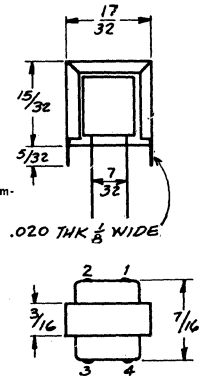
PLUG-IN TAB MOUNTED CHANNEL VM-FPB

VERI-MINIATURE SIZE

Weight .2 oz.

To order add -FPB to Part Number. i.e. VM2-FPB





MIL DESIGNATION TF6RX††ZZ

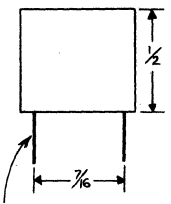
††See Family Designation in Chart

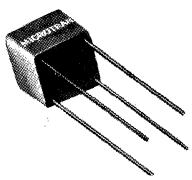
MOLDED VM-M

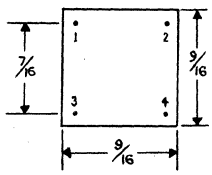
VERI-MINIATURE SIZE

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight ¼ oz.

To order add -M to Part Number. i.e. VM2-M, VM9-M.







MIL DESIGNATION TF5RX††ZZ

††See Family Designation in Chart

VERI-MINIATURE TRANSISTOR TRANSFORMERS

("VM" SERIES) Frequency Response ±2 db. 200 to 10,000 Cycles

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C.R.	Sec. D.C.R.	Level MW.	†† Family
VM1-(*)	Input	50	600 (1.5ma)	6	70	15	21
VM2-(*)	Input or Interstage	200,000	600 (1.0ma)	2650	80	5	21
VM3-(*)	Interstage	25,000	600 (1ma)	675	45	5	21
VM4-(*)	Input or Interstage	200,000	1200 (.72ma)	2650	160	5	21
VM-5(*)	Interstage	50,000	600 (1.0ma)	1500	60	5	21
VM6-(*)	Interstage	100,000	1,200 C.T. (.72ma)	2K	140	5	21
VM7-(*)	Output	500 (3.5ma)	3.4	60	.5	15	21
VM8-(*)	Output	1250 (2.0ma)	3.4	115	.5	15	21
VM9-(*)	Output	1250 (2.0ma)	50	115	6.5	15	21
VM10-(*)	Interstage	2,500 (1.5ma)	2,500 C.T.	225	225	3	21
VM11-(*)	Choke	20 hy. (0ma)	12 hy. (.5ma)	1000	—	—	21
VM12-(*)	Interstage	20,000	1,000 (.75ma)	650	100	5	21
VM13-(*)	Interstage	20,000	1,000 C.T. (.75ma)	650	100	5	21
VM14-(*)	Interstage	600 C.T. (7ma)	600 C.T.	50	65	15	10

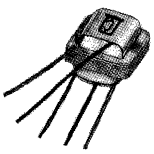
*Add either -F, or -M, or -FPB to Part No. to designate construction. See Photos.

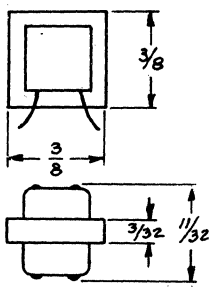
OPEN FRAME UM-F

ULTRA MINIATURE SIZE

Weight .08 oz.

To order add -F to Part Number i.e. UM-22-F





MIL DESIGNATION TF6RX††ZZ

††See Family Designation in Chart

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS

Frequency Response ± 2db 300 to 10,000 Cycles, Measured at level stated for 300 Cy.

Part No.	Application	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma	Pri. D.C.R.	Sec. D.C.R.	Level @ 300 cy.	Level @ 1 kc	†† Family
UM21-(*)	Input	100,000	1,000	0	1900	135	5mw	70mw	16
UM22-(*)	Driver	20,000	1,000	0.5	1100	100	5mw	300mw	13
UM23-(*)	Driver	20,000	1,200 C.T.	0.5	1100	110	5mw	300mw	13
UM24-(*)	Output	1,000	50	3	65	10	5mw	500mw	17
UM25-(*)	Output	400	50	3	35	5	15mw	500mw	17
UM26-(*)	Output	400	11	3	35	1.5	15mw	500mw	17
UM27-(*)	Output	400 C.T.	11	6	35	1.5	15mw	500mw	17
UM28-(*)	Choke	10 hy (0 dc)	8hy (0.5ma)		650				20
UM29-(*)	Interstage	600 C.T.	600 C.T.	7	45	60	5mw	400mw	21
UM30-(*)	Choke	1.5 hy (0 dc)	0.7 hy (2ma)		100				20
UM31-(*)	Interstage	10,000 C.T.	1,200 C.T.	2	850	120	5mw	500mw	21
UM32-(*)	Output	1,500 C.T.	600	5	135	65	5mw	500mw	17
UM33-(*)	Output	1,000 C.T.	600	6	80	65	5mw	500mw	17
UM34-(*)	Driver	10,000 C.T.	600 C.T.	2	850	40	5mw	500mw	13

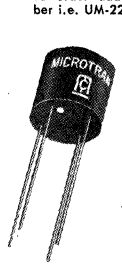
Power levels shown are for 7½% max. distortion. *Add either -F or -M to Part No. See Photos.

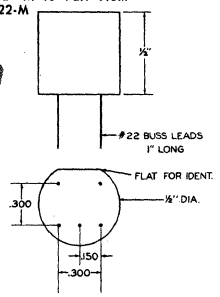
MOLDED UM-M

ULTRA MINIATURE SIZE

Weight .14 oz.

To order add -M to Part Number i.e. UM-22-M





MIL DESIGNATION TF5RX††ZZ

††See Family Designation in Chart

MICROTRAN PAGE 5

See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

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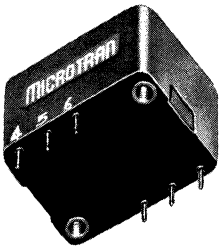
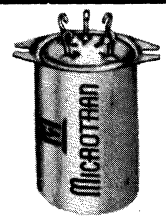
MICROTRAN company, inc., VALLEY STREAM, N. Y.

Designed specifically for Transistor, Servo and Audio applications. All units shown are of MIL-T-27A construction and are available from stock. On special order may be obtained in alternate constructions such as Epoxy molded, or open frame. Also available with modified electrical specifications.

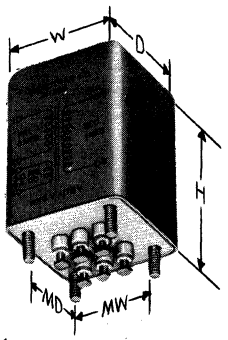
HERMETICALLY SEALED TRANSISTOR DRIVER OUTPUT AND POWER SUPPLY TRANSFORMERS



EPOXY MOLDED
(On Special Order Only)
Mil Designation: TF5RX††ZZ
Inserts or studs or tabs for mounting, leads terminated with .040 pins for printed circuit applications.



HERMETIC M-H
Mil Designation: TF4RX††YY
Grey Enamel Finish. Weight 1¼ oz. High Compression Glass Terminals. .120 holes instead of slots, available on special order.



HERMETICALLY SEALED
PER MIL-T-27A Fig. A
Mil Designation: TF4RX††xx

TRANSISTOR DRIVER TRANSFORMERS

Mil Designation: TF4RX††xx

Part Number	Application	Pri. Imp.	Sec. Imp.	Pri. D.C. Unbal. Ma.	Level Watts	Frequency Response ±2 Db.	Fig. A Mil Case xx	†† Family
M8002*	Collector to P.P. Base	560	400 C.T.	18	.15	200-20,000	AJ	17
M8003*	Collector to P.P. Base	625 C.T.	100 C.T.	20	1.5	200-20,000	AJ	17
M8004	Collector to P.P. Base	5,400	600 C.T.	15	.075	200-15,000	AH	13
M8005	Collector to P.P. Base	7,000	320 C.T.	7	.040	70-15,000	AH	13
M8006	Collector to P.P. Base	10,000	6,500 C.T.	.75	.005	200-15,000	AF Mod.	13
M8008	Collector to Spkr.	25	3-4	600	3	200-20,000	AJ	17
M8007*	P.P. Auto Transformer	30 C.T.	3-4	200	2	100-20,000	AJ	17
M8009	P.P. Output to Spkr.	48 C.T.	3.2/8	50	.5	200-20,000	AJ	17
M8010	P.P. Col. to Servo	120 C.T.	1,000	40	6	300-15,000	AJ	17
M8011	P.P. Output to Spkr.	125 C.T.	3-4	20	1.5	200-15,000	AH	17
M8012*	P.P. Col. to Servo	140 C.T.	500	50	6	300-15,000	AJ	17
M8013*	P.P. Output to Spkr.	250 C.T.	3-4	20	.4	70-15,000	AH	17
M8014	P.P. Output to Spkr.	400 C.T.	11	2	.25	300-15,000	AF Mod.	17
M8015	P.P. Col. to Servo	1,600 C.T.	800	5	2.5	150-20,000	AJ	17
M8016	P.P. Output to Spkr.	2,550 C.T.	12	4	.10	300-15,000	AF Mod.	17

*Bi-Filar wound to minimize switching transients.

POWER SUPPLY TRANSFORMERS

Designed for Silicon Rectifier Circuitry Primary 105/115/125 Volts **Mil Designation: TF4RX01xx**

Part Number	Frequency Cycles	Secondary AC Volts	Secondary RMS Amperes	Rectifier Circuit C.T. Full Wave D.C. Volts**	Rectifier Circuit F.W. Bridge D.C. Volts**	Fig A Mil Case xx
M8018	380-1600	18.5 C.T.	1	7	14	EA
M8019	380-1600	18.5 C.T.	3	7	14	FA
M8020	380-1600	35 C.T.	3	14.5	29	GA
M8021	380-1600	70 C.T.	1	30	60	FA
M8022	50/60	18.5 C.T.	3	7	14	JB
M8023	50/60	35 C.T.	3	14.5	29	KA
M8024	50/60	70 C.T.	1	30	60	JA
M8039	380-1600	12.6 C.T. 12.6	.8 .8	10.5	21	AJ
M8041†	380-1600	50v. C.T.	.25	21.5	43	AH
M8042	50/60	6.3 C.T.	.6	1.9	3.8	AJ
M8043	50/60	6.3 C.T.	2	1.9	3.8	FB
M8044	50/60	12.6 C.T. 12.6	2 2	10.5	21	JB
M8045	50/60	28 C.T.	.6	11.7	23.4	FA
M8046	50/60	49 C.T.	2.5	21	42	LA

†Primary 115 volts only
Output voltages based on approximately 1 volt drop per rectifier.
**DC Output voltages stated for resistive or inductive rectifier loads.

400 CYCLE ISOLATION TRANSFORMERS

Mil Designation TF4RX01xx **Electrostatic Shielding**

Part No.	Input Voltage	Output Voltage	Current RMS Amps	V.A. Rating	Case Designation xx
M8047	115	115	.017	2	YY (Fig. M-H)
M8048	115	115	.35	40	EB (Fig. A)
M8049	115	115	1.3	150	GA (Fig. A)

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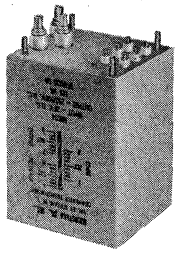
See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

MICROTRAN company, inc., VALLEY STREAM, N. Y.

D. C. TO D. C. CONVERTER TRANSFORMERS

Permits conversion of low voltage direct current to high voltage for operating mobile and military electronic equipment. These miniaturized high efficiency transformers used in transistor switching circuits provide greatly improved reliability, efficiency, ruggedness, over vibrator and rotary power converters.



All transformers shown are hermetically sealed and constructed in accordance with MIL-T-27A Grade 4, Class R, 10,000 hour minimum life. Unique construction eliminates the difficulties usually experienced with high voltage random wound torroidal transformers and mechanical fragility of ferrite cores. On special order obtainable with modified electrical or mechanical specifications. Available from franchised stocking distributors.

MIL DESIGNATION TF4RX09xx

See Case Designation in Chart

D. C. TO D. C. CONVERTER TRANSFORMERS

Part Number	Nominal D.C. Input Volts	Total V.A. Output*	Typical** Transistors	D.C. Output F.W. Bridge Volts	F.W. Bridge Ma.	C.T. Full Wave Volts	C.T. Full Wave Ma.	Size D	Size W	Size H	Mounting Centers MD	Mounting Centers MW	MIL Case xx
M8034	28	125	Delco 2N174	500	250	250	420	2¾	2⅜	3 13/16	2⅛	1¾	GA
M8035	13.6	125	Delco 2N442	500	250	250	420	2¾	2⅜	3 13/16	2⅛	1¾	GA
M8036	13.6	40	Delco 2N442	450	90	225	155	2 5/16	2 1/16	3⅛	1 11/16	1 1/16	FA

*Full wave and C.T. loads may be simultaneously drawn. However, for continuous duty operation, Total V.A. output shown should not be exceeded.

**Typical transistors suggested are for reference only, as user must verify that maximum transistor ratings will not be exceeded for the particular application.

Overall DC to DC full load efficiencies up to 80% when used in circuit similar to Fig. 1: AC output voltage to input of rectifier is a nominal 800 cycle square wave permitting ease of filtering.

TYPICAL DC-DC CONVERTER CIRCUIT

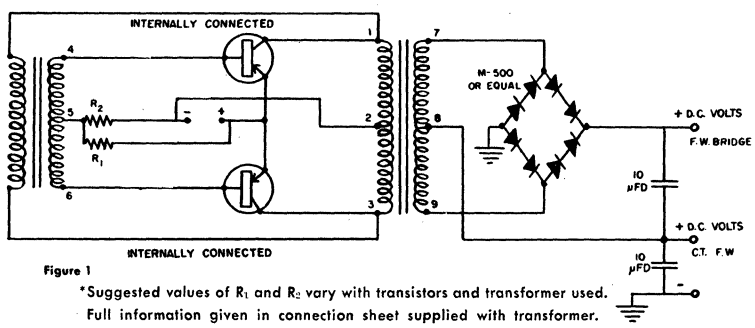


Figure 1

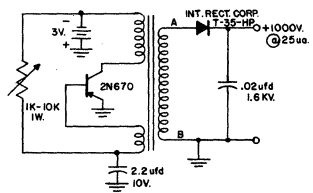
*Suggested values of R_1 and R_2 vary with transistors and transformer used. Full information given in connection sheet supplied with transformer.

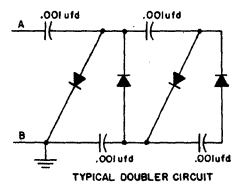
D. C. TO D. C. CONVERTER TRANSFORMERS

Transistor Blocking Oscillator Type 400 cycles approximate repetition rate

Part No.	H.V.	Turns Ratio Collector	Turns Ratio Feedback	Typical Input Volts D.C.	Typical Input Ma. D.C.	Typical Output* Volts D.C.	Typical Output* μa.D.C.	Dimensions L	Dimensions W	Dimensions H	Mounting Center	Fig.
M8050	600:	12:	1	3	20	1000	25	1 11/16	13/16	27/32	1⅜	M-FB†
M8051	600:	12:	1	3	20	1000	25	1	1	1⅜	1⅛	M-AG†

*(Output when transformer is used in blocking oscillator circuit with single capacitor input rectifier.) MIL Family 09.





TYPICAL DOUBLER CIRCUIT

See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

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MICROTRAN company, inc., VALLEY STREAM, N. Y.

Professional quality cased input Transformers for connection to low level chopper, microphone, pick up, tape heads, or lines. All units are magnetically shielded to improve signal to noise ratio.

CHOPPER AND INPUT TRANSFORMERS

CHOPPER TRANSFORMERS

Efficiently transfers 30 to 500 cps. Transducer or Thermocouple signals to instrument amplifiers. Signal level range from .5μV. to .5 volts. Resin impregnated to minimize mechanical vibration noise signal. Low hum pick up assured by 3 mu-metal and 2 copper shields. Accurate center taps and external electrostatic shield connection improve low-level operation.

Part Number	Turn Ratio Full Pri. To Full Sec.	Turn Ratio ½ Pri. To Full Sec.	Ind. of Full Pri. @ .5V. 60 cy.	Imped. of Full Pri. @ .5V. 60 cy.	D.C. Resistance Full Pri.	D.C. Resistance Sec.	Magnetic Shielding	Hght.	Dia.	Wght. Oz.	Fig.	Family
M8025	1:7.7	1:15.4	17.5	6,600	365	4140	90 DB.	1 25/32	1 3/8 D.	4.5	A	09
M8026	1:3.2	1:6.4	60 HY.	22,500	455	3500	90 DB.	1 25/32	1 3/8 D.	4.5	A	09

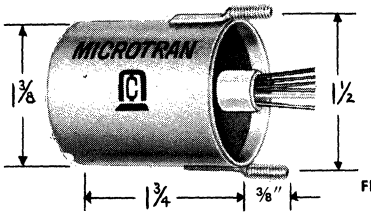

FIGURE A

LOW LEVEL CHOPPER INPUT

6-32 x 3/8" Mounting studs on 1 ½" centers. Available on special order with Plug-in header and hermetically sealed.

PLUG-IN INPUT TRANSFORMERS

These Broadcast fidelity input transformers are double mu-metal shielded. Plug-in feature permits simple installation.

Part Number	Pri. Imp.	Sec. Imp.	Magnetic Shielding	Level DBM	Frequency Resp. ±2 db.	Height	Width or Diameter	Weight Oz.	Figure	Family
M8027**	250/50 C.T.	50,000	65 DB.	+5	20-20,000	2 3/8	1 1/8 D.	11	B	10
M8028	170	50,000	65	+5	20-20,000	1 3/4	1 D.	4	C	10
M8029**	600	50,000	65	+5	20-20,000	2 11/16	2	16	D	10
M8030*	200/50 C.T.	50,000	65	+5	20-20,000	2 1/8	1 1/8 D.	6	E	10
M8031	600 C.T./150	50,000	65	+5	30-20,000	2 1/8	1 1/8 D.	6	E	10
M8032†	250 C.T.	50,000	65	+5	20-20,000	2 1/8	1 1/8 D.	6	E	10
M8033†	50 C.T.	50,000	65	+5	20-20,000	2 1/8	1 1/8 D.	6	E	10

*M8030 is designed as a replacement for Ampex No. 1733-1.
†M8032 and M8033 mates with sockets on many RCA amplifiers.

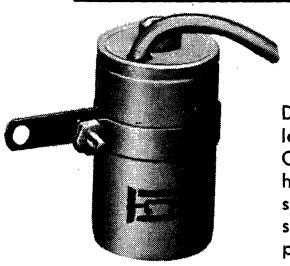
FIGURE C

PHONO INPUT
Auto Transformer

Designed to step up voltage of low level high fidelity phono pickups. Case may be rotated for minimum hum pickup. Supplied with 28" shielded cable terminated with standard phono plug. Standard phono receptacle mounted on can.

FIGURE E

MIKE INPUT
Plug-in Base

M8030 and M8031 has an 8 pin Octal plug. M8032 and M8033 has a 9 pin Octal Type plug.
Matches the sockets on many commercial Public Address and Tape Recorder amplifiers.
Available on special order with alternate plug-in headers or hermetically sealed.

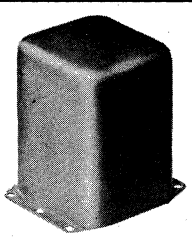
FIGURE D

PHONO INPUT AUTO
Transformer
Drawn Steel Case

Designed to step-up voltage of low level high fidelity phono pickups. Supplied with phono receptacle on case and with 28" shielded cable terminated with standard phono plug.

**ON SPECIAL ORDER ONLY.

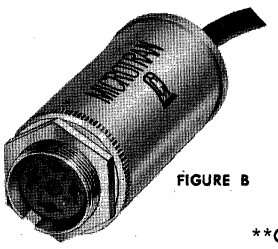

FIGURE B

MIKE INPUT
In-line

Designed for insertion in mike cable circuit. Supplied with 6" microphone cable. Input receptacle mates with Amphenol 91-PC4F Plug, (not supplied.)

**ON SPECIAL ORDER ONLY.

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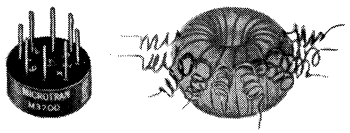
See Pages 1398-1399 for Prices. Also see EEM Pages 1535-1537

MICROTRAN company, inc., VALLEY STREAM, N. Y.

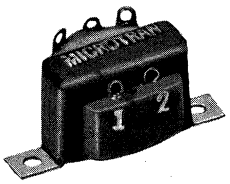
SPECIAL PACKAGING OF STOCK ITEMS

The following types are available on special order, with the same electrical ratings as catalog items on page 4, 5, 6, 7, 8, 9, 10 and 11, but packaged specially to suit customer requirements. These are just some of the various mechanical constructions that may be had on special order.



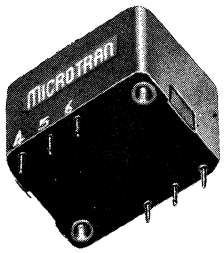
TOROIDS

- **Frequency Range:** 20 cycles to 5 mc.
- **Power Level:** Up to 150 Watts.
- **Operating Temperature Range:** −65 to + 130°C.
- **Constructions:** Open coil, hermetically sealed to MIL-T-27A, molded printed circuit, encapsulated.
- **Types Available:** Precision Inductors, Audio Transformers, Power Transformers, DC-DC Converter Switching Transformers.



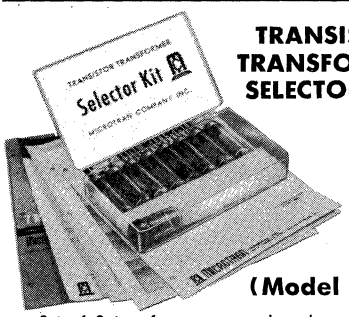
ENCAPSULATED

Epoxy encapsulated or fosterite process, with solder lugs, terminals. Available for the M, SM & MM series.



MOLDED WITH SPECIAL MOUNTING

Molded construction with inserts, studs, pins, or mounting bracket. Obtainable with turret terminals and mounting surface opposite terminals. Available for M, SM, & MM series.



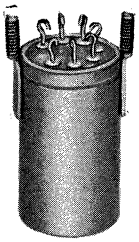
TRANSISTOR TRANSFORMER SELECTOR KIT

(Model 400K)

Set of 9 transformers covers impedance range of 150 through 200,000 OHMS.
Matches most new transistor impedance ratings.

FULL DESIGN DATA ENCLOSED

- Nomographs and circuitry for determining correct impedance • Power versus DBM chart • Guide to MIL-T-27A • Cross Reference index • Outline drawings.



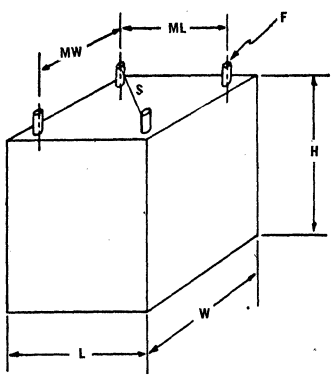
MU METAL CASE

Mu can shielding with spade bolt mounting. Obtainable hermetically sealed or potted with leads.

PLUG-IN HERMETIC

Hermetically sealed case with plug-in high compression header. Available only in M & SM series.

STANDARD MIL-T-27 CASES



Case Symbol	—Case Dimensions— L	W	H	—Mounting Dimensions— ML	MW	F
AF	3/4	3/4	1 1/8	*1 3/16	—	6—32x3/8
AG	1	1	1 3/8	*1 1/8	—	6—32x3/8
AH	1 5/16	1 5/16	1 3/4	S:1 1/4	—	6—32x3/8
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6—32x3/8
EA	1 13/16	1 13/16	2 3/4	1 3/8	1 1/4	6—32x3/8
EB	1 13/16	1 13/16	2 7/16	1 3/8	1 1/4	6—32x3/8
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6—32x3/8
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6—32x3/8
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6—32x3/8
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6—32x3/8
HA	3 1/16	2 5/8	4 1/4	2 15/64	1 53/64	8—32x3/8
HB	3 1/16	2 5/8	3 5/16	2 15/64	1 53/64	8—32x3/8
JA	3 5/16	3 1/16	4 7/8	2 5/8	2 1/8	8—32x3/8
JB	3 5/16	3 1/16	3 7/8	2 5/8	2 1/8	8—32x3/8
KA	3 13/16	3 3/8	5 1/4	3	2 7/16	10—32x1/2
KB	3 13/16	3 3/8	4 5/16	3	2 7/16	10—32x1/2
LA	4 5/16	3 11/16	5 5/16	3 5/16	2 11/16	10—32x1/2
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10—32x1/2
MA	4 11/16	4	6	3 11/16	3	1/4—20x5/8
MB	4 11/16	4	4 15/16	3 11/16	3	1/4—20x5/8
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	1/4—20x5/8
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4—20x5/8

S: Two studs in a diagonal.
*Not in conformance with MIL-T-27A.

YY—All metal cases not included above or with non-standard mounting centers. ZZ—Open type & encapsulated units.
1. Tolerances on dimensions L and W are +0 to −1/16 for cases AF, AG, AH and AJ; +0 to −1/8 for all other cases.
2. Tolerances on dimension H are +0 to −1/8 for cases AF, AG, AH, and AJ; +0 to −3/16 for all other cases.
3. Tolerances on dimensions ML and MW are ±1/64 for cases AJ to JB inclusive; ±1/32 for cases KA to LB, inclusive; and ±3/64 for cases MA to OA, inclusive. When mounting studs or holes for inserts are used, they shall be symmetrically located. For template dimensions D, E, and G, tolerance is ± .002.
4. Screw-stud lengths are measured from the mounting surface and have a length tolerance of ±1/16 on studs 1/2" long or less and ±1/8 on studs over 1/2" long.
of studs.

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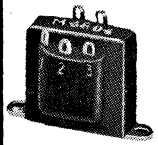

Figure E
Encapsulated
Channel Mtd.

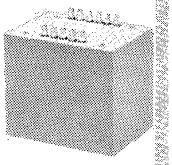

Figure Q
Hermetic
with Inserts

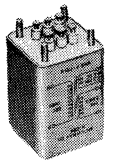

Figure MIL
Hermetic
MIL-T-27A Case

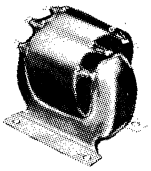

Figure R
Encapsulated
Hipersil

Figure H
Miniature
Hermetic

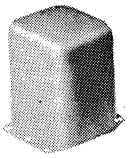

Figure V
Cylindrical with
rectangular
flange

Figure X
Hipersil with
terminal board

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Separate sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials.

IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27A, MIL-T-9219, AN-E-19, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-9454.

NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMER
PRIMARY 115 VOLTS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Ma.	Test Volts R.M.S.	Figure
M2954	24.2	10 A	1,500	MIL-KA
M2821	30	500	500	MIL-FB
M2880	32	5.5 A	500	MIL-KA
M2845	60 C.T.	166	500	MIL-AH
M2835	112 C.T.	500	500	MIL

400 CYCLE FILAMENT TRANSFORMER
PRIMARY 115 VOLTS

Part No.	Filament Volts	Filament Amps	Test Volts R.M.S.	Figure
M2655	6.3	1.5	1,500	MIL
	6.3	1.5		
M2810	6.3 C.T.	2.0	1,000	MIL-EA
	6.3 C.T.	2.0		
M2611	6.3 C.T.	2.0	1,000	Q
	6.3 C.T.	10.0	1,000	
M2724	12.6 C.T.	3.0	1,000	MIL
	6.3	1.2		
M2829	12.6	0.3	500	MIL-AJ
	12.6	0.3		
	12.6	0.3		
M2830	12.6 C.T.	5.0	500	MIL-JA
	12.6 C.T.	5.0		
M2812	26.0	1.0	1,000	MIL-EA

60 CYCLE POWER TRANSFORMERS
PRIMARY 115 VOLTS

Part No.	Plate Supply A.C. Volts	D.C. Ma.	Rectifier Filament Volts	Rectifier Filament Amps	Filament No. 2 Volts	Filament No. 2 Amps	Figure
M2571	550 C.T.	55	5.0	2.0	6.3 C.T.	3.0	MIL-JB
M2558	386 C.T.	70	6.3	2.5			MIL-HA
M2192	800 C.T.	250	6.3	5.0	5.0	3.0	MIL
M2442	330	300 FWB	6.3 C.T.	10.0	6.3	3.0	MIL-MB

60 CYCLE POWER SUPPLY TRANSFORMERS
PRIMARY 115 VOLTS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Ma.	Test Volts R.M.S.	Figure
M1606	2.5	10	500	H
M2530	25.0	230	1,000	MIL-GB
M2552	26.5 C.T.	600	3,000	MIL-GA
M2808	34.0	15A	500	MIL
M2531	40.0	400	1,000	MIL-HB
	40.0	400		
M2244	600	300	1,500	MIL-MA
M2242	600	500	1,500	MIL-NB
M2170	980 C.T.	225	2,500	MIL-MA

60 CYCLE FILAMENT TRANSFORMER
PRIMARY 117 VOLTS

Part No.	Filament Volts	Filament Amps	Test Insulation Volts R.M.S.	Figure
M1070	5.0 C.T.	4.0	1,500	MIL-FA
M2245	5.0 C.T.	6.0	6,600	MIL-JA
	6.3 C.T.	0.6		
M2166	6.3 C.T.	0.6	3,500	MIL-JB
	6.3	4.0		
	5.0 C.T.	4.0		
M1631	6.3 C.T.	1.0	3,500	MIL-JA
	6.3 C.T.	1.5		
	6.3 C.T.	4.5		
M1191	7.5	3.0	1,500	MIL-GA
M2228	12.6	65.0	1,500	Q
M1395	24.0	1.0	1,500	MIL-GA

400 CYCLE SERVO DRIVER AND OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M1828	4,750	15.	250	1 Watt	E
M1378	6,000	38.	180	1.3 Watts	H
M2472	2,500 C.T.	2.	300	1.5 Watts	H
M2848	200 C T.	20.	1,640 C.T.	5.6 Watts	MIL-AJ
M2769	10,000 C.T.	9.	500	7 Watts	E
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

MICROTRAN company, inc.

VALLEY STREAM, N. Y.

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MICROTRAN company, inc., VALLEY STREAM, N. Y.

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Prices, Mechanical Construction, or Electrical Characteristics Subject to Modification without notice.

Effective 9/1/61

• NEW ITEMS

MINIATURE TRANSFORMERS
Microtran Page 1

Part	1 -9	10 -49	50 -99	100 -200
• M-A-Sh	$1.35	$1.22	$1.13	$ .90
M1-A	7.05	6.34	5.86	4.70
M1-AG	9.90	8.91	8.25	6.60
M1-FB	3.75	3.37	3.13	2.50
M1-H	9.00	8.10	7.50	6.00
M1-M	10.20	9.18	8.50	6.80
M1-P	8.55	7.69	7.13	5.70
M2-A	7.05	6.34	5.88	4.70
M2-AG	10.05	9.04	8.38	6.70
M2-FB	3.90	3.51	3.25	2.60
M2-H	9.15	8.23	7.63	6.10
M2-M	10.35	9.31	8.63	6.90
M2-P	8.55	7.69	7.13	5.70
M3-A	6.45	5.80	5.38	4.30
M3-AG	9.45	8.50	7.88	6.30
M3-FB	3.60	3.24	3.00	2.40
M3-H	8.55	7.69	7.13	5.70
M3-M	9.75	8.77	8.13	6.50
M3-P	7.95	7.15	6.63	5.30
M4-A	6.00	5.40	5.00	4.00
M4-AG	7.95	7.15	6.63	5.30
M4-FB	3.45	3.10	2.88	2.30
M4-H	7.05	6.34	5.88	4.70
M4-M	8.25	7.42	6.88	5.50
M4-P	7.50	6.75	6.25	5.00
M5-A	6.00	5.40	5.00	4.00
M5-AG	7.95	7.15	6.63	5.30
M5-FB	3.45	3.10	2.88	2.30
M5-H	7.05	6.34	5.88	4.70
M5-M	8.25	7.42	6.88	5.50
M5-P	7.50	6.75	6.25	5.00
M6-A	6.45	5.80	5.38	4.30
M6-AG	9.45	8.50	7.88	6.30
M6-FB	3.60	3.24	3.00	2.40
M6-H	8.55	7.69	7.13	5.70
M6-M	9.75	8.77	8.13	6.50
M6-P	7.95	7.15	6.63	5.30
M7-A	6.45	5.80	5.38	4.30
M7-AG	10.35	9.31	8.63	6.90
M7-FB	3.75	3.37	3.13	2.50
M7-H	9.45	8.50	7.88	6.30
M7-M	10.65	9.58	8.88	7.10
M7-P	7.95	7.15	6.63	5.30
M8-A	7.05	6.34	5.88	4.70
M8-AG	9.90	8.91	8.25	6.60
M8-FB	3.75	3.37	3.13	2.50
M8-H	9.00	8.10	7.50	6.00
M8-M	10.20	9.18	8.50	6.80
M8-P	8.55	7.69	7.13	5.70
M9-A	7.05	6.34	5.88	4.70
M9-AG	9.90	8.91	8.25	6.60
M9-FB	3.75	3.37	3.13	2.50
M9-H	9.00	8.10	7.50	6.00
M9-M	10.20	9.18	8.50	6.80
M9-P	8.55	7.69	7.13	5.70
M10-A	7.50	6.75	6.25	5.00
M10-AG	10.20	9.18	8.50	6.80
M10-FB	3.90	3.51	3.25	2.60
M10-H	9.30	8.37	7.75	6.20
M10-M	10.50	9.45	8.75	7.00
M10-P	9.00	8.10	7.50	6.00
M11-A	7.05	6.34	5.88	4.70
M11-AG	9.90	8.91	8.25	6.60
M11-FB	3.75	3.37	3.13	2.50
M11-H	9.00	8.10	7.50	6.00
M11-M	10.20	9.18	8.50	6.80
M11-P	8.55	7.69	7.13	5.70
M12-A	7.50	6.75	6.25	5.00
M12-AG	10.20	9.18	8.50	6.80
M12-FB	3.75	3.37	3.13	2.50
M12-H	9.30	8.37	7.75	6.20
M12-M	10.50	9.45	8.75	7.00
M12-P	9.00	8.10	7.50	6.00
M13-A	5.55	4.99	4.63	3.70
M13-AG	7.35	6.61	6.13	4.90
M13-FB	3.30	2.97	2.75	2.20
M13-H	6.45	5.80	5.38	4.30
M13-M	7.65	6.88	6.38	5.10
M13-P	7.05	6.34	5.88	4.70
M14-A	7.05	6.34	5.88	4.70
M14-AG	9.90	8.91	8.25	6.60
M14-FB	$ 3.90	$ 3.51	$ 3.25	$ 2.60
M14-H	9.00	8.10	7.50	6.00
M14-M	10.20	9.18	8.50	6.80
M14-P	8.55	7.69	7.13	5.70
M15-A	7.05	6.34	5.88	4.70
M15-AG	8.40	7.56	7.00	5.60
M15-FB	3.60	3.24	3.00	2.40
M15-H	7.50	6.75	6.25	5.00
M15-M	8.70	7.83	7.25	5.80
M15-P	8.55	7.69	7.13	5.70

TRANSISTOR DRIVER—Microtran Page 6

M8002	10.50	9.45	8.75	7.00
M8003	11.10	9.99	9.25	7.40
M8004	10.20	9.18	8.50	6.80
M8005	10.20	9.18	8.50	6.80
M8006	9.45	8.50	7.88	6.30

TRANSISTOR OUTPUT—Microtran Page 6

M8007	10.20	9.18	8.50	6.80
M8008	9.90	8.91	8.25	6.60
M8009	10.80	9.72	9.00	7.20
M8010	10.50	9.45	8.75	7.00
M8011	10.20	9.18	8.50	6.80
M8012	10.50	9.45	8.75	7.00
M8013	10.20	9.18	8.50	6.80
M8014	8.40	7.56	7.00	5.60
M8015	10.50	9.45	8.75	7.00
M8016	8.55	7.69	7.13	5.70

TRANSISTOR POWER—Microtran Page 6

M8018	15.00	13.50	12.50	10.00
M8019	15.90	14.31	13.25	10.60
M8020	18.00	16.20	15.00	12.00
M8021	15.90	14.31	13.25	10.60
M8022	16.20	14.58	13.50	10.80
M8023	18.90	17.01	15.75	12.60
M8024	18.30	16.47	15.25	12.20
M8039	13.20	11.88	11.00	8.80
M8041	9.75	8.77	8.13	6.50
M8042	10.05	9.04	8.38	6.70
M8043	10.35	9.31	8.63	6.90
M8044	19.35	17.41	16.13	12.90
M8045	14.10	12.69	11.75	9.40
M8046	28.20	25.38	23.50	18.80

CHOPPER TRANSFORMERS
Microtran Page 8

M8025	13.80	12.42	11.50	9.20
M8026	13.80	12.42	11.50	9.20

INPUT TRANSFORMERS—Microtran Page 8

M8028	11.85	10.66	9.88	7.90
M8030	13.50	12.15	11.25	9.00
M8031	13.35	12.01	11.13	8.90
M8032	13.05	11.74	10.88	8.70
M8033	13.05	11.74	10.88	8.70

DC TO DC CONVERTER—Microtran Page 7

M8034	26.70	24.03	22.25	17.80
M8035	26.70	24.03	22.25	17.80
M8036	24.90	22.41	20.75	16.60
M8050	5.55	4.99	4.63	3.70
M8051	11.85	10.66	9.88	7.90

400 CYCLE ISOLATION—Microtran Page 6

M8047	8.55	7.69	7.13	5.70
M8048	14.25	12.82	11.88	9.50
M8049	17.70	15.93	14.75	11.80

MICRO-MINIATURES—Microtran Page 4

MM1-FB	4.50	4.05	3.75	3.00
MM1-H	7.35	6.61	6.13	4.90
MM1-M	8.55	7.69	7.13	5.70
MM2-FB	4.80	4.32	4.00	3.20
MM2-H	7.50	6.75	6.25	5.00
MM2-M	8.70	7.83	7.25	5.80
MM3-FB	4.05	3.64	3.38	2.70
MM3-H	7.05	6.34	5.88	4.70
MM3-M	8.25	7.42	6.88	5.50
MM4-FB	4.05	3.64	3.38	2.70
MM4-H	7.05	6.34	5.88	4.70
MM4-M	8.25	7.42	6.88	5.50
MM5-FB	4.05	3.64	3.38	2.70
MM5-H	$ 6.90	$ 6.21	$ 5.75	$ 4.60
MM5-M	8.10	7.29	6.75	5.40
MM6-FB	4.05	3.64	3.38	2.70
MM6-H	7.05	6.34	5.88	4.70
MM6-M	8.25	7.42	6.88	5.50
MM7-FB	3.30	2.97	2.75	2.20
MM7-H	6.45	5.80	5.38	4.30
MM7-M	7.65	6.88	6.38	5.10

MICRO-MINIATURE TRANSISTOR TRANSFORMERS—Microtran Page 4

MMT1-FB	3.90	3.51	3.25	2.60
MMT1-H	7.35	6.61	6.13	4.90
MMT1-M	8.55	7.69	7.13	5.70
MMT3-FB	4.05	3.64	3.38	2.70
MMT3-H	7.50	6.75	6.25	5.00
MMT3-M	8.70	7.83	7.25	5.80
MMT4-FB	4.80	4.32	4.00	3.20
MMT4-H	8.55	7.69	7.13	5.70
MMT4-M	9.75	8.77	8.13	6.50
MMT5-FB	4.35	3.91	3.63	2.90
MMT5-H	7.95	7.15	6.63	5.30
MMT5-M	9.15	8.23	7.63	6.10
MMT7-FB	4.50	4.05	3.75	3.00
MMT7-H	8.40	7.56	7.00	5.60
MMT7-M	9.60	8.64	8.00	6.40
MMT8-FB	4.65	4.18	3.88	3.10
MMT8-H	8.55	7.69	7.13	5.70
MMT8-M	9.75	8.77	8.13	6.50
MMT9-FB	4.20	3.78	3.50	2.80
MMT9-H	7.65	6.88	6.38	5.10
MMT9-M	8.85	7.96	7.38	5.90
MMT10-FB	3.45	3.10	2.88	2.30
MMT10-H	7.20	6.48	6.00	4.80
MMT10-M	8.40	7.56	7.00	5.60
MMT11-FB	4.35	3.91	3.63	2.90
MMT11-H	7.80	7.02	6.50	5.20
MMT11-M	9.00	8.10	7.50	6.00
MMT12-FB	3.90	3.51	3.25	2.60
MMT12-H	7.35	6.61	6.13	4.90
MMT12-M	8.55	7.69	7.13	5.70
MMT13-FB	4.05	3.64	3.38	2.70
MMT13-H	7.50	6.75	6.25	5.00
MMT13-M	8.70	7.83	7.25	5.80
MMT16-FB	4.50	4.05	3.75	3.00
MMT16-H	8.40	7.56	7.00	5.60
MMT16-M	9.60	8.64	8.00	6.40
MMT17-FB	4.50	4.05	3.75	3.00
MMT17-H	8.10	7.29	6.75	5.40
MMT17-M	9.30	8.37	7.75	6.20
MMT18-FB	4.65	4.18	3.88	3 10
MMT18-H	8.55	7.69	7.13	5.70
MMT18-M	9.75	8.77	8.13	6.50
MMT19-FB	4.05	3.64	3.38	2.70
MMT19-H	7.50	6.75	6.25	5.00
MMT19-M	8.70	7.83	7.25	5.80
MMT21-FB	4.65	4.19	3.88	3.10
MMT21-H	8.55	7.70	7.13	5.70
MMT21-M	9.75	8.78	8.13	6.50
MMT25-FB	4.35	3.92	3.63	2.90
MMT25-H	7.80	7.02	6.50	5.20
MMT25-M	9.00	8.10	7.50	6.00
MMT26-FB	4.20	3.78	3.50	2.80
MMT26-H	7.65	6.89	6.38	5.10
MMT26-M	8.85	7.97	7.38	5.90
MMT27-FB	4.50	4.05	3.75	3.00
MMT27-H	8.40	7.56	7.00	5.60
MMT27-M	9.60	8.64	8.00	6.40
MMT28-F	4.65	4.18	3.88	3.10
MMT28-H	8.55	7.69	7.13	5.70
MMT28-M	9.75	8.77	8.13	6.50

MINIATURE TRANSISTOR TRANSFORMERS—Microtran Page 2

MT1-A	7.20	6.48	6.00	4.80
MT1-AG	8.70	7.83	7.25	5.80
MT1-FB	3.60	3.24	3.00	2.40
MT1-H	7.80	7.02	6.50	5.20
MT1-M	9.00	8.10	7.50	6.00
MT1-P	7.35	6.61	6.13	4.90
MT2-A	8.10	7.29	6.75	5.40
MT2-AG	9.60	8.64	8.00	6.40
MT2-FB	4.20	3.78	3.50	2.80
MT2-H	8.70	7.83	7.25	5.80
MT2-M	9.90	8.91	8.25	6.60
MT2-P	8.25	7.42	6.88	5.50
MT3-A	7.80	7.02	6.50	5.20

MICROTRAN PAGE 11

Net

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MICROTRAN company, inc., VALLEY STREAM, N.Y.

INDUSTRIAL - O.E.M. NET PRICE LIST

Prices, Mechanical Construction, or Electrical Characteristics Subject to Modification without notice.

• NEW ITEMS

Effective 9/1/61

Part	1 9	10 -49	50 -99	100 -200
MINIATURE TRANSISTOR TRANSFORMERS—Microtran Page 2				
MT3-AG	$ 9.30	$ 8.37	$ 7.75	$ 6.20
MT3-FB	3.90	3.51	3.25	2.60
MT3-H	8.40	7.50	7.00	5.60
MT3-M	9.60	8.64	8.00	6.40
MT3-P	7.95	7.15	6.63	5.30
MT5-A	7.80	7.02	6.50	5.20
MT5-AG	9.30	8.37	7.75	6.20
MT5-FB	3.90	3.51	3.25	2.60
MT5-H	8.40	7.56	7.00	5.60
MT5-M	9.60	8.64	8.00	6.40
MT5-P	7.95	7.15	6.63	5.30
MT6-A	7.95	7.15	6.63	5.30
MT6-AG	9.45	8.50	7.88	6.30
MT6-FB	4.05	3.64	3.38	2.70
MT6-H	8.55	7.69	7.13	5.70
MT6-M	9.75	8.77	8.13	6.50
MT6-P	8.10	7.29	6.75	5.40
MT7-A	7.95	7.15	6.63	5.30
MT7-AG	9.45	8.50	7.88	6.30
MT7-FB	4.05	3.64	3.38	2.70
MT7-H	8.55	7.69	7.13	5.70
MT7-M	9.75	8.77	8.13	6.50
MT7-P	8.10	7.29	6.75	5.40
MT8-A	8.10	7.29	6.75	5.40
MT8-AG	9.60	8.64	8.00	6.40
MT8-FB	4.20	3.78	3.50	2.80
MT8-H	8.70	7.83	7.25	5.80
MT8-M	9.90	8.91	8.25	6.60
MT8-P	8.25	7.42	6.88	5.50
MT9-A	8.10	7.29	6.75	5.40
MT9-AG	9.60	8.64	8.00	6.40
MT9-FB	4.20	3.78	3.50	2.80
MT9-H	8.70	7.83	7.25	5.80
MT9-M	9.90	8.91	8.25	6.60
MT9-P	7.80	7.02	6.50	5.20
MT10-A	7.80	7.02	6.50	5.20
MT10-AG	9.30	8.37	7.75	6.20
MT10-FB	3.90	3.51	3.25	2.60
MT10-H	8.40	7.56	7.00	5.60
MT10-M	9.60	8.64	8.00	6.40
MT10-P	7.95	7.15	6.63	5.30
MT11-A	8.10	7.29	6.75	5.40
MT11-AG	9.60	8.64	8.00	6.40
MT11-FB	4.20	3.78	3.50	2.80
MT11-H	8.70	7.83	7.25	5.80
MT11-M	9.90	8.91	8.25	6.60
MT11-P	8.25	7.42	6.88	5.50
MT12-A	7.80	7.02	6.50	5.20
MT12-AG	9.30	8.37	7.75	6.20
MT12-FB	3.90	3.51	3.25	2.60
MT12-H	8.40	7.56	7.00	5.60
MT12-M	9.60	8.64	8.00	6.40
MT12-P	7.95	7.15	6.63	5.30
MT13-A	7.95	7.15	6.63	5.30
MT13-AG	9.45	8.50	7.88	6.30
MT13-FB	4.05	3.64	3.38	2.70
MT13-H	8.55	7.69	7.13	5.70
MT13-M	9.75	8.77	8.13	6.50
MT13-P	8.10	7.29	6.75	5.40
MT14-A	7.20	6.48	6.00	4.80
MT14-AG	8.70	7.83	7.25	5.80
MT14-FB	3.60	3.24	3.00	2.40
MT14-H	7.80	7.02	6.50	5.20
MT14-M	9.00	8.10	7.50	6.00
MT14-P	7.35	6.61	6.13	4.90
MT15-A	7.80	7.02	6.50	5.20
MT15-AG	9.30	8.37	7.75	6.20
MT15-FB	3.90	3.51	3.25	2.60
MT15-H	8.40	7.56	7.00	5.60
MT15-M	9.60	8.64	8.00	6.40
MT15-P	7.95	7.15	6.63	5.30
MT18-A	8.10	7.29	6.75	5.40
MT18-AG	9.60	8.64	8.00	6.40
MT18-FB	4.20	3.78	3.50	2.80
MT18-H	8.70	7.83	7.25	5.80
MT18-M	9.90	8.91	8.25	6.60
MT18-P	8.25	7.42	6.88	5.50
MT20-A	8.40	7.56	7.00	5.60
MT20-AG	9.90	8.91	8.25	6.60
MT20-FB	4.50	4.05	3.75	3.00
MT20-H	9.00	8.10	7.50	6.00
MT20-M	10.20	9.18	8.50	6.80
MT20-P	8.55	7.69	7.13	5.70
MT21-A	8.25	7.42	6.88	5.50
MT21-AG	9.75	8.77	8.13	6.50
MT21-FB	4.35	3.91	3.63	2.90
MT21-H	8.85	7.96	7.38	5.90
MT21-M	$10.05	$9.04	$8.38	$6.70
MT21-P	8.40	7.56	7.00	5.60
MT22-A	8.25	7.42	6.88	5.50
MT22-AG	9.75	8.77	8.13	6.50
MT22-FB	4.35	3.91	3.63	2.90
MT22-H	8.85	7.96	7.38	5.90
MT22-M	10.05	9.04	8.38	6.70
MT22-P	8.40	7.56	7.00	5.60
MT23-A	7.80	7.02	6.50	5.20
MT23-AG	9.30	8.37	7.75	6.20
MT23-FB	3.90	3.51	3.25	2.60
MT23-H	8.40	7.56	7.00	5.60
MT23-M	9.60	8.64	8.00	6.40
MT23-P	7.95	7.15	6.63	5.30
MT24-A	7.80	7.02	6.50	5.20
MT24-AG	9.30	8.37	7.75	6.20
MT24-FB	3.90	3.51	3.25	2.60
MT24-H	8.40	7.56	7.00	5.60
MT24-M	9.60	8.64	8.00	6.40
MT24-P	7.95	7.16	6.63	5.30
MT25-A	8.10	7.29	6.75	5.40
MT25-AG	9.60	8.64	8.00	6.40
MT25-FB	4.20	3.78	3.50	2.80
MT25-H	8.70	7.83	7.25	5.80
MT25-M	9.90	8.91	8.25	6.60
MT25-P	8.25	7.43	6.88	5.50
MT26-A	7.95	7.16	6.63	5.30
MT26-AG	9.45	8.51	7.88	6.30
MT26-FB	4.05	3.65	3.38	2.70
MT26-H	8.55	7.70	7.13	5.70
MT26-M	9.75	8.78	8.13	6.50
MT26-P	8.10	7.29	6.75	5.40
SUB-MINIATURE TRANSFORMERS Microtran Page 3				
SM1-AF	9.00	8.10	7.50	6.00
SM1-FB	4.35	3.91	3.63	2.90
SM1-H	7.20	6.48	6.00	4.80
SM1-M	9.00	8.10	7.50	6.00
SM2-AF	8.70	7.83	7.25	5.80
SM2-FB	3.90	3.51	3.25	2.60
SM2-H	6.90	6.21	5.75	4.60
SM2-M	9.00	8.10	7.50	6.00
SM3-AF	8.70	7.83	7.25	5.80
SM3-FB	3.90	3.51	3.25	2.60
SM3-H	6.90	6.21	5.75	4.60
SM3-M	9.00	8.10	7.50	6.00
SM4-AF	8.70	7.83	7.25	5.80
SM4-FB	3.90	3.51	3.25	2.60
SM4-H	6.90	6.21	5.75	4.60
SM4-M	9.00	8.10	7.50	6.00
SM5-AF	8.10	7.29	6.75	5.40
SM5-FB	3.00	2.70	2.50	2.00
SM5-H	6.30	5.67	5.25	4.20
SM5-M	8.40	7.56	7.00	5.60
SM6-AF	8.70	7.83	7.25	5.80
SM6-FB	4.35	3.91	3.63	2.90
SM6-H	7.05	6.34	5.88	4.70
SM6-M	9.00	8.10	7.50	6.00
SUB-MINIATURE TRANSISTOR TRANSFORMERS—Microtran Page 3				
SMT1-AF	6.75	6.07	5.63	4.50
SMT1-FB	3.90	3.51	3.25	2.60
SMT1-H	6.00	5.40	5.00	4.00
SMT1-M	7.20	6.48	6.00	4.80
SMT3-AF	7.35	6.61	6.13	4.90
SMT3-FB	4.50	4.05	3.75	3.00
SMT3-H	6.60	5.94	5.50	4.40
SMT3-M	7.80	7.02	6.50	5.20
SMT4-FB	4.95	4.45	4.13	3.30
SMT4-H	7.05	6.34	5.88	4.70
SMT4-M	8.25	7.42	6.88	5.50
SMT5-AF	7.20	6.48	6.00	4.80
SMT5-FB	4.35	3.91	3.63	2.90
SMT5-H	6.45	5.80	5.38	4.30
SMT5-M	7.65	6.88	6.38	5.10
SMT7-AF	7.50	6.75	6.25	5.00
SMT7-FB	4.65	4.18	3.88	3.10
SMT7-H	6.75	6.07	5.63	4.50
SMT7-M	7.95	7.15	6.63	5.30
SMT8-FB	4.95	4.45	4.13	3.30
SMT8-H	7.05	6.34	5.88	4.70
SMT8-M	8.25	7.42	6.88	5.50
SMT9-FB	4.20	3.78	3.50	2.80
SMT9-H	6.30	5.67	5.25	4.20
SMT9-M	7.50	6.75	6.25	5.00
SMT10-AF	$7.05	$6.34	$5.88	$4.70
SMT10-FB	4.20	3.78	3.50	2.80
SMT10-H	6.30	5.67	5.25	4.20
SMT10-M	7.50	6.75	6.25	5.00
SMT12-AF	6.75	6.07	5.63	4.50
SMT12-FB	3.90	3.51	3.25	2.60
SMT12-H	6.00	5.40	5.00	4.00
SMT12-M	7.20	6.48	6.00	4.80
SMT13-AF	6.90	6.21	5.75	4.60
SMT13-FB	4.05	3.64	3.38	2.70
SMT13-H	6.15	5.53	5.13	4.10
SMT13-M	7.35	6.61	6.13	4.90
SMT16-AF	7.50	6.75	6.25	5.00
SMT16-FB	4.65	4.18	3.88	3.10
SMT16-H	6.75	6.07	5.63	4.50
SMT16-M	7.95	7.15	6.63	5.30
SMT17-FB	4.80	4.32	4.00	3.20
SMT17-H	6.90	6.21	5.75	4.60
SMT17-M	8.10	7.29	6.75	5.40
SMT18-FB	4.95	4.45	4.13	3.30
SM18-H	7.05	6.34	5.88	4.70
SMT18-M	8.25	7.42	6.88	5.50
SMT19-AF	7.50	6.75	6.25	5.00
SMT19-FB	4.65	4.18	3.88	3.10
SMT19-H	6.75	6.07	5.63	4.50
SMT19-M	7.95	7.15	6.63	5.30
SMT26-FB	4.50	4.05	3.75	3.00
SMT26-H	6.60	5.94	5.50	4.40
SMT26-M	7.80	7.02	6.50	5.20
ULTRA-MINIATURE TRANSFORMERS Microtran Page 5				
UM21-F	6.00	5.40	5.00	4.00
UM21-M	6.60	5.94	5.50	4.40
UM22-F	4.35	3.91	3.63	2.90
UM22-M	5.40	4.86	4.50	3.60
UM23-F	4.65	4.18	3.88	3.10
UM23-M	5.70	5.13	4.75	3.80
UM24-F	3.90	3.51	3.25	2.60
UM24-M	4.95	4.45	4.13	3.30
UM25-F	3.90	3.51	3.25	2.60
UM25-M	4.95	4.45	4.13	3.30
UM26-F	3.90	3.51	3.25	2.60
UM26-M	4.95	4.45	4.13	3.30
UM27-F	4.20	3.78	3.50	2.80
UM27-M	5.25	4.72	4.38	3.50
UM28-F	3.75	3.37	3.13	2.50
UM28-M	5.25	4.72	4.38	3.50
UM29-F	4.65	4.19	3.88	3.10
UM29-M	5.70	5.13	4.75	3.80
UM30-F	3.60	3.24	3.00	2.40
UM30-M	4.50	4.05	3.75	3.00
UM31-F	4.80	4.32	4.00	3.20
UM31-M	5.85	5.27	4.88	3.90
UM32-F	4.35	3.92	3.63	2.90
UM32-M	5.40	4.86	4.50	3.60
UM33-F	4.35	3.92	3.63	2.90
UM33-M	5.40	4.86	4.50	3.60
UM34-F	4.50	4.05	3.75	3.00
UM34-M	5.55	5.00	4.63	3.70
VERI-MINIATURE TRANSFORMERS Microtran Page 5				
VM1-FPB	4.20	3.78	3.50	2.80
VM1-M	5.25	4.72	4.38	3.50
VM2-FPB	5.70	5.13	4.75	3.80
VM2-M	6.75	6.07	5.63	4.50
VM3-FPB	4.50	4.05	3.75	3.00
VM3-M	5.55	4.99	4.63	3.70
VM4-FPB	5.70	5.13	4.75	3.80
VM4-M	6.75	6.07	5.63	4.50
VM5-FPB	4.65	4.18	3.88	3.10
VM5-M	5.70	5.13	4.75	3.80
VM6-FPB	5.85	5.26	4.88	3.90
VM6-M	6.90	6.21	5.75	4.60
VM7-FPB	4.20	3.78	3.50	2.80
VM7-M	5.25	4.72	4.38	3.50
VM8-FPB	4.35	3.91	3.63	2.90
VM8-M	5.40	4.86	4.50	3.60
VM9-FPB	4.35	3.91	3.63	2.90
VM9-M	5.40	4.85	4.50	3.60
VM10-FPB	4.65	4.18	3.88	3.10
VM10-M	6.90	6.21	5.75	4.60
VM11-FPB	4.05	3.64	3.38	2.70
VM11-M	5.10	4.59	4.25	3.40
VM12-FPB	4.50	4.05	3.75	3.00
VM12-M	5.55	4.99	4.63	3.70
VM13-FPB	4.65	4.18	3.88	3.10
VM13-M	6.90	6.21	5.75	4.60
VM14-FPB	4.50	4.05	3.75	3.00
VM14-M	5.55	5.00	4.63	3.70
• 400K	29.50	29.50	29.50	29.50

Items may not be combined to obtain quantity discounts

MINIMUM BILLING: $10.00

TERMS: 1% 10th and 25th, Net 30. F.o.b. Valley Stream

NOTE:* 1. Price of part number with -FPB suffix (i.e. MT-FPB) is the same as equivalent -FB item.

2. To determine price of part number with -F suffix (i.e. MT1-F) deduct from price of the equivalent -FB item the following: 1-9. 30c. 10-49. 27c, 50-99, 25c, 100-200, 20c.

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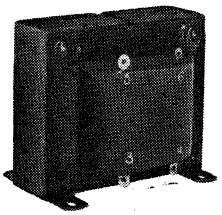
SIGNAL TRANSFORMERS FOR POWER SUPPLIES

• RECTIFIER CIRCUITS • DC-DC CONVERTERS • HIGH CURRENT CHOKES • CONSTANT VOLTAGE TRANSFORMERS



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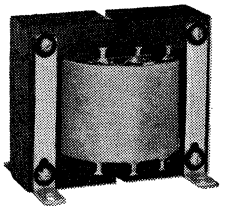


OPEN FRAME

RECTIFIER TRANSFORMERS

PART NO.	PRIMARY*	SECONDARY VOLTS SERIES	SECONDARY VOLTS PARALLEL	SECONDARY AMPS SERIES	SECONDARY AMPS PARALLEL	APPROX. DIMENSIONS L	W	H	ML	MW	APX. LBS.	NET PRICE
36-1	115 V	0-9-18-27-36	0-9-18	1	2	3	2¾	2¾	2½	2¼	2.5	$ 5.20
36-2	115	"	"	2	4	3½	3	3¼	2 13/16	2⅜	3.8	6.90
36-4	115	"	"	4	8	4⅛	3½	3¾	3 7/16	2⅝	6.5	8.45
36-8	115	"	"	8	16	4½	4⅛	4	3¾	3⅜	11	14.50
36-12	105, 115, 125	"	"	12	24	5¼	4½	4⅝	4⅜	3⅜	14.5	16.25
36-20	105, 115, 125	"	"	20	40	6⅜	5	5⅝	5 5/16	3⅜	22	27.60
36-25	105, 115, 125	"	"	25	50	6⅜	5½	5⅝	5 5/16	3¾	25	32.75
36-30	105, 115, 125	"	"	30	60	6⅜	6	5⅝	5 5/16	4⅜	32	43.00
36-50	115/230	"	"	50	100	6⅜	7	5⅝	5 5/16	5⅛	38	52.00
36-100	115/230	"	"	100	200	7	12	5	6⅛	7⅝	60	98.00
56-1	115	0-14-28-42-56	0-14-28	1	2	3½	3	3¼	2 13/16	2¼	3.8	7.25
56-2	115	"	"	2	4	3¾	3¼	3⅜	3⅛	2½	5	8.80
56-4	115	"	"	4	8	4⅛	4	3¾	3 7/16	3	8	12.50
56-6	115	"	"	6	12	5¼	4¼	4⅝	4⅜	2⅞	13	20.00
56-8	105, 115, 125	"	"	8	16	5¼	4¾	4⅝	4⅜	3⅝	16	25.00
56-12	105, 115, 125	"	"	12	24	6⅜	5	5⅝	5 5/16	3⅜	22	29.00
56-25	105, 115, 125	"	"	25	50	6⅜	6½	5⅝	5 5/16	5⅛	35	50.00
56-50	115/230	"	"	50	100	7	11	5	6⅛	6⅝	50	90.00

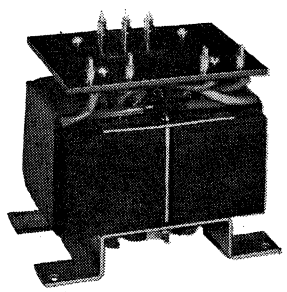
Primary ratings are at 60 cps. Units available for 50/60 cps operation in **same physical size,** add suffix -5 to Signal No., e.g., 36-1-5., Add 25% to net price shown.

Resin Encapsulated units are available for extreme environments. Add ¼ inch to overall dimensions and prefix "E" to part no., e.g., E-36-1. Add 20% to net price shown.

A 56 volt transformer with a rating of 12 amps, to operate at 50/60 cps, and to be encapsulated would be designated as E-56-12-5. A 12 amp choke to match this item would be described as ECH-12.

HIGH CURRENT CHOKES

PART NO.	INDUCTANCE (milli-hy.)	CURRENT (amps)	RESIS. (ohms)	APPROX. DIMENSIONS L	W	H	ML	MW	APPR. WT.	NET PRICE
CH-1	100	1	1.5	3	2½	2¾	2½	2	2	$4.80
CH-2	40	2	0.9	3⅜	2¾	3⅛	2 13/16	2⅛	3.2	5.80
CH-4	70	4	0.6	3¾	3¼	3⅜	3⅛	2½	5	7.80
CH-8	30	8	0.3	4⅛	4	3¾	3 7/16	3	8	11.70
CH-12	10	12	0.1	5¼	4¼	4⅝	4⅜	3⅛	13	14.70
CH-20	4	20	0.05	5¼	4¼	4⅝	4⅜	3⅛	13	14.90
CH-24	4	24	0.025	5¼	5	4⅝	4⅜	3⅞	18	28.00
CH-30	3	30	0.01	6⅜	5	5⅝	5 5/16	3⅜	22	34.00
CH-50	1	50	0.01	6⅜	5½	5⅝	5 5/16	3¾	25	43.00
CH-100	0.5	100	0.005	6⅜	6½	5⅝	5 5/16	4⅛	32	58.00



CONSTANT VOLTAGE TYPE

(supplied with matched capacitor)

PART NO.	INPUT VOLTS	LINE FREQUENCY	OUTPUT VOLTS	MAX AMPS	APPROX. VA	NET PRICE
CV-28-3.5	95-130	60 cps	28 ct.	3.5	100	$32.00
CV-28-7	95-130	60 cps	28 ct.	7.0	200	48.00
CV-36-3	95-130	60 cps	36 ct.	3.0	100	32.00
CV-36-5.5	95-130	60 cps	36 ct.	5.5	200	48.00
CV-6.4-11	95-130	60 cps	6.4 ct.	11	70	28.00
CV-6.4-15	95-130	60 cps	6.4 ct.	15	100	32.00
CV-6.4-3-4	95-130	400 cps	6.4 ct.	3	20	25.00
CV-28-1-4	95-130	400 cps	28 ct.	1	28	30.00
CV-36-.5-4	95-130	400 cps	36 ct.	0.5	20	25.00

THESE UNITS PROVIDE THE FOLLOWING FEATURES:

- **Constant output voltage** practically independent of line variations shown. Excellent load regulation.
- **Current limiting action**—short circuit proof—protects rectifiers and transformers.
- **No current spikes**—protects rectifier elements.
- **Center tap output**—use for Bridge or Full Wave Center Tap connections.
- **Output approximates a square wave**—ideal for rectifier circuits, less ripple, easier filtering.

We specialize in rapid service on custom designed constant voltage transformers. Variations of output voltage and current combinations for above VA ratings available at nominal cost in one week. New items being added continuously to our line.

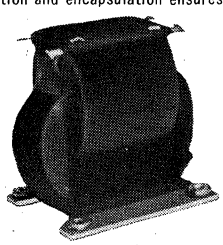
DC to DC TRANSISTOR CONVERTER TRANSFORMERS

PART NO.	DC INPUT VOLTS	*TOTAL VA OUT	TYPICAL TRANSISTORS	DC OUTPUT FW BRIDGE VOLTS	FW BRIDGE MA	FW CT. VOLTS	FW CT. MA	NET PRICE
TC-1	6	50	Delco 2N 441	250	200			$14.00
TC-2	12	100	Delco 2N 442	500	200	250	400	14.00
TC-3	28	240	Delco 2N 174	300	800	150	1300	14.00
TC-4	12	100	Delco 2N 442	600	160	300	320	14.00

*Total va may be drawn from bridge or ct. loads simultaneously, however, total va should not be exceeded.

A high reliability line utilizing tape-wound grain-oriented "C" cores with layer wound coils. Resin impregnation and encapsulation ensures a full measure of protection from extreme environmental conditions.

All units in same package size 2⅛ lg. x 3 wide x 2 high. Mounts on 1 11/16 x 1 17/32 centers. Weight approx. ¾ lb. Full circuit details provided with each transformer.



CUSTOM SERVICE

Signal has many years of design and manufacture experience in custom designed rectifier transformers and reactors to the exacting specifications of leading power supply manufacturers. Consult us for your special needs.

SIGNAL TRANSFORMER CO., INC

BROOKLYN, NEW YORK

Net

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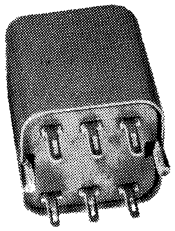
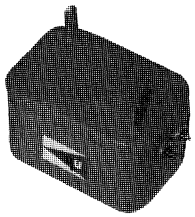
NORTH HILLS WIDE BAND TRANSFORMERS

- Antenna Matching
- Interstage Coupling
- Impedance Matching
- Computer Drive Circuits
- Signal Distribution
- Pulse Applications
- Voltage Step-Up
- DC Isolation
- Phase Detectors
- Balanced Modulators

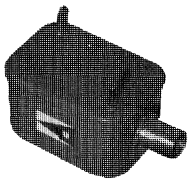
AA Epoxy Encapsulated 1½x1½x1½



BA Hermetically Sealed 1 5/16x1 5/16x1⅛



BB Hermetically Sealed 1 5/16x1 5/16x1⅛



Type Number	Impedance Ratio	Type Number	Impedance Ratio
1100	75 Unb/75 Bal	0300	50 Unb/100 Bal
1300	75 Unb/100 Bal	0400	50 Unb/150 Bal
1400	75 Unb/150 Bal	0500	50 Unb/200 Bal
1500	75 Unb/200 Bal	0501	50 Unb/300 Bal
1501	75 Unb/300 Bal	0600	50 Unb/450 Bal
1600	75 Unb/450 Bal	0700	50 Unb/600 Bal
1700	75 Unb/600 Bal	0800	50 Unb/800 Bal
1800	75 Unb/800 Bal	0900	50 Unb/1200 Bal
1900	75 Unb/1200 Bal		

Frequency range on some of these units is as wide as 100 kc to 100 mc. Data sheets with individual curves are available upon request.

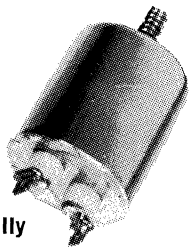
North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

Three case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector.

A great variety of different requirements is being met by special designs. Your specifications for custom wideband transformers may be submitted for quotation.

NORTH HILLS HI-Q RF TOROIDS

1218 Hermetically Sealed 21/32 O.D.x¾



Type	L(μH)	Q	F(mc)
1218-1	1.5	180	12
1218-2	2.8	180	8
1218-3	5.4	170	7
1218-4	10.2	170	5
1218-5	15.0	150	3.5
1218-6	18.7	150	3

These high Q toroids are hermetically sealed and shielded in a metal case which is nickel plated. There are two teflon terminals ¼" high and one mounting stud 6-32x⅜.

See Section 1800 for line of adjustable inductors.

NORTH HILLS
ELECTRONICS, INCORPORATED
GLEN COVE, LONG ISLAND, N.Y.

© U.C.P., Inc.

PEERLESS ELECTRICAL PRODUCTS

DIVISION ALTEC® LANSING CORPORATION

CASE A CASE D CASE E CASE F CASE Q CASE S CASE X

** All primaries are 117 V, 60 cycle.
† All transformers in this group are supplied with electro-static shield.

▼ Maximum operating level, 1 mw reference.
• Impedance is total of two separate windings.

° These units may also be used as bridging transformers. Complete application data in each packing box.

COMBINATION PLATE AND FILAMENT TRANSFORMERS ** †

Type Number	High Voltage Secondary AC Volts	DC MA.	Filament Current, Amperes 5 V.	6.3 V.C.T.	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
R-340-F	325-0-325	100	3.	5.	4⅜	3 1/16	2¾	4	$20.25
R-490-F	350-0-350	200	3.	6.	5 5/16	3 15/16	3⅜	8	24.00
R-562-F	400-0-400	220	3.	6.	5 5/16	3 15/16	3⅜	9	27.00
R-631-F	500-435-0-435-500 (Has 100 V tap for C bias)	225 (Replaces the R-630-F in a larger case)	3.	6.	6	4¾	4 1/16	11½	37.50
R-800-A	400-0-400	300	4.	4.-5.	4¾	5⅛	3 15/16	12	24.00
R-815-S	550-275-0-275-550	280 from 550-0-550 40 from 275-0-275	6.	4.-4.2-.9	6⅜	5⅛	5⅛	18	60.00

FILAMENT TRANSFORMERS

Type Number	Secondary Current, Amperes 6.3V. C.T.	Test Volts R.M.S.	Primary Volts 60 Cycle	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
F-012-X	1.	2000	117	1⅝	2⅞	1⅝	½	$ 4.50
F-139-E	8	2000	117	3½	3⅛	2⅞	3¼	12.30

SMOOTHING CHOKES

Type Number	Current D.C. MA.	Inductance Henrys	Resistance Ohms	Test Volts R.M.S.	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
C-325-F	120	10	240	1500	3⅞	2 13/16	2 7/16	3	$11.25
C-390-F	200	10	150	1500	4 15/16	3 9/16	3 3/16	6	15.00

STANDARD INPUT TRANSFORMERS

Type Number	Descriptive Data	Impedance, Ohms Primary	Secondary	Freq. Range ±1 db	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
K-308-D	Line, Mixer or Microphone to Sgle. Grid. Max. Level: 0 dbm▼. 60 db magnetic shielding.	250 C.T.	50,000	30-20,000 when terminated	1½	1 1/16 round		¼	$12.30

STANDARD IMPEDANCE MATCHING TRANSFORMERS

Type Number	Descriptive Data	Audio Watts Max.	70 V Line	Impedance, Ohms Primary	Secondary	Freq. Range ±1 db	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
E-372-Q Repeat Coil	Electro-static Shield. 60 db Magnetic Shield.	+18 dbm▼	—	500 C.T.-333 250-200 C.T. 125-50	500 C.T.-333 250-200 C.T. 125-50	20 20,000	3½	2⅜	2½	1½	$22.50

STANDARD OUTPUT TRANSFORMERS

Type Number	Descriptive Data	Freq. Range ±1 db	Impedance, Ohms Primary	Secondary	Pri. DC MA. Max.	Unbal.	Audio Watts	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
S-448-Q	Single or P-P plates to line. 30 db hum bucking.	20-20,000	20,000 C.T. 12,500 C.T. 5000-3125	500 C.T. 200 C.T.-333 250-125-50	15	2	+18 dbm▼	3½	2⅜	2½	1¾	$19.20
S-510-F	P-P plates to speaker.	20-30,000	10,000 C.T. 8000 C.T.	16-8	40	4	10	2⅞	2¾	2½	2	16.50
S-526-F	P-P plates to speaker.	20-30,000	6600 C.T. 5000 C.T.	16-8-4	60	6	20	4⅜	3 1/16	2¾	3¾	21.00
S-542-F	P-P plates to speaker.	20-30,000	5000 C.T. 4000 C.T.	16-8-4	140	14	40	5 5/16	3 9/16	3 1/16	6	26.25

Net

© U.C.P., Inc.

PEERLESS ELECTRICAL PRODUCTS

DIVISION ALTEC LANSING CORPORATION

Frequency response is guaranteed on all 20-20 plus transformers

INPUT TRANSFORMERS (20-20 PLUS)

Type Number	Descriptive Data	Max. Level ▼	Impedance, Ohms Primary	Impedance, Ohms Secondary	Primary DC MA. Max.	Primary DC MA. Unbal.	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
K-241-D°	Frequency response, ±1 db: 10-25,000 cps. Primary balanced to attenuate longitudinal currents in excess of 50 db. Sec. may be used single ended or in P-P. Has 2 sec. windings with bal. cap. to grnd. Electrostatic shield is provided between pri. and sec. Has 90 db electromagnetic shielding. Insertion loss 1¼ db. Transformer will operate into open circuit or resistive load. Frequency resp. down less than 1 db at 15 KC, when operated into resistive load shunted with 120 MMFD, cap. High power rating makes transf. suitable for use as output transf.	+8 dbm	500-280-125-31 or 600-340-150-37.5	70,000 • or 84,000 •	0	—	2¾	1½	2	1	$30.00

OUTPUT TRANSFORMERS (20-20 PLUS)

Type Number	Descriptive Data	Max. Level ▼	Impedance, Ohms Primary	Impedance, Ohms Secondary	Primary DC MA. Max.	Primary DC MA. Unbal.	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
S-217-D° Line Level	Frequency response: ±1 db: 5-65,000 cps. Pri. may be used single ended or P-P. Sec. windings have bal. cap. to grnd. Has C.T. tertiary of 24.5 ohms which may be used for feedback or grnded. for electrostatic shield. Parallel feed is required. Astatic balance and electromagnetic shield provide approx. 50 db of shielding. Insertion loss 0.5 db. Transf. may be used as excellent input. transf. to either single or P-P grids. When used this way balanced low impedance winding provides excellent line termination.	+20 dbm	12,500 3125 Tert—See Data	600-300 150-75	25	0	3¼	1½	2	1¼	$38.40

MATCHING TRANSFORMERS (20-20 PLUS)

Type Number	Descriptive Data	Max. Level ▼	Impedance, Ohms Primary	Impedance, Ohms Secondary	Primary DC MA. Max.	Primary DC MA. Unbal.	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
E-204-D Repeat Coil	Frequency response: ±1 db: 5-80,000 cps. Electrostatic shield. Astatic balance and electromagnetic shield provide approx. 50 db magnetic shielding. Attenuates longitudinal currents 80 db in bal. circuit in freq. range up to 70,000 cps. Insertion loss 0.4 db.	+23 dbm	500 C.T. 125 C.T. or 600 C.T. 150 C.T.	500 C.T. 125 C.T. or 600 C.T. 150 C.T.	100	0	3¼	1½	2	1¼	$40.20

As a Hybrid Transformer

This precise matching transf. is an excellent hybrid unit for operation from two 250/300 ohm sources. Balancing resistor of approx. 125/150 ohms required in pri. circuit. For max. attenuation between sources the exact value of resistor should be determined from measurements made in circuit where transf. is used. Correct value will yield average attenuation of 27 to 30 db with a max. attenuation of approx. 50 db at some point between 500 cps and 1,000 cps.

Total Pri.	Impedances, Ohms Pri. 1	Pri. 2	Sec.	Max. Level ▼
500 or 600	250 or 300	250 or 300	500-125 or 600-150	+23 dbm

HIGH LEVEL OUTPUT TRANSFORMERS (20-20 PLUS)

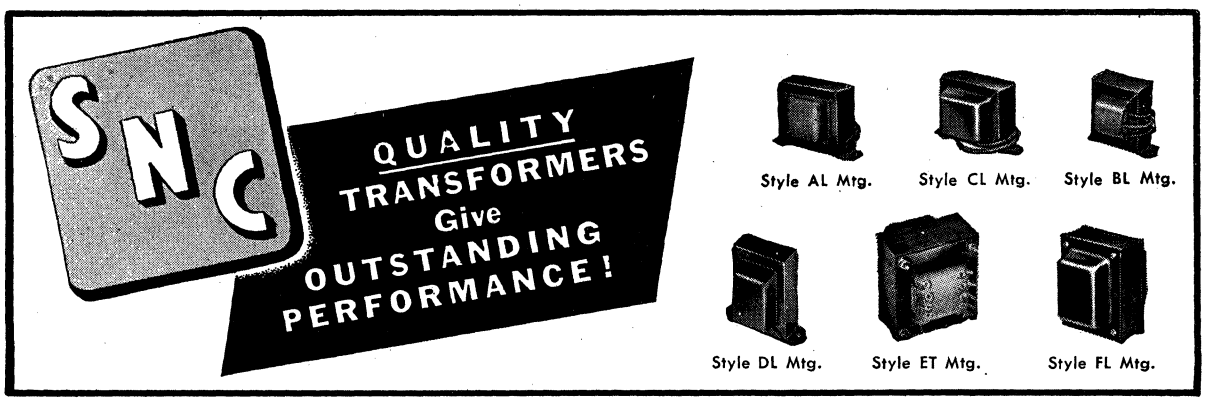
Type Number	Descriptive Data	Impedance, Ohms Primary	Impedance, Ohms Secondary	Pri. DC MA Per Winding Max.	Pri. DC MA Per Winding Unbal.	Max. Level ▼	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
S-232-Q	Frequency response, ±1 db: 10-100,000 cps. Insertion loss 0.6 db. (See descriptive data below)	6600 C.T. 1650 C.T.	16, 8, 4, 1.	70 140	7 14	+43 dbm (20 watts) See Data	4⅛	3 3/16	3 1/16	3¼	$31.50
S-238-Q	Frequency response, ±1 db: 10-75,000 cps. Insertion loss 0.6 db. (See descriptive data below)	10,000 C.T. 2500 C.T.	16, 8, 4, 1.	50 100	5 10	+43 dbm (20 watts) See Data	4⅛	3 3/16	3 1/16	3¼	$31.50
S-258-Q	Frequency response, ±1 db: 10-100,000 cps. Insertion loss 0.4 db. (See descriptive data below)	5000 C.T. 1250 C.T.	16, 8, 4, 1.	120 240	12 24	+46 dbm (40 watts) See Data	4⅝	3⅝	3½	6½	$42.00
S-271-S	Frequency response, ±1 db: 10-100,000 cps. Insertion loss 0.3 db. (See descriptive data below)	5000 C.T. 1250 C.T.	16, 8, 4, 1.	200 400	20 40	+49 dbm (80 watts) See Data	6⅜	5⅛	5⅛	18	$54.00
S-273-S	Frequency response, ±1 db: 10-80,000 cps. Insertion loss 0.3 db. (See descriptive data below)	8000 C.T. 2000 C.T.	16, 8, 4, 1.	125 250	12 25	+49 dbm (80 watts) See Data	6⅜	5⅛	5⅛	18	$54.00

DESCRIPTIVE DATA, GENERAL

Maximum rated operating level ▼ applies to frequency range 20-20,000 cps. Power rating is ½ at 15 cps, ¼ at 10 cps. Full power (60 cps) primary open circuit inductance is approximately 100 Henrys for each 1000 ohms of primary impedance. Leakage inductance, secondary referred to total primary, is approximately 1 mh per 1000 ohms of primary impedance. Leakage inductance, half primary to half primary is approximately 1 mh per 1000 ohms of primary impedance. Can be used between half and double of rated impedances. For halved impedances, power ratings are doubled. For doubled impedances, power ratings are halved. Secondary may be operated with either end, or C.T. grounded.

IMPEDANCE MATCHING AUTO TRANSFORMER (20-20 PLUS)

Type Number	Descriptive Data	Impedance, Ohms	Insertion Loss	Max. Level ▼	Dimensions, Inches Height	Depth	Width	Weight Lbs.	Consumer Net Price
A-262-E	Frequency response, ± 1 db: 10-100,000 cps. May be used in any combination of rated impedances, step-up or step-down.	16, 8, 4 or 8, 4, 2	.5 db. or 1.0 db.	48.7 dbm (75 watts) or 44.7 dbm (30 watts)	4 3/16	3 1/16	3 7/16	5¾	$18.60



Skillful Engineering, latest production techniques and highest quality materials . . . backed by careful workmanship, exacting step-by-step inspection and rigorous final testing . . . are combined in every SNC transformer to provide a quality product that gives MORE in dollar value.

AUDIO TRANSFORMERS — THE "ONE" SERIES

AUDIO INPUT

Type Number	Application	Impedance		Pri. Mils (D.C.)	Max. Turns Ratio	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions				Net. Wt.	List Price
		Primary	Secondary			50	200	1M	5M	10M		A	B	C	C		
1P121	P.M. Speaker to Grid	4	100,000	0	1:58	−4.0	−1.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.85
1P124	S.B. Mic. to Sgl. or P.P. Grids	100	400,000 C.T.	50	1:63		−6.0	0	−2.0	−6.0	BL	1-7/8	1 9/16	1-1/2	2	.5	4.05
1P125	Low Z to Sgl. or P.P. Grids	50	100,000 C.T.	0	1:45		−3.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.75
1P128	Sgl. or D.B. Mic. or Line to Sgl. or P.P. Grids	200*/50	100,000 C.T.	50	1:45	−2.0	−0.3	0	−0.7	−2.0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.3	5.95
1P136	Line to Sgl. or P.P. Grids	500*/125	100,000 C.T.	0	1:28	−3.0	−0.4	0	−0.4	−1.5	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.4	5.95
1P145	Sgl. or P.P. Plates to Line	20,000 C.T.	500*/125	8	12.6:1	−3.5	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.90
1P152	Sgl. or P.P. Plates to Line	20,000 C.T.	200*/50	8	20:1	−4.0	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.90
1P161	Line to Line	500	500*/125	0	2:1	−0.4	−0.1	0	−0.4	−1.0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	5.30

*Indicates Balanced Center Tap

AUDIO INTERSTAGE

1P323	Sgl. Plate to Sgl. Grid	10,000	90,000	8	1:3	−5.0	−1.5	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.60
1P331	Sgl. Plate to P.P.Grids	10,000	90,000 C.T.	8	1:3	−6.0	−2.0	0	0	−1.0	BL	1-7/8	1-1/16	1-1/2	2	.5	3.85
1P339	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−3.0	−0.5	0	±0.1	+0.5	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.30
1P342	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−2.5	−0.5	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.55
1P346	P.P. Plates to P.P. Grids	20,000 C.T.	45,000 C.T.	10	1:1.5	−1.0	−0.2	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.70
1P351	Universal	Universal		8	1:3	−2.0	−0.4	0	0	0	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.55
3P363	Sgl. Type 30 to 19, 1J5 or P.P 30 Class B	10,000	7,000 C.T.	8	2.4:1	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.10

TELEVISION REPLACEMENT (VERTICAL BLOCKING OSCILLATOR)

Type Number	Primary Inductance	Leakage Inductance	Turns Ratio	Mounting Style	Mounting	Dimensions				Net Wt.	List Price
						H	W	D	Ctrs.		
1P412	1.15 Hy.±20%	.008 Hy.±25—15%	1:42	Comp. Filled Case	Flange	1-7/8	2-5/16	1-1/2	1-15/16	.5	4.00
1P416	1.15 Hy.±20%	.008 Hy.±25—15%	1:42	Comp. Filled Case	Studs	1-5/8	1-3/16	1-3/16	1-13/64	.4	3.70

CHOKES AND REACTORS — THE "TWO" SERIES

AUDIO REACTORS

Type Number	D.C. Mils		Inductance				Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions					Net Weight	List Price
	Nom.	Max.	0-D.C.	50% Nom. D.C.	Nom. D.C.	Max. D.C.				A	B	C	D	E		
2P123	5-0.5	15	550	—	300-500	80	2000	5500	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	3.85
2P124	5-0.5	15	550	—	300-500	80	2000	5500	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	4.30
2P126	35-15	45	65	—	25-35	20	2000	800	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	3.05
2P127	35-15	45	65	—	25-35	20	2000	800	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	3.60

FILTER AND SWINGING CHOKES

2P132	40	50	22	13	8	6	2000	450	AL	1-5/16	1-5/8	1-1/8	2		.3	2.00
2P135	65	80	18	11	8	7	2000	300	AL	1-9/16	1-7/8	1-3/8	2-3/8		.5	2.35
2P138	85	100	30	16	8	7	2000	350	AL	1-7/8	2-1/4	1-7/8	2-13/16		1.2	3.00
2P141	110	135	20	10.5	8	7	2000	200	BL	2-5/8	2-3/16	1-7/8	2-13/16		1.5	4.05
2P142	110	135	20	10.5	8	7	2000	200	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.30
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2-1/2	2-1/8	3-1/8		2.1	4.05
2P145	150	180	26	13	8	5.5	2000	190	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.2	5.55
2P147	200	250	16	10	8	6.5	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	7.15
2P148	200-20	—	—	—	3-15	—	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	7.15
2P151	300	350	18	11	8	7	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	12.20
2P152	300-30	—	—	—	3-15	—	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	12.20
2P155	500	600	16	10	8	5.5	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	34.30
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	34.30

DRIVER TRANSFORMERS — THE "THREE" SERIES

Type Number	Primary Impedance	Watts	Ratio, Pri. to 1/2 Sec. or Sec. Z	Pri. D.C. Mils	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	List Price
					50	200	1M	5M	10M		A	B	C	D	E		
3P323	6,000 C.T. to 10,000 C.T.	25	6, 5.5, 5:1	60	−0.5	0	0	0	−0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.45
3P328	3,000 C.T. to 5,000 C.T.	25	6, 5.5, 5:1	60	−0.4	0	0	0	−0.1	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.45
3P334	6,000 C.T. to 10,000 C.T.	25	4.5, 4, 3.5:1	60	−1.0	−0.3	0	+0.1	+0.6	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.25
3P338	3,000 C.T. to 5,000 C.T.	25	4.5, 4, 3.5:1	60	−1.7	−0.5	0	0	0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.50
3P342	6,000 C.T. to 10,000 C.T.	25	3, 2, 1:1	60	−0.7	−0.1	0	+0.1	+0.4	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.95
3P347	3,000 C.T. to 5,000 C.T.	25	3, 2, 1:1	60	−0.8	0	0	0	−0.8	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.75
3P353	6,000 C.T. to 10,000 C.T.	25	500 Ohms	60	−1.1	−0.3	0	0	+0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.55
3P358	3,000 C.T. to 5,000 C.T.	25	500 Ohms	60	−0.9	−0.1	0	−0.4	−1.0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.55
3P363	10,000	5	2.4:1	10	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2		.5	3.10

 Trade Discount Applies To List Prices Only © U.C.P., Inc.

SNC

QUALITY TRANSFORMERS Give OUTSTANDING PERFORMANCE!

Style AL Mtg.

Style CL Mtg.

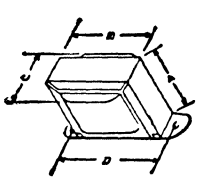
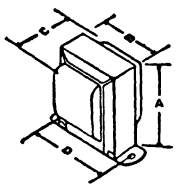
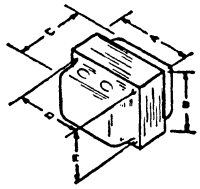
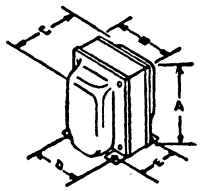
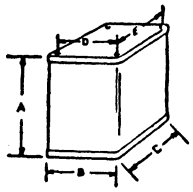
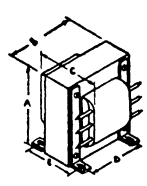
Style BL Mtg.

Style DL Mtg.

Style ET Mtg.

Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS

OUTPUT TRANSFORMERS — THE "SIX" SERIES

SPECIFIC DUTY REPLACEMENT TYPES—TUBE TO VOICE COIL

Type Number	Primary Imp.—Ohms		Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions				Net Wt.	List Price
							A	B	C	D		
6P300	Single	2,000 Plate	50	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.00
6P306	Single	4,000 Plate	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.00
6P312	Single or P.P.	7,500 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.65
6P316	Single or P.P.	10,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.65
6P319	Push-Pull	15,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70
6P321	Push-Pull	20,000 Plates	30	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70
6P325	Push-Pull	25,000 Plates	20	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70

UNIVERSAL REPLACEMENT TYPES—TUBE TO VOICE COIL—TUBE TO LINE—LINE TO VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions				Net Wt.	List Price
						A	B	C	D		
6P165	Sgl. or P.P. 4M to 14M Plates	40	1.1 to 14	4	ATL	1-5/16	1-5/8	1-3/8	2	.3	3.10
6P166	Sgl. or P.P. 4M to 14M Plates	50	1.1 to 14	8	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	3.10
6P167	Sgl. or P.P. 3M to 10M Plates	50	1.2 to 13	15	BTL	1-7/8	1-9/16	1-3/4	2	.5	3.85
6P169	Sgl. 1500 to 7M Plate	55	.8 to 19	10	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	3.10
6P172	P.P. 3500 to 12M Plates	60	1.3 to 14	20	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.60
6P701	Single 2500 to 7500 Plate	45	165 to 1500	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	4.90
6P710	P.P. 7500 to 15M Plates	45	250 to 1000	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.55
6P714	Sgl. or P.P. 2500 to 12M Plates	45	150 to 2400	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.85
6P717	125 to 500 Line	0	1 to 32	35	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.95
6P722	500 to 3M Line in 500-Ohm Steps	0	1.3 to 48	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.60

AMPLIFIER AND EQUIPMENT TYPES—TUBE TO LINE AND VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Secondary Imp.—Ohms	Watts	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	List Price
					50	200	1M	5M	10M		A	B	C	D	E		
6P726	P.P. 3300 or 3800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.1	+0.5	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	11.75
6P731	P.P. 4500 or 6800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.2	0	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	11.75
6P736	P.P. 5000 Plates	70	4-8-16-250-500	25	−0.9	−0.2	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P740	P.P. 4300 Plates	70	4-8-16-250-500	25	−0.9	−0.3	0	+0.3	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P743	P.P. 6600 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P746	P.P. 8000 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.1	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P749	P.P. 10,000 Plates	60	4-8-16-250-500	25	−0.4	−0.1	0	+0.2	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	8.30
6P752	Sgl. 2500 Plate	60	4-8-16-250-500	10	−3.0	−0.4	0	+0.3	+0.5	DL	2-1/4	1-7/8	2-1/8	2-3/8		1.0	6.25

TELEVISION REPLACEMENT (VERTICAL DEFLECTION)

Type Number	Ratio Pri. to Sec.	Primary Imp.—Ohms	Leakage Inductance	Mounting Style	Dimensions					Net Wt.	List Price
					A	B	C	D	E		
6P860	10:1	19,000 Min.	0.33 Hy. Max.	B x L	3-3/16	2-3/4	2-9/16	1-19/32	2	2.2	7.35

MODULATION TRANSFORMERS — THE "FIVE" SERIES

SNC universal modulation transformers are specifically designed to provide maximum application possibilities per type. All units are provided with two identical secondary windings, permitting series or parrallel operation. Changes in the ratio can be readily accomplished, when desired, without removing the unit from the chassis. Most units available in either air cooled or compound filled cases.

UNIVERSAL TYPES

Type Number	Watts	Primary Current Mils	Secondary Characteristics				Primary Impedance Ohms	Mtg. Style	Dimensions					Net Weight	List Price
			Series Sec.		Parallel Sec.				A	B	C	D	E		
			Impedance	Mils.	Impedance	Mils									
5P341	15	60	3M to 8M	50	1000 to 5000	100	3M to 8M	DL	2-5/8	2-3/16	2-3/8	2-13/16		1.5	9.90
5P346	50	80	2M to 18M	75	500 to 4500	150	3M to 15M	GTL	3-7/8	3-1/8	3-3/8	2-1/2		4	15.50
5P352	100	120	2M to 18M	100	500 to 4500	200	3M to 15M	GTL	4-5/8	3-3/4	3-7/8	3	2-13/16	9.7	24.75
5P354								HT						24	56.75
5P355	200	200	2M to 18M	150	500 to 4500	300	3M to 15M	JT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	32	62.05
5P357								HT						33	68.65
5P358	300	250	2M to 18M	250	500 to 4500	500	3M to 15M	JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	41	73.90
5P363								HT						51	138.60
5P364	500	300	2M to 18M	300	500 to 4500	600	3M to 15M	JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	64	151.80

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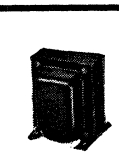

Style GL Mtg.

Style HP Mtg.

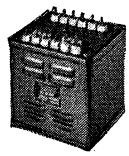
Style ATL Mtg.

Style BTL Mtg.

Style BxL Mtg.

Style HSP Mtg.

Style GTL Mtg.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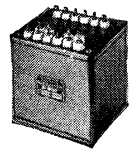
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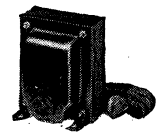
Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

POWER TRANSFORMERS — THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	2-3/4	2-1/2	2	2.3	5.95
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A.	FL	3	2-1/2	3-1/8	2-1/2	2	2.8	6.00
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2-1/2	3-1/2	2-1/2	2	3.2	7.60

HEAVY DUTY REPLACEMENT AND NEW EQUIPMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
8P180	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	3-1/4	2-1/2	2	3.2	8.15
8P180G						GL	3-1/16	2-7/32	3-1/8	2	2-3/16		
8P183	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	FL	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.5	8.60
8P183G						GL	3-7/16	2-27/32	3-1/4	2-1/4	2-1/8		
8P186	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	FL	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	9.00
8P186G						GL	3-7/16	2-27/32	3-1/2	2-1/4	2-3/8		
8P189	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	9.90
8P189G						GL	3-13/16	3-5/32	3-5/8	2-1/2	2-7/16		
8P192	117	350-0-350	90	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.7	10.90
8P192G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P194	117	375-0-375	110	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4-1/8	3-1/8	2-1/2	6.0	12.20
8P194G						GL	3-13/16	3-5/32	4	2-1/2	2-13/16		
8P196	117	350-0-350	150	5V. @ 3A.	6.3V. @ 4.8A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.7	12.85
8P196G						GL	4-3/16	3-15/32	4-3/8	2-3/4	3-5/16		
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	11.55
8P199G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	16.50
8P202G						GL	4-9/16	3-25/32	4-3/8	3	3-11/16		
8P205	117	450-0-450	325	5V. @ 6A.	6.3V. @ 8A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.3	44.90
8P208	117	550-0-550	275	5V. @ 6A.	6.3V. @ 6A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	44.90

REPLACEMENT TYPES (2.5 Volt Heater Winding)

8P287	117	350-0-350	70	5V. @ 3A.	2.5V. @ 6A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	9.90
8P293	117	350-0-350	90	5V. @ 3A.	2.5V. @ 8A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.6	10.80
8P295	117	350-0-350	150	5V. @ 3A.	2.5V. @ 12A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.3	12.85

REPLACEMENT TYPES (Two 2.5 Volt Heater Windings)

8P487	117	350-0-350	70	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	11.90
8P487G					No. 2=2.5V.@8A.	GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P494	117	375-0-375	110	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4-1/4	3-1/8	2-1/2	6.2	13.00
8P494G					No. 2=2.5V.@10A.	GL	3-13/16	3-5/32	4-1/8	2-1/2	2-15/16		

GENERAL PURPOSE TYPES WITH CONVENIENT LUG TERMINALS (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
8P382	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	ET	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.2	7.80
8P385	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	ET	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	8.35
8P388	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	ET	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	4.7	9.15

BIAS TYPES

8P510	117	40-0-40	25	5V. @ 2A.		CL	1-7/8	2-1/4	1-3/4	2-13/16		1.0	4.95
8P511	117	0-90-150-200-250	50	5V. @ 2A.		GL	3-1/16	2-7/32	2-5/8	2	1-11/16	2.0	7.20

VIBRATOR TYPES

8P610	6	225-0-225	40			AL	2-3/16	2-5/8	2	3-1/8		1.3	5.60
8P611	6	320-0-320	40			GL	3-1/16	2-7/32	2-1/2	2	1-9/16	2.1	6.70
8P612	6	390-0-390	60			GL	3-7/16	2-27/32	3-5/16	2-1/4	2-3/16	3.7	7.60

TELEVISION REPLACEMENT TYPES

8P803	117	375-0-375	210	5V. @ 3A.	No. 1=5V.@2A. No. 2=6.3V.@5.6A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	19.55
8P805	117	235-0-235	90	5V. @ 2A.	6.3V. @ 5.5A.	FL	3-3/8	2-13/16	4	2-13/16	2-1/4	5.1	11.20
8P807	117	365-0-365	300	5V. @ 6A.	No. 1=12.6V.@5A No. 2=5V.@2A	FL	4-23/32	3-27/32	6-3/4	4-1/16	3-3/16	16.0	33.65

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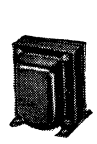

Style GL Mtg.

Style HP Mtg.

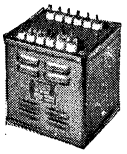
Style ATL Mtg.

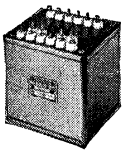
Style BTL Mtg.

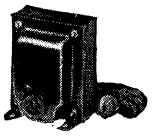
Style BxL Mtg.

Style HSP Mtg.

Style GTL Mtg.


Style HT Mtg.


Style JT Mtg.


Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

PLATE TRANSFORMERS — THE "SEVEN" SERIES

All SNC plate transformers have dual secondary ratings. Most units available in either air cooled or compound filled cases. All units electrostatic shields between primary and high voltage windings. 50/60 Cycle Operation

Type Number	Primary Voltage	Pri. V.A.	Secondary R.M.S. Voltage	D.C. Voltage From Filter*	D.C. Current	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
7P530	115-230	220	920-0-920 or 740-0-740	750 or 600	200MA	GL	4-3/4	3-3/4	5-1/8	3	4-1/16	12	19.80
7P535	115-230	320	930-0-930	750	300MA	HT	7-1/8	5-1 2	5-15/16	4-3/8	4-13/16	22	48.20
7P536			or 750-0-750	or 600		JT						30	52.80
7P542	115-230	530	1470-0-1470	1250	300MA	HT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	33	55.45
7P543			or 1220-0-1220	or 1000		JT						41	60.70
7P551	115-230	750	2050-0-2050	1750	300MA	HT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	43	59.40
7P552			or 1740-0-1740	or 1500		JT						51	72.60
7P557	115-230	1060	2880-0-2880	2500	300MA	HT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	53	81.85
7P558			or 2350-0-2350	or 2000		JT						69	88.45
7P563	115-230	1760	2900-0-2900	2500	500MA	HT	10-3/4	9	7-1/4	7	5-13/16	96	118.80
7P564			or 2370-0-2370	or 2000		JT						126	165.00

*All units may be operated with simultaneous loads—provided the total D.C. Current of the two loads does not exceed the rating listed.

FILAMENT TRANSFORMERS — THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Applications: Parallel Secondaries	Applications: Series Secondaries	Applications: Independent Identical Secondaries	Test Voltages	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
4P222	2.5V. C.T. @ 5 A.	5 V. C.T. @ 2.5 A.	Two of 2.5V. C.T. @ 2.5 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	3.90
4P226*	2.5V. C.T. @ 10 A.*			7500	BL	3	2-1/2	2-3/8	3-1/8		2.0	6.05
4P227	2.5V. C.T. @ 10 A.	5 V. C.T. @ 5 A.	Two of 2.5V. C.T. @ 5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	5.30
4P234	2.5V. C.T. @ 15 A.	5 V. C.T. @ 7.5 A.	Two of 2.5V. C.T. @ 7.5 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	6.25
4P239	5 V. C.T. @ 6.5A.	10 V. C.T. @ 3.25A.	Two of 5 V. C.T. @ 3.25A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	5.60
4P242*	5 V. C.T. @ 20 A.*			10000	BxL	4-1/8	3-7/16	2-3/4	2-3/4	2-1/8	4.6	11.20
4P243	5 V. C.T. @ 20 A.	10 V. C.T. @ 10 A.	Two of 5 V. C.T. @ 10 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.3	9.90
4P244*	6.3V. C.T. @ 0.6A.*			2000	BL	1-7/8	1-9/16	1-1/2	2		.6	3.85
4P245*	6.3V. C.T. @ 1.2A.*			2000	BL	1-7/8	1-9/16	1-5/8	2		.7	4.20
4P246	6.3A. C.T. @ 2 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T. @ 1 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	4.60
4P251	6.3V. C.T. @ 6 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T. @ 3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	5.35
4P256	6.3V. C.T. @ 10 A.	12.6V. C.T. @ 5 A.	Two of 6.3V. C.T. @ 5 A.	2000	BxL	3-3/8	2-13/16	2-1/2	2-1/4	2-1/8	2.9	6.95
4P260	7.5V. C.T. @ 3 A.	15 V. C.T. @ 1.5 A.	Two of 7.5V. C.T. @ 1.5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	5.60
4P267	7.5V. C.T. @ 4.5A.	15 V. C.T. @ 2.3 A.	Two of 7.5V. C.T. @ 2.3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	6.95
4P272	11 V. C.T. @ 10 A.	22 V. C.T. @ 5 A.	Two of 11 V. C.T. @ 5 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.1	9.90

*Single Secondary Units.

VOLTAGE CHANGER AND ISOLATION — THE "NINE" SERIES

All Units Have Primary Cord and Secondary Plug and Are For 50/60 Cycle Operation.

VOLTAGE CHANGER (ISOLATION)

Type Number	Primary Voltage	Secondary Voltage	Capacity in V. A.	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
9P707	220-250	110-125	75	GP	3-13/16	3-5/32	3-1/8	2-1/2	1-15/16	3.9	10.25
9P713	220-250	110-125	150	GP	4-9/16	3-25/32	3-7/8	3	2-13/16	8.0	15.20
9P718	220-250	110-125	360	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	39.60

ISOLATION TYPES

9P721	110-250	110-250	150	GP	4-9/16	3-25/32	4-5/8	3	3-9/16	12.1	19.80
9P725	110-250	110-250	250	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	32.35
9P728	110-250	110-250	500	HP	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	34.8	45.55

VOLTAGE ADJUSTMENT TYPES WITH TAP CHANGE SWITCH

9P732	95-130 in 5V. Steps	115	150	HSP	4-7/8	3-7/8	3-7/8	3-1/8	3-1/8	4.7	28.40
9P737	95-130 in 5V. Steps	115	250	HSP	5-3/8	4-3/8	4-1/4	3-5/8	3-1/2	8.0	36.30
9P739	80-130 in 5V. Steps	115	500	HSP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	54.10

All list prices given are subject to regular trade discounts and may be changed without notice.

S N C MANUFACTURING CO., INC., OSHKOSH, WISCONSIN

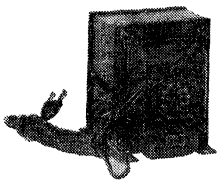
(C) U.C.P., Inc.

TODD ELECTRIC Co., Inc.

STEP-DOWN, STEP-UP AUTO TRANSFORMERS FOR EVERY 50 OR 60 CYCLE APPLICATION

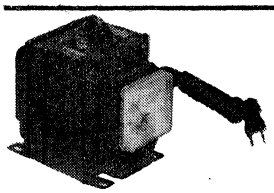
220/240 volts to 110/120

Todd's precision designed Auto Transformers are specially constructed to resist corrosion caused by excessive humidity and will withstand abnormal loading. The input side is equipped with 6 ft. U.L. approved line cord with American wall plug. British or Continental wall plugs available at extra cost.



HEAVY DUTY MODEL

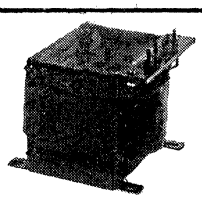
Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-15	75	2¼	3 3/16	2¾	3 3/16	$ 7.90
SD-16	100	2⅓	3 3/16	2¾	3 5/16	8.10
SD-17	150	3⅓	3 3/16	2¾	3 15/16	9.60
SD-12	250	6	4⅝	3⅞	3⅝	13.20
SD-18	350	6⅔	4⅝	3⅞	3¾	14.25
SD-11	500	10⅔	4⅝	3⅞	4⅞	17.10
SD-19	750	12	4⅝	3⅞	5⅛	21.80
SD-13	1000	15⅔	4⅝	3⅞	6⅛	28.50
SD-14	1500	20	4⅝	3⅞	7⅛	37.20
SD-20	2000	24	6	4½	6⅝	70.00



HEAVY DUTY VOLTAGE REGULATOR

Type	Input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TC-17	11 or 22	150	6	5 13/32	3 25/32	5	$ 25.20
TC-18	11 or 22	350	7	5 13/32	3 25/32	5⅜	35.60
TC-11	11 or 22	500	11	5 13/32	3 25/32	5¾	41.00
TC-19	11 or 22	750	15	5 13/32	3 25/32	6⅜	51.30
TC-13	11 or 22	1000	20	5 13/32	3 25/32	7⅛	62.25
TC-14	11 or 22	1500	25	5 13/32	3 25/32	8⅛	81.50
TC-20	11 or 22	2000	30	6 21/32	4 9/32	8¾	155.00
TC-17	12 or 21	150	6	5 13/32	3 25/32	5¼	29.50
TC-18	12 or 21	350	7	5 13/32	3 25/32	5¾	41.15
TC-11	12 or 21	500	11	5 13/32	3 25/32	6	47.30
TC-19	12 or 21	750	15	5 13/32	3 25/32	6¾	60.50
TC-13	12 or 21	1000	20	6 21/32	4 9/32	7¾	75.00
TC-14	12 or 21	1500	25	6 21/32	4 9/32	8¾	92.25
TC-20	12 or 21	2000	30	6 21/32	4 9/32	9¾	178.00

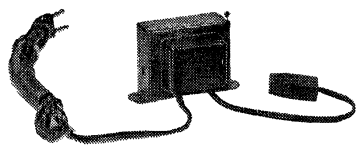


INDUSTRIAL MODEL

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28	3000	38	6⅛	7 1/16	6¼	$171.00
SD-29	4000	47	6⅛	7 1/16	6¼	200.00
SD-22	5000	58	6⅛	7 1/16	6¼	233.00
SD-30	6000	70	6⅛	7 1/16	6¼	283.00

ALL IN STOCK... SAME DAY SHIPMENT!

INDUSTRIAL DISCOUNT 40% INQUIRE FOR QUANTITY DISCOUNT



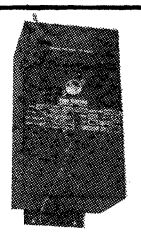
NORMAL DUTY MODEL

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-24	50	1½	2⅜	3¾	2¼	$4.90
SD-21	65	1⅔	2⅜	3¾	2¼	5.15
SD-25	80	1⅔	2⅜	3¾	2¼	5.40
SD-23	100	1⅔	2⅜	3¾	2⅜	5.70
SD-26	125	2	2 9/16	4	2⅝	6.35
SD-27	150	2¼	2 9/16	4	2⅝	6.90

PANEL MOUNTED VOLTAGE REGULATOR

Type	Input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	130	245	260	275	115
22	170	185	200	215	130	245	260	275	230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TA-20	11 or 22	2000	40	6⅞	7½	17⅜	$182.00
TA-28	11 or 22	3000	50	6⅞	7½	17⅜	208.00
TA-29	11 or 22	4000	60	6⅞	7½	17⅜	253.00
TA-22	11 or 22	5000	70	6⅞	7½	17⅜	293.00
TA-30	11 or 22	6000	85	6⅞	7½	17⅜	348.00
TA-20	12 or 21	2000	40	6⅞	7½	17⅜	198.00
TA-28	12 or 21	3000	50	6⅞	7½	17⅜	222.00
TA-29	12 or 21	4000	60	6⅞	7½	17⅜	270.00
TA-22	12 or 21	5000	70	6⅞	7½	17⅜	313.00
TA-30	12 or 21	6000	85	6⅞	7½	17⅜	370.00



INDUSTRIAL PANEL MODEL

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28TA	3000	50	6⅞	7½	17⅜	$198.00
SD-29TA	4000	60	6⅞	7½	17⅜	229.00
SD-22TA	5000	72	6⅞	7½	17⅜	265.00
SD-30TA	6000	85	6⅞	7½	17⅜	316.00

Todd is a step-down, step-up specialist. Consult us for modifications including fusing, metering, non-standard voltage, specialized mountings, Mil-T-27A applications, hermetic sealing and other custom requirements.

TODD ELECTRIC CO., INC.
YONKERS, N.Y.

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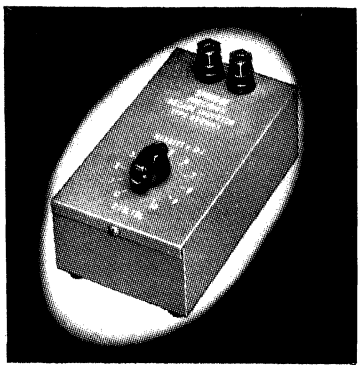
SPRAGUE PULSE TRANSFORMERS AND DECADE INDUCTORS

TYPE 850W PRECISION DECADE INDUCTORS

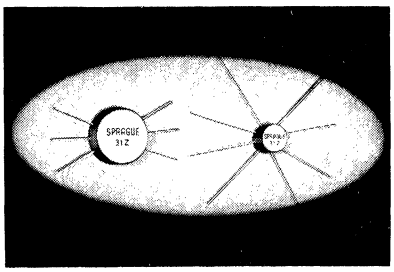


- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Gray Aluminum Case with Rubber Feet. Measures 5¼" long, 3" Wide, 2¼" High. Fitted With Five-way Binding Posts.

Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C	Net Each
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700	$31.90
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220	31.90
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70	31.90
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22	31.90

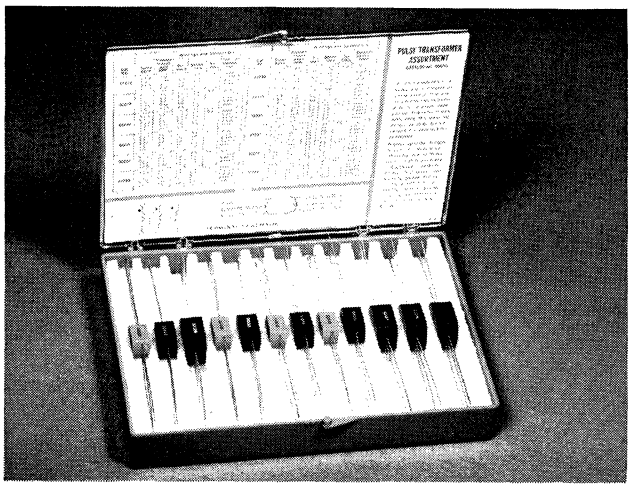
TYPE 31Z 'PANCAKE' PULSE TRANSFORMERS

- Miniature Units with Transformer Section Embedded in Epoxy Resin Inside a Pre-molded Outer Shell.
- "Pancake" Design is Excellent for Mounting on Printed Wiring Boards as Well as On Conventional Chassis.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 40,230.
- 31Z382 Is Recommended for Pulse Voltages up to 200 Volts at Average Power Rating of 1.0 Watt. Maximum Suggested Volt-microsecond Product is 1200.
- 31Z204 and 31Z286 Are Recommended for Pulse Voltages up to 100 Volts at Average Power Rating of 0.5 Watt. Maximum Suggested Volt-microsecond Product is 340.



Cat. No.	Turns Ratio	L_P (mH)	L_L (μH)	C_I (μμF)	C_C (μμF)	Typical Pulse Width Range and Impedance Level for 10% Droop: Width at 100Ω (μsec)	Width at 250Ω (μsec)	Width at 500Ω (μsec)	Net, ea.
31Z204	1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	$4.60
31Z286	1 : 1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	5.70
31Z382	1 : 1 : 1	15	25	24	49	33	12	6.4	5.70

PULSE TRANSFORMER ASSORTMENT No. 100Z41



Cat. No. 100Z41 ..... Net, $65.00

- A Special Selection of Pulse Transformers for Low-Power, High-speed Computer Circuitry
- Covers a Wide Range of Turns Ratios and Primary Inductance Combinations
- Ideal for Experimental Circuit Design on Transistorized or Electron Tube Circuits.
- MIL-T-27A and MIL-T-21038 Quality — Transformer Cores and Windings are Potted in Pre-Molded Epoxy Cases for Mechanical and Moisture Protection
- Can Be Mounted Flush on Printed Wiring Boards or Used in Conventional Point-to-Point Wiring
- Packed in Clear, Hinged-Lid Reusable Plastic Case

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STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

STANCOR TRANSFORMERS

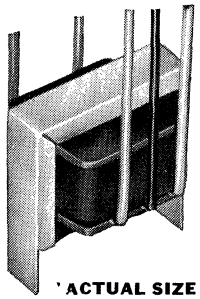
AND RELATED COMPONENTS - INDEX on Pg. 1411

TRANSISTOR AUDIO TRANSFORMERS

Part No.	Application	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. DC Ma.	DC Res. in Ohms Pri.	DC Res. in Ohms Sec.	Power in Watts	Ht.	Base Area	Mtg. Ctrs.	Mtg. Type	Shpg. Wt.	Net Price
TA-1	Input	600 C.T.	10	20	42	.8	.05	13/16	1 9/16 x 1 5/16	1 5/16	A	1 oz.	**$1.93**
TA-2	Interstage	100 C.T.	10 C.T.	100	4.3	.8	.25	1 1/16	2 1/8 x 1 3/8	1 13/16	A	3 oz.	**1.93**
TA-3	Interstage	100	1000 C.T.	100	5.8	45	.25	1 3/8	2 7/16 x 1 3/8	2	A	3 oz.	**1.93**
TA-4	Interstage	500 C.T.	5000 C.T.	12	37	250	.03	1 3/8	2 7/16 x 1 3/8	2	A	3 oz.	**2.53**
TA-5	Driver	1000	200 C.T.	10	400	115	.05	5/8	1 1/4 x 1/2	1 1/16	A	2 oz.	**4.80**
TA-6	Driver	2000	200 C.T.	5	720	115	.05	5/8	1 1/4 x 1/2	1 1/16	A	2 oz.	**5.43**
TA-7	Driver	100	100 C.T.	100	12	12	.5	1 5/8	1 13/16 x 1 3/8	2 3/8	A	5 oz.	**1.93**
TA-8	Output	9800	15	2	640	2	.05	1 3/8	2 7/16 x 1 3/8	2	A	2 oz.	**4.33**
TA-9	Output	1000	4/8/16	10	180	3.5	.2	3/4	1 9/16 x 3/4	1 3/8	A	1 oz.	**4.96**
TA-10	Output	2000 C.T.	4/8/16	—	250	4	.2	3/4	1 9/16 x 3/4	1 3/8	A	1 oz.	**5.43**
TA-11	Output	48 C.T.	8/16	275	5	1.5	5	2	3 5/16 x 1 3/4	2 7/8	A	1 lb.	**3.72**
TA-12	Output	20 C.T.	8	500	.55	.35	10	1 3/8	1 7/16 x 1 1/2	2	A	4 oz.	**1.93**
TA-13	Driver	200 C.T.	400 C.T.	10	—	—	.6	3	2 11/16 x 2 5/32	2 3/8 x 1 1/2	TD	1 1/2 lb.	**4.10**
TA-14	Output	24 C.T.	16/4 C.T.†	200	—	—	10	4 1/4	4 3/8 x 3 9/16	3 7/8 x 2 3/4	TD	6 1/4 lb.	**10.27**
TA-15	Input	50 to 100	10	50			5MW	13/16	1 9/16 x 1 5/16	1 3/16	A	5 1/2 oz.	**1.50**
TA-16	Driver	20	36 C.T.	400			1W	1 3/16	2 1/16 x 1 1/8	1 3/4	A	2 oz.	**1.73**
TA-17	Modulation	8 C.T.	7500/5000	120			35	3 1/8	3x2 1/2	1 15/16 x 2	C	3 lbs.	**6.49**
TA-56	Output	48 C.T.	3.2/8/16	550	—	—	10	2 5/16"	2 7/8 x 2"	2 3/8"	J	1	**3.10**
TA-57	Output	100 C.T.	3.2/8/16	500	—	—	10	2 5/16"	2 7/8 x 2"	2 3/8"	S	1	**3.05**
TA-58	Driver	100	200 C.T.	200	—	—	.5	1 1/4"	2 1/8" x 1"	1 3/4"	A	1/2	**2.17**
TA-59	Driver	500 C.T.	200 C.T.	50	—	—	.5	1 1/4"	2 1/8" x 1"	1 3/4"	A	1/2	**2.42**
TA-60	Hi-Fi Out.‡	125 C.T.	8	50#	—	—	1.5	1 3/4"	1 1/4" x 1 1/4"	1 1/4"	TS	3/4	**4.19**

‡Freq. Resp. ±1/2 db, 20-20,000 cps. # Unbalanced Primary Current.

.150 WATT GROUP



*ACTUAL SIZE

Dimensions:

H x W x D: 21/32" x 13/16" x 5/8"

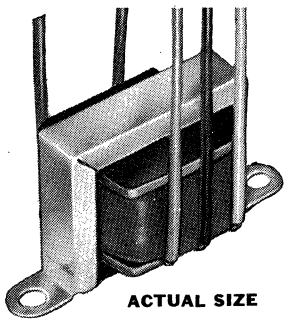
Mounting Tabs Centers: 25/16"—3/16" W

Weight .....65 oz

Net Price.....$3.72

For other transistor transformers see:

Page 1425—Hermetically sealed units
Page 1427—Ultra-miniature units
—Transverter power supply transistor transformers



ACTUAL SIZE

.300 WATT GROUP

Dimensions:

H x W x D: 13/16" x 1 5/8" x 3/4"

Mounting Centers: 1 3/8"

Weight.....1.2 oz.

Net Price $3.72

Part No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms Pri.	Impedance in Ohms Sec.	D.C. Res. in Ohms Pri.	D.C. Res. in Ohms Sec.
TA-18	Input	1.00:45.5	30 C.T.	50,000	14.7	4060
TA-19	Interstage	3.08:1	100 C.T.	10 C.T.	19	1.27
TA-20	Output	5.22:1	350 C.T.	4, 12	38	1.45
TA-21	Output	5.53:1	500 C.T.	4, 8, 16	75.3	3.55
TA-22	Interstage	3.16:1	500 C.T.	50	59.7	7.9
TA-23	Output	5.65:1	600 C.T.	4, 8, 16	73.2	3.2
TA-24	Interstage	10.0:1	500 C.T.	50,000	76.8	5135
TA-25	Output	6.75:1	825 C.T.	4, 8, 16	74	2.7
TA-26	Output	9.80:1	1,250	4, 12	132.5	1.4
TA-27	Interstage	4.08:1	1,200	20,000 C.T.	142	1860
TA-28	Interstage	1.65:1	1,500	500 C.T.	104	46.5
TA-29	Output	11.8:1	2,500	4, 16	370	2.3
TA-30	Interstage	1.00:1.22	5,000 C.T.	7,500 C.T.	650	790
TA-31	Interstage	1.00:1.41	5,000 C.T.	10,000 C.T.	635	1100
TA-32	Interstage	1.00:4	5,000 C.T.	80,000 C.T.	573	5740
TA-33	Output	24.6:1	10,000 C.T.	4, 8, 16	1174	2.6
TA-34	Interstage	14.0:1	10,000	200 C.T.	1200	33.4
TA-35	Interstage	2.24:1	10,000	2,000 C.T.	1200	257
TA-36	Interstage	1.83:1	10,000	3,000 C.T.	1200	385
TA-37	Output	5.55:1	400 C.T.	11	71.5	1.5
TA-38	Interstage	3.44:1	500 C.T.	150 C.T.	62	21.2
TA-53	Input‡	3:1	5000 C.T.	45,000	310	1400
TA-54	Input#	5:1	20,000	800 C.T.	1350	95
TA-39	Output	3.08:1	100 C.T.	4, 8, 16	10.9	1.45
TA-40	Output	3.27:1	160	4, 8, 16	18.7	1.4
TA-41	Output	5.00:1	400 C.T.	4, 8, 16	34	1.5
TA-42	Output	5.60:1	500 C.T.	4, 8, 16	47	.85
TA-43	Output	6.63:1	700 C.T.	4, 8, 16	77	1.15
TA-44	Output	12.5:1	2,500	4, 8, 16	172	1.15
TA-45	Output	13.7:1	3,000	4, 8, 16	192	1.2
TA-46	Interstage	8.17:1	100,000	1,500 C.T.	3250	143
TA-47	Input	1.00:14.1	1,000 C.T.	200,000 C.T.	123	1815
TA-52	Driver‡	100:1	500 C.T.	500 C.T.	40	55
TA-55	Input	50:1	500,000	200 C.T.	7,000	8.5

TRANSISTOR POWER TRANSFORMERS—Primary 117 volts, 60 cycle operation

Part No.	Plate Supply No. 1 AC Volts	Plate Supply No. 1 DC Ma	Plate Supply No. 2 AC Volts	Plate Supply No. 2 DC Ma	Height	Base Area	Mtg. Type	Shpg. Wt.	Net Price
***TP-1**	13 or 18	900	13 or 18	900	3"	3x2 1/2	C	2 3/4	**$4.96**

* For bridge rectifier systems. † 2 secondaries 16 ohm series, 4 ohms parallel. ‡Also Interstage. #Also driver and interstage.

Net

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SECTION 5600

DRIVER TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

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TELEVISION COMPONENTS

Almost 1000 TV replacement transformers and related components, the most complete line in the industry, are available from Chicago Standard. These include almost 200 exact replacement flybacks and over 70 power transformers, 45 yokes, as well as vertical outputs, width and linearity coils and many other popular TV replacement units. . . . including 450 exact replacement coils. Ask your distributor for a free copy of the latest edition of the Stancor TV Transformer Catalog and Replacement Guide listing these units and replacement data on thousands of television sets.

SINGLE PLATE TO PUSH-PULL GRIDS

Part No.	Pri. Impedance in Ohms	Pri./½ Sec. Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4713	10,000	2:1	⅝″ x ⅝″	30 ma.	A	1⅝″	2⅞″ x 1⅛″	0.7	**$2.12**
A-4752	10,000	2/1.5/1:1	¾″ x ¾″	40 ma.	A	2″	3¼″ x 1¾″	1.2	**2.93**
A-4722	10,000	2:1	¾″ x 1″	30 ma.	TD	2 11/16″	2 3/4″ x 2 3/16″	1.7	**4.33**
A-4292	10,000	2.5:1	⅝″ x ⅝″	20 ma.	A	1⅝″	2⅛″ x 1½″	0.7	**2.27**
A-4723	10,000	3:1	⅝″ x ⅝″	30 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**2.15**
A-4210	1,500 to 5,000	3:1	1″ x 1″	40 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.4	**4.96**
A-4702	1,500 to 5,000	5:1	1″ x 1″	80 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.5	**4.90**

PUSH-PULL PLATES TO PUSH-PULL GRIDS

Part No.	Pri. Imp. (P.P.) in Ohms	Pri./½ Sec. Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4208#	20,000 to 30,000	2.8:1	1″ x 1″	15 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.5	**$5.67**
A-4701#	20,000	**3:1**	1″ x 1″	25 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.7	**6.40**
A-4212	1,500 to 5,000	3.2:1	1″ x 1″	50 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.5	**5.20**
A-4703#	3,000 to 10,000	5:1	1⅛″ x 1⅛″	95 ma.	C	3⅝″	3″ x 3⅛″	3.7	**6.44**

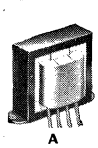
#Split secondaries for individual bias adjustment and/or use of inverse feedback.

POLY-PEDANCE DRIVER MULTI-TAPPED UNITS FOR USE IN CIRCUITS WHERE THE OPTIMUM RATIO CANNOT BE PREDETERMINED.

Part No.	Application and Ratio Pri./½ Sec.	Max. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt in Lbs.	Net Price
A-4761	Driver to Class "B" Grids 1.25:1/ 1.4:1/ 1.6:1/ 1.8:1/ 2:1/ 2.2:1/ 2.4:1	Pri—150 ma. Sec—100 ma.	15	CD	3 3/16″	2⅝″ x 3⅝″	3.4	**$11.10**
A-4762	Driver to Class "B" Grids 2.6:1/ 3:1/ 3.2:1/ 3.4:1/ 4:1/ 4.5:1/ 5:1	Pri—150 ma. Sec—180 ma.	15	CD	3 3/16″	2⅝″ x 3⅛″	2.7	**10.46**
A-4763	Driver to Class "B" Grids 1.25:1/ 1.5:1/ 1.75:1/ 2:1/ 2.25:1/ 3.2:1	Pri—225 ma. Sec—280 ma.	30	CD	3⅝″	3″ x 4″	4.3	**12.96**

POLY-PEDANCE LINE DRIVER MULTI-TAPPED UNIT TO MATCH ALL COMMON LINE IMPEDANCES TO GRID CIRCUIT OF MODULATOR OR CLASS "B" AMPLIFIER.

Part No.	Application and Ratio Pri./ ½ Sec.	Max. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4765	Line to Grid 1:0.75/ 1:0.85/ 1:1/ 1:1.25/ 1:1.45/ 1:1.75/ 1:2/ 1:2.25/ 1:2.5/ 1:2.75/ 1:3.15	Pri—180 ma. Sec—100 ma.	15	CD	3 3/16″	2⅝″ x 3⅜″	3.2	**$11.50**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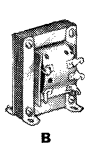
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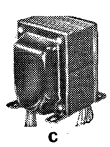
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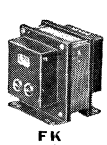
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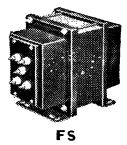
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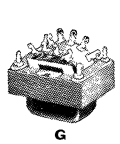
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Net

INPUT-INTERSTAGE

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

MICROPHONE OR LINE TO LINE

Part No.	Impedance In Ohms	Mtg.	Height Overall	Base Area	Shpt. Wt. In Lbs.	Net Price
A-4350#	Pri—500/333/200/125/50 Sec—500/333/200/125/50	Q	2″	3¼″ x 1¾″	1.0	**$ 4.33**
A-4407#†	Pri—500/333/200/125/50 Sec—500/333/200/125/50	D	3 3/16″	2⅝″ x 3¼″	2.4	**8.99**

MICROPHONE PICKUP OR LINE TO GRID

Part No.	Application	Impedance in Ohms	Turns Ratio	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4705	S. B. Mic. to S. Grid	Pri—200/70 Sec—80,000	1:20	A	1⅜″	2⅜″ x 1⅜″	0.4	**$2.97**
A-4706	S. B. Mic. to S. Grid	Pri—100 Sec—60,000	1:24.5	A	1⅜″	2⅜″ x 1½″	0.5	**2.17**
A-4708	D. B. Mic. to S. Grid	Pri—200 CT Sec—57,000	1:17	J	2″	2⅜″ x 1⅝″	0.7	**2.93**
A-4742	S. B. Mic. to P.P. Grids	Pri—100 Sec—400,000 CT	1:64	S	2 5/16″	2⅞″ x 1¾″	1.2	**3.13**
A-4747	S. B. Mic. or Low Imp. Line to S. Grid	Pri—70 Sec—1,300,000	1:137	VE	1 7/16″	1 5/16″ x 1¼″	1½″ 0.5	**3.15**
A-4351#	Mic. or Line to S. Grid	Pri—500/333/200/125/50 Sec—89,000	1:13.3	TD	2 11/16″	2¾″ x 2 3/16″	1.4	**4.63**
A-4352#	Mic. or Line to S. Grid	Pri—500/333/200/125/50 Sec—89,000	1:13.3	Q	2″	3¼″ x 1¾″	1.0	**4.80**
A-4709	Dynamic Mic. or Pickup to S. Grid	Pri—30/15/8/4 Sec—106,000	1:60	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.20**
A-4778	Line to Grid	Pri.—500/600 C.T. Sec.—240,000	1:20	C	2⅜″	2⅞″ x 1⅞″	—	**3.97**
A-4779	Line to S. or P. P. Grids	Pri.—500/600 C. T. Sec.—60,000 C.T.	1:10	A	2″	2⅜″ x 1¼″	—	**2.30**
A-4780	Line to P. P. Grids	Pri.—500/600 C.T. Sec.—240,000 C.T.	1:20	A	2 13/16″	3⅛″ x 1¾″	—	**4.02**

INTERCOMMUNICATOR AND TRANSCEIVER

Part No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max. Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4744	Intercom. input	4	25,000		VE	1⅜″	2⅜″ x 1½″	0.5	**$2.02**
A-4748	Intercom. input	45 or 50	50,000		A	1 3/16″	2 3/16″ x 1¼″	1¾ 0.4	**3.00**
A-4749	Telephone Patch Circuit	10,000	2–500 each		TD	1 15/16″	1 17/32″ x 2¼″	1.0	**4.85**
A-8090	Line to Voice Coil	45 or 50	3–4, 6–8		QL	1⅝″	2⅜″ x 1½″	0.5	**1.77**
A-8091	Line to Voice Coil	45 or 50	3–4, 6–8	8	QL	1⅝″	2⅞″ x 1⅝″	0.7	**2.10**
A-3833	Transceiver Input Mic. and Plate to Grid	200 and 5,000	60,000	5	A	1⅝″	2⅞″ x 1½″	0.7	**2.87**
A-3836	Transceiver Output. Plate to Low or High impedance phones	10,000	50 at 2,000	5	A	1⅝″	2⅞″ x 1½″	0.7	**2.80**
A-3817	Transceiver modulation and output (Autoformer)	5,000 at 50 madc	6750 at 40 madc	10	A	1 15/16″	1½″ x 2⅜″	0.7	**3.00**

SINGLE PLATE TO SINGLE GRID—FOR 7,000-20,000 OHM PLATE IMPEDANCES

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-53	1:3	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1½″	0.5	**$2.02**

SINGLE PLATE TO PUSH-PULL GRIDS—FOR 7,000-15,000 OHM PLATE IMPEDANCES

A-52-C	1:2	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1⅜″	0.4	**$2.25**
A-62-C	1:2	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**2.33**
A-4745	1:2	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.66**
	Recommended for use in super-regenerative circuits. Has a static shield between pri. and sec. windings.							
A-53-C	1:3	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1⅜″	0.5	**2.40**
A-63-C	1:3	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**2.70**
A-73-C	1:3	¾″ x ¾″	10 ma.	A	2″	3¼″ x 1¾″	1.0	**3.15**
A-4719	1:3	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**4.96**
A-64-C	1:4	⅝″ x ⅝″	10 ma.	A	2″	2⅜″ x 1¾″	0.7	**2.43**
A-4420	Exact Repl. United Motors (Delco) 6061 18,000 Ω Plate to P-P Grids, Autoformer			S2	1⅝″	1 7/16″ x 1¼″	0.5	**2.01**

MULTI-PURPOSE INTERSTAGE—SPLIT SECONDARIES May be used as a single plate to single grid, single plate to push-pull grid, or push-pull plate to push-pull grid interstate transformers. Overall ratios are 3:1, however, primaries are center-tapped and secondaries have split windings, thus providing ratios of 1:1, 3:1 and 6:1 in either step-up or step-down applications. § Has split secondary.

A-4774	1:3	¾″ x ¾″	10 ma.	S	2 5/16″	2⅞″ x 1¾″	1.2	**$3.25**
A-4773	1:3	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.20**

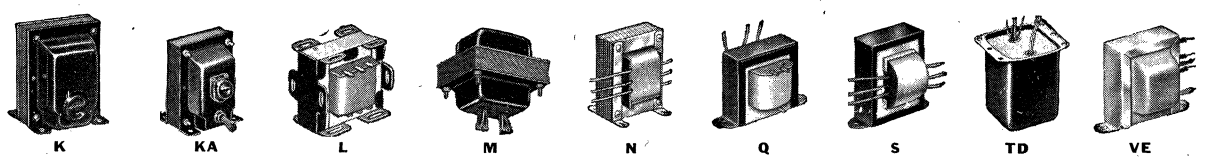
PUSH-PULL PLATES TO PUSH-PULL GRIDS—FOR 7,000-15,000 OHM PLATE IMPEDANCES

A-4711	1:1	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**$3.15**

PUSH-PULL PLATES TO PARALLEL OR PUSH-PULL GRIDS—FOR 7,000-20,000 OHM PLATE IMPEDANCES

A-4208	1:1.4	1″ x 1″	15 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.5	**$5.67**

#Has a dual primary—when properly connected the 500 and 200 ohm sections are center tapped. §Has split secondary.
†Has a static shield between primary and secondary windings. ‡Designates part numbers to be removed from next catalog



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OUTPUT TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

SINGLE PLATE TO VOICE COIL

Part No.	Application	Max. Pri. D.C.	Typical Output Tubes	Class	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3332	2,000 ohms to 3.2 ohms	50 ma.	25B5, 25B6, 25L6, 35A5, 35L6, 50L6	A	3	A	1 3/16"	2 1/8" x 1"	0.4	**$1.39**
A-3876	2,000 ohms to 4 ohms	60 ma.	2A3, 6A3, 6B4, 6W6, 6Y6, 25AC5, 25B5, 25B6, 25L6, 35A5, 35L6, 50L6	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.48**
A-3328	4,000 ohms to 3.5 ohms	10 ma.	1S4, 3S4	A	3	A	1 3/16"	2 1/8" x 1"	0.4	**1.37**
A-2203	4,000 ohms to 8 ohms	40 ma.	43, 45, 48, 12A5, 25A6	A	5	A	1 5/8"	2 1/8" x 1 5/8"	0.7	**2.47**
A-3577	5,000 ohms to 4 ohms	40 ma.	43, 59, 6V6, 7C5, 25A5	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.48**
A-3310	5,000 ohms to 500/15/8/4 ohms	55 ma.	45, 6L6, 6V6, 25A6, 25A7	A	20	C	3 3/16"	2 5/8" x 2 5/8"	2.5	**5.70**
A-3878	7,000 ohms to 4 ohms	30 ma.	20, 31, 33, 42, 2A5, 6AC5, 6B5, 6F6, 6K6, 6N6, 7B5	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.52**
A-2313	7,000 ohms to 8 ohms	40 ma.	33, 41, 42, 47, 59, 89, 2A5, 6AC5, 6F6, 6K6, 6N6, 7B5	A	10	A	2"	3 1/4" x 1 3/4"	1.0	**2.55**
A-8114	7,600 ohms to 3.2 ohms	32 ma.	33, 41, 42, 47, 59, 89, 2A5, 6AC5, 6F6, 6K6, 6N6, 7B5	A	5	A	1 3/8"	2 3/8" x 1 5/8"	0.4	**1.77**
A-3329	8,000 ohms to 3.5 ohms	10 ma.	1C5-GT, 1G5-G, 1Q5-GT/G, 1S4, 3S4	A	3	A	1 3/16"	2 1/8" x 1"	0.4	**1.37**
A-3879	10,000 ohms to 4 ohms	30 ma.	1J6, 3C5, 6A4, 6G6, 6N7	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.48**
A-3881	15,000 ohms to 4 ohms	10 ma.	1D8, 1E7, 1F4, 1F5, 1J5, 1T5, 6V7, 6Y7, 12A7	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.63**
A-3327	25,000 ohms to 4 ohms	5 ma.	1A5, 1D8-GT, 1F4, 1F5-G, 1LA4, 1LB4, 1N6-G	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**1.84**
A-4431	Exact Repl. United Motors (Delco) 6062, 6,000 ohms to 3-4 ohms			—	5	A2	1 5/8"	1 15/16" x 1 3/8"	0.8	**1.86**

PUSH-PULL PLATES TO VOICE COIL

A-3802	3,800/3,300 to 500/250/8/4 ohms	250 ma.	45, 6L6, Par. 6L6	AB2, AB1	75	C	4 3/4"	4" x 3 7/8"	7.9	**$12.01**
A-3851§	4,400 ohms to 500/250/15/8/4 ohms	70 ma.	6L6	AB1	30	C	3 5/8"	3" x 3 1/4"	3.6	**7.40**
A-3872	5,000 ohms to 15/8/4 ohms	75 ma.	45, 2A3, 6A3, 6L6	AB	18	TD	2 11/16"	2 3/4" x 2 5/16"	1.7	**4.66**
A-3800	5,000 ohms to 500/250/15/8/4 ohms	80 ma.	45, 2A3, 6A3, 6L6	AB	30	C	3 5/8"	3" x 3 3/8"	3.7	**6.87**
A-3307	6,000 ohms to 500/15/8/4 ohms	100 ma.	46, 59, 42, 2A5, 6F6, Par. 53, 6A6, 6N7	B, AB2	30	C	3 5/8"	3" x 3 1/8"	3.5	**7.92**
A-3801	6,600 ohms to 500/250/15/8/4 ohms	150 ma.	6L6	AB1	35	C	4"	3 1/4" x 3 3/8"	5.8	**8.76**
A-3885	9,000 ohms to 500/250/15/8/4 ohms	150 ma.	6L6	AB1	55	C	4"	3 1/4" x 3 3/8"	4.5	**8.68**
A-3304	10,000/7,000 ohms to 500/15/8/4 ohms	60 ma.	45, 6V6, 6AC5	AB	25	C	3 5/16"	2 5/8" x 2 5/8"	2.7	**6.43**
A-3311	10,000 ohms to 500/15/8/4 ohms	70 ma.	6F6, 6V6, 6AC5	AB	25	C	3 5/8"	3" x 3 1/4"	3.5	**6.91**
A-3831	10,000 ohms to 8/4/2 ohms	40 ma.	30, 49	AB	5	A	1 5/8"	2" x 1 1/2"	0.7	**2.70**
A-3335	10,000 ohms to 6-8/3.2-4 ohms	40 ma.	10	S	2 5/16"	2 15/16" x 1 3/4"	2 3/8"		1.0	**3.15**
A-2312	14,000 ohms to 4 ohms	40 ma.	33, 41, 42, 47, 49, 2A5, 6F6, 6K6, 7B5	AB	10	A	2"	3 1/4" x 1 3/4"	1.0	**2.85**
A-3496	14,000 ohms to 4 ohms	25 ma.	33, 41, 42, 47, 49, 2A5, 6F6, 6K6, 7B5	AB	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**2.70**
A-3303	14,000 ohms to 500/15/8/4 ohms	55 ma.	41, 42, 47, 59, 89, 2A5, 6F6, 6K6, 7B5	AB	20	C	3 3/16"	2 5/8" x 2 5/8"	2.7	**6.53**
A-3857	25,000 ohms to 4 ohms	10 ma.	1F4, 1F5, 1J5, 1T5, 6G6 12A7, 950	A	5	A	1 3/8"	2 3/8" x 1 3/8"	0.4	**2.40**
A-4430	Exact Repl. United Motors (Delco) 9,000 ohms CT to 3.2 ohms	7269231, 7269116, 7266997		—	5	A2	1 15/16"	2 3/8" x 1 5/8"	1.0	**2.28**
A-4432	Exact Repl. United Motors (Delco) 6063 10,000 ohms CT to 4 ohms			—	10	S2	2 3/8"	2" x 1 5/8"	1.0	**2.46**

HUM-REDUCING TRANSFORMERS, Single Plate to Voice Coil

A-3330	†2,000 ohms to 3.5 ohms	60 ma.	5	A	1 3/8"	2 3/8" x 1 3/8"	2	0.4	**$1.98**
A-3336	#2,500 ohms to 3.5 ohms	50 ma.	5	A	1 3/8"	2 7/16" x 1 3/8"	2	0.4	**1.99**

HIGH FIDELITY OUTPUT TRANSFORMERS, Better than ±1 db from 20 to 20,000 cps.

All units have Type C mounting. Shipping weight 6.5 lbs., except A-8098, shipping weight 3.2 lbs.

Part No.	Pri. Imp. (P-P) In Ohms	Sec. Imp.* in Ohms	Max. Pri. D.C. Per Side	Audio Watts	Height Overall	Base Area	Net Price
A-8050	1500	8, 16	200	50	4 1/16"	3 9/16" x 4 1/4"	$13.63
A-8098	2000 C.T.	8, 16, 32	140	15	3 3/4"	2 5/8" x 3 1/4"	8.14
A-8051	2500	8, 16	150	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8052	3000	8, 16	175	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8053	5000	8, 16	150	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8054	9000	8, 16	100	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8056	6600	8, 16	125	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8060	1500	500	200	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8061	2500	500	150	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8062	3000	500	175	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8063	5000	500	150	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8064	9000	500	100	50	4 1/16"	3 9/16" x 4 1/4"	13.63
A-8072**	7600	4, 8, 16	100	25	4 5/16"	3 9/16" x 4 1/4"	16.60
A-8066	6600	500	125	50	4 5/16"	3 9/16" x 4 1/4"	13.63

*Where more than one secondary impedance is shown, only one value is to be used at any time.
**Primary provided with seven taps for Ultra-Linear application.
#Has tapped primary for use in hum-reducing circuit. §This unit has a tertiary winding to provide 10% inverse feedback
‡Designates part number to be removed from next catalog. †Has a 4.5% primary tap.

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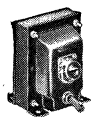
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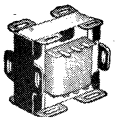
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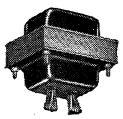
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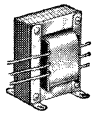
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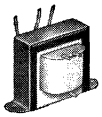
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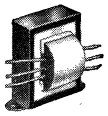
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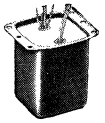
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OUTPUT TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

UNIVERSAL OUTPUT

Part No.	Application	Max. Pri. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3856	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	35 ma.	4	Q	1⅜″	2⅜″ x 1⅜″	0.4	**$2.90**
A-3822¶	Single plate (7,000 to 10,000 ohms) to voice coil	35 ma.	4	Q	1⅜″	2⅜″ x 1⅜″	0.4	**1.95**
A-3848§	Single plate (7,000 to 16,000 ohms) to voice coil	10 ma.	5	Q	1⅜″	2⅜″ x 1⅜″	0.4	**2.60**
A-3823	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma.	8	Q	1⅝″	2⅜″ x 1½″	0.7	**3.37**
A-3850	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma.	8	J	2″	2⅜″ x 1½″	0.7	**3.32**
A-3825§	Single plate (1,500 to 4,500 ohms) to voice coil	75 ma.	8	Q	2″	3¼″ x 1⅝″	0.9	**2.63**
A-3824§	Single or Push-pull plates (6,000 to 10,000 ohms) to voice coil	75 ma.	8	Q	2″	3¼″ x 2″	1.4	**3.30**
A-3849	Single plate (1,500 to 10,000 ohms) to voice coil	55 ma.	10	Q	1⅝″	2⅞″ x 1½″	0.7	**3.37**
A-3880	Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma. ea. ½	15	Q	2¼″	3⅜″ x 2¼″	1.7	**4.39**
A-2855	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	15	L	2 1/16″	2⅝″ x 1⅜″	1.0	**3.76**
A-3890	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	15	TD	2 11/16″	2¾″ x 2⅝″	1.5	**5.43**
A-3852	Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma. ea. ½	18	J	2 5/16″	2⅞″ x 2″	1.3	**4.07**
A-3870	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	18	Q	2″	3¼″ x 2″	1.3	**4.15**
A-3830	Push-pull plates (3,000 to 10,000 ohms) to voice coil	60 ma. ea. ½	20	J	2 1/16″	3 5/16″ x 2¼″	1.8	**4.50**

¶Secondary impedance 0.7, 1, 1.4, 2, 2.8, 4 ohms. §Secondary impedance, 1, 2, 4 ohms.

SINGLE AND/OR PUSH-PULL PLATES TO LINE

Part No.	Application	Impedance in Ohms	Max. Pri. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3841	Single plate to line	Pri—7,000/6,000/5,000/4,000/2,500; Sec—500	60 ma.	10	J	2 11/16″	3 5/16″ x 2¼″	1.5	**$5.00**
A-3842	Push-pull plates to line	Pri—14,000/12,000/10,000/8,000 CT; Sec—500	55 ma.	10	J	2 11/16″	3 5/16″ x 2¼″	1.7	**5.70**
A-4770	Single plate to line	Pri—7,000/6,000/5,000/4,000/2,500; Sec—500	60 ma.	20	J	3⅛″	3⅝″ x 2¼″	2.4	**5.26**
A-3250	Single plate or Push-pull plates to line	Pri—20,000/10,000/5,000 Pri—20,000 CT Sec—500/333/200/125/50	15 ma.	—	Q	2″	3¼″ x 1¾″	1.0	**4.19**
A-3315	Single plate or Push-pull plates to line	Pri—20,000/10,000/5,000 Pri—20,000 CT; Sec—500/333/200/125/50	35 ma.	—	D	3 3/16″	2⅝″ x 2⅝″	2.7	**8.42**

LINE TO VOICE COIL

Part No.	Impedance in Ohms	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-8101	Pri—500 Sec—3.2/6-8	5	Q	1⅜″	2⅜″ x 1⅜″	0.4	**$1.77**
A-3883	Pri—500 Sec—15/8/6/4	25	J	2 5/16″	2⅞″ x 1¾″	1.1	**3.45**
A-3882	Pri—500/333/250 Sec—15/8/4	25	D	3 3/16″	2⅝″ x 3⅛″	2.4	**8.51**
A-3838	500/250/175/150/140/125/100/85/45/14/4/0.7	30	B	3⅛″	2½″ x 2¼″	2.3	**5.30**
	This Unit is designed to operate one or more speakers in series across a 500 ohm line or to match unequal lines.						
A-3818	Pri—1,500/1,000/500 Sec—15/8/4	25	J	3⅛″	2⅝″ x 2¼″	2.2	**4.92**
A-7947	Pri—2,000/1,500/1,000/500 Sec—6 ohms	8	Q	1⅝″	2 13/16″ x 1 9/16″	0.7	**2.93**
A-7949	Pri—2,000/1,500/1,000/500 Sec—6-8 ohms	12	J	2 5/16″	2⅞″ x 1 13/16″	1.1	**3.44**
A-3820	Pri—2,000/1,500/1,000/500 Sec—15/8/4	40	D	4 1/16″	3⅝″ x 4½″	5.0	**10.73**
A-8104	Pri—3,000/2,000/1,500/1,000/500 Sec—16/8/4	10	J	2 5/16″	2 15/16″ x 1¾″	2⅝″ 1.5	**4.07**
A-3837	Line to Line or V. C. (Autoformer) Pri—500 Sec—8/4/2.65/2.35/2/1.5/0.7/0.5/0.3/0.2/0.1/0.05	15	J	2 5/16″	2⅞″ x 2″	1.4	**4.01**
	This Unit is designed to operate one or more speakers in parallel across a 500 ohm line.						

70.7 VOLT LINE TO VOICE COIL

Part No.	Power Steps in Watts	Impedance in Ohms	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. Wt. in Lbs.	Net Price
A-8080	5/4/3/2/1	Pri.—1000/1250/1667/2500/500 Sec.—8/16	Q	1⅜″	2⅜″ x 1⅜″	2″	0.4	**$2.91**
A-8081	10/9/8/7/6	Pri—500/555/625/715/833 Sec—8/16	J	2″	2 1/16″ x 1⅝″	2″	0.7	**3.16**
A-8082	15/14/13/12/11	Pri—333/357/384/417 455 Sec—8/16	J	2 5/16″	2⅞″ x 1¾″	2⅜″	1.2	**3.66**
A-8102	8/4/2/1/0.5	Pri—625/1,250/2,500/5,000/10,000 Sec—4/8/16	J	2″	1⅝″ x 2⅞″	2″	0.7	**3.50**
A-8103	16/8/4/2/1/0.5	Pri—312.5/625/1,250/2,500/5,000/10,000 Sec—4/8/16	J	2⅛″	2¼″ x 3¼″	2 13/16″	1.5	**4.95**
A-8105	5/2.5/1.25/.62/.31	Pri—1,000/2,000/4,000/8,000/16,000 Sec—4/8	J	1⅜″	2⅜″ x 1⅜″	2″	0.4	**2.84**
A-8109	2/1/0.5	Pri—2500/5000/10,000 Sec—4/8	Q	1¼″	2⅛″ x 1¾″	1¾″	0.3	**2.50**

140 VOLT LINE TO VOICE COIL

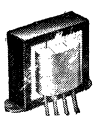
A-8106	1/2/4/8	Pri—2,500/5,000/10,000/20,000 Sec—4/8/16	J	2	1⅝″ x 2 7/16″	2	0.7	**$3.00**
A-8107	1/2/4/8/16	Pri—1,250/2,500/5,000/10,000/20,000 Sec—4/8/16	J	2	3 5/16″ x 2″	2 13/16″	1.8	**4.74**
A-8108	0.625/1.25/2.5/5.0	Pri—4,000/8,000/16,000/32,000 Sec—4/8	Q	1⅜″	2⅜″ x 1⅜″	2	0.4	**2.72**

25 VOLT LINE TO VOICE COIL

A-8095	5/2.5/1.25/.62/.31	Pri—125/250/500/1,000/2,000 Sec—4/8	Q	1⅜″	2⅜″ x 1⅜″	2″	0.4	**$2.69**
A-8096	8/4/2/1/0.5	Pri—78/156/312.5/625/1,250 Sec—4/8/16	J	2″	1⅝″ x 2 7/16″	2″	0.65	**3.60**
A-8097	16/8/4/2/1/0.5	Pri—39/78/156/312.5/625/1,250 Sec—4/8/16	J	2 13/16″	2¼″ x 3¼″	2 13/16″	1.6	**4.32**
A-8099	2/1/0.5	Pri—312.5/625/1250 Sec—4/8	Q	1¼″	2⅛″ x 1¾″	1¾″	0.3	**2.50**

CRYSTAL RECORDER OUTPUT

Part No.	Application	Max. Pri. D.C.	Audio Watts	Core Size	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3859	Push-pull 10,000 ohm plates to 70,000 ohm crystal cutter OR 4 ohm voice coil	30 ma. ea. ½	5	¾″ x ¾″	A	2″	3¼″ x 1¾″	1.0	**$4.26**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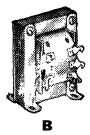
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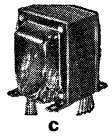
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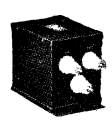
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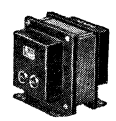
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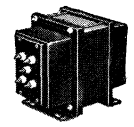
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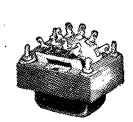
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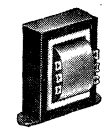
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POWER TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

COMBINATION PLATE AND FILAMENT SUPPLY

POWER TRANSFORMERS TO PROVIDE APPROXIMATELY 260 VOLTS D.C. TO CONDENSER INPUT FILTER

Type and Part No.	Plate Supply A.C. Volts	D.C. Ma.	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Windings Volts	Other Windings Amps.	Base Area	Overall Height	Mtg. Centers	Shpg. Wt. in Lbs.	Net Price
PC8401	235-0-235	40	5.0	2.0	6.3 CT	2.0	2⅝″ x 2⅝″	3 5/16″	2″ x 1 9/16″	2.2	**$ 5.53**
PM8401							2½″ x 3″	2⅝″	2″ x 2½″		**5.77**
PC8402	240-0-240	55	5.0	2.0	6.3 CT	2.0	2⅝″ x 2¾″	3 5/16″	2″ x 1 11/16″	2.4	**5.49**
PM8402							2½″ x 3″	2¾″	2″ x 2½″		**5.64**
PC8403	250-0-250	70	5.0	2.0	6.3 CT	2.5	2⅝″ x 3⅛″	3 5/16″	2″ x 2 1/16″	3.2	**6.36**
PM8403							2½″ x 3″	3⅛″	2″ x 2½″		**6.36**
PC8404	260-0-260	90	5.0	2.0	6.3 CT	3.0	3″ x 3½″	3⅝″	2¼″ x 2¼″	4.0	**7.05**
PM8404							2⅞″ x 3⅜″	3⅝″	2¼″ x 2 13/16″		**7.05**
PC8405	270-0-270	120	5.0	3.0	6.3 CT	3.5	3¼″ x 3½″	4″	2½″ x 2 3/16″	4.9	**9.19**
PM8405							3⅛″ x 3¾″	3½″	2½″ x 3⅛″		**9.19**
FOR USE WITH CHOKE INPUT FILTER, OR HIGHER VOLTAGE WITH CONDENSER INPUT FILTER											
PM8423	300-0-300	90	5.0	2.0	6.3 CT	3.5	2 13/16″ x 3⅜″	3¼″	2¼″ x 2⅞″	3.0	**$ 8.13**
PC8406	325-0-325	40	5.0	2.0	6.3 CT	2.0	2⅝″ x 2¾″	3 5/16″	2″ x 1 11/16″	2.4	**5.76**
PM8406							2½″ x 3″	2¾″	2″ x 2½″		**5.76**
PC8407	325-0-325	55	5.0	2.0	6.3 CT	2.0	2⅝″ x 3⅛″	3 5/16″	2″ x 2 1/16″	3.2	**6.00**
PM8407							2½″ x 3″	3⅛″	2″ x 2½″		**6.00**
PC8422	325-0-325	50	5.0	3.0	6.3 CT	5.0	3¼″ x 3⅞″	4″	2½″ x 2 9/16″	5.8	**9.59**
PM8422							3⅛″ x 3¾″	3¾″	2½ x 3⅛″		**9.61**
PC8408	340-0-340	70	5.0	2.0	6.3 CT	2.5	3″ x 3⅜″	3⅝″	2¼″ x 2⅛″	3.8	**7.50**
PM8408							2⅞″ x 3⅜″	3½″	2¼″ x 2 13/16″		**7.50**
PC8409	350-0-350	90	5.0	2.0	6.3 CT	3.0	3″ x 3⅝″	3⅝″	2¼″ x 2⅜″	4.5	**7.92**
PM8409							2⅞″ x 3⅜″	3¾″	2¼″ x 2 13/16″		**7.92**
PC8410	360-0-360	120	5.0	3.0	6.3 CT	3.5	3¼″ x 3¾″	4″	2½″ x 2 7/16″	5.5	**8.99**
PM8410							3⅛″ x 3¾″	3¾″	2½″ x 3⅛″		**9.36**
PC8411	375-0-375	150	5.0	3.0	6.3 CT	4.5	3⅝″ x 4″	4 5/16″	2¾″ x 2 13/16″	5.8	**12.03**
PM8411							3½″ x 4⅛″	3⅞″	2¾″ x 3 7/16″		**12.55**
PC8412	400-0-400	200	5.0	3.0	6.3 CT	5.0	4″ x 4″	4¾″	3″ x 2 13/16″	8.2	**12.55**
PM8412							3¾″ x 4½″	3⅞″	3″ x 3¾″		**12.58**
PC8413	400-0-400	250	5.0	4.0	6.3 CT	5.0	4″ x 4½″	4¾″	3″ x 3 5/16″	10.0	**14.35**
PC8414	600-0-600	200	5.0	3.0	6.3 6.3	3.0 3.0	4″ x 4″	4¾″	3″ x 2 13/16″	8.3	**14.76**
POWER TRANSFORMERS FOR USE WITH 6AX5, 6X4, 6X5, OR SELENIUM RECTIFIERS											
PS8415	125 ½-wave	15	...	...	6.3	0.6	2⅜″ x 1⅜″	2″	2″	0.7	**$ 2.37**
PS8416	125-0-125	25	...	...	6.3	1.0	2⅞″ x 1¾″	2 5/16″	2⅜″	1.0	**2.85**
***PA8421**	125 ½-wave	50	---	---	6.3	2.0	3¾″ x 2⅛″	2¼″	3⅛″	1.5	**3.84**
PC8417	220-0-220	50	6.3	0.6	25.2	0.5	2⅝″ x 2⅝″	3 5/16″	2″ x 1 9/16″	2.2	**6.41**
PC8418	230-0-230	50	...	...	6.3	2.5	2⅝″ x 2⅝″	3 5/16″	2″ x 1 9/16″	2.2	**4.80**
PM8418							2½″ x 3″	2⅝″	2″ x 2½″		**4.80**
PC8419	240-0-240	70	...	...	6.3	3.0	2⅝″ x 2⅞″	3 5/16″	2″ x 1 13/16″	2.6	**5.52**
PM8419							2½″ x 3″	2⅞″	2″ x 2½″		**5.52**
PC8420	260-0-260	90	...	...	6.3	4.0	3″ x 3½″	3½″	2″ x 2¼″	3.5	**6.42**
PM8420							2⅞″ x 3⅜″	3½″	2¼″ x 2 13/16″		**6.69**

REPLACEMENT POWER TRANSFORMERS (Misc.)

Part No.	Plate Supply A.C. Volts	D.C Ma.	Rectifier Filament Volts—Amperes	Other Windings Volts—Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8173	250-0-250	10	———	6.3-0.6 6.3-1.2	C	2¼″	2⅞″ x 2⅛″	1.0	**$ 4.66**
P-8174	250-0-250	20	———	6.3-0.6 6.3-1.2	C	2⅝″	3 5/16″ x 2¼″	1.5	**4.83**
P-6001	325-0-325	40	5.0 CT-2.0	2.5 CT-4.0	M	2¾″	2½″ x 3″	2.5	**6.80**
P-6348	240-0-240	60	———	6.3 CT-2.75	M	2¾″	2 3/16″ x 2 11/16″	2.3	**5.58**
P-6358	300-0-300	65	———	6.3 CT-2.7	C	3⅛″	2⅝″ x 2⅝″	2.8	**5.96**
P-4047	350-0-350	70	5.0-3.0	2.5 CT-9.0 6.3-3.0	C	4″	3¼″ x 3″	3.8	**8.46**
P-8175	300-0-300	70	5.0-3.0	6.3 CT-3.0	C	3½″	2⅞″ x 3⅛″	4.0	**7.85**
P-6007	400-0-400	110	5.0 CT-3.0	2.5 CT-15.0 2.5 CT-3.5	M	3⅜″	3⅛″ x 3¾″	5.4	**11.38**
P-8176	350-0-350	110	5.0-2.0	6.3 CT-3.0 6.3 CT-3.0	C	3⅞″	3 3/16″ x 3⅞″	5.5	**10.56**
P-8177	300-0-300	120	5.0-3.0	6.3 CT-5.0	C	3⅞″	3 3/16″ x 3¾″	5.8	**9.59**
P-6143	440-0-440	130	5.0-3.0	6.3 CT-3.5	C	4 5/16″	3⅝″ x 3⅞″	7.0	**11.29**
P-4004#	400-0-400 80 v. Bias	175	5.0 CT-3.0	2.5-1.75 6.3 CT-2.5 6.3 CT-2.5	C	4¾″	4″ x 3⅞″	8.3	**14.53**
P-5059#	337.5-0-337.5	200	5.0 CT-3.0	6.3 CT-5.0	C	4¾″	4″ x 4¼″	9.6	**13.33**
P-6315	370-0-370	275	5.0 CT-3.0	6.3 CT-7.0	M	4¼″	3¾″ x 4½″	9.3	**13.96**

#Primary for 117/107 Volts.

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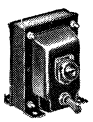
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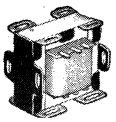
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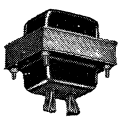
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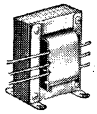
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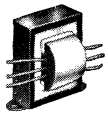
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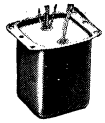
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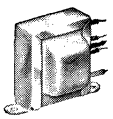
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POWER MODULATION

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

SELENIUM RECTIFIER TRANSFORMERS (117 volt, 50-60 cycle input)

Part No.	Rectifier Circuit	Range of Applied A.C. Volts Under Load (Approx.)	Output Resistive or Inductive Load Max. D.C. Volts	Output Resistive or Inductive Load Max. D.C. Amps.	Output Capacitive Load* Max. D.C. Volts	Output Capacitive Load* Max. D.C. Amps.	Mtg. Type	Overall Dimensions H W D	Shpg. Wt. (lbs.)	Net Price
RT-201	C. T.	11.7 to 29.4	11.2	2.0	13.8[1]	2.0	B	3 1/8" x 2 1/2" x 3 3/8"	2.5	**$ 5.07**
	Bridge	11.1 to 28.5	23.0	1.25	30.0[2]	1.25	B	3 1/2" x 2 1/2" x 3 3/8"	2.5	
RT-202	C. T.	12.0 to 29.8	11.1	4.0	14.7[3]	4.0	B	3 5/8" x 2 7/8" x 3 1/2"	3.8	**6.89**
	Bridge	12.0 to 29.8	24.3	2.0	33.0[1]	2.0	B	3 5/8" x 2 7/8" x 3 1/2"	3.8	
RT-204	C. T.	11.7 to 29.2	12.0	8.0	14.5[4]	8.0	B	4" x 3 1/4" x 4 1/8"	6.1	**8.91**
	Bridge	11.6 to 29.2	24.0	4.0	32.4[3]	4.0	B	4" x 3 1/4" x 4 1/8"	6.1	
RT-206	C. T.	12.0 to 29.7	11.5	12.0	14.4[5]	12.0	B	4 1/4" x 3 7/16" x 5 1/8"	9.1	**12.11**
	Bridge	12.0 to 29.7	24.0	6.0	32.0[6]	6.0	B	4 1/4" x 3 7/16" x 5 1/8"	9.1	
RT-208	C. T.	12.1 to 29.2	11.4	15.0	14.8[7]	15.0	B	4 3/4" x 3 3/4" x 5 1/4"	12.6	**15.26**
	Bridge	12.1 to 29.2	23.7	8.0	32.5[4]	15.0	B	4 3/4" x 3 3/4" x 5 1/4"	12.6	
RT-2012	C. T.	12.1 to 29.0	11.4	22.5	14.3[8]	22.5	B	5 3/8" x 4 3/8" x 6 3/8"	20.5	**22.50**
	Bridge	12.0 to 29.0	23.5	12.0	33.0[5]	12.0	B	5 3/8" x 4 3/8" x 6 3/8"	20.5	
RT-408	Bridge	25.0 to 53.5	44.0	8.0	63.0[4]	8.0	B	5 3/8" x 4 3/8" x 7 1/2"	26.5	**33.28**
RT-4012	Bridge	25.0 to 53.0	43.5	12.0	60.0[5]	12.0	B	7 1/8" x 5 5/8" x 6 1/4"	33.5	**43.82**

RECTIFIER TRANSFORMERS (Primary 117 volt, 60 cycle)

Part No.	Secondary	Rectified Circuit ½ Wave	Rectified Circuit Full-wave Brdg.	Mtg. Type	Mtg. Ctrs.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8193	17-18 V. A.C. at 3A. R.M.S.	6-7 V. D.C.	13-14 V. D.C.	BV	2 1/2" x 2 5/8"	3 3/4"	3 1/8" x 3 5/8"	5 1/4	**$ 8.61**
P-8194	36 V. A.C. at 3A. R.M.S.	13 V. D.C.	26 V. D.C.	BV	3" x 3"	4 1/2"	3 3/4" x 4"	9 1/2	**14.64**

AUTOMATION CONTROL TRANSFORMERS (Primary 115-230 volts, 50-60 cycle)

Part No.	Secondary Parallel	Secondary Series	V. A. Rating	Mtg. Type	Mtg. Ctrs.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6375	6 V. at 2 A.	12 V. at 1 A.	12	J	2 3/8"	2 3/4"	2 7/8" x 2"	3/4	**$ 3.34**
P-6376	6 V. at 4 A.	12 V. at 2 A.	24	J	2 7/8"	3 5/8"	3 3/8" x 2 1/4"	1 1/2	**3.79**
P-6377	12 V. at 4 A.	24 V. at 2 A.	48	J	3 1/8"	3 1/8"	3 5/8" x 2 3/8"	2	**4.79**
P-6378	12 V. at 8 A.	24 V. at 4 A.	96	BV	2 3/8" x 2 1/4"	3 3/8"	3 7/8" x 3"	3 1/2"	**7.72**
P-6379	12 V. at 16 A.	24 V. at 8 A.	192	BV	2 7/8" x 2 3/4"	4 1/8"	3 1/2" x 3 1/2"	8	**13.33**

*Transformers and Rectifiers will have a higher temperature rise when operating with a capacitive load as compared to a resistive or inductive load for a given load current. If this is undesirable extra ventilation should be provided or else the output current from the rectifier should be derated by approximately 20% from the values shown.

RT Footnotes: MFD. Filter Capacitor: 1. 1,000 2. 500 3. 2,000 4. 4,000 5. 6,000 6. 3,000 7. 7,500 8. 12,000.

PLATE MODULATION

Part No.	Impedance in Ohms	Max. Ma. D.C./Tube Pri.	Max. Ma. D.C./Tube Sec.	Typical Output Tubes	Class	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs	Net Price
A-3812	Pri—10,000 CT Sec—4,000	32	50	Sgl.—37, 38, 41, 1G5, 6K6 Sgl.—19, 1G6, 1J6, 6E6, 6G6, 6Z7 P.P.—30, 49, 1H4	A B B	5	A	1 5/8"	2 7/8" x 1 1/2"	0.7	**$2.43**
A-3871	Pri—4,500 Sec—8,500 #Secondary used as primary.	60	50	Sgl.—6L6, HY69 #Sgl.—6B5, 6F6, 6N6	A A	10	TD	2 11/16"	2 3/4" x 2 3/16"	1.4	**4.43**
A-3845	Pri—10,000 CT Sec—8,000/6.500/5,000/3,000	100	100	Sgl. 53, 79, 6A6, 6N7, 6Y7 P.P.—42, 2A5, 6F6, 6V6	B AB2	25	C	3 3/16"	2 5/8" x 2 3/4"	2.8	**5.84**
A-3808	Pri—3,800/3,300 CT Sec—10,000/7,500/5,000/4,000	260	170	P.P.—6L6, 807, HY61, RK41 P.P. Par—6L6	AB2 AB1	60	D	4 3/4"	4" x 2 7/8"	7.7	**15.12**
A-3829	Pri—9,000/6,900 CT Sec—6,250/5,000/4,000/3,300	250	300	P.P.—RK12, HY25, 35T, HY40Z, T40, TZ40, 100TL, HK354, 756, 809, 830B	B	175	D	4 3/4"	4" x 6 1/8"	11.4	**16.82**

POLY-PEDANCE MODULATION MULTI-TAPPED UNITS TO PROPERLY MATCH THE OUTPUT OF THE MODULATOR STAGE TO THE MODULATED LOAD. WILL MATCH ALL COMMON IMPEDANCES OF CLASS "B" MODULATOR (2,000 to 20,000 OHMS) TO CLASS "C" LOAD IMPEDANCES OF 2,000 TO 20,000 OHMS.

Part No.	Max. Watts	Max. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3891	15	Pri—100 ma. Sec—100 ma.	D	3 3/16"	2 5/8" x 2 7/8"	2.5	**$ 9.60**
A-3892	30	Pri—150 ma. Sec—150 ma.	D	4"	3 1/4" x 3 5/8"	4.3	**12.16**
A-3893	60	Pri—180 ma. Sec—180 ma.	D	4"	3 1/4" x 4 1/8"	6.2	**13.16**
A-3894	125	Pri—225 ma. Sec—225 ma.	D	4 3/4"	4" x 4 5/8"	9.4	**16.58**
A-3898	300	Pri—260 ma. Sec—260 ma.	FS	8 1/8"	5 3/4" x 7 5/8"	37.9	**97.65**
A-3899	600	Pri—500 ma. Sec—500 ma.	FS	9 1/8"	7 1/4" x 10 1/4"	70.0	**119.20**

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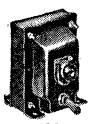
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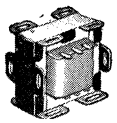
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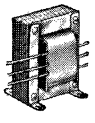
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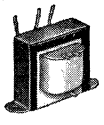
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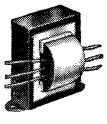
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FILTER CHOKES

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

SMOOTHING CHOKES FOR D.C. POWER SUPPLIES.

Inductance varies with the amount of D C. flowing through the coil, therefore these units have been tested under uniform conditions. They are rated at 10 volts, 60 cycles, with maximum D.C. in winding. Tolerance of plus 15% is maintained on all ratings.

Part No.	Rating Induc.	at Ma. D.C.	D.C. Res. in Ohms	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-2344	1.5 hy.	at 10 ma.	95	2500	A	1¼″	2⅛″ x 1⅛″	0.5	**$1.12**
C-1515	20.0 hy.	at 15 ma.	900	1500	A	1⅝″	2⅞″ x 1½″	0.7	**2.14**
C-2318	12.0 hy.	at 30 ma.	400	2000	A	1⅜″	2⅜″ x 1⅜″	0.5	**1.83**
C-1706	4.5 hy.	at 50 ma.	300	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.28**
C-1707	7.0 hy.	at 50 ma.	550	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.42**
C-1003	16.0 hy.	at 50 ma.	580	1500	A	2″	3¼″ x 1¾″	1.1	**2.17**
C-1708	13.0 hy.	at 65 ma.	500	1500	A	2″	3¼″ x 1¾″	1.0	**2.40**
C-1355	8.0 hy.	at 75 ma.	290	1500	L	2 1/16″	2 1/16″ x 1¾″	1.0	**2.65**
C-1002	15.0 hy.	at 75 ma.	400	1500	A	2¼″	3⅜″ x 2¼″	1.7	**2.88**
C-1420	16.0 hy.	at 80 ma.	360	1500	C	3 3/16″	2⅝″ x 2⅝″	2.5	**4.64**
C-1709	8.0 hy.	at 85 ma.	250	1500	A	2″	3¼″ x 2″	1.4	**2.40**
C-2305	5.0 hy.	at 100 ma.	300	1500	TD	2 11/16″	2¾″ x 2 3/16″	1.5	**3.45**
C-1001	10.5 hy.	at 110 ma.	225	3000	A	2⅝″	4″ x 2¼″	2.3	**3.59**
C-2704	9 hy.	at 125 ma.	250	1500	Q	2¼″	3 3/16″ x 2⅛″	1.5	**3.07**
C-2303	2.5 hy.	at 130 ma.	100	2000	A	2″	3¼″ x 1¾″	1.0	**2.25**
C-1421	7.0 hy.	at 140 ma.	165	3000	C	3 3/16″	2⅝″ x 2⅝″	2.5	**4.64**
C-2304	2.3 hy.	at 150 ma.	60	1500	A	2″	3¼″ x 1¾″	1.0	**2.25**
C-2309	3.0 hy.	at 150 ma.	90	2000	A	2¼″	3¾″ x 2¼″	1.7	**2.57**
C-1710	7.0 hy.	at 150 ma.	200	1500	A	2⅝″	4″ x 2¼″	2.2	**3.60**
C-1410	4.0 hy.	at 175 ma.	100	3000	C	3 3/16″	2⅝″ x 2⅝″	2.4	**4.54**
C-2327	1.5 hy.	at 200 ma.	85	1500	A	1⅝″	2⅞″ x 1½″	0.8	**1.80**
C-1646	5.0 hy.	at 200 ma.	90	5000	C	4″	3¼″ x 3⅜″	4.5	**6.80**
C-1411	4.5 hy.	at 200 ma.	80	3000	C	3 5/8″	3″ x 3⅛″	3.5	**5.67**
C-1721	8.5 hy.	at 200 ma.	120	3000	N	3⅞″	3¼″ x 3″	4.4	**7.50**
C-2705	10 hy.	at 200 ma.	150	2500	C	3 9/16″	3″ x 3 5/8″	4.25	**7.23**
C-1703	4.0 hy.	at 250 ma.	60	3000	B	3½″	2⅞″ x 3⅛″	4.2	**6.20**
C-1412	4.0 hy.	at 250 ma.	60	3000	C	3 5/8″	3″ x 3½″	4.3	**6.96**
C-1722	8.0 hy.	at 300 ma.	80	3000	N	4 5/8″	3¾″ x 3½″	7.3	**11.04**
C-2308	8.0 hy.	at 300 ma.	80	3000	C	4¾″	4″ x 3⅞″	7.8	**11.04**
C-1413	8.0 hy	at 300 ma.	80	5000	D	4¾″	4″ x 4⅛″	7.8	**11.48**
C-2706	2.6 hy.	at 310 ma.	60	1500	C	3 3/16″	2⅝″ x 3⅛″	3.4	**6.06**
C-2328	0.8 hy.	at 375 ma.	25	1500	A	2½″	3¾″ x 2″	1.5	**3.60**
C-1414	7.5 hy.	at 400 ma.	60	5000	D	4¾″	4″ x 5⅛″	11.8	**15.69**
C-1415	6.0 hy.	at 500 ma.	75	7500	FS	8⅛″	5⅝″ x 5½″	23.7	**48.17**

SWINGING CHOKES FOR INPUT SECTION OF D.C. POWER SUPPLIES.

Part No.	Min. Swg. Induc.	D.C. Res. in Ohms	Approx. Range of Induc. at D.C. Ma.	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-1718	10 hy.	130	13.5-3.5 hy. at	15-150	2000	C	3 3/16″	2⅝″ x 2½″	2.3	**$4.43**
C-1400	10 hy.	100	12-2 at	17.5-175	3000	C	3 3/16″	2⅝″ x 2⅝″	2.4	**4.73**
C-1401	10 hy.	80	12-2 at	20-200	3000	C	3 5/8″	3″ x 3½″	3.5	**5.95**
C-1645	10 hy.	90	12-2 at	20-200	5000	C	4″	3¼″ x 3⅜″	4.5	**6.59**
C-1702	10 hy.	60	12-2 at	25-250	3000	B	3½″	2⅞″ x 3⅛″	4.3	**6.77**
C-1402	10 hy.	60	12-2 at	25-250	3000	C	3 5/8″	3″ x 3½″	4.3	**6.96**
C-1720	16 hy.	80	20-4 at	30-300	3000	N	4 5/8″	3¾″ x 3½″	7.2	**11.91**
C-2307	16 hy.	80	20-4 at	30-300	3000	C	4¾″	4″ x 3⅞″	7.9	**11.44**
C-1403	16 hy.	80	20-4 at	30-300	5000	D	4¾″	4″ x 4⅛″	7.7	**11.70**
C-1404	14 hy.	60	17-3 at	40-400	5000	D	4¾″	4″ x 5⅛″	11.7	**15.23**
C-1405	12 hy.	75	16-4 at	50-500	7500	FS	7 5/8″	6⅛″ x 7″	24.3	**40.78**

SMOOTHING CHOKES FOR USE IN A.C.-D.C. POWER SUPPLIES.

Part No.	Rating Induc.	at Ma. D.C.	D.C. Res. in Ohms	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-1080	3.5 hy.	at 50 ma.	200	1500	A	1⅝″	2⅞″ x 1½″	0.7	**$1.65**
C-1325	5.0 hy.	at 50 ma.	250	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1277	7.0 hy.	at 50 ma.	300	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.80**
C-1723	4.5 hy.	at 50 ma.	325	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.42**
C-1227	7.0 hy.	at 50 ma.	350	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.80**
C-1279	8.5 hy.	at 50 ma.	400	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1333	8.0 hy.	at 50 ma.	450	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1215	9.0 hy.	at 50 ma.	500	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.60**

HIGH CURRENT FILTER CHOKES (Indcutances rated at 1 volt RMS, 60 cycle)

Part No.	Inductance Henrys	D.C.	D.C. Res. Ohms	R.M.S. V. Insul.	Height Overall	Mtg. Ctrs.	Base Area	Mtg. Type	Shpg. Wt. in Lbs.	Net Price
C-2685	.035 at	2.0 amp.	.72	1500	2⅜″	2 3/16″ x 2″	2⅝″ x 2¾″	BH	1.9	**$3.55**
C-2686	.025 at	4.0 amp.	.425	1500	3″	2 13/16″ x 2 1/16″	3⅜″ x 2⅞″	BH	3.4	**6.05**
C-2687	.01 at	8.0 amp.	.15	1500	3¼″	3⅛″ x 2½″	3¾″ x 3 3/16″	BH	5.3	**7.96**
C-2688	.01 at	12.5 amp.	.11	1500	3½″	3 7/16″ x 2⅜″	4⅛″ x 3 1/16″	BH	5.9	**9.17**
C-2689	.005 at	22.5 amp.	.03	1500	3⅞″	3¾″ x 3½″	4½″ x 4½″	BH	11.9	**13.45**
C-2690	.3-.075	1A-2A	3.0-.75	1500	3 7/16″	2¼″ x 2¼″	2 13/16″ x 3¼″	BV	5.0	**8.02**
C-2691	.08-.02	2.5A-5A	.57-.143	1500	3¾″	2½″ x 3″	3⅛″ x 4″	BV	6.5	**10.21**

AUDIO CHOKES

Audio reactors are rated at 2 volts, 200 cycles, with maximum D.C. in windings. Tolerance of plus 15% is maintained on all ratings.

Part No.	Rated Inductance	Max. D.C.	D.C. Res. in Ohms	Test Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	List Price
C-1003	16 hy at 50 ma.	50 ma.	580	1500	A	2″	3¼″ x 1¾″	1.1	**$2.17**
C-2346	35 hy at 15 ma.	—	1850	2500	A	1⅜″	2¾″ x 1¼″	½	**1.72**
C-2301	135 hy at 5 ma.	10 ma.	6500	1500	TD	2 11/16″	2¾″ x 1 13/16″	1.7	**4.28**
C-2345	350 hy at 5 ma.	—	5500	2500	A	2″	3¼″ x 2″	1½	**3.07**

#These units have split secondaries for individual bias adjustment and/or use of inverse feedback.

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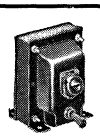
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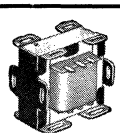
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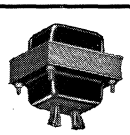
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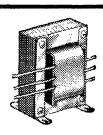
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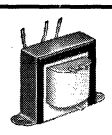
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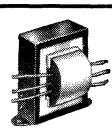
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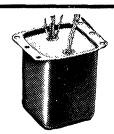
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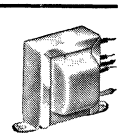
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FILAMENT TRANSFORMERS

STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

FILAMENT TRANSFORMERS WITH SINGLE SECONDARY

Part No.	Secondary Volts	Secondary Amperes	R.M.S. V. Insul.	Primary Volts#	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-4026	2.5	1.5	2,500	117	A	1 5/16"	2 7/8" x 1 1/2"	0.7	**$2.76**
P-4082	2.5 CT	2.5	2,500	117/107	TD	2 11/16"	2 3/4" x 2 3/16"	1.5	**4.83**
P-6133	2.5 CT	5.0	7,500	117	S	2 11/16"	3 5/16" x 2 1/4"	1.5	**3.80**
P-4033	2.5 CT	6.0	2,500	117/107	C	3 3/16"	2 5/8" x 2 3/8"	2.2	**5.06**
P-3024	2.5 CT	10.0	2,500	117/107	C	3 3/16"	2 5/8" x 2 5/8"	2.5	**5.00**
P-6454	2.5 CT	10.0	7,500	107/117	S	3 1/8"	3 5/8" x 2 1/2"	2.5	**4.00**
P-3060	2.5 CT	10.0	10,000	117	B	3 1/2"	2 7/8" x 2 1/2"	2.5	**6.72**
P-3026	5.0 CT	3.0	2,500	117/107	C	3 3/16"	2 5/8" x 2 5/8"	2.4	**5.00**
P-4038	5.0 CT	3.0	2,500	117	B	3 1/8"	2 1/2" x 2 1/2"	1.8	**4.25**
P-6467	5.0 CT	3.0	2,500	117	A	2	3 5/16" x 2"	1.4	**3.20**
P-6455	5.0 CT	6.0	2,000	107/117	S	2 5/8"	3 5/16" x 2 1/4"	2.0	**4.33**
P-3062	5.0 CT	6.0	2,500	117	B	3 1/8"	2 1/2" x 2 1/2"	2.3	**5.14**
P-5000	5.0 CT	6.0	2,500	117/107	C	3 3/16"	2 5/8" x 2 7/8"	3.1	**5.80**
P-6135	5.0 CT	10.0	2,500	117	N	3 1/8"	2 1/2" x 2 7/8"	3.0	**5.60**
P-4086	5.0 CT	14.0	10,000	117/107	FA	5 1/8"	4 1/4" x 8 1/2"	12.3	**22.88**
P-6432	5.0 CT	21.0	2500	117*	BV	3 5/8"	2 3/8" x 2 5/8"	5.0	**8.33**
P-6433	5.0 CT	15.0	2500	117*	BV	3 1/8"	2 1/2" x 2 7/8"	3 1/2	**7.15**
P-6302	5.0 CT	22.0	10,000	117/107	FA	5 1/8"	4 1/4" x 8 1/2"	13.5	**32.12**
P-6492	5.0 CT	30.0	2,500	117	C	4 3/4"	3 3/4" x 3 7/8"	7.5	**10.94**
P-6468	5.0 CT	30.0	2,500	117/107	D	4 5/16"	3 9/16" x 3 7/8"	4.3	**12.79**
P-6305	5.0 CT	30.0	10,000	117/107	FB	5 1/8"	4 1/4" x 10"	18.3	**30.96**
P-6137	5.25 CT	13.0	2,500	117	N	3 1/8"	3 1/8" x 3 1/4"	5.2	**8.19**
P-6463	†6.0 CT, 6.5 CT, or 7.0 CT	13.0	2,000	117	B	3 3/8"	2 13/16" x 3 3/8"	4.5	**7.85**
P-6465	6.3 CT	0.6	1,500	117	A	1 3/8	2 3/8" x 1 3/8"	0.5	**1.98**
P-6134	6.3 CT	1.2	3,000	117	A	1 5/8"	2 1/8" x 1 5/8"	0.8	**2.10**
P-8190	6.3	1.2	5,000	117	A	2	3 1/4" x 1 3/4"	1.0	**2.76**
P-8191	6.3	1.2	5,000	6.3	A	2	3 1/4" x 1 3/4"	1.0	**2.97**
P-5014	6.3 CT	3.0	2,500	117	B	3 1/8"	2 1/2" x 2 1/2"	2.0	**4.67**
P-6466	6.3 CT	3.0	2,500	117	A	2	3 5/16" x 2"	1.4	**3.39**
P-6462	6.3	3.0	7,000	107/117	A	2 5/8"	4" x 2 5/8"	2.0	**5.60**
P-4019	6.3 CT	4.0	2,500	117/107	C	3 3/16"	2 5/8" x 2 5/8"	2.7	**5.04**
P-6456	6.3 CT	6.0	2,000	107/117	A	2 1/4"	3 5/8" x 2 1/2"	2.0	**3.82**
P-3064	6.3 CT	6.0	2,500	117	B	3 1/8"	2 1/2" x 2 7/8"	2.4	**5.42**
P-4089	6.3 CT	6.0	2,500	117/107	C	3 5/8"	3" x 3 1/8"	3.5	**6.62**
P-6308	6.3 CT	10.0	2,500	117/107	N	3 1/2"	2 7/8" x 2 3/4"	3.4	**6.59**
P-6464	6.3 CT	10.0	1 500	117	C	3 9/16"	3" x 3 1/4"	3.5	**6.94**
P-6309	6.3 CT	20.0	2,500	117/107	N	4 5/8"	3 3/4" x 3"	6.7	**10.21**
P-5015	7.5 CT	4.0	2,500	117	B	3 1/8"	2 1/2" x 2 1/8"	2.7	**4.75**
P-6457	7.5 CT	5.0	2,000	107/117	C	4 1/2"	3 3/4" x 4"	6.0	**12.69**
P-4091	7.5 CT	5.0	2,500	117/107	C	3 5/8"	3" x 3"	3.4	**6.70**
P-6138	7.5 CT	8.0	2,500	117	N	3 1/8"	3 1/8" x 2 7/8"	4.7	**7.39**
P-5016	10.0 CT	4.0	2,500	117	B	3 1/2"	2 7/8" x 2 3/8"	5.3	**6.05**
P-6458	10.0 CT	5.0	2,000	107/117	N	3 1/16"	2 1/2" x 2 7/8"	3.0	**4.70**
P-4096	10.0 CT	5.0	2,500	117/107	C	4"	3 1/4" x 3 1/8"	4.0	**7.22**
P-6139	10.0 CT	8.0	2,500	117	N	3 1/8"	3 1/8" x 3 1/8"	4.9	**7.50**
P-4097	10.0 CT	8.0	2,500	117/107	C	4"	3 1/4" x 3 5/8"	5.2	**7.82**
P-6461	10.0 CT	10.0	2,000	117*	C	3 7/8"	3 1/4" x 3 5/8"	5.0	**8.79**
P-5002	10.0 CT	12.0	7,500	117/107	FA	5 1/8"	4 1/4" x 8 1/2"	14.7	**24.85**
P-3020	11.0 CT	10.0	2,500	117/107	C	4 3/4"	4" x 3 1/2"	7.7	**9.96**
P-8130	12.6 CT	2.0	1,500	117	A	2"	3 1/4" x 2"	1.4	**3.43**
P-6469	25.2	1.0	1,500	117	A	2"	3 1/4" x 2"	1.4	**3.27**

FILAMENT TRANSFORMERS WITH MULTIPLE SECONDARY

P-6144	2.5 VCT at 3.5 A; 5.0 VCT at 3.0 A; 6.3 VCT at 3.0 A	2,500	117	C	3 5/8"	3" x 3 1/8"	3.7	**$7.80**
P-6338	2.5 V at 3.0 A; 5.0 V at 3.0 A; 5.0 VCT at 2.0 A; 6.3 VCT at 3.0 A	2,500	117	N	3 1/2"	2 7/8" x 2 3/4"	3.4	**7.59**
P-5009	5.0 VCT at 3.0 A; 6.3 VCT at 6.0 A	2,500	117/107	C	4"	3 1/4" x 3 1/4"	4.5	**8.90**
P-5008	5.0 VCT at 4.0 A; 6.3 VCT at 3.6 A	2,500	117/107	C	3 5/8"	3" x 3 1/4"	3.8	**7.83**
P-4022	5.0 VCT at 6.0 A; 6.3 VCT at 6.0 A	2,500	117/107	C	4"	3 1/4" x 3 3/8"	4.8	**8.46**
P-6333	5.0 V at 3.0 A; 5.0 V at 3.0 A; 6.3 VCT at 4.0 A; 7.5 V/6.3 VCT at 3.0A	2,500	117	B	3 1/2"	2 7/8" x 3 7/8"	4.7	**9.43**
P-6428	6.3 V at 1.75 A; 6.3 V at 1.75 A; 6.3 V at 1.75 A; 6.3 VCT at 1.75 A	2,500	117	C	3 1/8"	2 1/2" x 3"	3.0	**6.20**
P-6429	6.3 V at 3.5 A; 6.3 V at 3.5 A; 6.3 V at 3.5 A; 6.3 VCT at 3.5 A	2,500	117	C	3 7/8"	3 1/8" x 3 1/2"	4.8	**8.43**
P-6430	6.3 VCT at 3.0 A; 6.3 VCT at 3.0 A	2,500	117	C	3 1/8"	2 1/2" x 3 7/8"	2.8	**$5.50**
P-6431	6.3 VCT at 6.0 A; 6.3 VCT at 6.0 A	2,500	117	C	3 7/8"	3 1/8" x 3 1/2"	4.8	**8.34**

#All primary windings for 60 cycle operation. *Primary 50/60 cycles. †By means of primary tap: For Eimac 4CX1000A tube.

Net

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PLATE TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

PLATE TRANSFORMERS

Part No.	D.C. Volts	Sec. A.C. Volts at Plate	D.C. Ma. CCS	D.C. Ma. ICAS	Pri. Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8040	400 40	500/40-0-500	300	375	115	C	4¾"	4" x 4½"	9.8	**$13.49**
P-8041	500 400 40	615/520/40-0-520/615	250	310	115	C	4¾"	4" x 5⅛"	13.6	**16.02**
P-8042	600 400 40	770/510/40-0-510/770	300	375	115	C	4¾"	4" x 6⅜"	18.0	**21.49**
P-8043	750 600 40	950/750/40-0-750/950	300	375	115	FS	7⅝"	6⅛" x 8½"	29.0	**79.18**
P-8025	1000 750	1230/940-0-940/1230	400	500	115	FS	7⅝"	6⅛" x 9½"	35.0	**89.14**
P-8026	1250 1000	1475/1175-0-1175/1475	300	375	115	FS	7¾"	7⅜" x 8¼"	36.5	**73.89**
P-8027	1250 1000	1510/1210-0-1210/1510	500	625	115	FS	8"	5⅝" x 8¼"	45.2	**75.89**
P-8028	1500 1250	1740/1460-0-1460/1740	300	375	115	FS	8⅛"	5⅝" x 7⅞"	38.7	**82.62**
P-8029	1500 1250	1775/1500-0-1500/1775	500	625	115-230	FS	9⅞"	7¼" x 8⅜"	65.0	**90.58**
P-8030	1750 1500	2100/1800-0-1800/2100	300	375	115	FS	7¾"	7⅜" x 9"	45.8	**71.20**
P-8031	1750 1500	2075/1775-0-1775/2075	500	625	115-230	FS	10½"	7¼" x 8⅛"	65.5	**86.63**
P-8032	2000 1750	2400/2100-0-2100/2400	300	375	115	FS	7¾"	7⅜" x 9¼"	46.0	**79.59**
P-8033	2000 1750	2375/2065-0-2065/2375	500	625	115-230	FS	11¼"	7⅜" x 9½"	77.0	**103.85**
P-8034	2500 2000	2900/2385-0-2385/2900	300	375	115-230	FS	11¼"	7⅜" x 8¾"	62.8	**102.17**
P-8035	2500 2000	2950/2375-0-2375/2950	500	575	115-230	FS	11¼"	7⅜" x 10¼"	80.0	**155.37**

PLATE TRANSFORMERS—NEW FUNCTIONAL UNITS

No exposed terminals. Insulated leads provide protected routing to circuits. Simplified design offers ease of mounting and neat, convenient circuit wiring. No difficult cutouts needed

Each of these units is "all transformer," taking a minimum of chassis space. No bulky casing or protruding, "hot" terminals to increase mounting area.

D.C. output rated CCS at load terminals of single-section reactor-input filter, ICAS with single-section capacitor-input filter. Primaries for 117 volts, 60 cycles.

Type Part No.	Secondary A.C. Volts	D.C. Output Volts	D.C. Output Ma.	Type Filter	Rectifier	Net Price
PC8301	415-0-415	300 425	200 160	Reactor Input Capacitor Input	5U4G 5U4G	**$ 8.03**
PC8302	515-0-515	385 500	235 200	Reactor Input Capacitor Input	5U4G 5R4GY	**10.52**
PC8303	665-0-665	500 750	250 200	Reactor Input Capacitor Input	5R4GY 5R4GY	**13.36**
PC8304	750-0-750	600 850	265 200	Reactor Input Capacitor Input	2-5R4GY 5R4GY	**15.05**
PC8305	920-0-920	750 1000	250 200	Reactor Input Capacitor Input	2-5R4GY 5R4GY	**15.66**
PC8306*	920-0-920	750 1100	150 125	Reactor Input Capacitor Input	5R4GY 5R4GY	**15.46**
	500-0-500	380 550	150 125	Reactor Input Capacitor Input	5U4G 5U4G	

D.C. output rated at load terminals of single-section, reactor-input filter with full-wave mercury-vapor rectification. Primaries for 117 volts, 60 cycles

Type and Part No.	Secondary A.C. Volts	D.C. Volts	D.C. Ma. CCS	D.C. Ma. ICAS	Net Price
PT8311	1200-0-1200	1000	225	280	**$17.05**
PT8312	1200-0-1200	1000	325	405	**29.83**
PT8313	1475-0-1475	1250	250	310	**26.62**
PT8314	1790-0-1790	1500	225	280	**30.72**
PT8315	2065-0-2065	1750	200	250	**30.99**

*Tapped for use with dual rectifier-filter systems to deliver two rated outputs simultaneously.

BIAS SUPPLY TRANSFORMERS

Part No.	High Voltage Supply A.C. Volts at D.C. Milliamps.	Rectifier Fil. Volts	Rectifier Fil. Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6317	200/170/130/90/0/90/130/170/200 @ 200 ma.	5.0	3.0	CD	4"	3¼" x 3⅝"	4.9	**$11.46**
P-6318	450/400/350/250/0/250/350/400/450 @ 200 ma.	5.0	3.0	CD	4⅝"	3⅝" x 4⅛"	7.0	**13.64**

TUBE CHECKER MULTI-TAPPED FILAMENT TRANSFORMER

Part No.	Secondary Volts	Primary Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-1834-3	1.1/ 1.4/ 1.5/ 2.0/ 2.5/ 3.0/ 3.3/ 5.0/ 6.3/ 7.0/ 7.5/ 12/ 25/ 30/ 35/ 50/ 70/ 85/ 110/ 117	125/115/105	A	2⅝"	4" x 2"	2.4	**$10.12**

All Primary Windings for 60 cycle operation. ‡Designates part number to be removed from next catalog.
§Output changed by means of tap on primary winding. Rating is for a single section choke input filter using a 6 mfd. condenser.

ISOLATION AND AUTOFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

STRAIGHT ISOLATION—125/115/105 VOLTS TO 115 VOLTS.†

Part No.	Wattage	Primary#	Secondary	Mtg.	Height Overall	Base Area	Shpg. Wt in Lbs.	Net Price
P-6160	100	125/115/105	115	KA	4¾″	4″ x 3⅝″	7.0	**$14.48**
P-6371	175	117	117	TE	5 5/16″	4 9/16″ x 5¼″	9.0	**19.34**
P-6161	250	125/115/105	115	KA	4¾″	4″ x 5⅜″	14.2	**21.40**
P-6298	500	125/115/105	115	FK	7⅝″	6⅛″ x 7⅛″	28.0	**43.13**
P-6125	1000	125/115/105	115	FK	7¾″	5⅝″ x 7¾″	34.8	**60.99**
P-6123	1500	125/115/105	115	FK	7¾″	5⅝″ x 9″	49.8	**73.59**

STEP-DOWN ISOLATION—250/230/210 VOLTS TO 115 VOLTS.†

P-6383	100	250/230/210	115	KA	4¾″	4″ x 3⅝″	7.3	**$14.63**
P-6385	250	250/230/210	115	KA	4¾″	4″ x 5⅜″	14.2	**23.82**
P-6387	500	250/230/210	115	FK	7⅝″	6⅛″ x 7⅛″	29.5	**45.39**
P-6389	1000	250/230/210	115	FK	7¾″	5⅝″ x 8″	33.8	**57.63**
P-6390	1500	250/230/210	115	FK	7¾″	5⅝″ x 9⅜″	50.3	**75.14**

†Built-in electrostatic shields are grounded to core internally.

ISOLATION TESTING TRANSFORMER

P-6415	350	117	105/115/125	KC	5⅜″	4½″ x 5¾″	17.0	**$23.52**

Large enough to handle almost any television or radio receiver on test. 115 and 125, with 117 volts, A.C., from the line for testing purposes or Has three standard receptacles, providing output voltages of 105, for correction of high or low line voltage. Has electrostatic shield.

AUTOFORMERS

P-6287	40	230	115	—	4½″	3″ Diam. can	2.7	**$6.49**
P-5062	80	230	115	K	3⅝″	3″ x 3¼″	3.8	**7.94**
P-5063	100	230	115	K	4″	3¼″ x 3¼″	4.5	**8.42**
P-5064	150	230	115	K	4 5/16″	3⅝″ x 3⅝″	5.2	**9.92**
P-5065	300	230	115	K	4¾″	4″ x 4⅛″	8.8	**13.78**
P-6141	500	230	115	K	4¾″	4″ x 5⅛″	13.7	**18.12**
P-6124	1000	230	115	FK	7⅛″	5⅝″ x 6¾″	24.5	**38.40**
P-6299	150	115	150/140/130/120/110/100/90	KA	4″	3¼″ x 4¾″	6.0	**12.69**

Testing Autoformer—Incorporates a convenient tap switch to permit variable voltages from 90 to 150 volts. Primary equipped with 6 ft. approved cord and plug. Secondary connected to female receptacle.

LINE ADJUSTING AUTOFORMERS

Type and Part No.	Va.*	Input Voltage 50-60 Cycle	Output Voltage	Height	Base Area	Shpg. Wt. in Lbs.	Net Price
PV-6441	150	65/75/90/100/115/130/145	115	5½″	3⅞″ x 5⅜″	6.4	**$19.80**
PV-6442	350	65/75/90/100/115/130/145	115	5½″	3⅞″ x 6⅛″	10.5	**22.80**
PV-6443	500	65/75/90/100/115/130/145	115	5½″	3⅞″ x 6⅞″	15.0	**25.20**
PV-6444	750	65/75/90/100/115/130/145	115	6 5/16″	4½″ x 8⅛″	19.0	**38.64**

*Watts to pure resistive load. To other types of loads, multiply rating of line adjuster by power factor of load for actual wattage.

AIR CONDITIONER AUTO-TRANSFORMERS—230 VOLTS TO 208 VOLTS

Part No.	Rating KVA	Motor Size	Input Voltage	Output Voltage	Mtg.	Height	Base Area	Shpg. Wt. in Lbs.	Net Price
PSU-2000	2.3	½-1 hp.	208/230	230/208	PSU	3½″	3¾″ x 6½″	9	**$16.72**
PSU-3000	3.0	1-2 hp.	208/230	230/208	PSU	4″	4½″ x 6″	10	**20.08**

CATHODE RAY TUBE POWER TRANSFORMERS

For use with type 2X2 rectifier tubes in a conventional half-wave voltage supply.

Part No.	Plate Supply A.C. Volts	D. C. Milliamperes	Rectifier Filament Volts—Amperes		Other Windings Volts—Amperes		Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8150	1,550 half-wave	1.5	2.5	1.75	...	...	TD	3 1/16″	3″ x 2½″	1.8	**$9.00**
P-8151	2,400 half-wave	5.0	2.5	2.0	2.5	2.0	C	4 5/16″	3 9/16″ x 3⅞″	6.4	**11.86**
P-8178	1,800 half-wave	2.0	2.5	1.8	2.5 or 6.3	2.2 0.8	C	3⅞″	2½″ x 2½″	5	**9.21**

PHOTOFLASH POWER TRANSFORMER

Part No.	Application	Pri.	Sec.	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. Wt. in Lbs.	Net Price
P-6425	For use in Sprague electronic flash circuits. See Sprague Electronic Flash Handbook C-703	105/115/125V. 60 cy.	Charges up to 1050 mfd. to 450 Volts D.C.	S	2 5/16″	2 15/16″ x 2″	2⅜″	1.4	**$3.50**
P-6426	Trigger coil for use with 450V. flashtube. Replaces G.E. 86G41				¾″	9/16″ diam.		0.2	**1.67**

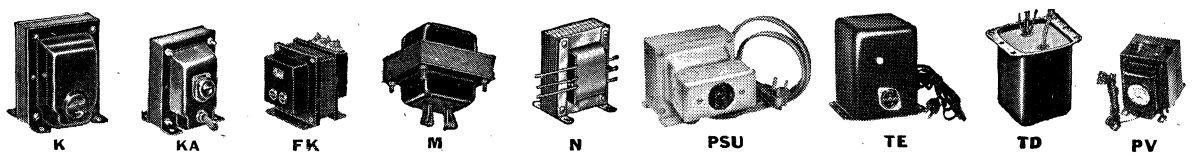
SPEAKER FIELD SUPPLY TRANSFORMER

Part No.	Plate Supply A.C. Volts	D.C. Milliamperes	Rectifier Filament Volts—Amperes		Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6146	120-0-120	250	5.0	3.0	C	4″	3¼″ x 3⅛″	4.2	**$7.83**

CONDENSER TESTER POWER TRANSFORMER

Part No.	Plate Supply A.C. Volts	D.C.-M.A.	Fil. Wdgs. Volts	Amps.	Overall Dimensions L	W	D	Mtg.§ Type	Shpg. Wt. in Lbs.	Net Price
P-6459	550	30	6.3	0.9	2⅝″	2 3/16″	2¼″	Coil and Iron	1.4	**$5.46**
	55	60	6.3	0.6						

#All Primary Windings for 117 V-60 cycle operation unless otherwise indicated



K KA FK M N PSU TE TD PV

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CHICAGO

MILITARY AND NEW EQUIPMENT
TRANSISTOR TRANSFORMERS
PULSE TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

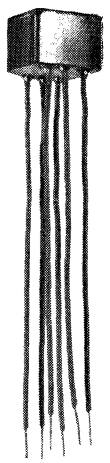
RIQAP

Reduced Inspection Quality Assurance Plan

Since 1955, Chicago Standard Transformer Corporation has been operating continuously under RIQAP, the U. S. Army Signal Corps' Reduced Inspection Quality Assurance Plan. When you specify Chicago Standard transformers, delivery time is reduced and incoming inspection is at a minimum. You are assured of the highest quality units for military applications.

ULTRA MINIATURE ENCAPSULATED TRANSISTOR TRANSFORMERS

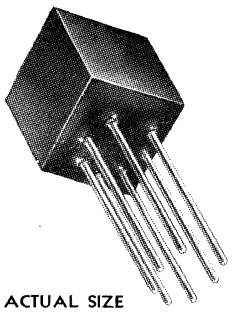
The 27 transformers in the UME series are characterized by high power ratings, low distortion, high efficiency and excellent frequency response. Designed and built in accordance with MIL-T-27A specifications, their ratings match those of most popular transistors. They are ideally suited for printed circuit applications. Dimensions: .312" x .400" x .426". Weight is approximately ⅛ ounce.



ACTUAL SIZE

CHICAGO Part No.	Application	Pri. Res.	Pri. Impedance in Ohms	D.C. M.A. in Pri.	Sec. Impedance in Ohms	Sec. Res.	Net Price
UME-12	output	120	500 600	3	50 60	13	**$5.40**
UME-13	output	250	1000 1200	3	50 60	17	**5.40**
UME-14	output	70	600	3	3.2	.7	**5.40**
UME-15	output	170	1200	2	3.2	.75	**5.40**
UME-16	output	1200	10,000	1	3.2	.7	**5.50**
UME-18	reactor	1000	3 hy at 2 Madc	2	—	—	**4.80**
UME-19	output or driver	1100	10,000 CT 12,500 CT	1	500 CT 600 CT	45	**5.50**
UME-20	driver	1000	10,000 12,500	1	1200 CT 1500 CT	100	**6.10**
UME-21	driver	1100	10,000 12,500	1	2000 CT 2500 CT	160	**6.10**
UME-22	single or PP output	25	170 CT 200 CT	10	12 16	3	**5.45**
UME-23	single or PP output	35	300 CT 400 CT	7	12 16	2.5	**5.45**
UME-24	single or PP output	75	600 CT 800 CT	5	12 16	2	**5.50**
UME-25	single or PP output	85	800 CT 1070 CT	4	12 16	2	**5.50**
UME-26	single or PP output	120	1000 CT 1330 CT	3.5	12 16	2	**5.50**
UME-27	single or PP output	225	1500 CT 2000 CT	3	12 16	2.5	**5.50**
UME-28	single or PP output	750	7500 CT 10,000 CT	1	12 16	2.5	**6.00**
UME-29	output	35	300 CT	7	600	110	**5.50**
UME-30	output	60	500 CT	5.5	600	110	**5.50**
UME-31	output	105	900 CT	4	600	110	**5.50**
UME-32	output	200	1500 CT	3	600	120	**5.50**
UME-33	interstage.	1500	20,000 CT 30,000 CT	.5	800 CT 1200 CT	175	**6.50**
UME-34	input	6500	200,000 CT	0	1000 CT	250	**7.00**
UME-35	interstage	1000	10,000 CT 12,000 CT	1	1500 CT 1800 CT	115	**6.50**
UME-36	reactor	2600	6 hy at 2 Madc	2	—	—	**5.45**
UME-37	reactor	190	1 hy at 2 Madc	2	—	—	**4.80**
UME-38	reactor	1800	12 hy at 0 dc	0	—	—	**4.80**
UME-39	reactor	2700	20 hy at 0 dc	0	—	—	**5.50**

PULSE TRANSFORMERS



ACTUAL SIZE

These ultra-miniature wound core pulse transformers are hermetically encapsulated 3-winding units designed and built in accordance with MIL-T-27A. They feature extremely fast rise time, minimum droop and high temperature stability. The leads are arranged so that they can be soldered directly into the circuit or clipped and plugged into a standard 7-pin miniature tube socket. Oscillograph pictures of pulses for all units and other technical data obtained through use of N.B.S. Preferred circuit No. 46, as found in Navy Aeronautical Preferred Circuits Handbook are listed in Chicago Bulletin CT-45.

CHICAGO Part No.	Nominal Pulse Width Microseconds	Rise Time Microseconds	Height	Width	Depth	Weight oz.	Net Price
PE-50	0.5	.07	9/16"	9/16"	9/16"	.16	**$9.92**
PE-75	0.75	.07	9/16"	9/16"	9/16"	.16	**9.98**
PE-100	1	.06	9/16"	9/16"	9/16"	.16	**10.02**
PE-200	2	.05	11/16"	11/16"	3/4"	.16	**10.92**
PE-500	2	.07	11/16"	11/16"	3/4"	.16	**10.72**
PE-700	7	.1	11/16"	11/16"	3/4"	.16	**12.03**

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Net

CHICAGO

MILITARY AND NEW EQUIPMENT
POWER TRANSFORMERS
FILTER REACTORS

STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

POWER TRANSFORMERS—PLATE AND FILAMENT SUPPLY—TF4RX03YY

For CAPACITOR INPUT SYSTEMS—Primary 117 Volts, 50-60 Cycles

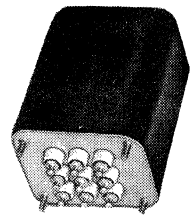
High Voltage Secondary Volts A-C-	Ma.	Output V.D-C	Filaments Rectifier Volts	Rectifier Amps.	Filaments Others Volts	Others Amps.	Wt. Lbs.	YY Case Mounting Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	Net Price	C-Type Mounting Cat. No.	Case No.	Net Price
250-0-250	10	320	6.3	1.2	6.3	0.6	1¼	PHC-10	14	$17.22	.....			.....		
250-0-250	20	300	6.3	1.2	6.3	0.6	1¾	PHC-20	15	16.35	.....			.....		
225-0-225	40	210	5	2	6.3CT	2	3¼	PHC-40	17	18.72	PSC-40	17	$15.07	PCC-40	16	$9.92
270-0-270	55	260	5	2	6.3CT	2	3½	PHC-55	17	19.82	PSC-55	17	15.42	PCC-55	16	10.62
300-0-300	60	285	5	2	6.3CT	3	4½	PHC-60	19	20.32	PSC-60	19	17.88	PCC-60	18	11.83
335-0-335	70	320	5	2	6.3CT	3	4½	PHC-70	19	21.12	PSC-70	19	17.48	PCC-70	18	12.22
330-0-330	85	320	5	2	6.3CT	3	6	PHC-85	20	22.58	PSC-85	20	18.28	PCC-85	20	13.27
345-0-345	105	320	5	2	6.3CT	3.5	6½	PHC-105	21	24.88	PSC-105	21	19.68	PCC-105	20	13.78
375-0-375	120	380	5	3	6.3CT	4	9½	PHC-120	21	25.73	PSC-120	22	22.82	PCC-120	22	16.35
370-0-370	150	390	5	3	6.3CT	4										
					6.3CT	1	11½	PHC-150	22	31.18	PSC-150	22	26.98	PCC-150	22	20.92
385-0-385	200	390	5	3	6.3CT	4.5										
					6.3CT	1	12¼	PHC-200	22	33.35	PSC-200	22	27.78	PCC-200	22	21.28
400-80-0-80-400	250	410	5	6	6.3CT	7										
					5	2	15	PHC-250	24	42.25	PSC-250	24	37.77	PCC-250	24	26.25
625-0-625	300	685	5	4	6.3	8										
					6.3	3										
					6.3	3	21									

For REACTOR INPUT SYSTEMS—Primary 117 Volts, 50-60 Cycles

350-0-350	55	260	5	2	6.3CT	2	3¼	PHR-55	17	$20.00	PSR-55	17	$16.38	PCR-55	16	$11.45
425-0-425	70	320	5	2	6.3CT	3	4½	PHR-70	19	20.67	PSR-70	19	17.98	PCR-70	18	12.82
440-0-440	85	325	5	2	6.3CT	3	6	PHR-85	20	24.23	PSR-85	20	19.72	PCR-85	20	13.33
450-0-450	105	320	5	2	6.3CT	3.5	6½	PHR-105	21	23.60	PSR-105	21	19.27	PCR-105	20	13.88
500-0-500	120	390	5	3	6.3CT	4	9½	PHR-120	21	24.18	PSR-120	22	24.15	PCR-120	22	17.88
510-0-510	150	395	5	3	6.3CT	4										
					6.3CT	1	11½	PHR-150	22	34.63	PSR-150	22	30.23	PCR-150	22	24.05
520-0-520	200	390	5	3	6.3CT	4.5										
					6.3CT	1	12¼	PHR-200	22	35.18	PSR-200	22	31.97	PCR-200	22	22.52
550-370-75-0-75-370-550	300	420	5	6	6.3CT	1										
					6.3CT	5	17½	PHR-300	24	45.28	PSR-300	24	39.73	PCR-300	24	30.08

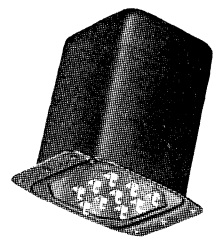
For REGULATED POWER SUPPLIES, CAPACITOR INPUT—Primary 117 Volts, 50-60 Cycles

High Voltage Secondary Volts A-C	Ma.	Output V.D-C-	Filaments Rectifier Volts	Rectifier Amps.	Filaments Others Volts	Others Amps.	Others Volts	Others Amps	Wt. Lbs.	H-Type Mounting Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	Net Price
440-0-440	165	430	5	3	6.3	7.5	6.3	3	12	PHC-165	22	$38.02	PSC-165	22	$33.40
					6.3	0.6	6.3	3							
450-0-450	200	442	5	2	6.3	4	6.3	0.6	12	PHC-200A	22	34.18	PSC-205	22	32.43
					6.3	4									



MEETS MIL-T-27A SPECS

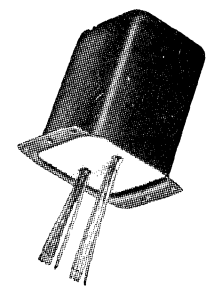
YY Case. Steel base cover deep-seal soldered into case. Terminals hermetically sealed. Ceramic bushings. Stud-mounted unit.



S-Type. Steel base cover fitted with phenolic terminal board. Convenient numbered solder lug terminals. Flange-mounted unit.

FILTER REACTORS—TF4RX01YY

Inductance in Henries	Max. Current Ma. D-C	D-C Resistance in Ohms	Insulation Test Volts	Wt. Lbs.	YY Case Mounting Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	Net Price	C-Type Mounting Cat. No.	Case No.	Net Price
15	10	680	1,000	1	RH-1510	8	$9.08	.....			.....		
15	20	680	1,000	1	RH-1520	8	7.30	.....			.....		
15	40	475	2,500	1½	RH-1540	12	8.95	RS-1540	12	$ 7.35	RC-1540	12	$ 5.25
15	55	420	2,500	2	RH-1555	13	8.98	RS-1555	13	7.67	RC-1555	12	6.00
15	85	285	2,500	2¾	RH-1585	14	9.95	RS-1585	15	8.85	RC-1585	14	6.92
12	105	170	2,500	4	RH-12105	17	11.98	RS-12105	17	10.57	RC-12105	16	10.57
12	150	150	2,500	5½	RH-12150	19	13.75	RS-12150	19	11.90	RC-12150	18	9.28
12	200	140	2,500	7	RH-12200	20	15.88	RS-12200	21	13.97	RC-12200	20	11.32
10	55	230	2,500	1¾	RH-1055	13	8.90	RS-1055	13	7.62	RC-1055	12	5.52
10	85	175	2,500	2½	RH-1085	14	9.78	RS-1085	15	8.45	RC-1085	14	6.28
8	105	100	2,500	3¾	RH-8105	17	12.12	RS-8105	17	10.70	RC-8105	16	8.13
8	150	100	2,500	5¼	RH-8150	18	13.25	RS-8150	19	12.65	RC-8150	18	9.77
8	200	85	2,500	7	RH-8200	20	15.73	RS-8200	21	8.66	RC-8200	20	11.05
8	250	90	2,500	10½	RH-8250	22	18.12	RS-8250	22	10.50	RC-8250	22	14.27
8	300	55	3,500	12½	RH-8300	22	22.87	RS-8300	22	13.16	RC-8300	22	14.77



C-Type. With 10" color-coded stripped and tinned leads brought out through fibre board base cover. Flange-mounted unit.

FILAMENT TRANSFORMERS—Primary 115-230 Volts, 50-60 Cycles—TF4RX01YY

Secondary Volts	Amps.	Insulation Test Volts	Wt. Lbs.	YY Case Mounting Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	Net Price
2.5CT	5.25	3,500	2	FH-25	15	$15.67	F-25	14	$13.65
2.5CT	10.0	5,000	3	FH-210	15	16.82	F-210	17	10.83
2.5CT	10.0	9,000	4	FH-210H	19	27.40	F-210H	19	13.16
2.5CT	15.0	9,000	6	FH-215H	21	25.07	F-215H	20	26.73
5CT	4.0	2,500	2¼	FH-54	15	15.67	F-54	15	7.23
5CT	10.0	2,500	3½	FH-58	17	18.23	F-58	17	15.02
5CT	10	8,000	6	FH-510H	21	25.68	F-510H	21	26.66
5CT	20.0	2,500	6½	.....			F-516	21	18.98
5CT	20	10,000	13	FH-520HB	22	36.78	F-520HB	22	18.82
5CT	30	2,500	10½	.....			F-530	22	24.35
5CT	30	2,500	10½	.....			F-530BX*	22	41.58
6.3CT	1.5	2,500	1	FH-615	12	14.03	F-615	12	11.93
6.3CT	3	2,500	2	FH-63	14	14.45	F-63	14	7.00
6.3CT	5.5	2,500	3	FH-65	16	15.98	F-65	17	12.47
6.3CT	10.0	2,500	5	FH-610	19	17.49	F-610	19	16.78
7.5CT	12	2,500	6½	.....			F-712	21	20.53
7.5CT	25.0	2,500	12	.....			F-725	22	26.95
7.5CT	51	2,500	29	.....			F-751	26	51.93
10CT	4.0	2,500	3¼	FH-104	17	16.92	F-104	17	12.33
10CT	6.5	2,500	5	.....			F-106	19	18.33
10CT	10.0	2,500	6½	.....			F-1010	21	16.33

*BX mounting, see page 1350 for illustration and dimensions.

S-TYPE & C-TYPE CASE DIMENSIONS

YY Case Dimensions on Page 1424

Case No.	Depth	Width	Height
12	2¼	2⅛	2 11/16
13	2¼	2⅛	2 15/16
14	2½	2⅜	3 1/16
15	2½	2⅜	3 5/16
16	2⅞	2 11/16	3½
17	2⅞	2 11/16	3¾
18	3¼	3	3⅞
19	3¼	3	4¼
20	3 11/16	3⅜	4⅝
21	3 11/16	3⅜	4 11/16
22	4⅜	4⅛	5 5/16
24	5 5/16	4 13/16	6 1/16

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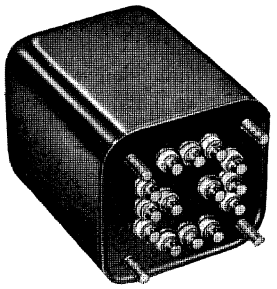
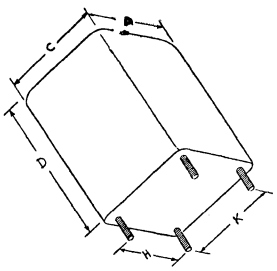
CHICAGO

MILITARY STANDARD
POWER AND FILAMENT TRANSFORMERS
MOLDED TOROIDAL INDUCTORS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

MS (MILITARY STANDARD) POWER AND FILAMENT TRANSFORMERS



Case Type	Dimensions In Inches A	C	D	H	K	Stud Size
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6-32
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32
KA	3 15/16	3 3/8	5 1/4	3	2 7/16	10-32
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20



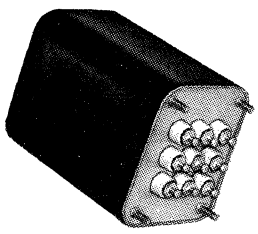
POWER TRANSFORMERS—Primary, 105/115/125 V.—Frequency, 54-66 Cycles

MIL-T-27 Classification	MIL-T-27 Part No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C V Output	Rect. Fil. Volts	Amps	Fil. No. 2 Volts	Amps	Wt. Lbs.	Case Size	Catalog Number	Net Price
TF4RX03HA001	MS-90026	200-100-0-100-200	70	385	6.3/5	2	6.3	3	4	HA	PMS-70	$25.37
TF4RX03JB002	MS-90027	325-0-325	70	260	6.3/5	2	6.3	4	5	JB	PMS-70A	24.85
TF4RX03KB006	MS-90028	325-0-325	150	245	6.3	5	5	3	7 1/4	KB	PMS-150	26.87
TF4RX03LB003	MS-90029	400-0-400	175	318	5	3	6.3	8	10	LB	PMS-175	32.15
TF4RX03MB004	MS-90030	450-0-450	250	345	5	3	6.3	8	13	MB	PMS-250	38.50
TF4RX02KB001	MS-90031	350-0-350	250	255					7 1/2	KB	PMS-350	23.43
TF4RX02LB002	MS-90032	550-0-550	250	419					11	LB	PMS-550	29.07
TF4RX02NB003	MS-90036	800-0-800	250	640					16 1/2	NB	PMS-800	42.02

FILAMENT TRANSFORMERS—Primary, 105/115/125 V.—Frequency, 54-66 Cycles

MIL-T-27 Classification No.	MIL-T-27 Part No.	Secondary Volts	Amps	Insulation Volts RMS	Wt. Lbs.	Case Size	Catalog Number	Net Price
TF4RX01EB002	MS-90016	2.5	3.0	2500	1 1/2	EB	FMS-23	$15.47
TF4RX01GB003	MS-90017	2.5	10	2500	2 1/2	GB	FMS-210	15.50
TF4RX01FB004	MS-90018	5.0	3.0	2500	1 3/4	FB	FMS-53	13.62
TF4RX01HB005	MS-90019	5.0	10	2500	4	HB	FMS-510	18.55
TF4RX01FB006	MS-90020	6.3	2.0	2500	1 3/4	FB	FMS-62	13.97
TF4RX01GB007	MS-90021	6.3	5.0	2500	2 3/4	HB	FMS-65	15.88
TF4RX01JB008	MS-90022	6.3	10	2500	5	JB	FMS-610	19.66
TF4RX01KB009	MS-90023	6.3	20	2500	8	KB	FMS-620	24.08
TF4RX01JB012	MS-90024	2.5	10	10000	4 3/4	JB	FMS-210H	23.95
TF4RX01KB013	MS-90025	5.0	10	10000	7	KB	FMS-510H	27.27

MULTIPLE FILAMENT TRANSFORMERS (TR4RX01— —†)Primary,105/115/125 V., Frequency, 50/60 cycles



Designed and built in accordance with MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X (10,000 hours minimum). Maximum operating altitude 10,000 feet. Also available in type S, **Sealed-in-Steel** cases (catalog Numbers F-1 through F-8, listed below). Dimensions on page 1342.

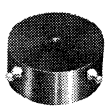
Sec. No. 1	Sec. No. 2	Sec. No. 3	Insul. Test	Case Size†	Wt. Lbs.	Catalog No.	Net Price	Catalog No.	Case Size	Net Price
5 V. 2A	6.3 V. CT 2.5 A	—	2500 V.	GA	2 1/2	FMS-1	$19.82	F-1	15	$17.97
5 V. 2A	16.6 V. CT 1.25A	—	2500 V.	GA	3 1/2	FMS-2	19.78	F-2	15	15.33
5 V. 3A	6.3 V. CT 5A	—	2500 V.	HA	4	FMS-3	21.80	F-3	17	18.28
5 V. 3A	6.3 V. CT 3A 12.6 V. CT 3A	6.3 V. CT 3A	2500 V.	JB	4 3/4	FMS-4	29.15	F-4	18	21.02
5 V. 3A	6.3 V. CT 1A	6.3 V. CT 5A	2500 V.	JB	4 3/4	FMS-5	30.93	F-5	18	22.50
6.3 V. CT 3A 12.6 V. CT 3A	6.3 V. CT 3A	—	2500 V.	HA	4	FMS-6	20.03	F-6	17	18.50
6.3 V. CT 6A 12.6 V. CT 6A	6.3 V. CT. 6A	—	2500 V.	KA	6 1/2	FMS-7	26.57	F-7	21	20.75
5 V. CT 3A	5 V. CT 3A	5 V. CT 6A	5000 V.	KA	7	FMS-8	38.55	F-8	21	25.60

†Refer to case size. All secondary A.C. voltages ± 3%.

MOLDED TOROIDAL INDUCTORS

CHICAGO toroids, plastic encapsulated in molded cases, are stocked for immediate delivery. Units may be stacked and mounted with a single screw. CHICAGO toroids are wound on high density, high permeability cores of powdered molybdenum permalloy, with utmost attention given to stability, low temperature co-efficients, insulation and ruggedness. All units are 1 1/16" diameter, 1/2" high, with 90° spacing of terminals and mounting hole for 4-40 screw.

Features:
- High Q over wide frequency ranges
- Minimum pickup from external magnetic fields
- Close tolerance of plus, minus 1%
- High stability over temperature range of —55° to plus 85° centigrade
- Not affected by high humidity
- Resist shock and vibration
- Small sized, uniform, easily stacked



Catalog No.	Inductance (m.h.)	D.C. Res. (ohms)	Net Price	Catalog No.	Inductance (m.h.)	D.C. Res. (ohms)	Net Price
TM-1A	1	.32	$6.28	TM-80 A	80	29.5	$7.02
TM-2 A	2	.72	4.00	TM-100 A	100	32.5	4.00
TM-5 A	5	1.85	4.00	TM-200 A	200	71.5	4.37
TM-8 A	8	2.25	4.00	TM-500 A	500	185	5.00
TM-10 A	10	3.25	4.00	TM-800A	800	300	9.78
TM-20 A	20	7.0	4.00	TM-1000 A	1000	340	5.00
TM-50 A	50	18.5	4.00				

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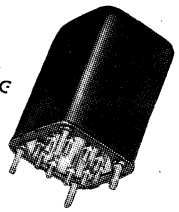
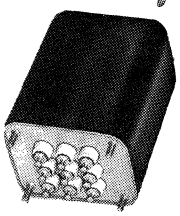
CHICAGO

MILITARY AND NEW EQUIPMENT
AUDIO TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



B-TYPE MOUNTING



YY CASE

FULL FREQUENCY RANGE AUDIO TRANSFORMERS

Frequency Response within ±½ db, 30 to 15,000 Cycles

INPUT TRANSFORMERS—TF4RX— —YY††

YY Case (Cat. No. BIH) and B-Type (Cat. No. BI) Mountings

Application	Impedance Primary—Secondary	Max. Power Level	Hum Shielding, dbm	Case Size	Family Wt. Lbs.	Cat. No.	Net Price
Line to Single or P-P Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10 1½	BIH-1 BI-1	$29.07 30.12
Line to Single or P-P Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−90	13	1½	BI-2	37.00
Line bridging to P-P Grids	*Pri: 8,000/6,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13	1½	BI-3	33.25
Line to Line	Pri: 600/150 ohms CT Sec: 600/150 ohms CT	+15 dbm.	−70	13	16 1½	BIH-4 BI-4	29.33 30.62
Line to Line	*Sec: 600/150 ohms CT	+30 dbm.	−90	18	3¼	BI-5	59.33
Interstage: P-P Plates to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13	15 1½	BIH-6 BI-6	33.70 29.78
Low Imped. Mike, Pickup, or Multiple Line to Grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10 1½	BIH-7 BI-7	30.72 31.55
Single Plate to Push-Pull Grids	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10 1½	BIH-8	25.10

††Refer to family.

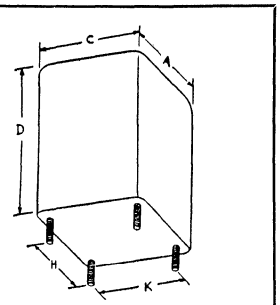
OUTPUT TRANSFORMERS—TR4RX13YY

YY Case (Cat. No. BOH) and B-Type (Cat. No. BO) Mountings

Application	Impedance Primary—Secondary	Max. Power Level	Case Size	Wt. Lbs.	Cat. No.	Net Price
Single Plate to Line	†Pri: 15,000 ohms *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	14	2¼	BOH-1 BO-1	17.13 15.85
P-P Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm. (1 watt)	16	3	BOH-2 BO-2	19.73 19.15
P-P Plates to Line	Pri: 7,500 ohms CT *Sec: 600/150 ohms CT‡	+43 dbm. (20 watts)	20	6	BOH-4	25.50
P-P Plates to Line or Voice Coil	*Pri: 10,000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+37 dbm. (5 watts)	18	4	BOH-5 BO-5	24.85 22.68
P-P Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms‡	+43 dbm. (20 watts)	20	6	BO-6	29.42
P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm. (15 watts)	20	6	BOH-9 BO-9	35.63 30.75
P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	13	1½	BO-10	34.88
P-P Plates to Line or Voice Coil	*Pri: 3000/2500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+46 dbm. (40 watts)	22	9½	BO-11	40.32
P-P Plates to Line or Voice Coil	Pri: 10,000 ohms CT Sec: 600/16/8 ohms	+40 dbm. (10 watts)	22	9	BO-12	34.48
P-P Plates to Voice Coil	Pri: 10,000 ohms Sec: 16/8/4 ohms	+43 dbm. (20 watts)	21	7	BO-13	29.63
P-P Plates to VC, pentode, triode or Ult.-Lin. Circuits	Pri: 5000 phms CT Sec: 16/8 ohms: 70.7 volts	+50 dbm. (100 watts)	24	24	BO-14	45.42

*Split and balanced windings. †0 to 10 ma. D.C. ‡Has tertiary windin g to provide 15% inverse feedback. **Has D.C. in primary; frequency response ±2 db, 30–1 5.000 cycles.

LOW PASS FILTER LPF-2—Hermetically sealed unit for attentuating frequencies above 3,000 cycles in low level speech amplifiers, 50,000 ohm plate to 50,000 ohm grid. Insertion loss 0.8 db. Height 2⅛", width 1⁷⁄₁₆", depth 1⁷⁄₁₆", mtg. ctrs. 1¹⁵⁄₁₆". Shpg. wt. ½ lb. Net Price $35.10.



YY Case & H Type Mtg. Dimensions

Case Size	Dimensions in Inches A	C	D	H	K
8	1½	1½	1¹⁵⁄₁₆	1	1
9	1½	1½	2⅛	1	1
12	2¼	2⅛	2¹¹⁄₁₆	1⁹⁄₁₆	1⅜
13	2¼	2⅛	2¹⁵⁄₁₆	1⁹⁄₁₆	1⅜
14	2½	2⅝	3¹⁄₁₆	1¹³⁄₁₆	1¹¹⁄₁₆
15	2½	2⅜	3⅝₁₆	1¹³⁄₁₆	1¹¹⁄₁₆
16	2⅞	2¹¹⁄₁₆	3½	2	1⅞
17	2⅞	2¹¹⁄₁₆	3¾	2	1⅞
18	3¼	3	3⅞	2⅜	2⅛
19	3¼	3	4¼	2⅜	2⅛
20	3¹¹⁄₁₆	3⅝₁₆	4⅝₁₆	2⅝	2⅜
21	3¹¹⁄₁₆	3⅝₁₆	4¹¹⁄₁₆	2⅝	2⅜
22	4⁹⁄₁₆	4⅛	5⅝₁₆	3⅜	3
24	5⅝₁₆	4¹³⁄₁₆	6¹⁄₁₆	3⅜	3

HIGH Q CHOKES

For Dynamic Noise Suppression Circuits (S-Type Mounting)

Two efficient reactors, inductance values .8 and 2.4 henrys respectively, are designed for noise suppression circuits, but can be used in any tuned circuit requiring the given inductances. Inductance values accurate within −5% with up to 15 ma. d-c. Minimum Q of 20. Mounted in drawn steel cases, 1²¹⁄₃₂" x 1¹³⁄₃₂" x 1²¹⁄₃₂" high.

Cat. No.	Inductance	Net Price
NSI-1	.8 hy.	$12.15
NSI-2	2.4 hy.	13.43

(S-Type and C-Type Case Dimenisons on Page 1422.

DETAILS OF NEW EQUIPMENT LINE MOUNTINGS

YY CASE MOUNTING—Hermetic sealing meets all MIL-T-27A specifications. Steel base cover is bonded into the case by deep-seal soldering. Terminals are hermetically sealed by unique rubber gasket—ceramic bushing construction. Units are stud mounted.

C-TYPE MOUNTING—Moisture-resistant compound surrounds coil and core. Ten-inch E.I.A. color-coded leads, ends stripped and tinned for easy soldering. Flange-mounted drawn steel cases.

S-TYPE MOUNTING—Precision-fitted steel base-covers and terminal boards, plus compound filling, keep moisture out. Solder-lug terminals are clearly identified, easy to use. Drawn steel cases are flange-mounted.

B-TYPE MOUNTING—Steel bases are bonded into the drawn steel cases by deep-seal soldering to make units completely moisture proof. Stud-mounted cases take minimum chassis space. Convenient, compact, pin-type terminals.

BIAS TRANSFORMERS—Combination Plate and Filament—Primary 50-60 Cycles

Primary Volts	High Voltage Secondary AC Volts CT	DC Ma.	Rect. Volts	Fila. Amps.	YY Case Mounting* Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	List Price	C-Type Mounting Cat. No.	Case No.	Net Price
115	180-160-140-120	150	5.0	3.0				1BS-150	19	$19.03	1BC-150	18	$12.63
230	180-160-140-120	150	5.0	3.0	1BH-150	19	$23.08	2BS-150	19	21.43	2BC-150	18	13.72

*TF4RX03YY.

Net

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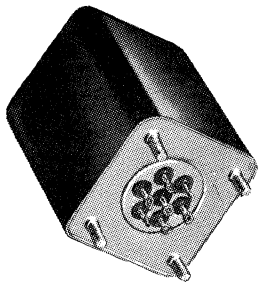
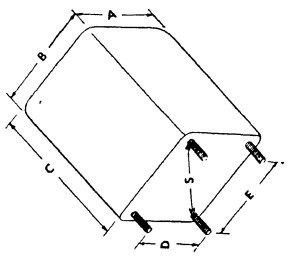
CHICAGO

MILITARY STANDARD AUDIOS
MS TRANSISTOR AUDIOS
MIL-T-27A SATURABLE TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)





CASE DIMENSIONS

Case Size	Dimensions in inches					
	A	B	C	D	E	S
AG	1	1	1 3/8	—	—	3/4
AH	1 5/16	1 5/16	1 3/4	—	—	1 1/4
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	—
EA	1 5/16	1 13/16	2 3/4	1 3/8	1 1/4	—
EB	1 5/16	1 13/16	2 7/16	1 3/8	1 1/4	—
FA	2 5/16	2 1/16	3 3/8	1 11/16	1 7/16	—

MILITARY STANDARD AUDIO TRANSFORMERS

Designed and built in accordance with MIL-T-27A, Grade A, Class R operating temperature; Life Expectancy X (10,000 hrs. min.).

Maximum Operating Altitude-50,000 ft.

Frequency Response ± 2 db 300—10,000 cps, AJ Case Size—Max. Wt., 6 lbs.

MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance	Operating Level	Pri. DCMA	Catalog No.	Net Price
TF 1RX 15AJ001	MS-90000	P-P Plates to P-P Grids	Pri: 10,000 ohms CT Sec: 90,000 ohms CT 22,500 ohms CT	15 dbm.	10	AMS-1	$22.52
TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri: 600 ohms CT 150 ohms Sec: 4/8/16 ohms	2W	—	AMS-2	16.32
TF 1RX 10AJ001	MS-90002	Line to P-P Grids	Pri: 600 ohms CT 150 ohms Sec: 135,000 ohms CT	15 dbm.	—	AMS-3	18.98
TF 1RX 16AJ001	MS-90003	Line to Line	Pri: 600 ohms CT 150 ohms Sec: 600 ohms CT 150 ohms	15 dbm.	—	AMS-4	18.55
TF 1RX 13AJ001	MS-90004	Single Plate to Line	Pri: 7600/4800 ohms Sec: 600 ohms CT/150 ohms	2W	40	AMS-5	13.35
TF 1RX 13AJ002	MS-90005	Single Plate to Voice Coil	Pri: 7600/4800 ohms Sec: 4/8/16 ohms	2W	40	AMS-6	12.95
TF 1RX 13AJ003	MS-90006	P-P Plates to Line	Pri: 15,000 ohms CT Sec: 600 ohms CT/150 ohms	2W	10	AMS-7	14.77
TF 1RX 13AJ004	MS-90007	P-P Plates to Line	Pri: 24,000 ohms CT Sec: 600 ohms CT/150 ohms	1W	20	AMS-8	15.33
TF 1RX 13AJ005	MS-90008	P-P Plates to Line	Pri: 60,000 ohms CT Sec: 600 ohms CT/150 ohms	5W	20	AMS-9	15.07

TRANSISTOR AUDIO TRANSFORMERS—TF4RX— — — — †

Designed and built in accordance with MIL-T-27A, Grade 4, Class R operating temperature; Life Expectancy X (10,000 hrs. min.).

Maximum Operating Altitude 50,000 ft.

Application	Impedance in Ohms Pri.	Impedance in Ohms Sec.	Max. Pri. D.C. Ma.	DC Res. in Ohms Pri.	DC Res. in Ohms Sec.	Power in Watts	Case† Size	Family†	Wt. Lbs.	Catalog No.	Net Price
Input	600 CT	10	20	42	.8	.05	AG	17	2½ oz.	TAMS-1	$14.50
Interstage	100 CT	10 CT	100	4.3	.8	.25	AH	17	5 oz.	TAMS-2	14.97
Interstage	100	1000 CT	100	5.8	45	.25	AJ	17	11 oz.	TAMS-3	12.43
Interstage	500 CT	5000 CT	12	37	250	.03	AJ	17	11 oz.	TAMS-4	15.98
Driver	1000	200 CT	10	400	115	.05	AG	17	2 oz.	TAMS-5	15.88
Driver	2000	200 CT	5	720	115	.05	AG	12	2 oz.	TAMS-6	12.95
Driver	100	100 CT	100	12	12	.5	EB	17	1 lb.	TAMS-7	15.43
Output	9800	15	2	640	2	.05	AG	12	2 oz.	TAMS-8	14.62
Output	1000	4/8/16	10	180	3.5	.2	AG	17	2½ oz.	TAMS-9	17.63
Output	2000 CT	4/8/16	—	250	4	.2	AG	12	2½ oz.	TAMS-10	19.37
Output	48 CT	8/16	275	5	1.5	5	FA	17	1½ lb.	TAMS-11	15.98
Output	20 CT	8	500	.55	.35	10	AJ	17	12 oz.	TAMS-12	14.40

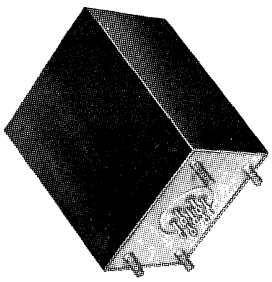
†Refer to Family and Case Size.

MIL-T-27A SATURABLE TRANSFORMERS (Magnetic Amplifiers)

Application: For use with 2 phase 115v. 400 cycle Servo-Motors.

Saturable Transformer Ratings Maximum Altitude 50,000 ft.
All Primaries 115v., 400 cycles: TF4RX40YY

Catalog No.	STH-3		STH-5	STH-10	STH-18
Power Output in watts	2.7	3.5	5	10	18
Voltage Output, volts	26	115	115	115	115
Load Resistance in ohms	250	3800	2640	1320	775
Tuning Capacitor, MFD	.28	.19	.4	.6	1.0
Primary Current in amps	.085	.1	.13	.24	.35
Control Current, MA	8	8	8	8	8
Control Coil Res. (Per Coil) in ohms	2900	2900	3100	4200	5600
Control Coil By pass Capacitors, MFD	.1	.1	.1	.1	.1
Base Area, Dimensions, in.	1 5/16 x 1 13/16		1½ x 2⅛	1¾ x 2½	2⅛ x 3⅛
Height, in.	2 7/16		2¾	2 31/32	3⅜
Mtg. Ctrs., in.	¾ x 1 15/16		1 x 1⅝	1⅝ x 1⅞	1½ x 2½
Actual Wt., Lbs.	¾		1	1½	2½
Typical Servo-Motor Load:					
Kearfott	R-118	R-119-2	R-110-2	R-111-2	R-112-2
G. M. Labs.	—	665-54-19	665-54-47 665-52-48	665-53-40 665-53-41	665-53-44 665-53-45
Net Price	$27.00		$30.00	$36.00	$39.00



SATURABLE TRANSFORMERS

are designed and built in accordance with MIL-T-27A, Grade 4, Class R operating temperature and life expectancy X (10,000 hrs. min.).

400 CYCLE STEP-DOWN TRANSFORMER—TF1RX01YY

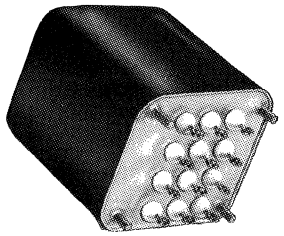
Y-Y connected, HP3-140 is identical to CHICAGO Specification No. 9926A in size and construction, but is rated at 140 va. instead of 88 va. Primary is 115 volts per phase, 3-phase, 400 cycles. Designed primarily for aircraft applications.

Catalog No.	Secondary Volts	Secondary Va. Cap.	Case Size	Terminal Type	Weight Lbs.	Net Price
HP3-140	28.5	140	17	R	3	$36.73

All secondary A.C. voltages ± 3%

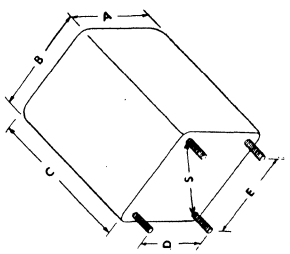
CHICAGO

MILITARY STANDARD AND MIL-T-27A
400 CYCLE
TRANSFORMERS AND REACTORS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



MS CASE DIMENSIONS

Case Size	Dimensions in Inches					
	A	B	C	D	E	S
AH	1 5/16	1 5/16	1 3/4	—	—	1 1/4
AJ	1 5/8	1 5/8	2 3/8	1 1/16	1 3/16	—
EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	—
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	—
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	—
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	—
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	—
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	—
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 3/8	—
KA	3 15/16	3 3/8	5 1/4	3	2 7/16	—
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	—



MILITARY STANDARD CASES

Designed and built in accordance with MIL-T-27A, Grade 4, Class S* operating temperature and life expectancy X (10,000 hours minimum). Maximum operating altitude 70,000 feet. The complete line is housed in Chicago's one piece drawn-steel cases. Outside case dimensions and mounting dimensions are within the tolerance of the Military Standard Specifications. *High Temperature Operation 85° C. ambient, 45° C. rise.

POWER TRANSFORMERS—TF4SX03— —† (Cap. Input. All pri. 105/115/125 V., 380-1000 c.

High Voltage Secondary		Rectifier Filament		Other Filaments		Case† Size	Wt. Lbs.	Catalog Number	Net Price
A.C. Volts	D.C. Ma.	Volts	Amps.	Volts	Amps.				
255-0-255	40	5.0	2.0	6.3 CT	2.0	GB	1½	4PMS-40	$28.62
270-0-270	55	5.0	2	6.3 CT	2	GB	1¾	4PMS-55	25.55
335-0-335	70	5.0	2	6.3 CT	3	GB	1¾	4PMS-70	30.78
330-0-330	85	5.0	2.0	6.3 CT	3.0	GA	2½	4PMS-85	31.80
345-0-345	105	5.0	2.0	6.3 CT	3.5	GA	2¼	4PMS-105	34.32
375-0-375	120	5.0	3	6.3 CT	4	GA	3	4PMS-120	37.57
370-0-370	150	5.0	3.0	6.3 CT	4.0	JB	4¼	4PMS-150	44.30
				6.3 CT	1.0				
440-0-440	165	5.0	3	6.3	7.5	KB	6½	4PMS-165	58.12
				6.3	3				
				6.3	3				
				6.3	0.6				
450-0-450	200	5.0	2	6.3	4	KB	6¼	4PMS-200A	56.83
				6.3	4				
				6.3	0.6				
550-370-75-0	300	5.0	6	6.3 CT	5				
75-370-550				6.3 CT	1	KA	7½	4PMS-300‡§	79.95

FILTER REACTORS—TF4SX04— —†

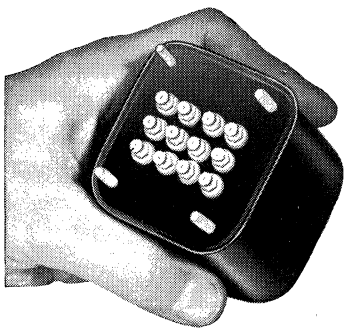
Inductance (henries)	Maximum D.C. Ma.	D.C. Resistance (ohms)	Insulation Volts RMS	Case† Size	Wt. Lbs.	Catalog Number	Net Price
2.0	40	190	2,500	AH	¼	4RMS-240	$10.33
2.0	55	160	2,500	AH	¼	4RMS-255	10.12
2.0	70	165	2,500	AJ	¾	4RMS-270	9.60
2.0	85	125	2,500	AH	¼	4RMS-285	9.07
2.0	105	110	2,500	EB	½	4RMS-2105	9.88
2.0	120	100	2,500	EB	1	4RMS-2120	11.50
2.0	150	95	2,500	EB	1	4RMS-2150	10.62
2.0	165	90	2,500	EB	1	4RMS-2165	10.65
2.0	200	73	2,500	FA	2	4RMS-2200	12.42
2.0	300	47	2,500	HA	4	4RMS-2300§	14.53

FILAMENT TRANSFORMERS— TF4SX01 — —†(All Prim. 105.115.125 V., 380-1000 cys.

Sec. Volts	Sec. Amps.	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog No.	Net Price
6.3 CT	3	2,500	EB	1	4FMS-63	$18.55
6.3 CT	5.5	2,500	EA	1¼	4FMS-65	18.68
6.3 CT	10	2,500	FA	2	4FMS-610	21.99
6.3 CT	20	2,500	GA	2½	4FMS-620	26.67

‡Reactor Input. †Refer to Case Size. All secondary A.C. voltages ±3% §Max. operating Alt. 50,000 ft

400 CYCLE TRANSFORMERS AND REACTORS (YY ALTERNATE CASES) (Max. Alt. 10,000 ft.)



CASE DIMENSIONS

Case Size	Dimensions in Inches				
	A	C	D	H	K
3	1 3/16	1 3/16	2	15/32-2 Studs	
7	1 3/8	1 3/8	2	15/16-2 Studs	
10	1 7/8	1 3/4	2 3/16	1 5/16	1 1/16
11	1 7/8	1 3/4	2 7/16	1 5/16	1 1/16
12	2 1/4	2 1/8	2 11/16	1 9/16	1 3/8
13	2 1/4	2 1/8	2 15/16	1 9/16	1 3/8
15	2 1/2	2 3/8	3 5/16	1 13/16	1 11/16
16	2 7/8	2 11/16	3 1/2	2	1 7/8
17	2 7/8	2 11/16	3 3/4	2	1 7/8
20	3 11/16	3 5/16	4 5/16	2 5/8	2 3/8
21	3 11/16	3 5/16	4 11/16	2 3/8	2 3/8

POWER TRANSFORMERS (All Primaries 105/115/125 V., 380-1000 Cycles)—TF4SX03YY

High Voltage Secondary		Rect. Fil.		Other Fil.		Case Size	Wt. Lbs.	Catalog Number	Net Price
A. C. Volts	D.C. Ma.	Volts	Amps.	Volts	Amps.				
270-0-270	55	5.0	2	6.3 CT	2	13	1½	4PHC-55	$23.35
335-0-335	70	5.0	2	6.3 CT	3	13	1¾	4PHC-70	27.30
375-0-375	120	5.0	3	6.3 CT	4	17	2½	4PHC-120	33.48
440-0-440	165	5.0	3	6.3	7.5				
				6.3	3				
				6.3	3				
				6.3	0.6	20	6	4PHC-165	56.62
450-0-450	200	5.0	2	6.3	4				
				6.3	4				
				6.3	0.6	20	5¾	4PHC-200A	55.53
550-370-75-0	300	5.0	6	6.3 CT	5				
75-370-550				6.3 CT	1	21	6½	4-PHR-300	80.92

FILTER REACTORS—TF4SX04YY

Inductance (henries)	Maximum D.C. Ma.	D.C. Resistance (Ohms)	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog Number	Net Price
2.0	55	160	2,500	3	¼	4RH-255	$7.18
2.0	70	165	2,500	7	½	4RH-270	7.22
2.0	120	100	2,500	11	1	4RH-2120	8.55
2.0	165	90	2,500	11	1½	4RH-2165	8.58
2.0	200	73	2,500	13	1¾	4RH-2200	10.58
2.0	300	47	2,500	16	3¼	4RH-2300	12.57

FILAMENT TRANSFORMERS (All Prim. 105/115/125 V., 380-1000 cycles—TF4SX04YY)

Sec. Volts	Sec. Amps.	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog Number	Net Price
6.3 CT	3	2,500	10	¾	4FH-63	$16.25
6.3 CT	5.5	2,500	11	1	4FH-65	17.73
6.3 CT	10	2,500	13	1¾	4FH-610	19.66
6.3 CT	20	2,500	15	2½	4FH-620	24.68

400 CYCLE STEP-DOWN TRANSFORMER (See Page 1425)

Net

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CHICAGO

NEW EQUIPMENT
AUDIO
TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

TRANSISTOR AUDIO TRANSFORMERS

Here are the smallest iron core audio transformers ever built. They weigh less than 1/10 ounce and are no larger than the transistors they power. Write for Bulletin 462 showing typical circuit application.

Part No.	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Dimensions (±.015")	Weigh. in ounces	Net Price
UM-110	Interstage	20,000	1,000	1675	285	¼" x ⅜" x ⅜"	0.07	**$5.70**
UM-111	Output or matching	1,000	50/60	120	9.0	⅜" x ⅜" x ⅜"	0.10	**3.90**
UM-112	High imp. mic. input	200,000	1,000	4000	195	⅜" x ⅜" x ⅜"	0.10	**6.30**
UM-113	Interstage	20,000	1,000	1350	205	⅜" x ⅜" x ⅜"	0.10	**4.35**
UM-114	Output or matching	500	50/60	70	9.0	⅜" x ⅜" x ⅜"	0.10	**3.90**

TRANSISTOR TRANSVERTER TRANSFORMERS

For converting 12 V. battery voltage to plate supply voltage. See Chicago Bulletin CT-43 for schematics and parts lists.

Part No.	Application	Mtg. Type	Dimensions	Weight	Net Price
DCT-1	Converts 12 VDC to 275 VDC at 125 DCMA	C	1⅞" x 2 1/16" x 2 3/16"	14 oz.	**$14.68**
DCT-2	Converts 12 VDC to 250 VDC at 275 DCMA or 500 VDC at 165 DCMA	C	2¼" x 2 11/16" x 2 11/16"	1.5 lbs.	**16.63**

MINIATURE HIGH FIDELITY AUDIO TRANSFORMERS

Chicago-Stancor Tinytrans are miniature transformers made with nickel steel laminations. They have an exceptional frequency response for units of this size; ±1 db. 30-15,000 cps, Maximum level 0 db. Write for Bulletin 463 showing frequency response curves on these transformers.

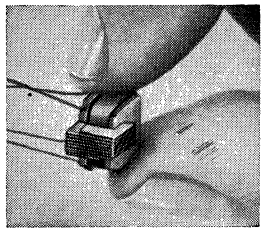
These units are sealed and potted in ⅞" square, anodized aluminum cases with phenolic terminal boards. Total height, including terminals, is 1¼". The case has two 2-56 threaded inserts, 11/16" centers, for easy chassis mounting. The entire transformer weighs only 1.3 ounces.

Part No.	Application	Primary Impedance	Secondary Impedance	Net Price
TT-11	Mic., pickup or line to single grid	50, 200/250, 500/600	50,000	**$13.43**
TT-12	Mic., pickup or line to push-pull grids	50, 200/250, 500/600	50,000	**14.27**
TT-13	Dynamic mic. to single grid	7.5/30	50,000	**8.52**
TT-14	Single plate to single grid	15,000* (No DC in primary	60,000	**8.03**

PUBLIC ADDRESS RANGE TRANSFORMERS

Frequency Response within ±1 db, 50 to 10,000 Cycles

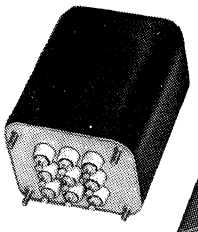
Driver and output transformers in this CHICAGO series are designed for three general power levels to fit a wide range of application. Up-to-date secondary impedances match 600 or 150-ohm lines, 16, 8, and 4-ohm speakers. (16/8/4-ohm taps also suitable for 20/6/3.2-ohm speakers.) Output transformers have tertiary windings for 10% inverse feedback that minimizes distortion and provides extra audio watts without loss of fidelity.



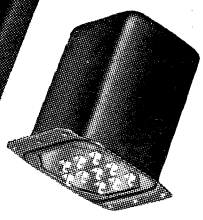
TYPE UM

DRIVERS H-Type—TF4RX12YY (Cat. No. PHD), S-Type (Cat. No. PSD) and C-Type (Cat. No. PCD) Mountings

Application	Primary Impedance	Max. D.C. Pri.	Ratio, Pri. to ½ Sec.	Case Size	Wt. Lbs.	Cat. No.	Net Price
P-P Plates to P-P Grids	20,000 ohms (Pri. CT)	10 ma.	3:1	14	2¼	**PHD-10**	$16.13
						PSD-10	15.15
						PCD-10	12.38
P-P Plates to P-P Grids	20,000 ohms (Pri. CT)	25 ma.	3:1	15	2¼	**PHD-25**	15.25
						PSD-25	15.68
						PCD-25	7.97
P-P Plates to P-P Grids	5,000/10,000 ohms (Pri. CT)	100 ma.	5:1	18	4½	**PHD-100**	29.55



YY CASE
MOUNTING

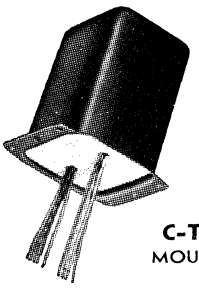


S-TYPE
MOUNTING

OUTPUTS H-Type—TF4RX13YY (Cat. No. PHO), S-Type (Cat. No. PSO) and (Cat. No. PCO) Mountings

Application	Impedances	Typical Output Tubes	Class	Max. Audio Watts	Max. D.C. Pri. CT	Case Size Wt.	Cat. No.	Net Price
P-P Plates to Line or Voice Coil	Primary: 5,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	6B4G, 6L6, 6V6, etc.	A_1 AB	20	120 ma.	20: 6½ lbs.	**PHO-80**	$37.73
							PSO-80	31.62
							PCO-80	19.13
P-P Plates to Line or Voice Coil	Primary: 10,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	6V6, 6F6, 6K6, etc.	AB, AB_1	15	200 ma.	19: 5 lbs.	**PSO-150**	21.67
							PCO-150	13.43
P-P Plates to Line or Voice Coil	Primary: 6,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	Two 6L6's, Four 6V6's, or similar	B, AB_2†	30	250 ma.	22: 9 lbs.	**PSO-200**	27.40
							PCO-200	13.75

*Has tertiary winding to provide 10% inverse feedback.
†For low distortion, use fixed bias.



See Page 1422 For Mounting Dimensions

C-TYPE
MOUNTING

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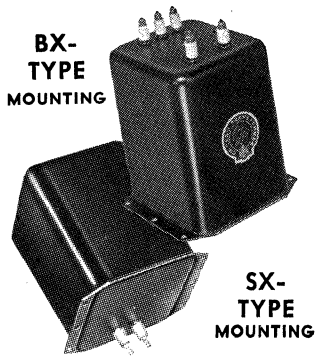
Net

CHICAGO

NEW EQUIPMENT
TRANSFORMERS AND REACTORS
for Broadcast, Amateur and Industrial Application

STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

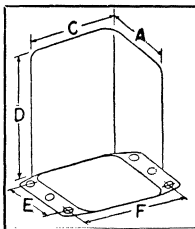


LARGE CAPACITY TRANSFORMERS AND REACTORS
For Broadcast, Communications and Industrial Use

DRIVER TRANSFORMERS

In:	Recommended Application: Tubes:	Ratio Pri./½ Sec.	Mtg. Type	Case Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	From two 2A3's, 6B4's, or similar P-P Plates to Class B 838's, 805's, 203-A's, etc.	3.5:1	B*	20	6½	**BD-1**	$31.42
1-KW Transmitter	From four 2A3's, 6B4's, or similar P-P Plates to two 833-A's or similar P-P Grids	3:1	†	24	12¼	**BD-2**	34.80

†Similar to SX-Type mounting, but with screw terminals on a terminal board.
*B-Type mounting, but with screw terminals.



CASE DIMENSIONS FOR BX-, S- & SX-TYPE MOUNTINGS

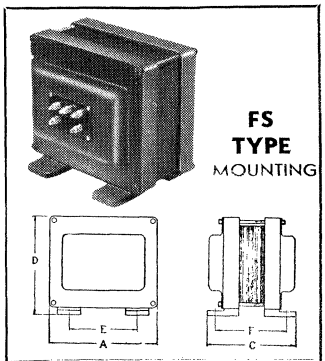
Case Size	Dimensions in Inches A	C	D	E	F
22	4 1/16	4 1/8	5 5/16	2 1/2	4 3/4
24	5 5/16	4 15/16	6 1/16	3 1/2	5 3/8
26	6 1/8	5 1/4	7 1/16	4 1/4	6
28	7 1/16	6 1/8	8 1/16	5	7

MODULATION TRANSFORMERS

Recommended Application In:	With:	Impedances (Pri. Plate to Plate)	Modulator Tubes	Mtg. Type	Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	Driver Transformer #BD-1	Pri: 7500 ohms CT Sec: 5000 ohms	203-A, 838 805, etc.	BX	26	25	**BM-1**	$56.58

MODULATION REACTORS

Recommended Application: In:	With:	Inductance	D.C. Ma.	Mtg. Type	Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	Mod. Transformer #BM-1	65 hy.	250	BX	28	4½	**BR-1**	$ 79.50



Size	Dimensions in Inches A	D	E	F	C
60	7 1/2	7	4 3/4	5 1/2	6 5/16
61	7 1/2	7	4 3/4	5 5/16	6 7/8
62	7 1/2	7	4 3/4	6 1/4	7 1/8
63	7 1/2	7	4 3/4	6 11/16	7 1/2
64	7 15/16	10	8 5/8	6	7 3/4
65	7 1/2	7	4 3/4	6 7/8	7 13/16
71	8 7/8	8 1/2	5 1/2	6 1/2	8 1/8
81	11 1/2	10 1/2	7 1/2	8 1/4	10 1/4
84	11 1/2	10 1/2	7 1/2	11 13/16	13 13/16
90	13 13/16	12 3/4	9	8 7/8	10 3/8

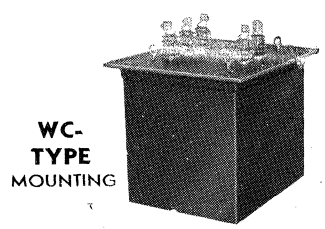
PLATE TRANSFORMERS

Primary: Volts	Max. VA.	Secondary: A.C. Load Volts	D.C. Volts after Filter	D.C. Ma.	Mtg. Size	Mtg. Type	Wt. Lbs.	Cat. No.	Net Price
115-230	185	675-0-675 575-0-575	500 400	250	22	S	12	**P-45**	$26.62
115-230	250	900-0-900 735-0-735	750 600	250	22	S	13½	**P-67**	26.70
115-230	310	1150-0-1150 870-0-870	1000 750	250	60	FS	37	**P-107**	95.23
115-230	360	1425-0-1425* 600-0-600	1250 400	150 200	24	S	26	**P-1240**	41.35
115-230	550	1710-0-1710 1430-0-1430	1500 1250	300	63	FS	43	**P-1512**	105.77
115-230	915	2820-0-2820 2230-0-2260	2500 2000	300	71	FS	71	**P-2520**	126.95
115-230	1600	2900-0-2900 2320-0-2320	2600 2100	500	64	FS	95	**P-2126**	177.42
115-230	3050	4600-0-4600 4050-0-4050 3400-0-3400	4000 3500 3000	600	90	FS	150	**P-4353**	363.82

*Both secondaries may be rectified simultaneously.

FILTER REACTORS

Inductance in Henrys	Max. D.C. Ma.	D.C. Resistance, Ohms	Insulation Test Volts	Mtg. Type	Mtg. Size	Wt. Lbs.	Cat. No.	Net Price
10	500	40	9,000	FS	62	35	**R-105**	$69.38
10	300	40	7,500	SX	26	22	**R-103**	40.38
6	700	35	10,000	FS	61	35	**R-67**	79.03
6	500	35	9,000	FS	60	35	**R-65**	65.80
6	300	35	7,500	SX	24	16½	**R-63**	38.18



Overall Case Dimensions:
H—31½" W—26½" D—23½"

Splatter Chokes for High Level "Clipper" Filters

Can withstand high peak voltages. Has tapped windings to cover an inductance from .02 to 1.5 henries at relatively constant Q. Eliminates splatter, caused by heavy modulation; limits band width to 3,000 cycles, effectively increases "get through" ability of phone signals, and prevents negative peak clipping.

Type	D.C. Ma.	Insulation Volts	Inductance in Henries	Mounting Type	Mounting Size	Net Price
SR-300	300	7,500	.02 to 1.5 Hy	BX	22	$38.28
SR-500	500	10,000	.02 to 1.5 Hy	BX	24	42.42

Low Pass Filter No. LPF-1

For attenuating frequencies above 3,000 cycles in low level speech amplifiers. Operates out of a 15,000 ohm source, *e.g.*, the plate of 6C5, 6J5, etc. when its 60,000 ohm secondary is connected to an equal impedance output. Operates at signal levels up to —8 db. Complete with operating instructions. S type mtg. Case size 13. (See pg. 1422).

Net Price.....$34.07

Net

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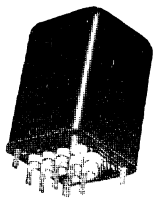
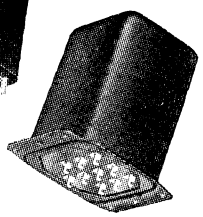
CHICAGO

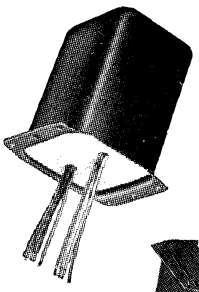
NEW EQUIPMENT
AUDIO TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



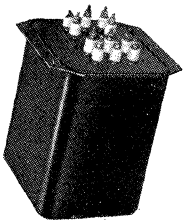
YY CASE



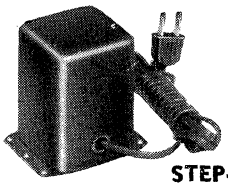
S-TYPE MOUNTING



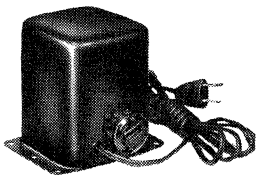
C-TYPE MOUNTING



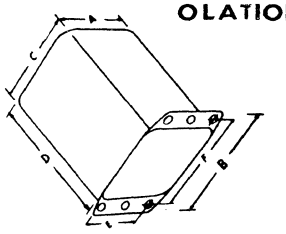
BX MOUNTING



STEP-DOWN



OLATION



COMMUNICATIONS RANGE AUDIO TRANSFORMERS

Frequency Response within ±1 db, 200 to 3,500 Cycles

These transformers are specifically designed for use in receiving and transmitting equipment such as amateur, police, railroad, and aircraft types, where clear voice reproduction is desired.

INPUTS H-Type-TF4RX--YY† (Cat. No. CIH), S-Type (Cat. No. CIS) and C-Type (Cat. No. CIC) Mountings*

Application	Impedances: Primary—Secondary	Case Size	Wt. Lbs.	Cat. No.	Family	Net Price
Low Level Line to Single or Push-Pull Grids	Pri: 600/150 ohms CT *Sec: 100,000 ohms CT	9	¾	**CIH-1** **CIS-1** **CIC-1**	10 — —	$22.38 20.32 16.70
Low Level S. B. or D. B. Mike to Sgl. or P-P Grids	Pri: 125/50 ohms @ 80 ma. Sec. 125,000 ohms CT	9	¾	**CIH-2** **CIS-2** **CIC-2**	11 — —	11.66 10.72 7.43

**Split and balanced windings: may be used singly or push-pull. †Refer to family.

OUTPUTS H-Type-TF4RX13YY (Cat. No. COH), S-Type (Cat. No. COS) and C-Type (Cat. No. COC) Mountings*

Application	Impedances: Pri.—Sec.	Typical Audio Tubes	Pri. Class	Max. Case Watts	Max. Pri. D.C.	Case Size	Wt. Lbs.	Cat. No	Net Price
Sgl. P. to Line or Speaker	Pri.: 5000 ohms Sec. ohms: 600/150/16/8/4	6L6, 6V6, 25A6	A	5	55 ma.	14	2¼	**COH-1** **COS-1** **COC-1**	$15.20 13.72 8.45
Sgl. Pl. to Line or Speaker	Pri: 8000 ohms Sec. ohms: 600/150/16/8/4	6F6, 6V6, 6K6	A	5	55 ma.	14	2¼	**COH-2** **COS-2** **COC-2**	16.87 12.50 10.12

DRIVER H-Type (Cat. No. CDH), S-Type (Cat. No. CDS) and C-Type (Cat. No. CDC) Mountings*

Application	Primary Impedance	Max. D.C. Pri. CT	Ratio, Pri. to ½ Sec.	Case Size	Wt. Lbs.	Cat. No.	Net Price
P-P Plates (2A3's, etc.) to P-P Grids	5,000 ohms (Pri. CT)	100 ma.	3:1	17	3½	**CDS-1** **CDC-1**	$17.10 5.56

*Mounting Dimensions on Page 1428.

MODULATION TRANSFORMERS—Class B Plates to Class C Load

Catalog No.	Typical Mod. Tubes	Impedances Primary-Secondary	D.C Ma. Pri.	D.C Ma. Sec.	Power Level	Mounting Type	Mounting Size	Wt., Lbs.	Net Price
CMS-1	203A's, 805's, 75TL's, 203Z's	Pri: 9000/6700 ohms CT Sec: 8000/6000/4000 ohms	350	350	250-350 watts	X	26	22	$66.07
CMS-3	810's, 822's, 4-250A's, etc.	Pri: 18,000/12,000 ohms CT Sec: 6250 ohms	500	500	500.750 watts	FS†	64†	43	116.62

†Mounting Dimensions and Illustration on Page 1360.

STEP-DOWN TRANSFORMERS—Primary, 50/60 cycles

CHICAGO step-down autotransformers solve the problem of operating standard 117-volt radios, amplifiers, and various electrical appliances from 220-volt power sources. They are particularly well adapted to use in Central and South American countries, where 220-volt lines are frequently found, and where the **Sealed-in-Steel** construction protects them against corrosion caused by excessive humidity. Input side is equipped with 8-foot, rubber-covered cord and plug. Output side has standard female receptacle.

Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	Net Price
SD-50	220-250	110-125	50 watts	16	2¾	$ 6.08
SD-100	220-250	110-125	100 watts	20	4¼	7.62
SD-150	220-250	110-125	150 watts	22	7	9.65
SD-250	220-250	110-125	250 watts	22	8¾	11.45
SD-500	220-250	110-125	500 watts	24	14½	17.28
SD-1000	220-250	110-125	1000 watts	26	22½	24.53

ISOLATION TRANSFORMERS—Primary, 50/60 cycles

A rotary switch on each CHICAGO isolation transformer adjusts to either of three primary voltages, 125/115/105 volts. With the unit operating on a 115-volt line, the three switch positions also provide varying secondary voltages, 105/115/125 volts isolated from line.

Eight-foot, rubber-covered cord and plug on primary, standard female receptacle on secondary.

Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	Net Price
IS-50	105/115/125	125/115/105*	50 watts	21	5	$11.42
IS-100	105/115/125	125/115/105*	100 watts	22	8½	14.97
IS-150	105/115/125	125/115/105*	150 watts	24	12½	17.62
IS-250	105/115/125	125/115/105*	250 watts	24	18¼	23.87

*With 115-volt primary.

DIMENSIONS for S, SX, STEP-DOWN and ISOLATION TRANSFORMERS

Case Size	Dimensions in Inches A	B	C	D	E	F
16	2 7/8	3 1/2	2 11/16	3 1/2	2	3 1/8
20	3 11/16	4 7/16	3 5/16	4 5/16	2 3/4	3 7/8
21	3 11/16	4 7/16	3 5/16	4 11/16	2 3/4	3 7/8
22	4 9/16	5 1/4	4 1/8	5 5/16	2 1/2	4 3/4
24	5 5/16	5 7/8	4 13/16	6 1/16	3 1/2	5 3/8
26	6 1/8	6 1/2	5 1/4	7 1/16	4 1/4	6

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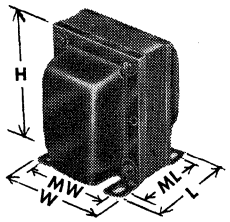
STERLING—THE MARK OF QUALITY

STERLING TRANSFORMER CORPORATION

Brooklyn 11, N. Y.

TRANSFORMERS

FOR ELECTRONICALLY REGULATED POWER SUPPLIES



- ONE UNIT PROVIDES PLATE AND FILAMENT POWER FOR ENTIRE SUPPLY.
- RATINGS BASED ON D.C. OUTPUT OF SUPPLY.
- APPLICATION BULLETIN WITH EACH UNIT.

2K SERIES

PLATE AND FILAMENT TRANSFORMERS

Cat. No.	Supply Rating	High Voltage Secondary AC Volts	DC MA	Rectifier Fil. V	Rectifier Fil. A	Pass Tube Fil. V	Pass Tube Fil. A	Regulator Fil. V	Regulator Fil. A	Auxiliary Fil. V	Auxiliary Fil. A	Overall L	Overall W	Overall H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Weight Lbs.	List Price
2K6	300/250VDC 400MADC	550-480-0 480-550V	440	Use with 2K20				Use with 2K20				6	4 5/8	5 1/2	4 1/2	3 1/2	#10	19	$30.80
2K8	300/250VDC 300MADC	540-475-0 475-540V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	6 1/4	4 5/8	5 1/2	4 3/4	3 1/2	#10	20	36.03
2K10	300/250VDC 200MADC	500-440-0 440-500V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	5	4 5/8	5 1/2	3 1/2	3 1/2	#10	14	29.43
2K12	300/250VDC 100MADC	540-465-0 465-540V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	25.30
2K13	150/100VDC 400MADC	370-310-0 310-370V	440	Use with 2K20				Use with 2K20				4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	25.30
2K14	150/100VDC 300MADC	375-320-0 320-375V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	16	29.70
2K15	150/100VDC 200MADC	355-300-0 300-355V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	25.30
2K16	150/100VDC 100MADC	350-310-0 310-350V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4 3/8	3 7/8	4 5/8	3 5/16	3	#8	10	22.00
2K17	300/250VDC 600MDC	565-500-0 500-565V	640	Use with 2K20				Use with 2K20				6 1/4	4 1/2	6	4 1/2	3 7/16	#10	22	45.32
2K18	300/250VDC 800MADC	580-520-0 520-580V	840	Use with 2K21				Use with 2K21				6	6 1/8	7 1/4	4	4 23/32	1/4	33	59.40
2K19	300/250VDC 1.0 Amp.	590-525-0 525-590V	1040	Use with 2K21				Use with 2K21				7 1/2	6 1/8	7 1/4	5 1/2	4 23/32	1/4	48	83.60
2K20	(Filament Transformer for 400MA and 600MA Supplies)			5	6	6.3	6	6.3	1.2	6.3CT	6	3 7/8	3 7/8	4 5/8	2 13/16	3	#8	7.5	18.70
2K21	(Filament Transformer for 800MA and 1 Amp. Supplies)			5	10	6.3	10	6.3	2	6.3CT	10	4 7/8	3 7/8	4 5/8	3 13/16	3	#8	12	25.85

Standard Color Code

Primary: Black
High Voltage: Center Tap: Red-Yellow
High Voltage: High Tap: Red
High Voltage: Low Tap: Blue
Rectifier Filaments: Yellow
Pass Tube Filaments: Brown
Regulator Filaments: Green
Auxiliary Filaments: Slate

NOTES

1. All Primaries 115 Volts 50/60 Cps.
2. Ratings Based On Capacitor Input Filters
3. Dielectric Test Voltages: Primaries: 1500 V. RMS All Secondaries: 2500 V. RMS

CHOKES

Cat. No.	Inductance	Rated Current MADC	DC Resist.	Dielectric Test Volt.	Overall L	Overall W	Overall H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Weight Lbs.	List Price
2K5	4 hys. min.	440	50	2500V RMS	3 3/4	3 9/16	4 1/4	2 5/8	2 3/4	#8	6	$12.76
2K7	4 hys. min.	340	60	2500V RMS	3 1/8	2 15/16	3 1/2	2	2 1/4	#8	3.3	8.58
2K9	4 hys. min.	240	90	2500V RMS	2 5/8	2 5/8	3 1/8	1 11/16	2	#8	2.3	6.49
2K11	4 hys. min.	140	185	2500V RMS	3 11/16	2 3/16	2 5/16	3 1/8	Chan.	#8	1.5	4.40
2K22	4 hys. min.	.64A	52	2500V RMS	4 3/4	4 5/8	5 1/2	3 1/4	3 1/2	#10	12	22.00
2K23	4 hys. min.	.84A	25	2500V RMS	5 1/2	4 5/8	5 1/2	4	3 1/2	#10	17	28.27
2K24	4 hys. min.	1.04A	20	2500V RMS	7	4 5/8	5 1/2	5 1/2	3 1/2	#10	25	39.27

SPECIALS

Cat. No.	Secondary Volts	Secondary Amperes	RMS Volts Insulation	Primary Volts	Overall Dim. L	Overall Dim. W	Overall Dim. H	Mtg. Dim. ML	Mtg. Dim. MW	Rec. Mtg. Screw	Weight Lbs.	List Price
6K1	6.3	4	1000	115/230	3 11/16	2 1/2	2 5/16	3 1/8	Chan.	8	1 3/4	$ 9.35
6K2	6.3	12	1500	115/230	3 3/4	3 1/4	4	2 7/16	2 1/2	8	6	17.16
6K3	6.3 CT	16	3000	115	3 7/8	3 1/4	4	2 9/16	2 1/2	8	6 1/2	18.26
6K4	5 6.3 CT 6.3 CT	3 4 4	2000 2000 2000	115/230	3 1/2	3 1/4	4	1 3/16	2 1/2	8	5	18.15
6K5	6.3 6.3	1.5 1.5	1000 1000	115/230	4	2 1/2	2 5/8	3 9/16	Chan.	8	2 1/4	10.23
6K6	800 CT	.036 DC	4000	115/230	3 1/2	2 5/8	3 3/16	2 7/16	2	8	4	11.55
6K7	28 CT	7 DC	1000	115	4 1/4	3 1/4	4	2 15/16	2 1/2	8	8	17.38
6K8	660 CT 5	.25 DC 4.5	1500 1500	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	21.12
6K9	1130 CT 5	.062 DC 2	3300 3300	115/230	3 7/8	3 7/8	4 5/8	2 13/16	3	8	8	21.12

Prices subject to change without notice

Trade Discount Applies to List Prices Only

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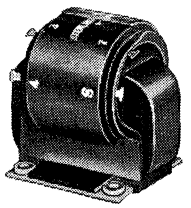
STERLING—THE MARK OF QUALITY

STERLING TRANSFORMER CORPORATION

Brooklyn 11, N. Y.

ENCAPSULATED
400 CPS TRANSFORMERS
CLIPPER SERIES



FOR MINIMUM SIZE AND MINIMUM WEIGHT

- Contour Molded
- Hipersil Cores

FILAMENT

Cat. No.	Secondary Volts	Secondary Amps.	Rms. V Insulation	Primary Volts	Mold Size	Maximum Operating Ambient	List Price
4C1	6.3 CT	.8	1500	115	SM3	100°C	18.15
4C2	6.3 CT	1.2	1500	115	SM2	100°C	18.15
4C3	6.3 CT	6.75	1500	110/115/120	2	100°C	29.15
4C4	6.3 6.3	4.9 2.7	1500 1500	115	3	90°C	26.07
4C5	6.3 CT	7.2	1500	115	35	120°C	30.25
4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	80°C	29.48
4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	100°C	35.09
4C8	6.3 6.3 6.3	13.7 2.93 0.3	1500 1500 1500	115	4	90°C	35.09
4C9	6.3 CT	12.3	1500	115	5	100°C	32.45
4C10	20 CT	0.6	1500	115	SM1	100°C	23.10
4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500 1500 1500	115	3	100°C	32.45
4C26	6.3 CT	2	1500	115	SM1	100°C	23.10
4C27	6.3 CT	3	1500	115	1A	100°C	23.98
4C28	6.3 CT	5	1500	115	2	100°C	24.86
4C29	5.0 CT	3	2500	115	SM1	100°C	23.10
4C30	5.0 CT	6	2500	115	2	100°C	24.86

POWER

4C12	14.1	3	1500	115	3	100°C	24.75
4C13	21	9	1500	115	4	65°C	27.50
4C14	26	0.5	1500	115	SM1	55°C	22.55
4C15	26 CT	1.5	1500	115	3	65°C	23.32
4C16	28 CT 6.3 CT	0.75 7A	1500 1500	115	2	65°C	34.98
4C17	52 CT	.192	1500	115	SM1	100°C	25.03
4C18	90 CT	4.5	1500	115	9	100°C	47.30
4C19	115	.05	1500	115	SM2	100°C	18.48
4C20	105/115/125	0.4	1500	105/115/125	2	90°C	26.73
4C21	115	2.83	1500	115	8	100°C	38.50
4C22	334	.025	1500	115	SM1	120°C	21.23
4C23	26 CT	3	1500	115	4	100°C	28.05
4C24	26 CT	5	1500	115	6	100°C	32.34
4C25	52 CT	2	1500	115	5	100°C	30.91

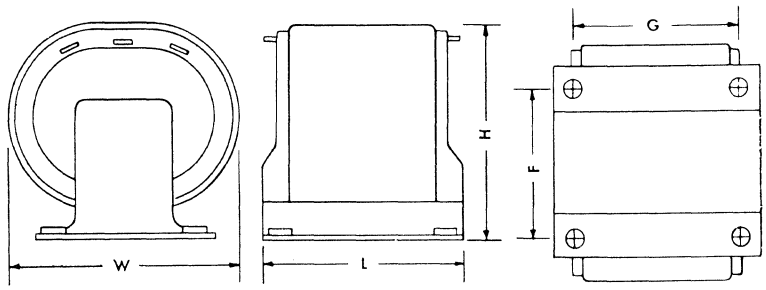
MOLD NO.	OVERALL DIMENSIONS			MTG. DIMENSIONS		APP. WT. (LBS.)	MTG. METH.
	L	W	H	F	G		
SM3	1	1 -1/4	1-3/16	1	Note 1	0.06	Note 1
SM2	1 -1/2	1 -1/4	1-11/16	1	Note 1	0.10	Note 1
SM1	1 -1/2	1 -1/2	1-11/16	1 -1/8	Note 1	0.16	Note 1
1	1-13/16	1 -7/8	1-13/16	1 -1/4	1-7/16	0.25	Note 2
1A	1-11/16	1-17/32	1-13/16	1-5/32	1 -1/8	0.25	Note 2
2	2	1-15/16	2 -1/8	1-9/32	1 -1/4	0.40	Note 2
3	2-5/16	1-13/16	2 -1/8	1-9/32	1-7/16	0.45	Note 2
35	2-1/16	2 -3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2
4	2-5/16	2 -3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2
5	2 -3/4	2 -3/8	2 -7/8	1-17/32	2-3/16	1.20	Note 2
6	2 -3/4	2 -5/8	3 -1/8	1-17/32	2-3/16	1.50	Note 2
7	3	2 -7/8	3 -3/8	1-25/32	2 -1/2	2.00	Note 2
8	3 -3/8	2 -7/8	3 -3/8	1-25/32	2 -1/2	2.50	Note 2
83	3 -3/4	3 -1/4	3 -3/8	2 -1/4	3	3.25	Note 3
86	3 -3/4	3 -3/4	3 -3/8	2 -3/4	3 -1/8	4.25	Note 3
9	4-1/16	3 -3/8	3 -7/8	2-3/16	3 -1/2	5.00	Note 3
10	4 -1/2	3-15/16	3-15/16	2 -3/4	3 -1/8	6.00	Note 3

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages: PRIMARIES 1000 Volts RMS
  SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



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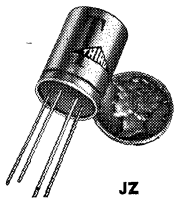
TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

MINIATURES

†† JAF SERIES — Hermetically Sealed

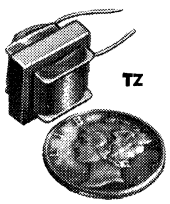
Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	** MTG.
JAF-1	600/250/50	50000	0	60-15000	AF
JAF-2	600/250/50	250000	0	150-7000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5	30/12/4	50000	0	60-12000	AF
JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	60-15000	AF
JAF-13	15000	95000 CT.	10	350-7000	AF
JAF-14	200	½ megohm	0	350-5000	AF
JAF-15	15000	1 megohm	10	350-5000	AF
JAF-21	15000	600/250/50	10	60-15,000	AF
JAF-22	15000	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
JAF-31	600/250/50	600/250/50	10	60-15000	AF
JAF-33	5000 CT.	5000 CT.	10	60-15000	AF
JAF-101	50 h.-.75 Ma.				AF



JZ

SUB-MINIATURE AUDIO — Hermetically Sealed

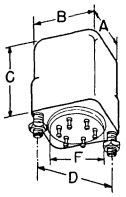
Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	** Case
JZ-1	600/250/50	60000	350	4100	JZ
JZ-5	30/12/4	50000	11.5	3800	JZ
JZ-7	30/12/4	1000	5	480	JZ
JZ-13	15000 (1 Ma.)	135000 CT.	985	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
JZ-25	10000 (1 Ma.)	200	1500	120	JZ
JZ-26	1000 (5 Ma.)	50	355	20	JZ



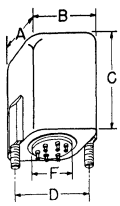
TZ

SUB-MINIATURE AUDIO — Open Frame

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.
TZ-1	600/250/50	60000	350	4100
TZ-5	30/12/14	50000	11.5	3800
TZ-7	30/12/4	1000	5	480
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350
TZ-25	10000 (1 Ma.)	200	1500	120
TZ-26	1000 (5 Ma.)	50	355	20
TZ-28	600	50	95	11
T-41X	1000 (10 Ma.)	200 CT.	430	130
T-42X	9800 (2 Ma.)	16	855	1.7
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8
TY-47X	2000 CT.	16/8/4	260	4



AF
AJ

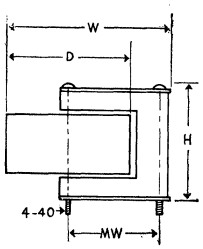


AG
AH

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

Type No.	D.C. Volts Out of Rect.	D.C. Ma. Max.	Dimensions—Inches H	W	D	MW
*TY-68S	250	65	1-3/4	1-3/4	1-11/32	1-1/2
*TY-69S	300	100	1-7/8	2-3/8	1-7/8	1-1/2
*TY-70S	325	150	2	2-3/8	2-7/16	1-1/2
*TY-71S	375	200	2	2-3/8	2-7/16	1-1/2
*TY-74S	600	200	2	4-1/8	3	3-3/4

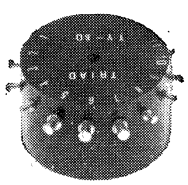
*Discontinued items. Available until supply exhausted.



TY-S

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out Of Rectifier	D.C. Ma. Max.	Dimension—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1¾	11/16	.35
TY-79	12.6	300/150	200	1¾	1	.35
TY-80	12.6	325/162.5	150	1¾	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
●TY-83	12.6	500/250	250	2¾	1⅜	.85
TY-84	12.6	600/300	200	2¾	1⅜	1.00
TY-88	28	250/125	80	1 5/16	5/16	.25
TY-89	28	300/150	100	1¾	11/16	.35
TY-90	28	325/162.5	200	1¾	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
●TY-93	28	500/250	250	2¾	1⅜	.85
TY-94	28	600/300	200	2¾	1⅜	1.00
TY-99	6.3	300/150	100	1¾	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2¾	1⅜	1.00
TY-102	6.3	450/225	150	2¾	1⅜	1.00



TY-MOLDED

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
●TY-23X	50000	.5	500 CT.	100 MW
●TY-24X	50000	.5	3000 CT.	200 MW
●TY-25X	100000	.5	200 CT.	200 MW
●TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
●TY-29X	24 CT.	500	8/4	8W
●TY-30X	100 CT.	100	8/4	2W
●TY-31X	200 CT.	60	8/4	2W
●TY-32X	200 CT.	2	2000 CT.	200 MW
●TY-33X	400 CT.	5	16/8/4	200 MW
●TY-34X	400 CT.	5	2000 CT.	200 MW
●TY-35X	500 CT.	2	150 CT.	100 MW
●TY-36X	2000	2	1500 CT.	200 MW
●TY-37X	2000 CT.	4	8000 CT.	200 MW
●TY-38X	3000 CT.	4	1000 CT.	200 MW
●TY-39X	4000 CT.	4	16/8/4	200 MW
●TY-40X	5000	1	200 CT.	100 MW
●TY-41X	16000	1	4000	100 MW
●TY-42X	20000	.5	8/4	100 MW
●TY-43X	20000	.5	800 CT.	100 MW
TY-44X	1000	10	16/8/4	200 MW
TY-45X	500 CT.	5	16/8/4	200 MW
TY-46X	100	100	1000 CT.	250 MW
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5W
TY-49X	500 CT.	12	5000 CT.	300 MW
TY-50X	125000		2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	50 MW
TY-52X	20000 CT.	1	2000 CT.	100 MW
TY-53X	200 CT.	10	400 CT.	.6W
TY-54X	15000	1.5	200 CT.	100 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	50 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000		1000	—10 DBM
TY-61X	100	100	100 CT.	.5W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	550	16/8	5W
TY-64X	32 CT.	575	16/8/4	10W
TY-65Z	32 CT.	575	6K/4K/3K	10W
TY-66A	6 CT.	5A	6K/4K/3K	40W
TY-67A	6 CT.	5A	16/8/4	40W

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X	600/250/50	50000	0	60-15000
T-2X	600/250/50	250000	0	100-5000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X	30/12/4	50000	0	60-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000	95000 CT.	10	350-7000
T-20X	15000	600/250/50	10	60-15000
T-21X	30000	50	10	60-15000
T-22X	15000	600/250/50	10	350-7000
T-23X	20000 CT.	600/250/50	10	60-15000
T-31X	600/250/50	600/250/50	10	60-15000
T-33X	5000 CT.	5000 CT.	10	60-15000
T-101X	50 henries @ .75 Ma.			

See Case Chart Page 1433.

††Low frequency loss will result from DC in windings other than where specified.

See Triad Price List on Pages 1444, 1445

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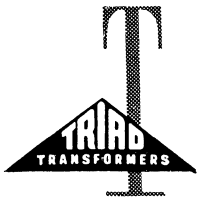
DIVISION OF LITTON INDUSTRIES



†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	50-15000	JOA
JO-2	600/250/50	250000	0	10-15000	JOA
JO-3	600/250/50	60000 CT.	0	50-15000	JOA
JO-5	30/12/4	50000	0	50-12000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 Ct.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	100-7000	JOB
JO-21	15000	600/250/50	10	50-15000	JOB
JO-22	15000-3 Ma.	600/250/50	10	300-7000	JOB
JO-23	20000 CT.	600/250/50	10	50-15000	JOB
JO-31	600/250/50	600/250/50	10	50-15000	JOB
JO-101	50 h.-2 Ma.				JOB

††Low frequency loss will result from DC in windings other than where specified.

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary		
TY-75A	12v	115v	60cps	120 watts
TY-76A	12v	115v	60cps	60 watts
TY-468	28v	115v	400cps	60 watts

POWER COMPONENTS

HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers
Primary 115V — 50/60 cycle

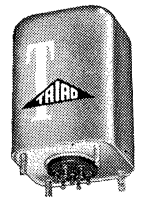
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	F Dim. (Min.) Inches	Case
HSM-200	120	100	6.3 CT.-1.6A.	1⅜	FA
†HSM-201	500 CT.	20	6.3 CT.-2A.	1⅜	GA
HSM-203	600 CT.	50	6.3 CT.-2.5A. 5 -2A.	1⅜	JB
HSM-205	700 CT.	70	6.3 CT.-3A. 5 -3A.	1⅜	JA
HSM-207	700 CT.	120	6.3 CT.-5A. 5 -3A.	1⅜	KA
HSM-241	700 CT.- 70V. bias tap.	150	6.3 CT.-6A. 6.3-V. -2A. 5 -3A.	1⅜	LA
HSM-212	1000/ 800 CT.	150 (ch. in.) 117 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3-V-4A.	1⅜	LA
HSM-245	800/ 700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3-V. -4A. 5 -6A.	1⅜	MA
HSM-216	1000/ 800 CT.	200 (ch. in.) 157 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1⅜	MA
HS-247	800/ 700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3-V. -4A. 5 -6A.	1⅜	GP-15
HSM-218	1000/ 800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A	1⅜	GP-15
HSM-219	(115/ 230 pri.) 760/ 1600 CT.	40/230 (ch. input)		Spcl.	GP-15

† Low flux density—for pre-amplifier service. All types electrostatically shielded.
GP-15 dimens. 4¾" x 5⅞" x 6⅝" high. Wt. approx. 22 lbs. Mtg. centers 3¾" x 4⅞".

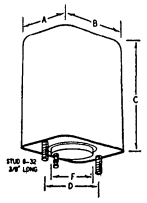
Combined PLATE and FILAMENT Transformers
Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	Insul. Test Volt.	F Dim. (Min.) Inches	Case
HS-402	475 CT.	20	6.3 CT.-1.5A.	1500	23/32	AJ
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	⅞	EB
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1⅜	GA
HS-407	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1⅜	JB
HS-409	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1⅜	HA
HS-413	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1⅜	JA
HS-415	800/ 600 CT.	200	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1⅜	KB
HS-417	800/ 600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1⅜	LA

* Tapped for 5 volt rectifier use. All types electrostatically shielded.



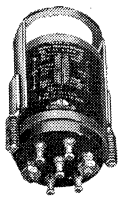
HS Series



AUDIO INTERSTAGE Transformers

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Max. Level Pri. Volts	Shld'g	Case
HS-23	15000	1:2.7	20-20000	15	P-3	GP-4
HS-25	15000	1:2.72 overall	20-20000	25	P-1	GP-4
HS-35	15000	1:2.72 overall	20-20000	20	P-1	GP-2
HS-27	20000/ 5000	1:1.72 overall	20-20000	50	P-1	GP-4
HS-29	20000/ 5000	1:2 overall	20-20000	20	P-5	GP-4
HSM-31	20000/ 5000	1:1 or 2:1	20-20000	240		FA
HS-32	15000 (6 Ma.)	1:2 overall	20-15000	20	P-1	GP-5

Low frequency loss will result from use of unbalanced DC in windings other than where specified.

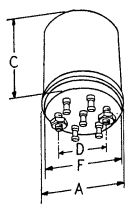

JO Series

See table below for shielding data.

SHIELDING

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings—95 db. reduction in pickup.

	AF	AG	AH	AJ	JZ*
A	3/4	1	1-5/16	1-5/8	9/16 dia.
B	3/4	1	1-5/16	1-5/8	Round
*†Bw	1-3/64	1-3/32	1-11/32		
C	1-1/8	1-3/8	1-3/4	2-3/8	25/32
D	*27/32	*1-1/32	*1-11/32	*1-5/8	
F	5/8	3/4	7/8	7/8	
I	4/40	6/32	6/32	6/32	
Unit	1-1/4	2-1/2	5-1/4	11	.5
Wt.	oz.	oz.	oz.	oz.	oz.



	GP-1	GP-2	GP-3	GP-4	GP-5
A	⅞	1 1/16	1¼	1 7/16	1⅝
B	1 1/16	1¼	1½	1¾	2
Bw	1⅛	1 1/32	1 5/16		
C	1 1/16	2¼	2⅜	2½	2¾
D	1 3/32	1 5/16	1 15/32	1½	1½
F	¾	¾	5/16	5/16	5/16
Wt.	3 oz.	5½ oz.	8 oz.	12 oz.	17 oz.

	JOA	JOB
A	15/16 dia.	15/16 dia.
B	Round	Round
C	1 13/32	1 25/32
D	9/16	9/16
F	⅞	⅞
Unit Wt.	2 oz.	2½ oz.

	AH	AJ	EA	EB	FA	FB	GA		GB	HA	HB	JA	JB	KA	KB		LA	LB	MA	MB	NA	NB
A	1 5/16	1 5/8	1 13/16	1 13/16	2 1/16	2 1/16	2 3/8	A	2 3/8	2 5/8	2 5/8	3 1/16	3 1/16	3 3/8	3 3/8	A	3 11/16	3 11/16	4	4	4 5/16	4 5/16
B	1 5/16	1 5/8	1 15/16	1 15/16	2 5/16	2 5/16	2 3/4	B	2 3/4	3 1/16	3 1/16	3 5/16	3 5/16	3 15/16	3 15/16	B	4 5/16	4 5/16	4 11/16	4 11/16	5 1/16	5 1/16
C	1¾	2 3/8	2¾	2 7/16	3 1/8	2½	3 13/16	C	2 13/16	4¼	3 3/16	4 7/8	3 7/8	5¼	4 5/16	C	5 5/16	4½	6	4 15/16	6 13/16	5½
D	1¼	1 3/16	1 3/8	1 3/8	1 11/16	1 11/16	2 1/8	D	2 1/8	2 13/64	2 13/64	2 5/8	2 5/8	3	3	D	3 5/16	3 5/16	3 11/16	3 11/16	4 1/16	4 1/16
E		1 3/16	1¼	1¼	1 7/16	1 7/16	1¾	E	1¾	1 55/64	1 55/64	2 1/8	2 1/8	2 7/16	2 7/16	E	2 11/16	2 11/16	3	3	3 5/16	3 5/16
G	3/8	3/8	3/8	3/8	3/8	3/8	3/8	G	3/8	3/8	3/8	3/8	3/8	½	½	G	½	½	5/8	5/8	5/8	5/8
I	6-32	6-32	6-32	6-32	6-32	6-32	6-32	I	6-32	8-32	8-32	8-32	8-32	10-32	10-32	I	10-32	10-32	¼-20	¼-20	¼-20	¼-20
Wt. lbs.	4 oz.	9 oz.	1	15 oz.	1¾	1½	2	Wt. lbs.	1¾	2½	2¼	4½	4	7¾	7	Wt. lbs.	9¼	8½	13½	12½	18	16

* Not in conformance with MIL-T-27A.

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See Triad Price List on Pages 1444, 1445

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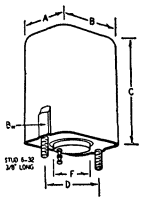
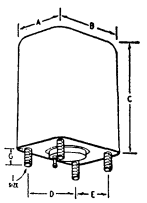
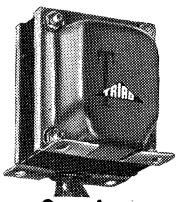


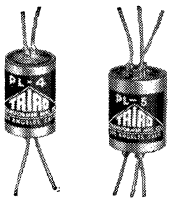
GP 1, 2, 3



MIL-T-27A CASE

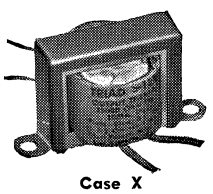


Case A

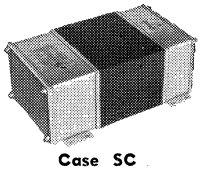


PL-4 PL-5

PL-6



Case X



Case SC

POWER OUTPUT to Line and VC. Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	150-15000	AJ
HS-75	10000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	150-15000	EB
HS-77	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	150-15000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Max. Level DBM	Shld'g	** Case
HS-1	600*/250*/ 150/62.5	1:11.3	20-20000	10	P-5	GP-4
HS-11	Same as above				P-1	GP-2
HS-3	600*/250*/ 150/62.5	1:14 overall	20-20000	10	P-5	GP-5
HS-4	Same as above				P-3	GP-4
HS-14	Same as above				P-1	GP-3
HS-15	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30-20000	20	P-3	GP-5
HS-5	30-50	1:65.7	50-10000	0	P-5	GP-4
HS-8	600*/250*/ 150/62.5	1:14 overall	20-20000	20	P-1	GP-4

*Balanced center tap.

Low frequency loss will result from use of unbalanced DC in windings other than where specified.
(See table on preceding page for shielding data.)

AUDIO LOW LEVEL OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Max. Level DBM	Shld'g	** Case
HS-50	15000	600*/250*/ 150/62.5	20-20000	26	P-3	GP-4
HS-60	15000	600*/250*/ 150/62.5	20-20000	10	P-1	GP-2
HS-61	15000 (5 Ma.)	600*/250*/ 150/6.25	50-15000	20	P-1	GP-5
HS-52	20000/ 5000	600*/250*/ 150/62.5	20-20000	26	P-1	GP-4
HS-54	20000/ 5000	600*/250*/ 150/62.5	20-20000	10	P-5	GP-4
HS-56	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10-30000	20	P-3	GP-4
HS-66	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10-30000	20	P-1	GP-3
HS-58	600*/250*/ 150/62.5	600*/250*/ 150/6.25	20-30000	15	P-3H	GP-5

* Balanced center tap.

Low frequency loss will result from use of unbalanced DC in windings other than where specified.
See table on Page 1433 for shielding data.

POWER COMPONENTS

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
HSM-234	105-115-125	†6.3 CT. 6.3	10 10	2500	KA
HSM-227	105-115-125	†6.3 CT. 6.3	3 3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
HSM-230	105-115-125	24 CT.	0.8	1500	FA
HSM-236	105-115-125	†12.6 CT. 12.6	2 2	2500	JB
HSM-228	105-115-125	†6.3 CT. 6.3	6 6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5 3	2500	JB
HSM-232	105-115-125	2.5 CT.	10	7500	HA
HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500 2500	MA

† Series or parallel connections.
** See case chart page 1433.

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ
HS-427	105-115-125	6.3 CT.	5	1500	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. 6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. 6.3 †6.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. 5 2.5 CT.	10 10 10	2000 7500	HA
HS-443	105-115-125	*12.6 CT. 12.6	0.8 0.8	1500	AJ
HS-442	57.5-99.7-115-120 Single phase.	12.6 CT. 12.6	2 2	1500	EA

Two HS-442's can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected.

* Series or parallel connection.
† 5 volt tap for filament type rectifiers.
** See case chart page 1433.

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
HSM-79	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	50-25000	5	1⅜	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	500/ 250 CT. or 125/62.5	50-25000	5	1⅜	FA
HSM-81	8000 CT. Split primary.	16/8/4	7-50000	15	1⅜	JB
HSM-82	8000 CT.	500/ 250/125	7-50000	15	1⅜	JB
†HSM-181	8000/ 2000 CT. Split primary.	16/8/4	7-50000	15	1⅜	JB
†HSM-182	8000/ 2000 CT. Split primary.	500/ 250/125	7-50000	15	1⅜	JB
HSM-84	5000 CT.	16/8/4	7-50000	20	1⅜	JB
HSM-85	5000 CT.	500/ 250/125	7-50000	20	1⅜	JB
HSM-184	8000/ 2000 Split primary	16/8/4	7-5000	25	1⅜	KB
†HSM-189	10000/ 2500 CT. Split primary.	16/8/4	7-50000	25	1⅜	KB
†HSM-190	10000/ 2500 CT. Split primary.	500/ 250/125	7-50000	25	1⅜	KB
†HSM-186	6600 CT. Split primary.	16/8/4	7-50000	25	1⅜	KB
†HSM-187	6600 CT. Split primary.	500/ 250/125	7-50000	25	1⅜	KB

(Continued on next page.)

See Triad Price List on Pages 1444, 1445
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TRIAD TRANSFORMER CORP.

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HSM-91	2500 CT.	16/8/4	7-50000	50	1⅜	LA
HSM-94	4500 CT.	16/8/4	7-50000	55	1⅜	LA
HSM-95	4500 CT.	500/250/125	7-50000	55	1⅜	LA
†**HSM-192**	4000 CT. Split primary.	16/8/4	7-50000	65	1⅜	LA
†**HSM-193**	4000 CT. Split primary.	500/250/125	7-50000	65	1⅜	LA
HS-97	6600 CT.	500/250/125	10-30000	125	Spcl.	Spcl.

† Williamson type circuit. Proper taps on primary for screen operation.

HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†**S-142A**	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†**S-144A**	8000 CT.	16/8/4	25
†**S-146A**	6600 CT.	16/8/4	25
†**S-148A**	10000 CT.	16/8/4	25
S-42A	4500 CT.	16/8/4	50
†**S-152A**	4000 CT.	16/8/4	65
SR-45Z*	4000/2000/1000/500	16/8/4	10
S-46A	2000/1000/500/250	16/8/4	20

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.
* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See page 1429 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†**N-52M**	350	95 to 130 (in 5V steps)	115
†**N-56M**	150	95 to 130 (in 5V. steps)	115
†With switch and meter for primary voltage control. Detachable cord.			
N-469A	50	460/230	115
N-470A	150	460/230	115
N-471A	300	460/230	115

STEPDOWN Autoformers, 50/60 cycles

Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
N-11M	2000	230	115
N-34X	150	95/105/115/125/135	115
†**N-35M**	250	95 to 130 (in 5V. steps)	115
†**N-50M** With switch and meter.	500	95 to 130 (in 5V. steps)	115

† M case with switch for primary voltage control and detachable cord.

Note: Last letter of Type No. denotes case style

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	550	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
HSM-309	150	9	115	2500
HS-339	200	3	105	2000
HSM-315	200	10	100	2500
HS-341	300	2	48	2000
HSM-319	300	10	85	2500

* Minimum Inductance—20%

BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance —Ohms
PL-4	100-100	.54 to .66	500*
PL-5	100-100-100	.36 to .54	2000*
PL-6	100-100-100	.36 to .54	2000*

* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

HIGH SPEED FERRITE TOROIDAL CORE LOW POWER

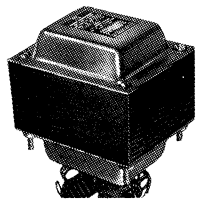
Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repitition Rate	Suggested Load Ohms	Volts
PL-80E PL-80H PL-80P	1-1	.07	.03	1-2 Mc	200	15
PL-81E PL-81H PL-81P	2-1	.07	.03	1-2 Mc	200	20
PL-82E PL-82H PL-82P	3-1	.08	.03	1-2 Mc	100	15
PL-83E PL-83H PL-83P	4-1	.08	.03	1-2 Mc	100	15
PL-84E PL-84H PL-84P	5-1	.08	.03	1-2 Mc	100	15

The letter "H" indicates Hermetically Sealed, the letter "P" indicates Miniature Plug-in and the letter "E" indicates Epoxy Molded.

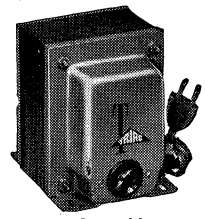
SLOW SPEED SILICON CORE LOW POWER

Type No.	Pulse Voltage per Winding	Pulse Duration—μ Sec.	Load Impedance —Ohms
PL-124E PL-124H	300-300-300	.6 to 5	150
PL-140E PL-140H PL-140M	100-400-100	.6 to 5	175
PL-139E PL-139H PL-139M	100-100	.3 to 1.5	250
PL-146E PL-146H PL-146M	300-300	.6 to 5	250

Letter "M" indicates MIL type case. For pulse types only.



Case B



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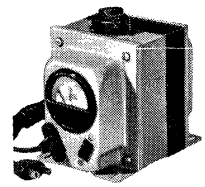
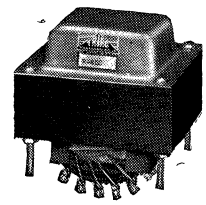


Case M with Meter



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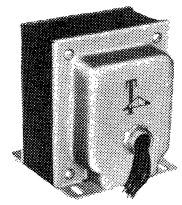


Case AC

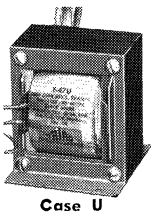
TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

INSTRUMENT POWER

Instrument POWER SUPPLY Transformers

Intelligent design and construction of measuring instruments involves consideration of many factors normally neglected in electronic circuits. Regulation of power supply voltages, limitation of external magnetic fields by minimum flux density, multiple static shields to limit capactive coupling, multiple filaments where tubes must operate at different potentials, all become necessary to obtain peak performance. The transformers on this page are a series of special designs which have been developed for instrument design.

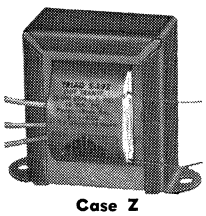


Case U

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V-.9A.
R-23B	250 CT.	22	6.3-.8A. 15.5/12.6V-.6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-.6A.
R-56A	130	20	0/15/22.5/30V-6A.
R-73B	135	200	6.3V CT.-5.5A.



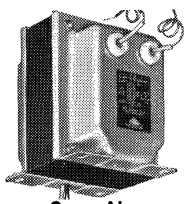
Case Z

CATHODE RAY Tubes

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-41C	440-0-440-1250.	125/5	*6.3V.-.6A. †2.5V.-1.75A.	†2.5V.-1.75A. 5V.-3A.
R-45C	400-0-400-800.	30/5	*6.3V.-.6A. 6.3 CT.-3A. †5V.-2A	6.3V.-1A. 5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.	

* Statically shielded and insulated for full plate voltage.
† Insulated for full plate voltage.



Case AL

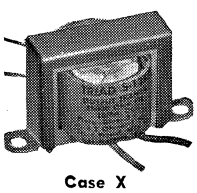
For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-70A	880 CT.	75	6.3V.-.6A. 6.3V.-.3A.	6.3V.-.9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A.	6.3V.-3A. 5V.-3A.
R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A.	6.3V.-3A 5V.-6A.
R-46A	1250 CT. 130 (Bias winding)	350 50	5V.-4A.	6.3V.-4A. 6.3V.-1A. 6.3V.-1A.

R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenuim rectifier. Sufficient filament windings to regulate screen voltages.

R-27A	1500 CT.	400	5V.-6A.	6.3V.-3A. 6.3V.-8A.



Case X

UNIVERSAL

Isolation, Autoformer, Voltage Control 50/60CPS

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
N-60SC	2000	4000

SELENIUM RECTIFIER Transformers
Primary 60 cycles

These transformers are for use with Selenium rectifiers. Rectifiers *not* included.

Type No.	Primary Volts	Secondary AC Volts	Secondary Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36 36	3 3	13	26
F-60U	115	6.5-13-19.5-26	3 (int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30-33-36	8	13	26
F-63U	115	8-9 8-9	2 2		6-7
F-64U	115	7-8-9	7		6-7
F-62U	105-115-125	9-9-9-9	10 ea. wdg.		6-7 ea. wdg.
F-68U	115	9 CT. 9 9 9	3.5 3.5 3.5 3.5		6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
F-66U	110-120	140-150-160	2.5	60	115
*F-79U	115	24-26-28-30	15	—	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40 20		
F-84AC	230-115	24CT or 12CT	10 20		
F-90X	115 tapped	40CT-20CT-10	100ma		
F-91X	115 tapped	40CT-20CT-10	300ma		
F-92A	115 tapped	40CT-20CT-10	1 amp		
R-93A	115	6.3CT	6 (voltage doubler circuit) 150-160-170 (500ma)		
F-93X	115V tapped	40CT-20CT-10	750ma		
F-94X	115X tapped	40CT-20CT-10	35ma		

* Replaces F-69U

FILAMENT Transformers, Single Secondary
Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
F-9A	5 2 CT.	13	1500
F-10U	5 CT.	15	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2500
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	2500
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	2500
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

(Continued on next page.)

See Triad Price List on Pages 1444, 1445
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F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		5000
F-83A	12.6 CT. 12.6 CT.	5 5	1500

† Low capacity—High voltage for damper tube operation.

CHOKES SWINGING Filter REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
C-32AL	20/4	35/350	105	5000
C-35A	20/4	40/400	60	3000
C-39A	25/5	50/500	65	3000
C-38AL	25/5	50/500	65	5000

SMOOTHING Filter REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
C-19A	10	300	105	3000
C-25A	2.6	310	60	1500
C-42AL	8	350	105	5000
C-20A	6	400	60	3000
C-22A	10	500	65	3000
C-45AL	10	500	65	5000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-.75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes		Test Volts RMS
F-27U	10 CT.-10A.	2.5 CT.-10A.	1500 7500
F-30A	5 CT.-3A.	6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A.	6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	6.3V.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	6.3V.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-1A. 5V.-4A.	6.3V.-5A. 5 CT.-2A.	1500
F-42A	12.6 CT.-2.5A.	12.6-2.5A.	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	7/8	EA
HS-471	115	.7	80	7/8	FA
HS-472	115	1.4	160	7/8	GA
HS-474	115	2.6	300	7/8	JA
HS-475	115	4.4	500	7/8	KA

60 cycle — hermetically sealed

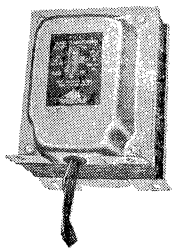
Type No.	secondary volts	amp.	V.A.	F dim. (Min.) inches	Case
HSM-270	105-115-125	.4	50	7/8	JB
HSM-271	105-115-125	1	125	7/8	KA
HSM-272	105-115-125	2	250	1 3/8	NB

All isolation transformers electrostatically shielded.

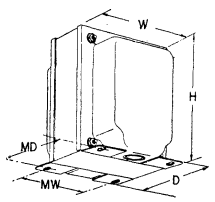
AUDIO

Low Level Input

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdgs.	1:05.5
A-11J	line or mike to grid 60-80DB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
A-13J	line to transistor or line to line (70 db Shldg)	30-15000	600/200 CT./50 50	
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
A-41J	same as A-40J 8ma DC in primary			
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	2.55
A-57J	line to line	30-15000	600/250/50	1
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-66J	same as A-65J— 8 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 8ma DC in primary	30-15000	600 CT./150 split windings	5
A-75J	Audio choke — 15 Henries			
A-77J	Audio choke — 250 henries - 5 ma DC			
A-78J	dual winding output pp transistors to line	62.5 henries - 10 ma DC 30-15000	2000CT	
A-79J	Transistor interstage 10ma in primary	40-15000	1000	



Case A



Case A

Triad "J" series transformers closely approach the electrical performance of the "HS" series while eliminating or modifying mechanical features which increase the cost. Careful design, taking advantage of the flexibility of the "J" series units, will result in low level amplifiers which will in every way meet broadcast quality specifications.

AUDIO INPUT Transformers

Line or Microphone to Grid

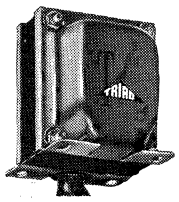
Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	300-3000	100	31.4
A-3X	Line or D.B. mike to grid.	300-3000	400 CT.	22.1
A-4X	Line to grid.	300-3000	500/200/67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	300-3000	100	84
A-6X	Speaker V.C. to grid.	300-3000	8/3.2	79
A-7J	voice coil to grid	300-3000	3.2	124

TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

AUDIO OUTPUT Transformers
Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	3	300-3000
S-26X	500/50 (autoformer).	3.2	3	300-3000
S-65X	500	8/4	5	300-7000
S-66X	500 (autoformer).	16/8/4	3	100-5000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125	32/16/8/4/2	30	40-15000



Case A

POWER
Combined PLATE and FILAMENT Transformers
Primary 115 volts — 60 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Fil. Volts	Rect. Fil. Amp.	Other Fil. Volts	Other Fil. Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
R-6B	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
R-7B	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5
R-8B	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
R-16B	700 CT.	160	5	3	6.3 CT.	5
R-17A	750 CT. 80 Tap	160	5	3	6.3 CT. 2.5 CT.	5 5
R-18A	750 CT.	175	5	3	6.3 CT.	8
R-18B	750 CT.	175	5	3	6.3 CT.	8
R-19A	750 CT. 80 Tap	200	5	3	6.3 CT. 2.5 CT.	6 10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 6.3 CT.	3 7
R-58A	875 CT.	185	5	3	6.3 6.3	4 3
R-71A	900 CT.	250	5 CT.	4	6.3 CT. 6.3	2 4
R-93A	150-160-170	500	Silicon Rectifier Voltage doubler		6.3 CT.	6

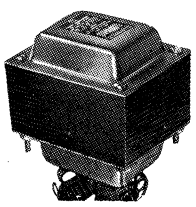
Combined PLATE and FILAMENT Transformers
New "100" Series
Primary 115 volts 60 cycles

Triad power components are liberally designed to best meet average design specifications and to ensure maximum utility for each design. All units are beautifully finished in baked grey enamel and have all connection data permanently marked on the case.

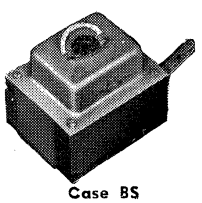
All types are "Climatite" treated, both coil and core, for protection against moisture and for elimination of lamination chatter. Although they are small in size, the high quality materials used keep losses to a minimum. The temperature rise design is 55°C. Only copper foil static shields, grounded to the case and core, are used. Leads are of a type approved by UL for high temperature operation.

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Filaments Volts	Rect. Filaments Amp.	Other Filaments Volts	Other Filaments Amp.	Case Dim. H	Case Dim. W	Case Dim. D	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2¾	2⅜	2¼	1¾	1½	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1⅝	2¾	2¼	2 3/16	1¾	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3⅛	2⅝	2½	2	1¾	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1¾	3 1/16	2⅝	2½	2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2⅜	2	1⅝	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T	2	1⅝	3 1/16	2⅝	2½	2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2½	2	1¾	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T	2	1¾	3 1/16	2⅝	2½	2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3⅛	2⅝	2⅝	2	1⅞	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1⅞	3 1/16	2⅝	2½	2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3½	3	2⅞	2¼	1¾	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1¾	3 7/16	2⅞	2 13/16	2¼	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3½	3	3¼	2¼	2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2	3 7/16	2⅞	2 13/16	2¼	3.25
R-111A	700 C.T.	90	5	2	6.3 V.C.T.	3.5	3½	3	3¼	2¼	2	3.55
R-111B	700 C.T.	90	5	2	6.3 V.C.T.	3.5	2	3 7/16	2⅞	2 13/16	2¼	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3½	3	3⅜	2¼	2⅛	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T	5	2⅛	3 7/16	2⅞	2 13/16	2¼	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3⅛	2⅝	2¾	2	1¾	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2	3	2½	2½	2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3⅞	3 1/16	3¼	2½	2⅜	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2½	3¾	3⅛	3⅛	2½	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3⅝	3	3⅜	2¼	2⅛	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2	3 7/16	2⅞	2 13/16	2¼	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3⅞	3¼	3⅝	2½	2⅝	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2⅝	3¾	3⅛	3⅛	2½	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4¼	3⅝	4	2¾	2⅞	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2⅞	4⅛	3½	3 7/16	2¾	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4¼	3⅝	4⅛	2¾	2⅞	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3	4⅛	3½	3 1/16	2¾	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4¼	3⅝	4⅜	2¾	3¼	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3¼	4⅛	3½	3 1/16	2¾	8.25



Case B



Case BS

See Triad Price List on Pages 1444, 1445
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TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

PLATE POWER Transformers
Primary 115 volts — 60 cycles

Type No.	Secondary Volts AC	DC	Sec. D.C. Ma. CCS	ICAS	Rect. Fil.
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A	1100 CT.	400	250	310	5V-4A
P-7A	1235 CT.	500	250	310	5V-4A
P-9A	1235 CT.	500	500	600	5V-6A
P-11A	1455 CT.	600	250	310	
•P-213AL*†	1780 CT.	750	250	310	
§P-14A	1780 CT.	750/600	250	310	
•P-215AL*†	2340 CT.	1000	250	310	
•P-216AL"†	2430 CT.	1000	500	600	
•P-217AL*†	2880 CT.	1250	250	310	
•P-218AL*†	2880 CT.	1250	500	600	
•P-220AL*†	3300 CT.	1500	350	425	
*PR-21AL	3300 CT.	1500	500	700	

† Plate leads out side of case for 866 rectifiers.
§ Tapped Pri. to produce the lower D.C. voltage.
• New Item
*Pri. is 230/115V.

TELEVISION COMPONENTS

Replacement POWER Transformers, Combined Plate and Filament

Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply AC Volts	DC Ma.	Filaments — Volts	and Amperes
R-31A	760 V.C.T.	320	5V.—6A. 5V.—2A.	12.6 C.T.—5A.
R-31BC				
R-32A	760 V.C.T.	320	5V.—6A.	12.6 V.C.T.—5A 6.3V.—1.2A.
R-33A	775 V.C.T.	230	5V.—3A.	6.3V.—9A. 6.3V./5V.—2A.*
R-33BC				
R-34A	750 V.C.T.	230	5V.—3A.	6.3V.—8.5A. 6.3V.—1.2A.
R-35A	725/340 V.C.T.	250	5V.—3A. 5V.—2A.	6.3V.—8A. 6.3V.—2.5A.
R-35BC				
R-36A	775 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V.—1.2A.*
R-36BC				
R-37BC	735 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V./5V.—2A.*
R-38A	750 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-38BC				
R-39A	640 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.*
R-39BC				
R-40A	780/440 V.C.T.	300	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—8.5A. 6.3V.—3.5A.
R-40BC				
R-42A	675 V.C.T.	185	5V.—3A.	6.3V.—7A. 6.3V.—2A.*
R-42BC				
R-44BS	525 V.C.T.	240	5V.—3A.	6.3V.—8A. 6.3V.—1.2A*
R-47BS	725 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—2.7A.*
R-48BS	750 V.C.T.	180	5V.—3A.	6.3V.—9A. 6.3V.—2.7A.*
R-49BS	650 V.C.T.	240	5V.—3A.	6.3V.—9A. 6.3V.—9A. 6.3V.—1.2A.*
R-49BC				
R-50A	790/650 V.C.T.	310	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—5A. 6.3V.—5A. 6.3V.—2.6A.
R-50BC				
R-51BC	505 V.C.T.	320	5V.—6A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-52BC	600 V.C.T.	270	5V.—3A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-60BC	460 V.C.T.	300	5V.—6A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-61BC	560 V.C.T.	275	5V.—6A.	6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*
R-62BC	680 V.C.T.	290	5V.—6A.	6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*
R-63BC	131 V.	980		6.3V.—9A. 6.3V.—6A. 6.3V.—1.2A.*
R-64BC	520 V.C.T.	270	5V.—3A.	6.3V.—10A.
R-65BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-66BC	580 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-67BC	600 V.C.T.	250	5V. —3A.	6.3V. —9A.
R-69BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-74BC	655 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A.	5V.—3A. (damper wdg)
R-75BA	560 V.C.T.	250	5V.—3A.	6.3V.-9.5A.
R-79BA	127V.	500	6.3V.-2A	12.6V.-2A
R-80BA	500V.CT.	300	5V.-6A 6.3V.-3A	6.3V.-8A 6.3V.-5A
R-86BA	117/129/141 multi-purpose	550	6.3V.-6A 6.3V.-6A	12.6V.CT.-2A

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.
Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.
Note: Last letter of Type No. denotes case style.

AUDIO
REPLACEMENT OUTPUT TRANSFORMERS

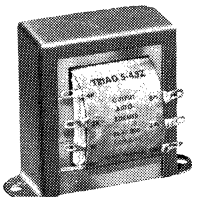
Single Tube To Standard Voice Coil 3-4 Ohms

Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	55	3-5
S-16X	3000 5% Tap	60	2-3
S-16X	3000	60	2-3
S-30X	3000	60	3-5
S-67X	3000	55	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	40	3-5
S-7X	7500	40	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	40	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	¼
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	¼
S-13X	25000	10	2-3
S-13Z	25000	10	2-3

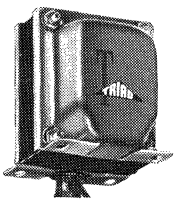
REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS

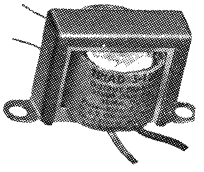
Push-Pull Tubes To Voice Coil 3-4 Ohms

Type No.	Impedance	DC MA	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	45	4-6
S-15X	10000 CT.	40	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	70	15-18
S-69Z	5000 CT.	55	15-18
S-21A	8000 CT.	50	15-18
S-21Z	8000 CT.	50	15-18



Case Z


Case A


Case X

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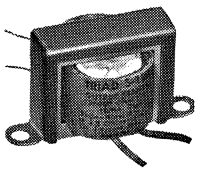
TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
A-54X	P.P. Tubes to V.C.	150-30000	7700 CT.	8/4
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/150	600/150 —Split windings—
A-57J	Line to line. 45 db. shielding.	30-15000	600/250/50	600/250/50
A-67J	Line to line. 45 db. shielding.	30-15000	600/150	600/150 —Split windings—



Case X

"SPLATTER" Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
C-26X	Tapped .2 to 1.5	100	95	1¼
C-43X	Tapped .05 to 1	300	40	2

Case J

UNIVERSAL OUTPUT TRANSFORMERS

Single Or Push-Pull Tubes To Voice Coil

Type No.	Application	Impedance	DC MA	Audio Watts
S-62X	Single or P.p. plates	2000-10000	30	2
S-52X	Single or p.p. plates	4000-24000	30	4
S-51X	Single or p.p. plates	4000-14000	35	5
S-63X	Single or p.p. plates	1500- 7000	50	6
S-54X	Single	1500- 5000	70	8
S-53X	Single or p.p. plates	4000-14000	40	8
S-55X	P.p. plates	4000-14000	40	10
S-55Z	P.p. plates	4000-14000	40	10
S-56Z	Single	1500- 6000	85	12
S-59Z	P.p. plates	1500- 4000	65	15
S-57Z	P.p. plates	4000-14000	55	15
S-61Z	P.p. plates	4000-10000	60	20

Case P

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second Imped.	Freq. Resp.	Shld'g
A-200P	Line or mike to grid.	200/50 CT.	36,000	30-20000	70 db.
A-202P	Same as above.	200/50 CT.	36,000	20-20000	90 db.
HS-273P	Same as above.	200/50 CT.	80,000	30-30000	70 db.
A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

INTERSTAGE Transformers

Plate to Grid

Type No.	Application	Freq. Resp.	Pri. Imped.	Second Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000C.T. or 33750	1 : 1.5 1 : 3 1 : 6
A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-39A	P.p. plates to p.p. grids	50-10000	20000 CT.	45000CT	1 : 1.5
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	86000CT	1 : 2.76

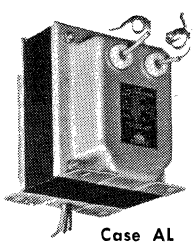
MODULATION Transformers — Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary Impedance	Secondary Ma.	Aud. Wtts.
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100	10
M-4Z	5000 (Auto-former).	300-3000	6750 4	100 (total)	10
M-5Z	5000 (Auto-former).	300-3000	6750 4	165 (total)	20
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50	5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100	20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200	40
†M-7AL	4250 CT. for 807's	300-3000	3000-5000-8000	200	60
M-15A	Multi-match	300-3000	4000 to 20000	150	30
M-16AL	Multi-match	300-3000	4000 to 20000	180	60
†M-8AL	Multi-match	300-3000	4000 to 20000	200	80
†M-12AL	Multi-match	300-3000	4000 to 20000	300	125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary ½ Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids— Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
A-91A	P.p. plates to Class B or AB grids— Universal 30 watt.	Any class B or AB tubes. 400-1500 watts output	50-10000	3.1 or 1.88:1	160 per side
TY-61X	Transistor use		70-10000	1:0.5	100

†Plate leads out side



Case AL

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TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

OUTPUT Transformers

Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6U6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 807, etc.	6600 CT.	500/250/16/8/4	120 (bal.)	35

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/2000/1000.	8/4	5	100-5000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	100-5000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	70-7000
*SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
*SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	100-5000
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-75K	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	100-5000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	100-5000
S-47Z	10K/5K/2.5K/1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/4K/2K/1K	16/8/4	5	100-10000

*Replaces S-45Z and S-74K

25 VOLT LINE TRANSFORMERS

Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

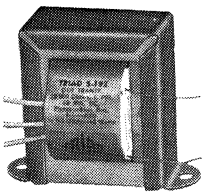
S-129Z	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Ask for the Triad publication "Sound distribution using the 70 volt line." Free from your distributor.

Special TRANSCEIVER Transformers

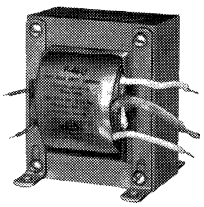
(Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100 10000	100000
A-23X	Tube to line and hi-impedance phones.	10000	50 and 2000



Case Z

WLC



Case II

GEOFORMERS

For Geophysical and Low Frequency Instrumentation.

LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri.	Impedance Ohms Sec.	Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Unbalanced D.C. Current	D. C. Resistance (Ohms) Pri.	D. C. Resistance (Ohms) Sec	Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of 1 Ma. —3DB	1 Ma. —1DB	2 Ma. —3DB	2 Ma. —1DB	3 Ma. —3DB	3 Ma. —1DB	5 Ma. —3DB	5 Ma. —1DB	Shielding	Case Mtg.	Wt.
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H	GP-1F	3.2 oz.
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H	GP-2L	5¼ oz.
G-30	1000 CT.	2500 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1	GP-1F	3.2 oz.

CHOPPER INPUT TRANSFORMERS - 30 to 500 cycle

Triad's new Chopper Input Transformers are manufactured under the same rigid high quality control standards as the Triad Input Transformers, plus the addition of an extremely close balance between the two halves of the primary winding. One half of the primary is balanced to the other half in both inductance and "Q". Cores are specially treated to eliminate noise in the microvolt range of input signals. Adjustment is at 60 cycles and, since input impedances are kept extremely high and the windings are not tuned, the chopper frequency may be 30 to 500 cycles. Magnetic and electrostatic shielding can be varied to meet customer's requirements.

Types for tube or transistor input are available. In addition to the standard types listed below, many types are currently being supplied to customer's specifications. We invite your inquiry on your special requirements.

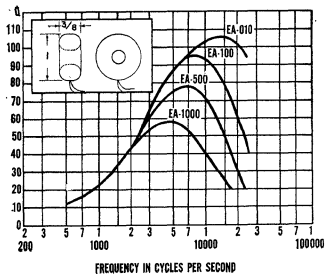
Type No.	Primary Impedance in Ohms	Secondary Impedance in Ohms	Turns Ratio Full Pri. to Full Sec.	Turns Ratio ½ Pri. to Full Sec.	Minimum Pri. Ind. (of Full Pri.) @ 1.V-60~	Maximum Pri. Volts (Full Pri.) @ 60~	D.C. Resistance Full Primary	D.C. Resistance Secondary	Magnetic Shielding	Case	Weight
G-20	10000 CT. or 2500	640000 CT.	1:8	1:16	120	25.	370	21000	P5-H	GP-4T	11½ oz
G-21	200000 CT.	12500 CT.	4:1	2:1	1200	84.	4000	1300	P1-H	GP-2L	5¼ oz.
G-22	50000 CT.	800000 CT.	1:4	1:8	1000	90.	2200	19000	P5-H	GP-5W	1 lb.
G-23	40000 CT.	1000 CT.	6.32:1	3.16:1	1000	75.	4400	160	P1-H	GP-2L	5¼ oz.
G-24	40000 CT.	40000 CT.	1:1	.5:1	400	1.95	1625	1625	P5	GP-5S	1 lb.
G-25	40000 CT. or 10000 CT.	10000 CT.	2:1	1:1	800	70.	3200	2200	P1-H	GP-2L	5¼ oz.

TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

TOROIDS

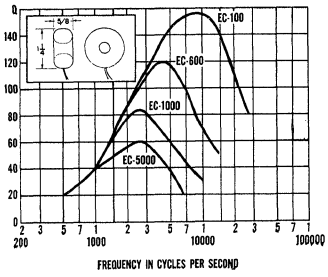
EA SERIES TOROIDS



A

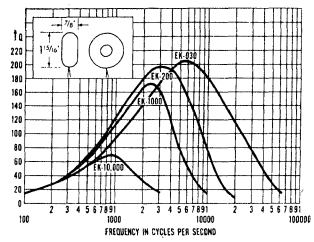
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
EA-600	600 mh	178.00	11
EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

EC SERIES TOROIDS



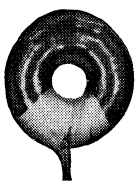
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
EC-003	3 mh	.70	300
EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
EC-070	70 mh	7.00	62
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
EC-600	600 mh	71.00	21
EC-700	700 mh	80.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
EC-4000	4000 mh	435.00	8.2
EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
EC-10000	10000 mh	1190.00	5.2

EK SERIES TOROIDS



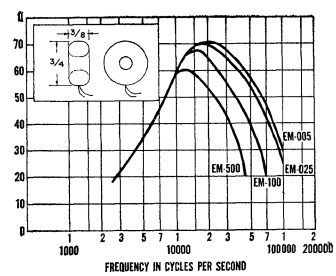
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
EK-030	30 mh	1.65	150
EK-040	40 mh	1.90	130
EK-050	50 mh	3.50	116
EK-060	60 mh	4.00	106
EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
EK-120	120 mh	5.50	75
EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
EK-250	250 mh	10.30	52
EK-300	300 mh	12.00	47
EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
EK-2000	2000 mh	100.00	18.4
EK-3000	3000 mh	151	15
EK-4000	4000 mh	175	13
EK-5000	5000 mh	250	11.6
EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
EK-20000	20000 mh	1000	5.8
EK-30000	30000 mh	1500	4.7
EK-40000	40000 mh	1850	4.1

TOROIDS

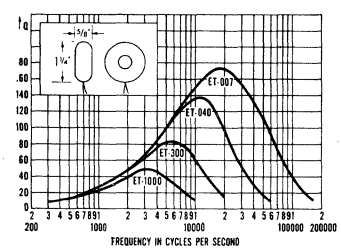


Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EM-001	1 mh	2.8	150
EM-002	2 mh	4.1	108
EM-003	3 mh	5.1	87
EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
EM-015	15 mh	12.5	39
EM-020	20 mh	14.5	34
EM-025	25 mh	16.5	30
EM-030	30 mh	18	27.6
EM-040	40 mh	27	24
EM-050	50 mh	30	22
EM-060	60 mh	40	19.5
EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

EM SERIES TOROIDS



ET SERIES TOROIDS



Type No.	Ind.	Res Ohms Approx.	D.C.-Ma. for 5% Ind. drop
ET-001	1 mh	.57	680
ET-002	2 mh	.82	480
ET-003	3 mh	.98	396
ET-004	4 mh	1.10	342
ET-005	5 mh	1.35	306
ET-007	7 mh	1.50	260
ET-010	10 mh	2	217
ET-015	15 mh	3	177
ET-020	20 mh	4.3	153
ET-025	25 mh	4.8	137
ET-030	30 mh	6.9	125
ET-040	40 mh	7.2	108
ET-050	50 mh	8	97
ET-060	60 mh	15.5	88
ET-070	70 mh	16.8	82
ET-100	100 mh	26.0	68
ET-150	150 mh	38.5	56
ET-200	200 mh	44.5	48
ET-250	250 mh	64	43
ET-300	300 mh	72	40
ET-400	400 mh	103	34
ET-500	500 mh	118	31
ET-700	700 mh	173	26
ET-1000	1000 mh	245	22

See Triad Price List on Pages 1444, 1445
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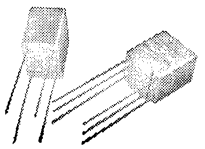
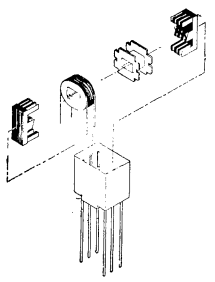
TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

"RED SPEC" TRANSISTOR TRANSFORMERS

Type No.	Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	.2	1000 c.t.	25
SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	20000/30000	1700	.5	800/1200	40
SP-13	Interstage	TF5RX13ZZ	20000/30000 c.t.	1700	.5	800/1200 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000/12000 c.t.	1050	1	1500/1800 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000/12500 c.t.	1050	1	1200/1500 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000/12500 c.t.	1050	1	2000/2500 c.t.	50
SP-29	Driver	TF5RX13ZZ	10000/12000 c.t.	1050	1	500/600 c.t.	50
SP-32	Output	TF5RX17ZZ	500/600	60	3	50/60	50
SP-33	Output	TF5RX17ZZ	1000/1200	145	3	50/60	50
SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150/200 c.t.	18	10	12/16	50
SP-43	Output	TF5RX17ZZ	300/400 c.t.	38	7	12/16	50
SP-44	Output	TF5RX17ZZ	600/800 c.t.	75	4.5	12/16	50
SP-46	Output	TF5RX17ZZ	1000/1330 c.t.	120	3.5	12/16	50
SP-47	Output	TF5RX13ZZ	1500/2000 c.t.	180	3	12/16	50
SP-48	Output	TF5RX13ZZ	7500/10000 c.t.	820	1	12/16	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
SP-59	Output	TF5RX17ZZ	120/150 c.t.	15	10	3.2/4	50
SP-60	Output	TF5RX17ZZ	320/400 c.t.	40	6	3.2/4	50
SP-61	Output	TF5RX17ZZ	600/750 c.t.	70	4.5	3.2/4	50
SP-62	Output	TF5RX17ZZ	800/1000 c.t.	100	4	3.2/4	50
SP-63	Output	TF5RX13ZZ	1200/1500 c.t.	125	3	3.2/4	50
SP-64	Output	TF5RX13ZZ	1600/2000 c.t.	190	2.5	3.2/4	50
SP-65	Output	TF5RX13ZZ	8000/10000 c.t.	820	1	3.2/4	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67	Output	TF5RX17ZZ	600 CT.	73	3	600 CT.	50
SP-106	Choke	TF5RX20ZZ	6 hy. @ 2 ma.	1700			
SP-107	Choke	TF5RX20ZZ	1.25 hy. @ 2 ma.	180			
SP-108	Choke	TF5RX20ZZ	3.5 hy. @ 2 ma.	1100			
SP-118	Choke	TF5RX20ZZ	.3 hy. @ 4 ma.	42			
SP-310	Magnetic shielding case						





PRICE LIST BY TYPE NUMBER

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

RIQAP (REDUCED INSPECTION QUALITY ASSURANCE PLAN)

ALL TRIAD transformers are manufactured under a Signal Corps approved plan intended to assure quality in the product. The system includes approved procedures for incoming inspection of material, process controls in the plant, and final inspection. Transformers passed are approved for shipment for military use.

RIQAP applies to all Triad transformers, military or otherwise. Why not take advantage of the exhaustive quality control at Triad and eliminate or reduce the costs of your incoming inspection.

All of the transformers listed on the preceding pages are currently available from stock at the four plants of Triad and from better distributors in all the purchasing centers of the United States.

Triad transformers are continually being revised and improved to use the best available materials. For this reason, the Triad Transformer Corporation reserves the right to modify existing mechanical construction or electrical characteristics of any catalog item without notice.

TRIAD transformer numbers are so arranged as to indicate the type of transformer and type of mounting. The prefix letter indicates the type of transformer as follows: **A**—Audio **C**—Choke **D**—High voltage horizontal output transformer **E**—High "O" Toroidal coils **F**—Filament **G**—Geoformer **M**—Modulation **N**—Isolation or Stepdown autoformer **NW**—Yoke Networks **P**—Plate power transformer **PL**—Pulse transformer **R**—Power transformer, combined plate and filament **S**—Speaker coupling or output transformer **T, TZ**—Miniatures **TY**—Transistor transformer **V**—Vibrator power **WC, WLC**—Width and Linearity coils **Y**—Yokes. Hermetically sealed units bear the prefix **HS** and **HSM;** hermetically sealed "Trijets" **JZ, JO** and **AF**. Type of mounting is indicated by the suffix letter which refers to the Illustrations in the catalog.

TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

PRICE LIST BY TYPE NUMBER

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
A-1X	2.04	C-7X	2.67	D-75	7.14	D-176	2.85	EA-600	4.38	EK-500A	8.76	ET-020	4.20	F-90X	4.05
A-3X	2.22	C-8X	2.34	D-76R	7.20	D-177	7.50	EA-600A	6.12	EK-700	7.05	ET-020A	5.94	F-91X	5.22
A-4X	2.67	C-9X	2.34	D-77R	7.50	D-178	7.20	EA-700	4.50	EK-700A	8.91	ET-025	4.20	F-92A	8.55
A-5X	2.97	C-10X	3.21	D-78	6.96	D-179	7.50	EA-700A	6.24	EK-1000	7.20	ET-025A	5.94	G-1	19.60
A-6X	2.25	C-11X	3.18	D-79	7.41	D-180	7.50	EA-1000	4.65	EK-1000A	9.06	ET-030	4.29	G-2	24.53
A-7J	5.58	C-12A	4.74	D-80	7.95	D-181	7.65	EA-1000A	6.39	EK-1500	7.20	ET-030A	6.03	G-4	24.53
A-9J	10.05	C-12X	3.39	D-81	6.81	D-182	7.20	EC-001	3.99	EK-1500A	9.06	ET-040	4.29	G-5	21.20
A-10J	10.11	C-13X	3.24	D-82	8.04	D-183	8.40	EC-001A	5.79	EK-2000	7.44	ET-040A	6.03	G-7	21.20
A-11J	11.67	C-14A	5.25	D-83R	7.20	D-184	7.50	EC-002	3.99	EK-2000A	9.30	ET-050	4.29	G-8	28.07
A-12J	11.67	C-14X	3.93	D-84	8.34	D-185	8.70	EC-002A	5.79	EK-2500	7.44	ET-050A	6.03	G-9	21.20
A-13J	12.84	C-15A	5.25	D-85	7.38	D-186	7.80	EC-003	3.99	EK-2500A	9.30	ET-060	4.38	G-10	28.07
A-21X	2.31	C-15X	3.93	D-86	9.30	D-187	7.50	EC-003A	5.79	EK-3000	7.62	ET-060A	6.12	G-12	20.00
A-23X	2.61	C-16A	7.08	D-87	7.77	D-188	8.70	EC-004	3.99	EK-3000A	9.48	ET-070	4.38	G-14	19.60
A-31X	2.37	C-17X	3.09	D-88	8.16	D-189	8.40	EC-004A	5.79	EK-4000	7.86	ET-070A	6.12	G-15	32.15
A-33X	3.30	C-18A	9.42	D-89R	7.65	D-190	7.20	EC-005	3.99	EK-4000A	9.72	ET-100	4.38	G-16	20.68
A-35A	5.94	C-19A	10.65	D-90	9.45	D-191	7.50	EC-005A	5.79	EK-5000	7.92	ET-100A	6.12	G-17	21.76
A-39A	6.00	C-20A	12.48	D-91	6.99	D-192	7.68	EC-007	4.08	EK-5000A	9.78	ET-150	4.44	G-18	20.00
A-40J	10.56	C-21X	2.67	D-92	7.20	D-193	8.16	EC-007A	5.88	EK-7000	8.31	ET-150A	6.18	G-19	20.00
A-41J	10.56	C-22A	21.66	D-93	7.20	D-194	7.20	EC-010	4.14	EK-7000A	10.17	ET-200	4.44	G-20	28.90
A-42Z	3.60	C-23X	2.67	D-94R	7.50	D-195	8.64	EC-010A	5.94	EK-10000	8.70	ET-200A	6.18	G-21	23.65
A-51X	1.92	C-24X	2.25	D-95	7.20	D-196	7.20	EC-015	4.14	EK-10000A	10.56	ET-250	4.50	G-22	31.22
A-53X	2.82	C-25A	6.66	D-96	7.50	D-197	7.35	EC-015A	5.94	EK-20000	9.00	ET-250A	6.24	G-23	23.65
A-54X	2.73	C-26X	4.50	D-97R	8.40	D-198	7.92	EC-020	4.20	EK-20000A	10.86	ET-300	4.50	G-24	37.83
A-55J	10.17	C-27X	2.10	D-98R	9.30	D-199	6.75	EC-020A	6.00	EK-25000	9.30	ET-300A	6.24	G-25	23.65
A-57J	10.59	C-28X	2.73	D-99	6.30	D-601	7.80	EC-030	4.20	EK-25000A	11.16	ET-400	4.50	G-30	17.98
A-65J	10.80	C-29X	3.09	D-100	6.60	D-602	7.74	EC-030A	6.00	EK-30000	9.66	ET-400A	6.24	G-31	19.60
A-66J	9.75	C-30X	2.10	D-101	6.60	D-603	7.65	EC-040	4.29	EK-30000A	11.52	ET-500	4.59	G-32	24.53
A-67J	10.80	C-31A	7.26	D-102	7.50	D-604	7.80	EC-040A	6.09	EK-40000	10.35	ET-500A	6.33	G-33	21.20
A-68J	10.29	C-32AL	12.57	D-103	7.50	D-605	9.60	EC-050	4.29	EK-40000A	12.21	ET-700	4.65	G-34	27.89
A-75J	11.67	C-33A	10.65	D-104	6.30	D-606	7.65	EC-050A	6.09	EM-001	3.90	ET-700A	6.39	G-36	16.81
A-77J	9.78	C-34X	2.25	D-105	6.90	D-607	8.28	EC-070	4.38	EM-001A	5.55	ET-1000	4.74	G-40	21.20
A-78J	10.50	C-35A	13.08	D-106	6.60	D-608	7.50	EC-070A	6.18	EM-002	3.90	ET-1000A	6.48	G-48	16.39
A-79J	9.99	C-36X	2.04	D-107	7.35	D-609	7.80	EC-100	4.38	EM-002A	5.55	F-1X	2.61	G-51	19.60
A-81X	2.13	C-38AL	21.84	D-108	7.20	D-610	7.80	EC-100A	6.18	EM-003	3.90	F-3X	4.02	G-51A	19.60
A-83X	2.58	C-39A	21.24	D-109	7.17	D-611	7.50	EC-200	4.44	EM-003A	5.55	F-5U	5.67	G-52	20.80
A-85X	3.06	C-40X	2.67	D-110	7.20	D-612	7.80	EC-200A	6.24	EM-004	3.90	F-6X	3.42	G-53	20.80
A-89A	7.02	C-42AL	12.90	D-111	7.44	D-613	7.50	EC-250	4.44	EM-004A	5.55	F-7X	3.57	G-53A	20.80
A-91A	9.42	C-43X	6.00	D-112	7.11	D-614	7.44	EC-250A	6.24	EM-005	3.90	F-8X	4.17	G-54	20.80
A-95X	2.28	C-45AL	21.96	D-113	7.20	D-615	7.20	EC-300	4.50	EM-005A	5.55	F-9A	8.22	G-57	16.81
A-96X	3.00	C-47U	8.25	D-114	7.20	D-616	8.10	EC-300A	6.30	EM-007	3.99	F-9U	7.32	G-58	25.85
A-97K	3.27	C-48U	9.84	D-115R	8.16	D-617	8.40	EC-400	4.50	EM-007A	5.64	F-10U	9.33	G-64	16.39
A-97X	2.16	C-49U	11.67	D-116	8.25	D-618	8.40	EC-400A	6.30	EM-010	4.05	F-11U	9.39	G-65	16.39
A-97Y	3.36	C-80U	38.70	D-117	6.45	D-619	7.80	EC-500	4.59	EM-010A	5.70	F-12X	4.80	G-72	21.20
A-97Z	2.16	CL-1	.60	D-118R	7.50	D-620	7.65	EC-500A	6.39	EM-015	4.14	F-13X	2.10	G-80	24.58
A-98K	3.33	D-2	6.90	D-119	7.20	D-621	7.80	EC-600	4.59	EM-015A	5.79	F-14X	2.22	G-84	21.20
A-98X	2.16	D-11	7.80	D-120	7.20	D-622	8.70	EC-600A	6.39	EM-020	4.20	F-15U	7.41	G-85	21.20
A-99X	3.75	D-14R	7.47	D-121	6.90	D-623	8.10	EC-700	4.65	EM-020A	5.85	F-16X	3.33	G-92	22.06
A-101U	5.16	D-19	7.47	D-122	6.84	D-624	7.80	EC-700A	6.45	EM-025	4.20	F-18A	6.15	G-101	19.60
A-102X	3.09	DA-20	5.67	D-123	6.60	D-625	7.20	EC-1000	4.74	EM-025A	5.85	F-18X	4.80	G-135	19.60
A-103X	3.45	D-22	7.80	D-124	7.05	D-626	7.20	EC-1000A	6.54	EM-030	4.26	F-19X	5.25	G-150	19.60
A-104X	3.87	D-26	7.35	D-125	6.60	D-627	8.10	EC-1500	4.89	EM-030A	5.91	F-20U	7.05	G-155	19.60
A-105X	3.93	D-27	7.14	D-126	7.80	EA-001	3.69	EC-1500A	6.69	EM-040	4.29	F-21A	7.38	G-183	24.92
A-107X	4.74	D-28	7.14	D-127	7.44	EA-001A	5.43	EC-2000	4.95	EM-040A	5.94	F-22A	10.56	G-201	19.60
A-108X	3.72	D-31	7.92	D-128	2.85	EA-002	3.69	EC-2000A	6.75	EM-050	4.29	F-23U	7.17	G-202	20.00
A-109X	4.05	D-32	7.68	D-129	6.45	EA-002A	5.43	EC-3000	5.04	EM-050A	5.94	F-24U	7.32	G-235	19.60
A-110X	3.72	D-33	7.14	D-130R	6.90	EA-003	3.69	EC-3000A	6.84	EM-060	4.38	F-25X	3.57	G-250	19.60
A-111X	3.15	D-35	8.40	D-131	7.80	EA-003A	5.43	EC-4000	5.10	EM-060A	6.03	F-26X	4.17	G-255	19.60
A-112X	4.17	DA-36	2.49	D-132	6.90	EA-004	3.60	EC-4000A	6.90	EM-070	4.38	F-27U	9.66	G-266	20.50
A-113X	3.69	DA-37	2.49	D-133	7.50	EA-004A	5.34	EC-5000	5.28	EM-070A	6.03	F-28U	14.88	G-274	20.41
A-113Z	3.69	D-40	7.71	D-134	7.50	EA-005	3.60	EC-5000A	7.08	EM-100	4.44	F-29U	9.99	G-275	20.50
A-114X	3.90	D-41	8.10	D-135	2.58	EA-005A	5.34	EC-7000	5.79	EM-100A	6.09	F-30A	9.00	G-276	20.50
A-115X	3.78	D-42	7.71	D-136	2.82	EA-007	3.60	EC-7000A	7.59	EM-150	4.44	F-32A	7.05	G-283	24.92
A-115Z	3.78	D-43	7.50	D-137	7.80	EA-007A	5.34	EC-10000	6.42	EM-150A	6.09	F-34A	9.00	G-284	20.00
A-116X	4.05	D-44	7.32	D-138	7.20	EA-010	3.60	EC-10000A	8.22	EM-200	4.50	F-36A	10.41	G-285	20.00
A-117X	3.00	D-45R	8.10	D-139	6.90	EA-010A	5.34	EK-010	5.85	EM-200A	6.15	F-38A	10.98	G-301	19.30
A-118X	3.90	D-46	8.10	D-141	7.50	EA-015	3.69	EK-010A	7.71	EM-250	4.50	F-40X	3.39	G-306	19.30
A-119X	3.78	D-47	7.50	D-142	9.60	EA-015A	5.43	EK-020	5.94	EM-250A	6.15	F-41X	5.16	G-313	19.30
A-120X	2.40	D-48	6.48	D-143	6.45	EA-020	3.69	EK-020A	7.80	EM-300	4.65	F-42A	7.95	G-315	19.30
A-120Z	2.40	D-49	6.36	D-151R	7.38	EA-020A	5.43	EK-030	6.00	EM-300A	6.30	F-43X	3.84	G-335	18.91
A-122X	2.16	D-50	8.22	D-152	6.90	EA-025	3.69	EK-030A	7.86	EM-400	4.74	F-44X	3.66	G-336	18.91
A-122Z	2.16	D-52	5.40	D-153	9.60	EA-025A	5.43	EK-040	6.00	EM-400A	6.39	F-45X	3.39	G-350	18.91
A-131X	3.24	D-53	5.34	D-154	7.50	EA-030	3.75	EK-040A	7.86	EM-500	4.89	F-47U	6.30	G-355	18.91
A-132X	3.36	D-54	5.10	D-155	7.08	EA-030A	5.49	EK-050	6.12	EM-500A	6.54	F-48U	9.15	G-388	19.30
A-133X	3.24	D-55	7.14	D-156	8.40	EA-040	3.75	EK-050A	7.98	EM-700	5.19	F-49U	14.10	G-389	19.30
A-134X	3.48	D-56	7.35	D-157	7.50	EA-040A	5.49	EK-060	6.18	EM-700A	6.84	F-50X	3.33	G-391	18.91
A-135X	3.72	D-57	6.93	D-158	7.32	EA-050	3.75	EK-060A	8.04	EM-1000	5.79	F-51X	3.57	G-394	18.91
A-136X	3.51	D-58	6.63	D-159	8.40	EA-050A	5.49	EK-080	6.27	EM-1000A	7.44	F-52X	3.09	G-401	19.60
A-137X	3.09	D-59	6.42	D-160	6.90	EA-070	3.84	EK-080A	8.13	ET-001	3.84	F-53X	4.50	G-435	19.60
A-138X	3.51	D-60R	6.66	D-161	7.50	EA-070A	5.58	EK-100	6.36	ET-001A	5.58	F-60U	7.59	G-437	19.60
A-139X	3.93	D-61	5.55	D-162	7.05	EA-100	3.84	EK-100A	8.22	ET-002	3.84	F-61U	10.20	G-455	19.60
A-140X	3.87	D-62	5.55	D-163	6.90	EA-100A	5.58	EK-120	6.36	ET-002A	5.58	F-62U	19.50	G-475	20.32
A-141X	3.66	D-63	5.88	D-164	7.05	EA-150	3.84	EK-120A	8.22	ET-003	3.84	F-63U	6.27	G-493	17.65
A-142X	3.51	D-64R	7.50	D-165	7.41	EA-150A	5.58	EK-150	6.36	ET-003A	5.58	F-64U	7.50	HS-1	28.58
A-143X	3.90	D-65	7.41	D-166	7.20	EA-200	3.93	EK-150A	8.22	ET-004	3.84	F-65U	11.19	HS-3	31.10
A-200P	15.00	D-66	7.50	D-167	7.20	EA-200A	5.67	EK-200	6.42	ET-004A	5.58	F-66U	27.60	HS-4	28.40
A-202P	20.85	D-67	9.30	D-168	7.32	EA-250	3.99	EK-200A	8.28	ET-005	3.90	F-67U	15.96	HS-5	27.55
A-210P	10.86	D-68	9.30	D-169	8.25	EA-250A	5.73	EK-250	6.51	ET-005A	5.64	F-68U	10.56	HS-8	28.58
C-1X	1.56	D-69	7.50	D-170	7.50	EA-300	3.99	EK-250A	8.37	ET-007	3.99	F-71U	6.51	HS-11	21.68
C-2X	1.50	D-70	7.92	D-171	7.20	EA-300A	5.73	EK-300	6.57	ET-007A	5.73	F-72Z	4.20	HS-14	22.52
C-3X	2.10	D-71	7.20	D-172	7.20	EA-400	4.08	EK-300A	8.43	ET-010	3.99	F-79U	24.00	HS-15	26.65
C-4X	1.77	D-72	7.68	D-173	7.17	EA-400A	5.82	EK-400	6.75	ET-010A	5.73	F-80U	45.00	HS-23	21.73
C-5X	2.34	D-73R	6.96	D-174	8.25	EA-500	4.29	EK-400A	8.61	ET-015	3.99	F-83A	11.70	HS-25	21.73
C-6X	2.04	D-74	7.14	D-175	7.50	EA-500A	6.03	EK-500	6.90	ET-015A	5.73	F-84AC	19.32	HS-27	19.70

Net

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SECTION 5600

TRIAD TRANSFORMER CORP.

DIVISION OF LITTON INDUSTRIES

PRICE LIST BY TYPE NUMBER

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
HS-29	27.50	HS-441	27.15	NW-8	.60	R-20A	13.80	R-112B	8.07	S-59Z	4.50	T-101X	3.34	V-23Z	4.98
HSM-31	21.08	HS-442	19.08	NW-9	.60	R-20B	13.65	R-113A	6.54	S-60A	9.63	TY-23X	3.90	VR-30Z	4.71
HS-32	27.50	HS-443	16.08	NW-10	.60	R-21A	14.31	R-113B	6.42	S-61Z	4.74	TY-24X	4.53	V-31	4.47
HS-35	19.51	HS-470	13.74	NW-11	.60	R-21B	14.04	R-114A	9.42	S-62X	2.58	TY-25X	4.62	V-31K	6.96
HS-50	23.23	HS-471	14.82	NW-12	.60	R-22A	7.59	R-114B	9.30	S-63X	2.67	TY-26X	4.65	WC-13	1.14
HS-52	24.02	HS-472	18.60	NW-13	.60	R-22B	7.44	R-115A	7.80	S-64X	2.40	TY-27XT	3.87	WLC-3	1.26
HS-54	28.58	HS-474	22.86	NW-14	.60	R-23B	6.51	R-115B	7.68	S-65X	1.98	TY-28XT	3.87	WLC-4	1.17
HS-56	25.82	HS-475	25.62	NW-15	.60	R-24A	16.35	R-116A	9.75	S-66X	1.92	TY-29X	4.26	WLC-5	1.17
HS-58	30.32	JAF-1	13.21	NW-16	.60	R-24B	16.23	R-116B	9.63	S-67X	2.13	TY-30X	3.33	WLC-6	1.17
HS-60	19.51	JAF-2	13.74	NW-17	.60	R-25A	25.92	R-118A	11.07	S-68Z	4.59	TY-31X	3.33	WLC-7	1.47
HS-61	20.65	JAF-3	13.74	NW-18	.60	R-26A	18.78	R-118B	10.95	S-69Z	4.41	TY-32X	3.90	WLC-8	1.80
HS-66	23.18	JAF-5	13.74	NW-19	.60	R-27A	33.60	R-120A	12.30	S-70Z	3.09	TY-33X	3.90	WLC-8A	1.80
HS-71	14.41	JAF-11	12.84	NW-20	.60	R-28A	25.26	R-120B	12.18	S-71Z	3.33	TY-34X	3.90	WLC-9	1.80
HS-73	15.43	JAF-12	13.21	NW-21	.60	R-29A	5.85	R-121A	12.90	S-72Z	4.20	TY-35X	3.75	WLC-10	1.59
HS-75	18.19	JAF-13	13.74	NW-22	.60	R-30X	4.89	R-121B	12.75	S-73X	3.18	TY-36X	3.90	WLC-11	1.59
HS-77	21.20	JAF-14	13.74	NW-23	.60	R-33BC	19.02	R-122A	15.60	SR-74K	9.33	TY-37X	3.99	WLC-12	1.17
HSM-79	19.51	JAF-15	13.74	NW-24	.60	R-35A	17.70	R-123BC	15.15	S-75K	13.20	TY-38X	3.99	WLC-17	1.41
HSM-80	21.31	JAF-21	13.23	NW-25	.60	R-36A	19.02	R-675A	17.25	S-76Z	5.04	TY-39X	4.05	WLC-21	1.05
HSM-81	23.60	JAF-22	13.21	P-1A	9.24	R-37BC	20.64	S-1X	1.74	S-77U	9.15	TY-40X	3.75	WLC-23	1.05
HSM-82	23.60	JAF-23	13.74	P-3A	11.16	R-38A	18.18	S-2X	1.80	S-78Z	3.66	TY-41X	3.84	WLC-25	1.92
HSM-84	23.60	JAF-31	14.18	P-5A	13.92	R-38BC	19.26	S-3X	1.80	S-79Z	4.35	TY-42X	3.75	WLC-26	2.01
HSM-85	23.60	JAF-33	14.18	P-7A	14.16	R-39BC	18.78	S-4X	2.43	S-128Z	5.70	TY-43X	3.84	WLC-29	2.04
HSM-91	39.33	JAF-101	12.61	P-9A	24.75	R-40A	21.06	S-5X	2.46	S-129Z	5.34	TY-44X	3.87	Y-12	6.78
HSM-94	43.65	JO-1	13.38	P-11A	15.36	R-40BC	22.56	S-5Z	2.46	S-130Z	3.69	TY-45X	3.87	Y-12-1	7.38
HSM-95	43.65	JO-2	13.92	P-14A	20.67	R-41C	16.86	S-6X	1.62	S-131X	2.82	TY-46X	2.64	Y-12-3	7.38
HS-97	82.26	JO-3	14.04	P-15AL	22.98	R-42BC	16.26	S-6Z	1.62	S-132X	3.51	TY-47X	4.08	Y-17	6.78
HSM-181	23.60	JO-5	13.92	P-16AL	45.60	R-43C	10.32	S-7X	1.74	S-133Z	4.41	TY-48X	4.08	Y-17-1	7.38
HSM-182	23.60	JO-11	13.32	P-17AL	28.80	R-44BS	16.50	S-8X	1.59	S-142A	12.00	TY-49X	2.94	Y-17-3	7.38
HSM-184	30.02	JO-12	13.74	P-18AL	52.20	R-45C	14.34	S-8Z	1.59	S-144A	17.49	TY-50X	4.80	Y-19	6.78
HSM-186	30.02	JO-13	13.74	P-20AL	51.75	R-46A	26.67	S-9X	2.49	S-146A	16.68	TY-51X	4.14	Y-19-1	7.38
HSM-187	30.02	JO-21	13.74	PR-21AL	50.67	R-47BS	19.80	S-9Z	2.49	S-148A	16.68	TY-52X	4.47	Y-19-3	7.38
HSM-189	30.02	JO-22	13.74	PL-4	10.32	R-49BC	19.20	S-10X	2.13	S-152A	25.02	TY-53X	3.42	Y-20	6.78
HSM-190	30.02	JO-23	13.92	PL-5	12.48	R-49BS	20.40	S-11X	1.71	S-154A	29.16	TY-54X	4.26	Y-20-2	7.68
HSM-192	45.04	JO-31	13.98	PL-6	12.48	R-50A	22.98	S-11Z	1.71	SP-4	7.80	TY-55X	4.32	Y-20-3	7.38
HSM-193	45.04	JO-101	12.60	PL-10	1.17	R-50BC	23.58	S-12X	1.65	SP-5	7.65	TY-56X	4.32	Y-21	6.78
HSM-200	16.98	JZ-1	11.79	PL-80E	11.25	R-51BC	17.34	S-12Z	1.65	SP-7	6.75	TY-57X	3.69	Y-21-1	7.38
HSM-201	21.66	JZ-5	12.13	PL-80H	12.48	R-52BC	17.34	S-13X	1.80	SP-11	6.30	TY-58X	3.69	Y-21-3	7.38
HSM-203	22.86	JZ-7	11.79	PL-80P	11.85	R-54X	3.63	S-13Z	1.80	SP-13	7.20	TY-59X	4.74	Y-22	6.78
HSM-205	24.42	JZ-13	11.79	PL-81E	11.79	R-56A	6.90	S-14Z	1.59	SP-15	7.20	TY-60X	4.50	Y-22-1	7.38
HSM-207	26.40	JZ-15	11.79	PL-81H	12.60	R-58A	16.02	S-15X	2.73	SP-20	6.90	TY-61X	3.06	Y-22-3	7.38
HSM-212	34.56	JZ-25	11.47	PL-81P	12.00	R-60BC	18.30	S-16X	1.89	SP-21	6.90	TY-62X	3.63	Y-24	6.78
HSM-216	40.50	JZ-26	11.47	PL-82E	11.70	R-61BC	20.16	S-17X	1.98	SP-29	6.90	TY-63X	4.17	Y-24-3	7.38
HSM-218	54.60	K-20	4.50	PL-82H	13.05	R-62BC	22.98	S-18X	2.13	SP-32	5.70	TY-64X	3.81	Y-25	6.78
HSM-219	49.95	M-1X	2.97	PL-82P	12.36	R-63BC	17.01	S-18Z	2.13	SP-33	5.85	TY-65Z	3.81	Y-25-1	7.38
HSM-223	11.61	M-3X	4.95	PL-83E	12.51	R-64BS	14.58	S-19Z	3.54	SP-34	5.55	TY-66A	9.42	Y-25-3	7.38
HSM-225	14.28	M-4Z	3.09	PL-83H	13.29	R-65BC	15.42	S-20X	1.62	SP-35	5.55	TY-67A	9.75	Y-26-2	7.68
HSM-226	16.32	M-5Z	4.11	PL-83P	12.63	R-66BC	15.66	S-20Z	1.62	SP-36	6.15	TY-68S	6.48	Y-28	6.78
HSM-227	19.44	M-7AL	13.50	PL-84E	12.15	R-67BC	14.67	S-21A	5.67	SP-42	5.85	TY-69S	8.31	Y-28-3	7.38
HSM-228	23.19	M-8AL	17.10	PL-84H	13.44	R-68A	10.32	S-21Z	4.32	SP-43	5.85	TY-70S	8.49	Y-40	7.68
HSM-229	21.96	M-12AL	20.34	PL-84P	12.78	R-69BC	15.06	S-22A	6.99	SP-44	6.00	TY-71S	10.35	Y-40-3	8.28
HSM-230	15.72	M-15A	11.67	PL-124E	11.70	R-70A	12.30	S-23X	1.92	SP-46	6.15	TY-74S	10.92	Y-41	7.68
HSM-231	20.64	M-16AL	13.68	PL-124H	13.14	R-71A	17.01	S-24A	6.99	SP-47	6.30	TY-75A	12.00	Y-41-3	8.28
HSM-232	22.41	MB-10	.45	PL-139E	10.08	R-72A	11.91	S-25Z	4.20	SP-48	6.75	TY-76A	8.25	Y-42-2	8.73
HSM-234	25.80	MB-20	.72	PL-139H	11.13	R-73B	8.67	S-26X	1.92	SP-49	6.00	TY-78	11.25	Y-43	7.68
HSM-235	33.30	MB-31	.45	PL-139M	12.09	R-74BC	21.00	S-27A	6.33	SP-50	6.00	TY-79	12.21	Y-43-1	8.28
HSM-236	21.54	N-1X	4.02	PL-140E	11.70	R-75BA	13.80	S-28X	3.90	SP-51	6.15	TY-80	12.33	Y-44	7.68
HSM-241	33.00	N-3M	8.16	PL-140H	13.14	R-76BC	20.52	S-29X	3.75	SP-52	6.30	TY-81	12.51	Y-44-1	8.28
HSM-245	39.90	N-4M	9.99	PL-140M	14.25	R-77BC	19.74	S-30X	1.74	SP-59	5.85	TY-82	12.90	Y-45	7.68
HS-247	45.99	N-5M	11.76	PL-146E	11.70	R-77BS	20.82	S-31A	9.00	SP-60	5.85	TY-83	14.91	Y-45-2	8.91
HSM-270	20.52	N-7M	17.01	PL-146H	13.08	R-78BC	17.34	S-32A	9.00	SP-61	6.00	TY-84	15.90	Y-46	7.68
HSM-271	26.10	N-9M	36.33	PL-146M	14.22	R-79BA	13.50	S-34X	4.98	SP-62	6.15	TY-88	11.10	Y-46-3	8.28
HSM-272	36.96	N-11M	52.20	R-2C	4.05	R-80BA, BC	18.84	S-35A	9.30	SP-63	6.15	TY-89	12.21	Y-47	7.68
HS-273P	17.10	N-34X	5.91	R-3A	6.00	R-81BC	20.25	S-36A	9.66	SP-64	6.30	TY-90	12.51	Y-48	7.68
HSM-301	11.82	N-35M	13.50	R-4A	6.15	R-81BS	21.42	S-37X	2.52	SP-65	6.75	TY-91	12.60	Y-48-3	8.28
HSM-302	11.04	N-50M	23.94	R-4B	6.00	R-83A	14.40	S-38X	1.74	SP-66	7.80	TY-92	13.20	Y-49	7.68
HS-303	11.34	N-51X	4.74	R-5A	6.90	R-84K	6.66	S-38Z	1.74	SP-67	7.20	TY-93	15.24	Y-49-1	8.28
HSM-305	12.24	N-52M	31.65	R-5B	6.75	R-85A	18.90	S-39X	2.40	SP-106	5.70	TY-94	15.96	Y-50	12.87
HSM-307	15.15	N-53M	10.41	R-6A	7.32	R-86BA	12.48	S-40X	2.52	SP-107	4.80	TY-99	12.45	Y-50-3	13.56
HSM-309	16.32	N-54M	12.30	R-6B	7.20	R-87BC	15.00	S-41X	1.80	SP-108	4.80	TY-100	12.60	Y-60	10.80
HSM-315	18.84	N-55M	19.32	R-7A	7.38	R-88A	15.15	S-41Z	1.80	SP-118	4.80	TY-101	14.40	Y-60-1	11.55
HSM-319	26.01	N-56M	25.50	R-7B	7.26	R-89BC	15.60	S-42A	16.20	SP-310	.84	TY-102	14.70	Y-60-2	11.85
HS-331	8.16	N-57M	36.00	R-8A	7.68	R-93A	15.00	SR-45Z	5.58	TY-468	9.51	TY-468	9.51	Y-62	11.91
HS-333	9.09	N-59M	52.80	R-8B	7.56	R-104A	5.16	S-46A	9.24	T-1X	4.32	TZ-1	3.68	Y-62-1	12.51
HS-335	11.49	N-60SC	114.00	R-9A	8.49	R-104B	5.07	S-47Z	3.84	T-2X	4.32	TZ-5	3.68	Y-64	11.49
HS-339	12.48	N-62AC	54.30	R-9B	8.40	R-105A	5.94	S-48X	1.65	T-3X	4.32	TZ-7	3.26	Y-64-1	12.09
HS-341	13.32	N-64AC	31.20	R-10A	8.91	R-105B	5.85	S-48Z	1.65	T-5X	4.32	TZ-13	3.83	Y-66	11.91
HS-401	17.64	N-66A	18.66	R-10B	8.79	R-106A	6.06	S-49Z	1.74	T-11X	4.01	TZ-15	3.83	Y-66-1	12.51
HS-402	15.96	N-67A	12.36	R-11A	9.27	R-106B	5.97	S-50X	2.13	T-12X	4.32	TZ-25	3.11	Y-70	11.40
HS-405	21.90	N-68X	5.67	R-11B	9.15	R-107A	6.69	S-51X	2.67	T-13X	3.97	TZ-26	3.11	Y-70-1	12.00
HS-407	26.34	N-469A	7.50	R-12A	9.33	R-107B	6.57	S-52X	2.67	T-20X	4.05	TZ-28	3.11	Y-72	11.49
HS-409	22.38	N-470A	10.41	R-12B	9.21	R-108A	6.75	S-53X	3.15	T-21X	3.86	V-21	4.20	Y-72-1	12.09
HS-413	27.30	N-471A	15.00	R-14A	10.41	R-108B	6.63	S-54X	3.09	T-22X	3.86	V-21B	4.80	YC-1	.60
HS-415	34.20	NW-1	.60	R-14B	10.29	R-109A	7.26	S-55X	3.84	T-23X	4.01	V-21K	6.33	YC-110	.75
HS-417	37.44	NW-2	.60	R-16A	11.67	R-109B	7.17	S-55Z	3.84	T-31X	4.01	V-21Z	4.29	YC-111	.75
HS-425	13.32	NW-3	.60	R-16B	11.52	R-110A	7.89	S-56Z	4.08	T-33X	4.01	V-23	4.92	YC-112	.75
HS-427	16.02	NW-4	.60	R-17A	12.12	R-110B	7.77	S-57Z	4.59	T-41X	3.90	V-23B	6.00	YP-8	66.72
HS-433	17.76	NW-5	.60	R-18A	12.66	R-111A	8.01	S-58X	3.00	T-42X	3.90	V-23K	7.26		
HS-435	19.86	NW-6	.60	R-18B	12.54	R-111B	7.89								
HS-436	11.40	NW-7	.60	R-19A	15.12	R-112A	8.19								
HS-438	16.38														

PRICES

Prices in this *MASTER* should not be considered as final.
Inquire about latest prices and delivery.

DISCOUNTS

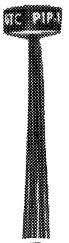
Trade discounts apply in most cases
where *list prices* are shown.

ORDERING

Since previous editions of The MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

NEW PRODUCTS ENTIRE NEW SERIES

PIP SERIES TRANSISTOR PULSE TRANFORMERS



UTC's PIP series of subminiature transistor type pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. Units have a ratio of 4:4:1, and are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-21038 by full environmental testing . . . all units, completely METAL CASED, MIL type TP6RX4410CZ.

All Units Individually Adjusted to Parameters Shown in Table

5/16" Dia. x 3/16" high
Weight 1/20 oz.

Type No.	APPROX. DCR, OHMS 1-Brn 2-Rd	3-Org 4-Yel	5-Grn 6-Blu	BLOCKING OSCILLATOR PULSE Width μSec.	Rise Time	% Over Shoot	% Droop	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width μSec.	Volt Out	Rise Time	% Over Shoot	% Droop	% Back Swing	Imp. in, out,	Net Each
PIP-1	.18	.20	.07	.05	.02	0	0	37	.05	9	.018	0	0	12	50	$6.00
PIP-2	.47	.56	.17	.1	.025	0	0	25	.1	8	.02	0	0	5	50	6.00
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	.2	7	.035	0	0	5	100	6.00
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	.5	7	.06	0	0	0	100	6.00
PIP-5	2.45	3.1	.9	1	.08	0	0	14	1	6.8	.15	0	0	5	100	6.00
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.6	.18	0	2	10	100	6.00
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00
PIP-9	13.1	15.9	4.7	10	.35	0	5	12	10	6.5	.4	0	15	20	200	6.00
PIP-100	Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.															51.00

See UTC page 6 for other pulse transformer series.

TRANSISTOR POWER TRANSFORMER
400 CYCLE TYPES

DO-T500 MIL TYPE TF4RX03YY
5/16 Dia. x 13/32" Wt. 1/10 oz.

Pri.	28V. 380-1000 Cycles
Sec.	6.3V. @ 60 ma
Net Each:	$6.60

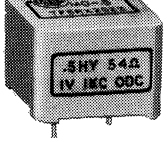
See UTC page 3 for Audio Units

MINIATURE INDUCTORS — MINIDUCTORS

Hermetically sealed, manufactured & guaranteed to MIL-T-27A by full environmental testing . . . all units MIL type TF5RX20ZZ

UTC Miniductors are ideal for transistor and printed circuit applications, providing high Q in miniature form. MO-.15 thru 1 are for medium low frequencies adjusted at 1 V, 1 KC. The MO-2 thru 100 are for lower frequencies adjusted at 1 V, 400 cycles. MO units are adjusted to a tolerance of ±2%. The MW series is for medium frequencies and adjusted to ±1%.

Temperature stability is unequalled on all Miniductors, from −55° C. to + 100° C. MW coils are symmetrical toroid . . . for high coupling attenuation and low hum pickup. All miniductors are equally well suited for vacuum tube application.



MO CASE
3/4 x 1 1/16 x 13/16" high
Weight 1 oz.

Type No.	Ind. Hy, ma DC (0 DC)	Max.	DCRΩ ±20%	Net Each
MO-.15	.15	45	22	$6.30
MO-.3	.3	28	34	6.30
MO-.5	.5	23	54	6.30
MO-1	1	16	130	6.30
MO-2	2	8	130	6.60
MO-5	5	5	340	6.60
MO-7.5	7.5	4.5	517	6.60
MO-20	20	2.7	1310	6.60
MO-50	50	1.4	3180	7.20
MO-100	100	1.1	8550	7.20

MW CASE
23/32" Dia. x 13/16" high
Weight .25 oz.

Type No.	Ind. Hy, ma DC (0 DC)	Max.	DCRΩ ±20%	Net Each
MW-.5	.5	8	243	$7.80
MW-.75	.75	7	355	8.40
MW-1	1.0	6	500	8.70
MW-1.2	1.2	5	560	9.30
MW-2	2	4	870	10.80
MW-3	3	3.5	1340	11.70
MW-5	5	3	2500	13.50

See other series of Mimiductors UTC page 7.

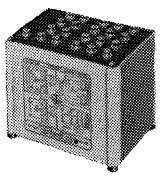
CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

The UTC LABoratory circuit development transformers aid the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB-10
units in LS-1 case

LAB-20
units in LS-3 case

See UTC page 8 for dimensions
Terminal board as shown above



LAB-20 20 Cycles to 20kc Up to 50W Continuous

Pri. Imp. Ω: 6, 12, 24, 40, 54, 70,
Sec. Imp.: 4, 8, 16, 64

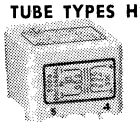
Net Each: $60.00

LAB-10 20 Cycles to 20kc Up to 1W Continuous

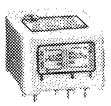
Pri. Imp. Ω Range	Pri. to Sec. Ratio	Sec. Imp. Ω Range
1900 Ω to 14,400 Ω	20:1 or 10:1	19 Ω to 36 Ω
925 Ω to 7600 Ω	10:1 or 5:1	37 Ω to 76 Ω

Net Each: $30.00

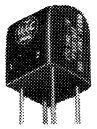
SUBOUNCER & SUB-SUBOUNCER AUDIO TRANSFORMERS
TRANSISTOR & TUBE TYPES HERMETICALLY SEALED



SO-#P UNIT
Dim.
3/4x1x23/32"
Pin Length 1/4"
Wt. .....05 lb.



SSO-#P UNIT
Dim.
3/4x7/8x9/16"
Pin Length 1/4"
Wt. .....04 lb.



SML-70
7/16x31/64x9/16"
Wt. .2 oz.

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	$8.70
SO-3P*	Plate to Line	10K 25K	200 500	8.70
SO-7P*	Transistor Interstage	20K 30K	800 1200	8.40
SO-8P	Transistor to PP Sec.	10K	2000 CT	9.00
SO-9P	PP Transistor to V.C.	500 CT	3.2	9.00

MIL TYPES: SO-2P, TF5RX15ZZ; SO-3P, TF5RX13ZZ; SO-7P, TF5RX13ZZ; SO-8P, TF5RX13ZZ; SO-9P, TF5RX17ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SSO-3P	Plate to Line	10K 25K	200 500	$9.30
SSO-19P	Output matching	500 CT	600 CT	9.30
SSO-21P	Crystal/Chopper	200K CT	1000 CT	9.60
SSO-22P	Interstage	10K CT 12K CT	1500 CT 1800 CT	9.00

MIL TYPES: SSO-3P, TF5RX13ZZ; SSO-19P, TF5XR17ZZ; SSO-21P, TF5RX16ZZ; SSO-22P, TF5RX13ZZ.

See commercial types, UTC page 10

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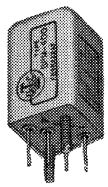
NEW PRODUCTS

1 NEW MINIATURE BAND PASS INTERSTAGE FILTER

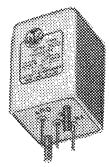


For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A

Type No.	Frequency Cycles	Net Each
BPM-1200	1200	$27.00

See UTC page 4 for complete series.

1 NEW MINIATURE LOW PASS INTERSTAGE FILTER

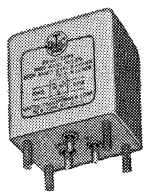


For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A

Type No.	Frequency Cycles	Net Each
LMP-1500	1500	$30.00

See UTC page 4 for complete series.

3 NEW STANDARD BAND PASS INTERSTAGE & LINE FILTERS

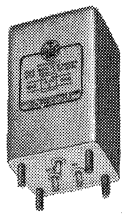


For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A

Type No.	Frequency Cycles	Net Each
BMI-50	50	$30.00
BMI-200	200	30.00
BMI-240	240	30.00

See UTC page 4 for complete series.

2 NEW STANDARD HIGH PASS INTERSTAGE & LINE FILTERS

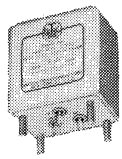


For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A

Type No.	Frequency Cycles	Net Each
HMI-100	100	$31.50
HMI-300	300	31.50

See UTC page 4 for complete series.

1 NEW STANDARD LOW PASS INTERSTAGE & LINE FILTER

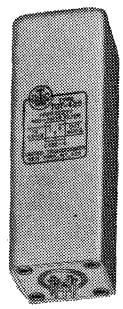


For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A

Type No.	Frequency Cycles	Net Each
LMI-100	100	$31.50

See UTC page 4 for complete series.

4 NEW TELEGRAPH TONE CHANNEL FILTERS



Metal Cased, Hermetically Sealed to MIL-F-18327A

TRANSMITTING FILTERS

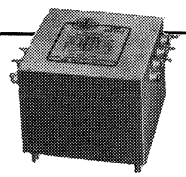
Type No.	Center Frequency Cycles	Net Each
TGT-3145	3145	$30.00
TGT-3315	3315	30.00

RECEIVING FILTERS

Type No.	Center Frequency Cycles	Net Each
TGR-3145	3145	$57.00
TGR-3315	3315	57.00

See UTC page 4 for complete series.

1 NEW ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMER



Metal Cased, Hermetically Sealed to MIL-T-27A
Primary 115V 50/60 Cycles.
Secondary 115V

Type No.	Power (Military)	Power (Industrial)	Case Size	Net Each
HIT-15	120	150	5 11/32 x 5 x 3 1/2 h.	$39.00

See UTC page 6 for complete series

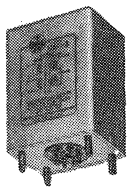
5 NEW TRANSISTOR TRANSFORMERS DD-T & DI-T Series

Hermetically Sealed to MIL-T-27A

UTC Type	Application	Pri. Imped. ohms	Sec. Imped. ohms	Net Each
DO-T45	Interstage	1K/1.25K CT, 3.5 ma	16K/20K Split	$7.80
DO-T46	Input	100K CT	500 CT	8.40
DI-T37	Interstage	2K/2.5K CT, 3 ma	8K/10K Split	7.80
DI-T38	Interstage	10K/12K CT, 1 ma	2K/2.4K Split	7.80
DI-T41	Interstage	400/500 CT, 8/6 ma	400/500 Split	7.50

See UTC page 3 for complete series

1 NEW MAGNETIC AMPLIFIER TRANSISTOR TYPE For SERVO MOTOR APPLICATION

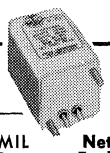


Metal Cased, Hermetically Sealed to MIL-T-27A
60 CYCLE TYPE

Type No.	MAT-60
Power Output	50 W.
R_L, ohms	260 Ω
C_L, mfd, approx.	7 Mfd.
Cont. Wind. Res.	50 Ω
Case and Wt.	MIL type MB
Net Each	$54.00

See UTC page 6 for complete series

2 NEW FILTER REACTORS

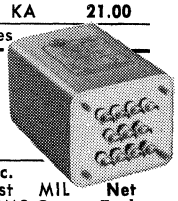


Metal Cased, Hermetically Sealed to MIL-T-27A

Type No.	Ind. Mhys.	@ DC Amps	DCR ohms	Test V. RMS	MIL Case	Net Each
H-172	70	.25A	.22			
(2 wdgs.)	17.5	.5A	.055	1000	HA	$12.60
H-173	90	.5A	.15			
(2 wdgs.)	22.5	1A	.038	1000	KA	21.00

See UTC page 5 for complete series

2 NEW TRANSISTOR FILAMENT TRANSFORMERS



Hermetically Sealed to MIL-T-27A
METAL CASED TYPE
Primary 115V 50/60 Cycles

Type No.	MIL Type	Sec. Volts	Amps (MIL)	Amps (Indust.)	Sec. Test V. RMS	MIL Case	Net Each
H-119	TF4RX01AH	6.3 CT	.3	.38	1500	AH	$8.40

MOLDED TYPE MIL TYPE TF5SX01ZZ
Primary 105/115 V, 380-1000 Cycles
Sec. 6.3 VCT 500V RMS Test

Type No.	Sec. Amps	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-118	.3	See SO-P units UTC page 2				$9.00

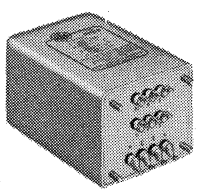
See complete series UTC page 3

4 NEW UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Metal Cased, Hermetically Sealed to MIL-T-27A

FOR:
LOW VOLTAGE DC SUPPLY
TELEPHONE SUPPLY
BIAS SUPPLY
BATTERY CHARGERS
PLATING RECTIFIERS

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 TO 40.5



Type No.	MIL DC Range	Induct. DC Range	MIL Case	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53-.025A	AH	$11.70
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	12.90
H-935	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	FA	14.40

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 16.5 TO 81

H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	20.40

See UTC page 4 for complete series

2 NEW CHANNEL FRAME FILAMENT TRANSISTOR TRANSFORMERS

Type No.	Secondary	W	D	M	H	Lbs.	Net Each
FT-13	26VCT-.04A	2 1/8	1 3/8	1 1/4	1 3/4	1 1/4	$3.30
FT-14	26VCT-.25A	2 7/8	1 5/8	1 11/16	2 3/8	3/4	3.75

See UTC page 4 for complete series

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Net

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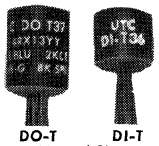
TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27A*

DO-T AND DI-T TRANSISTOR TRANSFORMERS



DO-T DI-T
(Actual Size)

Revolutionary transistor transformers hermetically sealed to MIL-T-27A specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: 5/16" dia. x 13/32" long, wt., 1/10 oz. DI-T: 5/16" dia. x 1/4" long, wt., 1/20 oz. these compact units provide wide frequency response, high efficiency and low distortion.

DO-T Type	DI-T Type	Net Each	Application	Pri. Imped., Ohms	Sec. Imped. Ohms
DO-T1	DI-T1	$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	.....	5.40	b	600, 3 ma	3.2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3.2
DO-T6	.....	6.00	b	10K, 1 ma	3.2
DO-T7	.....	6.60	c	200K/.5K	1K/100K
DO-T8	DI-T8	4.80	d*	3.5 hys. @ 2 ma	2.5 hys.‡‡
DO-T9	DI-T9	6.60	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.60	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma.	2K/2.5K CT
DO-T12	.....	5.70	b	150/200 CT, 10 ma	12/16
DO-T13	.....	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	.....	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	.....	6.00	b	800/1070 CT,4 ma	12/16
DO-T16	.....	6.00	b	1K/1330 CT, 3.5 ma	12/16
DO-T17	.....	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	.....	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT/600, 3/5 ma	600/1.5 CT
DO-T23	DI-T23	6.90	a	20K/30K CT, 5/.5 ma	0.8K/1.2K CT
DO-T24	.....	7.50	c	200/.5 CT,	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	d†	6 hys. @ 2 ma	4.5 hys.‡‡
DO-T27	DI-T27	4.80	d‡	1.25 hys. @ 2 ma	0.9 hy.‡‡
DO-T28	DI-T28	4.80	d§	0.3 hy. @ 4 ma	0.1 hy.‡‡
DO-T29	.....	5.70	b	120/150 CT, 10 ma	3.2/4
DO-T30	.....	5.70	b	320/400 CT, 7 ma	3.2/4
DO-T31	.....	6.00	b	640/800 CT, 5 ma	3.2/4
DO-T32	.....	6.00	b	800/1K CT, 4 ma	3.2/4
DO-T33	.....	6.00	b	1060/1330 CT,3.5ma	3.2/4
DO-T34	.....	6.00	b	1.6K/2K CT, 3 ma	3.2/4
DO-T35	.....	6.30	b	8K/10K CT, 1 ma	3.2/4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4K Split
DO-T39	.....	7.80	a	20K/30K CT, .5 ma	1K/1.5K Split
DO-T40	.....	8.40	a	40K/50K CT, .25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	.....	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	.....	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	.....	7.50	a	80/100 CT,12/10ma	32/40 Split
DO-T45	.....	7.80	a	1K/1.25K CT, 3.5ma	16K/20K Split
DO-T46	.....	8.40	c	100K CT	500 CT
DO-TSH	DI-TSH	.90	High mu shield and cover; 25db.		

*630 ohms. †2100 ohms. ‡100 ohms. §25 ohms.
‡‡DI-T primary impedance.
a—Interstage; b—Output; c—Input; d—Reactor; e—Driver or Output; f—Driver; g—matching

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary tapes can modify nom. AC voltages by −6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

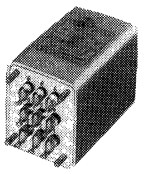
PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53-.025A	AH	$11.70
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	12.90
H-935	6V-1.2A to 53-.4A	6V-1.52A to 53V-.48A	FA	14.40
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	19.80
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	28.80
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	OA	48.00
	PRIMARY 115 VOLTS, 50/60 CYCLES NOMINAL SEC. VOLTS, 16.5 TO 81			
H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	20.40

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSF.

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.) and H-131 (115/220v.) Suited to 400/100 cycle service. H-128: 6½" x 5½" x 7¾" h. (wt. 34 lbs.) H-129: 6½" x 5½" x 7¾" h. (wt. 28 lbs.)

METAL CASED TF4 TYPE



MIL T-27A RATINGS IN REGULAR TYPE, **INDUSTRIAL RATINGS IN BOLD TYPE**

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	**Amps. (Indust.)**	Sec. Test V. RMS	MIL Case	Net Each
H-119	TF4RX01AH	6.3CT	.6	**.38**	1500	AH	$ 8.40
H-120	TF4RX01GB	2.5	10	**12**	4000	GB	13.80
H-121	TF4RX01JB	2.5	10	**12**	10000	JB	18.00
H-122	TF4RX01KB	2.5	20	**26**	10000	KB	21.00
H-123	TF4RX01NB	2.5	5	**7.5**	10000	NB	36.00
		2.5	5	**7.5**			
		2.5	10	**15**			
H-124	TF4RX01FB	5	3	**3**	2000	FB	12.00
H-125	TF4RX01KB	5	10	**12**	10000	KB	21.00
H-126	TF4RX01LA	5	20	**25**	10000	LA	27.00
H-127	TF4RX01NA Term. Opp. Mtg.	5	20	**30**	21000	NA	45.00
H-128	TF4RX01YY Term. Opp. Mtg.	5	60	**75**	21000		81.00
H-129	TF4RX01YY	5	10	**12**	21000		90.00
	Term. Opp. Mtg.	5	10	**12**			
		5	20	**24**			
H-130	TF4RX01AJ	6.3CT	.6	**.75**	1500	AJ	9.00
H-131	TF4RX01FB	6.3CT	2	**2.5**	2500	FB	12.00
H-132	TF4RX01JA	6.3CT	6	**7**	2500	JA	19.20
		6.3CT	6	**7**			
H-133	TF4RX01HB	6.3CT	7	**8**	2500	HB	15.00
H-134	TF4RX01HA	6.3CT	10	**12**	2500	HA	16.80
H-135	TF4RX01JB	10 CT	10	**13**	2500	JB	21.00
H-136	TF4RX01LA	14, 12, 11 CT	10	**14**	2500	LA	27.00
H-137	TF4RX01EB	6.3	.6	**.75**	1500	EB	12.00
		6.3	.6	**.75**			
H-138	TF4RX01GA	12.6	2	**2.5**	1500	GA	19.50
		12.6	2	**2.5**			
		400 CYCLE TYPE					
H-139*	TF4RX01FA Pri. 400 cyc. 57.5,99.7,115V	12.6CT 12.6	2 2	**2.5 2.5**	1500	FA	18.00
H-140	TF4RX01YY Pri. 400 Cyc.	6.3	.6	**.75**	500	RC-25 UTC Pg. 5	7.80

*Two H-139's Scott connected provide 26 volt two phase from 115V. three phase 400 cycle input.

400 CYCLE MOLDED TYPES

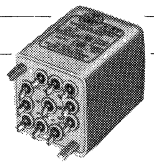
Primary 105/115
Volts 380-1000 Cycles. Sec: 6.3
VCT 2500V RMS Test

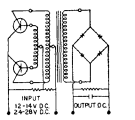
MOLDED 400 CYCLE TYPE TF5SX01ZZ

Type No.	Sec. Amp.	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-101	3.5	1 25/32	1 21/32	2	.3	$14.10
H-102	5.5	1 3/4	2	2 1/4	.44	15.00
H-103	10	2 5/16	2 1/8	2 1/2	.8	17.40
H-104	25	2 7/8	2 1/2	3 1/32	1.5	21.90
H-118	.3	Sub ounces mold see pg. 2				9.00

TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.



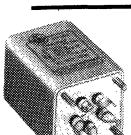


FOR 12/14 OR 24/48 VOLT BATTERY

Type No.	DC output, when used in circut shown	MIL Case	Net Each
H-97	250V.-60MA	AH	$14.70
H-98	375V.-100MA	AJ	15.90
H-99	425V.-175MA	FA	20.40
H-100	550V.-200MA	GB	21.00

IMMEDIATE DELIVERY ON ALL ITEMS FROM STOCK

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

Type No.	Sec. V Rms	Sec. A Rms	Sec. in Parallel: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	Sec. in Series: Choke DCV	Input DCA	Cond. DVC	Input DCA	C	MIL Case	Net Each
H-141	20 CT	.3	16.5	.3	26	.2	.2						EB	$10.20
			8	.43	12	.3	.5							
H-142	20 CT	.6	16.5	.6	26	.4	.4						EA	12.90
			9	.85	13	.6	1							
H-143	17/21.5	1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60
H-144	17/21.5 17/21.5	1.5 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00
H-145	17/21.5 17/21.5	4 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	RC-175	45.90
H-146	34/43 34/43	4.5 4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	UTC Pg. 9	45.90
H-147	10	20	8.2	20	10	13	12						KA	27.00

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ELECTRIC WAVE FILTERS *Hermetically sealed to MIL-T-27A* and Transistor Transformers *(Commercial Type)*

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff frequency in cps). Compact shielded cases hermetically sealed to MIL-T-27A specs. BMI, LMI, BML cases: 1 3/16" x 1 11/16" x 1 5/8" h.; wt., 6 oz. HMI, HML, LML cases: 1 3/16" x 1 11/16" x 2 1/2" h.; wt., 9 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BML band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

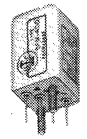
HMI filters are high pass interstage units.

LMI filters are low pass interstage units.

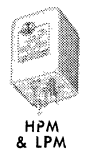
HML filter are high pass with input and output impedance of 500/600 ohms.

LML filters are low pass filters with input and output impedance of 500/600 ohms.

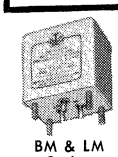
UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-50	$30.00	LMI-400	$31.50	HMI-800	$31.50
BMI-60	30.00	LMI-500	31.50	HMI-1000	31.50
BMI-100	30.00	LMI-800	31.50	HMI-2000	31.50
BMI-120	30.00	LMI-1000	31.50	HMI-3000	31.50
BMI-200	30.00	LMI-1500	31.50	BML-400	30.00
BMI-240	30.00	LMI-2000	31.50	BML-1000	30.00
BMI-400	30.00	LMI-2500	31.50	HML-200	39.00
BMI-500	30.00	LMI-3000	31.50	HML-300	39.00
BMI-750	30.00	LMI-4000	31.50	HML-500	39.00
BMI-800	30.00	LMI-5000	31.50	HML-1000	39.00
BMI-1000	30.00	LMI-10000	31.50	LML-1000	31.50
BMI-1500	30.00	BTI-60	36.00	LML-1500	31.50
BMI-2000	30.00	BTI-100	36.00	LML-2000	31.50
BMI-3000	30.00	BTI-120	36.00	LML-2500	31.50
BMI-4000	30.00	HMI-100	31.50	LML-4000	31.50
BMI-5000	30.00	HMI-200	31.50	LML-8000	31.50
BMI-10000	30.00	HMI-300	31.50	LML-10000	31.50
LMI-100	31.50	HMI-400	31.50	LML-12000	31.50
LMI-200	31.50	HMI-500	31.50		



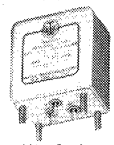
BPM



HPM & LPM



BM & LM Series



HM Series

MINIFILTERS

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27A specs. B type case: 3/4" x 3/4" x 1 1/8" h.; wt., 1 oz. H and L cases: 1" x 1" x 1 3/8" h.; wt., 2 1/4 oz. Cutoff frequencies in cps indicated by type number.

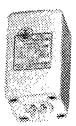
BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db ±3% from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

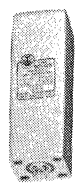
LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BPM-400	$27.00	BPM-2000	$27.00	LPM-200	$30.00
BPM-440	27.00	BPM-3000	27.00	LPM-500	30.00
BPM-500	27.00	BPM-4000	27.00	LPM-1000	30.00
BPM-600	27.00	BPM-5000	27.00	LPM-1500	30.00
BPM-750	27.00	BPM-10000	27.00	LPM-2000	30.00
BPM-1000	27.00	HPM-500	30.00	LPM-3000	30.00
BPM-1200	27.00	HPM-1000	30.00	LPM-5000	30.00
BPM-1500	27.00				

TELEGRAPH TONE CHANNEL FILTERS



TGT CASE
1 1/2 x 1 1/2 x 2 1/2
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight .....8 oz.



TGR CASE
1 1/2 x 1 1/2 x 4 1/4
Mtg 1 1/16 x 1 1/16"
Screws 6-32
Weight ....15 oz.

UTC band pass filters for mutiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are 600 ohms in and out. They are down less than 3 db at ± 42.5 cycles from center frequency. TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at adjacent channel crossover.

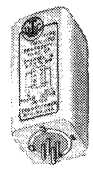
TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover.

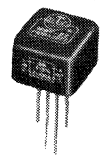
All units are MIL type FR4RX-22YY.

IMMEDIATE DELIVERY ON ALL ITEMS

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	$42.00	425	TGR-425	$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	36.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

TELEMETERING BAND PASS FILTERS





TMN-.4 thru TMN-1.7
1 1/16 x 1 9/32 x 2"
Weight 3.5 oz

TMN-2.3 thru TMW-70
2 3/32 x 2 3/32 x 1 3/8"
Weight 1.2 oz.

MNF-.4 thru MNF-5.4
1 3/16" Sq. x 1/2" high
Weight 1 oz.

MNF-7.35 thru MWF-70
2 3/32" Sq. x 1/2" high
Weight 1/3 oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at ± 7.5% of center frequency. They are down more than 18 db at ± 25% of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

TMW filters are down less than 3 db at ± 15% of center frequency. They are down more than 20 db at ± 50% of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequ'cy KC	Band Width±	UTC Type	Net Each
TMN- .4	$39.00	.4	7 1/2%	MNF- .4	$39.00
TMN- .56	39.00	.56	7 1/2%	MNF- .56	39.00
TMN- .73	39.00	.73	7 1/2%	MNF- .73	39.00
TMN- .96	39.00	.96	7 1/2%	MNF- .96	39.00
TMN-1.3	39.00	1.3	7 1/2%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7 1/2%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7 1/2%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7 1/2%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7 1/2%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7 1/2%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7 1/2%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7 1/2%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7 1/2%	MNF-14.5	42.00
TMN-22	42.00	22	7 1/2%	MNF-22	42.00
TMN-30	42.00	30	7 1/2%	MNF-30	42.00
TMN-40	42.00	40	7 1/2%	MNF-40	42.00
TMN-52.5	42.00	52.5	7 1/2%	MNF-52.5	42.00
TMN-70	42.00	70	7 1/2%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

TRANSISTOR TRANSFORMERS *(Commercial Type)*

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS

Pri. 115 V. 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	2 7/8	1 1/2	1 11/16	2 3/8	3/4	$2.85
FT-2	6.3 VCT-1.2A	2 7/8	1 1/2	1 11/16	2 3/8	3/4	3.15
FT-3	2.5 VCT-6A	3 5/16	1 7/8	2	2 13/16	1	3.45
FT-4	6.3 VCT-3A	3 5/16	1 7/8	2	2 13/16	1	3.45
FT-5	2.5 VCT-10A	3 3/4	2 1/8	2 5/16	3 1/8	1 1/2	3.90
FT-6	5 VCT-3A	3 3/4	2 1/8	2 5/16	3 1/8	1 1/2	4.05
FT-7	7.5 VCT-3A	3 3/4	2 1/8	2 5/16	3 1/8	1 1/2	4.05
FT-8	6.3 VCT-8A	4	2 1/2	2 5/8	3 5/16	2 1/2	4.80
FT-10	24 VCT-2A or 12V-4A	4	2 5/8	2 5/8	3 5/16	2 1/2	5.10
FT-11	24 VCT-1A or 12 V-2A	3 3/4	2 1/8	2 5/16	3 1/8	1 1/2	4.50
FT-12	36 VCT-1.3A or 18 V-2.6A	4 1/8	2 5/8	2 5/8	3 5/16	2 1/2	5.10
	Taps on pri. of FT-13 & FT-14 to modify sec. nominal V, −6% +6%, +12%						
FT-13	26 VCT-.04A	2 1/8	1 3/8	1 1/4	1 3/4	1/4	$3.30
FT-14	26 VCT-.25A	2 1/8	1 3/8	1 11/16	2 3/8	3/4	3.75

TRANSISTOR/FILAMENT TRANSFORMERS

Pri. 115 x 50/60 Cycles; Bridge Rectifier
S-77 & S-78 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 10	Net Each
S-75	5.2/14	1.2/.4	G-1	6.00
S-76	10/26	4/1.4	G-4	9.00
S-77	14/56	3/1	G-5	10.20
S-78	28/110	9/3	G-10	30.00

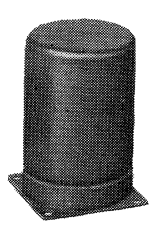
TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS

Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel Choke in DCV	In Parallel Choke in DCA	In Parallel C in DCV	In Parallel C in DCA	In Series Choke in DCV	In Series Choke in DCA	In Series C in DCV	In Series C in DCA	Case No. See Pg. 9	Net Each
CG-30	17/21.5	1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	RC-112	$18.90
	17/21.5	1.5										
CG-31	34/43	4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	RC-175	42.00
	34/43	4.5										
CG-32	6.3VCT	1.2									RC-62	10.50

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34 . . . 105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.



RC CASE
See Pg. 9

Type No	Sec. Volts C. T.	Sec. Amps.	Working Voltage	Sec. Test Volts RMS	Case No. See Page 9	Net Each
CG-33	6.3	4	500	2000	RC-75	$ 9.00
CG-34	2.5	10	2500	6000	RC-112	10.20
CG-120	2.5	10	5000	11000	RC-125	15.00
CG-121	5	25	5000	11000	RC-150	18.00
CG-122	7.5/6.3	10	1500	4000	RC-125	15.00
CG-124	10	10	1500	4000	RC-150	15.00
CG-125	14/12/11	10	1500	4000	RC-150	18.00
CG-126	14/11/10	10	1500	4000	RC-152	24.00
	14/11/10	10				

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HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27A*

HERMETIC AUDIO UNITS

RC-25

RC-50

SM

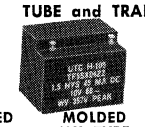
These extremely compact units are proved to specifications of MIL-T-27A. **Response & level ratings:** RC-25: Similar to Ouncers for case (1 13/32" x 61/64" x 1 7/16" h. 1.5 oz.). RC-50: Similar to ultra compact units for case (1 5/8" x 1 5/8" x 2 3/16" h. 8 oz.). SM: Similar to SSO units for case (1 1/16" x 1 1/2" x 2 9/32" h. 0.8 oz.).

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	#	Net Each
H-1	Line to grid	50, 200 CT, 500 CT	50K	a	$ 9.00
H-2	Mike to grid	82, 50 ma	135K	a	9.90
H-3	Pl. to grid	15K	60K	a	7.80
H-4	Pl. to grid	15K, 4 ma	60K	a	7.80
H-5	Pl. to p-p	15K	95K CT	a	8.40
H-6	Pl. to p-p	15K, 4 ma	95K split	a	10.20
H-7	Pl. to line	20K CT, 4 ma	150/600	a	9.60
H-8	Mixing	150/600	600 CT	a	9.00
H-9	Input	150/600	1 meg.	a	9.00
H-10	Pl. to grid	10K	1 meg.	a	8.40
H-11	Reactor: 300 hys, 50 hys @ 3 ma, 600 ohms			a	7.50
H-12	Line to p-p	50, 200 CT, 500 CT	50K CT	a	9.60
H-13	Interstage	10K/2.5K split	2K/.5K split	a	9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a	9.00
H-15	Tr. to line	1.5K CT	500/125 split	a	9.00
H-16	Tr. to V.C.	2K/4K CT	8/16	a	9.00
H-17	Transistor input	600/150 split	2K/500 split	a	8.70
H-18	Transistor Interstage	10K CT	500/125 split	a	8.70
H-19A	Input*	250 CT/500 CT	50K/100K CT	b	16.50
H-20	Interstage	15K split	80K split	b	15.00
H-21	Pl. to p-p	15K, 8 ma	80K split	b	18.00
H-219	Transistor Interstage	50K CT	500/125 split	a	9.00
H-22	Pl. to line	15K, 8 ma	50/200, 125/500	b	15.90
H-220	Transistor Interstage	500/125 split	500/125 split	a	8.70
H-221	Transistor Interstage	500/125 split	150/37.5 split	a	8.70
H-23	P-p to line	30K split	50/200, 125/500	b	16.20
H-24	Reactor: 250 hys. @ 5 ma†, 65 hys. @ 10 ma‡			b	10.80
H-25	Mixing	500 CT	125/500	b	15.00
H-26	Interstage	10K/2.5K split	2K/500 split	b	15.00
H-27	Tr. to V.C.	500 CT	16/4 split	b	15.00
H-280	Interstage	200 CT	400 split	b	12.00
H-281	Tr. to V.C.§	48 CT	16, 8, 4	b	12.00
H-282	Tr. to V.C.††	20 CT	16, 8, 4	c	12.60
H-290	Shld. chopper	2500 e. s.	100K	b	19.80
H-291	Max. shld. chop.	2000/500 e. s.	312K	c	28.80
H-30	Input	50	62,500	d	8.40
H-31	Pl. to grid	10K	90K	d	8.40
H-32	Pl. to line	10K, 3 ma	200	d	8.40
H-33	Output	30K, 1 ma	50	d	8.40
H-35	Reactor: 100 hys., 50 hys. @ 1 ma, 4400 ohms			d	6.90
H-36	Interstage	25K, 0.5 ma	1K	d	7.50
H-37A	Tr. output	500 CT	50	d	7.50
H-38	Interstage	10K CT, 2 ma	1.2K CT	d	7.50
H-39	Interstage	10K CT, 2 ma	2K CT	d	7.50
H-40A	Tr. output	500 CT	600 CT	d	7.50
H-41A	Tr. output	1500 CT	600 CT	d	7.50
H-42A	Isolation or Transistor Interstage	10K CT	10K CT	d	8.40

*Has 75 db shielding. †6000 ohms. ‡1500 ohms. §5 watts. ††10 watts. #Case: a—RC25. b—RC-50. c—RC-62. d—SM. (See above & pg. 9)

HERMETIC SEALED FILTER REACTORS TUBE and TRANSISTOR TYPE

METAL CASED TF4 TYPE H-70 thru H-79, H-170 & H-171


MOLDED MIL TYPE TF55X04ZZ H-105 thru H-109

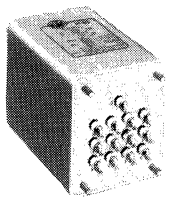
The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance* regulation. H-79 terminals opposite mounting. *Relates to ripple voltage, in input filter circuits only.

Type No.	Ind. @ MA Hys.	DC	Res. Ohms	Max. DCV* Ch. Input	Test V. RMS	MIL Case	Net Each
H-70	20	20	925	350	1000	AH	$ 7.20
H-71	20	40	350	500	2500	FB	8.40
H-72	13	70	215	500	2500	GB	9.00
H-73	11	100	150	700	2500	HB	11.40
H-74	11	150	135	700	2500	JB	12.90
H-75	11	200	90	700	2500	KB	17.40
H-76	11	200	85	1500	4500	LB	24.00
H-77	10	300	60	2000	5500	MB	27.00
H-78	7	400	48	2500	7000	OA	34.50
H-79	7	800	20	3000	9000	7x7x8	90.00
H-170	.18	125	.6		1000	GB	10.20
(2 wdgs.)	.045	250	.15				
H-171	9‡	.75A	.03		1000	JA	15.00
(2 wdgs.)	2.25‡	1.5A	.0075				
H-172	70‡	.25A	.22		1000	HA	12.60
(2 wdgs.)	17.5‡	.5A	.055				
H-173	90‡	.5A	.15		1000	KA	21.00
(2 wdgs.)	22.5‡	1A	.038				

Type No.	Inductance Henries @ DC MA		DCR, Ohms	Test Volts	L	W	H	Wgt. Lbs.	Net Each
H-105	2.5 @ 25 MA		225	1000	1 1/4	15/16	15/16	.1	$ 5.70
H-106	2.25 @ 60 MA		110	1000	1 5/8	1 5/16	1 3/8	.28	6.00
H-107	2 @ 120 MA		55	2500	2 1/8	1 3/4	1 55/64	.9	7.50
H-108	2 @ 220 MA		35	2500	2 7/8	2 1/2	2 17/32	1.7	9.60
H-109†	.2 @ 150 MA		.6	750	2 7/8	2 1/2	2 17/32	1.7	10.80
(2 wdgs.)*	.06 @ 250 MA		.15						

†Split winding in series *Split winding in parallel
‡Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS


H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50*-1000 cycles service. *Plate transformers: primary* 105/115/210/220 volts, 50/60 cycles. "L" ratings are choke input . . . "C" ratings are condenser input. H-80 thru H-197 MIL type TF4RX03, H-110 thru H-117 MIL type TF4RX02.

The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

MIL-T-27A Ratings in Regular Type, **Industrial Ratings in Bold Type**

Type No.	HV Sec. C. T.	DC	Approx. DC Volts	DC MA	Fil. Wdg.	DC	Approx. DC Volts	DC MA	Fil. Wdg.	MIL Case	Net Each
H-80	450	C	240	30	6.3VCT-2A	C	215	38	6.3VCT-2.5A	FA	$12.90
H-81	500	L	170	95		L	160	110			
		C	270	55	6.3VCT-3A	C	245	75	6.3VCT-3A	HA	18.00
	550	L	200	85	5V-2A	L	180	105	5V-2A		
		C	310	50		C	280	65			
H-82	550	L	180	145		L	160	190			
		C	290	90	6.3VCT-4A	C	270	115	6.3VCT-4.5A	JB	20.40
	600	L	215	135	5V-2A	L	190	180	5V-2A		
		C	330	85		C	315	100			
H-83	600	L	215	165		L	200	210			
		C	315	100	6.3V-5A	C	320	120	6.3V-6A	JA	21.00
	670	L	250	150	5V-2A	L	230	200	5V-2A		
		C	400	90		C	380	110			
H-84	700	L	245	225		L	240	255			
		C	390	135	6.3V-5A	C	375	160	6.3V-6A	KA	26.40
	750	L	275	205	6.3V-1A	L	270	230	6.3V-1.5A		
		C	430	125	5V-3A	C	410	150	5V-4A		
H-85	700	L	245	300		L	230	370			
		C	390	190	6.3V-6A	C	355	230	6.3V-6A	LA	30.00
	750	L	270	280	6.3V-1.5A	L	250	350	6.3V-2A		
		C	425	170	5V-3A	C	395	210	5V-4A		
H-86	720	L	270	310		L	250	360			
		C	425	180	6.3V-6A	C	395	225	6.3V-7.5A	MB	30.90
	790	L	295	300	6.3V-2A	L	280	350	6.3V-2A		
		C	475	160	5V-3A	C	440	210	5V-4A		
H-87	730	L	245	420		L	230	515			
		C	390	275	6.3V-6A	C	390	300	6.3V-6A	NB	36.00
	800	L	275	400	6.3V-2A	L	275	480	6.3V-2A		
		C	440	250	5V-4A	C	430	290	5V-6A		
H-89	850	L	305	430		L	275	550			
		C	460	280	6.3V-8A	C	445	340	6.3V-10A	OA	49.50
	1050	L	400	400	6.3V-4A	L	370	500	6.3V-5A		
		C	600	260	5V-6A	C	575	320	5V-6A		
H-91	900	L	340	200	6.3V-5A	L	330	220	6.3V-6A	KA	27.00
	1000	L	390	190	6.3V-1A 5V-3A	L	385	195	6.3V-1.5A 5V-4A		
H-92	900	L	340	265	6.3V-6A	L	330	310	6.3V-8A	MB	33.00
	1050	L	400	240	6.3V-2A 5V-4A	L	395	290	6.3V-2A 5V-4A		
H-93	1000	L	370	300	6.3V-8A	L	340	390	6.3V-10A	OA	49.50
	1200	L	465	265	6.3V-4A 5V-6A	L	455	350	6.3V-5A 5V-6A		
H-194**	200	L	170	140	6.3V-3.5A	L	160	155	6.3V-4A	HA	21.00
		C	275	85		C	260	95			
	235	L	200	125		L	190	135			
		C	325	75		C	310	85			
H-195**	215	L	185	285	6.3V-5A	L	175	300			
		C	300	180		C	285	195	6.3V-6A	JA	24.00
	265	L	230	240		L	220	255			
		C	375	150		C	360	165			
H-196**	230	L	200	445	6.3V-5A	L	190	480			
		C	320	280	6.3V-1.5A	C	300	300	6.3V-6A	KA	30.00
	285	L	250	380		L	240	420	6.3V-2A		
		C	400	235		C	380	260			
H-197**	260	L	230	500	6.3V-6A	L	220	550			
		C	360	320	6.3V-2A	C	340	350	6.3V-7A	MB	42.00
	320	L	280	420		L	270	470	6.3V-2A		
		C	450	260		C	430	290			
H-198 Highly shielded Scope transformer	No CT 800 1600 2400•		1000 3000	5 5 5	1.25 V—.2A connected to one end of HV winding. 6.3 V—.6A 5.2 KV RMS test voltage					HA	27.00
H-110	1050	L	365	300		L		400		MB	27.00
	1200	L	430	275		L		385			
H-111	1050	L	415	500		L		600		NA	33.00
	1200	L	480	450		L		550			
H-112	1500	L	615	320		L		385		NA	36.00
	1900	L	790	275		L		330			
H-113	2500	L	1050	310		L		375		†	54.00
	3000	L	1275	275		L		330			
H-114	2500	L	1050	475		L		525		‡	81.00
	3000	L	1265	425		L		475			
H-115	3500	L	1500	275		L		375		‡	81.00
	4400	L	1900	235		L		320			
H-117	5000	L	2125	950		L		1150		††	291.00
	6000	L	2550	850		L		1050			

*For 50 cycles, secondary current ratings reduced by 10%.
**DC ratings for bridge rectifier circuits.
†6x5 1/8x6 3/4, ‡6 3/4x6 1/2x8, ††11x11x14 3/4

IMMEDIATE DELIVERY ON ALL UTC STOCK ITEMS

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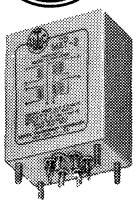
HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27A*

MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

VACUUM TUBE TYPE



The MAT 1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact...hermetically sealed...magnetically shielded...and meet MIL-T-27A and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative . . . power gain of the *Magnetic Structure* is approximately 40 . . . response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load . . . for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case, Length, in.	1¼	1½	1¾	2⅛
Width, In.	1 15/16	2⅛	2½	3⅛
Height, In.	2 3/16	2¾	2 15/16	3⅜
Mtg. Dim., In.	1 3/16 x 1½	1 x 1 5/8	1⅛ x 1 7/8	1½ x 2½
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	**$27.00**	**$30.00**	**$36.00**	**$39.00**

MAT-5 115V.-400 cyc. to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case (UTC pg. 9). MIL type TF4SY02YY. **Net Each $10.80**

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1°. . . . RC-25 case (UTC pg. 5). MIL- type TF4RX10YY. **Net Each $9.00**

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	38Ω	52Ω	30Ω	36Ω	50
Case Length, In.	2 5/16	2½	2¾	2 29/32	MIL MB
Width, In.	1 13/16	2¼	2½	2 29/32	
Height, In.	1 17/32	1 11/16	2	2¼	
Mtg. Dim., In.	1⅜ x 1⅞	1 13/16 x 2	1 15/16 x 2⅜	2⅜ x 2⅜	60 cycle type
Studs, stainless	4-40	6-32	8-32	8-32	
Cutout, In.	1	1	1	1	
Weights, lbs.	.65	1.1	1.7	2.75	
Net Each	**$25.80**	**$28.80**	**$34.50**	**$37.50**	**$54.00**

MAT-11 115V.-400 cyc. to two 28 Volt 2 A. windings for 56 VCT-.2 or 28 V-.4 A. RC-37 (UTC pg. 9) case. MIL type. TF4SY02YY. **Net Each $10.05**

ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simlates battery operation for critical circuits requiring extreme isolation from power line.

Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MMFD. For this purpose shields are individually terminated to allow maximum flexibility. Input and output terminals are brought out on opposite sides of a special housing in order to maintain the excellent isolation between line and load.

MIL-T-27A Ratings in Regular Type
Industrial Ratings in Bold Type
Primary 115 V 50/60 Cycles
Secondary 115 V

Type No.	Power Watts	**Power Watts**	Case Size	Net Each
HIT-1	50	**60**	4 1/32 x 4 1/32 x 3 1/32"	**$33.00**
HIT-15	120	**150**	5 11/32 x 5 x 3 1/2"	**39.00**
HIT-2	160	**200**	5 17/32 x 5 17/32 x 4 17/32"	**48.00**
HIT-3	400	**480**	8 x 6 17/32 x 5 17/32"	**69.00**

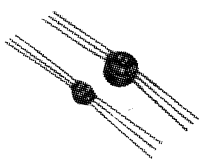
PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are high reliability units, hermetically sealed by vacuum molding and suited for service from −70° C. to +130° C. Wound core structure provides excellent temperature stability (unlike ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width.

ALL UNITS INDIVIDUALLY ADJUSTED TO PARAMETERS SHOWN IN TABLES

TRANSISTOR PULSE TRANSFORMERS

	APPROX. DCR, OHMS			BLOCKING OSCILLATOR PULSE					COUPLING CIRCUIT CHARACTERISTICS							
69-H Type No.	1-2	3-4	5-6	Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	Imp. in, out, ohms	Net Each
H-60	.124	.14	.05	.05	.016	0	0	30	.05	9.3	.012	0	0	20	50	$ 6.60
H-60	.41	.48	.19	.1	.016	0	0	30	.1	8.2	.021	0	0	15	50	6.60
H-61	.78	.94	.33	.2	.022	0	0	18	.2	7.4	.034	0	5	12	100	6.60
H-62	1.86	2.26	.70	.5	.027	2	10	20	.5	7.5	.045	0	20	25	100	6.60
H-63	3.73	4.4	1.33	1	.033	0	12	25	1	7	.078	0	15	23	100	6.60
H-64	6.2	7.3	2.22	2	.066	0	15	25	2	6.6	.14	0	10	20	100	7.50
H-65	10.2	12	3.6	3	.087	0	18	30	3	6.8	.17	0	10	20	100	7.50
H-66	14.5	17.5	5.14	5	.097	0	23	28	5	7.9	.2	0	18	28	200	7.50
H-67	42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200	7.50
H-68	Transistor pulse tranformer kit, consists of H-60 thru H-68 in plastic case.															60.00



Size & weight of H-60 thru H-68 same as H-45.

VACUUM TUBE PULSE TRANSFORMERS

	APPROX. DCR, OHMS			BLOCKING OSCILLATOR PULSE					COUPLING CIRCUIT CHARACTERISTICS							DIMENSIONS			
Type No.	1-2	3-4	5-6	Width μ Sec.	Rise Time	% Over Shoot	% Droop	% Back Swing	P Width μ Sec.	Volts Out	Rise Time	% Over Shoot	% Droop	% Back Swing	Imp.in, out, ohms	L In.	W In.	Wt. Grams	Net Each
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	3/8	3/8	1	$ 6.75
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	3/8	3/8	1	6.75
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	9/16	9/16	4	6.00
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	9/16	9/16	4	6.00
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	9/16	9/16	4	6.00
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	9/16	9/16	4	6.00
H-51	28	31	33	3	.10	1	20	8	3	26	.07	10	10	35	500	9/16	9/16	4	6.00
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	9/16	9/16	4	6.00
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	5/8	5/8	6	6.00
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	5/8	5/8	6	6.30
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	5/8	5/8	6	6.30
H-56	93	116	138	20	1.25	0	25	10	20	23	.6	5	10	10	1000	5/8	5/8	6	6.30
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	5/8	5/8	6	6.30
H-58	Pulse transformer kit. Consisting of each of the above units in a partitioned plastic case.																		75.00

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HIGH Q COILS & INDUCTORS

MINIDUCTORS

All these ultracompact high Q units are grade 5, hermetically sealed (to MIL-F-18327A ML types are encased with hipermalloy shield. MM and MH types are molded permalloy dust toroids. All give extra temperature stability rated at 1%, —55° C to +100° C. Each weighs 0.1 oz.

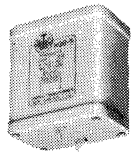
TYPE
ML:
1 to 4: to 3% at lv., 1kc. 22 at 2 kc; over 10, 300 cps to 10 kc.
5 to 10: to 3% at lv., 0.4 kc. 21 at 1 kc; over 10, 150 cps to 5 kc.
SIZE (9/16" h.)
MM: to 2% 60 at 20 kc. over 13 from 2 kc to 250
SIZE (7/16 x 3/64 x 9/16" h.).
MH: to 2% 90 at 100 kc; over 20 from 10 to 550 kc.
SIZE (7/16" dia. x 1/4" h.).

UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each
ML-1	.25	$8.40	MM-1	.003	7.50	MH-1	.0006	$8.10
ML-2	.40	8.40	MM-2	.005	7.50	MH-2	.0015	8.10
ML-3	.70	8.40	MM-3	.008	7.80	MH-3	.0025	8.40
ML-4	1.4	8.40	MM-4	.0125	7.80	MH-4	.006	8.40
MY-5	2.5	8.40	MM-5	.02	8.10	MH-5	.01	8.70
MY-6	4.0	8.40	MM-6	.03	8.10	MH-6	.015	8.70
ML-7	6.0	8.40	MM-7	.06	8.40	MH-7	.025	9.00
ML-8	10	8.40	MM-8	.12	8.40	MH-8	.04	9.00
ML-9	25	8.70						
ML-10	60	9.90						

HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27. All units MIL type TF4RX-20YY.

HQA and HQC CASE
Diamter 1 13/16"
Height 1 3/16"
Mounting 1 1/8"
Screws 6-32
Cutout 9/16 x 1 3/16"
Weaght 5 oz.



HQB CASE
Length 2 5/8"
Width 1 5/8"
Height 2 5/8"
Mounting 1 11/64 x 2 11/64"
Screws 6-32
Cutout 9/16 x 1 1/8"
Weight 14 oz.

HQE CASE
Length 1 1/16"
Width 1/2"
Height 1 1/32"
Mounting 3/4"
Screws 4-40
Cutout 3/8 x 1/2"
Weight 1.5 oz.

Type No.	Inductance (O DC))	DC MA Max.	Net Each	Type No.	Inductance (O DC))	DC MA Max.	Net Each
HQA-1	5 mhy.	400	$7.50	HQB-1	10 mhy.	410	$15.00
HQA-2	12.5 mhy.	260	7.80	HQB-2	30 mhy.	240	15.30
HQA-3	20 mhy.	200	8.10	HQB-3	70 mhy.	170	15.90
HQA-4	30 mhy.	160	8.40	HQB-4	120 mhy.	120	16.80
HQA-5	50 mhy.	130	8.70	HQB-5	.5 hy.	60	17.40
HQA-6	80 mhy.	100	9.00	HQB-6	1 hy.	41	18.00
HQA-7	125 mhy.	85	9.00	HQB-7	2 hy.	30	18.90
HQA-8	200 mhy.	65	9.60	HQB-8	3.5 hy.	22	19.80
HQA-9	300 mhy.	50	9.60	HQB-9	7.5 hy.	16	21.00
HQA-10	.5 hy.	40	9.90	HQB-10	12 hy.	11	21.90
HQA-11	.75 hy.	35	9.90	HQB-11	18 hy.	9	22.80
HQA-12	1.25 hy.	26	10.80	HQB-12	25 hy.	8	24.00
HQA-13	2 hy.	20	11.40	HQC-1	1 mhy.	1350	15.60
HQA-14	3 hy.	16	12.90	HQC-2	2.5 mhy.	850	16.80
HQA-15	5 hy.	13	13.80	HQC-3	5 mhy.	600	18.00
HQA-16	7.5 hy.	10	15.00	HQC-4	10 mhy.	420	19.80
HQA-17	10 hy.	9	15.90	HQC-5	20 mhy.	300	24.00
HQA-18	15 hy.	8	16.80	HQE-1	5 mhy.	155	7.80
				HQE-2	10 mhy.	110	7.80
				HQE-3	50 mhy.	50	8.10
				HQE-4	100 mhy.	35	8.40
				HQE-5	200 mhy.	25	8.70

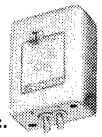
TYPE MQL LOW FREQUENCY HIGH Q COILS

All these units of MIL type TF4RX20YY induct value to 2% tolorance at lv., 60 cycles. Stability if temperature runs below 3.5% —55° C to +85° C. The case, sealed hermetically to MIL-T-27A is 1 13/16" dia. 2 1/2" h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting 1 1/2" oz. with a 6-32 screw. Cutout 1 1/2" dia wt. 1 lb.

Type No.	Hys. (0 DC) Series	Parallel	Net Each	Type No.	Hys. (0 DC) Series	Parallel	Net Each
MQL-0	1	.25	$30.00	MQL-3	200	50	$30.00
MQL-1	10	2.5	30.00	MQL-4	400	100	13.50
MQL-2	20	5	30.00	MQL-5	2500	625	33.00

HERMETIC "M" TYPE TOROIDS

UTC permalloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27A specs. Magnetic case plus toroid provide 80 db shielding.

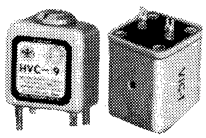


Type
MQA 40 at 500 cps, 160 at 5 kc, approx. 40 at 20 kc.
SIZE (1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.)
MQB 40 at 250 cps, 250 at 3 kc, approx. 40 at 20 kc.
SIZE 1 3/16" x 2 9/16" x 2 13/16" h.; wt. 14 oz.
MQD 40 at 5 kc, 185 at 50 kc, approx. 40 at 300 kc.
SIZE 1 1/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.
MQE 20 at 600 cps, 140 at 10 kc, approx. 40 at 40 kc.
SIZE 1/2" x 1 1/16" x 1 7/32" h.; wt. 1.5 oz.

TQA units are similar to MQA but center tapped for ocillator application, etc. Net each: TQA-1 thru TQA-15, $1.50 more than MQA's; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each
MQA-1	.007	$ 7.50	MQB-1	.010	$12.90	MQD-6	.020	$21.00
MQA-2	.012	7.80	MQB-2	.030	13.20	MQD-7	.030	22.80
MQA-3	.020	8.10	MQB-3	.070	13.50	MQE-0	.004	6.90
MQA-4	.030	8.40	MQB-4	.120	13.80	MQE-1	.007	7.20
MQA-5	.050	8.70	MQB-5	.50	14.10	MQE-2	.012	7.50
MQA-6	.070	9.00	MQB-6	1.0	14.40	MQE-3	.020	7.80
MQA-7	.120	9.30	MQB-7	2.0	14.70	MQE-4	.030	7.80
MQA-8	.20	9.60	MQB-8	3.5	15.00	MQE-5	.050	8.10
MQA-9	.30	9.90	MQB-9	7.5	15.90	MQE-6	.070	8.40
MQA-10	.50	10.20	MQB-10	12	16.80	MQE-7	.100	8.40
MQA-11	.70	10.50	MQB-11	18	18.00	MQE-8	.150	8.70
MQA-12	1.0	10.80	MQB-12	25	19.20	MQE-9	.250	8.70
MQA-13	1.5	11.10	MQB-13	40.0	21.00	MQE-10	.40	9.00
MQA-14	2.5	11.40	MQB-14	60.0	24.00	MQE-11	.60	9.00
MQA-15	4.0	12.00	MQD-0	.001	14.50	MQE-12	.90	9.30
MQA-16	6.0	12.90	MQD-1	.002	15.00	MQE-13	1.5	9.90
MQA-17	10.0	13.80	MQD-2	.003	15.60	MQE-14	2.0	10.80
MQA-18	15.0	15.00	MQD-3	.005	16.20	MQE-15	2.8	12.00
MQA-19	22.0	18.00	MQD-4	.007	16.80	MQE-16	4.0	13.50
MQA-20	35.0	20.70	MQD-5	.012	18.00			

VARIDUCTORS



HVC VIC

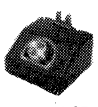
These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC:—Gives highest Q and stability; adjustable —70% to +200% of mean value. Hermetically sealed to MIL-T-27A. 25/32" x 1 1/8" x 1 7/32" h. (wt. 2 oz.). TYPE VIC:—Adjustable —45% to +85% of mean value; die cast case 1 1/4" + 1 11/32" x 1 7/16" h. (wt. 5 1/2 oz.).

TVC type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns — ideal for ocillator circuits, etc.

UTC Type	Mean Hys.	DC Ma.	Net Each	UTC Type	Mean Hys.	DC Ma.	Net Each
HVC-1	.006	100	9.00	VIC-1	.0085	75	6.60
HVC-2	.015	60	9.00	VIC-2	.013	60	6.60
HVC-3	.040	40	9.00	VIC-3	.021	50	6.60
HVC-4	.1	30	9.00	VIC-4	.034	40	6.60
HVC-5	.25	20	9.00	VIC-5	.053	35	6.60
HVC-6	.6	15	9.00	VIC-6	.084	30	6.60
HVC-7	1.5	10	9.60	VIC-7	.13	25	6.60
HVC-8	4	7	9.60	VIC-8	.21	21	6.90
HVC-9	10	5	9.60	VIC-9	.34	18	6.90
HVC-10	25	3.5	9.90	VIC-10	.54	15	6.90
HVC-11	60	2	10.80	VIC-11	.85	12	6.90
HVC-12	150	1.5	12.00	VIC-12	1.3	10	7.20
				VIC-13	2.2	8	7.20
TVC-1	.006	100	11.10	VIC-14	3.4	7	7.20
TVC-2	.015	60	11.10	VIC-15	5.4	6	7.50
TVC-3	.040	40	11.10	VIC-16	8.5	5	7.50
TVC-4	.1	30	11.10	VIC-17	13	4	7.50
TVC-5	.25	20	11.10	VIC-18	21	3.5	7.80
TVC-6	.6	15	11.10	VIC-19	33	3	7.80
TVC-7	1.5	10	11.70	VIC-20	52	2	8.40
TVC-8	4	7	11.70	VIC-21	83	1.5	9.00
TVC-9	10	5	11.70	VIC-22	130	1	12.00
TVC-10	25	3.5	12.90				
TVC-11	60	2	14.10				
TVC-12	150	1.5	15.30				

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.



DI CASE
Length ..... 4 1/2"
Width ..... 4 3/8"
Height ..... 2 3/8"
Weight ..... 2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	$42.00
DI-2	10 x .1	.25-20 KC	200	150	500	54.00
DI-3	10 x 1	.25-10 KC	200	50	500	57.00
DI-4	10 x 10	.2-1.5 KC	100	15	500	72.00

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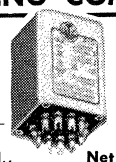
HI-FI & BROADCASTING COMPONENTS

ULTRACOMPACT HI-FI AUDIOS



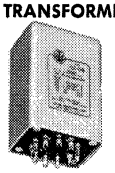
Small light weight, wide range units. Level +15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, 1½" x 1½" x 2" h. Weight, ½ lb.

UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Each
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	$13.20
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	a	12.00
A-15	Interstage*	10K/2.5K split**	2K/500 sp.	c	9.90
A-16	Pl. to grid	15K	60K	a	9.90
A-17	Pl. to grid	15K, 8 ma	60K,	c	12.00
A-18	Pl. to p-p	15K split	80K CT	a	12.00
A-19	Pl. to p-p	15K, 8 ma	80K CT	c	12.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.40
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	Pl. to line	15K split	See A-10 pri.	f	12.90
A-25	Pl. to line	15K, 8 ma	See A-10 pri.	c	12.00
A-26	P-p to line	30K CT	See A-10 pri.	f	13.20
A-27	Input	100K split	See A-10 pri.	b	12.00
A-28	Tr. to V.C.	48 CT, 5 w.	16, 8, 4	c	10.20
A-34		25K/6250 split	500/125 split	b	10.20
A-35	Transistor	10K/2.5K split	500/125 split	b	9.90
A-36	Interstage	500/125 split	150/37.5 split	c	9.60
A-37		500/125 split	50/12.5 split	c	9.60
A-38		100/25 split	40/10 split	c	9.30
A-39	line to transist.	600/150 split	2K/500 split	a	11.10
A-30	Reactor: 250 hys. @ 5 ma†; 5 hys @ 10 ma‡				10.20
A-32	Reactor: 60 hys. @ 50 ma§; 15 hys @ 30 ma††				6.60
A-33	Hipermalloy shield fits A units 20 db				2.70
A-40	Power transformer: 115v 60 cycles to 2 6.3 CT—.2A Secs.				9.90
A-41	Reactor: 240 Mhy. @ .2A, 6 ohms; 60 Mhy. @ .4A, 1.5 ohms				6.30

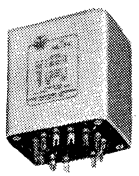
*+30 dbm. †6K ohms. ‡1.5K ohms. §2K ohms. ††500 ohms. **8 ma. #Frequency response (±2 db), cps: a—20-20,000. b—30-20,000. c—40-20,000. d—10-50,000. e—30-30,000. f—20-40,000.

HIPERMALLOY TRANSFORMERS

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hipermalloy audio units is uniform from 30 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals either up or down. DC in Primary shown is maximum unbalanced.



TYPE H-1 CASE
Length .... 2⅜"
Width .....1⅝"
Height ..... 3⅛"
Mounting 1⅜ x 1⅜"
Screws 6-32
Cutout 1 13/16" dia.
Unit Weight 2 lbs.



TYPE H-2 CASE
Length ..... 3 9/16"
Width ..... 2 3/16"
Height ..... 3½"
Mounting 2 x 2¾"
Screws 6-32
Cutout 2 11/16" dia.
Unit Weight 5 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/150, 200, 250, 333, 500/600	60K split	+18	$17.40
HA-100X	As above but multiple alloy shields for low hum pick up			+16	17.40
HA-101	Line to grids	Same as HA-100	120K split	+18	22.20
HA-101X	As above but muliple alloy shields for low hum pickup		80K split	+16	18.00
HA-103A	Mike/mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60	60K split	+18	15.00
HA-108*	Mixing	Same as HA-100	Same as Pri	+20	19.80
HA-108X*	As above but multiple alloy shields for low hum pick up			+18	19.80
HA-130X	Line to grids.	30, 50, 200, 250	60K Split	+18	21.00

INTERSTAGE AUDIO TRANSFORMERS
Units Housed in Type H-1 Case, except HA-107: in H-2 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	$15.00
HA-105	Pl. to grid	15K	60K	100	21.00
HA-106	Pl. to grids	15K split	135K	100	18.90
HA-107	Pl's. to grids	30K	80K	600	27.00
HA-137	Pl's. to grids	30K	68K	100	16.80

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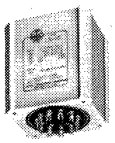
LINEAR STANDARD TRANSFORMERS



Guaranteed frequency response of ±1 db 20-20,000 cps, ±1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.

LOW LEVEL TRANSFORMERS

Type LS-1 case, 2⅝" x 3⅛" x 3¼" h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pri. Imp., Ohms	Sec. mp., Ohms	Level, dbm	Net Each
LS-10	Input	50, 125/150, 200, 250, 333, 550/600	60K split	+19	$24.00
LS-10X	Input	As above	50K	+17	24.00
LS-12	Input	As above	120K split	+19	27.00
LS-12X	Input	As above	80K split	+17	24.00
LS-30	Mixing	As above	Same as pri.	+23	24.00
LS-30X	Mixing	As above	Same as pri.	+20	27.00
LS-19	Pl. to grids	15K	95K	+20	19.50
LS-21	Pl. to p-p	30K split	135K split	+20	24.00
LS-40	Pl. to p-p	15K, 8 ma	135K split	+20	33.00
LS-25	P-P to p-p	30K split	50K split	+23	27.00
LS-27	Pl. to line	15K, 8 ma	See LS-10 pri.	+23	24.00
LS-50	Pl. to line	15K	See LS-10 pri.	+23	24.00
LS-51	P-p to line	30K split	See LS-10 pri.	+24	27.00
LS-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	24.00
LS-26	Line to grids	5K	60K	+23	27.00
LS-31	Line to line	30, 50, 200,250	50, 125/150, 200, 250,333 500/600	+23	24.00
LS-32	Lo-Z to line	Same as LS-14X	Same as LS-31	+23	33.00
LS-150	Line to line	4K	Same as LS-31	+23	21.00
LS-151	Line to line	16K	Same as LS-31	+26	21.00
LS-140	70 db hybrid	500/600 split	Same as pri.	+18	27.00
LS-141	Hybrid*	500/600 split	Same as pri.	+18	21.00

*Has 3 sets of coils.

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -34, -35, -47, -52, -54, -55, -56, -61, -63, 3½" x 4 7/16" x 4 3/16" h. (Wt., 7½ lbs.). LS-6L1, -6L4, -48, -58, -65, -666, -667, 5" x 5 13/16" x 4 11/16" h. (Wt., 15 lbs.). LS-691, 13" x 15¾" x 24" h. (Wt. 370 lbs.). LS-692, 13" x 15¾" x 28" h. (Wt. 520 lbs.).

UTC Type	Application	Pri. Imped., Ohms	†	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	24.00
LS-48	Driver	12K	j	40	60.00
LS-6L1	P-p output	9K	b	30	36.00
LS-6L4	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	57.00
LS-52	P-p output	8000 split	b	20	24.00
LS-55	P-p output	5K/3K split	b	20	24.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-54	P-p output	8000 split	c	20	21.00
LS-57	P-p output	5K/3K split	c	20	21.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	27.00
LS-35	EL-34's*	5K CT 43% taps	e	35	24.00
LS-65	6550's*	3.3K CT 40% taps	e	60	42.00
LS-666	P-p transistor	8 split	f	50	21.00
LS-667	P-p transistor	8 split	d	50	21.00
LS-691	Modulation	10,400	g	1,000	600.00
LS-692	Modulation	4,750	h	2,500	930.00

*With feedback. †Secondary Impedance: a—1, 2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125, 200, 250, 333, 500/600 ohms. b—500, 333, 250, 200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8, 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri./½ Sec. 3.2:1. j—Pri./½ Sec. 5.1:1.

Continued from bottom of previous column

PLATE TO LINE TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200, 250, 333, 500/600	125	$18.00
HA-114	Lo-Z to multi-line	30K		200	21.00
HA-133	to multi-line	15K split		160	21.00

OUTPUT TRANSFORMERS
Units Housed in Type H-2 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K 3K/5K	50, 125/150, 200, 250, 330, 500/600	15 18	$16.80
HA-135	P-p to V.C.	6.6K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	20	16.80
HA-136	5881's screen-taps		4, 8, 16		18.00

POWER TRANSFORMERS
Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Application	Psi. Volt 50/60μ	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-O-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	$12.00
HP-123	Pre-amp or Tuner	115	275-O-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00

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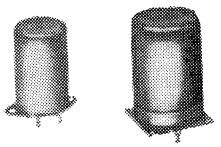
COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim.(Sq.)	Mounting Dim. (Sq.)	Ht., +1/8, −1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1 3/8	1 1/8	1 5/8	1 1/4	.35
RC-50	1 5/8	1 5/16	2 1/4	1 1/2	1/2
RC-62	1 13/16	1 1/2	2 1/2	1 1/2	1
RC-75	2 3/16	1 13/16	2 7/8	1 7/8	1 1/2
RC-87	2 9/16	2 3/32	3 1/4	2	2 1/2
RC-100	3	2 3/8	3 3/4	2 5/8	3 1/2
RC-112	3 7/16	2 11/16	4 1/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 9/16	5 1/2	3 3/4	11
RC-152	5 1/8	4 1/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 7/8	7 1/8	4	22

SWINGING INPUT AND FILTER CHOKES

UTC Type	Induct. Henries	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	$ 8.10
CG-44	30	100	400	1750	RC-100	6.90
CG-45	250	15	5000	1750	RC-87	6.00
CG-48C	75	50	2200	1750	RC-87	7.50
CG-100	12	150	110	2500	RC-125	9.00
CG-102	12	250	100	3000	RC-150	13.20
CG-104	10	350	90	5000	RC-152	15.00
CG-108	10	500	52	7000	RC-175	27.00
CG-1S	10	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00
CG-101	25/5	150	110	2500	RC-125	9.00
CG-103	25/5	250	100	3000	RC-150	13.20
CG-105	25/5	350	90	5000	RC-152	15.00
CG-109	25/5	500	52	7000	RC-175	27.00
CG-111 (2 wdgs.)	100/10 25/2.5	2.5A .5A	.6 .15	1500	RC-87	11.40
CG-1C	25/5	1000	40	9000	11 1/2 x 4 3/4 x 6 7/8 H. Wt., 40 lbs.	54.00

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	$16.20
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	24.00
CG-302	950-750-0-750-950	760/610	RC-175	30.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	RC-175	36.00

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	DC Ma	Filament 3	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435 125-0-125	125 25	6.3 VCT-3A	2.5 VCT-5A	RC-150	$21.00
CG-428	500-0-500 80-0-80	250 100	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	24.90
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	24.90
CG-431†	500-400-0-400-500 80-0-80	500 100	6.3 VCT-5A	6.3 VCT-3A	RC-175	36.00
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA				RC-125	14.40
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	21.00

*Filament 2 is 6.3 VCT-3A. †Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use †	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	$ 9.90
CG-132	b	15K	+30 dbm	62	9.90
CG-133	c	30K CT	+32 dbm	75	10.50
CG-134	d	50, 200, 500	+30 dbm	50	9.00
CG-135	e	50, 200, 500	+30 dbm	50	9.90
CG-235	f	50, 200, 500	+28 dbm	75	12.00
CG-136	g	15K, 50, 200	+30 dbm	62	13.20
CG-137	h	50, 200, 500	+28 dbm	50	8.40
CG-140	i	15K	+30 dbm	50	7.80
CG-141	j	30K CT	+32 dbm	50	9.00
CG-233	k	30K CT	+35 dbm	87	9.00
CG-333	k	30K CT	+35 dbm	87	9.00
CG-433	k	5K CT	10 w.	100	9.90
CG-15	l	8K CT	20 w.	100	12.00
CG-16	l	3K/5K CT	20 w.	100	12.00
CG-19	l	6K/10K CT	20 w.	100	12.00
CG-710	l	14K/20K CT	20 w.	100	12.00
CG-2L6	l	9K CT	30 w.	125	13.80
CG-20	m	5K CT, 43% screen taps	25 w.	125	15.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	13.20
CVP-2	n	"	30 w.	125	14.40
CVP-3	n	"	60 w.	150	21.00
CVP-4	n	"	125 w.	152	24.00
CVP-5	n	"	300 w.	175	39.00
CVL-1	p	500	15 w.	87	9.00
CVL-2	p	500	40 w.	125	10.50
CVL-3	p	500	75 w.	150	15.00
CVM-0	q	Any Class B	12 w.	100	10.50
CVM-1	q	"	30 w.	125	13.80
CVM-2	q	"	60 w.	150	18.00
CVM-3	q	"	125 w.	152	21.00
CVM-4	q	"	300 w.	175	39.00
CVM-5	q	"	600 w.	*	105.00
CG-51AX	r	15K	5 w.	87	9.00
CG-53AX	r	3K/10K/ CT	20 w.	112	10.50
CG-59AX	r	50, 200, 500	20 w.	112	10.80

*7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—Pl. to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

UTC Type	High Volt	DC Volt	L	W	H	Wt. Lbs.	Net Each
CG-304	1500-1235-0-1235-1500	1.25K	1K 15	8 1/2	10 3/8	100	$141.00
CG-305	2400-1750-0-1750-2400	2K	1.5K 10 1/2	4 3/4	6 7/8	50	63.00
CG-306	as above	2K	1.5K 15	8 1/2	10 3/8	100	150.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K 2K	2.5K 14 1/2	8 1/2	10 3/8	90	138.00
CG-308	as CG-307	3K	2.5K 16 1/2	8 1/2	10 3/8	125	162.00
CG-309	as CG-307	2K	21	10	13 1/4	185	360.00
CG-310	4600-4050-3500-0-3500-3050-4600	3K 2K	2.5K 19	10	13 1/4	150	309.00
CG-311	1500-1235-0-1235-1500	4K 3K	3.5K 10 1/2	4 3/4	6 7/8	50	66.00
CG-312	1800-1500-0-1500-1800	1.25K 1.5K	1K 10 1/2 1.25K	4 3/4	6 7/8	50	66.00

VARIPOWER AUTOFORMERS

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2 1/2%. Output voltage from 0 to 130 volts. 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	$12.00	CVA-4	1000	RC-152	$21.00
CVA-2	250	RC-125	14.10	CVA-5	2000	RC-175	36.00
CVA-3	500	RC-150	18.00				

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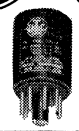
MINIATURE, AMATEUR & PUBLIC ADDRESS TRANSFORMERS

OUNCER AUDIO UNITS

Standard and Plug-in Types

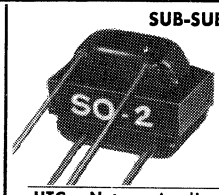


UTC ouncer components provide wide range ±1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact 7/8" dia. case. No. 0-16 has heavy shielding (case 1 1/16" dia.). P-16 has 9 pin plug (1 3/16" dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec.Imped., Ohms	UTC No.	Net Each
O-1	$7.80	Input	50, 200, 500	50K	P-1	$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K		
O-5	6.60	Pl. to grid	15K, 2 ma	60K		
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Reactor: 300 hys.; 50 hys. @ 3 ma§				
O-14	7.50	50:1 input	200	500K		
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermailoy shield, 25 db, for Ouncers				
O-18	7.80	Tr. intrstg.	10K split	2K split		
O-19	7.80	Tr. intrstg.	10K split	4K split		
O-20	6.30	Tr. to line	1.5K CT	500 split		
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16		
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2		
O-23	5.10	Reactor: 7 @ 3, 3.5 @ 10*†				
O-24	5.10	Reactor: 1.6 @ 3, .8 @ 10*‡				
O-25	8.10	Transist. Input	600/150 split	2K/500 split		
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT		
O-27	8.40	Transist. Int.	10K CT 4 ma.	500/125 split		
O-28	8.40	Transist. Int.	50K CT. 2 ma.	500/125 split		
O-29	8.70	Transist. int. or chopper	100K CT 1 ma.	500/125 split		
O-30	8.10	Transist. Int.	500/125 split	500/125 split		
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split		
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split		
O-33	8.10	Transist. Int.	100/25 split	40/10 split		

*1.5 ma. †0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. **2 ma. ††3 ma. #DC resis.

SUB-SUBOUNCERS AND SUBOUNCERS

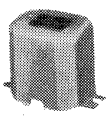


Lead mounted (channel available as separate item) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU. (7/16" x 3/4" x 43/64"; wt., .02 lb.) SO Subouncers: Approx. 2 db., 100-10,000 cps; +24 VU except inputs +10 VU. (19/32" x 43/64" x 7/8"; wt., .03 lbs.)

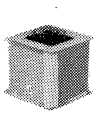
UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	$4.50	Input	50/200	62.5K/250K	1	$3.60
2	4.80	Interstage	10K, .25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K*	200/500	3	3.30
4	3.90	Output	30K, 1 ma	50	4	3.30
5	3.90	Reactor	50 hys. @ 1 ma	4400 ohms#	5‡	3.00
6	4.20	Output	100K, .5 ma	60	6	3.90
7	3.30	Tr. intrstg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrstg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16		
		Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2		
		Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600§	50/60		
		Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	50/60		
		Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K		
		Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrstg.	10K/25K	200/500 CT		
		Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrstg.	20K/30K CT	.8K/1.2K CT		
16	3.00	Tr. Output	1.2K/1.5K††	3.2/4		
17	3.30	Tr. Output	10K/12.5K**	500/600 CT		
18	3.30	Output	7.5K/9.4K CT	3.2/4		
19	3.30	Matching	500 CT	600 CT		
20	3.30	Output	1.5K CT	600 CT		
21	4.80	Chopper	200K CT	1K CT		
22	3.90	Tr. intrstg.	10K/12K CT	1.5K/1.8K CT		
23	3.00	Reactor: 4hys @ 5 ma, 650 ohms				
24	3.00	Reactor: 1.5 hys. @ 5 ma, 160 ohms				
25	5.10	Transist. Int.	10K/12K CT	10K/12K CT		
26	5.10	Transist. Int.	40K/50K CT	400/500 Split	CH	.30
CH	.30	Mounting channel for any of above				

*1.5 ma. †0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. ** 2 ma. ††3 ma. #DC resis.

DIMENSIONS, SPECIAL SERIES TRANSFORMERS



G-1 thru G-4



G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-priced PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	1 7/8	2 13/16	1 3/4	1
G-2	2 5/16	3 3/8	1 15/16	1 1/2
G-3	2 1/2	3 3/4	2 5/32	2
G-4	2 15/16	4 1/8	2 5/16	3
G-5	3 3/4	3 1/8	4 1/2	4 1/2
G-7	4 5/8	4 5/8	5 1/2	8
G-8	4 5/8	5 3/8	5 3/8	12
G-9	5 7/8	5 3/8	6 3/4	21
G-10	5 7/8	6 1/8	6 5/8	24
G-11	5 7/8	6 1/2	7 3/8	31
G-12	10 1/4	7 3/8	9 1/4	52

FILTER, SWINGING AND AUDIO CHOKES

Type	Henries	Ma. DC	Ohms	Insul.	Case	Net Each
S-23*	300	5	5000	1500 v.	G-2	$4.50
S-24‡	500	3	6000	1500 v.	G-2	5.10
S-25	30	30	800	1500 v.	G-2	3.90
S-26	12	60	250	1500 v.	G-2	3.90
S-27	25	75	350	1500 v.	G-4	5.10
S-28	20	100	350	1500 v.	G-4	6.30
S-29	6	175	90	1500 v.	G-4	5.10
S-30†	4/20	175	90	1500 v.	G-4	5.10
S-31	6	225	100	2700 v.	G-5	6.90
S-32†	4/20	225	100	2700 v.	G-5	6.90
S-33	8	300	100	4000 v.	G-7	9.30
S-34†	4/20	300	100	4000 v.	G-7	9.60
S-35	8	400	60	5000 v.	G-8	12.00
S-36†	4/20	400	60	5000 v.	G-8	12.00
S-37	8	550	60	6000 v.	G-8	15.00
S-38†	4/20	550	60	6000 v.	G-8	15.00
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	3.90
S-81	100/8 Mhy	2.5A	.6	1500 v.	G-3	6.00
(2Wdgs)	25/2 Mhy	5A	.15			

*Audio. ‡P.P. Audio C. T. †Swinging.

INPUT AND DRIVER TRANSFORMERS

Type UTC	Application	Ratio Pri. to Sec.	Level	Case	Net Each
S-1	Plate to grid	1:3 1/2	+30 dbm	G-2	$4.80
S-2	Plate to p-p grids	1:4*	+30 dbm	G-2	6.00
S-3	Pl. to 1 or 2 grids	1:4*	+25 dbm	G-1	4.50
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.10
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.50
S-8	Driver pl. to p-p	2.66:1, 5:1*	5 w.	G-3	6.60
S-9	Driver p-p to p-p	2.25:1, 3.6:1, 5:1*	20 w.	G-4	8.70
S-10	Driver p-p to p-p	2.25:1*	5 w.	G-3	6.60

*Center tapped.

FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC Type	Secondary Volts	Secondary Current	Insulation	Case No.	Net Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	$6.30
S-54	5 VCT	4 Amp	2500 V	G-3	5.70
S-55	6.3 VCT	3 Amp	1500 V	G-3	5.40
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.00
S-58	2.5 VCT	20 Amp	10000 V	G-5	9.90
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.30
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	13.20
S-61	7.5 VCT tapped 6.3 VCT	10 Amp	3000 V	G-5	10.20
S-62	10 VCT	10 Amp	3000 V	G-5	9.30
S-63	14 VCT tapped 12 VCT & 11 VCT	10 Amp	5000 V	G-7	13.20

Type	Filament 1	Filament 2	Filament 3	Case	Net
S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	$10.80
S-67	5 VCT-6A	6.3 VCT-5A		G-5	10.20
S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	10.50
‡S-70	6.3 VCT-5A	6.3 VCT-5A	.....	G-5	10.20
S-71	2.5 VCT 6A	2.5 VCT-6A	5 VCT-12A	G-7	15.00
S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	11.40

*Insulation 10,000 v. †Insulation 5000 v. ‡Insulation 3000 v.

MATCHING, OUTPUT AND MODULATION UNITS

UTC Type	Application	Pri. Imped., Ohms	†	Level, Watts	Case	Net Each
S-11	Pl. to line	15K	a	.25	G-2	$5.10
S-12	Line to V.C.	.5K/2K/4K	b	15	G-2	5.40
S-13	Line to V.C.	.5K/2K/4K	b	30	G-4	7.80
S-14	Output	2.5K/4K/7K/10K	c	10	G-2	6.60
S-15	PP output	4K/5K/10K CT	c	12	G-2	7.20
S-16	PP output	3K/6K/9/10K CT	c	30	G-4	8.40
S-17	PP output	3.8K/4.5-5K CT	c	55	G-5	12.00
S-18	Univ. modul.	Any Class B	d	12	G-3	7.20
S-19	Univ. modul.	Any Class B	d	30	G-4	9.30
S-20	Univ. modul.	Any Class B	d	55	G-5	15.00
S-21	Univ. modul.	Any Class B	d	110	G-7	21.00
S-22	Univ. modul.	Any Class B	d	250	G-9	33.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2, 8, 15, 500 ohms. d—Any Class C.

THIS GROUP CONTINUED ON FOLLOWING PAGE

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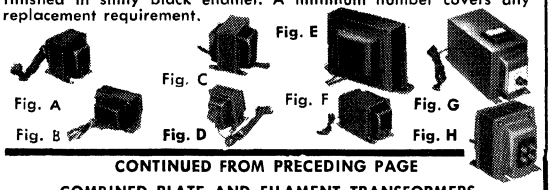
REPLACEMENT TRANSFORMERS

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.



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COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC Type	Voltage	DC V.	Rect. Fil.	Filament No. 1	Filament No. 2	Case No.	Net Each
S-39	490-400-0-400-490 175 ma	400/310	5 V-34	2.5 VCT-6A	6.3 VCT-4A	G-7	$16.50
S-40	525-425-0-425-525 250 ma	400/310	5 V-34	6.3 VCT-3A	6.3 VCT-3A	G-7	18.00
S-41	600-0-600 200 ma	475	5 V-3A	7.5 V tapped 6.3 V-3A	6.3 VCT-2A	G-7	18.00
	600-525-0-525-600 300 ma	480/400	5 V-6A	7.5 V tapped 6.3 V-3A	6.3 VCT-3A	G-7	19.50

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/06 Cycles

UTC Type	2.5 VCT-12A High Voltage	DC Ma	DC Voltages*	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$25.80
S-45	900-750-0-750-900	750/620	200	G-8	21.00
S-46	1000-750-0-750-1000	820/600	300	G-9	24.00
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	33.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	39.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	36.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	60.00
S-51	Any bias voltage from 15 to 100 ± 6%	200		G-5	12.00
S-52	Any bias voltage from 75 to 400 ± 6%	200		G-7	15.60

*Based on two section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

STEP-DOWN AUTO-TRANSFORMERS (FIG. A)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	Size, Inches L.	W.	H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/16	2 5/8	3 1/8	4	$5.70
R-42	125 watt capacity	3 1/2	3	3 1/2	5	6.00
R-43	175 watt capacity	3 3/4	3 1/4	3 7/8	5 1/2	6.90
R-44	250 watt capacity	4 3/8	3 1/4	3 7/8	6 1/2	8.40
R-45	500 watt capacity	4 5/8	3 7/8	4 5/8	12	12.00
R-46	1200 watt capacity	6 7/8	3 7/8	4 5/8	18	24.00
R-64	2500 watts, no cord	10 1/2	4 3/4	6 3/4	30	45.00

DOUBLE SHELL POWER TRANSFORMERS (FIG. B)

Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3"	2 1/2	$7.20
R-102	350-0-350	70	6.3 v. CT-3A	3 5/8"	3 1/2	7.50
R-103	350-0-350	90	6.3 v. CT-3.5A	3 15/16"	4 1/2	8.40
R-104	350-0-350	120	6.3 v. CT-5A	3 7/8"	5 1/2	9.00
R-105	385-0-385	160	6.3 v. CT-5A	4 5/16"	7	11.40

VERTICAL SHELL POWER TRANSFORMERS (FIG. C)

Rectifier filaments 5 volts, 3 amps., except R-110, 2 amps.

R-110	300-0-300	50	6.3 v. CT-2.7A	3 1/4"	2 1/2	$7.20
R-111	350-0-350	70	6.3 v. CT-3A	3 1/4"	3 1/2	7.50
R-112	350-0-350	120	6.3 v. CT-5A	4"	5 1/2	9.00
R-113	400-0-400	200	6.3 v. CT-6A	4 5/8"	8	13.20

EXPORT VOLTAGE ADAPTER (FIG. D)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4 5/8	3	3 1/2	2 1/4x2 1/4	4 1/2	$10.20
R-48	150	4 5/8	3 1/4	4	2 1/2x2 1/4	5 1/2	11.70

TV VOLTAGE REGULATOR (FIG. D)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3 1/4	4	2 1/2x2 3/4	5	$12.00

CHANNEL FRAME FILTER REACTORS (FIG. E)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in. W	D	H	M	Wt. Lbs.	Net Each
R-55	6	40MA	300	2 3/8	1 3/8	1 3/8	2	1/2	$1.65
R-14	8	40MA	250	2 7/8	1 1/2	1 11/16	2 3/8	3/4	1.95
R-15	12	30MA	450	2 7/8	1 1/2	1 11/16	2 3/8	3/4	1.95
R-16	15	30MA	630	2 7/8	1 1/2	1 11/16	2 3/8	3/4	1.95
R-17	20	40MA	850	3 3/16	1 5/8	2	2 13/16	1	2.25
R-18	8	80MA	250	3 3/16	1 5/8	2	2 13/16	1	2.52
R-19	14	100MA	450	3 3/4	1 7/8	2 5/16	3 1/8	1 1/2	3.00
R-20	5	200MA	90	4 1/8	2 1/4	2 3/8	3 9/16	2 1/2	3.60
R-21	15/3	200MA	90	4 1/8	2 1/4	2 3/8	3 9/16	2 1/2	3.60
R-220	100/8 Mhy. 25/2 Mhy.	2.5A 5A	.6 .16	3 3/4	1 7/8	2 3/16	3 1/8	1 1/2	4.20

ISOLATION TRANSFORMERS (FIG. F)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3 1/8	2 5/8	3 1/8	2x1 7/8	4	$ 7.20
R-73	100	3 3/4	3 1/4	3 7/8	2 1/2x2 3/8	6	9.00
R-74	250	4 7/8	3 7/8	4 5/8	3x3 1/2	12	15.00
R-75	600	7 3/8	3 7/8	4 5/8	3x6	30	24.00
R-76	1200	8 1/2	4 1/2	5 7/8	3 5/8x6 5/8	30	42.00
R-77	2500	12	7	9	6x11	70	84.00
R-97	250	4 7/8	3 7/8	4 5/8	3x3 1/2	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4 3/4	6	$17.70
R-79	†	115	300	7	4	4 3/4	6	18.90
R-80	†	115	600	10 1/4	4	4 3/4	13	22.80
R-81	†	115	1200	10 1/4	4	4 3/4	21	33.00
R-86	‡	230	1200	10 1/4	4	4 3/4	21	33.00

† 60, 70, 80, 90, 100, 110, 120, 130, 140
‡ 160, 170, 180, 190, 200, 210, 220, 230, 240

SIGNALLING AND CONTROL TRANSFORMERS (FIG. H)

Primary 110-120 volts, 50/60 cycles—Secondary 4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/2	3 9/16	1 7/8x2 1/4	3	$7.50
SC-4	100	3 1/4	4	4	2 1/8x2 1/2	5	9.00
SC-5	250	4	5	4 3/4	3 1/4x3	10	14.40

PHOTOFLASH TRANSFORMERS

STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to condenser up to 100 Mfd. Compound sealed in G-3 (p. 8) case 2 1/8 x 2 3/4 (3 3/4 including flanges) x 2 1/2 inches high. Weight 2 lbs. **Net Each $8.40**

PF-3 Trigger Transformer 15 KV peak. 7/8 O.D.x3 long. Weight 2 oz. **Net each: $6.00**

PF-6

TRANSISTOR TYPE

These are miniaturized light weight units for transistor type photoflash supply.

PF-5 Primary for 115 volts. 50/60 cycles or for 4 1/2 V. battery switched by PF-6 inverter transformer. Output delivers 400 V. DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-Sec.). G-1 case (See Pg. 8). **Net each: $8.40**

PF-6 Inverter transformer transforms 4 1/4 V. DC from battery to input for PF-5 stepup transformer. Ouncer case (See Pg. 8). **Net each: $5.10**

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. 7/8" Dia. x 15/16"; Wt. 1/2 oz. **Net each: $3.60**

VARITRAN VOLTAGE ADJUSTERS

Input 115 volts 50/60 cycles. Output continually adjustable from 0-130 Volts through roller contact on exposed autotransformer winding. Regulation and efficiency and excellent, no wave form distortion. Output voltage is independent of load. Complete with line cord, switch, and receptacle . . . for loads up to 570 Watts . . . 5 A.

Type No.		L	W	H	Wt. Lbs.	Net Each
V-1-M	with meter	4 7/8	9 7/8	3 5/8	14	$20.00
V-1	without meter	4 7/8	8	3 5/8	12	35.00

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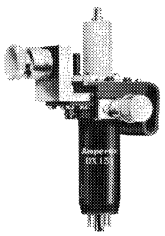
electron tubes

HELPFUL CHARTS & LITERATURE FREE: Write for CONDENSED TUBE CATALOG, information at a glance, rapid tube data reference tables, 25 pages of condensed information arranged for quick reference. Address your distributor or Amperex direct.

5868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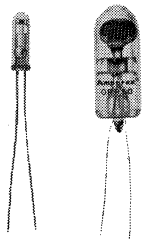
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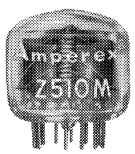

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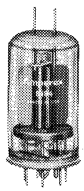
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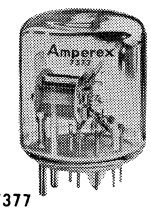

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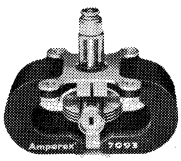
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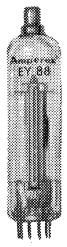

EY88

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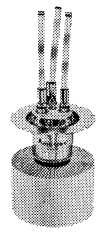
6688

6FY5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tubes

COMMUNICATION

INDUSTRIAL

RECTIFICATION

SPECIAL PURPOSE

RADIATION DETECTION

AMATEUR

ELECTRO-MEDICAL

SEMICONDUCTORS
(SEE FOLLOWING PAGES)

Detailed Data Sheets on any of these tubes, and applications engineering service are yours for the asking.

RADIATOR CREDIT FOR FORCED AIR-COOLED TUBES

Tube Type	Users Allowance
889RA	$20.00
891R, 892R	30.00
5604	75.00
5667	20.00
6445	30.00
6447	30.00
6757	75.00
6801	75.00

**Price on request.
‡Price includes 10% Fed. Excise Tax.
ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

ask Amperex about AMPLIFRAME tubes

*AMPLIFRAME, a new concept in electron tubes, designed and mass produced exclusively by Amperex, incorporates the unique **FRAME GRID** ...the closest approach to the ideal "Physicists' grid"—electrical characteristics but no physical dimensions. The **FRAME GRID** results in: • **higher transconductance per milliampere** • **tighter G_m and plate current tolerance** • **low transit time** • **low capacitances** • **lower microphonics** • **rugged construction**

Amperex®

The prices shown here are suggested list prices. For original equipment manufacturer prices, please write directly to the factory.

ELECTRONIC CORP.
HICKSVILLE, L. I., N. Y.
IN CANADA: ROGERS ELECTRONIC TUBES & COMPONENTS, 116 VANDERHOOF AVE., TORONTO 17, ONT.

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Type No.	Suggested Resale Price
BEAM POWER TUBES	
807	$3.50
6146	5.90
6159	5.90
PE06/40N	5.95
DIODE, CLIPPER	
6339	$44.50
COUNTERS, GEIGER	
75N	$16.50
75NB3	16.50
90NB	27.00
90NB3	27.00
90NB4	27.00
	27.00
100C	54.00
100CB	58.00
100HB	54.00
100N	43.50
100NB	46.00
120C	90.00
120CB	95.00
120N	90.00
120NB	95.00
150N	61.00
150NB	66.00
153C	91.00
200C	67.00
200CB	71.00
200HB	67.00
200N	56.00
200NB	58.50
230C	43.00
230N	41.00
240C	43.00
240N	41.00
912NB	53.00
COUNTING, INDICATOR TUBES	
Z302C	$11.80
Z303C	10.65
Z502S	11.50
Z510M	11.00
Z550M	12.00
ET51	61.00
6370/ET	5.25
6370/EIT	16.50
DIODES, DAMPER	
‡6AL3	$2.80
‡6R3/EY81	2.80
16AQ3	2.60
TWIN DIODE	
5726/6AL5W	$2.10
DIODE, VTVM	
6923	$13.00
IGNITRONS	
5551A	$ 65.00
5552A	99.00
5553B	245.00
5555	316.00
5822A	116.00
7585	99.00
TUNING INDICATORS	
1M3	$1.95
6BR5	2.45
6CD7	3.65
6DA5	2.45
6FG6	2.95
DM71	2.00
KLYSTRON, REFLEX	
2K25	$39.50
MAGNETRONS	
2J42	$ **
5586	417.00
6972	325.00
7091	**
PENTODES	
*‡3EH7	$ 2.90
*‡3EJ7	2.90
*‡4EH7	2.90
*‡4EJ7	2.90
‡6AU6	2.10
‡6BA6	2.00
‡6BQ5	2.60
‡6BX6	3.15
6CA7	5.60
‡6CW5	3.50
‡6DA6	2.85
*‡6EH7	2.90

Type No.	Suggested Resale Price
PENTODES (Con't)	
*‡6EJ7	2.90
‡8BQ5	2.60
‡45B5	3.50
828	27.60
5654/6AK5W	3.45
*5847	17.50
6007	1.50
6008	1.50
6083	14.25
6084	3.75
6227	3.75
‡6267	2.75
6375	11.50
6686	5.00
6688	8.00
6688A	8.06
6689	4.50
‡7189	3.60
*7534	16.50
7693	4.20
7694	4.20
*7737	9.00
EFP60	8.75
‡EL37	5.75
PENTODE, DUO-DIODE	
‡6DC8	$3.25
TRIODE-PENTODES	
‡6BL8	$3.80
‡6BM8	3.20
‡6DX8	3.20
‡6U8	3.30
‡50BM8	3.50
7643	5.25
PHOTOMULTIPLIERS	
50AVP	$ 62.00
50AVP-SP	78.00
51UVP	308.00
52AVP	120.00
53AVP	80.00
53AVP-X	88.00
53UVP	462.00
54AVP	158.00
55AVP	210.00
56AVP	496.00
56UVP	696.00
57AVP	850.00
58AVP	850.00
150AVP	62.00
150AVP-SP	76.00
150CVP	84.00
RECTIFIERS	
‡1S2A	$ 2.75
‡5AR4	4.20
‡5RAGY	1.90
‡6CA4	2.10
‡6V4	1.50
‡6X4	1.65
575A	22.15
673	22.15
8020AX	24.00
RECTIFIERS, MERCURY	
857B	$235.00
866AX	3.10
869B	160.00
869BL	160.00
872AX	11.65
6508	80.00
6693	25.00
7136	25.00
8008AX	10.65
RECTIFIERS, XENON	
3B28	$ 7.60
4B32	13.50
VOLTAGE REFERENCE TUBES	
85A1/OE3	$2.75
85A2/OG3	2.50
5651	2.50
VOLTAGE REGULATORS	
OA2	$1.75
OB2	1.90
90C1	2.50
150B2/6354	3.00
6354	3.00
TETRODES	
4-125A	$ 36.00
4-250A	46.50
4-400A	48.00
4CX250B	39.35

Type No.	Suggested Resale Price
TETRODES (Con't)	
4CX250F	39.35
4X150A	29.35
4X150D	29.35
4X250B	36.50
4X250F	36.50
4X500A	128.50
6075	250.00
6076	305.00
6079	60.00
6155	36.00
6156	46.50
6883	5.90
6979	42.50
7527	48.00
7609	29.35
‡7699	16.00
TETRODES, BEAM	
813	$21.10
7378	45.00
TWIN TETRODES	
829B	$19.00
832A	15.90
5894 COMM	32.40
5894 MIL	35.40
5895	18.50
6252	32.40
6360 COMM	6.30
6360 MIL	6.70
6907	32.40
6939	14.00
7377	25.00
THYRATRONS	
2D21	$ 1.85
3C23	11.98
632B	36.00
5632/C3J	15.50
5684/C3JA	19.80
5685/C6JA	27.80
5727	2.70
AX260	150.00
THYRATRONS, HYDROGEN	
6268	$32.50
6279	45.00
THYRATRONS, MERCURY	
5557/FG17	$ 9.50
5559	23.00
5560/FG95	33.00
5869	25.00
5870	100.00
6786	200.00
AX105/FG105	53.33
THYRATRONS, XENON	
2050	$ 3.35
5544	30.50
5545	29.30
TRIODES	
*‡2ER5	$ 2.80
*‡2FY5	2.80
*‡3ER5	2.80
*‡3FY5	2.80
‡6AT6	1.90
‡6AV6	1.65
*‡6ER5	2.45
*‡6FY5	2.80
‡6Q4	6.00
‡6R4	5.10
356	660.00
450TH	77.00
450TL	77.00
501R	225.00
502	210.00
502R	235.00
504R	245.00
805	20.10
810	25.65
811A	8.10
812A	8.10
833A	53.65
834	19.30
838	20.00
845	20.80
849	185.00
849A	165.00
880	595.00
889A	235.00
889RA	370.00
891	275.00
891R	430.00
892	270.00
892R	425.00
5604	570.00

Type No.	Suggested Resale Price
TRIODES (Con't)	
5619	423.00
5658	595.00
5666	280.00
5667	370.00
5771	660.00
5823	2.50
*5842	17.50
5866	20.00
5867	30.00
5868	55.00
5923	165.00
5924	231.00
5924A	275.00
6333	290.00
6445	455.00
6446	305.00
6447	465.00
6756	388.00
6757	535.00
6758	173.00
6759	206.00
6800	350.00
6801	505.00
6960	150.00
6961	210.00
6961A	230.00
7004	160.00
7092	125.00
7237	180.00
7459	230.00
7804	440.00
7805	402.00
7806	795.00
7807	584.00
HF200	49.50
HF300	40.50
TBL2/400	250.00
TBL2/500	270.00
ZB3200	395.00
TRIODE, INDICATOR	
6977	$3.50
TWIN TRIODES	
*‡4ES8	$4.55
6AL5W	2.10
‡6AQ8	2.60
*‡6DJ8	2.45
*‡6ES8	4.55
*‡6GM8	4.55
‡6J6	2.80
‡9AQ8	3.10
‡12AT7	3.05
‡12AU7	2.45
‡12AX7	2.55
‡17EW8	2.60
5920	2.95
6085	3.75
6201	4.20
6211	2.35
6463	3.50
*6922	5.50
*6922 MIL	5.50
‡7025	2.90
7062	2.40
7119	3.15
*7308	6.00
7316	2.00
E92CC	2.40
TRIGGER TUBES COLD CATHODE	
7710	$1.95
7713	4.30
Z50T	2.20
Z70U/7710	1.35
Z70W/7709	2.10
Z71U/7711	1.95
Z300T	4.95
Z803U	5.50
Z805U/7714	2.35
PHOTO CONDUCTIVE CELLS	
ORP11	$ 2.95
ORP30	3.80
ORP50	1.95
ORP60	.75
ORP61	.75
ORP90	1.95
61SV	22.00
PENTAGRID	
6687	$1.55
BEAM DEFLECTOR TUBE	
6218	$15.00

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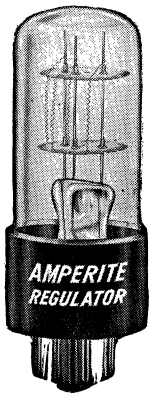
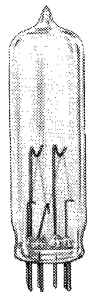
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



STANDARD



MINIATURE

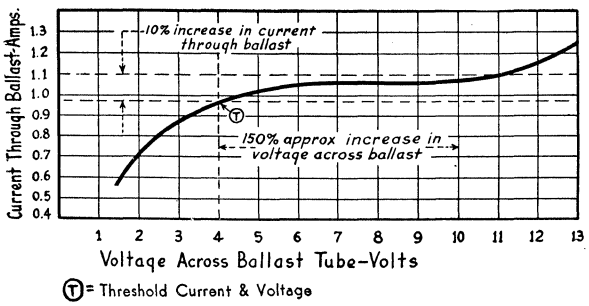
AUTOMATIC REGULATION

What It Is!

The *AMPERITE Ballast-Regulating Tube* is an automatic "rheostat" designed to keep the current in a circuit at a definite value, for example, 0.5 amps. Should the supply voltage increase, this Ballast-Regulating Tube will automatically increase in resistance to take up the increase in supply voltage.

Being a constant current device, the AMPERITE Ballast-Regulating Tube can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



T = Threshold Current & Voltage

Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes....Net $1.80

Amperite NE70V Neon Lamp .....Net $1.80

D6-1E	1H20	*3T4	4A10	6-3	7-4	9-4A	12-4
*D6T4	1H22	*3T4A	4-12	6-4	**7TF4	9-7	12-7
**D6TK7	**2TK7	**3TF4A	4H3	6-4A	7A10	9-8	12A10
**D6TF10	2A10	**3TF4	4H4	6-4B	7-11	9A10	12-11
**D6TF30	2A12	**3TFV4	4H4C	*6T4	**7HTF2	10T1	13-4
D7-20	2A20	3V4	**4HTF4	*6T4F	**7HTF3	**10TF2	15-2
D7H4	*2HT2	3-7	**4HTF7	**6TF4	**7HTF4	10-3	15-4
*D7HT4	2H4	**3TF7	4H10	6-7	7H4	10-4A	16-4
*D7HT11	*2HT4	3A10	4H11	**6TF7	7H4B	10-4B	17-3
1A10	**2HTF4	3-11	5E1	6-8B	7H7	10-4C	20-3
**1TF10	2H10	3H11	**5TF2	6A10	7H11	10-4D	20-4
1-15	3-2	*3T11	5-4	6-11	**8TF2	10-4E	22-4
*1HT2	**3TF2	3TF11	**5TF4	6-12	8-3B	10A10	24-3
*1HT4	**3TK2	**3TF12	5A10	6-13	8-4	10A12	34-2
1H10	3-4	3-14	5-11	6A15	8A10	10-25	35-4
**1HTF10	3H-1-7	3-16	5-16	6-36	**9TF2	11-3	40-6E
*1HT11	3H4	3A20	5H3	6H4	9-3	11-4	41-7E
**1HTF11	**3HTF4	3H-25	5H4	**6HTF4	9-4	11A10	55-1
		3-38A	5H10	6H6		11-11	55-4
		3-50A	5H11				

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.
**TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.
Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net $1.80

ADVANTAGES

Light . . . Compact . . . No Moving Parts (Will withstand vibrations of 10G min.) (Not affected by altitude or humidity changes) . . . Can Be Changed as Easily as a Radio Tube . . . Operates Equally Well on AC or DC . . . Inexpensive.

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation per **AMPERITE** 60w per tube (ST19 bulb). Any number of **AMPERITES** with the same voltage range can be operated in parallel. **AMPERITES** should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended	**2000 Hours**
If operated continuously at maximum voltage	**1000 Hours**
If operated continuously at 80% maximum voltage	**5000 Hours**
If filament is operated below glow point	**5000 Hours up**

In operation, the *Amperite* filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning *Amperite* on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an *Amperite Ballast Tube* depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings—but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current—voltage threshold value. For example:

AMPERITE NUMBER	3-4	3H4	10-7	12-11	12H11
THRESHOLD CURRENT	0.3	0.35	1.0	1.2	1.25
THRESHOLD VOLTAGE	4.0	4.0	7.0	11.0	11.0

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

Net

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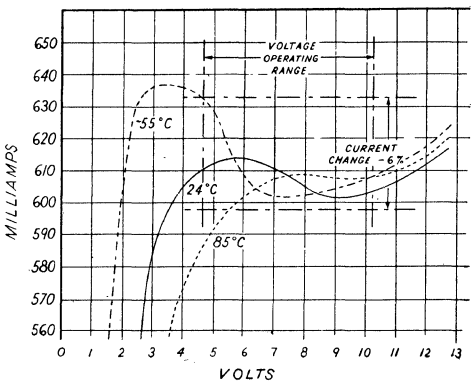
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE

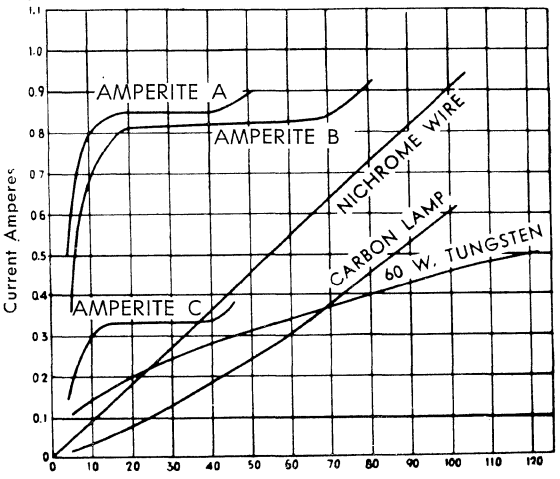
AMBIENT EFFECTS

Ambient temperature variation of —50° to +70° C will change the current value of an *Amperite* approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the *Amperite* is not affected by altitude or humidity changes.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

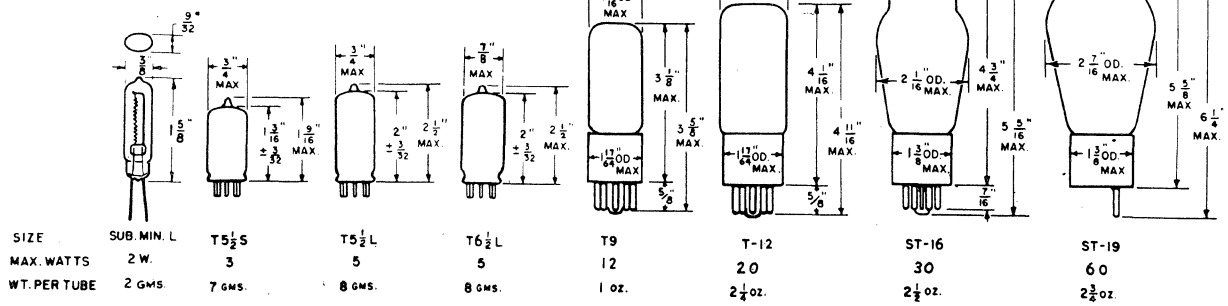


Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of —55°, 24°, and 85°C. The percentage change with ambient is approximately the same with all type *Amperite* ballasts.



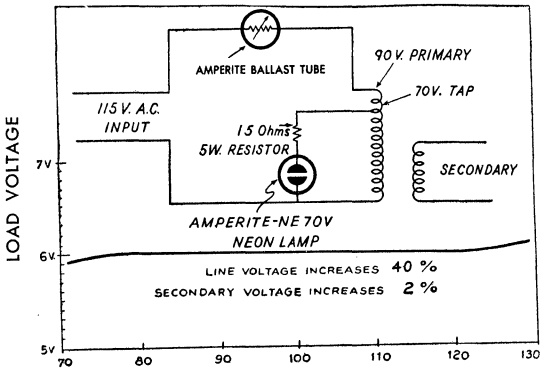
This diagram illustrates far superior regulating characteristics of the *Amperite* Ballast-Regulating Tube.

STANDARD SIZES available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.



BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of *Amperites* of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to ± 1%. Advise voltage variation and currents desired.



A light, compact, and inexpensive method of obtaining close regulation is to use an *Amperite Ballast Tube* with an *Amperite Neon Lamp*—type NE70V. Base octal-base wiring-prongs 2-5. One NE70V is used for all loads up to 100W.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

Power Supply	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on **AMPERITE**	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29- .32a	.29- .32a	.29-.32a

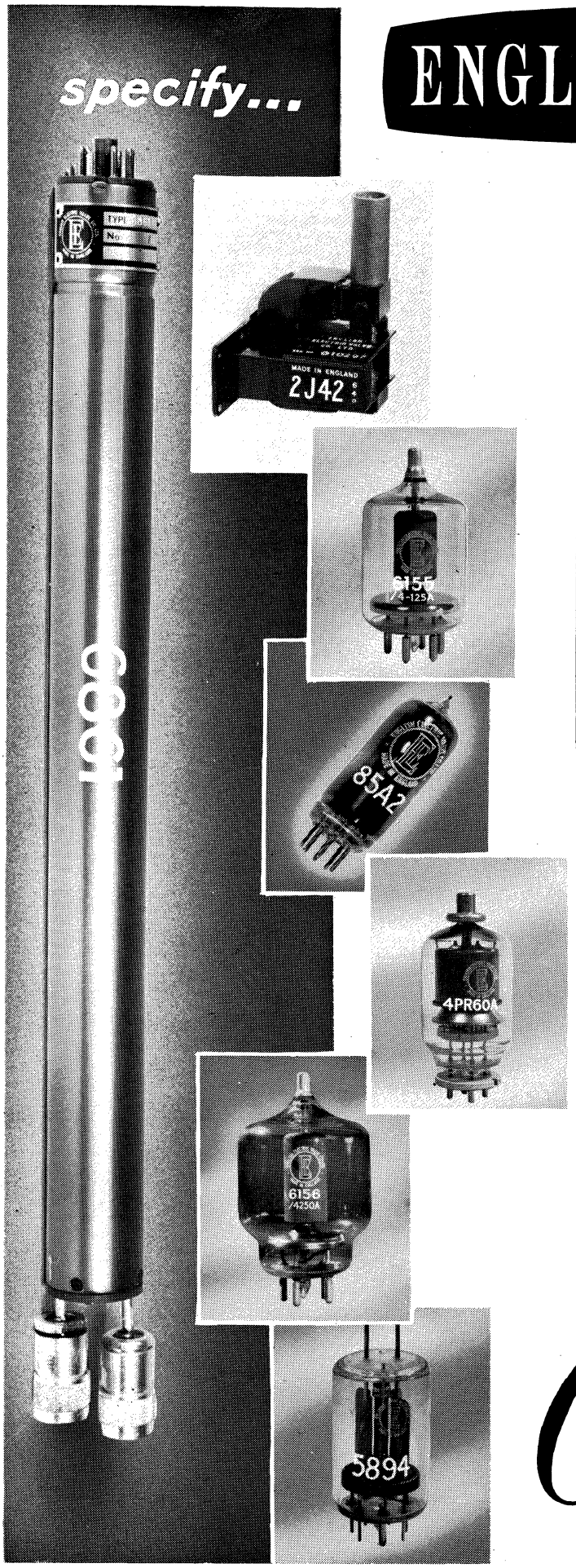
The above chart shows the maximum load voltage for the given supply to obtain ± 2% current regulation on load. Better regulation is obtainable by increasing the voltage across the **AMPERITE**. Up to a point, the higher the percent of the supply voltage taken up by the **AMPERITE**, the better the regulation.

Radio tube filament loads—have low cold resistance which causes a high initial surge. For such loads we recommend a bleeder of 20 to 50% prox. of load and the corresponding **Amperite**. e.g.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulation.

ENGLISH ELECTRIC



OA2WA	VOLTAGE STABILISER
OB2WA	VOLTAGE STABILISER
2J42	MAGNETRON
4J31	MAGNETRON
4J50A	MAGNETRON
4J52A	MAGNETRON
4PR60A (/C1133)	PULSE AMPLIFIER TETRODE
85A2	VOLTAGE REFERENCE TUBE
5894	POWER TETRODE
6155 (/4-125A)	POWER TETRODE
6156 (/4-250A)	POWER TETRODE
6861	TRAVELLING WAVE TUBE
7384	HYDROGEN THYRATRON

SPECIAL PURPOSE TUBES FOR:

Radar, Communications, Television Transmission, Microwave Systems, Heat Sealing, Computers, Welding.

COMPLETE LINE OF:

Ignitrons, Klystrons, Magnetrons, Travelling Wave Tubes, Backward Wave Oscillators, Storage Tubes, Thyratrons, Voltage Reference, Voltage Stabiliser, Power Triodes, Tetrodes and Rectifiers.

SOLE U.S. AGENTS

Calvert ELECTRONICS, INC.

NEW YORK, N.Y.

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EL Industrial Control Tubes

A ready reference for reliable, temperature free thyratron and rectifier tubes.

TYPE	OTHER DESIG NATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS						
EL 1C	3B22	Full Wave. A4-10 Base. Single End.	1.0	4.0		725
EL 3B	6013	Half Wave. A4-10 Base. Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave. A4-81 Base. Single End.	2.5	10		725
EL 3C/L	6982	Full Wave. Lug Type Base. Single End.	2.5	10		725
EL 6B	5892	Half Wave. A4-81 Base. Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave. Lug Type Base. Anode Cap.	6.4	77		920
EL 6C		Full Wave. A4-81 Base. Single End	6.4	25.6		725
EL 6F	6015	Half Wave. Panel Mounted. Flexible Leads	6.4	77		920
EL 16F		Half Wave. Panel Mounted. Flexible Leads	16	96		620
THYRATRONS						
EL C1B	3C31	A4-10 Base. Anode Cap.	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base. Anode Cap.	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base. Single End	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base. Single End.	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base. Anode Cap.	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base. Anode Cap.	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base. Anode Cap.	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base. Anode Cap.	2.5	30	1000	1250
EL C4H-1		A4-81 Base. Anode Cap.	4.0	50	1700	1700
EL C4H-2		Panel Mounted. Anode Cap.	4.0	50	1700	1700
EL C4H-3		Lug Type Base. Anode Cap.	4.0	50	1700	1700
EL C4H-4		Panel Mounted. Flexible Leads	4.0	50	1700	1700
EL C4H-5		Lug Type Base. Flexible Lead.	4.0	50	1700	1700
EL C6C	6987	#4310 Base. Anode Cap.	6.4	77	2000	4000
EL C6H-1		A4-81 Base. Anode Cap.	6.4	80	1700	1700
EL C6H-2		Panel Mounted. Anode Cap .	6.4	80	1700	1700
EL C6H-3		Lug Type Base. Anode Cap.	6.4	80	1700	1700
EL C6H-4		Panel Mounted. Flexible Leads.	6.4	80	1700	1700
EL C6H-5		Lug Type Base. Flexible Lead.	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base. Anode Cap.	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted. Anode Cap.	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base. Anode Cap.	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted. Flexible Leads.	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base. Anode Cap.	6.4	77	1000	1250
EL C16J	5665	Panel Mounted. Flexible Leads.	16.0	160	1000	1250
EL C16J/A		Panel Mounted. Flexible Leads.	16.0	160	1250	1250

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NEWARK , N.J.

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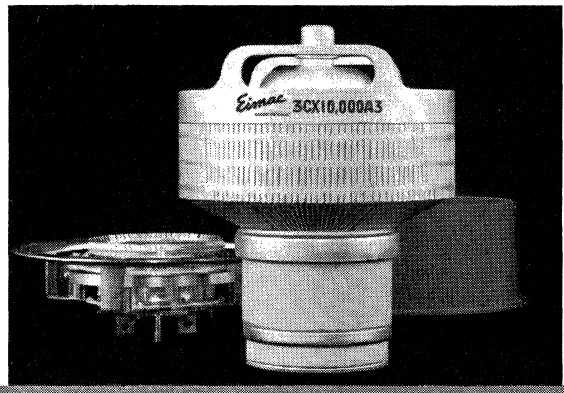

EIMAC POWER GRID

At Eimac you'll find the most *complete* line of power grid tubes available today: triodes, tetrodes, pulse modulators, diodes, zero-bias tubes, ceramic tubes, glass tubes. And there are more to come! Continuing Eimac projects are ever increasing the scope of power grid tube capabilities.

DIODES AND RECTIFIERS

	User Price	Filament Voltage Volts	Filament Current Amps	Peak Inverse Voltage Volts	Peak Plate Current Amps	Average Plate Current ma	Plate Dissipation Watts
2-01C	$ 18.50	5.0	0.35	1,000	0.010	1	0.1
2-25A	20.00	6.3	3.0	25,000	1.0	50	15
2-50A	23.00	5.0	4.0	30,000	1.0	75	30
2-150D	38.55	5.0	13.0	30,000	3.0	250	90
2-240A	42.85	7.5	12.0	25,000	4.0	500	150
2-450A	113.00	7.5	26.5	30,000	8.0	1000	450
2-2000A	228.00	10.0	25.0	75,000	12.0	750	1200
250R	38.55	5.0	10.5	60,000	2.5	250	150
253	37.25	5.0	10.0	15,000	2.5	350	100
8020(100R)	21.50	5.0	6.5	40,000	1.5	100	60
2X1000A	127.50	26.5	2.2	25,000	25.0[6]	1250[6]	1000
2X3000F	168.00	7.5	51.0	25,000	20.0	3000	3000
KY21A	26.75	2.5	10.0	11,000	3.0	750	.....
RX21A	25.75	2.5	10.0	11,000	3.0	750	.....

PULSE MODULATORS

	User Price	Plate Dissipation Watts	Plate Voltage Volts	Plate Current ma	Grid Dissipation Watts	Screen Voltage Volts	Screen Dissipation Watts	Filament Voltage Volts	Filament Current Amps	Amplification Factor
4PR60A	$ 100.00	60	20,000	18,000[3]	....	1500	8	26.0	2.25	.....
4PR65A	35.75	65	15,000	1000[3]	5	2000	10	6.0	3.5	.....
4PR125A	50.00	125	18,000	1800[3]	5	2000	20	5.0	6.5	.....
4PR250C	188.00	250	50,000	4000[3]	5	2000	25	5.0	14.5	.....
4PR400A	60.00	400	20,000	4000[3]	10	2500	35	5.0	14.5	.....
4PR1000A	145.00	1000	30,000	8000[3]	25	2500	75	7.5	21.4	.....
3CPL500A8	1518.00	500[4]	120,000	5000[3]	25[4]	.....	....	7.5	5.5	700
6C21	82.50	300	30,000	15,000[3]	50	.....	....	8.2	17.00	30

AIR SYSTEM SOCKETS

	User Price	Tube	Screen By-Pass Capacitor uuf	Special Characteristics
SK-300	$107.15	4CX5000A	none	
SK-300A	107.15	4CX5000A; 4CW10,000A; 4CX10,000D	none	
SK-400	17.65	4-400A; 4-250A; 4-125A; 4X500F	none	
SK-500	20.70	4-1000A	none	
SK-600	11.90	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	2700	No terminals grounded.
SK-602	11.90	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	2700	No terminals grounded. (Special SK-600)
SK-610	12.65	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	2700	Cathode terminals grounded.
SK-620	16.80	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	1100	No terminals grounded. Screen by-pass capacitor plastic sealed.
SK-630	18.85	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	1100	Cathode terminals grounded. Screen by-pass capacitor plastic sealed.
SK-640	5.35	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	none	No terminals grounded.
SK-650	8.60	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	none	Cathode terminals grounded.
SK-655	5.85	(Screen by-pass capacitor for use with SK-650)	1100	Plastic sealed.
SK-700	21.45	4CX300A	1100	No terminals grounded.
SK-710	21.45	4CX300A	1100	Cathode terminals grounded.
SK-711	26.50	4CN15A; 4CX125C; 4CX300A	1100	Cathode terminals grounded.
SK-740	9.80	4CX300A	none	No terminals grounded.
SK-760	9.80	4CX300A	none	Integral chimney. No terminals grounded.
SK-770	9.80	4CX300A	none	Integral chimney, screen terminals grounded.
SK-800A	55.70	4CX1000A, 4CW2000A	1500	No terminals grounded.
SK-810	55.70	4CX1000A, 4CW2000A	1500	Cathode terminals grounded.
SK-890	65.00	4CX1000A, 4CW2000A	1500	Cathode grounded. Screen isolated.
SK-900	68.55	4X500A	650	
SK-1300	64.50	3CX10,000A1; 3CX10,000A3; 3CX10,000A7; 3CW20,000A1; 3CW20,000A3; 3CW20,000A7	none	No terminals grounded.

CHIMNEYS

	User Price
SK-306	$ 6.45
SK-406	8.60
SK-506	15.35
SK-606	.65
SK-626	.80
SK-636	7.07
SK-806	8.55
SK-906	11.43
SK-1306	6.45

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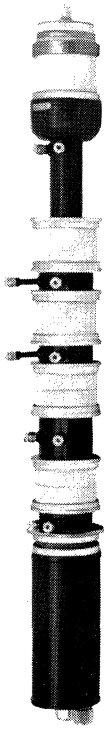
TUBES and Accessories

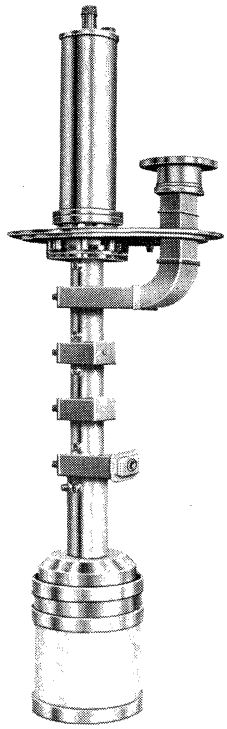
			MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS			
		User Price	Plate Dissipation Watts	Plate Voltage Volts	Plate Current ma	Grid Dissipation Watts	Screen Voltage Volts	Screen Dissipation Watts	Filament Voltage Volts	Filament Current Amps	Amplification Factor
TETRODES	4-65A	$ 28.50	65	3000	150	5	400	10	6.0	3.5	.....
	4-125A	36.00	125	3000	225	5	400	20	5.0	6.5	.....
	4-250A	46.50	250	4000	350	10	600	35	5.0	14.5	.....
	4-400A	48.00	400	4000	350	10	600	35	5.0	14.5	.....
	4-1000A	132.00	1000	6000	700	25	1000	75	7.5	21.0	.....
	4CN15A	55.00	15	2500	.....	2	400	12	6.0	3.0	.....
	4CW2000A	218.00	2000	3000	1000	0	400	12	6.0	12.5	.....
	4CW10,000A	576.00	10,000	7500	3000	75	1500	250	7.5	75.0	.....
	4CX125C	55.00	125	2500	250	2	400	12	6.0	2.7	.....
	4CX250B	39.35	250	2000	250	2	400	12	6.0	2.6	.....
	4CX250K	64.25	250	2000	250	2	400	12	6.0	2.6	.....
	4CX250F	39.35	250	2000	250	2	400	12	26.5	0.56	.....
	4CX250M	92.50	250	2000	250	2	400	12	26.5	0.57	.....
	4CX250R	61.50	250	2000	250	2	500	12	6.0	2.6	.....
	4CX300A	55.00	300	2500	250	2	400	12	6.0	2.7	.....
	4CX1000A	156.00	1000	3000	1000	0	400	12	6.0	12.5	.....
	4CX5000A	495.00	5000	7500	3000	75	1500	250	7.5	75.0	.....
	4CX10,000D	550.00	10,000	7500	3000	75	1500	250	7.5	75.0	.....
	4W300B	57.00	300	2000	250	2	400	12	6.0	2.6	.....
	4W20,000A	1950.00	20,000	8000	15,000	60	1500	200	10.0	30.0[9]	.....
	4X150A	25.00	250	2000	250	2	400	12	6.0	2.6	.....
	4X150D	28.00	250	2000	250	2	400	12	26.5	0.57	.....
	4X150G	58.00	250	2000	250	2	400	12	2.5	7.0	.....
	4X250B	39.35	250	2000	250	2	400	12	6.0	2.6	.....
	4X250F	39.35	250	2000	250	2	400	12	26.5	0.57	.....
	4X500A	128.50	500	4000	350	10	500	30	5.0	13.5	.....
	7580	45.00	250	2000	250	2	500	12	6.0	2.6	.....
PENTODE	4E27A/5-125B	$ 50.00	125	4000	200	5	750	20	5.0	7.50	.....
TRIODES	2C39A	$ 22.50	100	1000	125[5]	2	.....	.....	6.3	1.0	100
	2C39WA	32.00	100	1000	125[5]	2	.....	.....	6.3	1.0	100
	3C24	16.05	25	2000	75	7	.....	.....	6.3	3.0	24
	3CPN10A5	32.00	10	3500[3]	3000[3]	2	.....	.....	6.0	1.0	100
	3CX100A5	32.00	100	1000	125[5]	2	.....	.....	6.0	1.0	100
	3CX100F5	35.75	100	1000	125[5]	2	.....	.....	26.5	0.22	100
	3CW20,000A1	560.00	20,000	7000	4000	100	.....	.....	7.5	100.0	5.5
	3CW20,000A3	560.00	20,000	7000	4000	250	.....	.....	7.5	100.0	20
	3CW20,000A7	720.00	20,000	7000	4000	500	.....	.....	7.5	100.0	200
	3CX10,000A1	468.00	10,000	7000	4000	100	.....	.....	7.5	100.0	5.5
	3CX10,000A3	468.00	10,000	7000	4000	250	.....	.....	7.5	100.0	20
	3CX10,000A7	660.00	10,000	7000	4000	500	.....	.....	7.5	100.0	200
	3W5000A1	237.00	5000	6000	2500	50	.....	.....	7.5	51.0	5
	3W5000A3	225.00	5000	6000	2500	150	.....	.....	7.5	51.0	20
	3W5000F1	243.00	5000	6000	2500	50	.....	.....	7.5	51.0	5
	3W5000F3	231.00	5000	6000	2500	150	.....	.....	7.5	51.0	20
	3X2500A3	200.00	2500	6000	2500	150	.....	.....	7.5	51.0	20
	3X2500F3	206.00	2500	6000	2500	150	.....	.....	7.5	51.0	20
	3X3000A1	212.00	3000	6000	2500	50	.....	.....	7.5	51.0	5
	3X3000F1	218.00	3000	6000	2500	50	.....	.....	7.5	51.0	5
	25T	18.50	25	2000	75	7	.....	.....	6.3	3.0	24
	35T	21.50	50	2000	150	15	.....	.....	5.0	4.0	39
	35TG	36.00	50	2000	150	15	.....	.....	5.0	4.0	39
	75TH	30.00	75	3000	225	16	.....	.....	5.0	6.25	20
	75TL	30.00	75	3000	225	13	.....	.....	5.0	6.25	12
	100TH	23.60	100	3000	225	20	.....	.....	5.0	6.3	38
	100TL	23.60	100	3000	225	15	.....	.....	5.0	6.3	14
	152TH	75.00	150	3000	450	30	.....	.....	5 or 10	12.5 or 6.25	20
	152TL	75.00	150	3000	450	25	.....	.....	5 or 10	12.5 or 6.25	12
	250TH	38.55	250	4000	350	40	.....	.....	5.0	10.5	37
	250TL	38.55	250	4000	350	35	.....	.....	5.0	10.5	14
	304TH	64.50	300	3000	900	60	.....	.....	5 or 10	25 or 12.5	20
	304TL	64.50	300	3000	900	50	.....	.....	5 or 10	25 or 12.5	12
	450TH	77.00	450	6000	600	80	.....	.....	7.5	12.0	38
	450TL	77.00	450	6000	600	65	.....	.....	7.5	12.0	18
	592/3-200A3	46.00	200	3500	250	25	.....	.....	10.0	5.0	25
	750TL	150.00	750	10,000	1000	100	.....	.....	7.5	21.0	15
	1000T	150.00	1000	7500	750	80	.....	.....	7.5	15.5	35
	1500T	279.00	1500	8000	1250	125	.....	.....	7.5	24.0	24
	2000T	387.00	2000	8000	1750	150	.....	.....	10.0	23.5	23
	7289	32.00	100	1000	125[5]	2	.....	.....	6.0	1.0	100

Prices and specifications subject to change without notice. Write for complete specifications on any tube to: Power Grid Tube Division, **EITEL-McCULLOUGH, INC.,** *San Carlos, California.*

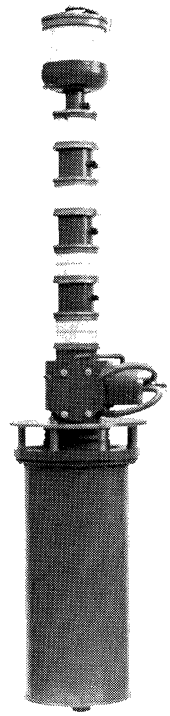
THERE'S MORE: *For Eimac Microwave Tubes, other products, turn the page.*



External Cavity



Internal Cavity



Combination Cavity

EIMAC POWER AMPLIFIER KLYSTRONS

and Key Accessories

At Eimac you'll find the most advanced amplifier klystrons anywhere. For Eimac is the only manufacturer designing klystrons three ways to best meet specific performance requirements: internal cavity, external cavity and combination cavity. That's why these tubes are now in widespread use in high power applications the world over. And watch for klystrons to come—the result of Eimac's unmatched tube-making skills and complete developmental facilities.

POWER AMPLIFIER KLYSTRONS

	User Price	TYPICAL OPERATION Output Power, Watts CW	Pulse	Power Gain db	Frequency Range Mc	MAXIMUM RATINGS Beam Voltage Volts	Beam Current Amps
3K2500LX	$ 2,360.00	1000	—	25	980-1200	7000	0.6
3K2500SG	2,950.00	1000	—	25	1700-2400	7000	0.6
3K3000LQ	2,360.00	2000	—	30	610- 985	9000	0.75
3K50,000LA	4,200.00	10,000	12,000[7]	25	470- 580	20,000	2.5
3K50,000LF	4,200.00	10,000	12,000[7]	25	580- 720	20,000	2.5
3K50,000LQ	4,200.00	10,000	12,000[7]	25	720- 985	20,000	2.5
3K210,000LQ	23,500.00	60,000	—	22	755- 985	30,000	10.0
3KM3000LA	2,470.00	2000	—	30	375- 570	9000	0.75
3KM4000LT	2,600.00	—	30,000	30	955-1220	24,000	3.3
3KM50,000PA	11,000.00	20,000	50,000	30	225- 400	30,000	2.5
4K50,000LQ	3,760.00	10,000	—	40	720- 985	20,000	2.5
4KM3000LR	2,420.00	2000	—	45	610- 985	10,000	0.75
4KM50,000LA3	4,230.00	10,000	—	50	400- 630	20,000	2.5
4KM50,000LR	3,760.00	10,000	—	50	610- 985	20,000	2.5
4KM170,000LA	20,500.00	75,000	150,000	45	300- 500	50,000	11.0
5K210,000LQ	23,500.00	75,000	—	55	755- 985	30,000	10.0
6K50,000LQ	8,250.00	6000	—	30	720- 985	20,000	2.5
4KMP10,000LF	10,800.00	—	400,000	55	570- 630	70,000	22.5
4KP40,000SQ	13,000.00	—	12,000,000	45	2856	235,000	105.0
4KM50,000LF	4,230.00	10,000	—	50	575- 750	20,000	2.5

TEST LOADS

	User Price	Frequency	Dissipation	Max. VSWR
WL-120	$ 970.00	0.5 -1.20 kmc/s	20 kw	1.15:1
WL-130	1,030.00	0.35 -1.20 kmc/s	20 kw	1.10:1
WL-140	1,090.00	0.225-1.20 kmc/s	20 kw	1.15:1
WL-150	2,950.00	0.25 -0.75 kmc/s	100 kw	1.10:1
WL-160	3,175.00	0.20 -0.75 kmc/s	100 kw	1.12:1
WL-200	1,060.00	1.70 -2.40 kmc/s	24 kw	1.10:1
WL-210	2,950.00	0.75 -1.00 kmc/s	100 kw	1.20:1
WL-220	3,760.00	0.39 -0.46 kmc/s	150 kw	1.13:1

AIR SYSTEM SOCKETS

	User Price	Tube	Special Characteristics
SK-100	$168.00	4KM3000LQ; 3KM3000LA; 3K3000LQ	Cathode socket.
SK-110	168.00	3K50,000LA,F,Q; 3KM50,000PA; 4K50,000LQ; 4KM50,000SG; 6K50,000LQ; 4KM50,000LA; 4KM50,000LF; 4KM50,000LQ	Cathode socket.
SK-200	142.00	3K2500SG; 3K2500LX; 3KM4000LT	Cathode socket.
SK-1000	189.00	4KM170,000LA	Cathode socket.

Prices and specifications subject to change without notice. Write for complete specifications on any tube to: Amplifier Klystron Division, **EITEL-McCULLOUGH, INC.,** *San Carlos, California.*

THERE'S MORE: *For Eimac Power Grid Tubes, Eimac Microwave Tubes, turn the page.*

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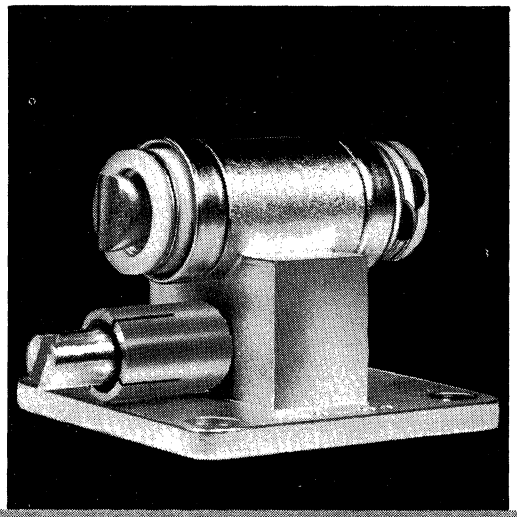

EIMAC MICROWAVE TUBES

At Eimac you'll find microwave devices that have set new performance standards everywhere. And behind the scenes, Eimac Microwave Engineers are hard at work opening new frontiers, developing new tube types.

REFLEX KLYSTRONS

	User Price	Output Power	MAXIMUM RATINGS: Resonator Voltage Volts	Resonator Dissipation Watts	Cathode Current ma	Reflector Voltage Volts (Typical)	ELECTRICAL CHARACTERISTICS: Heater Voltage Volts	Heater Current Amps	Frequency Range Mc
1K015CA[2]	$618.00	70 mw	350	15	50	—250	6.3	0.8	5400-6000
1K015CG[1]	618.00	70 mw	350	15	50	—250	6.3	0.8	5400-6000
1K125CA[1]	530.00	1.25 w	1000	125	110	—285	6.3	1.5	3700-4400
1K125CB[1]	530.00	1.8 w	1000	125	110	—335	6.3	1.5	4400-5000
1K75CH[2]	810.00	0.2/1.0 w	550/750	75	35/60	—150/—350	6.3	1.5	4300±50
1K75CL[1]	810.00	0.2/1.0 w	550/750	75	35/60	—150/—350	6.3	1.5	4300 −0+75
1K75CK[1]	810.00	0.2/1.0 w	550/750	75	35/60	—150/—350	6.3	1.5	4300±50
1K20XD[1]	475.00	75 mw	300	20	40	—150	6.3	1.0	10,000-10,700
1K20XK[1]	475.00	75 mw	300	20	40	—150	6.3	1.0	9200-10,000
1K20XS[1]	475.00	75 mw	300	20	40	—150	6.3	1.0	8500-9200
Y-222[1]	240.00	100 mw	350	20	40	—150	6.3	1.0	10,500-10,700

VOLTAGE-TUNABLE MAGNETRON

	User Price	Output Power	Anode Voltage (Volts)	Injection Anode Voltage (Volts)	Cathode Current (ma)	Injection Anode Current (ma)	Heater Voltage (AC or DC)	Heater Current (AC or DC)	Frequency Range Mc
X747[2]	$780.00	100 mw	600-2000	0-500	3-20	0-1	6.3	1.0	450-1150

TRAVELING WAVE TUBE

	User Price	Output Power	Beam Voltage	Focus Electrode Voltage	Cathode Current	Focus Electrode Current	Heater Voltage	Heater Current	Frequency Range Mc
EM-778[2]	$3480.00	1.0 w	2750-3000	0-60	25 ma	0.5 ma	6.3	0.6a	5000-11,000

OTHER PRODUCTS

PREFORMED CONTACT FINGER STOCK

A prepared strip of silver-plated spring material, slotted and formed into a series of fingers designed to make sliding contact.

Single Edge	Width	Double Edge	Width
CF-100	17/32"	CF-200	13/16"
CF-300	31/32"	CF-400	1 17/32"
CF-500	1 3/8"	CF-600	2 1/4"
CF-900	3/64"		

Klystron Types	Width
CF-700	17/32"
CF-800	13/32" x 5/16"

Used as contact between klystrons and externally-tuned cavities.

HEAT-DISSIPATING CONNECTORS

Type	Hole Diameter
HR-1	.052
HR-2	.062
HR-3	.072
HR-4	.102
HR-5	.127
HR-6	.367
HR-7	.127
HR-8	.575
HR-9	.569
HR-10	.510

SK-604A TUBE EXTRACTOR

A spring-steel extractor for use with the 4X150 series, 4X250 series, 4CX250 series, and 2C39 series tubes.

VACUUM SWITCHES

Single-pole double-throw switch within a high vacuum adaptable for high-voltage switching. Contact spacing .015". Switch will handle R-F potentials as high as 20 Kv. In D-C switching will handle approximately 1.5 Amps. at 5 Kv.

Type	Coils
VS-2	12V
VS-4	24V
VS-5	
VS-6	

100IG IONIZATION GAUGE

For measuring pressures from 10^{-3} to less than 10^{-8} mm of mercury.

HV-1 DIFFUSION PUMP

Triple-jet, air-cooled vacuum pump of the oil-diffusion type. Capable of reaching an ultimate vacuum of 4 x 10^{-7} mm of mercury when used with suitable forepump.

[1]Waveguide Output Fitting
[2]Coaxial Output Fitting
[3]Pulse
[4]Convection liquid cooled
[5]Cathode Current
[6]Pulse-clipper service only
[7]TV Peak-Synchronizing Level
[9]Plus 2250 watts bombarder power

Prices and specifications subject to change without notice. Write for complete specifications on any microwave tube to:
Microwave Tube Division, **EITEL-McCULLOUGH, INC.,** *San Carlos, California.*
Plants also in San Bruno, California; Salt Lake City, Utah.

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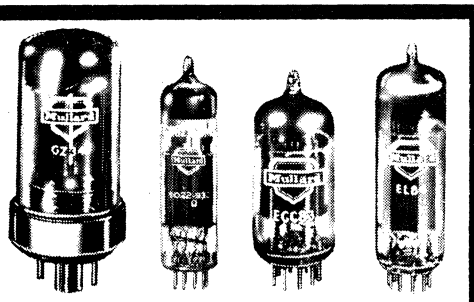


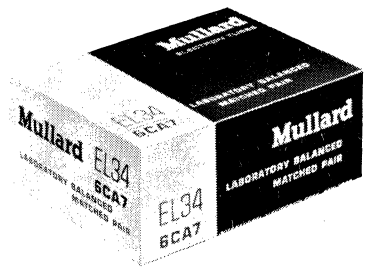
Mullard ELECTRON TUBES

for

HIGH FIDELITY • AM-FM • TELEVISION INDUSTRY • FOREIGN REPLACEMENT

MULLARD RECEIVING TUBES — PREFERRED TYPES

Mullard Type	EIA Type	List Price
DAF96	1AH5	$3.15
DF96	1AJ4	3.25
DF97	1AN5	2.80
DK92	1AC6	3.40
DK96	1AB6	3.40
DL96	3C4	2.85
DM70	1M3	2.05
EAA91		1.85
EABC80	6AK8	3.55
EAF42	6CT7	2.85
EB91	6AL5	1.85
EBC81	6BD7A	3.50
EBC90	6AT6	1.90
EBC91	6AV6	1.70
EBF80	6N8	3.10
EBF83	6DR8	3.60
EBF89	6DC8	3.25
EC90	6C4	3.60
EC91	6AQ4	5.45
EC92		2.45
EC95	6ER5	2.45
EC97	6FY5	2.80
ECC33		5.90
ECC35	6SG7	5.90
ECC40		4.10
ECC81	12AT7	3.05
ECC82	12AU7	2.50
ECC83	12AX7	2.55
ECC84	6CW7	3.75
ECC85	6AQ8	2.75
ECC88	6DJ8	4.30
ECC91	6J6	2.80
ECC189	6ES8	4.65
ECF80	6BL8	3.95
ECF82	6U8	3.95
ECH42	6CU7	3.10
ECH81	6AJ8	3.25
ECH83	6DS8	4.10
ECL80	6AB8	3.40
ECL82	6BM8	3.10
ECL83		5.15
EF37A		7.65
EF40		4.45
EF41	6CJ5	2.90
EF42		4.45
EF55		6.75
EF80	6BX6	3.25
EF85	6BY7	3.25
EF86	6267	2.70
EF89	6DA6	3.05
EF91	6AM6	$3.30
EF92	6CQ6	3.70
EF93	6BA6	2.05
EF94	6AU6	2.10
EF95	6AK5	4.30
EF98	6ET6	3.30
EF183	6EH7	3.20
EF184	6EJ7	3.20
EK90	6BE6	2.25
EL34	6CA7	6.20
EL37		6.65
EL38	6CN6	7.45
EL41	6CK5	3.25
EL42		3.25
EL81	6CJ6	4.35
EL83		4.10
EL84	6BQ5	2.45
EL85	6BN5	5.80
EL86	6CW5	2.85
EL90	6AQ5	2.25
EL91	6AM5	3.30
EL95	6DL5	2.30
EL821	6CH6	7.15
EL822		7.65
EM34	6CD7	3.95
EM81	6DA5	2.75
EM84	6FG6	3.30
EQ80	6BE7	5.30
EY51	6X2	3.75
EY81	6R3	2.95
EY86	6S2	2.95
EZ35	6X5	3.60
EZ40	6BT4	2.30
EZ80	6V4	1.60
EZ81	6CA4	2.25
EZ90	6X4	1.70
FW4/800		7.95
GZ30		5.30
GZ32		4.70
GZ33		5.90
GZ34	5AR4	4.45
HBC90	12AT6	1.85
HBC91	12AV6	1.70
HCC85	17EW8	2.80
HF93	12BA6	2.10
HK90	12BE6	2.20
HL92	50C5	2.20
HY90	35W4	1.45
PCC88		4.65
PCF80	8A8	4.45
PL36	25E5	$6.10
UABC80		3.75
UCH81	1908	3.60
UCL82	50BM8	3.05
UF86		3.45
UL84	45B5	2.85
UY85	38A3	1.65
XC95	2ER5	2.50
6EU7	6EU7	2.75
7025	7025	2.75
7189	7189	3.05
7247	17DW8	3.05



MULLARD RECEIVING TUBES AVAILABLE IN MATCHED PAIRS

Mullard Type	EIA Type	List Price
EL34	6CA7	$13.40
EL37		13.90
EL84	6BQ5	5.55
EL86	6CW5	6.50
EL90	6AQ5	5.35
EL95	6DL5	5.35
ECL82	6BM8	7.15
UCL82	50M8	7.15
UL84	45B5	5.95
7189	7189	6.95

MULLARD PREFERRED INDUSTRIAL TUBE TYPES

75C1		$ 4.90	90C1		$2.80			
85A1		5.25	150C3	OD3		EL360		$6.60
85A2	OG3	2.50	DH3-91	1CP1		EN91	2D21	1.85
90AG		13.30	E180F	6688	8.10	ME1400		6.75
90AV		13.30	EC70	6778	3.60	TD03-10	5861	28.00

IEC **INTERNATIONAL ELECTRONICS CORP.** *New York, N. Y.*

Trade Discount Applies To List Prices Only

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SERVICE-DESIGNED

RECEIVING TUBES

GE ELECTRONICS

Effective July 7, 1961

GE ELECTRONICS

Type	List Price	Type	List Price	Type	List Price	Type	List Price	Type	List Price	Type	List Price	Type	List Price
OZ4	$ 2.40	5AS4A	$ 2.65	6BA7	$ 3.70	6DZ7	$ 4.95	6Y6G	$ 3.45	12BZ7	3.05	19HV8	$ 3.20
OZ4A*	2.15	5AS8	3.50	6BA8A	3.55	6E5*	3.00	6Y6GT	3.45	12C5	2.35	19J6	3.15
1A7GT	3.70	5AT8	3.25	6BC5	2.35	6EA7	3.50	7A4	3.55	12C8	5.65	19T8	3.35
1AH4	2.90	5AU4	3.40	6BC7	3.80	6EA8	2.70	7A5	3.85	12CA5	2.50	19X8	3.80
1AJ5	2.90	5AV8	4.05	6BC8	4.00	6EB8	3.70	7A6	3.45	12CN5	2.45		
1AX2	3.05	5AW4	2.80	6BD6	2.45	6EH5	2.35	7A7	3.60	12CR6	2.40	21EX6	5.55
1B3GT	2.90	5B8	4.10	6BE6	2.20	6EH7/EF183	2.90	7A8	4.70	12CT8	4.05	25AV5GA	4.10
1DN5	2.20	5BE8	3.30	6BF5	3.55	6EH8	3.20	7AF7	3.85	12CU5	2.35	25AX4GT	2.85
1G3GT	2.90	5BK7A	3.40	6BF6	1.80	6EM5	3.05	7AG7	4.40	12CU6	4.45	25BK5	3.65
1H2	3.05	5BQ7A	4.00	6BG6GA	6.50	6EM7	3.65	7AU7	2.60	12CX6	2.50	25BQ6GA	4.60
1H5GT	3.05	5BR8; 5BT8	3.30ea	6BH6	2.70	6ER5	2.80	7B4	3.05	12D4	2.75	25BQ6GTB	4.60
1J3	2.90	5BW8	3.40	6BH8	3.50	6ES5	2.95	7B5	4.90	12DB5	2.75	25C5	2.15
1K3	2.90	5BZ7	3.80	6BJ6	2.60	6ES8	4.85	7B6	3.60	12DE8	3.35	25CA5	2.50
1L4*	2.65	5CG8	3.20	6BJ7	3.15	6EU7	2.55	7B7	3.80	12DK7	2.85	25CD6GB	5.85
1L6	3.50	5CL8; 5CL8A	3.15ea	6BJ8	2.80	6EU8	3.15	7B8	3.55	12DL8	3.55	25DK4	1.40
1LA6	4.20	5CQ8	3.35	6BK4	7.30	6EV5	3.00	7C4	5.00	12DQ6A	4.20	25DN6	5.55
1LB4	4.45	5CZ5	3.05	6BK5	3.70	6EW6	2.30	7C5	3.50	12DQ6B	4.25	25DQ6	4.20
1LH4	4.10	5DH8	4.05	6BK7;B	3.35ea	6EW7	3.20	7C6	3.75	12DQ7	3.30	25EC6	5.70
1LN5	4.20	5DJ4	2.20	6BL6GTA	3.95	6EX6	5.70	7C7	3.60	12DS7	3.40	25EH5	2.15
1R5	2.70	5EA8	3.15	6BL8	3.80	6EY6	3.00	7EY6	3.00	12DT8	3.75	25L6GT	2.30
1S2A	3.00	5EU8	3.20	6BM8	3.05	6EZ5	3.25	7F7	4.00	12DU7	3.35	25W4GT	2.70
1S4	3.85	5FG7	2.80	6BN4	2.50	6EZ8	3.80	7F8	4.80	12DV8	3.55	25W6GT	3.10
1S5	2.65	5GH8	3.15	6BN6	3.00	6F5	3.65	7G8	3.90	12DZ6	2.50	25Z5	3.15
1T4	2.50	5J6	2.80	6BN8	2.70	6F6	4.20	7H7	3.90	12EA6	2.65	25Z6GT	2.90
1U4	2.50	5T4	7.25	6BQ5	2.40	6F6G; 6F6GT	3.65ea	7J7	5.15	12ED5	2.50	34DG5	2.10
1U5	2.20	5T8	3.40	6BQ6GA	4.35	6FG5	2.80	7N7	3.55	12EG6	2.30	35A5	4.00
1V2	2.10	5U4GA/B	2.10	6BQ6GTB	4.35	6FG6*	2.95	7S7	4.75	12EK6	2.50	35B5	2.65
1V6	3.80	5U4GB	2.10	6BQ7A	3.95	6FG7	2.75	7X7/XXFM	5.85	12EN6	3.05	35C5	2.15
1X2A/B	3.05	5U8	3.30	6BR8A	3.50	6FH5	2.50	7Y4	3.20	12F8	2.75	35DZ8	3.10
2A3	6.95	5V3	3.85	6BS8	3.75	6FM8	3.00	7Z4	2.95	12FK6	2.10	35EH5	2.20
2AF4	4.05	5V4GA	3.50	6BU8	2.80	6FQ5	2.45	8AU8	3.55	12FM6	2.05	35GL6	2.30
2AF4A	4.05	5V6GT	2.20	6BV8	3.20	6FS5	3.10	8AW8A	3.65	12FQ8*	3.00	35L6GT	2.40
2AF4B	4.05	5X8	3.25	6BW4	2.05	6FV8	3.15	8BA8A	3.55	12FR8	4.35	35S/51S	3.55
2BN4	2.55	5Y3GT	1.75	6BW8	3.30	6FW5	3.90	8BQ5	2.45	12FX8	3.80	35W4	1.05
2CY5	2.80	5Y4GT	2.45	6BX7GT	4.00	6FY5	2.80	8CG7	2.50	12GA6	2.30	35Y4	2.95
2EN5	2.10	5Z3	3.05	6BY5GA	4.20	6GH8	3.20	8CG8	2.50	12GC6	4.20	35Z3	3.00
2ER5	2.80			6BY6	2.50	6GK6	2.75	8CM7	2.80	12H6	3.30	35Z5GT	1.85
2FH5	2.55	6A3	5.05	6BY8	2.80	6GM6	2.40	8CN7	2.60	12J5	3.30	36AM3	1.50
2FS5	3.10	6A7	5.10	6BZ6	2.25	6GN8	3.75	8CS7	2.95	12J8	3.30	42	3.85
3A2	3.70	6A8	5.80	6BZ7	4.00	6GY8	3.80	8CX8	3.70	12K5	2.95	43	4.75
3A3	3.40	6A8GT	4.80	6BZ8	4.45	6H6	3.50	8EB8	3.80	12K7GT	4.05		
3A8GT	5.90	6AB4	2.15	6C4	1.85	6HJ8	3.30	8EM5	3.10	12K8	4.80	50	5.60
3AF4A	4.05	6AB5/6N5	3.55	6C5	3.15	6HS8	2.80	8GN8	3.80	12L6GT	2.45	50A5	4.25
3AL5	1.85	6AB7/1853	5.00	6C10°	3.60	6J5	3.10	9AU7	2.80	12R5	2.60	50B5	2.65
3AU6	2.15	6AC5G	2.00	6CA4	1.95	6J6	2.80	9BR7	2.75	12SA7	3.90	50C5	2.15
3AV6	1.75	6AC5GT	4.35	6CA5	2.50	6J7	4.55	9CL8	3.15	12SA7Y	3.55	50DC4	1.50
3B2	6.60	6AC7	4.90	6CA7*	5.20	6JC8	2.90	9U8A	3.30	12SC7	3.80	50EH5	2.30
3BA6	2.15	6AC7Y	4.90	6CB5A	7.50	6K6GT	2.50	10C8	4.25	12SF5	2.65	50FE5	3.65
3BC5	2.35	6AD7G	5.90	6CB6A	2.25	6K7	4.35	10DE7	2.95	12SF7	4.75	50HC6	2.30
3BE6	2.25	6AF3	2.80	6CD6GA	5.80	6K8	4.70	10EG7	3.15	12SG7	4.25	50L6GT	2.40
3BN4	2.55	6AF4	4.00	6CE5/6BC5	2.35	6K11°	3.55	11CY7	3.00	12SH7	3.65	50X6	4.25
3BN6	3.00	6AF4A	4.00	6CF6	2.55	6L6*	6.35	12A6	2.95	12SJ7	3.75	50Y6G	1.80
3BU8	2.80	6AF6G*	3.65	6CG7	2.45	6L6GB*	3.80	12AB5	2.45	12SK7	3.55	50Y6GT	2.95
3BY6	2.35	6AG5	2.75	6CG8A	3.15	6L6GC*	4.20	12AC6	2.20	12SK7Y	3.15	50Y7GT	3.05
3BZ6	2.25	6AG7	5.90	6CH8	3.60	6N7	4.55	12AD6	2.30	12SL7GT	3.75	70A7GT	3.55
3CB6	2.25	6AG7Y	5.05	6CK4	2.80	6Q7	3.95	12AE6	2.05	12SN7GTA	2.70	70L7GT	10.15
3CE/3CB5	2.35	6AH4GT	3.45	6CL6	3.75	6S4A	2.05	12AE6A	2.05	12SQ7	3.30	75	5.10
3CF6	2.55	6AH6	4.65	6CL8A	3.15	6S8GT	4.40	12AF3	2.80	12SQ7GT	2.65	80	2.90
3CS6	2.40	6AJ4	9.80	6CM6	2.55	6SA7	3.90	12AF6	2.35	12SR7	2.65	83*	3.50
3CY5	2.85	6AK5*	4.20	6CM7	2.75	6SB7Y	5.35	12AG6	1.90	12SR7GT	2.65	84/6Z4	2.60
3DG4	3.40	6AK6*	2.90	6CN7	2.75	6SC7	3.80	12AJ6	2.05	12V6GT	2.15	117L7GT	10.15
3DK6	2.40	6AL3	2.95	6CQ4	2.85	6SF5	3.10	12AL5	1.90	12W6GT	3.00	117N7GT	10.25
3DT6	2.20	6AL5	1.85	6CQ8	3.30	6SF7	4.75	12AL8	4.00	12X4	1.95	117P7GT	9.30
3EA5	2.85	6AL7GT*	5.75	6CR6	2.40	6SG7	4.25	12AQ5	2.40	13DE7	3.00	117Z3	2.50
3ER5	2.80	6AM4	5.90	6CS6	2.35	6SH7	4.05	12AT6	1.65	13DR7	3.00	117Z6GT	4.40
3LF4	4.20	6AM8A	3.25	6CS7	2.95	6SJ7	3.75	12AT7	3.05	13EM7	3.70	5642	5.00
3Q4	2.90	6AN4	4.95	6CU5	2.35	6SK7	3.55	12AU6	2.15	14A4	3.95	6973	4.50
3Q5GT	3.60	6AN8A	3.70	6CU6	4.65	6SL7GT	3.50	12AU7; A	2.45ea	14A7	3.95	7025	2.90
3S4	2.65	6AQ5; 6AQ5A	2.15ea	6CU8	3.65	6SN7GTB	2.60	12AV5GA	3.85	14B6	3.60	7027	5.25
3V4	2.50	6AQ6	2.40	6CW4	4.45	6SQ7	3.30	12AV6	1.65	14B8	3.60	7189A	2.65
4AU6	2.20	6AQ7GT	4.00	6CX8	3.65	6SR7	3.25	12AV7	3.35	14GT8	3.00	7199	3.30
4BA6	2.05	6AQ8	3.15	6CY5	2.80	6SS7	4.20	12AW6	3.30	14JG8	3.00	7247	2.85
4BC8	4.05	6AR5	2.60	6CY7	2.95	6ST7	2.95	12AX4GTA	2.70	14Q7	4.20	7355*	2.70
4BN6	3.00	6AR8	4.35	6CZ5	3.00	6SV7	3.65	12AX4GTB	2.70	15EA7	3.55	7408	2.15
4BQ7A	4.00	6AS5	2.40	6D6	4.35	6SZ7	3.00	12AX7	2.55	15EW6	2.35	7581*	3.80
4BS8	3.85	6AS8	3.35	6D10°	3.75	6T4	4.55	12AZ7A	2.70	17AV5GA	3.75	ECC85/6AQ8	3.15
4BU8	2.80	6AT6	1.90	6DA4	2.70	6T8	3.35	12B4A	2.70	17AX4GT	2.70	ECF80/6BL8	3.80
4BZ6	2.25	6AT8	3.20	6DA5*	2.45	6T8A	3.35	12BA6	1.65	17D4	2.75	ECL82/6BM8	3.05
4BZ7	4.05	6AU4GTA	3.60	6DB5	2.60	6U5*	3.15	12BA7	3.95	17DE4	2.90	EF184/6EJ7	3.20
4CB6	2.25	6AU5GT	4.30	6DE4	2.80	6U6GT	2.45	12BD6	2.45	17DQ6A; B	4.20ea	EL-34/6CA7	5.20
4CE5	2.35	6AU6A	2.10	6DE6	2.45	6U8	3.30	12BE6	1.75	17EW8	2.60	EM-81/6DA5*	2.45
4CE5/4BC5	2.35	6AU8A	3.50	6DE7	2.95	6U8A	3.30	12BF6	2.20	17H3	2.15	EM84/6FG6	2.95
4CS6	2.35	6AV5GA	4.00	6DG6GT	2.50	6V3A	4.55	12BH7A	3.05	18A5	4.10	EZ80/6V4	1.60
4CY5	2.85	6AV6	1.65	6DJ8	4.05	6V4	1.60	12BK5	4.00	18FW6	2.00	EZ-81/6CA4	1.95
4DE6	2.65	6AW8A	3.55	6DK6	2.35	6V6	5.00	12BL6	2.30	18FX6	2.15	GZ-34/5AR4	4.50
4DT6	2.20	6AX4GTA	2.65	6DN7	3.50	6V6GT	2.15	12BN6	3.05	18FY6	1.65	HCC85/17EW8	2.60
4ES8	4.65	6AX4GTB	2.65	6DQ5	7.65	6W4GT	2.40	12BQ6GA	4.45	19AU4GTA	3.45		
4EW6	2.35	6AX5GT	2.95	6DQ6A; 6DQ6B	4.10ea	6W6GT	2.80	12BQ6GTB	4.45	19BF6GA	6.50		
5AM8	3.30	6AZ8	4.20	6DR7	2.95	6X4	1.65	12BR7	2.95	19CL8A; 19EA8	3.15ea		
5AN8	3.55	6B7	3.50	6DS5	2.70	6X5GT	2.05	12BV7	3.05	19EZ8	3.80		
5AQ5	2.20	6B8	5.55	6DT6	2.15	6X8	3.15	12BW4	1.75				
5AR4	4.50	6B8G	3.65	6DT8	3.75	6X8A	3.15	12BY7A	3.05				

*Non-taxable type. °GE Compactron (tm) type.

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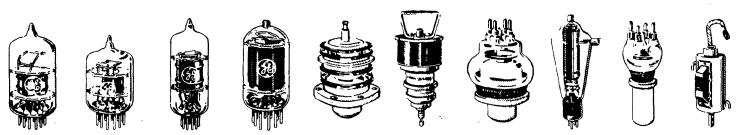
GE ELECTRONICS INDUSTRIAL tubes



for Communications and Industry

FOR BROADCAST COMMUNICATIONS AND INDUSTRY

Type	Suggested Dealer Price
OA2	$ 1.50
OA3	1.55
OA4G	1.90
OB2	1.45
OB3	1.65
OC3	1.50
OD3	1.45
KC-1	850.00
1AD4	2.80
1AG4	3.05
1AH4	1.35
1AJ5	1.55
1C/3B22	10.85
1D21/SN4	7.10
C1K (See GL-6014/F-K)	
GL-1L21	25.00
GL-1L33	46.00
GL-1L36	18.50
GL-1L38	33.25
GL-1P21	54.50
GL-1P39	2.30
GL-1P40	3.75
1P41	4.00
1Q26A (Price on request)	
1V6	1.90
2AP1A	15.75
GL-2B22	28.00
GL-2B23	68.20
2BP1A	19.05
GL-2C39B	32.15
GL-2C39WA	32.15
GL-2C40	29.30
GL-2C40A	33.00
GL-2C42	26.50
GL-2C43	26.95
GL-2C46	27.40
2D21	1.30
2D21W (See 5727/2D21W)	
2E24	5.25
2E26	3.85
GL-2H21	288.00
2X2A	3.10
KC-3	627.00
3AP1A	24.15
GL-3B24W	10.55
GL-3B28	6.00
3BP1A	16.25
GL-3C23	11.98
GL-3CX100A5	32.15
6KP1	19.50
6MP1	26.30
3UP1	35.00
GL-3X2500A3	198.00
KC-4 (See GL-5575/100)	
GL-4-65A	25.00
GL-4250/5D22	46.50
GL-4-400A	55.00
GL-4-1000A	135.00
GL-4CX1000A	185.00
GL-4CX5000A	495.00
GL-4D21/4-125A	36.00
GL-4X150A	25.00
GL-4X500A	121.00
5AHP14	42.20
5AUP24	140.00
5BP1A	35.20
GL-5C21/C6J	28.90
GL-5C24	45.00
5CP-A	21.45
5QP4A	67.70
5R4GYA	2.05
5UP1	13.75
5Y3WGTB	5.75
FA-6 (See GL-5627)	
6AC7WA	5.70
6AK6	1.40
6AN5	3.75
6AS6	3.45
6AS6W (See 5725/6AS6W)	
6AS7GA	4.95
6AU6WA	3.20
6AU6WB	2.70
6BA6W (See 5749/BA6W)	
6BE6W (See 5750/6BE6W)	
6D4	2.85
6J4	4.20
6SK7WA	2.85
6X4WA	2.85
GL-7C29	189.50
GL-7D21	625.00
PJ-8 (See GL-5556)	
GL-8D21	1985.00

Type	Suggested Dealer Price
12A6	2.30
12AT7WB	2.95
12AY7	2.42
FA-13 (See GL-5628)	
14UP4	70.00
C16J (See 5665/C16J)	
FG-17(See GL-5557)	
PJ-23 (See GL-868)	
FG-27A	52.00
28D7	2.55
FG-32 (See GL-5558)	
FG-33 (See GL-5720)	
FG-41 (See GL-5830)	
B-47 (See GL-5623)	
FG-57 (See GL-5559)	
FG-67 (See GL-5728)	
FG-81A	32.50
83	1.72
FG-97	62.00
FG-98A	77.00
GL-100th	26.00
FG-104 (See GL-5561)	
FG-105	59.00
FG-154	108.00
FG-172	122.00
GL-203/623	13.44
GL-207	330.00
GL-217C	21.20
FG-238B (See GL-5555)	
GL-242C	33.00
FG-259B (See GL-5554)	
FG-280	100.00
GL-304TL	60.50
GL-393A	13.25
FP-400	71.45
GL-411	478.75
GL-414	231.00
GL-415 (See GL-5550)	
GL-441 (See GL-1672/441)	
502A	2.30
GL-506 (See GL-6228)	
GL-575A	20.15
GL-592	37.50
GL-627	29.75
GL-672-A	39.85
GL-678	49.50
740 (See GL-6856/740)	
740P (See GL-6857/740P)	
760 (See GL-6858/760)	
760P (See GL-6859/760P)	
GL-800	11.50
GL-801-A;GL-802	13.00ea
GL-803	49.20
GL-805	22.10
GL-860	34.25
807	3.00
GL-809	7.95
GL-810	26.95
GL-811A;GL-812A 8.10	6.90ea
GL-813	23.15
GL-814;GL-815	28.35ea
GL-816	2.95
GL-828	32.95
GL-829-B	19.00
GL-830B	17.35
GL-832-A	15.90
GL-833-A	53.65
GL-836	11.10
GL-837	10.30
GL-838	20.00
842	3.65
GL-845	25.00
GL-851	717.00
GL-857-B	218.50
GL-862-A	1713.25
GL-866-A	2.90
GL-868	3.90
GL-869-B	138.00
GL-870-A	1982.00
GL-872-A	10.65
GL-880	595.00
884	2.30
GL-889-A	235.00
GL-889-R-A	370.00
GL-891-R	460.00
GL-892	290.00
GL-892R	455.00
GL-893-AR	1260.00
GL-898-A	1713.25
GL-917	5.60
GL-918	4.45
GL-919	5.60

Type	Suggested Dealer Price
GL-920	6.40
GL-921	3.50
GL-922	3.10
GL-923	3.40
GL-927	3.80
GL-928	5.25
GL-929	2.15
GL-930	3.10
GL-931-A	11.15
GL-1000T	137.50
1612	4.15
1614	3.77
GL-1616	13.90
1619	4.15
1620	6.99
GL-1672/441	4.50
2050	2.40
2050A	2.25
GL-5513	512.00
GL-5516	7.95
GL-5518	915.00
GL-5528/C6L	32.00
GL-5544	32.50
GL-5545 (See GL-6807)	
GL-5549	653.50
GL-5550/GL415	49.00
GL-5551A	65.00
GL-5551A/P	65.00
GL-5552A	99.00
GL-5552A/P	99.00
GL-5553B	245.00
GL-5553B/P	245.00
GL-5554	215.00
GL-5555	316.00
GL-5556	35.00
GL-5557	9.50
GL-5558	17.50
GL-5559	23.00
GL-5560	33.00
GL-5561	59.00
GL-5563A	50.00
GL-5564/GL-507	740.00
GL-5575/100	237.00
GL-5581	3.45
GL-5588	190.00
GL-5593	270.00
5610	1.05
GL-5623	25.00
GL-5625 (Use GL-5575/100)	
GL-5627	72.50
GL-5628	65.50
GL-5630	1900.00
GL-5632/C3J	14.10
5636	6.65
5642	2.42
5651	1.78
5654	3.05
5654/6AK5W	3.05
5654/6AK5W/6096	4.35
5662	1.45
5663	2.10
GL-5665/C16J	56.90
5670	3.30
5670WA	3.95
GL-5674	209.00
GL-5675	16.05
GL-5681	1780.00
5686	3.40
5687	4.00
5687WA	7.80
5691	8.75
5692	8.25
5693	6.60
5696	2.05
5718	3.65
5719	3.30
GL-5720	34.75
5725	3.80
5725/6AS6W	3.80
5725/6AS6W/6187	6.80
5726 (3/61)	1.55
5726/6AL5W	1.55
5726/6AL5W/6097	1.55
5727	2.90
5727/2D21W	2.90
GL-5728	74.00
GL-5736	190.00
GL-5740/FP-54	209.00
5749	2.20
5749/6BA6W	2.20
5750	3.45
5750/6BEW	3.45

Net

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(continued)

INDUSTRIAL *tubes*

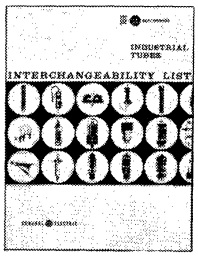
- FIVE STAR
- THYRATRON
- CATHODE RAY
- PHOTOTUBE
- IGNITRON
- RECTIFER
- KLYSTRON
- COMMUNICATION
- INDUSTRIAL RECEIVING

Type	Suggested Dealer Price
5751	2.95
5751WA	2.95
GL-5762/7C24	230.00
5763	2.55
GL-5779	200.00
GL-5788	476.25
5797	14.10
5814A	3.30
5814WA	3.30
GL-5819	56.50
GL-5820	1200.00
5814WA	3.30
GL-5822A	116.00
5823	1.75
5824	3.60
GL-5830	465.00
5840	5.30
5944	2.30
GL-5855	70.00
5879	1.85
5881	3.50
GL-5894	25.00
5896	3.75
5899	5.60
5902	4.90
5915A	1.65
GL-5921	40.00
GL-5922	40.00
5963	1.50
5964	1.55ea
5965	1.93
5965A	1.90
GL-5973	495.00
6005	3.95
6005/6AQ5W	3.95
6005/6AQ5W/6095(3/61)	3.95
GL—6011/710	13.00
6012	7.65
GL—6014/C1K	12.90
GL6019	751.75
6021	4.10
GL-6039	1260.00
GL-6044	56.00
6046	1.55
6072	3.90
6080	5.35
6087	5.75
6100	2.49
6111; 6112	4.60ea
6134	5.70
6135	2.40
6135/6AU6WA/B	2.80
6136	2.70
6137/6SK7WA	2.85
6146	5.00
GL-6161	125.00
GL-6166	1020.00
GL-6181	925.00
GL-6182	2100.00
GL-6183 (See GL-6942)	
6189/12AU7WA	3.85

Type	Suggested Dealer Price
6197	3.05
GL-6198A (Use GL-7038)	
6101/12AT7WA/B	2.95
6202	2.85
6203	4.10
6205	5.45
6206	7.25
6211	2.35
6222	7.35
GL-6228	3696-25
GL-6251	2350.00
6265	4.10
GL-6283	500.00
GL-6299	52.50
GL-6333	290.00
6336A	20.10
GL-6346	70.00
GL-6347	104.00
GL-6348	250.00
6350	2.40
6360	5.15
6386	7.40
6397	8.30
6414	5.84
GL-6427	830.00
GL-6442	39.25
6463	1.90
6485	2.05
GL16504	2642.00
GL-6511	156.90
GL-6512	259.80
GL-6513	347.00
GL-6514	509.00
GL-6515	806.50
6550	4.95
GL-6623	205.00
6688A	8.75
GL-6771	71.90
GL-6807	29.30
GL-6808	29.40
GL-6809	29.80
6829	6.10
GL-6855/716	12.50
GL-6856/740	19.40
GL-6857/740P	20.10
GL-6858/760	28.90
GL-6859/760P	29.40
GL-6860/C6J/F	29.40
6883	5.00
GL-6897	32.15
GL-6907	24.75
6919	1.35
GL-6930/635P	14.40
GL-6942	855.00
GL-7007	1120.00
7025	2.90
7036	1.50
7038	205.00
7044	3.20
7054	1.55

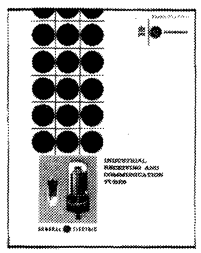
Type	Suggested Dealer Price
7056	1.20
7057	1.95
7058	1.30
7059	1.75
7061	1.30
7077 1-49	25.00
50-Up	16.00
GL-7085/356	600.00
GL-7151	825.00
7167	1.85
GL-7171	81.50
7233	2.40
7239	6.25
7266 1-49	21.50
50-Up	14.00
GL-7289	32.15
GL-7293	1300.00
7296 1-49	31.00
50-Up	20.00
7355	3.40
7370	10.80
GL-7398	770.00
7427	2.90
7462 1-49	25.00
50-Up	16.00
7486 1-49	25.00
50-Up	16.00
GL-7518	15.25
7588 1-24	59.00
25-Up	45.00
7625 1-49	25.00
50-Up	16.00
GL-7629	1800.00
GL-7644	65.00
GL-7669	65.00
GL-7670	79.00
GL-7671	99.00
GL-7681	171.00
7701	....
GL-7703	190.00
7716	3.65
7717/6CY5	....
7720 1-49	25.00
50-Up	16.00
724/14GTB	....
GL-7725	13.50
GL-7726	16.30
GL-8000	26.45
GL-8002	394.00
GL-8002R	588.00
GL-8005	17.85
GL-8008	10.65
GL-8013A	17.05
GL-8020	24.00
GL-8025A	23.85
GL-8092	1975.00
GL-8093	1350.00
9001	5.10
9002	3.85
9003	5.40

NEW G-E INDUSTRIAL TUBE CATALOGS



ETI-719D

Alpha-numerical listing of G-E replacements for nearly 3,000 types of industrial tubes.

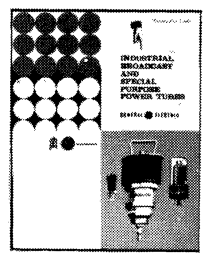


ETI-2387

Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.

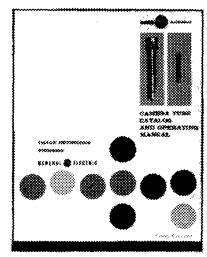
ETI-2388

Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.



ETI-2389

Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.



ETI-2390

Lists G-E Image Orthicon and Vidicon camera tubes, plus complete operating manual for camera tubes.

These Catalogs Are Available From Your General Electric Tube Distributor

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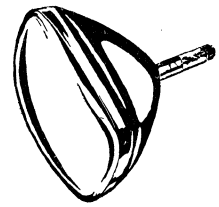
GE ELECTRONICS

BLACK-DAYLITE TELEVISION PICTURE TUBES



Effective July 12, 1961

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

Type	List Price	Description	
		Envelope	Faceplate
5TP4	$ 60.00	Round, Glass	Clear
‡7JP4	34.00	Round, Glass	Clear
9QP4A	33.00	Rectangular, Glass	Filter, Spherical
10BP4A	36.00	Round, Glass	Filter, Spherical
10FP4A	36.00	Round, Glass	Filter, Shperical, Aluminized
12KP4A	36.50	Round, Glass	Filter, Spherical, Aluminized
12LP4A	36.50	Round, Glass	Filter, Spherical
12UP4B	30.00	Rectangular, Glass	Filter, Etched, Spherical
*14AJP4	40.00	Rectangular, Glass	Aluminized
14ATP4	39.00	Rectangular, Glass	Aluminized
†14CP4/EP4/BP4	34.00	Rectangular, Glass	Filter, Spherical
14QP4	34.00	Rectangular, Glass	Filter, Spherical
*14QP4A	38.00	Rectangular, Glass	Filter, Spherical
14RP4/SP4/NP4A	39.00	Rectangular, Glass	Filter, Spherical, Aluminized
14WP4/ZP4	39.00	Rectangular, Glass	Filter, Spherical, Aluminized
16AP4A	58.00	Round, Glass	Filter, Spherical
16DP4A	38.00	Round, Metal	Filter, Spherical
16GP4;16GP4B	57.60 ea.	Round, Metal	Filter, Frosted
16KP4/RP4	35.00	Rectangular, Glass	Filter, Spherical
16KP4A/RP4A	39.00	Rectangular, Glass	Filter, Spherical, Aluminized
16LP4A/16ZP4	43.00	Round, Glass	Filter, Spherical
16TP4	35.00	Round, Glass	Filter, Spherical
16WP4A	43.00	Rectangular, Glass	Filter, Spherical
*†17AVP4A/ATP4A	39.00	Rectangular, Glass	Filter, Spherical, Aluminized
17BJP4/BUP4	39.00	Rectangular, Glass	Filter, Spherical, Aluminized
17BP4A/17JP4	34.00	Rectangular, Glass	Filter, Spherical
17BP4B	37.30	Rectangular, Glass	Aluminized, Filter, Spherical
17CDP4	55.00	Rectangular, Glass	Aluminized
†17CFP4	39.00	Rectangular, Glass	Filter, Aluminized
17CP4	56.50	Rectangular, Glass	Filter, Etched, Spherical
17DAP4	53.00	Rectangular, Glass	Filter, Spherical, Aluminized
17DP4/DTP4	44.90	Rectangular, Glass	Filter, Spherical, Aluminized
17DLP4	44.90	Rectangular, Glass	Filter, Spherical, Aluminized
17DQP4	44.90	Rectangular, Glass	Filter, Spherical, Aluminized
17DRP4	53.00	Rectangular, Glass	Filter, Spherical, Aluminized
17DSP4/CWP4	44.90	Rectangular, Glass	Filter, Spherical, Aluminized
17DTP4 (Order 17DKP4/DTP4)		Rectangular, Glass	Filter, Spherical, Aluminized
17DXP4	44.90	Rectangular, Glass	Filter, Spherical, Aluminized
†17FP4A/FP4	37.30	Rectangular, Glass	Filter, Spherical, Aluminized
†17GP4	59.70	Rectangular, Glass	Filter, Etched, Spherical
*†17HP4B/17RP4C	37.30	Rectangular, Glass	Filter, Spherical, Aluminized
*17LP4A/17VP4B	36.20	Rectangular, Glass	Filter, Spherical, Aluminized
17QP4/UP4/YP4	34.00	Rectangular, Glass	Filter, Cylindrical Face
17QP4A	37.30		
†17RP4/17HP4	34.00	Rectangular, Glass	Filter, Spherical
17RP4C (Order 17HP4B/RP4C)			
†17TP4	61.50	Rectangular, Glass	Filter, Etched, Spherical
†17VP4/17LP4	33.00	Rectangular, Glass	Filter, Cylindrical Face
17YP4 (Order 17QP4/UP4/YP4)		Rectangular, Glass	Filter, Cylindrical Face
19ABP4	55.50		
19AFP4/AUP4	59.50	Rectangular, Glass	Filter, Aluminized
19AJP4	50.00	Rectangular, Glass	Filter, Aluminized
19AVP4/XP4	50.00	Rectangular, Glass	Filter, Aluminized
19BHP4	50.00	Rectangular, Glass	Filter, Aluminized
19YP4	50.00		
*19ZP4	50.00	Rectangular, Glass	Aluminized
20CP4/20DP4	43.80	Rectangular, Glass	Filter, Spherical
20CP4A/20DP4A	43.80	Rectangular, Glass	Filter, Spherical
*20CP4B/20DP4B	49.00	Rectangular, Glass	Filter, Spherical, Aluminized
*20CP4D/20DP4C	49.00	Rectangular, Glass	Filter, Spherical, Aluminized
†20HP4A/20LP4/MP4	43.80	Rectangular, Glass	Filter, Spherical
*†20HP4C	49.00	Rectangular, Glass	Filter, Spherical, Aluminized
*†20HP4D	49.00	Rectangular, Glass	Filter, Spherical, Aluminized
21ACP4/21AMP4	40.00	Rectangular, Glass	Filter, Spherical
21ACP4A/AMP4A/BSP4	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
21ALP4	41.00	Rectangular, Glass	Filter, Spherical
*†21ALP4B/ALP4A	45.90	Rectangular, Glass	Filter, Spherical
21AP4	70.00	Rectangular, Metal	Filter, Etched, Spherical
*†21ATP4A/21ATP4	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
*21AWP4	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
*21AXP22A	160.00	Round, Metal	
*21BTP4/CWP4	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
*†21CBP4/CBP4A/CBP4B/CMP4	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
21CEP4/CEP4A/DFP4	50.00	Rectangular, Glass	Filter, Spherical, Aluminized
*†21CQP4	50.00	Rectangular, Glass	Filter, Aluminized
*†21CXP4/DSP4	45.90	Rectangular, Glass	Filter, Aluminized
21DEP4/DEP4A/DAP4/CZP4	50.00	Rectangular, Glass	Filter, Aluminized
21DLP4/DQP4	45.90		
21DSP4 (Order 21CXP4/DSP4)			
21EAP4	63.00	Rectangular, Glass	Filter, Aluminized
21EP4A	41.00	Rectangular, Glass	Filter, Cylindrical Face
*21EP4B	45.90	Rectangular, Glass	Filter, Cly. Face, Aluminized
21EQP4	50.00	Rectangular, Glass	Filter, Spherical, Aluminized
21ESP4	50.00	Rectangular, Glass	Filter, Spherical, Aluminized
21EVP4	63.00	Rectangular, Glass	Filter, Spherical, Aluminized

†Electronic Focus ‡Electrostatic Focus & Deflection *Aluminized All unmarked types Electromagnetic Focus

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SEMICONDUCTOR PRODUCTS

GERMANIUM • SILICON

DIODES • TRANSISTORS • RECTIFIERS

RECTIFIERS

Type	Suggested Resale Price
1N91	$ .85
1N1692	.65
1N1693	.85
1N1694	1.02
1N1695	1.05
1N1696	1.05
1N1697	1.95

TV RECTIFIERS

1N576A	$ 1.50
1N584	3.00
1N1008	1.50
1N1016	3.00
1N1024	1.50
1N1696	1.05
1N1697	1.95

Note: Germanium television rectifiers are a distributor item only and therefore do not show price protection to 999 units.

VAC-U-SEL DOUBLE DIODES

6GC1	$ .54
6GD1	.54
6GX1	.54

TRANSISTORS

2N78	$ 2.80
2N107	.60
2N135	2.15
2N136	2.55
2N137	6.20
2N164A	Order 2N1086
2N165	Order 2N169
2N166	Order 2N170
2N168A	Order 2N1086
2N169	1.82
2N169A	2.40
2N170	.75

TRANSISTORS (cont.)

Type		Suggested Resale Price
2N186	(Use 2N187A)	$ 1.83
2N186A	(Use 2N187A)	1.95
2N187	(Use 2N187A)	1.50
2N187A		1.50
2N188	(Use 2N188A)	1.64
2N188A		1.64
2N189		.83
2N190		.89
2N191		1.02
2N192		1.57
2N241	Substitute 2N241A	
2N241A		1.80
2N292		.90
2N293		.99
2N319		1.56
2N320		1.64
2N321		1.80
2N322		.80
2N323		.99
2N324		1.49
2N448		.83
2N449		157
2N450		2.10
2N508		1.73
2N1086		.83
2N1086A		1.57
2N1087		1.82
2N1097		.75
2N1098		.71
2N1121		1.91
2N1144		.75
2N1145		.71

TELEVISION PICTURE TUBES (cont.)

Type	List Price	Description	
		Envelope	Faceplate
†21FP4A	41.00	Rectangular, Glass	Filter, Cylindrical Face
*†21FP4C	45.90	Rectangular, Glass	Filter, Cyl. Face, Aluminized
†21MP4	73.00	Rectangular, Metal	Filter, Etched, Spherical
*21WP4A	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
21XP4/21AYP4	41.00	Rectangular, Glass	
*†21XP4A	45.90	Rectangular, Glass	Filter, Spherical, Aluminized
*†21YP4	40.00	Rectangular, Glass	Filter, Spherical
21YP4A	44.80	Rectangular, Glass	Filter, Spherical, Aluminized
21ZP4A	40.00	Rectangular, Glass	Filter, Spherical
*21ZP4B	44.80	Rectangular, Glass	Filter, Spherical, Aluminized
23AHP4	70.00	Rectangular, Glass	Filter, Spherical, Aluminized
23ANP4/ATP4	76.00	Rectangular, Glass	Filter, Spherical, Aluminized
23CP4/GP4	76.00	Rectangular, Glass	Filter, Spherical, Aluminized
23FP4	70.00	Rectangular, Glass	Filter, Spherical, Aluminized
23KP4/KP4A	70.00	Rectangular, Glass	Filter, Spherical, Aluminized
23MP4	70.00	Rectangular, Glass	Filter, Spherical, Aluminized
23NP4	70.00	Rectangular, Glass	Filter, Spherical, Aluminized
23YP4/XP4	76.00	Rectangular, Glass	Filter, Spherical, Aluminized
*24AEP4	65.90	Rectangular, Glass	Filter, Aluminized
24AHP4/ALP4	72.00	Rectangular, Glass	Filter, Spherical, Aluminized
*24CP4A/TP4/VP4A ADP4	65.90	Rectangular, Glass	Filter, Spherical, Aluminized
*†24DP4A/24YP4	65.90	Rectangular, Glass	Filter, Spherical, Aluminized
*27EP4; 27RP4	111.00 ea.	Rectangular, Glass	Filter, Spherical, Aluminized

†Electronic Focus ‡Electrostatic Focus & Deflection *Aluminized All unmarked types Electromagnetic Focus

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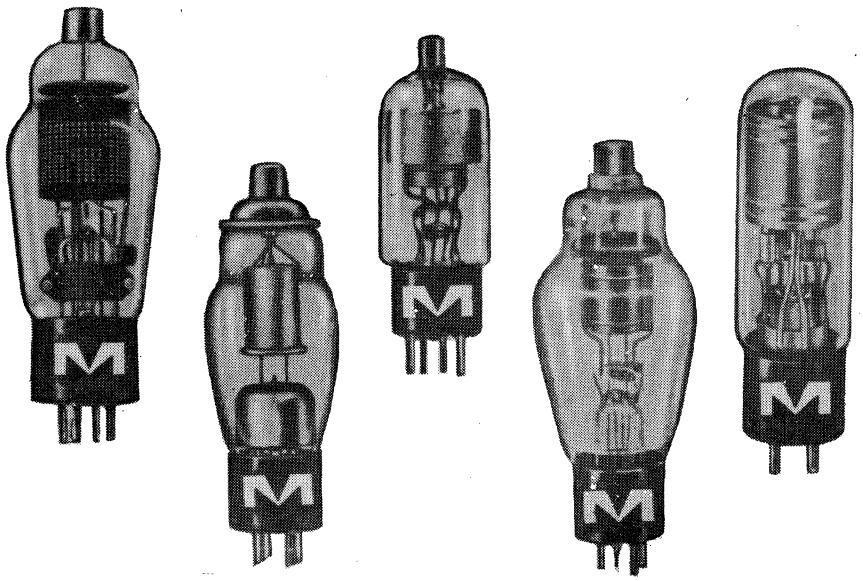
MARSHALL ELECTRONICS CO.

Manufacturers of Precisioneered Electron Tubes



INDUSTRIAL TUBES

- THYRATRON
- RECTIFIER
- RECEIVING
- TRANSMITTING
- VOLTAGE REGULATOR
- PREMIUM
- RUGGEDIZED

TYPE	PRICE	DESCRIPTION	MILITARY SPECIFICATIONS Mil-E-1
0A3/VR75	1.10	VOLTAGE REGULATOR	Yes
0A3W	3.85	VOLTAGE REGULATOR RUGGEDIZED	Yes
0B3/VR90	1.16	VOLTAGE REGULATOR	Yes
0B3W	3.85	VOLTAGE REGULATOR RUGGEDIZED	Yes
0C3/VR105	1.07	VOLTAGE REGULATOR	Yes
0C3W	3.85	VOLTAGE REGULATOR RUGGEDIZED	Yes
0D3/VR150	1.03	VOLTAGE REGULATOR	Yes
0D3W	3.85	VOLTAGE REGULATOR RUGGEDIZED	Yes
3B28	4.20	XENON HALF WAVE RECTIFIER	Yes
3C23	8.40	ARGON, MERCURY VAPOR THYRATRON	Yes
FG17 See 5557	6.65	GRID CONTROLLED RECTIFIER, MERCURY	Yes
323B	8.00	GRID CONTROLLED RECTIFIER, GAS & MERCURY	Yes
393A	9.28	GRID CONTROLLED RECTIFIER	Yes
394A	5.00	GRID CONTROLLED RECTIFIER, GAS & MERCURY	Yes
404A See 5847	8.25	MINIATURE BROAD BAND PENTODE	No
816	2.05	RECTIFIER, MERCURY	Yes
866A	2.00	RECTIFIER, MERCURY	Yes
866JR	2.25	RECTIFIER, MERCURY	Yes
872A	7.45	VAPOR, RECTIFIER	Yes
873	11.55	GRID CONTROLLED RECTIFIER, MERCURY	Yes
5557/FG17	6.65	GRID CONTROLLED RECTIFIER, MERCURY	Yes
5847/404A	8.25	MINIATURE BROAD BAND PENTODE	No
6901	10.50	GAS MERCURY VAPOR THYRATRON	Yes
8008	7.45	RECTIFIER, MERCURY VAPOR	Yes

Exclusive National Sales Agent

ELECTRONIC TUBE SALES INC.

NEW YORK, NEW YORK

Trade Discount Applies to List Prices Only

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RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

RESALE PRICE SCHEDULE • JULY 1, 1961

RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*
0Z4	$2.40	4GS8/		6BA7	$3.70	6DZ7	$4.95	6V3A	$4.55	12BE6	$1.75	17AX4GT	$2.70
0Z4A	2.15	4BU8	$2.85	6BA8A	3.70	6E5	3.00	6V6	5.00	12BF6	2.20	17BQ6GTB	5.00
0Z4G	2.60	5AM8	3.30	6BC4	4.90	6EA5	2.80	6V6GT*	2.15	12BH7A	3.05	17D4	2.75
1A3	3.40	5AN8	3.60	6BC5	2.45	6EA7	3.45	6V6GTA	2.15	12BK5	4.00	17DE4	2.85
1A5GT	3.50	5AQ5	2.20	6BC7	3.80	6EA8	3.15	6W4GT	2.40	12BL6	2.30	17DM4	2.85
1A7GT	3.70	5AS4A	2.65	6BC8	4.00	6EB8	3.70	6W6GT	2.85	12BQ6GTB/		17DQ6A*	4.25
1AX2	3.05	5AS8	3.50	6BD6	2.45	6EH5	2.35	6X4	1.65	12CU6	4.45	17DQ6B	4.25
1B3GT	2.90	5AT8	3.25	6BE6	2.20	6EH8	3.15	6X5GT	2.10	12BR7	2.95	17GW6	4.25
1B3GT also see		5AU4	3.40	6BF5	3.55	6EM5	3.05	6X8	3.15	12BV7	3.05	17H3	2.15
1G3GT/		5AV8	4.05	6BF6	1.80	6EM7	3.65	6Y6G	3.45	12BW4	1.75	18A5	4.15
1B3GT		5AW4	2.80	6BG6G	6.50	6EQ7	2.45	6Y6GA	3.45	12BY7A	3.20	18FW6	2.00
1C5GT	3.65	5AZ4	3.25	6BH6	2.70	6ER5	2.75	6Z4 (See 84/6Z4)		12BZ6	2.25	18FX6	2.15
1DN5	2.20	5B8	4.15	6BH8	3.50	6ES5	2.95	7A4	3.50	12BZ7	3.05	18FY6	1.65
1G3GT/		5BE8	3.30	6BJ6	2.60	6ES8	4.80	7A5	4.00	12C5		19AU4	3.50
1B3GT	2.90	5BK7A	3.40	6BJ7	3.15	6EU7	2.60	7A6	3.45	(See 12CU5/12C5)		19AU4GTA	3.45
1H5GT	3.05	5BQ7A	4.05	6BJ8	2.90	6EU8	3.15	7A7	3.60	12C8	6.80	19BG6GA	6.50
1J3	2.90	5BR8	3.30	6BK4	7.55	6EV5	3.00	7A8	4.70	12CA5	2.50	19CL8A	3.15
1K3	2.90	5BT8	3.30	6BK5	3.70	6EV7	2.50	7AF7	4.00	12CN5	2.45	19EA8	3.15
1L6	3.50	5BW8	3.40	6BK7B	3.40	6EW6	2.30	7AG7	4.40	12CR6	2.40	19J6	3.45
1LA6	4.20	5CG8	3.25	6BL7GTA	4.15	6EX6	5.70	7AH7	4.40	12CT8	4.05	19T8	3.40
1LB4	4.60	5CL8A	3.15	6BN4*	2.50	6EY6	3.00	7AU7	2.60	12CU5/		19X8	3.70
1LC6	4.35	5CM8	3.55	6BN4A	2.50	6EZ5	3.25	7B4	3.20	12C5	2.35	20EZ7	2.60
1LD5	4.40	5CQ8	3.35	6BN6	3.15	6EZ8	3.80	7B5	4.90	12CU6		21EX6	5.70
1LE3	4.40	5CZ5	3.05	6BN8	2.70	6F5	3.65	7B6	3.60	(See 12BQ6GTB/		22DE4	2.85
1LG5	4.20	5DH8	4.05	6BQ5	2.35	6F6	4.20	7B7	3.80	12CU6)		24A	4.55
1LH4	4.05	5DJ4	2.20	6BQ6GTB/		6F6G	3.65	7B8	3.55	12CX6	2.50	25AV5GA	4.25
1LN5	4.20	5EA8	3.15	6CU6	4.35	6F6GT	3.65	7C5	3.50	12D4	2.75	25AX4GT	2.90
1N2A	3.20	5EU8	3.15	6BQ7A	3.95	6F7	7.25	7C6	3.75	12DB5	2.75	25BK5	3.65
1N5GT	3.85	5EW6	2.35	6BR8*	3.50	6F8G	5.60	7C7	3.60	12DE8	3.30	25BQ6GTB/	
1R5	2.70	5FV8	3.15	6BR8A	3.50	6FA7	2.50	7E7	4.70	12DK7	2.95	26CU6	4.65
1S4	3.85	5GH8	3.20	6BS8	3.75	6FG6		7EY6	3.00	12DL8	4.05	25C5	2.15
1S5	2.65	5GM6	2.40	6BU8	2.80	(See EM84/6FG6)		7F7	4.00	12DQ6A*	4.20	25CA5	2.50
1T4	2.50	5J6	2.85	6BV8	3.15	6FH5	2.50	7F8	4.80	12DQ6B	4.20	25CD6GB	5.85
1U4	2.50	5T4	8.70	6BW4	2.05	6FH8	3.30	7G7	4.40	12DQ7	3.30	25CU6	
1U5	2.20	5T8	3.40	6BW8	3.30	6FM8	3.00	7H7	4.40	12DS7	3.40	(See 25BQ6GTB/	
1V	4.05	5U4G	2.10	6BX7GT	4.00	6FQ7	2.30	7J7	5.30	12DT5	3.05	25CU6)	
1V2	2.10	5U4GB	2.10	6BY5GA	4.20	6FV6	2.75	7K7	4.65	12DT8	3.80	25DN6	5.55
1X2A	3.20	5U8	3.30	6BY6	2.50	6FV8	3.15	7N7	3.55	12DU7	3.35	25EC6	5.70
1X2B	3.20	5V3*	3.85	6BY8	2.25	6FW8*	9.20	7Q7	4.20	12DV8	3.55	25EH5	2.30
2A3	6.95	5V4GA	3.50	6BZ6	2.25	6G6G	4.50	7R7	5.30	12DW7	2.85	25L6	6.40
2A54A*	4.05	5V6GT	2.20	6BZ7	4.00	6GH8	3.15	7V7	4.90	12DY8	3.55	25L6GT	2.35
2BN4	2.55	5X4G	2.95	6BZ8	4.45	6GK5	2.55	7W7	5.00	12DZ6	2.55	25W4GT	2.70
2CW4	4.45	5X8	3.30	6C4	1.85	6GK6	2.75	7X7	6.15	12EA6	2.65	25Z5	3.15
2CY5	2.85	5Y3GT	1.75	6C5	3.15	6GM6	2.40	7Y4	3.15	12EC8	3.30	25Z6GT	2.90
2EN5	2.10	5Y4GA	2.35	6C6	4.80	6GN8	3.70	7Z4	2.95	12ED5	2.50	27	4.35
2ER5	2.75	5Y4GT	2.45	6C8G	5.10	6GW6	4.15	8AU8	4.05	12EG6	2.30	32ET5	2.20
2FH5	2.55	5Z3	3.00	6CA4	1.95	6GX6	2.30	8AW8A	3.70	12EH5	2.35	34GD5	2.10
3A2	3.70	5Z4	5.25	6CA5	2.50	6GY6	2.30	8BA8A	3.65	12EK6	2.55	35A5	4.00
3A3	3.40	6A7	5.10	6CB5A	7.50	6GY8	3.80	8BH8	3.55	12EL6	2.00	35B5	2.65
3AF4A	4.05	6A8	5.80	6CB6A	2.25	6H6	3.55	8BN8	2.95	12EM6*	3.15	35C5	2.15
3AL5	1.85	6A8G*	4.80	6CD6GA	5.80	6HF8	3.70	8BQ5	2.40	12EN6	3.05	35DZ8	3.10
3AU6	2.15	6A8GT	4.80	6CE5	2.35	6J5	3.10	8CG7	2.50	12EQ7	2.35	35EH5	2.30
3AV6	1.75	6AB4	2.15	6CF6	2.55	6J5GT	2.70	8CM7	2.90	12F8	2.75	35GL6	2.30
3B2	6.60	6AB5/		6CG7	2.45	6J6*	2.80	8CN7	2.60	12FK6	2.10	35L6GT	2.40
3BA6	2.15	6N5	4.05	6CG8A	3.30	6J6A	2.80	8CX8	3.70	12FM6	2.00	35W4	1.01
3BC5	2.35	6AB7	6.05	6CH8	3.60	6J7	4.55	8EB8	3.75	12FQ8	2.95	35Y4	2.80
3BE6	2.25	6AC5GT	4.80	6CK4	2.80	6J7GT	4.35	8EM5	3.10	12FR8	4.35	35Z3	3.00
3BN4*	2.55	6AC7	4.85	6CL6	3.75	6K6GT	2.50	8ET7	3.65	12FX8	3.80	35Z4GT	2.35
3BN4A	2.55	6AD7G	6.50	6CL8A	3.15	6K7	4.60	8FQ7	2.35	12GA6	2.30	35Z5GT	1.85
3BN6	3.05	6AF3	2.90	6CM6	2.55	6K7GT	3.80	8GN8	3.75	12GC6	4.20	36AM3A	1.50
3BU8	2.85	6AF4	4.00	6CM7	3.20	6K8	4.70	9AU7	2.80	12H6	3.30	41; 42	ea. 3.85
3BY6	2.35	6AF4A	4.00	6CM8	3.55	6L6	6.35	9BR7	2.75	12J5GT	2.95	43	4.75
3BZ6	2.35	6AF6G	3.70	6CN7	2.75	6L6GC	4.20	9CL8	3.15	12J7GT	4.60	47	9.15
3CB6	2.30	6AG5	2.75	6CQ8	3.30	6L7	5.00	9U8A	3.30	12J8	3.30	50A5	4.25
3CE5	2.35	6AG7	5.90	6CR6	2.40	6N5		10C8	4.25	12K5	2.95	50B5	2.65
3CF6	2.55	6AH4GT	3.45	6CS6	2.35	(See 6AB5/6N5)		10DE7	2.95	12K7GT	4.05	50C5	2.15
3CS6	2.45	6AH6	4.70	6CS7	2.95	6N7	4.55	10EG7	3.15	12K8	5.70	50DC4	1.55
3CY5	2.85	6AK5	4.20	6CU5	2.35	6N7GT	4.35	10EM7	3.70	12L6GT	2.50	50EH5	2.30
3DG4	3.40	6AL5	1.85	6CU6		6Q7	3.95	10HF8	3.75	12Q7GT	3.65	50FE5	3.65
3DK6	2.40	6AL7GT	5.75	(See 6BQ6GTB/		6Q7GT	3.20	11CY7	3.00	12R5	2.60	50FK5	2.30
3DT6*	2.20	6AM4	5.90	6CU6)		6R7	4.35	12A8GT	5.30	12SA7	3.95	50L6GT	2.55
3DT6A	2.20	6AM8A	3.25	6CU8	3.70	6S4A	2.05	12AB5	2.45	12SA7GT	3.25	50X6	4.25
3EA5	2.85	6AN4	4.95	6CW4	4.45	6S7	5.05	12AC6	2.20	12SC7	3.80	50Y6GT	2.95
3LF4	4.40	6AN8	3.70	6CX8	3.65	6S8GT	4.40	12AD6	2.40	12SF5	3.20	50Y7GT	3.05
3Q4	2.90	6AN8A	3.70	6CY5	2.75	6SA7	3.95	12AE6A	2.05	12SF7	4.75	60FX5	2.35
3Q5GT	3.60	6AQ5A	2.15	6CY7	2.95	6SA7GT	3.70	12AE7	3.75	12SG7	4.20	70L7GT	10.15
3S4	2.65	6AQ6	2.40	6CZ5	3.00	6SB7Y	5.35	12AF3	2.90	12SH7	4.00	75	5.10
3V4	2.50	6AQ7GT	4.00	6D6	4.35	6SC7	3.85	12AF6	2.35	12SJ7	3.75	78	5.10
4AU6	2.15	6AQ8	3.15	6DA4	2.70	6SF5	3.10	12AH7GT	4.20	12SK7	3.60	80	2.90
4AV6	1.70	6AR5	2.65	6DB5	2.70	6SF5GT	3.20	12AJ6	2.05	12SK7GT	3.55	84/6Z4	2.95
4BC5	2.35	6AS5	2.55	6DC6	3.00	6SF7	4.75	12AL5	1.90	12SL7GT	3.75	117L7GT/	
4BC8	4.05	6AS8	3.35	6DE4	2.80	6SG7	4.20	12AL8	4.25	12SN7GT*	2.70	117M7GT	10.15
4BN6	3.05	6AT6	1.90	6DE6	2.55	6SH7	4.05	12AQ5	2.60	12SN7GTA	2.70	117M7GT	
4BQ7A	4.00	6AT8A	3.40	6DE7	2.95	6SJ7	3.75	12AT6	1.85	12SQ7	3.30	(See 117L7GT/	
4BS8	3.85	6AU4GTA	3.60	6DG6GT	2.55	6SJ7GT	3.70	12AT7	3.05	12SQ7GT	2.90	117M7GT)	
4BU8	2.85	6AU5GT	4.30	6DK6	2.35	6SK7	3.60	12AU6	2.15	12SR7	3.30	117N7GT	10.25
4BZ6	2.25	6AU6*	2.10	6DN6	6.60	6SK7GT	3.55	12AU7A	2.45	12U7	2.65	117P7GT	10.25
4BZ7	4.05	6AU6A	2.10	6DN7	3.50	6SL7GT	3.50	12AV5GA	3.85	12V6GT	2.15	117Z3	2.50
4CB6	2.30	6AU8*	3.50	6DQ5	7.70	6SN7GTB	2.60	12AV6	1.65	12W6GT	3.00	117Z6GT	4.40
4CS6	2.35	6AU8A	3 50	6DQ6A*	4.15	6SQ7	3.30	12AV7	3.40	12X4	1.90	5879	4.05
4CY5	2.85	6AV5GA	4.00	6DQ6B	4.15	6SQ7GT	3.00	12AW6	3.30	13DE7	2.95	5881	6.40
4DE6	2.65	6AV6	1.65	6DR7	2.95	6SR7	3.25	12AX4GTA*	2.70	13DR7	2.95	6973	4.50
4DT6*	2.25	6AW8A	3.70	6DS5	2.70	6SS7	4.20	12AX4GTB	2.70	13EM7	3.70	7025	2.95
4DT6A	2.25	6AX4GT	2.65	6DT5	3.05	6T4	4.55	12AX7	2.55	14A7	3.95	7027A	5.30
4ES8	4.60	6AX5GT	2.95	6DT6*	2.15	6T8A	3.40	12AX7A	2.55	14AF7	4.05	7189	2.65
4EW6	2.35	6AX8	3.70	6DT6A	2.15	6U5	3.20	12AY7	5.00	14B6	3.60	7199	3.30
		6AZ8	4.20	6DT8	3.80	6U8A	3.30	12AZ7	2.75	14C7	4.00	7247	2.85
		6B8	5.55	6DW5	3.20			12B4A	2.85	14F7	4.40	7543	2.20
		6BA6	2.00					12BA6	1.65	14F8	4.70	7868	3.25
								12BA7	3.95	14GT8	3.00	EM84/	
								12BD6	2.45	14Q7	4.20	6FG6	3.25
										14R7	5.35		

*Optional. Prices higher in Hawaii and Alaska. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

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RCA PICTURE TUBES

RCA SILVERAMA
Black & White Picture Tube

RCA Silverama Picture Tubes contain the finest new parts and materials plus a reused envelope.

RCA COLORAMA
Color Picture Tubes

RCA Colorama Picture Tubes contain used materials which were carefully inspected to meet high quality standards.

RCA SILVERAMA BLACK & WHITE
LIST PRICE* SCHEDULE—JULY 7, 1961

RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*	RCA TYPE	LIST PRICE*
5TP4	$87.00	17HP4**	$37.25	21CWP4	(Use 21CBP4A)
7JP4	34.75	17HP4B	37.25	21CXP4	$45.40
8DP4	37.50	17JP4	(Use 17BP4A)	21CZP4	(Use 21DEP4A)
10BP4A	36.75	17LP4**	36.25	21DAP4**	49.25
10FP4A	40.00	17LP4A	36.25	21DEP4	(Use 21DEP4A)
12KP4A	41.00	17QP4**	37.25	21DEP4A	49.25
12LP4A	41.00	17QP4A	37.25	21DFP4	61.50
14ATP4	38.25	17RP4	(Use 17HP4)	21DLP4	45.75
14BP4	(Use 14EP4)	17RP4C	(Use 17HP4B)	21DQP4	(Use 21DLP4)
14CP4	(Use 14EP4)	17TP4	61.50	21DSP4	45.75
14EP4	36.75	17UP4	(Use 17QP4)	21EAP4	62.00
14HP4	40.50	17VP4	(Use 17LP4)	21EMP4	63.00
14QP4A	36.75	17VP4B	(Use 17LP4A)	21EP4A**	45.75
14RP4**	38.75	17YP4	(Use 17QP4)	21EP4B	45.75
14RP4A	38.75	19AFP4	60.00	21EQP4	49.25
14WP4	38.75	19AP4B	62.75	21FP4A**	45.75
14ZP4	(Use 14WP4)	19AVP4	49.50	21FP4C	45.75
16AP4A	58.50	19AXP4	(Use 19AYP4)	21MP4	73.50
16DP4A	43.00	19AYP4	49.50	21WP4**	47.25
16GP4B	57.75	19XP4	49.50	21WP4A	47.25
16KP4**	(Use 16RP4)	20CP4A	(Use 20DP4A)	21XP4A	47.25
16KP4A	(Use 16RP4A)	20CP4D	(Use 20DP4C)	21YP4**	44.75
16LP4A	43.00	20DP4A	46.75	21YP4A	44.75
16RP4**	38.75	20DP4C	46.75	21ZP4A**	44.75
16RP4A	38.75	20HP4A**	46.75	21ZP4B	44.75
16TP4	38.75	20HP4D	46.75	23AWP4	73.50
16WP4A	43.00	20LP4	(Use 20HP4A)	23BJP4	73.50
16ZP4	(Use 16LP4A)	20MP4	(Use 20HP4A)	23BKP4	76.25
17ATP4	(Use 17AVP4)	21ACP4A	(Use 21AMP4A)	23BLP4	78.25
17ATP4A	(Use 17AVP4A)	21ALP4A	(Use 21CBP4A)	23CP4	76.25
17AVP4**	39.25	21ALP4B**	45.50	23EP4	76.25
17AVP4A	39.25	21AMP4A	45.75	23GP4	(Use 23CP4)
17BJP4	39.25	21AP4	70.75	23HP4	(Use 23CP4)
17BP4A**	37.25	21ATP4	(Use 21CBP4A)	23MP4	68.75
17BP4B	37.25	21ATP4A**	45.50	23XP4	(Use 23YP4)
17BRP4	(Use 17BZP4)	21AUP4	(Use 21AVP4)	23YP4	76.25
17BVP4	44.75	21AUP4A	(Use 21AVP4B)	24ADP4	(Use 24CP4A)
17BZP4	44.00	21AUP4B	(Use 21AVP4B)	24AEP4	65.75
17CAP4	(Use 17BZP4)	21AVP4**	45.75	24AHP4	71.75
17CDP4	55.50	21AVP4A	(Use 21AVP4B)	24ATP4	84.75
17CFP4	39.25	21AVP4B	45.75	24AUP4	65.75
17CKP4	(Use 17BZP4)	21AWP4	45.75	24BAP4	90.75
17CP4	57.25	21BSP4	(Use 21AMP4A)	24CP4A	65.75
17CYP4	50.75	21BTP4**	45.75	24DP4A**	65.50
17DAP4	53.25	21CBP4	(Use 21CBP4A)	24TP4	(Use 24CP4A)
17DKP4	44.75	21CBP4A	45.75	24VP4A	(Use 24CP4A)
17DLP4	(Use 17DKP4)	21CEP4	49.25	24YP4	(Use 24AEP4)
17DSP4	44.00	21CEP4A	(Use 21CEP4)	27EP4	122.00
17DTP4	(Use 17DKP4)	21CMP4	(Use 21CBP4A)	27MP4	145.75
17DXP4	44.00	21CQP4	49.25	27RP4	122.00
17GP4	59.75				

RCA COLORAMA PICTURE TUBES
LIST PRICE* SCHEDULE—JULY 7, 1961

RCA TYPE	LIST PRICE*
15GP22	$160.00
21AXP22	(Use 21AXP22A)
21AXP22A	127.00
21CYP22A	127.00
21FBP22	135.00

* Optional. Prices higher in Alaska and Hawaii. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.
**Sales limited to extent of present inventory.

 Trade Discount Applies to List Prices Only © U.C.P., Inc.

RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • AUGUST 15, 1961

INDUSTRIAL RECEIVING/POWER/CATHODE RAY/PHOTO

RCA Type	Dist Resale Price Sched.*
0A2	$1.46
(Also see 6073/ 0A2)	
0A2WA	3.65
(Also see 6626/ 0A2WA)	
0A3	1.54
0A4G	1.86
0B2	1.44
(Also see 6074/ 0B2)	....
0B2WA	3.00
0C2	1.50
0C3	1.50
0D3	1.44
1C21	4.15
1EP1	21.45
1EP2	23.60
1EP11	23.60
1L4	1.37
1P21	54.50
1P22	15.80
1P28	28.10
1P29	4.80
1P37	3.90
1P39	2.30
1P40	3.75
1P41	4.00
1P42	13.95
2AP1-A	15.75
2BP1	19.05
2BP11	20.60
2C39A	22.50
2C39WA	30.00
2C40	29.30
2C40A	33.00
2C43	26.95
2D21	1.29
2D21W	2.70
(Also see 5727/ 2D21W)	
2E24	5.25
2E26	3.85
2F21	275.00
2K26	65.00
2S21	240.00
2X2-A	3.10
3A4	1.25
3A5	2.03
3AP1-A	24.15
3AQP1	23.10
3B25	7.75
3B28	6.00
3BP1-A	16.25
3C23	11.98
3C33	26.15
3C45 (See Type 6130/ 3C45)	
3D22A	25.50
3E22	8.30
3E29	19.00
3JP-1	20.50
3JP7	23.60
3KP1	19.50
3KP4	19.90
3KP7	19.90
3KP11	20.15
3KP16	42.20
3RP1	13.25
3RP1A	20.75
3RP4	20.00
3WP1	24.70
3WP2	27.60
3WP11	27.60
4-65A	25.00
4-125A/4D21 (Also see 6155/ 4-125A)	36.00
4-250A/5D22 (Also see 6156/ 4-250A)	46.50
4-400A	48.00
4-1000A	132.00
4CX250B (See 7203/ 4CX250B)	
4D21 (See 4-125A/ 4D21)	
4E27/8001	40.00
4E27A/ 5-125B	40.00
4X150A†	25.00
(Also see 7034/ 4X150A)	
4X150D†	28.00
(Also see 7035/ 4X150D)	
4X250B (See 7203/ 4CX250B)	
4X250F (See 7204/ 4CX250F)	
4X500A	$128.50
5-125B (See 4E27A/ 5-125B)	
5ABP1	29.70
5ABP4	39.35
5ABP7	36.40
5ABP11	36.95
5ADP1	28.30
5AHP7	31.85
5AHP7A	38.65
5AUP24	140.00
5AYP4	65.00
5AZP4	125.00
5BP1-A	23.30
5C21 (See Type C6J/5C21)	
5CP1A	21.45
5CP7A	28.60
5CP11A	28.15
5CP12	28.55
5D22 (See 4-250A/ 5D22)	
5FP4-A	24.35
5FP7-A	21.35
5FP14A	25.80
5FP15A	30.00
5R4GY	2.03
5R4-GYB	2.03
5UP1	12.45
5UP7	22.90
5UP11	24.05
5WP11; 5WP15	85.80
5ZP16	82.95
6AC7-W	4.20
6AG5WA (See 6186/ 6AG5WA)	
6AG7-Y	2.65
6AK5W (See 5654/ 6AK5W & 5654/6AK5W/ 6096)	
6AK6	1.40
6AL5 (See 6663/ 6AL5)	
6AL5W (See 5726/ 6AL5W & 5726/ 6AL5W/6097)	
6AQ5A (See 6669/ 6AQ5A)	
6AQ5W (See 6005/ 6AQ5W & 6005/ 6AQ5W/6095)	
6AS6	3.43
6AS7G	4.95
6AU6WA	2.75
6BA6 (See 6660/ 6BA6)	
6BA6W (See 5749/ 6BA6W)	
6BH6 (See 6661/ 6BH6)	
6BJ6 (See 6662/ 6BJ6)	
6CL6 (See 6677/ 6CL6)	
6F4	8.35
6J4	4.19
6J4WA (Also see 6101/ 6J6WA)	5.60
6J6WA	5.35
6L4	6.45
6SJ7-Y	1.80
6SK7-Y	
6U8A (See 6678/ 6U8A)	
7BP7-A (See Type 5762/ 7C24)	36.20
7CP1	41.35
7CP4 (For new Eqpt. Design, Use 7TP4)	46.80
7MP7	34.35
7NP4	1085.00
7QP4	39.35
7TP4	68.00
7VP1	$25.30
7WP4	1110.00
8D21	1985.00
8HP4	42.90
9C21	1465.00
9C22	1960.00
9C25	1535.00
10KP7	42.90
10SP4	71.50
12A6	2.53
12AT7 (See 6679/ 12AT7)	
12AT7WA	2.95
12AU7A (See 6680/ 12AU7A)	
12AU7WA (See 6189/ 12AU7WA)	
12AX7 (See 6681/ 12AX7)	
12DP7-A	57.20
12SW7	1.49
12SX7GT	2.03
12SY7	2.20
16ADP-7	100.00
26A6	3.05
26A7-GT	7.00
26C6	2.55
26D6	2.80
83	1.89
105	59.00
172	122.00
207	330.00
217-C	21.17
407A	5.90
408A	4.95
502-A	2.30
575-A	20.15
579-B	20.50
604/7014	11.80
615/7018	9.75
627	29.75
629	18.25
632-B	33.00
635/7019	13.00
672-A	39.85
673	20.15
676; 677	63.80
710/6011	13.80
714/7021	9.50
716/6855	12.50
70/6858	28.10
800	11.50
801-A; 802	13.00
803	49.20
804	27.20
805	22.10
806†	34.25
807	3.00
808	27.30
809	7.95
810	26.95
811-A; 812-A	6.90
813	23.15
814; 815	ea. 28.35
816	2.95
826	28.40
827-R	300.00
828	32.95
829-B	19.00
830-B	17.35
832-A	15.90
833-A	53.65
834	21.25
836	11.10
837	10.30
838	22.05
841	4.85
845	25.00
857-B	218.50
860	48.10
861	280.00
865†	14.20
866-A	2.90
868	3.90
869-B	138.00
872-A	10.65
878†	16.70
880	595.00
884	2.28
885	2.00
889-A	235.00
889R-A	370.00
891	275.00
891-R	430.00
892	270.00
892-R	425.00
893-A	800.00
902-A	$19.30
908-A	26.45
917	5.60
918	4.45
919	5.60
920	6.40
921	3.50
922	3.10
923	3.40
924	3.60
925	3.65
926	3.75
927	3.80
928	5.25
929	2.15
930	3.10
931-A	11.15
931VA	11.75
934	4.15
935	10.95
954	9.80
955	5.70
956	9.45
957	6.65
958-A	10.90
959	12.45
991	.87
1051-A	65.00
1052	99.00
1052-A	99.00
1609	14.50
1612	4.60
1613	2.65
1614	4.10
1616	13.90
1619	4.85
1620	6.99
1621	2.90
1622	4.05
1623	4.05
1624	6.25
1625	4.75
1626	2.65
1629	1.90
1631	3.45
1635	2.86
1640 (See Type 6405/1640)	
1645A	8.40
1818-P1†	850.00
1818-P11†	1350.00
1818-P27†	850.00
1850-A	790.00
1858	430.00
1946	13.65
1947	16.65
1949	13.95
1950	12.55
2013 (Order Type 6211)	
2014 (Order Type 6197)	
2020	85.00
2022	3.60
2029	9100.00
2039 (See Type 6950/2039)	
2041A	9000.00
2048	720.00
2048A	720.00
2050	2.37
2050-A	2.21
4009	1755.00
4010	1755.00
4011A	1445.00
4015	3330.00
4017	3000.00
4019	3000.00
4020	3000.00
4021	2775.00
4036	1840.00
4401	1650.00
4401-VI	1400.00
4403	2.80
4404	2.80
4409	3.30
4412	3380.00
4415	1650.00
4416	1650.00
4420	6.40
4423	1.80
4424	1.90
4425	1.80
4426	2.35
4427	585.00
4600	495.00
4600A	495.00
4601	44,400.00
4602	$22,770.00
4603	22,200.00
4604	7.90
4605	10,250.00
4606	230.00
5550	49.00
5551A	65.00
5552-A	99.00
5553-B	245.00
5555	316.00
5556	35.00
5557	9.50
5558	17.50
5559	23.00
5560	33.00
5561	59.00
5563-A	50.00
5581	3.45
5582	5.40
5583	4.80
5584	6.15
5588	190.00
5592	1615.00
5604A (5/61)	570.00
5618	5.95
5632 (See Type C3J/5632)	
5636	7.80
5639	6.55
5642	2.45
5651	1.78
5651WA	3.95
5652	6.75
5653	2.10
5654	3.05
5654/6AK5W	3.05
5654/6AK5W/ 6096	4.35
5665 (See Type C16J/5665)	
5670	3.00
5670WA	3.95
5671	1600.00
5675	16.05
5684 (See Type C3JA/5684)	
5685 (See Type C6JA/5685)	
5686	3.40
5687	4.05
5690	14.10
5691	8.75
5692	8.25
5693	6.60
5696	2.05
5713	280.00
5718	4.25
5719	3.85
5725	3.80
5726	1.55
5726/6AL5W	1.55
5726/6AL5W/ 6097	1.55
5727	2.90
5727/2D21W	2.90
5734	21.15
5749	2.20
5749/6BA6W	2.20
5750	3.45
5751	2.95
5751WA	2.95
5762/7C24	230.00
5762A	250.00
5763	2.53
5770	1135.00
5771	790.00
5786	170.00
5794A (See 6562/5794A)	
5814-A; WA	ea. 3.35
5819	56.50
5820	1200.00
5820A	1200.00
5822A†	116.00
5823	1.75
5825	22.90
5840	6.25
5842	13.00
5847	13.09
5876	14.95
5876A	23.10
5893	19.15
5896	4.45
5899	$6.55
5902	5.75
5915	1.65
5946	125.00
5963	1.50
5964	1.55
5965	1.95
6005	3.93
6005/6AQ5W	3.95
6005/6AQ5W/ 6095	3.95
6011 (See 710/ 6011)	
6012	7.65
6014 (See Type C1K/6014)	
6021	4.80
6026	2.40
6032	122.00
6032-A	130.00
6072	3.90
6073	3.00
6073/0A2	3.00
6074	3.45
6074/0B2	3.45
6080	5.35
6080WA	11.40
6082	5.60
6095 (See 6005/ 6AQ5W/6095)	
6096 (See 5654/ 6AK5W/6096)	
6097 (See 5726/ 6AL5W/6097)	
6101	5.35
6101/6J6WA	5.35
6111; 6112	5.45
6130/3C45	17.80
6136	2.75
6146	5.00
6155/4/125A	36.00
6156/ 4-250A	46.50
6159	5.00
6161	125.00
6166	1020.00
6166A/ 7007	1120.00
6173	13.70
6181	1015.00
6186	3.85
6186/ 6AG5WA	3.85
6189/ 12AU7WA	3.70
6197	3.05
6198	220.00
6199	52.00
6201	2.95
6205	6.40
6206	8.55
6211	2.15
6217	72.00
6263	19.80
6264A	19.80
6293	6.40
6326	515.00
6326A	515.00
6328	11.10
6336A	20.20
6342A	60.10
6350	1.95
6381	125.00
6383	130.00
6386	7.40
6405/1640	7.60
6417	2.53
6448	5985.00
6472	11.75
6474†	1700.00
6499	435.00
6521	590.00
6524	16.15
6562/5794A	10.65
6570	9.00
6571	71.50
6626/0A2WA	4.45
6655-A	60.00
6660/6BA6	1.01
6661/6BH6	1.34
6662-6BJ6	1.29
6663/6AL5	.92
6669/6AQ5A	1.06
6677/6CL6	1.85
6678/6U8A	$1.62
6679/12AT7	1.50
6680/12AU7A	1.22
6681/12AX7	1.26
6694A	5.40
6806	7355.00
6810A	225.00
6814	5.90
6816	60.00
6849	1425.00
6850	16.15
6855 (See Type 716/6855)	
6858 (See Type 760/6858)	
6861	865.00
6865A	1590.00
6866	1280.00
6883	5.00
6884	60.00
6887	1.25
6893	4.45
6894	25.00
6895	25.00
6897	32.15
6903	370.00
6914	125.00
6914A	145.00
6922	4.75
6929	140.00
6939	12.00
6949	22,200.00
6950/2039	41,625.00
6952	9,450.00
6953	2.95
6957	3.20
7008	1,610.00
7014 (See Type 604/7014)	
7018 (See Type 615/7018)	
7019 (See Type 635/7019)	
7021 (See Type 714/7021)	
7029	605.00
7034/4X150A	25.00
7035/4X150D	27.90
7038	205.00
7043	4.40
7044	3.20
7046	570.00
7054	1.55
7055	1.00
7056	1.20
7057	1.95
7058	1.30
7059	1.75
7060	1.95
7061	1.30
7086	220.00
7094	29.30
7102	110.00
7111	1640.00
7117	11.10
7163	2.80
7183	1230.00
7198	2095.00
7200	205.00
7203/4CX250B	39.35
7204/4CX250F	39.35
7212	6.75
7213	465.00
7214	485.00
7223	12.30
7224†	8.75
7262	310.00
7262A	280.00
7263	615.00
7263A	615.00
7264	265.00
7265	425.00
7270†	19.70
7271	25.25
7293A	1300.00
7295B	1440.00
7315	925.00
7326	410.00
7357	6.90
7358	$8.30
7360	3.80
7389A	1440.00
7404	370.00
7412	2.10
7448	925.00
7457	90.00
7467	8.75
7513	1320.00
7533	13.00
7536	2.10
7539	1720.00
7551	3.50
7552	40.85
7553	57.10
7554	48.10
7558	3.50
7580	45.05
7586	3.35
7587	5.20
7649	70.00
7650	290.00
7651	305.00
7697	205.00
7735	225.00
7735-A	205.00
7746	200.00
7764	115.00
7767	135.00
7801	95.00
7835	61,050.00
7842	70.00
7843:7844	ea. 60.00
7846	2.35
7850	240.00
7870	95.00
7895	3.35
8000	29.15
8005	17.85
8008	10.65
8013-A	17.05
8020	24.00
8025-A†	23.85
8051	575.00
8054	125.00
9001	5.40
9002	3.85
9003	5.40
9004	4.90
9005	5.25
9006	2.70
C1K/6014	13.10
C3J/5632	13.80
C3JA/5684	14.50
C3JL	15.25
C6J/5C21	28.10
C6JA/5685	29.00
C16J/5665	56.90
MW-4900	305.00
MW-4901	470.00

POWER TUBE GASKETS

204F1	.12
205F1	.40
220F1	.40
236F1	.12

RADIATOR CREDITS

9C22	65.00
9C25	65.00
889R-A	20.00
891-R	20.00
892-R	20.00
5592	45.00
5671	65.00

CRATE CREDITS

9C22	35.00
9C25	35.00
889R-A	....
891-R	10.00
892-R	10.00
5592	25.00
5671	35.00

†Limited to extent of inventory

(Prices include Federal Excise Tax, wherever applicable.)

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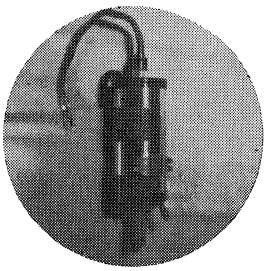

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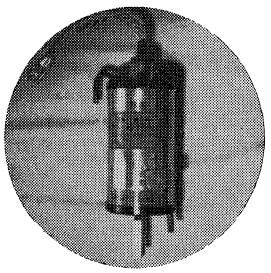

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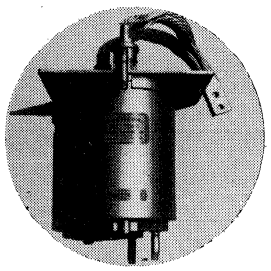

NL-1064

NL-710/6011

IGNITRONS
MAXIMUM RATINGS

Type Number	Volts	Maximum Demand	Corresp. Current DC Amps	Maximum Current DC Amps	Corresp. Demand	Type Of Cooling	List Price
NL-1001	250-600	150K va	4.9	9.0	50 Kva	Convection	$37.50
NL-1005A	250-600	600K va	30.2	56	200 Kva	Forced Air	65.00
NL-1009A	250-600	1700K va	120.0	220	570 Kva	Water	155.00
NL-1011A	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1012A	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1013A	250-600	2400K va	192.	355	800 Kva	Water	245.00
NL-1014	250-600	4800K va	486	900	1600 Kva	Water	750.00
NL-1016A	250-600	1700K va	120.0	220	570 Kva	Water	155.00
NL-1022A	1500 Peak	1200K va	16	56	336 Peak	Water	116.00
NL-1051A	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1051AP	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1052A	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1052AP	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1053A	250-600	2400K va	192	355	800 Kva	Water	245.00
NL-1054	250-600	4800K va	486	900	1600 Kva	Water	750.00
NL-1064	250-600	4800K va	486	900	1600 Kva	Water	825.00
NL-5550	250-600	300K va	12.1	22.4	100 Kva	Water Clamp	49.00

THYRATRONS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-C3J/L	Xenon	2.5	30	1250	2.5	9	Convection	$ 15.25
NL-C3J/AL	Xenon	2.5	30	1250	2.5	9	Convection	16.00
NL-3C23	Arg & Merc	1.5	6	1250	2.5	7	Convection	11.98
NL-C6J	Xenon	6.4	80	1250	2.5	21	Convection	28.10
NL-C6J/L	Xenon	6.4	80	1250	2.5	21	Convection	29.40
NL-C6J/P	Xenon	6.4	80	1250	2.5	21	Convection	30.00
NL-C6J/K	Xenon	6.4	80	1250	2.5	21	Convection	28.30
NL-C6J/KP	Xenon	6.4	80	1250	2.5	21	Convection	29.45
NL-323B	Arg & Merc	1.5	6	1250	2.5	7	Convection	13.25
NL-393A	Arg & Merc	1.5	6	1250	2.5	7	Convection	13.25
NL-632B	Mercury	2.5	30	1500	5.0	5	Convection	33.00
NL-710/6011	Arg & Merc	2.5	30	1500	2.5	9	Convection	13.00
NL-710A/ 7725	Arg & Merc	2.5	30	2500	2.5	9	Convection	13.00
NL-710AL	Arg & Merc	2.5	30	2500	2.5	9	Convection	15.25
NL-710L	Arg & Merc	2.5	30	1500	2.5	9	Convection	15.25
NL-714	Arg & Merc	1	3	1250	2.5	5	Convection	9.50
NL-715/5557/ FG17	Mercury	1	3	5000	2.5	5	Convection	9.50
NL-716	Arg & Merc	1	8	1250	2.5	6.3	Convection	12.50
NL-720	Arg & Merc	2.5	30	1500	2.5	9	Convection	15.60
NL-720L	Arg & Merc	2.5	30	1500	2.5	9	Convection	17.10
NL-732	Arg & Merc	30	225	1500	2.5	55	Convection	100.00
NL-734/5544	Xenon	40	560	1500	2.5	11.5	Convection	22.50
NL-740	Arg & Merc	4	50	1500	2.5	16	Convection	19.40
NL-740L	Arg & Merc	4	50	1500	2.5	16	Convection	21.40
NL-740P	Arg & Merc	4	50	1500	2.5	16	Convection	20.10
NL-760	Arg & Merc	6.4	77	1500	2.5	21	Convection	28.10
NL-760,LP	Arg & Merc	6.4	77	1500	2.5	21	Convection	29.40
NL-761	Mercury	6.4	77	5000	2.5	21	Convection	31.80
NL-761L	Mercury	6.4	77	5000	2.5	21	Convection	33.30
NL-761P	Mercury	6.4	77	5000	2.5	21	Convection	35.00
NL-770L	Xenon-Merc	10.0	120	1500	2.5	25	Convection	44.00
NL-778	Arg & Merc	6.4	110	1500	2.5	21	Convection	28.10

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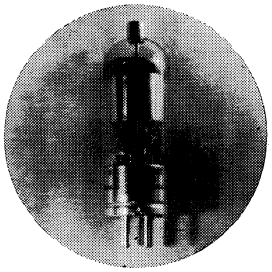

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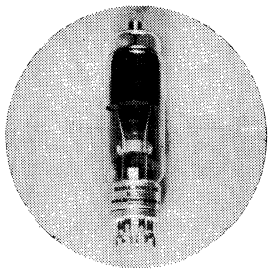

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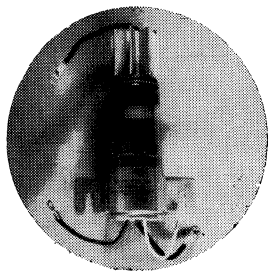

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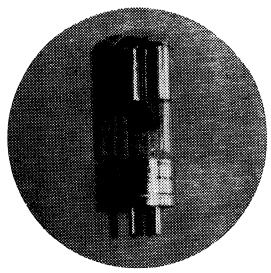

NL-604

THYRATRONS (cont'd)

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Amps	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-778L	Arg & Merc	6.4	110	1500	2.5	21	Convection	$29.40
NL-778P	Arg & Merc	6.4	110	1500	2.5	21	Convection	30.00
NL-5559/ FG57	Mercury	2.5	15	1000	5.0	4.6	Convection	23.00
NL-5560/ FG95	Mercury	2.5	15	1000	5.0	4.6	Convection	33.00
NL-5632/ C3J	Xenon	2.5	30	1250	2.5	9	Convection	13.80
NL-5665/ C16J	Xenon	18.0	160	1250	2.5	31	Convection	56.90
NL-5684/ C3J/A	Xenon	2.5	30	1250	2.5	9	Convection	14.50
NL-6014/ C1K	Xenon	1	8	1250	2.5	6.3	Convection	13.10
NL-6989/ C6J/KL	Xenon	6.4	80	1250	2.5	21.0	Convection	29.45

HALF WAVE RECTIFIERS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Amps	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-575A	Mercury	2.5	10	15,000	5.0	10.0	Convection	$22.15
NL-610	Xenon	2.5	30	920	2.5	9.0	Convection	11.40
NL-614	Xenon	2.5	15	900	2.5	9.0	Convection	11.40
NL-615	Mercury	2.5	10	2000	2.5	7	Convection	9.75
NL-616	Arg & Merc	2.5	30	1250	2.5	9.0	Convection	10.00
NL-616L	Arg & Merc	2.5	30	1250	2.5	9.0	Convection	11.50
NL-617	Mercury	5	20	1000	2	12	Convection	15.00
NL-619	Mercury	6	20	300	2	12	Convection	10.00
NL-623	Mercury	15	45	500	2.5	20	Convection	13.35
NL-625	Mercury	15	45	900	2.5	20	Convection	29.00
NL-627	Mercury	20	120	1000	2.5	26	Convection	31.50
NL-635	Arg & Merc	6.4	77	1000	2.5	18	Convection	13.00
NL-635L	Arg & Merc	6.4	77	1000	2.5	18	Convection	13.50
NL-635P	Arg & Merc	6.4	77	1000	2.5	18	Convection	14.15
NL-643	Mercury	15	90	700	2.5	23	Convection	13.50
NL-649/ 5834	Mercury	2	10	900	2.5	7	Convection	9.20
NL-653/ 5835	Mercury	3	12	900	2.5	10	Convection	12.90
NL-660	Xenon	6.4	80	920	2.5	21	Convection	13.00
NL-660L	Xenon	6.4	80	920	2.5	21	Convection	13.50
NL-660P	Xenon	6.4	80	920	2.5	21	Convection	14.15
NL-664L	Xenon-Merc	10.0	120	1000	2.5	25	Convection	26.00
NL-673	Mercury	2.5	10	15,000	5.0	10	Convection	22.15
NL-5558/ FG32	Mercury	2.5	15	5000	5	4.5	Convection	17.50

FULL WAVE RECTIFIERS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-604	Arg & Merc	2.5	10	900	2.5	11.5	Convection	$11.80
NL-604L	Arg & Merc	2.5	10	900	2.5	11.5	Convection	13.00
NL-606	Arg & Merc	6.4	25.6	900	2.5	17	Convection	20.80
NL-606L	Arg & Merc	6.4	25.6	900	2.5	17	Convection	21.90

WRITE FOR INDIVIDUAL TUBE DATA SHEETS FOR FULL DETAILS

NATIONAL ELECTRONICS INC.

GENEVA • ILLINOIS • U.S.A.

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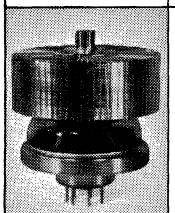
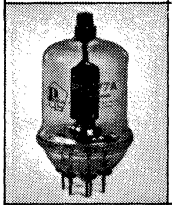
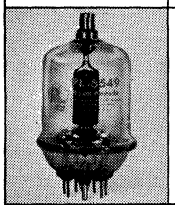
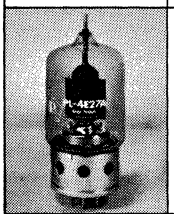
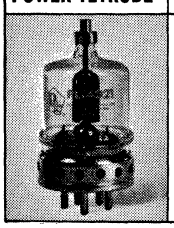
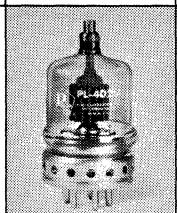
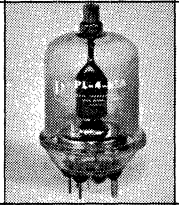
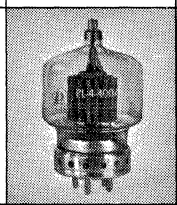
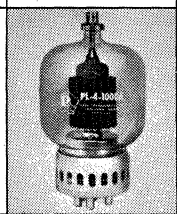
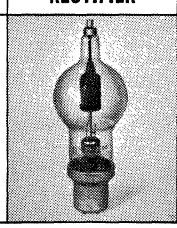
Trade Discount Applies To List Prices Only

PENTA

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt Max.	Plate Current Ma., Max.	Screen Volt Max.	Price
PL-172 BEAM PENTODE	6.0	8.2	1000	3,000	1000	600	$135
	1000-watt beam pentode. Provides high power gain and good efficiency at relatively low plate voltages. Cooled by forced air. Widely used as Class-AB_1 linear amplifier, delivering over 1500 watts useful power output. Also excellent for Class-AB_2, Class-B, and Class-C service. **Spec. MIL-E-1/1350(NAVY)**						
PL-175A BEAM PENTODE	5.0	14.5	400	4,000	350	800	$50.00
	400-watt beam pentode incorporating patented Penta vane-type suppressor grid. Replaces 4-400A; 20% to 40% increase in output in Class-AB_1 linear amplifier applications. Suppressor grid terminates in base shell and is designed to be operated at ground potential.						
PL-177A BEAM PENTODE	6.0	3.2	75	2,000	175	600	$29.00
	Small beam pentode incorporating exclusive Penta vane-type suppressor grid. Maximum ratings apply to 175 Mc. Highly efficient at plate voltages as low as 600 volts. Excellent as low-distortion linear r-f, a-f amplifier. Maximum useful power output, Class-AB_1, 220 watts.						
PL-6549 BEAM PENTODE	6.0	3.2	75	2,000	175	600	$29.00
	Similar to PL-177A except conventional suppressor grid. Recommended for replacement use only.						
PL-4E27A BEAM PENTODE	5.0	7.5	125	4,000	200	750	$45.00
	Popular beam pentode used as amplifier, oscillator, or modulator. Will deliver over 400 watts of usable power output with only two watts driving power in Class-C service; up to 280 watts as Class-AB_1 linear amplifier. Maximum frequency for full ratings, 75 Mc. Cooled by convection and radiation.						
PL-4D21 POWER TETRODE	5.0	6.5	125	3,000	225	600	$36.00
	Popular 125-watt power tetrode, especially suited for use as r-f power amplifier. Can be operated at full ratings at frequencies as high as 120 Mc., and with reduced ratings up to 240 Mc. Can also be used as a-f power amplifier and modulator. **Spec. MIL-E-1/776 ***						

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt Max.	Plate Current Ma., Max.	Screen Volt Max.	Price
PL-4D21A POWER TETRODE	5.0	6.5	175	3,000	225	600	$37.50
	Exclusive Penta tetrode similar in all characteristics to PL-4D21, but has plate dissipation rating of 175 watts. Widely used in broadcast and communications transmitters where reliability is desired.						
PL-5D22 POWER TETRODE	5.0	14.5	250	4,000	350	800	$46.50
	Power tetrode, used in communications and amateur equipment. Can be used at full ratings up to 75 Mc, and with reduced ratings to 120 Mc. Unusually small amount of driving power normally required for specified value of power output. Useful as r-f power amplifier, or a-f amplifier and modulator. **Spec. MIL-E-1/812A ***						
PL-4-65A POWER TETRODE	6.0	3.5	65	2,000	150	600	$27.00
	Small, popular power tetrode, widely used in mobile communications equipment. Can be operated at full input at frequencies up to 150 Mc. For r-f amplifier, oscillator, or a-f amplifier, modulator applications. **Spec. MIL-E-1/876/A ***						
PL-4-400A POWER TETRODE	5.0	14.5	400	4,000	350	800	$48.00
	Widely used power tetrode. Excellent as r-f amplifier and a-f amplifier and modulator. Penta unique ribbed-anode construction provides large effective plate radiating area, with minimum plate, screen-grid and control-grid temperatures. **Spec. MIL-E-1/887 ***						
PL-4-1000A POWER TETRODE	7.5	21	1000	6,000	700	1000	$132
	Beam power tetrode suitable for use as r-f amplifier and oscillator, and as a-f amplifier and modulator. Can be used at frequencies up to 110 Mc. Widely used in FM broadcasting, television, and other services. **Spec. MIL-E-1/37 ***						
PL-250R RECTIFIER	5.0	10.5	--	60,000	250	--	$36.00
	High-vacuum diode rectifier. Will deliver 160 milliamperes at 24,000 volts to capacitor-input filter with 21,000 volts single-phase supply. Four PL-250R's will provide 500 milliamperes at 38,000 volts to choke-input filter with 42,000 volt single-phase supply. Cooled by convection and radiation.						

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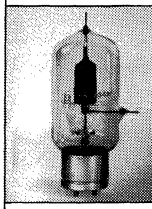
HIGH-EFFICIENCY

POWER TUBES

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt Max.	Plate Current Ma., Max.	μ	Price
PL-254W POWER TRIODE	5.0	7.5	100	4,000	225	25	$25.00

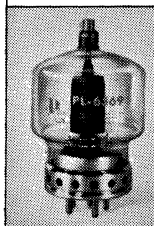


100-watt plate dissipation radiation-cooled triode. Used as r-f power amplifier, oscillator, frequency multiplier. Will deliver up to 400 watts plate power output as Class-C CW or FM amplifier. Widely used as VHF power amplifier in base-station communications equipment.

	Fil. Volts	Fil. Current Amps.	--	Plate Volt Max.	Plate Current	--	Price
PL-161 HYDROGEN THYRATRON	6.3	10.5	--	16,000	325 Amps. Max.	--	$48.00

Miniaturized, low-jitter hydrogen thyratron, for pulse service. Has characteristics similar to those of PL-5C22, but with reduced overall height.

PL-6569 POWER TRIODE	5.0	14.5	250	4,000	300	45	$37.50

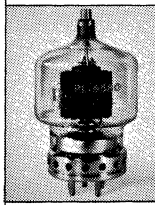


High-mu power triode designed especially for grounded-grid r-f amplifier service. Provides power gains as high as ten in grounded-grid use. Also capable of good performance in other applications. Neutralization not normally required in grounded-grid service. Will deliver up to 800 watts power output as Class-B linear r-f amplifier.

PL-165A HYDROGEN THYRATRON	6.3	7.8	--	12,000	225 Amps. Max.	--	$48.00

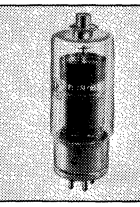
Pulse-service hydrogen thyratron with external characteristics similar to 4C35 but with electrical capabilities midway between those of the 4C35 and PL-5C22. Especially useful where capabilities of 4C35 are exceeded but where space is too limited to allow use of PL-5C22.

PL-6580 POWER TRIODE	5.0	14.5	400	4,000	350	45	$45.00



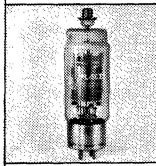
Same as PL-6569 (above), but with 400-watt plate dissipation rating. Will deliver over 1000 watts of power output in Class-C CW or FM grounded-grid use, over 900 watts in Class-B grounded-grid linear amplifier service.

PL-174 HYDROGEN THYRATRON	6.3	10.5	--	16,000	325 Amps. Max.	--	$48.00



Miniaturized, low-jitter pulse-service hydrogen thyratron with characteristics similar to those of PL-5C22 but with reduced overall height. Identical in size and characteristics to the 6587. Will deliver pulse power output of over two megawatts in typical line-type modulator service.

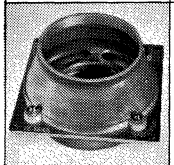
	Fil. Volts	Fil. Current Amps.	--	Plate Volt Max.	Plate Current	--	Price
PL-5C22 HYDROGEN THYRATRON	6.3	10.5	--	16,000	325 Amps. Max.	--	$36.00



Low-jitter hydrogen thyratron designed for use in line-type radar modulators. Single PL-5C22 will provide pulse power output of over two megawatts in pulse modulator service.

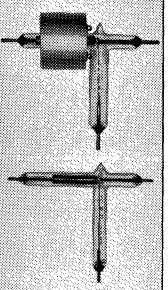
Spec. MIL-E-1/115E *

ACCESSORIES



Type	Description	Price
PL-C1	Glass chimney for PL-4-400A and PL-175A	$ 6.00
PL-C184	Plastic chimney, only, for PL-172	$ 5.00
PL-184	Socket for PL-172, including chimney, built-in screen-grid and suppressor-grid by-pass capacitors	$45.00
PL-184A	Socket for PL-172, including chimney, built-in screen-grid by-pass capacitors. Suppressor-grid grounded.	$45.00

VACUUM SWITCHES



Type	Voltage, Maximum	Current Max. Amperes AC or DC	Current Max. Amperes Pulse	Coil	Price
PL-R1	21,000	6	150	Not supplied; requires 1100 ampere-turns	$33.00
PL-169A	21,000	30	500	Not supplied; requires 1900 ampere-turns	$40.00
PL-186	21,000	6	—	Not supplied; requires 1000 ampere-turns	$38.00
PL-187	21,000	30	500	Integral; 28 V, 500 Ma., D-C	$58.00
PL-190	21,000	6	150	Integral; 28 V, 250 Ma., D-C	$58.00
PL-191	21,000	6	—	Not supplied; requires 1000 ampere-turns	$24.00

* JAN branding available

PENTA LABORATORIES, INC.

SANTA BARBARA, CALIFORNIA

FIELD ENGINEERING REPRESENTATIVES AND DISTRIBUTORS SERVING MAJOR CITIES

SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
C1K/6014	$ 12.90
C3J/5632	13.80
C3J/A/5684	14.50
C6J/5C21	28.10
C6J/A/5685	29.00
C16J/5665	56.90
*OA2	1.46
GB-OA2WA	3.65
OA3	1.54
*OA4G	1.86
OA5	6.96
*OB2	1.44
***OB2WA**	3.00
GB-OB2WA	3.00
*OB3	1.65
*OC3	1.50
*OD3	1.44
OZ4A	1.20
VG1A	15.04
*1B24A	21.35
*1B37A	8.80
*1B44	24.55
*1B63A	30.95
1C/3B22	10.85
1D21/SN4	7.10
1P39	2.30
1P40	3.75
1S6 (†)	1.55
2-01C	18.50
2-25A	20.00
2-50A	23.00
2-150D	38.55
2-240A	42.85
2-450A	113.00
2-2000A	228.00
*2C36	38.72
*2C37	39.32
2C39A	22.50
2C39B	32.15
2C39WA	32.00
2C40	29.30
2C41	26.50
2C43	24.55
2C51	3.65
2C53	9.80
2D21	1.25
2D21W	2.70
2E24	5.20
2E26	3.85
*2J42	125.00
*2J42H	158.00
2X2A	3.10
2X1000A	127.50
2X3000F	168.00
3A4	1.25
3A5	1.78
3B28	6.00
3C23	11.98
3CPN10A5	32.00
3CX100A5	32.00
3E29	19.00
3W5000F1	243.00
3W5000F3	231.00
3X2500A3	200.00
3X2500F3	206.00
3X3000A1	212.00
3X3000F1	218.00
4-65A	28.50
4-125A	36.00
4-250A	46.50
4-400A	48.00
4-1000A	132.00
4CN15A	55.00
4CW2000A	218.00
4CW10,000A	576.00
4CX250B	39.35
4CX250F	39.35
4CX250K	64.25
4CX250M	92.50
4CX300A	55.00
4CX1000A	156.00
4CX5000A	495.00
4E27A/5-125B	50.00
4PR60A	100.00
4W300B	57.00
4W20,000A	1950.00
4X150A	25.00
4X150D	28.00
4X150G	58.00
4X250B	39.35
4X500A	128.50
SN5	12.50
5R4GY	2.03
5R4GYB	2.03
***5Y3WGTA**	4.05
GB-5Y3WGTA	4.05
6AD4 (†)	3.70
*6AJ5	$ 3.85
6AK4 (†)	3.10
*6AN6	3.75
6AS6	3.43
6AS7G	4.93
***6AU6WA**	2.95
***6AU6WB**	2.95
6AZ5 (†)	3.85
6BA4	32.37
6BA4 (RT 469)	41.10
6BA5 (†)	4.70
***6BF7W**	4.20
*6D4	2.85
6DJ8	2.05
*6J4	4.19
***6J4WA**	5.60
GB-6J4WA	5.60
***6J6WA**	5.35
***6SJ7WGT**	2.55
GB-6SJ7WGT	2.55
***6SL7WGT**	3.15
GB-6SL7WGT	3.15
***6SN7WGT**	2.35
GB-6SN7WGT	2.35
***6SN7WGTA**	4.90
*6V6GTY	1.45
*6X4W	1.60
6X4WA	2.85
GB-6X4WA	2.85
6X5WGT	1.55
GB-6X5WGT	1.55
***7AK7**	7.45
GB-7AK7	7.45
7C25	170.00
***7F8W**	6.35
GB-7F8W	6.35
***12AT7WA**	3.05
12AY7	2.45
KY21A	26.75
RX21A	25.75
***28D7**	3.60
S28D7	3.60
***28D7W**	10.40
GB-28D7W	10.40
75TH	30.00
75TL	30.00
FG-97	62.00
100TH	23.60
100TL	23.60
102A	176.00
141	110.00
142	74.00
148	152.00
199	350.00
212E	210.00
232B	670.00
241B	210.00
250R	38.55
250TH	38.55
250TL	38.55
279A	415.00
298A	1485.00
304TH	64.50
304TL	64.50
SA-309	20.00
SA-309A	20.85
322	25.25
S-340	15.10
342A	670.00
342AA	775.00
354	1750.00
356	635.00
357B	170.00
379A	440.00
GB-407A	5.90
GB-408A	4.95
S-413	15.00
414	188.00
450TH	77.00
450TL	77.00
481B	10.90
502A	2.30
GM514	58.40
TW534B	977.50
TW538	2645.00
575A	20.15
579B	20.50
TW591	3220.00
592/3-200A3	46.00
S-597	26.75
604	11.86
604L	13.00
606	20.80
606L	21.90
610	30.75
TW613	1150.00
615	9.75
TW620A	$ 977.50
TW622	2640.00
624	79.00
627	29.75
628	41.00
629	18.25
632B	33.00
635	13.00
635L	13.50
642	17.00
672A	39.85
673	22.15
676	63.80
677	63.80
678	49.50
S696	23.15
S706	15.00
740	19.40
740L	21.40
750TL	150.00
760	28.10
760L	31.70
801A	13.00
*807	3.00
810	26.95
811A	6.90
812A	6.90
813	23.15
815	28.35
816	2.95
828	32.95
829B	19.00
832A	15.90
833A	53.65
S836	16.70
837	10.30
S838	16.70
S840	20.00
845	25.00
857B	218.50
860	40.20
861	245.00
866A	2.90
869B	138.00
872A	10.65
880	595.00
884	2.28
885	2.00
891	295.00
891R	460.00
892	290.00
892R	455.00
893A	880.00
893AR	1340.00
921	3.50
922	3.10
923	3.40
927	3.80
929	2.15
930	3.10
931A	11.15
956L	2415.00
1000T	150.00
R1111	12.70
R1111M	26.00
R1130B (1B59)	20.40
R1131C	19.20
R1166	19.60
R1168	24.00
R1169	21.50
GB-1216	2.38
GB-1217	1.55
1218	4.50
GB-1219/5670	3.70
GB-1220/5654	3.05
1222A	2.45
1229	5.35
1237	9.86
1247	6.00
CT4251	11.10
1273 (†)	1.55
1280 (†)	1.55
1319	115.00
1500T	279.00
1614	3.77
1616	13.90
1620/6J7	6.99
1622	3.45
1624	6.25
2000T	387.00
2050	2.37
TW4002M	2245.00
TW4006	1667.50
TW4007	2080.00
TW4260	1065.00
TW4261	1065.00
TW4267	1065.00
TW4268	$1065.00
SP4019	3.09
M4063	1643.00
M4164	1475.00
R4306	4.35
R4307	5.60
R4330	29.10
R4336	64.20
R4340	60.50
R4350	29.10
5530	330.00
5530-H	330.00
5531	630.00
5541	500.00
5550/681	49.00
5551A/652	65.00
5552A	99.00
5553B/655	245.00
5555	316.00
5557	9.50
5558	17.50
5559	23.00
5560/FG95	33.00
5575/100	235.00
5576/200	266.00
5604	600.00
5606	288.00
5619	443.00
***5636**	6.75
***5636A**	6.75
***5639**	6.55
***5639A**	6.55
***5641**	7.55
***5641A**	7.55
***5643**	9.05
***5644**	9.90
***5644A**	9.90
***5647**	8.65
***5647A**	8.65
5651	1.90
5651WA	4.20
GB-5654	3.05
***5654/6AK5W**	3.05
***5654/6AK5W/6096**	4.35
5658	595.00
5666	280.00
5667 (889RA)	370.00
5668	330.00
5669	490.00
***5670**	3.70
GB-5670	3.70
***5670WA**	3.95
5679	1.75
GB5687	4.00
5680	190.00
5681	1875.00
5682	2625.00
5687	4.00
5691	8.75
*5692	8.25
5693	6.60
5696	2.05
5713	260.00
***5718**	4.00
***5718A**	4.00
***5719**	3.50
***5719A**	3.50
*5722	6.40
GB-5725	3.80
***5725/6AS6W**	3.80
GB-5726	1.55
***5726/6AL5W**	1.55
***5726/6AL5W/6097**	1.55
GB-5727	2.90
***5727/2D21W**	2.90
5736	190.00
GB-5749	2.20
***5749/6BA6W**	2.20
GB-5750	3.45
***5751**	2.95
GB-5751	2.95
***5751WA**	2.95
5762/7C24	230.00
5763	2.53
5764	39.32
5765	39.32
5767	44.77
*5768	32.37
5789	914.50
5796	17.25
***5814A**	3.35
GB-5814A	3.35
***5814WA**	3.35
5820	1200.00
5822A	116.00
*5823	$ 1.72
***5840**	5.85
***5840A**	5.85
5845	9.25
5855	70.00
5879	1.95
5881	3.50
5894	25.00
***5896**	4.15
***5896A**	4.15
***5899**	6.05
***5899A**	6.05
***5902**	5.25
***5902A**	5.25
***5903**	7.45
***5904**	7.90
***5905**	8.40
***5906**	8.40
***5907**	8.40
***5908**	9.80
***5916**	9.80
***5931**	6.80
GB-5931	6.80
***5932**	11.30
GB-5932	11.30
***5933**	12.35
GB-5933	12.35
***5933WA**	16.50
5934	22.00
5936	1145.00
***5963**	1.54
GB-5963	1.54
GB-5964	1.54
GB-5965	1.95
5966	42.00
***5977**	6.55
***5977A**	6.55
5986	1050.00
***5987**	11.10
5996	210.00
GB-6005	3.95
***6005/6AQ5W**	3.95
***6005/6AQ5W/6095**	3.95
6009	228.00
6011	13.80
6012	7.65
***6021**	4.35
***6021A**	4.35
6027	180.00
6027H	210.00
6080	5.33
GB-6080	5.33
GB-6101	5.35
***6110**	8.05
***6111**	5.05
***6111A**	5.05
***6112**	5.05
***6112A**	5.05
***6135**	2.40
GB-6135	2.40
GB-6136	2.90
GB-6145	12.45
6146	5.00
6146A	5.00
6159	5.00
6159A	5.00
6163	28.40
6164	64.90
6166	1020.00
GB-6186	3.85
GB-6189	3.70
***6189/12AU7WA**	3.70
6198	230.00
GB-6201	2.95
***6205**	5.90
***6205A**	5.90
***6206**	8.00
***6206A**	8.00
GB-6211	2.35
6217	72.00
6256	240.00
6257	252.00
6258	280.00
***6308**	8.25
GB-6350	2.35
***6352**	9.85
6366	170.00
6367	185.00
6399	170.00
6400	199.00
6420	360.00
6421	425.00
6421-F	440.00
6422	385.00
6423	495.00
6423-F	510.00

Net

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SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
6424	$ 455.00
6425	580.00
6425-F	600.00
6426	675.00
6427	830.00
6476	13.37
6476A	14.95
6481 (RT434)	38.30
6483	3.09
6503	65.82
6550 (†)	4.95
6559	800.00
6576	680.00
6591	34.40
6623	205.00
6660/6BA6	1.05
6661/6BH6	1.35
6662/6BJ6	1.30
6663/6AL5	.95
6669/6AQ5A	1.05
6677/6CL6	1.80
6678/6U8A	1.60
6679/12AT7	1.50
6680/12AU7	1.20
6681/12AX7	1.25
6696	1090.00
6697	1310.00
6698	1810.00
6752	750.00
6788	11.95
6799	2760.00
6800	370.00
6801	535.00
6802	11.43
6807	29.40
GB-6814	5.55
6873	10.59
6874 (M-561)	1239.00
6879 (CT-854)	13.37
6883	5.15
6883A	5.15
6887	1.25
GB-6888	6.90
6897	32.15
6902	6350.00
6909	11.43
6910	13.37
6943	12.35
6944	12.35
6945	12.35
6946	12.35
6947	12.35
6948	12.35
7006	1134.00
7007	1120.00
7038A	230.00
GB-7044	3.20
7098	1170.00
***7137**	7.10
GB-7137	7.10
7155	13.37
7291A	375.00
7325	230.00
GB-7327	12.45
*7503	1170.00
7619	1375.25
8008	10.65
8020	24.00
9001	5.40
9002	3.85
9003	5.40

KLYSTRONS**

SK220A(K4033)	160.00
SK220B(K4160)	160.00
SK220C(K4034)	160.00
SK220D(K4161)	160.00
SK220E(K4162)	160.00
SK220F(K4035)	160.00
SK220G(K4202)	160.00
SK220Z(K4036)	360.00
SK222A(K4183)	165.00
SK222B(K4184)	165.00
SK222C(K4185)	165.00
SK222D(K4186)	165.00
SK222E(K4188)	165.00
SK222F(K4189)	165.00
SK222G(K4187)	165.00
SK222Z(K4182)	365.00
K839B	143.75
K840B	143.75
K841B	143.75
K4009	202.00
K4010	202.00
K4011	202.00
K4012	202.00
K4013	202.00
K4014	202.00
K4015	202.00
K4208	202.00
6468	202.00
6468/K526	202.00
6469	202.00
6469/K470	202.00
6470	202.00
6470/K524	202.00
*6BL6	43.75
*6BM6	61.50
*6BM6A	75.00
5836	78.50
5837	78.50
6974/K709	403.00

**In quantities of 1-9

FERRITE ISOLATORS

FD-151P	425.00
FD-492	225.00
FD-502	225.00
FD-512	225.00
FD-522	220.00
FD-531A	288.00
FD-911	235.00
FD-1522W	270.00

INDUSTRIAL and MILITARY CATHODE RAY TUBES

2AP1A	15.40
2BP1	18.65
2BP11	18.65
*3ACP1A	30.25
*3ACP2A	30.25
*3ACP7A	28.60
*3ACP11A	30.25
3ACP12A	30.25
*3ADP1	41.60
3ADP2	41.60
3ADP7	42.00
3ADP11	41.60
3AP1A	21.25
3ASP1	32.00
3ASP2	32.00
3ASP11	32.00
3BEP1	37.00
3BGP1	37.80
3BGP2	37.80
3BGP7	37.80
3BGP11	37.80
3BMP1	47.05
3BMP2	$ 47.05
3BMP7	48.75
3BMP11	47.05
3BMP12	47.05
*3BP1A	19.60
*3FP7A	27.50
*3JP1	21.45
*3JP2	24.15
*3JP7	24.15
*3JP12	30.80
*3KP1	20.60
3KP4	20.60
3KP7	21.45
3KP11	20.60
3KP16	42.45
3MP1	21.80
*3RP1	13.95
3RP1A	20.30
3RP4	19.60
*3SP1	25.20
3SP2	25.20
3SP4	25.20
3SP5	25.20
3SP11	25.20
*3WP1	29.85
3WP2	30.25
3WP11	30.25
4MP1	72.25
5ABP1	34.45
5ABP1A	37.80
5ABP4	42.85
5ABP4A	46.20
5ABP7	42.85
5ABP7A	46.20
5ABP11	44.20
5ABP11A	47.55
5ABP31A	47.55
*5ADP1	27.65
5ADP1A	33.60
5ADP1B	33.60
*5ADP2	31.85
5ADP2A	30.50
5ADP2B	30.50
*5ADP7	35.00
5ADP7A	40.35
5ADP7B	40.35
5ADP11	35.00
5ADP11A	38.65
5ADP11B	38.65
5ADP31B	38.65
5AHP2	40.50
5AHP2A	38.85
*5AHP4A	38.85
*5AHP7	31.15
*5AHP7A	38.85
5AHP14	31.15
5AHP14A	38.85
5AHP19	31.15
5AHP19A	38.85
5AHP25	31.15
5AHP25A	38.85
5AMP1	47.60
*5AMP1A	58.80
5AMP2	47.60
*5AMP2A	58.80
5AMP7	49.00
*5AMP7A	60.50
5AMP11	49.00
*5AMP11A	60.50
5AQP1	35.00
5AQP1A	35.00
5AQP1B	35.30
5AQP2	35.70
5AQP2A	35.70
5AQP2B	36.55
*5AQP7	39.90
5AQP7A	39.90
5AQP7B	38.65
5AQP11	$ 35.70
5AQP11A	35.70
5AQP11B	37.00
5AUP24	100.80
5AXP4	19.75
5BCP1	37.80
5BCP4	37.80
5BCP7	39.50
5BCP11	39.50
5BGP1	75.00
5BGP2	75.00
5BGP5	75.00
5BGP7	75.00
5BGP11	75.00
5BGP15	75.00
5BHP1	92.50
5BHP2	92.50
5BHP5	92.50
5BHP7	92.50
5BHP11	92.50
5BHP15	92.50
5BNP16	24.40
*5BP1A	23.30
5BRP1	42.00
5BRP4	42.00
5BRP7	43.70
5BRP11	43.70
*5CP1A	21.70
*5CP1B	31.80
*5CP7A	30.80
5CP11A	28.00
*5CP12	30.80
5CVP1	142.80
5CVP7	142.80
5CVP19	142.80
5DEP1	13.65
5DEP2	24.20
5DEP7	24.65
5DEP11	25.20
5FP4A	26.20
*5FP7A	26.75
5FP11A	31.45
*5FP14A	22.75
5RP1A	115.50
5RP2A	115.50
5RP4A	115.50
5RP5A	115.50
5RP7A	115.50
5RP11A	115.50
*5UP1	13.65
5UP7	24.65
5UP11	25.20
5WP11	101.00
5WP15	101.00
5ZP15	128.55
5ZP16	100.00
5ZP24	128.55
7ABP7	46.65
*7ABP7A	48.65
7ABP14	59.95
7ABP14A	55.55
7ABP19	52.10
7ABP19A	50.40
7AEP1	59.10
7AEP2	59.10
7AEP7	$ 59.10
7AEP11	59.10
7AQP4	31.10
7AQP7	31.10
7AQP16	31.10
7AQP19	31.10
7AQP25	31.10
7AUP4	29.40
7AUP7	31.10
7BP2A	42.00
*7BP7A	42.00
7JP1/7VP1	29.00
7JP7	35.00
7MP7	43.70
7MP14	46.20
7UP7	42.00
7UP25	42.00
8CP1	42.45
8CP2	52.95
8CP4 (†)	52.95
8CP5	52.95
8CP7	43.70
8CP11	52.95
8DP4	25.20
8FP4	43.15
8KP4	23.25
8XP4	22.00
8YP4	29.50
*10AKP7	46.20
*10KP7	42.85
*10KP7A	51.25
10KP7B	59.65
10NP11	137.50
10SP4	70.00
10VP7	58.80
10VP15	58.80
*10WP7	34.45
10WP7A	37.80
10WP14	51.25
10WP14A	59.65
10WP19	51.25
10WP19A	51.25
12ABP7	50.00
12ABP7A	51.70
12ABP14	60.10
12ABP14A	69.80
12ABP19	69.80
12ABP19A	76.90
*12DP7A	68.90
12DP7C	85.70
12SP7	42.85
12SP7B	62.20
*12SP7D	58.80
14BAP4	51.75
17DWP4	53.25
21EYP4	63.00
SC-2558-P1	135.00
SC-2558-P4	135.00
SC-2558-P7	135.00
SC-2782	420.00
SC-2809	920.00
SC-2812-P1	35.05
SC-2830-P1	50.50
SC-2854	49.00
SC-3016-P11	58.80

NOTE: Other screen phosphors for industrial and Military Cathode Ray Tubes are available upon request.

Types listed in Bold Face are Sylvania Gold Brand Tubes.

GB—Manufactured to Commercial and Industrial Specifications.

*Indicates Military Type Approval.

(†) Federal Excise Tax included in price.

For high quality Industrial or Entertainment Receiving Type Tubes and Picture Tubes—Specify Sylvania

ELECTRONIC TUBES DIVISION · SYLVANIA ELECTRIC PRODUCTS INC. NEW YORK 19, N. Y.

SYLVANIA

SUBSIDIARY OF

GENERAL TELEPHONE & ELECTRONICS

GENERAL SYSTEM

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TUNG-SOL

ELECTRON TUBES • SEMICONDUCTORS

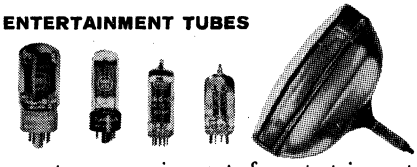
MILITARY • INDUSTRIAL • COMMERCIAL

TUNG-SOL ANSWERS YOUR NEED FOR RELIABILITY, LOWER COST

When designing electronic equipment for modern military, industrial and commercial applications, you cannot compromise on reliability. Nor can you fail to take into consideration manufacturing costs—you must keep them as low as possible, consistent with required performance standards.

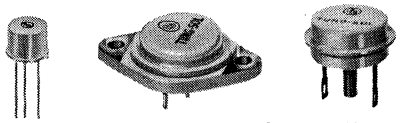
It is in this area that Tung-Sol's vast design and manufacturing experience count so heavily in your favor. Tung-Sol is guided solely by your needs in making electron tubes and semiconductors. Engineering and production at Tung-Sol are directed to the aim of providing reliable and flexible electronic components, and a wide range of Tung-Sol standard components is available "off the shelf" through conveniently located distributors.

TUNG-SOL ENTERTAINMENT TUBES



Tung-Sol can meet your requirements for entertainment tubes, whether cathode ray, series-string, hybrid auto radio, TV, stereo, hi-fi or radio tubes. Tung-Sol entertainment tubes combine the most sought-for characteristics in ideal combination. Dynamically-balanced 6550's, 5881's, 6VGTA's and 6BQ5's deliver the finest in full-fidelity reproduction. These types are available in factory-matched pairs.

TUNG-SOL GERMANIUM TRANSISTORS



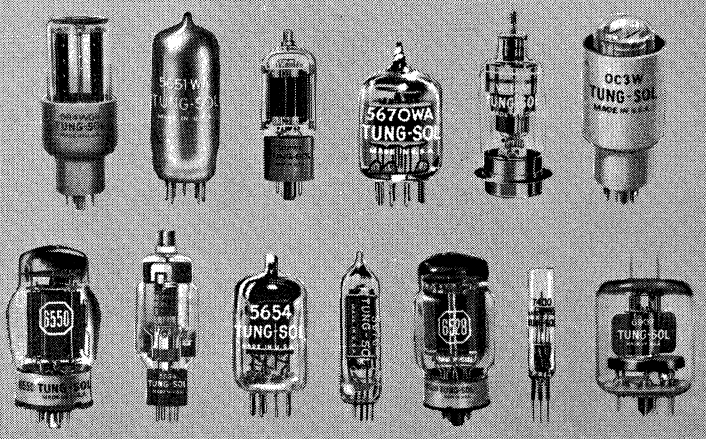
The exclusive design characteristics and unexcelled quality of Tung-Sol Germanium Transistors provide high operational reliability and broad design flexibility. Extremely wide interchangeability permits Tung-Sol transistors to be used for the widest possible applications. Tung-Sol transistors are produced in the three standard JEDEC packages: TO-5 (medium power); TO-3 (power); TO-36 (high power).

The new Tung-Sol 4-layer PNPN bistable transistor is offering unusual assembly economies in many applications. Ask your Tung-Sol representative for details.

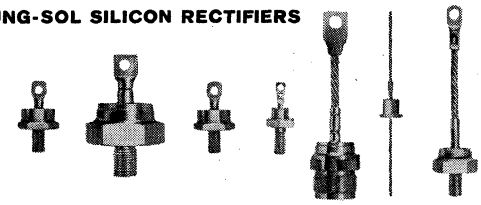
TUNG-SOL TUBES FOR MILITARY, INDUSTRIAL, COMMERCIAL USES

In standard equipment Tung-Sol provides a comprehensive choice to fill most any need. For special socket requirements Tung-Sol engineers are always available to analyze your needs and to design to your specifications. In either case, Tung-Sol tubes deliver peak efficiency, long life and trouble-free operation in all these categories:

- Rectifiers
- Voltage Reference Tubes
- Vacuum Pulse Tubes
- Twin Triodes
- Hydrogen Thyratrons
- Voltage Regulators
- Power Pentodes
- Thyratrons
- Pentodes
- VHF Triodes
- Power Triodes
- Indicator Thyratrons
- Transmitting Tubes



TUNG-SOL SILICON RECTIFIERS



Assuring the utmost uniformity and electrical and mechanical stability, Tung-Sol silicon rectifiers range from 250 ma to 100 amps. They operate with undiminished reliability over a junction temperature range from −65 to +190°C. Tung-Sol silicon rectifiers feature low forward voltage drop, low reverse leakage, low thermal resistance, and high surge-handling ability.

TUNG-SOL®

TUNG-SOL ELECTRIC INC., Newark N. J.

Technical assistance is available through: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Irvington, N. J.; Melrose Park, Ill.; Newark, N. J.; Philadelphia, Pa.; Seattle, Wash. In Canada: Abbey Electronics, Toronto, Ont.

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TUNG-SOL

SPECIAL PURPOSE TUBES • ENTERTAINMENT TUBES • CATHODE RAY TUBES
SEMICONDUCTORS • LAMPS • RELAYS

INDUSTRIAL AND SPECIAL PURPOSE TUBES

SGR-2
UXCV11
HV-18
KU-23
OA2
OA2WA
OA3
OA4G
OB2
OB2WA
OB2WA
OB3
OC3
OC3W
OD3
OD3W
OG3
X-80
1AD4
1AH4
1AJ5
1L4
1P39
1P40
1S22
1Z2
2C39A
2C51
2D21
2D21W
2E22
2E22Mil Spec.
2E24
2E26
2X2A
3A4
3A5
3B24WA
3B25
3B28
3B29
3C23
3CX100A5
3D21WA
4-65A

4-400A
4-1000A
4B32
4D21/4-125A
4X150A
5A6
5AT4A
5D22/4-250A
5R4GYA
5R4WGA
5R4WGB
6AH6WA
6AJ5
6AK5WB
6AN5
6AR6
6AS6
6AS7G
6AU6WA
6AU6WB
6D4
6H6WGT
6J4
6J4WA
6L6WGB
6SC7GTY
6SL7WGT
6SN7WGT
6SN7WGTA
6SU7GTY
6X4W
6X4WA
12A6
12AT7WA
12AY7
25Z6WGT
26E6WG
26Z5W
53
83
HF-200
HF-201A
211
217C
TS-231

TS-239
HF-300
TS-300
311CH
313C
323B
338A
371B
393A
394A
395A
396A
404A
407A
408A
417A
426A
TS-433C
468
481B
575A
576A
577
579B
583
610
624
627
628
629
632B
672A
673
676
677
678
805
807
810
811A
812A
813
829B
830B
833A

845
857B
860
866A
869B
872A
873
884
885
891
892
921
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973
CH-1046
CH-1068
CH-1122
1257
1258
1620
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2050W
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5517
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5551A
5552A
5553B
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5642
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5651
5651WA
5654
5654/6AK5W
5654/6AK5W
/6096

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5670WA
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5685/C6JA
5686
5687
5687WA
5691
5692
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5702WA
5702WB
5703WA
5703WB
5718
5719
5725
5725/6AS6W
5725/6AS6W
/6187
5726
5726/6AL5W
5726/6AL5W
/6097
5727/2D21W
5736
5744WB
5749
5749/6BA6W
5751
5751WA
5755
5763
5783
5783WA
5784WA
5787
5787WA

5796
5814A
5814WA
5822A
5823
5829WA
5840
5842
5842/417A
5844
5847
5847/404A
5851
5875
5879
5881
5881 Matched
Pair
5896
5902
5948
5948A
5949
5949A
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5998
6000
6005
6011
6012
6021
6028/408A
6074
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6080WA
6080WB
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6082WA

6082WB
6088
6096
6098/
6AR6WA
6110
6111
6136
6146
6159
6188/
6SU7WGT
6189/
12AU7WA
6201
6202
6205
6206
6211
6245
6267
6293
6303
6327
6336A
6339
6345
6350
6388/443A
6394A
6418
6485
6520
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6542
6550
6550
Matched Pair
6627/OB2WA

6660
6661
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6681
6807
6883
6893
6901
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7400
7401
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7455
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7568
7605
7607
7813
8000
8008
8020
9001
9002
9003

ENTERTAINMENT TUBES

OZ4
OZ4A
OZ4G
1A7GT
1AX2
1B3GT
1DN5
1G3GT
1H5GT
1J3
1K3
1L4
1L6
1LA6
1LH4
1LN5
1N5GT
1R5
1S4
1S5

1T4
1U4
1U5
1V2
1X2B
2A3
2AF4
2AF4A
2BN4A
2CY5
2EN5
2ER5
2FH5
3A2
3A3
3AF4A
3AL5
3AU6
3AV6
3B2

3BA6
3BC5
3BE6
3BN4
3BN6
3BU8
3BY6
3BZ6
3CB6
3CF6
3CS6
3CY5
3DG4
3DK6
3DT6
3Q4
3Q5GT
3S4
3V4
4AU6

4BC5
4BC8
4BN6
4BQ7A
4BS8
4BU8
4BZ6
4BZ7
4CB6
4CS6
4CY5
4DE6
4DT6
4EW6
5AM8
5AN8
5AQ5
5AS4A
5AS8
5AT8

5AU4
5AV8
5B8
5BE8
5BK7A
5BQ7A
5BR8
5BT8
5BW8
5CG8
5CL8A
5CQ8
5CZ5
5DH8
5EA8
5EU8
5GH8
5J6
5T8
5U4G

5U4GB
5U8
5V3
5V3A
5V4GA
5V6GT
5X8
5Y3GT
5Y4GT
5Z3
6A7
6A8
6AB4
6AC7
6AF3
6AF4
6AF4A
6AF6G
6AG5
6AG7

6AH4GT
6AH6
6AK5
6AK6
6AL5
6AL7GT
6AM4
6AM8A
6AN4
6AN8A
6AQ5A
6AQ6
6AQ7GT
6AR5
6AR8
6AS5
6AS8
6AT6
6AT8A
6AU4GTA

6AU5GT
6AU6
6AU6A
6AU7
6AU8
6AV5GA
6AV6
6AW8A
6AX4GTB
6AX5GT
6AX8
6AZ8
6B4G
6B8
6BA6
6BA7
6BA8A
6BC5
6BC7
6BC8

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SPECIAL PURPOSE TUBES • ENTERTAINMENT TUBES • CATHODE RAY TUBES
SEMICONDUCTORS • LAMPS • RELAYS

ENTERTAINMENT TUBES (cont'd)

6BD6
6BE6
6BF5
6BF6
6BG6GA
6BH6
6BH8
6BJ6
6BJ7
6BJ8
6BK4
6BK5
6BK7B
6BL7GTA
6BN4A
6BN6
6BN8
6BQ5/EL84
6BQ5 Matched Pair
6BQ6GA/6CU6
6BQ6GTB/6CU6
6BQ7A
6BR8A
6BS8
6BU8
6BV8
6BW4
6BW8
6BX7GT
6BY5GA
6BY6
6BY8
6BZ6
6BZ7
6BZ8
6C4
6C5
6CA4
6CA5
6CB5A
6CB6
6CB6A
6CD6GA
6CE5
6CF6
6CG7
6CG8A
6CH8
6CK4
6CL6
6CL8A
6CM6
6CM7
6CM8
6CN7
6CQ8
6CR6
6CS6
6CS7
6CU5
6CU6
6CU8
6CX8
6CY5
6CY7
6CZ5
6DA4A
6DB5
6DB6
6DC6
6DE4
6DE6
6DE7
6DG6GT
6DJ8
6DK6
6DN6
6DN7
6DQ5
6DQ6A
6DQ6B
6DR7
6DS5
6DT5
6DT6
6DT8
6E5
6EA7
6EA8
6EB5
6EB8
6EH8
6EM5
6EM7
6ER5
6ES5
6ES8
6EU7
6EU8
6EV5
6EW6
6EY6
6EZ5
6F5
6F6
6F6GT
6FH5
6FM8
6FQ5
6FV6
6FV8
6GH8
6GK6
6GM6
6GN8
6H6
6J5
6J5GT
6J6A
6J7
6K6GT
6K7
6K8
6L6
6L6GC
6L7
6N7
6Q7
6Q7GT
6S4A
6S8GT
6SA7
6SA7GT
6SB7Y
6SC7
6SF5
6SF7
6SG7
6SH7
6SJ7
6SK7
6SK7GT
6SL7GT
6SN7GTB
6SQ7
6SQ7GT
6SR7
6SS7
6T4
6T8A
6U5
6U8A
6V3A
6V6
6V6GTA
6V6GTA Matched Pair
6W4GT
6W6GT
6X4
6X5GT
6X8
6X8A
6Y6GA
7A4
7A6
7A7
7A8
7AG7
7AU7
7B6
7B7
7B8
7C5
7C6
7C7
7EY6
7F7
7F8
7H7
7N7
7Q7
7V7
7W7
7Y4
7Z4
8AU8
8AW8A
8BQ5
8CG7
8CM7
8CN7
8CS7
8CX8
8EB8
8ET7
9AU7
9BR7
9CL8
9U8A
10C8
10DE7
10EG7
11CY7
12AB5
12AC6
12AD6
12AE6
12AE6A
12AF3
12AF6
12AJ6
12AL5
12AL8
12AQ5
12AT6
12AT7
12AU6
12AU7A
12AV5GA
12AV6
12AV7
12AX4GTA
12AX7
12AX7A
12AZ7A
12B4A
12BA6
12BA7
12BD6
12BE6
12BF6
12BH7A
12BK5
12BL6
12BQ6GA/12CU6
12BQ6GTB/12CU6
12BR7
12BV7
12BY7A
12BZ7
12C5/12CU5
12CA5
12CN5
12CR6
12CT8
12CX6
12D4A
12DB5
12DE8
12DL8
12DQ6A
12DS7
12DT5
12DT8
12DV8
12DW7
12DZ6
12ED5
12EG6
12EK6
12EL6
12EN6
12EZ6
12F8
12FK6
12FM6
12FQ8
12FR8
12FX8
12FX8A
12GA6
12GC6
12H6
12J5GT
12J8
12K5
12K7GT
12L6GT
12R5
12SA7
12SA7GT
12SF7
12SG7
12SJ7
12SK7
12SK7GT
12SL7GT
12SN7GTA
12SQ7
12SQ7GT
12U7
12V6GT
12W6GT
12X4
13DE7
13DR7
13EM7
14A7
14B6
14GT8
14Q7
17AX4GT
17BQ6GTB
17C5
17D4
17DE4
17DQ6A
17H3
17L6GT
17W6GT
18A5
18FW6
18FX6
18FY6
19AU4GTA
19BG6G
19T8
19X8
22DE4
25AV5GA
25AX4GT
25BK5
25BQ6GTB/25CU6
25C5
25CA5
25CD6GB
25DN6
25EH5
25L6GT
25W4GT
25Z5
25Z6GT
32ET5
34GD5
35A5
35B5
35C5
35EH5
35L6GT
35W4
35Y4
35Z3
35Z5GT
36AM3
36AM3A
42
50A5
50B5
50C5
50DC4
50EH5
50L6GT
50X6
50Y6GT
50Y7GT
75
80
117L7/M7GT
117Z3
117Z6GT
6973
7025
7027A
7189
7199
7247
7408
7543
7591

SUPPLEMENTARY LIMITED DEMAND TYPES

1A4P
1A6
1AB5
1B4P
1B5
1C5GT
1C6
1C7G
1D7G
1E5GP
1E7G
1E7GT
1F4
1F5G
1H6G
1J6G
1LA4
5X4G
5Z4
6AX4GTA
6BK7A
6D8G
6F6G
6L7G
6P5GT
6S7G
6SF5GT
7AF7
7L7
8BH8
12J7GT
12S8GT
12SA7GTY
12SF5GT
12SJ7GT
12SN7GT
12Z3
14A5
14E6
14S7
14W7
14Y4
19
25BQ6GT
26
31
32L7GT
33
34
35
38
45Z3
47
55
70L7GT
81

SEMICONDUCTORS

2N63
2N64
2N65
2N173
2N174
2N174A
2N242
2N277
2N278
2N307
2N307A
2N378
2N379
2N380
2N381
2N382
2N383
2N396
2N396A
2N404
2N413
2N414
2N416
2N417
2N425
2N426
2N427
2N428
2N441
2N442
2N443
2N459
2N460
2N461
2N526
2N578
2N579
2N580
2N581
2N582
2N1099
2N1100
2N1313
2N1358
2N1412
2N1681
2N1705 (TS1007)
2N1706 (TS627)
2N1707 (TS629)
TS601
TS602
TS603
TS604

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SPECIAL PURPOSE TUBES • ENTERTAINMENT TUBES • CATHODE RAY TUBES
SEMICONDUCTORS • LAMPS • RELAYS

ET (ENTERTAINMENT TRANSISTOR) LINE

PNP TYPES: ET1 ET2 ET3 ET4 ET5 ET6 ET7
NPN TYPES: ET8 ET9 ET10 ET11

PICTURE TUBES

7JP4
10ABP4B
10BP4A
10HP4
10MP4A
12KP4A
12LP4A
12UP4A
12UP4B
12VP4A
14AJP4
14AUP4
14BP4/ 14CP4/ 14EP4
14CP4
14CP4A
14EP4
14NP4A/ 14SP4
14QP4
14QP4A
14RP4A
14SP4
14WP4
14XP4A
16AP4A
16EP4A
16GP4B
16JP4A
16KP4/ 16RP4
16KP4A/ 16RP4A
16LP4A/ 16ZP4
16RP4
16RP4A
16TP4
16WP4A
16ZP4
17ATP4/ 17AVP4
17ATP4A/ 17AVP4A
17AVP4
17AVP4A
17BJP4
17BP4A/ 17JP4
17BP4B
17BRP4
17BVP4
17BWP4
17BZP4/ 17CAP4/ 17CKP4
17CAP4
17CFP4
17CKP4
17CLP4
17CNP4
17CP4
17CRP4
17CSP4
17CTP4
17DAP4
17DKP4
17DLP4
17DQP4
17DRP4
17DSP4
17DTP4
17DXP4
17FP4/ 17FP4A
17GP4
17HP4/ 17RP4
17HP4B/ 17RP4C
17JP4
17LP4/ 17VP4
17LP4A/ 17VP4B
17QP4/ 17UP4/ 17YP4
17QP4A
17RP4
17RP4C
17TP4
17UP4
17VP4
17VP4B
17YP4
19AFP4/ 19AUP4
19AP4B
19AUP4
19XP4
19YP4
20CP4/ 20DP4
20CP4A/ 20DP4A
20CP4B/ 20DP4B
20CP4D/ 20DP4C
20DP4
20DP4A
20DP4B
20DP4C
20HP4
20HP4A/ 20LP4/ 20MP4
20HP4C
20HP4D
20LP4
20MP4
21ACP4/ 21AMP4
21ACP4A/ 21AMP4A/ 21BSP4
21ALP4
21ALP4A/B
21AMP4A
21AP4
21ATP4/A
21ATP4B
21AUP4/ 21AVP4
21AUP4A/ 21AUP4B/ 21AVP4A/ 21AVP4B
21AUP4B
21AVP4
21AVP4A
21AVP4B
21AWP4
21AYP4
21BSP4
21BTP4
21CBP4/ 21CBP4A
21CBP4A
21CEP4/ 21CEP4A
21CEP4A
21CMP4
21CQP4
21CUP4
21CVP4
21CWP4
21CXP4
21DAP4/ 21DEP4/ 21DEP4A
21DEP4
21DEP4A
21DHP4
21DLP4
21DQP4
21DSP4
21EAP4
21EP4
21EP4A
21EP4B
21EQP4
21ESP4
21EVP4
21FP4
21FP4A
21FP4C
21MP4
21WP4
21WP4A
21XP4/ 21AYP4
21XP4A
21YP4
21YP4A
21ZP4
21ZP4A
21ZP4B
23ANP4
23ANP4/ 23ATP4
23ATP4
23AVP4
23CP4
23CP4/ 23AVP4
23JP4
23MP4
23TP4
23UP4
23YP4
23ZP4
24ADP4
24AEP4
24AHP4
24AJP4
24ALP4
24ANP4
24AUP4
24AVP4
24CP4A/ 24TP4/ 24VP4A/ 24ADP4
24DP4A/ 24YP4
24TP4
24VP4A
24YP4
27EP4
27LP4
27RP4

MINIATURE LAMPS

PR2
PR3
4
PR4
PR5
PR6
SM6IF
PR7
PR8
PR9
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12
12G
12R
PR12
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PR13
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TUNG-SOL®

For further information contact:
TUNG-SOL ELECTRIC Inc., Newark N.J.

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RAYONIC® TUBE TYPES		PHYSICAL DATA			TYPICAL OPERATING DATA				PRICE*
					ANODE #3	ANODE #2	DEFL. Factor V/IN.		P1
TUBE*	JAN	FACE	LEN.	BASE†	VOLTS	VOLTS	H	V	PHOSPHOR
2BP1	2BP1	2" Round	7⅝"	12 Pin SD		1000	135	87	$17.60
2FP1**		2" Round flat	7⅝"	8 Pin N		1000	60	34	24.00
3ACP1A		3" Round flat	10"	12 Pin MD	4000	2000	190	148	26.40
3AHP1		1½" x 3"	9⅛"	12 Pin SD		1000	86	30	22.40
3AQP1		3" Round	9⅛"	12 Pin SD		1000	86	30	15.92
3ASP1		1½" x 3" flat	8 15/16"	8 Pin N		2000	80	33	29.12
3ATP1		1½" x 3" flat	8 15/16"	8 Pin N		2000	80	33	52.80
3JP1	3JP1,2,7	3" Round	10"	12 Pin MD	3000	1500	150	111	20.80
3KP1		3" Round	11½"	11 Pin MM		1500	89	67	19.04
3MP1		3" Round	8"	12 Pin SD		1000	130	125	21.60
3RP1	3RP1	3" Round	9⅛"	12 Pin SD		1000	86	61	13.95
3RP1A	3RP1A	3" Round flat	9⅛"	12 Pin SD		1000	86	61	19.60
3SP1	3SP1	1½" x 3"	9⅛"	12 Pin SD		1000	86	61	22.00
3WP1		3" Round flat	11½"	12 Pin SD		1500	69	47	24.70
3XP1	3XP1	1½" x 3"	8⅞"	Loctal		2000	80	33	26.40
3YP1		1½" x 3"	7"	Loctal		1000	80	52	25.60
4MP1		3½" x 3½" flat	13¾"	10 Pin SD	4000	2000	75	47	65.36

New replacement tubes for any make Scope available at Waterman Distributors

5ABP1/5ADP1	5ADP1	5" Round flat	16¾"	12 Pin MD	3000	1500	46	33	27.65
5AMP1		5" Round flat	17⅝"	12 Pin MD		2500	45	22.5	47.12
5AMP1A***		5" Round flat	17⅝"	12 Pin MD		2500	45	22.5	51.60
5BGP1		5" Round flat	17½"	12 Pin MD	10,000	1670	31.6	78	68.00
5BHP1		5" Round flat	18¼"	12 Pin MD	10,000	1670	16.7	77.5	70.40
5BTP1		5" Round flat	12"	12 Pin SD	1600	800	51	27	26.80
5DEP1		5" Round	14¾"	12 Pin SD		1500	42	24	13.65
5UP1		5" Round	14¾"	12 Pin SD		1500	50	41	13.65

NOTE: Most tubes also available with integral magnetic shield.
*P2, P7 and P11 phosphors also available at slight additional cost.
**Includes integral magnetic shield. ***Aluminized.
†SD—Small Duodecal; MD—Medium Diheptal; MM—Medium Magnal; N—Neo-eightar
Prices and specifications subject to change without notice.

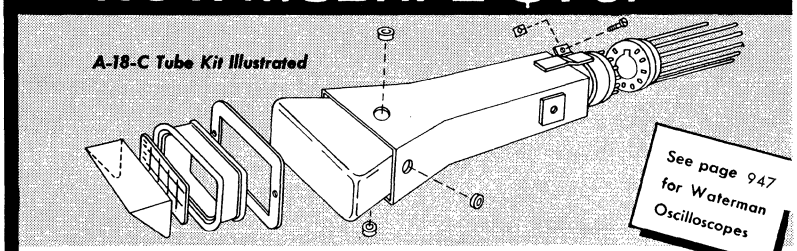
CATHODE RAY TUBE SHIELDING & MOUNTING KITS

Ideal for prototypes and small production runs

Stock Number	Applicable to	Price
A-18-C	3SP or 3AHP	$23.90
A-18-J	3RP or 3AQP	23.90
A-18-K	Two 3SP or 3AHP	23.90
A-18-L	3XP	26.90
A-18-M	3MP	23.90
A-18-R	3JP	39.90
A-18-T	Two 3XP	26.90
A-18-V	3YP	23.90
A-18-W**	5BTP	19.90

**Less Escutcheon

NOW...5BHP2 $70.40



See page 947 for Waterman Oscilloscopes

Engineering data sheets available with complete descriptions

WATERMAN PRODUCTS CO., INC.

Philadelphia, Pa.
Cable Address: Poketscope, Phila., Pa.

WATERMAN PRODUCTS

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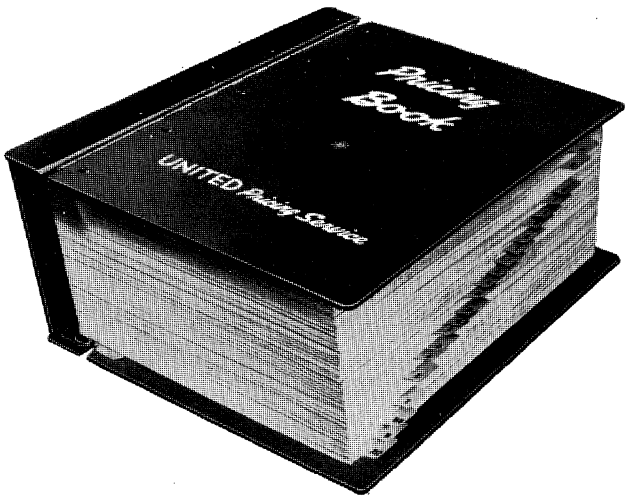

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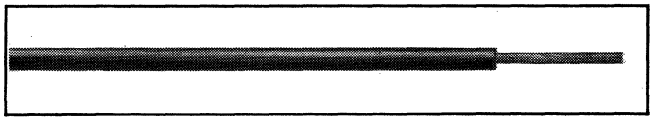


MIL-W-76B-PLASTIC WIRE

TYPE MW—UNCOVERED PLASTIC

DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

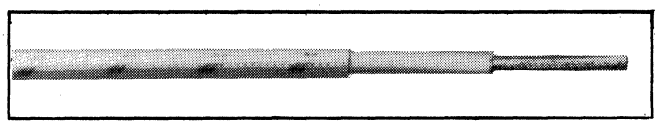
STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.016"	.059"	1-30 AS LISTED BELOW
1551	MW-C 22(7)U	22	7/30	.016"	.064"	
1553	MW-C 20(10)U	20	10/30	.016"	.073"	
1555	MW-C 18(16)U	18	16/30	.016"	.084"	
1557	MW-C 16(26)U	16	26/30	.016"	.095"	
1559	MW-C 14(41)U	14	41/30	.016"	.110"	
1560	MW-C 12(65)U	12	65/30	.016"	.125"	

SOLID

1561/24	MW-C 24(1)U	24	1	.016"	.055"	1-30 AS LISTED BELOW
1561	MW-C 22(1)U	22	1	.016"	.060"	
1563	MW-C 20(1)U	20	1	.016"	.066"	
1565	MW-C 18(1)U	18	1	.016"	.074"	
1567	MW-C 16(1)U	16	1	.016"	.083"	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID

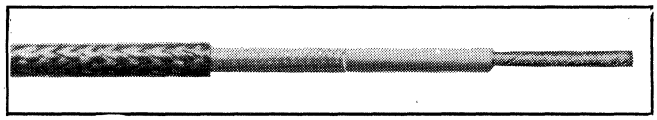
DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1590/24	MW-C 24(7)B	24	7/32	.016"	.070"	1-19 as listed below
1590	MW-C 22(7)B	22	7/30	.016"	.080"	1-19 as listed below
1591	MW-C 20(10)B	20	10/30	.016"	.090"	1-19 as listed below
1592	MW-C 18(16)B	18	16/30	.016"	.100"	1-19 as listed below
1593	MW-C 16(26)B	16	26/30	.016"	.115"	1-19 as listed below
1594	MW-C 14(41)B	14	41/30	.016"	.125"	1 & 11-19 as listed below
1595	MW-C 12(65)B	12	65/30	.016"	.140"	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID—SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, white flame retardant lacquered glass braided with tinned copper shield overall, 80% coverage. The stranded conductor has an extra tight lay to prevent springing open when stripped.

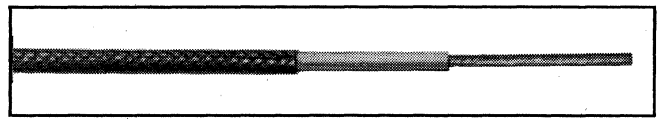
CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.016"	.090"	White
1194/22†	MW-C 22(7)BS	22	7/30	.016"	.095"	White
1194†	MW-C 20(10)BS	20	10/30	.016"	.108"	White
1196†	MW-C 18(16)BS	18	16/30	.016"	.124"	White
1197†	MW-C 16(26)BS	16	26/30	.016"	.133"	White
1198†	MW-C 14(41)BS	14	41/30	.016"	.144"	White
1199†	MW-C 12(65)BS	12	65/30	.016"	.168"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.

†1194/22 to 1199 formerly 1361 to 1365



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED

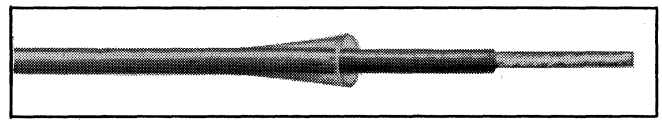
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.016"	.075"	White, Black, Red
1351	MW-C 22(7)S	22	7/30	.016"	.085"	White, Black, Red
1352	MW-C 20(10)S	20	10/30	.016"	.095"	White, Black, Red
1353	MW-C 18(16)S	18	16/30	.016"	.105"	White, Black, Red
1354	MW-C 16(26)S	16	26/30	.016"	.115"	White
1355	MW-C 14(41)S	14	41/30	.016"	.130"	White
1356	MW-C 12(65)S	12	65/30	.016"	.145"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—NYLON JACKET

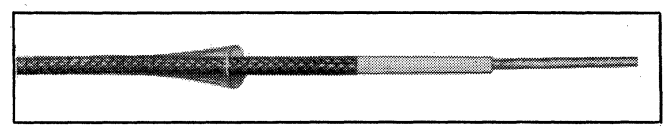
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOM. O.D.	* STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.016"	.002"	.065"	1-19 as listed below
1504	MW-C 22(7)J	22	7/30	.016"	.003"	.072"	1-19 as listed below
1505	MW-C 20(10)J	20	10/30	.016"	.003"	.079"	1-19 as listed below
1506	MW-C 18(16)J	18	16/30	.016"	.003"	.090"	1-19 as listed below
1507	MW-C 16(26)J	16	26/30	.016"	.004"	.103"	1-19 as listed below
1508	MW-C 14(41)J	14	41/30	.016"	.004"	.118"	1-6 as listed below
1509	MW-C 12(65)J	12	65/30	.016"	.005"	.135"	1-3 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: Stranded tinned copper, white **medium** wall polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.016"	.005"	.091"
1371	MW-C 22(7)SJ	22	7/30	.016"	.005"	.100"
1372	MW-C 20(7)SJ	20	7/28	.016"	.005"	.105"
1373	MW-C 18(19)SJ	18	19/30	.016"	.005"	.115"
1374	MW-C 16(19)SJ	16	19/29	.016"	.005"	.125"
1375	MW-C 14(19)SJ	14	19/27	.016"	.005"	.138"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*** STOCK COLORS**

1—White	7—Brown	13—White/Green	19—White/Violet
2—Black	8—Orange	14—White/Yellow	20—White/Black/Red
3—Red	9—Gray (slate)	15—White/Blue	21—White/Black/Green
4—Green	10—Violet (purple)	16—White/Brown	22—White/Black/Yellow
5—Yellow	11—White/Black	17—White/Orange	23—White/Black/Blue
6—Light Blue	12—White/Red	18—White/Gray	24—White/Black/Brown
			25—White/Black/Orange
			26—White/Black/Gray
			27—White/Black/Violet
			28—Tan
			29—Pink
			30—Dark Blue

*Other striped color combinations available to order.

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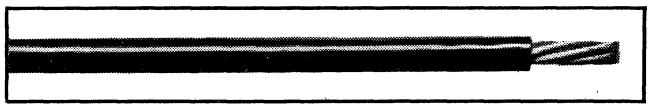


MIL-W-76B-PLASTIC WIRE

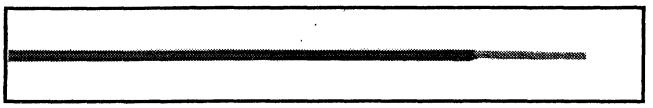
TYPE HW – UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **heavy wall** polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating –40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLT. RAT.	NOM. O.D.	* STOCK COLORS
1571	HW-C 22(7)U	22	7/30	.032″	2500	.103″	1-10 as listed below
1573	HW-C 20(10)U	20	10/30	.032″	2500	.108″	1-10 as listed below
1575	HW-C 18(16)U	18	16/30	.032″	2500	.120″	1-10 as listed below
1577	HW-C 16(26)U	16	26/30	.032″	2500	.134″	White, Black, Red
1579	HW-C 14(41)U	14	41/30	.045″	600	.170″	White, Black, Red
1651	HW-C 12(65)U	12	65/30	.045″	600	.190″	White, Black, Red
1653	HW-C 10(105)U	10	105/30	.045″	600	.215″	White, Black, Red
1655	HW-C 8(133)U	8	133/29	.045″	600	.265″	White, Black, Red
1657	HW-C 6(133)U	6	133/27	.045″	600	.310″	White, Black, Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE LW – UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **light wall** polyvinylcholride insulation.

CHARACTERISTICS: Temperature rating –40°C. to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1685	LW-C 30(7)U	30	7/38	.010″	.033″
1686	LW-C 28(7)U	28	7/36	.010″	.035″
1687	LW-C 26(7)U	26	7/34	.010″	.038″
1688	LW-C 24(7)U	24	7/32	.010″	.043″
1689	LW-C 22(7)U	22	7/30	.010″	.049″
1690	LW-C 20(7)U	20	7/28	.010″	.060″

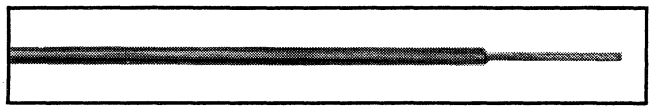
*** STOCK COLORS**

1—White	11—White/Black
2—Black	12—White/Red
3—Red	13—White/Green
4—Green	14—White/Yellow
5—Yellow	15—White/Blue
6—Light Blue	16—White/Brown
7—Brown	17—White/Orange
8—Orange	18—White/Gray
9—Gray (slate)	19—White/Violet
10—Violet (purple)	

*Other striped combinations available to order.

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

MIL-W-16878C-PLASTIC WIRE



TYPE B – UNCOVERED PLASTIC
REGULAR TINNED COPPER

DESCRIPTION: Stranded tinned copper, color coded .010″ polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating –55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1850	B-32	32	7/40	.010″	.028″
1851	B-30	30	7/38	.010″	.032″
1852	B-28	28	7/36	.010″	.035″
1853	B-26	26	7/34	.010″	.038″
1854	B-24	24	7/32	.010″	.043″
1855	B-22	22	7/30	.010″	.049″
1856	B-20	20	7/28	.010″	.060″
1857	B-18	18	7/26	.010″	.068″
1858	B-16	16	19/29	.010″	.081″

*** STOCK COLORS**

1—White	10—Violet (purple)
2—Black	11—White/Black
3—Red	12—White/Red
4—Green	13—White/Green
5—Yellow	14—White/Yellow
6—Light Blue	15—White/Blue
7—Brown	16—White/Brown
8—Orange	17—White/Orange
9—Gray (slate)	18—White/Gray
	19—White/Violet

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

HEAVY TINNED CONDUCTOR (For Induction Heat Soldering)

DESCRIPTION: Single conductor stranded heavy tinned copper, color coded, .010″ polyvinylchloride insulation. For use with high frequency generators for induction heat soldering with automatic cutting and stripping equipment.

CHARACTERISTICS: Temperature rating –55°C. to 105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	MIN. TINNED COATING	NOM. WALL THICKNESS	NOM. O.D.
1753	B-26	26	7/34	.00010″	.010″	.038″
1754	B-24	24	7/32	.00010″	.010″	.043″
1755	B-22	22	7/30	.00015″	.010″	.049″
1756	B-20	20	7/28	.00015″	.010″	.060″
1757	B-18	18	19/30	.00015″	.010″	.068″

*** STOCK COLORS**

1—White	11—White/Black
2—Black	12—White/Red
3—Red	13—White/Green
4—Green	14—White/Yellow
5—Yellow	15—White/Blue
6—Light Blue	16—White/Brown
7—Brown	17—White/Orange
8—Orange	18—White/Gray
9—Gray (slate)	19—White/Violet
10—Violet (purple)	

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE B – NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .010″ polyvinchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating –55°C to +115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

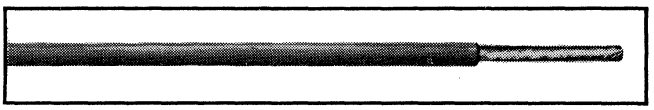
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.
1860	B-32	32	7/40	.010″	.002″	.032″
1861	B-30	30	7/38	.010″	.002″	.036″
1862	B-28	28	7/36	.010″	.002″	.039″
1863	B-26	26	7/34	.010″	.002″	.042″
1864	B-24	24	7/32	.010″	.002″	.047″
1865	B-22	22	7/30	.010″	.002″	.053″
1866	B-20	20	7/28	.010″	.002″	.065″
1867	B-18	18	7/26	.010″	.003″	.075″
1868	B-16	16	19/29	.010″	.003″	.087″

*** STOCK COLORS**

1—White	10—Violet (purple)
2—Black	11—White Black
3—Red	12—White/Red
4—Green	13—White/Green
5—Yellow	14—White/Yellow
6—Light Blue	15—White/Blue
7—Brown	16—White Brown
8—Orange	17—White Orange
9—Gray (slate)	18—White Gray
	19—White Violet

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



TYPE C – UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinychloride insulation.

CHARACTERISTICS: Temperature rating –55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1810	C-24	24	16/36	.016″	.058″	1-19 as listed below
1830	C-24	24	7/32	.016″	.058″	1-19 as listed below
1831	C-22	22	7/30	.016″	.064″	1-19 as listed below
1832	C-20	20	7/28	.016″	.072″	1-19 as listed below
1833	C-18	18	7/26	.016″	.082″	1-19 as listed below
1834	C-16	16	19/29	.016″	.091″	1 & 11-19 as listed below
1835	C-14	14	19/27	.016″	.105″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C – NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating –55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016″	.002″	.065″	1-19 as listed below
1841	C-22	22	7/30	.016″	.003″	.072″	1-19 as listed below
1842	C-20	20	7/28	.016″	.003″	.079″	1-19 as listed below
1843	C-18	18	7/26	.016″	.003″	.090″	1-19 as listed below
1844	C-16	16	19/29	.016″	.004″	.099″	1 & 11-19 as listed below
1845	C-14	14	19/27	.016″	.004″	.114″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C – SHIELDED – NYLON JACKET

DESCRIPTION: Stranded tinned copper, **white** .016″ polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket (which can be striped to order for color identification) overall.

CHARACTERISTICS: Temperature rating –55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

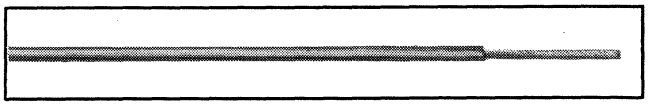
ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
1470	24	7/32	.016″	.005″	.091″
1471	22	7/30	.016″	.005″	.098″
1472	20	7/28	.016″	.005″	.105″
1473	18	19/30	.016″	.005″	.115″
1474	16	19/29	.016″	.005″	.125″
1475	14	19/27	.016″	.005″	.138″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

*** STOCK COLORS**

1—White	5—Yellow	9—Gray (slate)	12—White/Red	16—White/Brown
2—Black	6—Light Blue	10—Violet (purple)	13—White/Green	17—White/Orange
3—Red	7—Brown	11—White/Black	14—White/Yellow	18—White/Gray
4—Green	8—Orange		15—White/Blue	19—White/Violet

*Other solid and striped combinations available to order.



MIL-W-16878C-TEFLON† WIRE 260°C

TYPE E—EXTRUDED (600 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .010" TFE Teflon insulation.

CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.029"	1-19 as listed
2851	E-30	30	7/38	.032"	1-19 as listed
2852	E-28	28	7/36	.036"	1-19 as listed
2853	E-26	26	7/34	.040"	1-19 as listed
2854	E-24	24	19/36	.045"	1-19 as listed
2855	E-22	22	19/34	.051"	1-19 as listed
2856	E-20	20	19/32	.059"	1-19 as listed
2857	E-18	18	19/30	.070"	1-19 as listed
2858	E-16	16	19/29	.083"	1-19 as listed
2859	E-14	14	19/27	.097"	1-6 & 11-19 as listed
2859/12	E-12	12	19/25	.113"	1 & 11-19 as listed
2859/10	E-10	10	37/26	.134"	1 & 11-19 as listed

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

*** STOCK COLORS**

1—White	5—Yellow	9—Gray (slate)	12—White/Red	16—White/Brown
2—Black	6—Light Blue	10—Violet (purple)	13—White/Green	17—White/Orange
3—Red	7—Brown	11—White/Black	14—White/Yellow	18—White/Gray
4—Green	8—Orange		15—White/Blue	19—White/Violet

* Other solid colors and striped combinations available to order.

TYPE E—SPIRAL WRAPPED (600 VOLTS)

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	* STOCK COLORS
2881	E-30	30	7/38	.032"	1—White 2—Black 3—Red 4—Green 5—Yellow 6—Light Blue 7—Brown 8—Orange 9—Gray (slate) 10—Violet (purple) *Other solid colors and striped combinations available to order.
2882	E-28	28	7/36	.036"	
2883	E-26	26	7/34	.040"	
2884	E-24	24	19/36	.045"	
2885	E-22	22	19/34	.051"	
2886	E-20	20	19/32	.059"	
2887	E-18	18	19/30	.070"	
2888	E-16	16	19/29	.083"	
2889	E-14	14	19/27	.097"	

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

TYPE EE—EXTRUDED (1000 VOLTS)

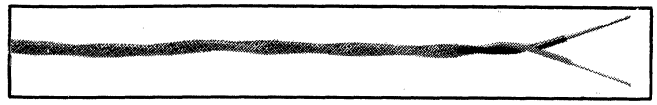
DESCRIPTION: Single conductor stranded silver plated copper, .016" TFE extruded Teflon insulation.

CHARACTERISTICS: Temperature rating —60°C. to +260°C. Voltage rating 1000 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2874	EE-24	24	19/36	.055"	1—White 11—White/Black 12—White/Red 13—White/Green 14—White/Yellow 15—White/Blue 16—White/Brown 17—White/Orange 18—White/Gray 19—White/Violet
2875	EE-22	22	19/34	.062"	
2876	EE-20	20	19/32	.070"	
2877	EE-18	18	19/30	.080"	
2878	EE-16	16	19/29	.089"	
2879	EE-14	14	19/27	.106"	
2879/12	EE-12	12	19/25	.124"	
2879/10	EE-10	10	37/26	.145"	
2879/8	EE-8	8	133/29	.210"	

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

* Other solid colors and striped combinations available to order.



MIL-W-16878C SHIELDED TEFLON† CABLES

DESCRIPTION: Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage. When covered, either a Teflon impregnated fiberglass braid or a .010" Teflon fused tape jacket overall.

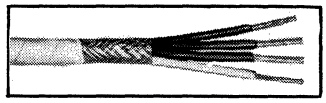
CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

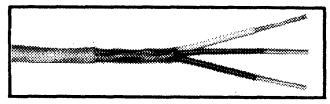
NO OUTER COVERING OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2809	1	24	19/36	.069"
2809/2	2	24	19/36	.112"
2809/3	3	24	19/36	.120"
2809/4	4	24	19/36	.132"
2812	1	22	19/34	.075"
2812/2	2	22	19/34	.124"
2812/3	3	22	19/34	.132"
2812/4	4	22	19/34	.146"
2815	1	20	19/32	.083"
2815/2	2	20	19/32	.142"
2815/3	3	20	19/32	.151"
2815/4	4	20	19/32	.168"
2818	1	18	19/30	.093"
2818/2	2	18	19/30	.162"
2818/3	3	18	19/30	.172"
2818/4	4	18	19/30	.192"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White 3—Red
2—Black 4—Green





TEFLON TAPE WRAP JACKET OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2821	1	24	19/36	.084"
2821/2	2	24	19/36	.128"
2821/3	3	24	19/36	.135"
2821/4	4	24	19/36	.148"
2824	1	22	19/34	.090"
2824/2	2	22	19/34	.140"
2824/3	3	22	19/34	.148"
2824/4	4	22	19/34	.162"
2827	1	20	19/32	.099"
2827/2	2	20	19/32	.158"
2827/3	3	20	19/32	.167"
2827/4	4	20	19/32	.184"
2829	1	18	19/30	.109"
2829/2	2	18	19/30	.178"
2829/3	3	18	19/30	.189"
2829/4	4	18	19/30	.208"

TEFLON IMPREGNATED BRAID OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2811	1	24	19/36	.081"
2811/2	2	24	19/36	.126"
2811/3	3	24	19/36	.133"
2811/4	4	24	19/36	.144"
2814	1	22	19/34	.088"
2814/2	2	22	19/34	.137"
2814/3	3	22	19/34	.144"
2814/4	4	22	19/34	.158"
2817	1	20	19/32	.097"
2817/2	2	20	19/32	.154"
2817/3	3	20	19/32	.163"
2817/4	4	20	19/32	.180"
2819	1	18	19/30	.106"
2819/2	2	18	19/30	.174"
2819/3	3	18	19/30	.185"
2819/4	4	18	19/30	.205"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White 3—Red
2—Black 4—Green

TEFLON† INSULATED MAGNET WIRE

SPECIFICATION MIL-W-19583—TYPE III

APPLICATIONS: For coil winding where high temperature insulation is required.

CHARACTERISTICS: Temperature Rating —90°C. to +260°C.

DESCRIPTION: Single conductor round bare copper covered with a continuous insulating film of single layer TFE Teflon to Mil-W-19583-Type III.

ALPHA NO.	CONDUCTOR SIZE	NOM. O.D.	PUT-UP (LB.)
ST-44	44	.0022"	⅛ Lb., ¼ Lb.
ST-43	43	.0025"	⅛ Lb., ¼ Lb.
ST-42	42	.0028"	⅛ Lb., ¼ Lb.
ST-41	41	.0031"	⅛ Lb., ¼ Lb.
ST-40	40	.0035"	⅛ Lb., ¼ Lb.
ST-39	39	.0039"	⅛ Lb., ¼ Lb.
ST-38	38	.0045"	⅛ Lb., ¼ Lb., ½ Lb.
ST-37	37	.0050"	⅛ Lb., ¼ Lb., ½ Lb.
ST-36	36	.0056"	⅛ Lb., ¼ Lb., ½ Lb.
ST-35	35	.0062"	⅛ Lb., ¼ Lb., ½ Lb.
ST-34	34	.0070"	⅛ Lb., ¼ Lb., ½ Lb.
ST-33	33	.0078"	⅛ Lb., ¼ Lb., ½ Lb.
ST-32	32	.0088"	⅛ Lb., ¼ Lb., ½ Lb.
ST-31	31	.0098"	⅛ Lb., ¼ Lb., ½ Lb.
ST-30	30	.0190"	⅛ Lb., ¼ Lb., ½ Lb.

†T.M. DuPont

See Last ALPHA Page For Complete Price List
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SHIELDED MICROPHONE CABLE

PLASTIC JACKET—STANDARD DUTY

DESCRIPTION

1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

1709-1715: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS

1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, Hi-Fi interconnecting cables.

1709-1715: All low impedance microphones — carbon, condenser, dynamic.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	* CAPACITY NOM./FT.	TYPE OF SHIELD	NOMINAL JACKET	NOM. O.D.
1702	1	26	3/34† 4/34†	.016"	38 mmf.	Spiral Wrapped	.020"	.110"
1703	1	24	10/34	.020"	35 mmf.	Braided	.030"	.145"
1704	1	24	10/34	.040"	23 mmf.	Braided	.030"	.200"
1705	1	24	10/34	.016"	45 mmf.	Spiral Wrapped	.020"	.110"
1706	1	20	26/34	.030"	36 mmf.	Braided	.030"	.175"
1709	2	24	10/34	.016"	38 mmf.	Spiral Wrapped	.030"	.190"
1710	2	22	16/34	.025"	31 mmf.	Braided	.030"	.235"
1712	2	20	26/34	.014"	45 mmf.	Braided	.030"	.245"
1713	3	20	26/34	.014"	45 mmf.	Braided	.035"	.250"
1715	4	20	26/34	.014"	45 mmf.	Braided	.035"	.255"

* Between one conductor and remaining conductors connected to shield.
† Three strands of tinned copper and four strands of tinned copperweld.

1702-1706	1709-1715
COLOR CODE OF CONDUCTOR	COLOR CODE OF CONDUCTORS
1—White	1—White 2—Black 3—Red 4—Green

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED MICROPHONE CABLE

RUBBER JACKET—STANDARD DUTY

DESCRIPTION:

1248-1249/18: Single conductor, stranded tinned copper, black rubber insulation, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

1250-1252/18: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS:

1248-1249/18: All high impedance microphones. Broadcast and heavy duty studio use.

1250-1252/18: All low impedance microphones. Broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnecting cables, and as electronic power cables. Particularly suited for indoor use.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	* CAPACITY NOM./FT.	NOMINAL JACKET	NOM. O.D.
1248†	1	20	26/34	.025"	40 mmf.	.030"	.175"
1249	1	20	26/34	.040"	30 mmf.	.030"	.245"
1249/18	1	18	41/34	.040"	45 mmf.	.030"	.250"
1250	2	20	26/34	.020"	70 mmf.	.035"	.275"
1250/18	2	18	41/34	.020"	75 mmf.	.035"	.305"
1251	3	20	26/34	.020"	80 mmf.	.035"	.285"
1251/18	3	18	41/34	.020"	85 mmf.	.035"	.325"
1252	4	20	26/34	.020"	90 mmf.	.035"	.305"
1252/18	4	18	41/34	.020"	64 mmf.	.035"	.335"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
* Between one conductor and remaining conductors connected to shield.
† Mylar Wrap Under tinned copper shield.

1250-1252/18
COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Red 4—Green

SHIELDED MICROPHONE CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

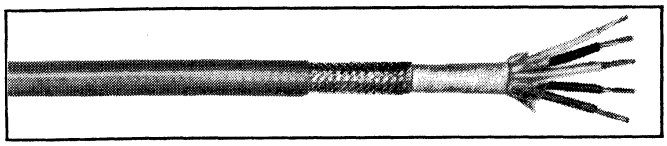
APPLICATIONS: Shielded microphone and electronic power cable. Control circuits. Video and Audio inter-connecting cable. Broadcast and heavy studio use.

CHARACTERISTICS: Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
1449	1	18	41/34	.040"	.030"	.250"
1450	2	18	41/34	.020"	.035"	.305"
1451	3	18	41/34	.020"	.035"	.325"
1452	4	18	41/34	.020"	.035"	.335"
1450/16	2	16	65/34	.025"	.035"	.345"
1451/16	3	16	65/34	.025"	.035"	.365"
1452/16	4	16	65/34	.025"	.035"	.390"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red
2—White 4—Green



SHIELDED MULTI-CONDUCTOR CABLE

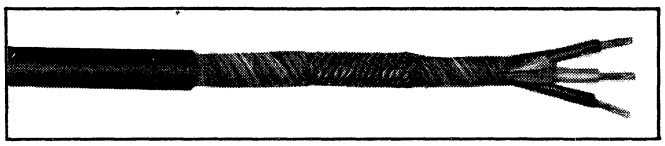
PLASTIC JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, wrap, braided tinned copper shield, gray polyvinylchloride jacket overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1716	5	20	26/34	.014"	.035"	.275"
1717	6	20	26/34	.014"	.035"	.300"
1719	8	20	26/34	.014"	.035"	.330"
1721	10	20	26/34	.014"	.035"	.375"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple
2—White 4—Green 6—Blue 8—Orange 10—Slate



SHIELDED MULTI-CONDUCTOR CABLE

RUBBER JACKET—HEAVY DUTY

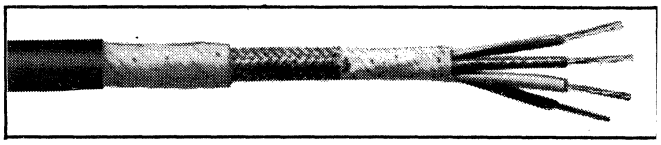
DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Shielded electronic power cable. Control circuits. Video and audio interconnecting cable. Broadcast and heavy duty studio use.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1253	5	20	26/34	.020"	.035"	.340"
1254	6	20	26/34	.020"	.035"	.365"
1254/18	6	18	41/34	.020"	.035"	.430"
1255	7	20	26/34	.020"	.035"	.405"
1255/8	8	20	26/34	.020"	.035"	.415"
1255/10	10	20	26/34	.020"	.035"	.440"
1255/12	12	20	26/34	.020"	.065"	.575"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)



SHIELDED MULTI-CONDUCTOR CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

CHARACTERISTICS: Resistant to oil and acid. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

APPLICATIONS: Specifically designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1454	6	18	41/34	.020"	.035"	.430"
1456	8	18	41/34	.020"	.035"	.465"
1458	10	18	41/34	.020"	.035"	.545"
1459	12	18	41/34	.020"	.065"	.625"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)

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See Last ALPHA Page For Complete Price List

SHIELDED PLASTIC JACKETED CABLE

BRAIDED COPPER SHIELD

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

CHARACTERISTICS: A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength.

APPLICATIONS: For public address and sound systems, ideal for recording studios, amateur radio transmitters, shielded power or electronic circuits, wherever an economical shielded cable is required.

STRANDED

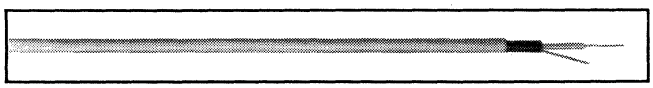
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1736	2	22	7/30	.016"	.020"	.185"
1737	3	22	7/30	.016"	.020"	.200"
1741	2	20	10/30	.016"	.020"	.200"
1742	3	20	10/30	.016"	.020"	.220"
1746	2	18	16/30	.016"	.020"	.240"
1747	3	18	16/30	.016"	.020"	.245"
1748	2	16	26/30	.016"	.020"	.255"
1750	2	14	41/30	.020"	.020"	.295"

SOLID

1775*	2	22	1	.016"	.020"	.175"
1779	2	20	1	.016"	.020"	.210"
1783	2	18	1	.016"	.020"	.220"

*With 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT. COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White



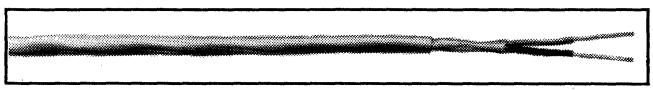
CONDUCTIVE VINYL AS SHIELD

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, #22-7/30 tinned copper drain wire under conductive vinyl and cabled with conductors, .010" extruded conductive vinyl shield, .020" polyvinylchloride jacket overall.

CHARACTERISTICS: Conductive vinyl shields provide 100% coverage with reduced noise pick-up. This type shield eliminates broken ends of copper when flexed. Cables of conductive vinyl shield are lighter in weight and have greater flexibility.

ALPHA NO.	NO. OF CONDUCTORS	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL INSUL. THICKNESS	NOMINAL CONDUCTIVE VINYL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
2280	1	20	10/30	.016"	.010"	.020"	.160"
2282	2	20	10/30	.016"	.010"	.020"	.200"
2284	3	20	10/30	.016"	.010"	.020"	.210"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. COLOR CODE OF CONDUCTORS 1. Black 2. Red 3. White



SPIRAL WRAPPED COPPER SHIELD

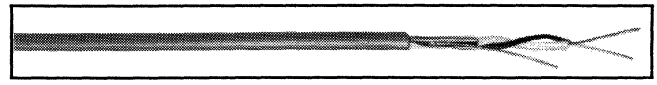
DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall.

CHARACTERISTICS: Use of spiral shield makes pigtailing off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
2254	2	22	7/30	.016"	.020"	.195"
2254/3	3	22	7/30	.016"	.020"	.190"
2254/4	4	22	7/30	.016"	.020"	.210"
2255	2	22	1	.016"	.020"	.170"
2256/1†	1	20	10/30	.016"	.020"	.130"
2256	2	20	10/30	.016"	.020"	.195"
2256/3†	3	20	10/30	.016"	.020"	.210"
2256/4†	4	20	10/30	.016"	.020"	.225"
2258	2	18	16/30	.016"	.020"	.230"
2258/3	3	18	16/30	.016"	.020"	.235"
2260	2	16	26/30	.016"	.020"	.250"

†2256/1 formerly 2156
†2256/3 formerly 3256
†2256/4 formerly 4256

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.
COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green



SHIELDED PLASTIC JACKETED CABLE

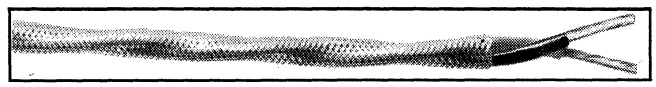
MYLAR SUPPORTED ALUMINUM FOIL SHIELD

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, conductors twisted with a stranded #22-7/30 tinned copper drain wire for maximum contact with aluminum foil shield, mylar tape with aluminum on both sides is applied longitudinally for 100% shielding coverage, gray polyvinylchloride jacket overall.

CHARACTERISTICS: Shielded cable with laminated aluminum foil is lighter in weight and provides 100% shield coverage at audio and radio frequencies.

ALPHA NO.	NO. OF CONDUCTORS	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
2272	2	22	7/30	.016"	.020"	.190"
2276	2	20	10/30	.016"	.020"	.200"
2278	2	18	16/30	.016"	.020"	.220"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. COLOR CODE OF CONDUCTORS 1. Black 2. Red



SHIELDED AUDIO CABLE

2 CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

STRANDED CONDUCTORS

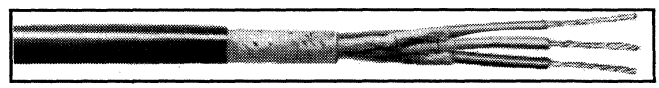
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1261/26	2	26	7/34	.010"	.095"
1261	2	24	16/36	.016"	.125"
1256/22V	2	22	7/30	.016"	.140"
1256V	2	20	10/30	.016"	.155"
1259V*	2	18	16/30	.016"	.170"
1260V	2	16	26/30	.020"	.210"
1260/14	2	14	41/30	.020"	.225"
1260/12	2	12	65/30	.025"	.295"

SOLID CONDUCTORS

1267/22V	2	22 Solid	1	.016"	.135"
1267V	2	20 Solid	1	.016"	.145"
1267/18V	2	18 Solid	1	.016"	.170"

* 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT. COLOR CODE OF CONDUCTORS 1—Black' 2—Red



UNSHIELDED RUBBER CABLE

MULTI-CONDUCTOR

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors twisted, cushioned with fillers, cotton wrap, tough black rubber jacket overall. It is extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Inter-rack connecting cable. Recording studio and broadcast. Remote control circuits. Rough usage electronic power cable. P.A. systems. Multiple speaker cable.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1244	2	20	26/34	.020"	.035"	.280"
1245	3	20	26/34	.020"	.035"	.285"
1246	4	20	26/34	.020"	.035"	.300"
1247	5	20	26/34	.020"	.035"	.340"
1247/6	6	20	26/34	.020"	.035"	.360"
1247/7	7	20	26/34	.020"	.035"	.380"
1247/8	8	20	26/34	.020"	.035"	.400"
1247/10	10	20	26/34	.020"	.035"	.440"
1247/12	12	20	26/34	.020"	.035"	.540"

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	4—Green	7—Brown	10—Slate
2—White	5—Yellow	8—Orange	11—Wh./Black (Braid)
3—Red	6—Blue	9—Purple	12—Wh./Red (Braid)

See Last ALPHA Page For Complete Price List
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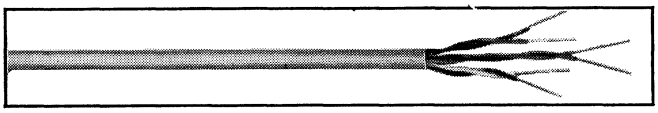


PLASTIC INTERCOM CABLE

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted into pairs, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Balanced intercom systems. Annunciators. Telephones. Nurses call systems. Control circuit cable. Electronic computer cable. Multiple speaker cable. Signal systems. Alarm systems.

SOLID CONDUCTORS

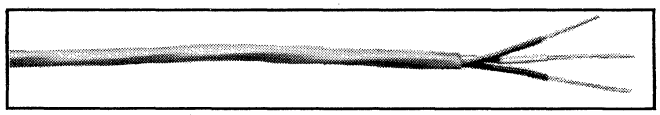
ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
1300	1	2	22 Solid	1	.010″	.020″	.130″
1302	2	4	22 Solid	1	.010″	.020″	.195″
1304	3	6	22 Solid	1	.010″	.020″	.220″
1307	6	12	22 Solid	1	.010″	.020″	.275″
1307/7	7	14	22 Solid	1	.010″	.020″	.285″
1307/9	9	18	22 Solid	1	.010″	.020″	.310″
1308/11	11	22	22 Solid	1	.010″	.020″	.340″
1309	13	26	22 Solid	1	.010″	.025″	.380″
1309/15	15	30	22 Solid	1	.010″	.025″	.400″
1310	16	32	22 Solid	1	.010″	.025″	.420″
1310	27	54	22 Solid	1	.010″	.035″	.510″
1313/31	31	62	22 Solid	1	.010″	.035″	.555″
1313/41	41	82	22 Solid	1	.010″	.035″	.630″
1314	51	102	22 Solid	1	.010″	.045″	.735″

STRANDED CONDUCTORS

1316	1	2	22	7/30	.010″	.020″	.145″
1317	2	4	22	7/30	.010″	.020″	.210″
1318	3	6	22	7/30	.010″	.020″	.225″
1319	4	8	22	7/30	.010″	.020″	.240″
1320	5	10	22	7/30	.010″	.020″	.265″
1322	6	12	22	7/30	.010″	.020″	.290″
1323	9	18	22	7/30	.010″	.020″	.355″
1327	15	30	22	7/30	.010″	.025″	.450″
1329	27	54	22	7/30	.010″	.035″	.570″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

PAIR NO.	COLOR COMBINATION
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue
5	Black paired with Brown
6	Black paired with Yellow
7	Black paired with Orange
8	Red paired with Green
9	Red paired with White
10	Red paired with Blue
11	Red paired with Yellow
12	Red paired with Brown
13	Red paired with Orange
14	Green paired with Blue
15	Green paired with White
16	Green paired with Brown
17	Green paired with Orange
18	Green paired with Yellow
19	White paired with Blue
20	White paired with Brown
21	White paired with Orange
22	White paired with Yellow
23	Blue paired with Brown
24	Blue paired with Orange
25	Blue paired with Yellow
26	Brown paired with Orange
27	Brown paired with Yellow
28	Purple paired with Red
29	Purple paired with White
30	Purple paired with Green
31	Purple paired with Blue
32	Purple paired with Brown
33	Purple paired with Yellow
34	Purple paired with Orange
35	Purple paired with Slate
36	Purple paired with Black
37	Slate paired with Red
38	Slate paired with White
39	Slate paired with Green
40	Slate paired with Blue
41	Slate paired with Brown
42	Slate paired with Yellow
43	Slate paired with Orange
44	Slate paired with Black
45	White/Black paired w. Red
46	White/Black paired w. Green
47	White/Black paired w. Blue
48	White/Black paired w. Brown
49	White/Black paired w. Yellow
50	White/Black paired w. Orange
51	White/Black paired w. Purple



MULTI-CONDUCTOR AUDIO CABLE

OUTER PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

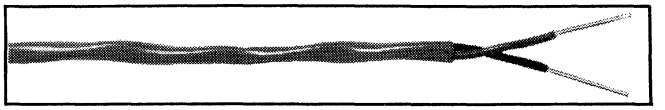
APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1172	2	22	7/30	.010″	.020″	.140″
1173	3	22	7/30	.010″	.020″	.145″
1174	4	22	7/30	.010″	.020″	.170″
1175	5	22	7/30	.010″	.020″	.175″
1176	6	22	7/30	.010″	.020″	.185″
1177	7	22	7/30	.010″	.020″	.190″
1178	8	22	7/30	.010″	.020″	.200″
1179	9	22	7/30	.010″	.020″	.225″
1180	10	22	7/30	.010″	.020″	.235″
1181	12	22	7/30	.010″	.020″	.255″
1181/15	15	22	7/30	.010″	.020″	.280″
1181/20	20	22	7/30	.010″	.020″	.310″
1181/25	25	22	7/30	.010″	.020″	.340″
1181/30	30	22	7/30	.010″	.020″	.365″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	6—Blue	11—Pink	16—White/Black	21—White/Brown	26—White/Black/Green
2—Red	7—Brown	12—Tan	17—White/Red	22—White/Orange	27—White/Black/Yellow
3—White	8—Yellow	13—Red/Green	18—White/Green	23—White/Gray	28—White/Black/Blue
4—Green	9—Purple	14—Red/Yellow	19—White/Yellow	24—White/Violet	29—White/Black/Brown
5—Orange	10—Slate	15—Red/Black	20—White/Blue	25—White/Black/Red	30—White/Black/Orange



UNSHIELDED AUDIO CABLE

MULTI-CONDUCTOR—PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1793	2	22	1	.010″	.020″	.130″
1794	3	22	1	.010″	.020″	.140″
1794/4	4	22	1	.010″	.020″	.160″
1795	2	20	1	.016″	.020″	.170″
1796	3	20	1	.016″	.020″	.180″
1796/4	4	20	1	.016″	.020″	.200″
1797	2	18	1	.016″	.020″	.190″
1798	3	18	1	.016″	.020″	.200″
1798 4	4	18	1	.016″	.020″	.220″
1798 5	5	18	1	.016″	.020″	.235″
1798 6	6	18	1	.016″	.020″	.265″
1799	2	16	1	.016″	.020″	.215″
1799/3	3	16	1	.016″	.020″	.230″
1799/4	4	16	1	.016″	.020″	.250″

STRANDED

1893	2	22	7/30	.010″	.020″	.135″
1894	3	22	7/30	.010″	.020″	.145″
1894/4	4	22	7/30	.010″	.020″	.170″
1895	2	20	10/30	.016″	.020″	.180″
1896	3	20	10/30	.016″	.020″	.190″
1896/4	4	20	10/30	.016″	.020″	.215″
1897	2	18	16/30	.016″	.020″	.200″
1898	3	18	16/30	.016″	.020″	.210″
1898/4	4	18	16/30	.016″	.020″	.240″
1899	2	16	26/30	.016″	.020″	.225″
1899/3	3	16	26/30	.016″	.020″	.245″
1899/4	4	16	26/30	.016″	.020″	.270″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue

MULTI-CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1900†	2	22	1	.016″	.100″
1901†	3	22	1	.016″	.115″
1903†	2	20	1	.016″	.120″
1904†	3	20	1	.016″	.135″
1906†	2	18	1	.016″	.145″
1907†	3	18	1	.016″	.155″
1909†	2	16	1	.016″	.175″
1910†	3	16	1	.016″	.190″

†1900 to 1910 formerly 9269 to 9276

STRANDED

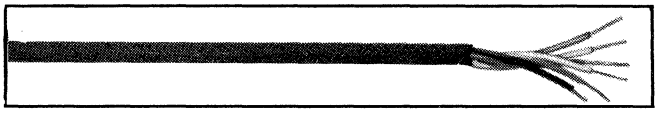
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1915†	2	22	7/30	.016″	.125″
1916†	3	22	7/30	.016″	.140″
1918†	2	20	10/30	.016″	.145″
1919†	3	20	10/30	.016″	.160″
1921†	2	18	16/30	.016″	.165″
1922†	3	18	16/30	.016″	.180″
1924†	2	16	26/30	.016″	.190″
1925†	3	16	26/30	.016″	.210″
1927†	2	14	41/30	.016″	.220″
1928†	3	14	41/30	.016″	.240″

†1915 to 1928 formerly 9169 to 9178

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Brown 2—Tan 3—Gray

The color code of the conductors has been selected to be as inconspicuous as possible so as to blend in with the decor of most rooms.



MULTI-CONDUCTOR AUDIO CABLE

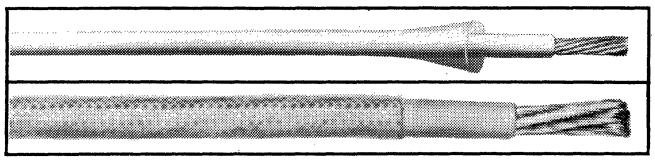
OUTER COTTON BRAID

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, brown cotton braid overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1182	2	20	10/30	.016″	.165″
1183	3	20	10/30	.016″	.170″
1184	4	20	10/30	.016″	.195″
1185	5	20	10/30	.016″	.220″
1186	6	20	10/30	.016″	.230″
1187	7	20	10/30	.016″	.240″
1188	8	20	10/30	.016″	.285″
1189	9	20	10/30	.016″	.295″
1190	10	20	10/30	.016″	.300″
1192	12	20	10/30	.016″	.315″
1192/15	15	20	10/30	.016″	.330″
1192/20	20	20	10/30	.016″	.370″

COLOR CODE OF CONDUCTORS
1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—White Black
14—White Red
15—White Green
16—White Orange
17—White Blue
18—White Brown
19—White Yellow
20—White Purple

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.



MIL-W-5086A & MIL-C-7078A

AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

DESCRIPTION:

MIL-W-5086A—Type I —AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-10 thru AN-00—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

MIL-C-7078A—Type I —Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon jacket, braided tinned copper shield overall, 85% coverage.

CHARACTERISTICS: Temperature rating: —55°C. to +105°C. Voltage Rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) TYPE I

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.
1381	AN-22	22	19/34	.068"
1382	AN-20	20	19/32	.078"
1383	AN-18	18	19/30	.088"
1384	AN-16	16	19/29	.098"
1385	AN-14	14	19/27	.117"
1386	AN-12	12	19/25	.137"

UNSHIELDED (MIL-W-5086A) TYPE II

1341†	AN-22	22	19/34	.075"
1342†	AN-20	20	19/32	.085"
1343†	AN-18	18	19/30	.095"
1344†	AN-16	16	19/29	.105"
1345†	AN-14	14	19/27	.125"
1346†	AN-12	12	19/25	.143"
1387	AN-10	10	49/27	.189"
1388	AN-8	8	133/29	.240"
1389	AN-6	6	133/27	.293"
1389/4	AN-4	4	133/25	.355"
1389/2	AN-2	2	665/30	.425"
1389/0	AN-0	0	1045/30	.525"
1389/00	AN-00	00	1330/30	.590"

†1341 to 1346 formerly 2381 to 2386

SHIELDED (MIL-C-7078A) TYPE I

1391	AN-22	22	19/34	.100"
1392	AN-20	20	19/32	.110"
1393	AN-18	18	19/30	.125"
1394	AN-16	16	19/29	.140"
1395	AN-14	14	19/27	.155"
1396	AN-12	12	19/25	.165"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

"ALMAG" MAGNET WIRE

SPECIFICATION MIL-W-583B

DESCRIPTION: Plain Enamel—Single conductor round bare copper covered with a continuous insulating film of enamel. Type T per Specification MIL-W-583B. 105°C.

DESCRIPTION: Heavy Formvar—Single conductor round bare copper, baked film insulation from a varnish base on a vinyl acetal resin. Type T2 per Specification MIL-W-583B. 105°C.

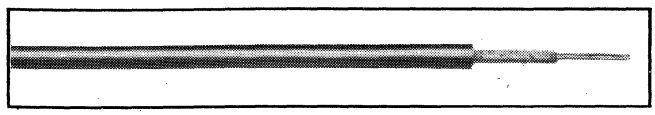
APPLICATIONS: Radio and audio frequency coils; transformers; chokes; speaker field coils; tuners; armatures; short wave coils; etc.

PLAIN ENAMEL (PE) ALPHA NO.	NOM. O.D.	SIZE
PE-44	.0023"	44*
PE-42	.0028"	42*
PE-40	.0034"	40*
PE-38	.0044"	38*
PE-36	.0055"	36‡
PE-34	.0069"	34‡
PE-32	.0087"	32
PE-30	.0108"	30
PE-28	.0135"	28
PE-26	.0169"	26
PE-24	.0212"	24
PE-22	.0266"	22
PE-20	.0332"	20
PE-18	.0416"	18
PE-16	.0522"	16
PE-14	.0657"	14
PE-12	.0825"	12
PE-10	.1037"	10

HEAVY FORMVAR (HF) ALPHA NO.	NOM. O.D.	SIZE
HF-44	.0026"	44*
HF-42	.0032"	42*
HF-40	.0038"	40*
HF-38	.0049"	38*
HF-36	.0060"	36‡
HF-34	.0075"	34‡
HF-32	.0095"	32
HF-30	.0116"	30
HF-28	.0144"	28
HF-26	.0180"	26
HF-24	.0224"	24
HF-22	.0277"	22
HF-20	.0346"	20
HF-18	.0432"	18
HF-16	.0539"	16
HF-14	.0673"	14
HF-12	.0842"	12
HF-10	.1056"	10

STANDARD PUT-UP: ¼ LB., ½ LB., 1 LB., 5 LB., 10 LB.

* Largest available put-up: 1 lb.
‡ Largest available put-up: 5 lb.



TEST LEAD WIRE

DESCRIPTION: Single conductor, extra flexible stranded tinned soft annealed copper, wrap, color coded rubber insulation, smooth satin finish.

APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an Extra Flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

STANDARD TYPE

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN	NOMINAL O.D.	STOCK COLORS
1632	20	41/36	.040"	5,000‡	.125"	Black, Red
1635	20	41/36	.047"	10,000‡	.140"	Black, Red
1636	18	65/36	.045"	12,000‡	.140"	Black, Red

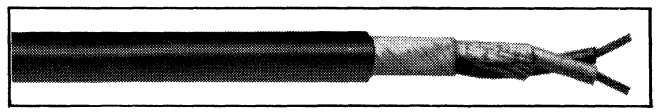
HEAVY DUTY TYPE

1638	18	65/36	.090"	22,000‡	.230"	Black, Red

MILITARY TYPE Specification MIL-W-13169B

1639	18	65/36	.047"	12,000‡	.150"	Black, Red Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT. ‡60 Cycles



SERVICE & POWER CORDS

(UNDERWRITERS APPROVED)

RUBBER & NEOPRENE

DESCRIPTION 1951-1958/4: Each conductor stranded bare copper, cotton separator, color coded rubber insulation, conductors twisted, cushioned with jute fillers, cotton wrap, tough black rubber jacket overall.

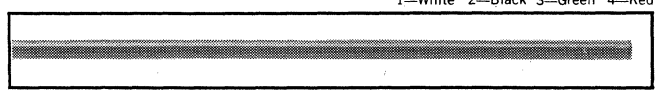
DESCRIPTION 1931-1938/4: Same physical construction as above except black neoprene jacket overall.

APPLICATIONS: For amplifiers, sound systems, speakers, vacuum cleaners, electric tools, washing machines, refrigerators, appliances, trouble lights, garage lamps or wherever a rough usage power line is required. Neoprene construction recommended for equipment exposed to oils, acids, etc.

ALPHA NO. (RUBBER)	U/L TYPE	ALPHA NO. (NEOPRENE)	U/L TYPE	NO. OF COND.	COND. SIZE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O.D.
1951	SV	1931	SVO	2	18	7 amps	300	.250"
1952	SJ	1932	SJO	2	18	7 amps	300	.310"
1952/3	SJ	1932/3	SJO	3	18	7 amps	300	.330"
1952/4	SJ	1932/4	SJO	4	18	6 amps	300	.360"
1953	SJ	1933	SJO	2	16	10 amps	300	.325"
1953/3	SJ	1933/3	SJO	3	16	10 amps	300	.365"
1953/4	SJ	1933/4	SJO	4	16	8 amps	300	.395"
1954	S	1934	SO	2	18	7 amps	600	.390"
1954/3	S	1934/3	SO	3	18	7 amps	600	.405"
1954/4	S	1934/4	SO	4	18	5 amps	600	.435"
1955	S	1935	SO	2	16	10 amps	600	.410"
1955/3	S	1935/3	SO	3	16	10 amps	600	.430"
1955/4	S	1935/4	SO	4	16	8 amps	600	.485"
1956	S	1936	SO	2	14	15 amps	600	.540"
1956/3	S	1936/3	SO	3	14	15 amps	600	.560"
1956/4	S	1936/4	SO	4	14	12 amps	600	.605"
1957	S	1937	SO	2	12	20 amps	600	.605"
1957/3	S	1937/3	SO	3	12	20 amps	600	.635"
1957/4	S	1937/4	SO	4	12	16 amps	600	.665"
1958	S	1938	SO	2	10	25 amps	600	.640"
1958/3	S	1938/3	SO	3	10	25 amps	600	.690"
1958/4	S	1938/4	SO	4	10	20 amps	600	.745"

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.

COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Green 4—Red



UNINSULATED TINNED COPPER

SOLID WIRE—SOFT DRAWN

DESCRIPTION: Pure electrolytic soft, drawn, solid, copper properly annealed and tinned for quick soldering.

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

SPECIFICATIONS MIL-W-3861 TYPE S — QQ-W-343 TYPE S — ASTM-B-33

ALPHA NO.	CONDUCTOR SIZE	CIRCULAR MIL AREA	NOMINAL O.D.
299/7	38 AWG	15.72	.004"
299/6	36 AWG	25.00	.005"
299/5	34 AWG	39.75	.006"
299/4	32 AWG	63.21	.008"
299/3	30 AWG	100.5	.010"
299/2	28 AWG	159.8	.013"
299/1	26 AWG	254.1	.016"
299	24 AWG	404.0	.020"
298	22 AWG	642.4	.025"
297	20 AWG	1022.0	.033"
296	18 AWG	1642.0	.040"
295	16 AWG	2583.0	.051"
286	14 AWG	4107.0	.065"
289	12 AWG	6530.0	.082"
292	10 AWG	10380.0	.103"
292/8	8 AWG	16510.0	.129"
292/6	6 AWG	26250.0	.162"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

See Last ALPHA Page For Complete Price List
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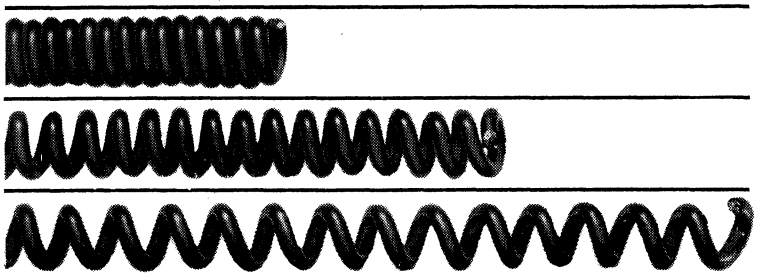
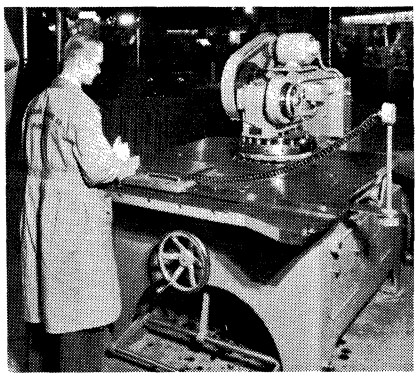
RETRACTILE COIL CORDS

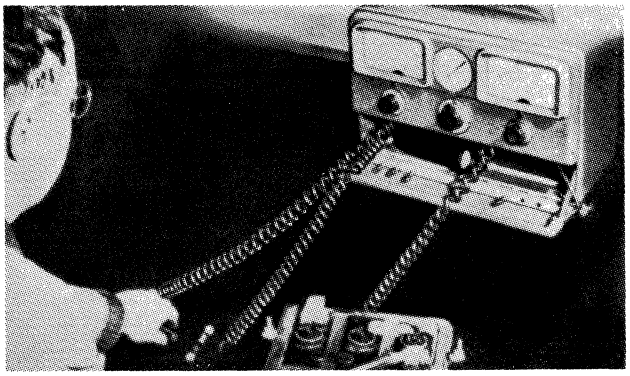


Alpha quality retractile coil cords are electric cords which are coiled permanently in the shape of a spring. They are constructed with neoprene jackets to withstand the wear and tear less expensive cords cannot endure. The cords are retracted neatly in a condensed length until you need them. When used, tney extend only to the exact length you want—no longer—for easy, neat, trouble-free installation. In the manufacturing process, the coil cord is rewound after vulcanization, reversing the direction of the spiral to insure maximum retractility after repeated usage.



Power Cord

Communication Cord —
Courtesy of Roanwell Corporation.



Test Lead Wire —
Courtesy of Allen Electric and Equipment Co.

POWER CORDS—NEOPRENE JACKET (UL APPROVED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber insulation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose handing wires and to prevent wires from tangling and twisting.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U. L. TYPE	AMP RATING	VOLT RATING	COIL O.D.	NOM. O.D. CORD
660/2	660/4	2	18	41/34	SVO	7	300	1"	.260"
661/2	661/4	2	18	41/34	SJO	7	300	1¼"	.320"
662/2	662/4	3	18	41/34	SJO	7	300	1½"	.350"
*663/2	*663/4	4	18	41/34	SJO	5.6	300	1½"	.385"
664/2	664/4	2	16	65/34	SJO	10	300	1½"	.360"
665/2	665/4	3	16	65/34	SJO	10	300	1½"	.390"
*666/2	*666/4	4	16	65/34	SJO	8	300	1⅝"	.425"
670/2	670/4	3	16	65/34	SO	10	600	1⅞"	.470"
*671/2	*671/4	4	16	65/34	SO	8	600	1⅞"	.500"
672/2	672/4	2	14	41/30	SO	15	600	2"	.540"
673/2	673/4	3	14	41/30	SO	15	600	2⅛"	.560"
*674/2	*674/4	4	14	41/30	SO	12	600	2¼"	.605"
675/2	675/4	2	12	65/30	SO	20	600	2¼"	.605"
676/2	676/4	3	12	65/30	SO	20	600	2⅜"	.635"
*677/2	*677/4	4	12	65/30	SO	16	600	2½"	.678"

*If all four conductors normally carry current, AMP rating is as shown. If one lead is used as a ground, AMP rating is the same as 2 and 3 conductor cords.

COLOR CODE OF CONDUCTORS
1. White 2. Black 3. Green 4. Red

RETRACTILE POWER CORD SETS (UL APPROVED)

RETRACTED LENGTH 18"—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U. L. TYPE	COIL O.D.	NOM. O.D.
654	2	18	41/34	SVO	1"	.260"
655	2	18	41/34	SJO	1¼"	.320"
656	3	18	41/34	SJO	1½"	.350"
657	2	16	65/34	SJO	1½"	.360"
658	3	16	65/34	SJO	1½"	.390"

COLOR CODE OF CONDUCTORS
1. Black 2. White 3. Green

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG-21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	AMP.	VOLTS	COIL O.D.	CORD O.D.
680/2	680/4	2	23	21/36	1	120	¾"	.215"
681/2	681/4	3	23	21/36	1	120	¾"	.220"
682/2	682/4	4	23	21/36	1	120	⅞"	.250"
683/2	683/4	5	23	21/36	1	120	1"	.285"
684/2	684/4	6	23	21/36	1	120	1⅛"	.305"
685/2	685/4	7	23	21/36	1	120	1¼"	.320"

COLOR CODE OF CONDUCTORS
1. Black 2. White 3. Green 4. Red 5. Brown 6. Yellow 7. Blue

RETRACTILE COMMUNICATION CORD (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	SHIELDING	COIL O.D.	NOM. O.D.	COLOR CODE OF CONDUCTORS
690/2	690/4	1	24	41/40	Shielded	⅝"	.160"	White
692/2	692/4	2	1-23 1-24	21/36 41/40	Unshielded Shielded	⅞"	.240"	Black White
694/2	694/4	3	2-23 1-24	21/36 41/40	Unshielded Shielded	⅞"	.240"	Black & Red White
696/2	696/4	4	2-23 2-24	21/36 41/40	Unshielded Individually Shielded	1"	.270"	Red & Black White & Green

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12"—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12" retracted length with a 6" straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR SIZE	CORD STRAND	AMP. RATED	VOLTAGE	COIL O.D.	NOM. O.D.	COLOR CODE
650	20	41/36	4	4,000	¾"	.165"	Black-Red

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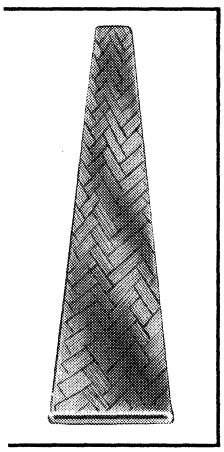
See Last ALPHA Page For Complete Price List

SHIELDING & BRAIDING

FLAT BRAID



A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

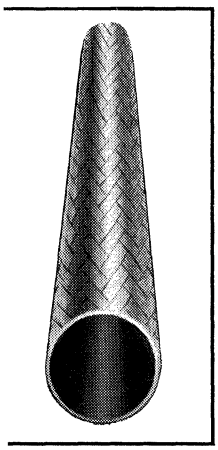
Flat braid is usually employed for its current carrying capacity and its extreme flexibility. It is generally used as a high current conductor at low voltages. Battery grounding is typical of this application. It is also used as a bonding strap in vehicles and aircraft to help eliminate ignition interference. Because of its extreme flexibility it can be used in confined areas or as electrical connections on moving parts.

ALPHA CAT. #	NOMINAL FLAT WIDTH	THICKNESS	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
1221	.025	.015	#36	8	8	26	250	4.0 AMPS	1 thru 5
1222	1/32"	.020	#36	16	16	24	400	6.0 "	1 thru 5
1223	3/64"	.020	#36	24	24	22	640	7.0 "	1 thru 5
1224	3/32"	.020	#36	16	48	19	1290	11.0 "	1 thru 5
1229	1/8"	.020	#36	24	72	18	1620	16.0 "	1 thru 5
1230	3/16"	.020	#36	24	120	15	3260	25.0 "	1 thru 5
1231	1/4"	.030	#36	24	168	14	4100	32.0 "	1 thru 5
1232	3/8"	.030	#36	48	288	11	8230	46.0 "	1 thru 5
1233/2	1/2"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1233	5/8"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1234	3/4"	.040	#36	48	832	7	20900	85.0 "	1 thru 5
1235	1"	.045	#36	48	832	7	20900	85.0 "	1 thru 5
1239	1-3/8"	.050	#36	48	832	7	20900	85.0 "	1 thru 5
1240	1-1/2"	.060	#30	48	528	3	52800	125.0 "	1 thru 3
1241	1-3/4"	.080	#30	48	1248	0	108000	200.0 "	1 thru 3
1242	2"	.120	#30	48	1536	00	135000	235.0 "	1 thru 3

PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

*These values based on copper in free air at 65°F

TUBULAR BRAID TO MIL SPEC QQ-B-575



A woven tinned copper braid which is manufactured completely round as outlined in MIL Spec QQ-B-575. This braid construction has self-supporting characteristics which enables it to maintain its round configuration. The percentage of shielding coverage is 95% or more. A high degree of manufacturing tolerances is maintained.

Tubular braid to QQ-B-575 is utilized in military applications involving maximum shielding against electrostatic interference. It is also used as a protective covering against mechanical abrasion and stresses for the wires, cable, and other components which it covers.

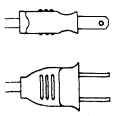
ALPHA CAT. #	I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
2160	1/32"	#36	24	24	22	640	7.0 AMPS	1 thru 3
2162	1/16"	#36	24	48	19	1290	11.0 "	1 thru 3
2164	7/64"	#36	24	96	16	1620	22.0 "	1 thru 3
2166	1/8"	#36	24	120	15	3260	28.0 "	1 thru 3
2168	11/64"	#36	24	168	14	4100	32.0 "	1 thru 3
2170	13/64"	#34	24	192	11	7640	46.0 "	1 thru 2
2172	3/8"	#36	48	384	10	10400	53.0 "	1 thru 2
2174	1/2"	#36	48	528	9	13100	70.0 "	1 thru 2
2176	25/32"	#36	48	864	7	20900	85.0 "	1 thru 2

PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft.

*These values based on copper in free air at 65°F

SPECIAL CONSTRUCTIONS: Constructions other than those tabulated in the above 2 tables are available to order in silver plated copper, bare copper and stainless steel. The above tabulated constructions represent a cross-section of types and sizes which are maintained in inventory. Literally thousands of variations are available to order by changing the various physical elements (carriers, ends, gauge).

CORD SETS



)lded plugs
ached to all
:onductor
)lacement cords.
Amps—125 Volts

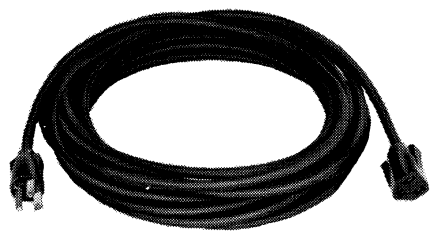
REPLACEMENT CORD SETS
(UL & CSA APPROVED)

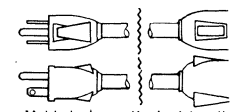
DESCRIPTION: Constructed so that it will last for years, this open end cord replacement set is manufactured with a flexible 2 conductor quality black rubber cord. One end has a black molded straight plastic plug (see diagram), the other end of the jacket is stripped back 1½", and ⅜" of the conductors are stripped assuring easy termination into equipment or components. The replacement cord set has a 300 volt rating.

APPLICATION: Replacement Cords for direct termination; for office business machines, small electric hand tools, and home appliances which use fractional horsepower motors.

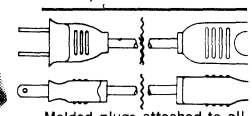
ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D. OF CORD	CORD LENGTH (FT.)
600	18	41/34	2	SV	.245"	6
602	18	41/34	2	SV	.245"	9
604	18	41/34	2	SV	.245"	12
606	18	16/30	2	SJ	.300"	8
608	18	16/30	2	SJ	.300"	10
610	16	26/30	2	SJ	.325"	8
612	16	26/30	2	SJ	.325"	10

EXTENSION CORD SETS
(UL & CSA APPROVED)





Molded plugs attached to all conductor extension cords. 15 Amps– 125 Volts



Molded plugs attached to all conductor extension cords. 15 Amps– 125 Volts

DESCRIPTION: Extension cord sets manufactured for lasting service with a flexible 2 or 3 conductor quality black rubber cord. This rugged cord has a black molded plastic male and female plug on either end to fit conventional sockets and plugs.

APPLICATION: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding.

ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D.	CORD LENGTH (FT.)
620	18	41/34	2	SV	.245"	6
622	18	41/34	2	SV	.245"	9
624	18	16/30	2	SJ	.300"	10
626	18	16/30	2	SJ	.300"	25
628	16	26/30	2	SJ	.325"	10
630	16	26/30	2	SJ	.325"	25
632	16	26/30	2	SJ	.325"	50
634	16	26/30	2	SJ	.325"	100
636	18	16/30	3	SJ	.365"	10
638	18	16/30	3	SJ	.365"	25

See Last ALPHA Page For Complete Price List

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ALPHLEX® TUBING SECTION

PLASTIC TUBING (PVC-105)

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Insulation Resistance	Fungi Resistance	Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
800 V/MIL	105°C	—30°C	Non-Flammable	2500 PSI	300%	Over 1,000,000 Megs.	Yes	Remains Flexible Indefinitely	Excellent	MIL-I-631C ASTM-D876 ASTM-D922

Standard Colors

#24 thru #12 —Clear, Black, Yellow, Red, Blue, Brown, Green, White, Orange

#11 thru #2 —Clear, Black, Yellow, Red, Green, White

#1 thru 2½" —Clear, Black

Standard Put-Ups

#24 thru #15 —1,000 ft. spools
#14 thru #5 — 500 ft. spools
#4 thru 3/8" — 250 ft. coils
7/16" thru 5/8" — 100 ft. coils
3/4" & larger — 50 ft. coils

APPLICATIONS

Alphlex® PVC-105 Plastic Tubing is designed and manufactured specifically for electronic, aircraft and electrical applications involving temperatures as high as 105°C. It conforms to Specification MIL-I-631C, Type F, Form U, Grade C, Class I, Category I.

DESCRIPTION

PVC-105's exceptional integration of desirable qualities endows it with excellent versatility and durability. Its dielectric strength is high and remains unaffected by increasing temperature throughout its range. It displays high resistance to the agents of heat, oil, chemicals, corrosion, fungi and even abrasion with no loss in tensile strength, non-flammability—or flexibility.

Under all the above adverse conditions, PVC-105 will retain its ability to hug and protect irregular-shaped objects, will "snake" beautifully, and will always be easy to handle.

To achieve this combination of advantages, special care is taken in the making of PVC-105. It is compounded with only first-grade quality non-migratory resinous type plasticizers. From laboratory to production line, from raw material to finished product, strict quality control prevails. Behind it are the same engineering and production know-how that have made the name Alpha famous in the electronics industry.

As with all Alpha and Alphlex items, PVC-105 is "IN STOCK" for immediate delivery, and can be supplied to desired lengths as well as standard spools.

For your special problems, please call on us for consultation and recommendations—no obligation, of course.

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/24	24	.022"	.013"
PVC-105/22	22	.027"	.012"
PVC-105/20	20	.034"	.016"
PVC-105/19	19	.038"	.016"
PVC-105/18	18	.042"	.016"
PVC-105/17	17	.047"	.016"
PVC-105/16	16	.053"	.016"
PVC-105/15	15	.059"	.016"
PVC-105/14	14	.066"	.016"
PVC-105/13	13	.076"	.016"
PVC-105/12	12	.085"	.016"
PVC-105/11	11	.095"	.016"
PVC-105/10	10	.106"	.016"
PVC-105/9	9	.118"	.020"
PVC-105/8	8	.133"	.020"
PVC-105/7	7	.148"	.020"
PVC-105/6	6	.166"	.020"
PVC-105/5	5	.186"	.020"
PVC-105/4	4	.208"	.020"
PVC-105/3	3	.234"	.020"

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/2	2	.263"	.020"
PVC-105/1	1	.294"	.020"
PVC-105/0	0	.330"	.020"
PVC-105/5/16"	5/16"	.312"	.025"
PVC-105/3/8"	3/8"	.375"	.025"
PVC-105/7/16"	7/16"	.438"	.025"
PVC-105/1/2"	1/2"	.500"	.025"
PVC-105/9/16"	9/16"	.562"	.030"
PVC-105/5/8"	5/8"	.625"	.030"
PVC-105/3/4"	3/4"	.750"	.035"
PVC-105/7/8"	7/8"	.875"	.035"
PVC-105/1"	1"	1.000"	.035"
PVC-105/1 1/8"	1 1/8"	1.125"	.035"
PVC-105/1 1/4"	1 1/4"	1.250"	.040"
PVC-105/1 3/8"	1 3/8"	1.375"	.040"
PVC-105/1 1/2"	1 1/2"	1.500"	.045"
PVC-105/1 3/4"	1 3/4"	1.750"	.055"
PVC-105/2"	2"	2.000"	.060"
PVC-105/2 1/4"	2 1/4"	2.250"	.065"
PVC-105/2 1/2"	2 1/2"	2.500"	.070"

NOTE: PVC-105 manufactured under the recognition component section of UL is available to order.

TEFLON® EXTRUDED TUBING (TFT-200)

(THIN WALL)

DESCRIPTION

ALPHLEX® THIN WALL TEFLON TUBING, a high temperature insulation (designated by A.I.E.E. for continuous operation at 220°C minimum), while classified as a thermoplastic resin, does not melt and flow as do conventional thermoplastic materials.

APPLICATIONS

Because of its combination of electrical, chemical and mechanical properties, **ALPHLEX TEFLON** is unmatched by any other type tubing for use in electrical applications at high frequencies and temperatures. As a thin, flexible insulation, it permits miniaturization and compactness of design heretofore impossible.

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Fungi & Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
500-1000 V/MIL	250°C	—90°C	Non-Flammable	1500-3000 PSI	100-200%	Excellent	Excellent	ASTM

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/30	30	.012"	.009"
TFT-200/28	28	.015"	.009"
TFT-200/26	26	.018"	.010"
TFT-200/24	24	.022"	.010"
TFT-200/22	22	.027"	.010"
TFT-200/20	20	.034"	.012"
TFT-200/19	19	.038"	.012"
TFT-200/18	18	.042"	.012"
TFT-200/17	17	.047"	.012"
TFT-200/16	16	.053"	.012"
TFT-200/15	15	.059"	.012"
TFT-200/14	14	.066"	.012"
TFT-200/13	13	.076"	.012"

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/12	12	.085"	.012"
TFT-200/11	11	.095"	.012"
TFT-200/10	10	.106"	.012"
TFT-200/9	9	.118"	.015"
TFT-200/8	8	.133"	.015"
TFT-200/7	7	.148"	.015"
TFT-200/6	6	.166"	.015"
TFT-200/5	5	.186"	.015"
TFT-200/4	4	.208"	.015"
TFT-200/3	3	.234"	.015"
TFT-200/2	2	.263"	.015"
TFT-200/1	1	.294"	.015"
TFT-200/0	0	.330"	.015"

Sizes	Standard Colors		Standard Put-Ups
#30-#15 Inclusive	Natural Yellow	Black Red	1000 ft. Spools or 10-100 ft. Spools per 1000 ft. Box
#14-#8 Inclusive	Natural Yellow	Black Red	500 ft. Spools or 5-100 ft. Spools per 500 ft. Box
#7-#0 Inclusive	Natural		Random Lengths Packed in 100 ft Coils or 36" Lengths

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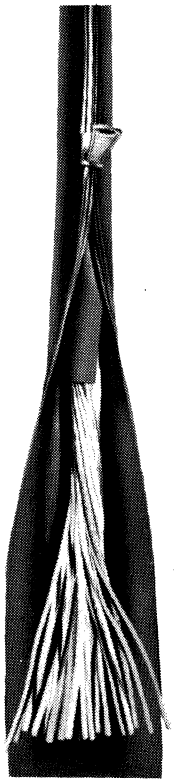
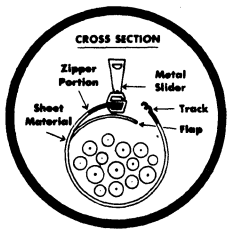
See Last ALPHA Page For Complete Price List

ALPHLEX® *ZIPPER TUBING*

DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close—and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.





TYPES OF ZIPPER TUBING

Type ZIP-31 —fabricated from .020" polyvinyl sheet made from MIL-I-631C materials. All purpose type for general applications to 105°C. Standard colors: Clear, Black, Yellow.

Type ZIP-31M—heavy duty construction. Similar to ZIP-31 type except nominal wall thickness of .040". Standard colors: Clear, Black.

Type ZIP-44 —polyvinyl sheet made from MIL-I-7444B materials. Extremely flexible; for aircraft and low-temperature uses to —67°C. Standard colors: Clear, Black.

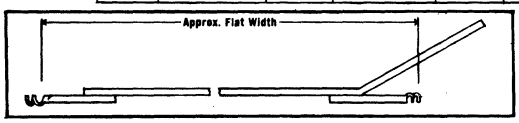
Type ZIP-44M—heavy duty construction. Similar to ZIP-44 type except nominal wall thickness of .040". Standard colors: Clear, Black.

Type ZIP-50 —"sandwich" of aluminum foil laminated between two sheets of polyvinyl. For 100% RF shielding applications to 105°C. Standard color: Silver Grey.

Type ZIP-90 —polyvinyl bonded to woven fibreglass sheet per MIL-I-3190A. For rough usage, abrasion resistance, and high temperature uses to 130°C. Standard color: Black.

STANDARD SIZES FOR ALL TYPES OF ALPHLEX TUBING

Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)
*1/4"	1-5/16"	'1"	3-9/16"	1-3/4"	5-5/8"	3"	9-5/8"
*3/8"	1-5/8"	1-1/8"	3-15/16"	1-7/8"	6"	3-1/4"	10-3/8"
1/2"	2"	1-1/4"	4-1/8"	2"	6-3/8"	3-1/2"	11-1/8"
5/8"	2-3/8"	1-3/8"	4-1/2"	2-1/4"	7-1/8"	3-3/4"	11-7/8"
3/4"	2-3/4"	1-1/2"	4-7/8"	2-1/2"	7-7/8"	4"	12-5/8"
7/8"	3-1/8"	1-5/8"	5-1/4"	2-3/4"	8-3/4"		



STANDARD SPOOL PUT-UP:
25 Ft., 50 Ft., 100 Ft.

•Because of small Inside Diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure.

ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

Material	Polyvinyl Chloride	Dielectric Strength, V/mil	759	Cold Brittleness	—86°C	Lateral Pull Strength (permanently sealed)	59.8 pounds/inch
Track Thickness (when closed)	.095"	Tensile Strength P.S.I.	3810	Fungus-proof	will not support fungus	Standard Colors	Black, Clear, Yellow
		Ultimate Elongation	255%	Flammability	self-extinguishing		
		Operating Temperature, Upper Limit	106°C	Lateral Pull Strength (unsealed)	42.7 pounds/inch		

Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER POUND	STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050"	Wh., Blk.	560	8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035"	Wh., Blk.	750	8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030"	Wh., Blk.	1180	8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090" (3/32")	.014"	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16"	.010"	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32"	.014"	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32"	.014"	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

TYPES OF LACING CORD

flat braided tape This construction was developed to prevent the "cold flow" that often is encountered in wire having plastic or rubber insulations. It has been specifically designed to create a wider contact area with the insulation, so that it does not flow away from the contact point. It is considerably more flexible and easier on the user's hands and is recommended for all types of harness work. Flat tapes do not appreciatively increase the diameter of the cable.

round twisted cord Available in various strands and thicknesses to produce different tensile strengths. This type, while it may be used for plastic and rubber insulated wire, is particularly suited for wires having a secondary insulation or those utilizing a textile as an insulating material.

MATERIALS

nylon Synthetic fiber resistant to: fungus, flame, acids, abrasion. Excellent tensile strength, light weight, small size.

dacron A synthetic fiber which retains all the above characteristics of Nylon plus: less elongation, better resistance to acids, no appreciable discoloration.

FINISHES

ge synthetic rubber-like resin
mw micro-crystalline wax
am thermoplastic synthetic resin
sr fungistatic synthetic rubber

See Last ALPHA Page For Complete Price List
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ALPHLEX® SHRINKABLE TUBING

- A new all-purpose tubing with controlled shrinkage
- Shrinks in seconds when heated
- Forms a permanent, tight-fitting mechanical bond
- Irradiated polyolefin

INSULATES

DESCRIPTION ALPHLEX SHRINKABLE TUBING, with controlled shrinkage when heated, forms a tight-fitting mechanical bond, even over irregularly shaped materials.

A new concept in extruded tubing that is simple to use and provides a tight mechanical bond, ALPHLEX SHRINKABLE TUBING is an irradiated, flame retardant, thermally stable, modified polyolefin base product.

The tubing is supplied in an expanded form and easily slips over the object to be covered. When a temperature of approximately 275°F. (135°C.) is applied ALPHLEX SHRINKABLE TUBING immediately returns to its predetermined size (approximately one-third smaller) and forms a permanent tight-fitting mechanical bond.

JACKETS

HOW TO USE The use of a hot air gun is recommended as being generally the easiest heating method. However, excellent results may be achieved by the use of an oven, radiant heat, dipping in hot liquids, or heating with a soldering iron, burner or the flame of a match.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 275°F. to 300°F. Shrinkage will begin at 235°F. but at a somewhat slower rate. When using an oven, temperature may range from 235°F. to 300°F. Prolonged exposure to these temperatures will not effect the physical or electrical properties of ALPHLEX SHRINKABLE TUBING.

For a tight-fitting cover, select the tubing whose expanded size is larger than the object to be covered and whose recovered size is smaller.

SPLICES

DIMENSIONS CHART

ALPHA NO.	SIZE	MIN. I.D. BEFORE SHRINKING	RECOVERED I.D. AFTER SHRINKING	NOM. WALL THICKNESS
FIT-275—24	24	.050″	.027″	.012″
FIT-275—22	22	.055″	.032″	.012″
FIT-275—20	20	.060″	.039″	.016″
FIT-275—18	18	.076″	.049″	.016″
FIT-275—16	16	.093″	.061″	.016″
FIT-275—14	14	.120″	.072″	.016″
FIT-275—12	12	.153″	.089″	.016″
FIT-275—10	10	.191″	.112″	.016″
FIT-275—8	8	.240″	.141″	.020″
FIT-275—6	6	.302″	.178″	.020″
FIT-275—4	4	.378″	.224″	.020″
FIT-275—2	2	.430″	.275″	.020″
FIT-275—5/16	5/16″	.500″	.334″	.025″
FIT-275—3/8	3/8″	.600″	.399″	.025″
FIT-275—7/16	7/16″	.693″	.462″	.025″
FIT-275—1/2	1/2″	.787″	.524″	.025″
FIT-275—5/8	5/8″	.982″	.655″	.030″
FIT-275—3/4	3/4″	1.180″	.786″	.035″
FIT-275—7/8	7/8″	1.365″	.911″	.035″
FIT-275—1	1″	1.555″	1.036″	.035″

ENCAPSULATES

STOCK COLORS—
#24 thru #4—Black, Red, White, Yellow
#2 thru 1″—Black only (other colors available to order)

STANDARD PACKAGE—
#24 thru #4
100 Feet (25 4-Foot lengths)
#2 thru 1 inch
20 Feet (5 4-Foot lengths)

STANDARD PUT-UP—
4-foot lengths

CABLE MARKERS

OTHER SIZES, COLORS AND LENGTHS AVAILABLE TO ORDER

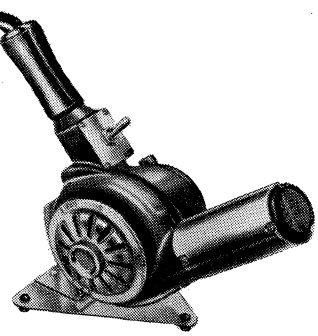
WEATHERPROOFS

PROPERTIES CHART

(Average Values)

Temperature Rating	135°C Continuous	Dielectric Constant	2.5
Tensile Strength	1800 PSI*	Power Factor	0.003
Ultimate Elongation	250%*	Fungus Resistance	Inert*
Brittleness Temperature	—100° F	Fuel and Oil Resistance	Excellent
Hardness	98 Shore A	Hydraulic Fluid Resistance	Excellent
Specific Gravity	1.28	Solvent Resistance	Good
Water Absorption	0.01%*	Acid and Alkali Resistance	Excellent
Dielectric Strength (20 Mil Wall)	800 Volts/Mil	Flammability	Self Extinguishing
Volume Resistivity	10^{16} Ohm-Cm	Corrosion Resistance	Non-Corrosive*

*When tested to Mil-I-7444B



HEAT GUN (HG-1)

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ALPHA WIRE PRICE LIST

No.	Suggested Resale Price Each 1000′	100′
286	16.46	1.80
289	24.81	2.69
292	45.68	4.73
292/6	113.40	11.79
292/8	70.88	7.55
295	11.03	1.26
296	8.19	.98
297	5.21	.68
298	3.95	.54
299	3.78	.53
299/1	3.63	.51
299/2	3.47	.50
299/3	3.32	.48
299/4	3.23	.48
299/5	3.15	.47
299/6	3.08	.47
299/7	3.00	.45

No.	Sug. Resale Price Each
600	.47
602	.54
604	.72
606	.54
608	.63
610	.65
612	.77
620	.54
622	.72
624	.77
626	1.86
628	.84
630	2.55
632	3.68
634	6.77
636	1.16
638	2.12
650	.77
654	2.93
655	3.38
656	4.95
657	3.68
658	5.48
660-2	3.08
660-4	5.55
661-2	3.38
661-4	6.15
662-2	4.28
662-4	8.03
663-2	4.80
663-4	9.00
664-2	4.05
664-4	7.58
665-2	5.10
665-4	9.60
666-2	6.08
666-4	11.55
670-2	6.83
670-4	12.98
671-2	7.58
671-4	14.48
672-2	7.43
672-4	14.33
673-2	8.40
673-4	16.28
674-2	8.85
674-4	17.10
675-2	11.33
675-4	22.05
676-2	14.93
676-4	29.25
677-2	15.75
677-4	30.90
680-2	2.40
680-4	4.50
681-2	2.70
681-4	5.25
682-2	3.38
682-4	6.15
683-2	4.43
683-4	8.25
684-2	5.40
684-4	10.20
685-2	6.08
685-4	11.55
690-2	3.75
690-4	6.90
692-2	5.03
692-4	9.45
694-2	7.05
694-4	13.50
696-2	8.10
696-4	15.60

No.	1000′	100′
1172	19.50	2.40
1173	20.25	2.48
1174	26.25	3.00
1175	32.55	3.68
1176	49.50	5.40
1177	56.25	6.15
1178	60.60	6.38
1179	66.00	7.13
1180	86.10	9.14
1181	107.40	11.27
1181/15	139.20	14.45
1181/20	184.50	18.83
1181/25	222.60	22.65
1181/30	261.00	26.48
1182	34.62	4.01
1183	49.29	5.48
1184	61.47	6.69
1185	76.13	8.16
1186	91.11	9.87
1187	103.28	10.88
1188	122.61	12.81
1189	134.94	14.04
1190	155.31	16.08
1192	182.21	18.77
1192/15	234.78	24.26
1192/20	312.63	32.04
1194	39.78	4.29
1194/22	35.88	4.05
1194/24	33.75	3.68
1196	43.68	4.68
1197	53.97	5.72
1198	70.50	7.37

No.	Suggested Resale Price Each 1000′	100′
1199	121.37	12.60
1221	23.70	3.27
1222	30.15	3.32
1223	31.20	3.42
1224	32.85	3.59
1229	35.25	3.83
1230	42.00	4.50
1231	57.30	6.26
1232	96.00	9.90
1233	129.15	13.37
1233/2	122.25	12.68
1234	294.60	29.91
1235	313.35	31.86
1239	345.00	35.25
1240	430.20	43.20
1241	841.20	84.30
1242	1036.20	103.80
1244	73.20	7.94
1245	84.18	8.88
1246	100.67	10.53
1247	121.02	12.56
1247/6	148.49	15.32
1247/7	188.18	19.28
1247/8	199.31	20.70
1247/10	241.64	24.93
1247/12	345.00	35.25
1248	60.00	6.45
1249	69.00	7.35
1249/18	88.50	9.30
1250	75.75	8.25
1250/18	100.50	10.50
1251	90.38	9.30
1251/18	171.90	17.64
1252	102.75	10.58
1252/18	191.10	19.64
1253	129.20	13.20
1254	157.80	15.75
1254/18	345.00	35.10
1255	191.10	19.71
1255/8	209.25	21.53
1255/10	297.90	30.54
1255/12	418.50	42.60
1256V	36.30	4.08
1256	58.50	6.30
1256/22V	33.68	3.83
1259V	48.90	5.34
1260V	75.60	8.01
1260/12	187.56	19.29
1260/14	109.38	12.59
1261	45.42	4.94
1261/26	47.13	5.10
1267V	36.32	4.02
1267/18V	45.89	5.06
1267/22V	31.52	3.54
1300	13.50	1.80
1302	24.98	2.93
1304	34.50	3.90
1307	55.50	6.00
1307/9	77.25	8.10
1308/11	109.50	10.95
1309	123.75	12.38
1309/15	139.50	13.95
1310	175.80	18.11
1313	255.00	25.50
1313/31	423.60	43.11
1313/41	572.40	57.99
1314	904.20	91.17
1316	22.20	2.67
1317	39.90	4.52
1318	55.80	6.11
1319	72.15	7.74
1320	76.20	8.15
1322	79.50	8.25
1323	114.00	11.40
1327	183.30	19.30
1329	345.00	34.50
1341	18.83	2.13
1342	20.28	2.33
1343	25.44	2.85
1344	27.90	3.09
1345	40.50	4.35
1350	31.52	3.47
1351	32.45	3.56
1352	35.85	3.90
1353	43.88	4.70
1354	50.37	5.34
1355	73.85	7.70
1356	103.37	10.65
1370	37.05	3.98
1371	42.65	4.58
1372	43.88	4.70
1373	54.23	5.73
1374	63.35	6.65
1375	76.50	7.95
1381	12.90	1.82
1382	14.66	1.98
1383	19.64	2.31
1384	23.10	2.64
1385	42.30	4.53
1386	64.50	6.90
1387	102.30	10.68
1388	168.00	17.25
1389	258.00	26.40
1389/4	372.75	38.03
1389/2	570.00	57.75
1389/0	873.00	88.05
1389/00	1215.00	123.00
1391	46.65	4.97
1392	51.30	5.43
1393	56.70	6.38
1394	75.75	7.88
1395	91.80	9.48
1396	108.00	11.10
1449	106.29	11.19
1450	149.72	15.51
1450/16	194.70	20.03
1451	213.99	21.95
1451/16	251.85	25.73
1452	243.65	24.90
1452/16	302.40	30.75
1454	424.88	43.04
1456	526.50	53.18
1458	636.00	64.13
1459	843.75	84.90
1470	40.35	4.35

No.	Suggested Resale Price Each 1000′	100′
1471	44.85	4.80
1472	46.20	4.88
1473	56.85	6.00
1474	65.10	6.83
1475	80.10	8.33
1503	13.05	1.58
1504	13.59	1.67
1505	18.23	2.13
1506	24.72	2.78
1507	33.06	3.62
1508	48.21	5.13
1509	78.80	8.19
1550	7.04	1.01
1551	8.15	1.11
1553	10.68	1.37
1555	15.15	1.82
1557	22.29	2.54
1559	33.62	3.66
1560	56.10	5.91
1561	6.51	.95
1561/24	6.00	.90
1563	8.81	1.19
1565	12.60	1.56
1567	17.96	2.10
1571	14.60	1.77
1573	18.02	2.10
1575	24.18	2.73
1577	34.88	3.80
1579	56.78	6.15
1590	17.22	2.04
1590/24	14.40	1.73
1591	20.97	2.42
1592	26.49	2.97
1593	36.07	3.93
1594	50.06	5.31
1595	86.55	9.12
1610	7.61	1.07
1632	14.25	1.73
1635	16.80	1.98
1636	20.25	2.40
1638	32.70	3.60
1639	33.00	3.60
1651	78.48	8.31
1653	120.51	12.51
1655	210.42	21.51
1657	326.00	33.06
1685	7.80	1.10
1686	7.49	1.07
1687	8.12	1.13
1688	8.73	1.19
1689	9.36	1.25
1690	10.92	1.41
1702	27.30	3.18
1703	26.70	3.15
1704	36.00	4.28
1705	29.10	3.38
1706	53.70	5.82
1709	63.75	6.83
1710	52.50	5.85
1712	66.30	7.05
1713	67.50	6.75
1715	76.50	7.65
1716	91.50	9.98
1717	165.00	17.03
1719	220.50	22.58
1721	260.70	26.63
1736	39.00	4.35
1737	44.70	4.95
1741	51.90	5.64
1742	64.80	6.98
1746	57.00	6.15
1747	81.00	8.55
1748	80.70	8.55
1750	108.00	11.25
1753	9.00	1.35
1754	8.78	1.28
1755	10.20	1.40
1756	11.25	1.50
1757	16.65	2.03
1775	38.40	4.29
1779	35.70	4.02
1783	48.90	5.34
1793	17.13	2.18
1794	28.31	3.29
1794/4	38.40	4.28
1795	25.71	3.03
1796	38.10	4.28
1796/4	43.35	4.80
1797	30.60	3.53
1798	42.23	4.68
1798/4	59.67	6.51
1798/5	76.50	8.19
1798/6	92.42	9.78
1799	62.70	6.75
1799/3	71.40	7.58
1799/4	80.55	8.48
1830	8.33	1.14
1831	9.87	1.31
1832	12.71	1.58
1833	16.82	2.00
1834	21.53	2.46
1835	33.98	3.71
1840	11.90	1.50
1841	13.50	1.65
1842	16.76	1.98
1843	21.20	2.43
1844	27.00	3.02
1845	40.76	4.40
1850	10.20	1.32
1851	9.30	1.23
1852	8.70	1.17
1853	8.52	1.28
1854	7.74	1.23
1855	8.73	1.28
1856	9.50	1.34
1857	11.33	1.53
1858	14.40	1.83
1860	12.30	1.53
1861	11.70	1.47
1862	10.95	1.40
1863	10.41	1.47
1864	9.74	1.41
1865	10.83	1.52
1866	12.00	1.62
1867	13.98	1.80
1868	17.49	2.21

No.	Suggested Resale Price Each 1000′	100′
1893	21.12	2.42
1894	29.37	3.24
1894/4	41.10	4.58
1895	28.16	3.27
1896	41.61	4.62
1896/4	52.20	5.70
1897	35.66	4.02
1898	49.88	5.45
1898/4	67.95	7.20
1899	72.30	7.65
1899/3	84.90	8.93
1899/4	93.00	9.68
1900	11.57	1.47
1901	17.36	2.04
1903	18.23	2.13
1904	27.05	3.02
1906	23.72	2.84
1907	35.15	3.98
1909	37.59	4.23
1910	50.59	5.52
1915	14.75	1.77
1916	22.13	2.52
1918	19.67	2.28
1919	29.51	3.26
1921	27.05	3.17
1922	41.93	4.65
1924	40.55	4.52
1925	60.89	6.56
1927	60.21	6.48
1928	90.38	9.50
1931	58.80	6.41
1932	68.72	7.40
1932/3	86.40	9.17
1932/4	160.52	16.58
1933	80.12	8.54
1933/3	117.92	12.32
1933/4	186.20	19.14
1934	114.60	11.99
1934/3	141.32	14.66
1934/4	219.60	22.49
1935	129.32	13.46
1935/3	172.52	17.78
1935/4	268.80	27.48
1936	201.20	20.72
1936/3	285.92	29.19
1936/4	409.20	41.67
1937	267.32	28.83
1937/3	591.52	36.24
1937/4	516.00	52.35
1938	380.40	38.79
1938/3	526.20	53.37
1938/4	636.00	65 10
1951	48.00	5.28
1952	59.88	6.47
1952/3	81.12	8.58
1952/4	150.72	15.62
1953	66.72	7.14
1953/3	108.60	11.33
1953/4	175.68	18.11
1954	105.80	26.45
1954/3	149.48	15.50
1954/4	209.25	21.47
1955	118.56	12.41
1955/3	183.92	19.08
1955/4	266.16	27.15
1956	194.64	20.10
1956/3	290.36	29.66
1956/4	411.84	41.81
1957	278.88	39.50
1957/4	481.76	48.81
1958	380.64	38.85
1958/3	505.76	51.36
1958/4	594.56	61.01
2160	33.00	3.68
2162	40.80	4.26
2164	58.40	6.02
2166	62.76	6.44
2168	71.00	7.28
2170	109.20	10.92
2172	183.30	13.83
2174	215.00	21.50
2176	325.50	32.55
2254	33.44	3.80
2254/3	42.90	4.73
2254/4	67.50	7.20
2255	29.22	3.38
2256	38.72	4.32
2256/1	27.75	3.08
2256/3	56.45	6.09
2256/4	85.37	8.99
2258	47.70	5.22
2258/3	65.25	6.98
2260	77.43	8.19
2272	31.05	3.60
2276	34.65	3.90
2278	44.70	4.95
2280	39.90	4.43
2282	57.15	6.15
2284	65.40	6.98
2809	169.95	18.77
2809/2	356.90	37.47
2809/3	509.85	52.92
2809/4	662.81	68.21
2811	271.92	29.90
2811/2	441.87	46.89
2811/3	679.80	70.68
2811/4	781.77	80.88
2812	186.95	20.48
2812/2	390.89	40.86
2812/3	543.84	56.31
2812/4	747.78	76.71
2814	288.92	30.68
2814/2	494.40	51.21
2814/3	747.78	76.71
2814/4	934.73	95.40
2815	220.94	23.87
2815/2	475.86	49.37
2815/3	679.80	69.92
2815/4	883.74	90.30
2817	339.90	35.93
2817/2	560.84	58.02
2817/3	866.75	88.76
2817/4	1087.68	110.78
2818	273.00	29.18
2818/2	562.50	58.13

No.	Suggested Resale Price Each 1000′	100′
2818/3	721.35	74.03
2818/4	1039.65	105.83
2819	377.10	39.60
2819/2	708.90	72.75
2819/3	915.75	93.45
2819/4	1287.60	130.73
2821	412.20	43.13
2821/2	681.60	69.98
2821/3	904.20	92.25
2821/4	1080.60	109.95
2824	457.05	48.00
2824/2	777.60	79.73
2824/3	1041.30	105.98
2824/4	1249.05	126.75
2827	501.60	52.05
2827/2	893.40	91.20
2827/3	1202.10	122.10
2827/4	1474.20	149.25
2829	597.75	61.65
2829/2	1030.95	105.00
2829/3	1398.15	141.68
2829/4	1653.00	167.18
2850	72.15	8.70
2851	76.50	9.18
2852	78.38	9.38
2853	79.88	9.59
2854	88.88	10.67
2855	103.50	12.42
2856	132.75	15.93
2857	159.75	19.17
2858	209.25	25.11
2859	254.25	30.51
2859/10	541.50	57.15
2859/12	369.75	39.98
2874	95.03	11.78
2875	111.75	13.43
2876	141.30	16.35
2877	165.00	19.50
2878	224.25	25.50
2879	276.60	30.68
2879/8	1110.00	114.00
2879/10	606.60	63.60
2879/12	391.50	42.15
2881	86.63	10.40
2882	89.78	10.77
2883	101.25	12.15
2884	111.83	13.43
2885	137.03	16.44
2886	160.65	19.28
2887	192.15	23.06
2888	236.25	28.35
2889	298.50	34.95

No.	1 Lb. Put-Up
PE-44	11.70
PE-42	8.21
PE-40	3.74
PE-38	2.76
PE-36	2.28
PE-34	2.04
PE-32	1.88
PE-30	1.76
PE-28	1.71
PE-26	1.64
PE-24	1.55
PE-22	1.52
PE-20	1.46
PE-18	1.38
PE-16	1.38
PE-14	1.38
PE-12	1.38
PE-10	1.38
HF-44	13.83
HF-42	8.01
HF-40	6.23
HF-38	4.68
HF-36	4.11
HF-34	3.53
HF-32	3.14
HF-30	2.63
HF-28	2.49
HF-26	2.25
HF-24	2.09
HF-22	1.98
HF-20	1.82
HF-18	1.74
HF-16	1.58
HF-14	1.58
HF-12	1.58
HF-10	1.58

No.	¼ Lb. Put-Up
ST-44	18.75
ST-43	16.80
ST-42	14.93
ST-41	13.13
ST-40	11.03
ST-39	9.30
ST-38	7.58
ST-37	6.15
ST-36	5.03
ST-35	4.43
ST-34	3.90
ST-33	3.30
ST-32	3.08
ST-31	2.93
ST-30	2.85

	Sug. Resale Price per 100′
FIT-275-24	16.00
FIT-275-22	16.70
FIT-275-20	17.50
FIT-275-18	19.15
FIT-275-16	20.75
FIT-275-14	22.70
FIT-275-12	24.90
FIT-275-10	27.25
FIT-275-8	31.80
FIT-275-6	34.30
FIT-275-4	37.30
FIT-275-2	41.00
FIT-275-3/16	44.60
FIT-275-⅛	55.55
FIT-275-5/16	70.45
FIT-275-¼	81.50
FIT-275-5/16	97.00

No.	Suggested Resale Price Each 100′
FIT-275-¾	115.45
FIT-275-⅞	136.55
FIT-275-1	161.05
TFT-200-30	9.80
TFT-200-28	8.46
TFT-200-26	8.26
TFT-200-24	8.76
TFT-200-22	10.50
TFT-200-20	14.53
TFT-200-19	15.56
TFT-200-18	16.96
TFT-200-17	18.54
TFT-200-16	19.00
TFT-200-15	20.70
TFT-200-14	22.20
TFT-200-13	23.76
TFT-200-12	25.58
TFT-200-11	28.30
TFT-200-10	30.50
TFT-200-9	33.35
TFT-200-⅛	35.05
TFT-200-8	36.80
TFT-200-7	38.50
TFT-200-6	41.60
TFT-200-5	45.55
TFT-200-4	49.80
TFT-200-3	54.55
TFT-200-¼	58.90
TFT-200-2	61.80
TFT-200-1	68.90
TFT-200-5/16	74.80
TFT-200-0	76.20
PVC-105-24	1.96
PVC-105-22	1.97
PVC-105-20	2.01
PVC-105-19	2.06
PVC-105-18	2.08
PVC-105-17	2.11
PVC-105-16	2.20
PVC-105-15	2.27
PVC-105-14	2.34
PVC-105-13	2.39
PVC-105-12	2.49
PVC-105-11	2.56
PVC-105-10	2.66
PVC-105-9	3.49
PVC-105-8	3.74
PVC-105-7	3.97
PVC-105-6	4.26
PVC-105-5	4.58
PVC-105-4	4.93
PVC-105-3	5.25
PVC-105-2	5.69
PVC-105-1	6.12
PVC-105-5/16	7.79
PVC-105-0	6.58
PVC-105-⅜	8.94
PVC-105-7/16	9.65
PVC-105-½	10.64
PVC-105-9/16	14.17
PVC-105-⅝	15.30

	Sug. Resale Price per 50′
PVC-105-¾	10.56
PVC-105-⅞	11.87
PVC-105-1	13.27
PVC-105-1⅛	17.40
PVC-105-1¼	18.39
PVC-105-1⅜	19.66
PVC-105-1½	23.84

	Sug. Resale Price per 100′
ZIP31-¼	33.00
ZIP31-⅜	33.50
ZIP31-½	34.00
ZIP31-⅝	34.50
ZIP31-¾	35.00
ZIP31-⅞	36.00
ZIP31-1	36.00
ZIP31-1⅛	37.50
ZIP31-1¼	38.00
ZIP31-1⅜	39.00
ZIP31-1½	39.50
ZIP31-1⅝	40.00
ZIP31-1¾	41.00
ZIP31-1⅞	41.50
ZIP31-2	42.00
ZIP31-2¼	43.00
ZIP31-2½	44.50
ZIP31-2¾	46.00
ZIP31-3	47.50
ZIP31-3¼	48.50
ZIP31-3½	50.00
ZIP31-3¾	51.50
ZIP31-4	53.00

LACING CORD

No.	Suggested Resale Price Ea.
LC-102 (8 oz. tubes)	
White	4.32
Black	5.07
LC-113 (8 oz. spools)	
White	4.28
Black	5.03
LC-114 (8 oz. spools)	
White	4.32
Black	3.38
LC-115 (8 oz. spools)	
White	4.35
Black	5.10
LC-134 (500 yd. sps.)	
White	12.39/M yds.
Black	14.27/M yds.
LC-136 (500 yd. sps.)	
White	18.75/M yds.
Black	20.63/M yds.
LC-137 (500 yd. sps.)	
White	39.23/M yds.
Black	41.10/M yds.
LC-162 (500 yd. sps.)	
White	18.75/M yds.
Black	20.63/M yds.

Net

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BELDEN • PRICE LIST

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
8000-50	.83
8000-75	1.13
8000-100	1.45
800-1000	13.50
8002-50	.60
8002-75	.75
8002-100	.98
8002-1000	9.00
8008-100	2.55
8008-200	4.65
8008-500	10.90
8009-100	1.73
8009-200	3.30
8009-500	7.35
8011-100	2.10
8011-1000 TBO	18.00
8012-100	1.50
8012-1000	12.00
8013-100	1.10
8013-1000	8.25
8014-25	.38
8014-500	2.70
8018-50	.90
8018-500	7.50
8018-1000 TBO	14.25
8019-100	.75
8019-1000	5.25
8020-100	.60
8020-1000	4.00
8021-100	.53
8021-1000	3.40
8022-100	.51
8022-1000	3.00
8023-100	.51
8023-1000	2.63
8024-100	.50
8024-1000	2.40
8025-100	.50
8025-1000	2.25
8026-100	.50
8026-1000	2.25
8027-100	.50
8027-1000	2.25
(Trade numbers 8040 thru 8086 — See Beldenamel Magnet Wire on last Page)	
8127-10	.38
8127-500	5.25
8200-100	1.65
8200-500	6.45
8200-1000	12.15
8204-25	1.28
8204-100 TBO	3.75
8204-500 TBO	16.15
8204-1000 TBO	32.25/M'
8205-25	.83
8205-100	2.50
8205-500	9.75
8205-1000	19.15/M'
8206-15	.75
8206-50	2.03
8206-100	3.60
8206-250	7.90
8208-15	1.17
8208-50	3.25
8208-100	5.95
8208-500	25.50
8208-1000	51.00/M'
8209-15 TBO	1.17
8209-50 TBO	3.25
8209-100 TBO	5.95
8209-500	25.50
8209-1000	51.00/M'
8210-50 TBO	3.15
8210-100	5.65
8210-500	27.00
8211-500	48.00/M'
8211-1000	46.50/M'
8211-2000	46.50/M'
8212-100 TBO	5.35
8212-500	48.00/M'
8212-1000	46.50/M'
8212-2000	46.50/M'
8213-500	111.00/M'
8213-1000	111.00/M'
8213-2000	111.00/M'
*8214-100	12.00
*8214-500	115.50/M'
*8214-1000	115.50/M'
*8215-100	11.25
*8215-500	106.50/M'
*8215-1000	106.50/M'

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
*8216-100	4.15
*8216-500	37.50/M'
*8216-1000	37.50/M'
8222-100	1.65
8222-500	7.50
8224-100 TBO	2.05
8224-500 TBO	9.00
8225-25	.72
8225-50	1.05
8225-75	1.35
8225-100	1.65
8225-500	7.50
8225-1000	14.95
8226-25	.72
8226-50	1.16
8226-75	1.56
8226-100	1.92
8227-100	9.00
8227-250 TBO	21.75
8227-500	87.00/M'
8230-25	.78
8230-50	1.23
8230-75	1.70
8230-100	2.13
8230-500	10.20
8230-1000	19.20
8231-100 TBO	6.30
8231-500 TBO	60.00/M'
8231-1000 TBO	60.00/M'
8232-100 TBO	9.15
8232-500	87.00/M'
8232-1000	87.00/M'
8232-2000	87.00/M'
8233-500	168.00/M'
8233-1000	168.00/M'
8233-1500 (TBO)	168.00/M'
8233-2000	168.00/M'
8235-100	4.80
8235-500	21.00
8237-100 ‡ (RG-8/U)	12.40
8237-250 ‡ (RG-8/U)	115.50/M'
8237-500 ‡ (RG-8/U)	115.50/M'
8237-1000‡ (RG-8/U)	115.50/M'
8238-100 ‡ (RG-11/U)	11.20
8238-250 ‡ (RG-11/U)	103.50/M'
8238-500 ‡ (RG-11/U)	103.50/M'
8238-1000‡ (RG-11/U)	103.50/M'
8238-1500‡ (RG-11/U)	103.50/M'
8239-100 ‡ (RG-54A/U) TBO	8.25
8239-500 ‡ (RG-54A/U)	76.50/M'
8239-1000‡ (RG-54A/U)	76.50/M'
8240-25 ‡ (RG-58/U)	1.80
8240-50 ‡ (RG-58/U)	2.85
8240-100 ‡ (RG-58/U)	4.95
8240-250 ‡ (RG-58/U)	43.50/M'
8240-500 ‡ (RG-58/U)	43.50/M'
8240-1000‡ (RG-58/U)	43.50/M'
8241-25 ‡ (RG-59/U)	1.95
8241-50 ‡ (RG-59/U)	3.25
8241-100 ‡ (RG-59/U)	5.80
8241-250 ‡ (RG-59/U)	50.25/M'
8241-500 ‡ (RG-59/U)	47.00/M'
8241-1000‡ (RG-59/U)	47.00/M'
8242-100 ‡ (RG-9/U)	30.00
8242-500 ‡ (RG-9/U) TBO	294.00/M'

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
8242-1000‡ (RG-9/U)	294.00/M'
8245-100 ‡ (RG-55/U) TBO	7.50
8245-500 ‡ (RG-55/U)	70.50/M'
8245-1000‡ (RG-55/U)	70.50/M'
8254-100 ‡ (RG-62/U)	6.15
8254-500 ‡ (RG-62/U)	50.00/M'
8254-1000‡ (RG-62/U)	50.00/M'
8257-100 ‡ (RG-71/U) TBO	9.75
8257-500 ‡ (RG-71/U)	91.50/M'
8257-1000‡ (RG-71/U)	91.50/M'
8259-25 ‡ (RG-58A/U)	1.75
8259-50 ‡ (RG-58A/U)	2.70
8259-100 ‡ (RG-58A/U)	5.05
8259-500 ‡ (RG-58A/U)	43.50/M'
8259-1000‡ (RG-58A/U)	43.50/M'
8260-100 ‡ (TBO) (RG-22A/U)	22.50
8260-500 ‡ (TBO) (RG-22A/U)	225.00/M'
8260-1000‡ (TBO) (RG-22A/U)	225.00/M'
8261-100 ‡ (RG-11A/U)	14.55
8261-500 ‡ (RG-11A/U)	132.00/M'
8261-1000‡ (RG-11A/U)	132.00/M'
8262-100 ‡ (RG-58C/U) TBO	6.00
8262-500 ‡ (RG-58C/U)	51.00/M'
8262-1000‡ (RG-58C/U)	51.00/M'
8263-100 ‡ (RG-59B/U) TBO	6.75
8263-500 ‡ (RG-59B/U)	54.00/M'
8263-1000‡ (RG-59B/U)	54.00/M'
8264-100 ‡ (RG-5A/U) TBO	25.42
8264-500 ‡ (RG-5A/U)	246.00/M'
8264-1000‡ (RG-5A/U)	246.00/M'
8267-100 ‡ (RG-8A/U) TBO	15.45
8267-500 ‡ (RG-8A/U)	142.50/M'
8267-1000‡ (RG-8A/U)	142.50/M'
8275-50	2.40
8275-75	3.45
8275-100	4.28
8275-500	21.40
8275-1000	42.00
8280 (to customer's Specified length)	600.00/M'
8281-100 (TBO)	16.50
8281-500	165.00/M'
8281-1000	165.00/M'
8282-50 TBO	13.50
8282-100 TBO	27.00
8282-500	270.00/M'
8282-1000	270.00/M'
8283★ (to customer's specified lengths)§	2,250.00/M'
8284 (to customer's specified lengths)§	675.00/M'
8285-50	2.85
8285-75	4.20
8285-100	5.40
8285-500	25.50
8285-1000	51.00
8300-25 † Solid △	1.90
8300-50 † Solid △	3.00
8300-100 †• Solid △	5.25
8300-250 †• Solid △	47.25/M'
8300-500 †• Solid △	43.50/M'
8300-1000†• Solid △	42.75/M'
8300-25 † Striped △	2.10

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
8300-50 † Striped △	3.45
8300-100 †• Striped △	6.15
8300-250 †• Striped △	56.25/M'
8300-500 †• Striped △	52.50/M'
8300-1000†• Striped △	51.75/M'
8301-25 † Solid △	1.90
8301-50 † Solid △	3.00
8301-100 †• Solid △	5.50
8301-250 †• Solid △	48.75/M'
8301-500 †• Solid △	45.00/M'
8301-1000†• Solid △	44.25/M'
8301-25 † Striped △	2.10
8301-50 † Striped △	3.45
8301-100 †• Striped △	6.40
8301-250 †• Striped △	57.75/M'
8301-500 †• Striped △	54.00/M'
8301-1000†• Striped △	53.25/M'
8302-25 †• Solid △	1.90
8302-50 †• Solid △	3.15
8302-100 †• Solid △	5.55
8302-250 †• Solid △	49.50/M'
8302-500 †• Solid △	45.75/M'
8302-1000†• Solid △	45.00/M'
8302-25 † Striped △	2.10
8302-50 † Striped △	3.60
8302-100 †• Striped △	6.45
8302-250 †• Striped △	58.50/M'
8302-500 †• Striped △	54.75/M'
8302-1000†• Striped △	54.00/M'
8303-25 † Solid △	2.10
8303-50 † Solid △	3.30
8303-100 †• Solid △	6.40
8303-250 †• Solid △	55.50/M'
8303-500 †• Solid △	52.50/M'
8303-1000†• Solid △	51.75/M'
8303-25 † Striped △	2.35
8303-50 † Striped △	3.75
8303-100 †• Striped △	7.30
8303-250 †• Striped △	64.50/M'
8303-500 †• Striped △	61.50/M'
8303-1000†• Striped △	60.75/M'
8304-25 † Solid △	2.05
8304-50 † Solid △	3.25
8304-100 †• Solid △	6.00
8304-250 †• Solid △	53.25/M'
8304-500 †• Solid △	49.50/M'
8304-1000†• Solid △	48.75/M'
8304-25 † Striped △	2.25
8304-50 † Striped △	3.70
8304-100 †• Striped △	6.90
8304-250 †• Striped △	62.25/M'
8304-500 †• Striped △	58.50/M'
8304-1000†• Striped △	57.75/M'
8305-25 † Solid △	2.25
8305-50 † Solid △	4.00
8305-100 †• Solid △	7.50
8305-250 †• Solid △	63.00/M'
8305-500 †• Solid △	59.25/M'
8305-1000†• Solid △	58.50/M'
8305-25 † Striped △	2.50
8305-50 † Striped △	4.45
8305-100 †• Striped △	8.40
8305-250 †• Striped △	72.00/M'
8305-500 †• Striped △	68.25/M'
8305-1000†• Striped △	67.50/M'
8306-25 † Solid △	2.40
8306-50 † Solid △	4.15
8306-100 †• Solid △	7.50
8306-250 †• Solid △	66.75/M'
8306-500 †• Solid △	63.00/M'
8306-1000†• Solid △	62.25/M'
8306-25 † Striped △	2.65
8306-50 † Striped △	4.60
8306-100 †• Striped △	8.40
8306-250 †• Striped △	75.75/M'
8306-500 †• Striped △	72.00/M'
8306-1000†• Striped △	71.25/M'
8307-25 † Solid △	2.65
8307-50 † Solid △	4.80
8307-100 †• Solid △	9.00
8307-250 †• Solid △	78.75/M'
8307-500 †• Solid △	75.00/M'
8307-1000†• Solid △	74.25/M'
8307-25 † Striped △	2.85
8307-50 † Striped △	5.25
8307-100 †• Striped △	9.90
8307-250 †• Striped △	87.75/M'
8307-500 †• Striped △	84.00/M'
8307-1000†• Striped △	83.25/M'
8308-25 † Solid △	2.70
8308-50 † Solid △	4.80
8308-100 †• Solid △	9.00
8308-250 †• Solid △	78.75/M'
8308-500 †• Solid △	75.00/M'
8308-1000†• Solid △	74.25/M'

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
8308-25 † Striped △	2.95
8308-50 † Striped △	5.25
8308-100 †• Striped △	9.90
8308-250 †• Striped △	87.75/M'
8308-500 †• Striped △	84.00/M'
8308-1000† Striped △	83.25/M'
8309-25 † Solid △	3.15
8309-50 † Solid △	5.85
8309-100 † Solid △	10.80
8309-250 † Solid △	98.25/M'
8309-500 † Solid △	93.75/M'
8309-1000† Solid △	92.25/M'
8309-25 † Striped △	3.55
8309-50 † Striped △	6.30
8309-100 † Striped △	11.70
8309-250 † Striped△	107.25/M'
8309-500 † Strined△	102.75/M'
8309-1000† Striped△	101.25/M'
8310-25 † Solid △	4.15
8310-50 † Solid △	7.50
8310-100 † Solid △	13.50
8310-250 † Solid △	126.00/M'
8300-500 † Solid △	121.50/M'
8310-1000† Solid △	120.00/M'
8310-25 † Striped △	4.35
8310-50 † Striped △	7.95
8310-100 †• Striped △	14.40
8310-250 †• Striped△	135.00/M'
8310-500 †• Striped△	130.50/M'
8310-1000†• Striped△	129.00/M'
8320-25 † Solid △	2.40
8320-50 † Solid △	3.90
8320-100 †• Solid △	7.50
8320-250 †• Solid △	69.00/M'
8320-500 †• Solid △	65.25/M'
8320-1000†• Solid △	64.50/M'
8320-25 † Striped △	2.65
8320-50 † Striped △	4.35
8320-100 †• Striped △	8.40
8320-250 †• Striped △	78.00/M'
8320-500 †• Striped △	74.25/M'
8320-1000†• Striped △	73.50/M'
8321-25 † Solid △	2.40
8321-50 † Solid △	3.90
8321-100 †• Solid △	7.50
8321-250 †• Solid △	64.50/M'
8321-500 †• Solid △	60.75/M'
8321-1000†• Solid △	60.00/M'
8321-25 † Striped △	2.65
8321-50 † Striped △	4.35
8321-100 †• Striped △	8.40
8321-250 †• Striped △	73.50/M'
8321-500 †• Striped △	69.75/M'
8321-1000†• Striped △	69.00/M'
8322-25 † Solid	2.25
8322-50 † Solid △	3.85
8322-100 †• Solid △	7.15
8322-250 †• Solid △	63.00/M'
8322-500 †• Solid △	60.75/M'
8322-1000†• Solid △	60.00/M'
8322-25 † Striped △	2.50
8322-50 † Striped △	4.30
8322-100 †• Striped △	8.05
8322-250 †• Striped △	72.00/M'
8322-500 †• Striped △	69.75/M'
8322-1000†• Striped △	69.00/M'
8323-25 † Solid △	2.55
8323-50 † Solid △	4.50
8323-100 †• Solid △	8.65
8323-250 †• Solid △	73.15/M'
8323-500 †• Solid △	69.00/M'
8323-1000†• Solid △	68.25/M'
8323-25 † Striped △	2.80
8323-50 † Striped △	4.95
8323-100 †• Striped △	9.55
8323-250 †• Striped △	82.15/M'
8323-500 †• Striped △	78.00/M'
8323-1000†• Striped △	77.25/M'
8324-25 † Solid △	2.50
8324-25 † Solid △	4.50
8324-100 †• Solid △	8.25
8324-250 †• Solid △	72.00/M'
8324-500 †• Solid △	68.25/M'
8324-1000†• Solid △	67.50/M'
8324-25 † Striped △	2.70
8324-50 † Striped △	4.95
8324-100 †• Striped △	9.15
8324-250 †• Striped △	81.00/M'
8324-500 †• Striped △	77.25/M'
8324-1000†• Striped △	76.50/M'

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Trade Number Lgth. in Ft.			Sug. Dealers Price Each
8325-25	†	Solid △	2.65
8325-50	†	Solid △	4.50
8325-100	†•	Solid △	8.65
8325-250	†•	Solid △	75.75/M'
8325-500	†•	Solid △	72.75/M'
8325-1000†	•	Solid △	72.00/M'
8325-25	†	Striped △	2.85
8325-50	†	Striped △	5.40
8325-100	†•	Striped △	9.55
8325-250	†•	Striped △	84.75/M'
8325-500	†•	Striped △	81.75/M'
8325-1000†	•	Striped △	81.00/M'
8326-25	†	Solid △	2.80
8326-50	†	Solid △	4.95
8326-100	†•	Solid △	9.55
8326-250	†•	Solid △	81.90/M'
8326-500	†•	Solid △	77.70/M'
8326-1000†	•	Solid △	76.50/M'
8326-25	†	Striped △	3.00
8326-50	†	Striped △	5.40
8326-100	†•	Striped △	10.45
8326-250	†•	Striped △	90.80/M'
8326-500	†•	Striped △	86.70/M'
8326-1000†	•	Striped △	85.50/M'
8327-25	†	Solid △	3.15
8327-50	†	Solid △	5.40
8327-100	†•	Solid △	10.50
8327-250	†•	Solid △	92.25/M'
8327-500	†•	Solid △	87.75/M'
8327-1000†	•	Solid △	87.00/M'
8327-25	†	Striped △	3.40
8327-50	†	Striped △	5.85
8327-100	†•	Striped △	11.40
8327-250	†• Striped △		101.25/M'
8327-500	†•	Striped △	96.75/M'
8327-1000†	•	Striped △	96.00/M'
8328-25	†	Solid △	3.15
8328-50	†	Solid △	5.40
8328-100	†•	Solid △	10.50
8328-250	†•	Solid △	92.25/M'
8328-500	†•	Solid △	87.75/M'
8328-1000†	•	Solid △	87.00/M'
8328-25	†	Striped △	3.40
8328-50	†	Striped △	5.85
8328-100	†•	Striped △	11.40
8328-250 †• Striped △			101.25/M'
8328-500	†•	Striped △	96.75/M'
8328-1000†	•	Striped △	96.00/M'
8329-25	†	Solid △	3.75
8329-50	†	Solid △	6.90
8329-100	†•	Solid △	13.50
8329-250	†•	Solid △	118.50/M'
8329-500	†•	Solid △	114.00/M'
8329-1000†	•	Solid △	113.25/M'
8329-25	†	Striped △	4.00
8329-50	†	Striped △	7.35
8329-100	†•	Striped △	14.40
8329-250 †• Striped △			127.50/M'
8329-500 †• Striped △			123.00/M'
8329-1000† • Striped △			122.50/M'
8330-25	†	Solid △	4.50
8330-50	†	Solid △	9.00
8330-100	†•	Solid △	16.50
8330-25	†•	Solid △	144.75/M'
8330-500	†•	Solid △	136.50/M'
8330-1000†	•	Solid △	135.00/M'
8330-25	†	Striped △	4.75
8330-50	†	Striped △	9.45
8330-100	†•	Striped △	17.40
8330-250 †• Striped △			153.75/M'
8330-500 †• Striped △			145.50/M'
8330-1000† • Striped △			144.00/M'
8401-15			.87
8401-25			1.20
8401-50			2.35
8401-100			4.30
8401-250			9.00
8401-500			18.00
8403-15			1.45
8403-50			3.60
8403-100			6.75
8403-250			16.50
8403-500			33.75
8403-1000			67.50
8404-15			1.50
8404-50	TBO		4.05
8404-100			7.65
8404-250			19.50
8404-500			38.25
8404-1000			76.50
8405-15	(TBO)		1.90
8405-50	(TBO)		4.95
8405-100	(TBO)		10.00
8405-250			23.25
8405-500			45.75
8405-1000			91.50
*8406-100			9.30
*8406-250			22.50
*8406-500			45.00
8410-15			1.35
8410-25			2.10
8410-50			3.90
8410-100			7.35
8410-250			17.25
8410-500			34.50
8411-15			.71
8411-25			1.01
8411-50			1.75
8411-100			3.15
8411-250			6.70
8411-500			13.35
8412-15			1.53
8412-25			2.35
8412-50			4.30
8412-100			8.25
8412-250			19.00
8412-500			37.90
8413-15			1.50
8413-25			2.25
8413-50			4.00
8413-100			7.50
8413-250			18.00
8413-500			36.00
8414-50			4.00
8414-500			32.25
8415-			1.15
8418-15	TBO		2.95
8418-50	TBO		9.00
8418-100			18.00
8418-250			45.00
8419-10			.75
8419-25			1.28
8419-250			9.00
8420-15			1.50
8420-25			2.25
8420-50			3.40
8420-100			6.40
8420-250			16.50
8420-500			30.00
8421-15			.87
8421-25			1.20
8421-50			2.35
8421-100			3.75
8421-250			8.50
8421-500	(TBO)		18.00
8422-15			1.15
8422-25			1.75
8422-50			3.25
8422-100			5.85
8422-250			13.15
8422-500			26.25
8523-15			1.80
8423-50			4.80
8423-100			9.30
8423-250			22.50
8423-500			45.00
8423-1000			90.00
8424-15			1.95
8424-50			5.65
8424-100			10.60
8424-250			25.65
8424-500			51.30
8424-1000			102.60
8425-15	TBO		2.25
8425-50	TBO		6.70
8425-100			13.20
8425-250			32.25
8426-15	TBO		2.70
8426-50	TBO		8.20
8426-100			15.75
8426-250			39.45
8427-15	TBO		2.95
8427-50	TBO		8.85
8427-100			17.25
8427-250			42.00
8428-15	TBO		1.75
8428-25	TBO		2.85
8428-50	TBO		5.40
8428-100			10.50
8428-500			50.25
8429-10			.68
8429-25			1.08
8429-250			7.65
8430-10			.53
8430-25			.68
8430-250			4.20
8431-10			.53
8431-15			.66
8431-25			1.01
8431-100			3.25
8431-500			14.70
8432-100	TBO		6.40
8432-500			29.25
8432-1000			58.50/M'
8433-100 (TBO)			7.80
8433-500 (TBO)			75.00/M'
8434-100 ★			4.65
8434-500 ★			22.50
8434-1000★			45.00/M'
8436-100	TBO		4.75
8436-500			42.00/M'
8436-1000			42.00/M'
8437-100	TBO		3.85
8437-500			36.00/M'
8437-1000			36.00/M'
8440-100	TBO		4.60
8440-500			42.00/M'
8440-1000			42.00/M'
8441-100			4.50
8441-500			21.30
8441-1000			42.00/M'
*8442-500			16.50/M'
*8442-1000			16.50/M'
8443-25			.83
8443-100			2.48
8443-500			9.40
8443-1000			18.75/M'
8444-25			.98
8444-100			3.00
8444-500			12.40
8444-1000			24.75/M'
8445-25			1.16
8445-100			3.70
8445-500			15.00
8445-1000			30.00/M'
8446-15			1.05
8446-100			5.40
8446-500			23.25
8446-1000			46.50/M'
8447-15			1.15
8447-100			6.15
8447-500			26.25
8447-1000			52.50/M'
8448-15			1.20
8448-100			6.40
8448-500			29.25
8448-1000			58.50/M'
8449-15			1.30
8449-100			7.15
8449-500			32.25
8449-1000			64.50/M'
8450-100 ★			2.55
8450-500 ★			10.50
8450-1000★			21.00/M'
8451-100 ★			3.00
8451-500 ★			13.80
8451-1000★			27.00/M'
8452-15			.98
8452-25			1.50
8452-50			2.50
8452-100			4.45
8452-250			10.35
8452-500			20.65
8452-1000			39.75
8453-15			1.20
8453-50			3.15
8453-100			6.30
8453-500			31.50
8454-15			1.45
8454-50			3.75
8454-100			7.20
8454-500			34.50
8454-1000			69.00/M'
8455-15	TBO		1.50
8455-50	TBO		4.05
8455-100			7.50
8455-250			75.00/M'
*8456-100			7.05
*8456-500			66.00/M'
*8456-1000			66.00/M'
*8457-100			7.50
*8457-500			70.50/M'
*8457-1000			70.50/M'
8460-100			2.25
8460-500			9.90
8460-1000			19.20/M'
8461-100			3.15
8461-500			13.80
8461-1000			27.00/M'
8462-25	†		1.05
8462-100	†		2.96
8462-250	†		6.75
8464-50			1.60
8464-75			2.35
8464-100			2.95
8464-500			13.50
8464-1000			26.25
*8465-100			6.00
*8465-500			27.75
*8465-1000			55.00/M'
*8467-100			7.80
*8467-500			36.75
*8467-1000			73.50/M'
*8469-100			10.20
*8469-500			48.75
*8469-1000			97.50/M'
8470-100	TBO		2.85
8470-500			24.00/M'
8470-1000			24.00/M'
8471-100	TBO		4.00
8471-500			34.20/M'
8471-1000			34.20/M'
8472-25			1.90
8472-50			3.75
8472-100			7.15
8472-250			67.50/M'
*8473-500			55.50/M'
*8473-1000			55.50/M'
8474-100			9.00
8474-250			85.50 M'
8478-25			1.65
8478-50	TBO		2.95
8478-100			5.40
8478-250			13.50
8478-1000			54.00/M'
8481-100			1.28
8481-500			4.65
8481-1000			9.00/M'
8482-100			1.60
8482-500			5.85
8482-1000			11.25/M'
8483-100			1.95
8483-500			8.25
8483-1000			16.50/M'
8484-100			3.15
8484-500			13.90
8484-1000			27.75/M'
8485-100			3.70
8485-500			17.00
8485-1000			34.00/M'
8486-100	TBO		2.10
8486-500			18.00/M'
8486-1000			18.00/M'
8487-100	TBO		2.65
8487-500			23.10/M'
8487-1000			23.10/M'
8488-100			4.50
8488-500			21.00
8488-1000			40.50/M'
8492-100	†		1.80
8492-500	†		7.15
8492-1000†			13.90/M'
8493-100	†	(TBO)	2.25
8493-500	†	(TBO)	9.90
8493-1000†			21.00/M'
*8494			1.19
*8495			1.01
*8496			1.01
*8497			1.16
*8498			.72
*8499			.74
8500-100	†	Solid	1.65
*8500-500	†	Solid	6.90
8500-1000†		Solid	13.00
8500-100	†	Striped ↓	1.77
*8500-500	†	Striped ↓	7.50
8500-1000†		Striped ↓	14.10
8501-100	†	Solid	1.38
*8501-500	†	Solid	5.40
8501-1000†		Solid	10.20
8501-100	†	Striped ↓	1.50
*8501-500	†	Striped ↓	6.00
8501-1000†		Striped ↓	11.35
8502-100	†	Solid	1.29
*8502-500	†	Solid	4.95
8502-1000†		Solid	9.30
8502-100	†	Striped ↑	1.41
*8502-500	†	Striped ↑	5.55
8502-1000†		Striped ↑	10.45
8503-100	†	Solid	1.16
*8503-500	†	Solid	4.20
8503-1000†		Solid	7.85
8503-100	†	Striped ↑	1.28
*8503-500	†	Striped ↑	4.80
8503-1000†		Striped ↑	9.00
8504-100	†	Solid	1.11
*8504-500	†	Solid	3.85
8504-1000†		Solid	7.00
8504-100	†	Striped ↑	1.23
*8504-500	†	Striped ↑	4.45
8504-1000†		Striped ↑	8.10
8505-100	†	Solid	1.15
*8505-500	†	Solid	4.35
8505-1000†		Solid	8.10
8505-100	†	Striped ↑	1.28
8505-500	†	Striped ↑	4.95
8505-1000†		Striped ↑	9.25
8506-100	†	Solid	1.80
8506-1000†		Solid	12.90
8506-100	†	Striped ↑	1.68
8506-1000†		Striped ↑	14.05
8507-100	†	Solid	1.43
8507-1000†		Solid	10.60
8507-100	†	Striped ↑	1.55
8507-1000†		Striped ↑	11.70
8508-100	†	Solid	1.40
8508-1000†		Solid	10.30
8508-100	†	Striped ↑	1.52
8508-1000†		Striped ↑	11.40
8509-100	†	Solid	1.37
8509-1000†		Solid	10.15
8509-100	†	Striped ↑	1.49
8509-1000†		Striped ↑	11.25
8510-100	†	Solid	2.10
*8510-500	†	Solid	8.95
8510-1000†		Solid	17.20
8510-100	†	Striped ↑	2.22
*8510-500	†	Striped ↑	9.55
8510-1000†		Striped ↑	18.30
8511-100	†	Solid	1.80
*8511-500	†	Solid	7.35
8511-1000†		Solid	14.05
8511-100	†	Striped ↑	1.92
*8511-500	†	Striped ↑	7.95
8511-1000†		Striped ↑	15.15
8512-100	†	Solid	1.50
*8512-500	†	Solid	5.85
8512-1000†		Solid	11.20
8512-100	†	Striped ↑	1.62
*8512-500	†	Striped ↑	5.85
8512-1000†		Striped ↑	12.30
8513-100	†	Solid	1.43
*8513-500	†	Solid	5.55
8513-1000†		Solid	10.45
8513-100	†	Striped ↑	1.55
*8513-500	†	Striped ↑	6.15
8513-1000†		Striped ↑	11.55
8514-100	†	Solid	1.32
*8514-500	†	Solid	4.95
8514-1000†		Solid	9.40
8514-100	†	Striped ↑	1.44
*8514-500	†	Striped ↑	5.55
8514-1000†		Striped ↑	10.50
8515-100	†	Solid	1.41
*8515-500	†	Solid	5.48
8515-1000†		Solid	10.45
8515-100	†	Striped ↑	1.53
*8515-500	†	Striped ↑	6.10
8515-1000†		Striped ↑	11.55
8516-100	†	Solid	2.03
8516-1000†		Solid	15.60
8516-100	†	Striped ↑	2.15
8516-1000†		Striped ↑	17.10
8517-100	†	Solid	1.73
8517-1000†		Solid	13.30
8517-100	†	Striped ↑	1.85
8517-1000†		Striped ↑	14.40
8518-100	†	Solid	1.71
8518-1000†		Solid	13.15
8518-100	†	Striped ↑	1.83
8518-1000†		Striped ↑	14.25
8519-100	†	Solid	1.52
8519-1000†		Solid	11.50
8519-100	†	Striped ↑	1.64
8519-1000†		Striped ↑	12.60
8520-100	†	Solid	2.03
*8520-500	†	Solid	9.55
8520-1000†		Solid	17.25
8520-100	†	Striped ↑	2.15
8520-500	†	Striped ↑	10.15
8520-1000†		Striped ↑	18.40
8521-100	†	Solid	1.58
*8521-500	†	Solid	6.15

Net

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BELDEN • PRICE LIST

Trade Number	Lgth. in Ft.		Sug. Dealers Price Each
8521-1000†		Solid	11.85
8521-100 †		Striped ♦	1.70
8521-500 †		Striped ♦	6.70
8521-1000†		Striped ♦	13.00
8522-25 †		Solid	.48
8522-100 †		Solid	1.23
*8522-500 †		Solid	4.80
8522-1000†		Solid	9.10
8522-100 †		Striped ♦	1.35
*8522-500 †		Striped ♦	5.40
8522-1000†		Striped ♦	10.20
8523-25 †		Solid	.48
8523-100 †		Solid	1.05
*8523-500			3.90
8523-1000†		Solid	7.15
8523-100 †		Striped ♦	1.17
*8523-500 †		Striped ♦	4.50
8523-1000†		Striped ♦	8.25
8524-25 †		Solid	.39
8524-100 †		Solid	.93
*8524-500			3.25
8524-1000†		Solid	5.85
8524-100 †		Striped ♦	1.05
*8524-500 †		Striped ♦	3.85
8524-1000†		Striped ♦	7.00
8525-100 †		Solid	.93
*8525-500			2.95
8525-1000†		Solid	5.25
8525-100 †		Striped ♦	1.05
*8525-500 †		Striped ♦	3.55
8525-1000†		Striped ♦	6.40
8526-100 †		Solid (TBO)	6.35
8526-1000†		Solid (TBO)	51.60
8527-100 †		Solid	2.85
*8527-500			12.75
8527-1000†		Solid	24.00
8527-100 †		Striped ♦	2.95
8527-500 †		Striped ♦	13.30
8527-1000†		Striped ♦	25.15
8528-100 †		Solid	1.15
*8528-500			4.05
8528-1000†		Solid	7.50
8528-100 †		Striped ♦	1.25
8528-500 †		Striped ♦	4.60
8528-1000†		Striped ♦	8.65
8529-25 †		Solid	.44
8529-100 †		Solid	.96
*8529-500			3.00
8529-1000†		Solid	5.40
8529-100 †		Striped ♦	1.08
8529-500 †		Striped ♦	3.60
8529-1000†		Striped ♦	6.55
8530-25 †		Solid	.36
8530-100 †		Solid	.74
*8530-500			2.55
8530-1000†		Solid	4.50
8530-100 †		Striped ♦	.86
8530-500 †		Striped ♦	3.15
8530-1000†		Striped ♦	5.65
*8531-100		Solid	1.35
*8531-500		Solid	5.25
*8531-1000		Solid	10.15
*8531-100		Striped ♦	1.47
*8531-500		Striped ♦	5.85
*8531-1000		Striped ♦	11.25
*8532-100		Solid	5.10
*8532-500		Solid	22.50
*8532-1000		Solid	43.50
*8533-100		Solid	3.75
*8533-500		Solid	16.50
*8533-1000		Solid	30.00
*8534-100		Solid	2.70
*8534-500		Solid	12.00
*8534-1000		Solid	22.50
*8534-100		Striped ♦	2.85
*8534-500		Striped ♦	12.60
*8534-1000		Striped ♦	23.65
*8535-100		Solid	2.25
*8535-500		Solid	9.75
*8535-1000		Solid	18.00
*8535-100		Striped ♦	2.37
*8535-500		Striped ♦	10.35
*8535-1000		Striped ♦	19.15
*8536-100		Solid	1.35
*8536-500		Solid	6.15
*8536-1000		Solid	10.80
*8536-100		Striped ♦	1.47
*8536-500		Striped ♦	6.75
*8536-1000		Striped ♦	11.95
*8537-100		Solid	1.20
*8537-500		Solid	5.50
*8537-1000		Solid	9.55
*8537-100		Striped	1.32
*8537-500		Striped	6.10
*8537-1000		Striped	10.65
*8541-100			1.65
*8541-500			7.05
*8541-1000			11.65
*8542-100			1.80
*8542-500			7.80
*8542-1000			13.20
*8543-100			2.10
*8543-500			9.60
*8543-1000			17.70
*8544-100			2.40
*8544-500			11.25
*8544-1000			20.85
*8545-100			4.05
*8545-500			19.50
*8545-1000			37.50
*8546-100			6.30
*8546-500			29.40
*85-46-1000			58.05
*8547-100			105.00
*8547-500			525.00
*8547-1000			990.00
*8548-100			90.00
*8548-500			427.50
*8548-1000			855.00
*8549-100			49.50
*8549-500			240.00
*8549-1000			465.00
*8550-100			33.00
*8550-500			161.25
*8550-1000			315.00
*8551-100			25.50
*8551-500			121.50
*8551-1000			240.00
*8552-100			16.50
*8552-500			82.50
*8552-1000			150.00
*8553-100			9.00
*8353-500			42.00
*8553-1000			82.50
*8554-100			5.25
*8554-500			25.50
*8554-1000			48.75
*8555-100			3.75
*8555-500			19.50
*8555-1000			36.00
*8556-100			2.85
*8556-500			12.75
*8556-1000			25.05
*8557-100			2.40
*8557-500			12.00
*8557-1000			22.95
*8558-100			1.95
*8558-500			9.15
*8558-1000			18.00
*8559-100			1.90
*8559-500			9.00
*8559-1000			16.50
*8561-100			6.75
*8561-500			31.50
*8561-1000			60.00
*8562-100			3.75
*8562-500			18.00
*8562-1000			33.00
*8563-100			3.40
*8563-500			14.65
*8563-1000			27.75
*8564-100			2.63
*8564-500			12.00
*8564-1000			22.50
*8565-100			2.25
*8565-500			9.75
*8565-1000			18.00
*8566-100			1.80
*8566-500			8.10
*8566-1000			15.00
*8567-100		Solid	1.05
*8567-500		Solid	4.15
*8567-1000		Solid	6.75
*8567-100		Striped ♦	1.17
*8567-500		Striped ♦	4.75
*8567-1000		Striped ♦	7.90
*8568-100		Solid	.90
*8568-500			3.40
*8568-1000		Solid	6.25
*8568-100		Striped ♦	.91
*8568-500		Striped ♦	3.40
*8568-1000		Striped ♦	7.35
*8569-100		Solid	.90
*8569-500		Solid	3.15
*8569-1000		Solid	5.85
*8569-100		Striped ♦	1.02
*8569-500		Striped ♦	3.75
*8569-1000		Striped ♦	7.00
*8570-100		Solid	.75
*8570-500		Solid	3.00
*8570-1000		Solid	5.40
*8570-100		Striped ♦	.87
*8570-500		Striped ♦	3.60
*8570-1000		Striped ♦	6.55
*8571-100		Solid	.71
*8571-500		Solid	2.70
*8571-1000		Solid	4.95
8571-100		Striped ♦	.85
8571-500		Striped ♦	3.30
8571-1000		Striped ♦	6.10
*8572-100		Solid	. 75
*8572-500		Solid	2.80
*8572-1000		Solid	5.25
8573			1.50
*8574-100		Solid	1.35
*8574-500		Solid	5.40
*8574-1000		Solid	10.35
*8574-100		Striped ♦	1.47
*8574-500		Striped ♦	6.00
*8574-1000		Striped ♦	11.50
*8575-100		Solid	1.24
*8575-500		Solid	4.50
*8575-1000		Solid	8.55
*8575-100		Striped ♦	1.37
*8575-500		Striped ♦	5.10
*8575-1000		Striped ♦	9.70
*8576-100		Solid	1.17
*8576-500		Solid	3.90
*8576-1000		Solid	7.30
*8576-100		Striped ♦	1.29
*8576-500		Striped ♦	4.50
*8576-1000		Striped ♦	8.40
*8577-100		Solid	.90
*8577-500		Solid	3.55
*8577-1000		Solid	6.70
*8577-100		Striped ♦	1.02
*8577-500		Striped ♦	4.15
*8577-1000		Striped ♦	7.80
*8578-100		Solid	.98
*8578-500		Solid	3.70
*8578-1000		Solid	6.85
8578-100		Striped ♦	.95
8578-500		Striped ♦	4.30
8578-1000		Striped ♦	7.95
*8579-100		Solid	.98
*8579-500		Solid	3.70
*8579-1000		Solid	7.05
*8580-100		Solid	24.00
*8580-500		Solid	112.50
*8580-1000		Solid	225.00
*8581-100		Solid	19.50
*8581-500		Solid	90.00
*8581-1000		Solid	180.00
*8582-100		Solid	8.25
*8582-500		Solid	37.50
*8582-1000		Solid	75.00
*8583-100		Solid	5.25
*8583-500		Solid	22.50
*8583-1000		Solid	45.00
*8584-100		Solid	4.05
*8584-500		Solid	16.50
*8584-1000		Solid	33.00
*8585-100		Solid	2.70
*8585-500		Solid	9.75
*8585-1000		Solid	19.50
*8586-100		Solid	2.25
*8586-500		Solid	7.50
*8586-1000		Solid	15.00
*8587-100		Solid	1.20
*8587-500		Solid	5.65
*8587-1000		Solid	11.25
*8588-100		Solid	1.05
*8588-500		Solid	4.80
*8588-1000		Solid	9.60
*8589-100		Solid	21.75
*8589-500		Solid	105.00
*8589-1000		Solid	210.00
*8590-100		Solid	16.50
*8590-500		Solid	78.00
*8590-1000		Solid	156.00
*8591-100		Solid	9.75
*8591-500		Solid	44.25
*8591-1000		Solid	88.50
*8594-100		Solid	1.28
*8594-500		Solid	5.95
*8594-1000		Solid	9.90
*8594-100		Striped ♦	1.40
*8594-500		Striped ♦	6.55
*8594-1000		Striped ♦	11.05
*8595-100		Solid	1.35
*8595-500		Solid	5.70
*8595-1000		Solid	10.50
*8596-100		Solid	1.38
*8596-500		Solid	6.60
*8596-1000		Solid	11.10
*8597-100		Solid	1.05
*8597-500		Solid	4.35
*8597-1000		Solid	7.90
*8597-100		Striped ♦	1.17
*8597-500		Striped ♦	4.95
*8597-1000		Striped	9.00
*8598-100		Solid	1.13
*8598-500		Solid	4.65
*8598-1000		Solid	8.40
*8599-100		Solid	1.20
*8599-500		Solid	5.05
*8599-1000		Solid	9.15
8650-100		(TBO)	6.00
8651-100		(TBO)	4.50
8652-100		(TBO)	3.60
8656-100		(TBO)	5.25
8660-10			.51
8660-50			1.50
8660-250			6.75
8661-10			.68
8661-50			2.35
8661-250•			10.50
8662-10			1.58
8662-50			7.05
8662-250•			34.50
8663-10			.60
8663-50			1.90
8663-250			8.25
8666-100			5.85
8668-10			.69
8668-50			2.06
8668-250			9.00
8669-10			1.20
8669-50			5.50
8669-250•			24.90
*8670-10			2.40
*8670-50			10.65
*8670-250•			51.30
*8671-10			2.25
*8671-50			10.15
*8671-250•			48.75
*8672-10			1.60
*8672-50			6.70
*8672-250•			30.75
8673-100			9.30
*8673-500			90.00/M'
*8674-10			.56
*8674-50			1.35
*8674-250			6.00
8675--100			7.45
8675-500			69.00/M'
*8676-10			.50
*8676-50			.90
*8676-250			4.20
8677-100			5.70
8677-500			54.00/M'
8680-100			14.40
8681-100			10.35
8682-100			5.25
8683-100			3.75
8684-100			2.65
8685-100			2.05
8722-100 ★		(TBO)	5.25
8722-500 ★			48.00/M'
8722-1000★			48.00/M'
*8723-100 ★			4.65
*8723-500 ★			22.50
*8723-1000★			45.00
8731-100		(TBO)	3.15
8731-500			28.50/M'
8731-1000			28.50/M'
8732-100			4.50
8732-500			42.75/M'
8732-1000			42.75/M'
*8733-100 ★			3.75
*8733-500 ★			32.25/M'
*8733-1000★			32.25/M'
8734-1000			3.75
8734-500			16.50
8734-1000			32.25/M'
8735-15			.87
8735-50			2.30
8735-100			4.30 •
8735-500			19.15
8735-1000			38.25/M'
8737-100			3.40
8737-500			13.50
8737-1000			27.00/M'
8738-100			2.55
8738-500			10.50
8738-1000			21.00/M'
8739-100			2.95
8739-500			11.25
8739-1000			22.50/M'
8740-100			1.80
8740-500			6.60
8740-1000			12.75/M'
8741-100			2.95
8741-500			12.00
8741-1000			23.25/M'
8742-100			3.90
8742-500			16.50
8742-1000			32.25/M'
8743-100			6.00
8743-500			27.75
8743-1000			55.50/M'
8744-100			8.10
8744-500			38.65
8744-1000			77.25/M'
8745-100			13.95
8745-500			67.50
8745-1000			133.50/M'
8746 (to customer's specified length)§			247.50/M'
8747-100			8.25
8747-500			37.50
8747-1000			75.00/M'
8748-100			11.40
8748-500			54.00
8748-1000			108.00/M'
8749-100			19.50
8749-500			90.00
8749-1000			180.00/M'
8750 (to customer's specified length)§			337.50/M'
8751★ (to customer's specified length)§			735.00/M'
8753-100			10.95
8753-500			52.50
8753-1000			105.00/M'
8754-100			12.40
8754-500			59.25
8754-1000			118.50/M'
8755-100			19.50
8755-500			92.25
8755-1000			184.50/M'
8756-100			23.25
8756-500			108.00
8756-1000			216.00/M'
8757-500			41.25/M'
8757-1000			41.25/M'
8758-100			3.00
8758-500			13.90
8758-1000			27.75/M'
8759-100			3.75
8759-500			17.25
8759-1000			34.50/M'
8760-500 ★			37.50/M'
8760-1000★			37.50/M'
8761-500 ★			24.00/M'
8761-1000★			24.00/M'
8762-100 ★			3.45
8762-500 ★			15.75
8762-1000★			31.50/M'
8763-100 ★		TBO	4.45
8763-500 ★			36.00/M'
8763-1000★			36.00/M'
8764-100 ★			18.00
8764-500 ★			180.00/M'
8764-1000★			180.00/M'
8765-100 ★			20.25
8765-500 ★			202.50/M'
8765-1000★			202.50/M'
8766-100 ★			28.50
8766-500 ★			285.00/M'
8766-1000★			285.00/M'
8767-100 ★			6.60
8767-500 ★			66.00/M'
8767-1000★			66.00/M'
8768-100 ★			12.30
8768-500 ★			123.00/M'
8768-1000★			123.00/M'

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Net

BELDEN • PRICE LIST

Trade Number Lgth. in Ft.		Sug. Dealers Price Each
*8769-100 ★		47.25
*8769-500 ★		472.50/M'
*8769-1000★		472.50/M'
8770-500 ★		47.25/M'
8770-1000★		47.25/M'
8771-500 ★		30.00/M'
8771-1000★		30.00/M'
8772-500 ★		37.50/M'
8772-1000★		37.50/M'
*8773★ (to customer's specified length)§		697.50/M'
8779-100	TBO	5.25
8779-500		49.50/M'
8779-1000		49.50/M'
8780-100		5.70
8780-500		27.00
8780-1000		54.00/M'
8782-25		.53
8782-50		.78
8782-100		1.23
8782-500		9.00/M'
8782-1000		9.00/M'
8783-100		4.50
8783-500		42.00/M'
8785-100	TBO	5.25
8785-500		49.50/M'
8786-100		5.75
8786-500		55.50/M'
8787-100	TBO	19.20
8787-500		187.50/M'
8789-100	TBO	4.30
8789-500		19.35
8789-1000		38.70/M'
8790-100		4.45
8790-500		20.00
8790-1000		40.00/M'
8791-100		5.40
8791-500		25.20
8791-1000		50.40/M'
*8792-100		25.50
*8792-500		255.00/M'
*8792-1000		255.00/M'
*8793 (cut to customer's specified lengths)§		562.50/M'
8799-100	TBO	4.50
8799-500		43.50/M'
8799-1000		43.50/M'
8800		.83
8817-100		.30
8818		5.04
8819		8.10
8820		5.04
8821		8.25
8822		4.40
8823		4.80
8824		3.84
8825		7.63
8826		7.48
8827		8.55
8828	TBO	19.00
8829	TBO	21.00
8830	TBO	24.00
8831	TBO	26.50
*8850-100		9.90
*8850-500		49.50
*8850-1000		96.00
*8851-100		9.00
*8851-500		42.00
*8851-1000		82.50
*8852-100		7.50
*8852--500		34.50
*8852-1000		67.50
*8853-100		5.40
*8853-500		26.25
*8853-1000		51.00
*8854-100		5.10
*8854-500		24.00
*8854-1000		47.25

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
*8855-100	4.50
*8855-500	21.75
*8855-1000	42.00
*8858-100	7.50
*8858-500	36.00
*8858-1000	71.25
*8859-100	6.00
*8859-500	28.50
*8859-1000	56.25
*8860-100	5.25
*8860-500	24.00
*8860-1000	46.80
*8861-100	4.50
*8861-500	19.50
*8861-1000	37.50
*8862-100	3.75
*8862-500	17.25
*8862-1000	33.75
*8863-100	3.40
*8863-500	16.50
*8863-1000	31.50
8868-25	.75
8868-100	1.90
8868-500	9.00
*8869-25	.68
*8869-100	1.65
*8869-500	7.50
8874	.54
8875	.41
8878	2.25 pr
8879	.98 pr
*8880-100	6.00
*8880-500	29.25
*8880-1000 †	57.00
*8881-100 †	4.87
*8881-500 †	23.25
*8881-1000 †	45.00
*8882-100 †	3.00
*8882-500 †	14.25
*8882-1000 †	27.60
*8883-100 †	2.25
*8883-500 †	10.50
*8883-1000 †	20.25
8884-100 †	3.90
8884-500 †	18.75
*8884-1000 †	36.75
8885-15 † TBO	.66
8885-25 † TBO	.96
8886-100 †	2.65
8886-500 †	12.00
*8886-1000 †	22.50
*8887-100 †	2.25
*8887-500 †	10.50
*8887-1000 †	19.50
8888-25 †	.86
8888-100 †	2.25
8888-250 †	5.25
*8892-100	5.25
*8892-500	25.50
*8892-1000	48.75
*8893-100	3.40
*8893-500	19.50
*8893-1000	38.25
*8894-100	6.00
*8894-500	29.25
*8894-1000	57.00
*8895-1	.38
*8895-100	.23
*8896-100	4.50
*8896-500	20.25
*8896-1000	39.75
8898-10 †	.72
8898-25 †	1.28
8898-100 †	3.60
8898-500 †	16.35
8899-10 †	.48

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
8899-14 †	.60
8899-25 †	.83
8899-100 †	2.40
8899-500 †	10.15
8899-1000†	20.25
8916-100 †	2.80
8916-500 †	11.65
8917-100 †	2.10
8917-500 †	8.70
8918-100 †	1.65
8918-1000†	12.45
8919-100 †	1.34
8919-1000†	10.35
8920-100 †	1.23
8920-1000†	9.15
8933-100 †	3.45
8933-500 †	15.75
8934-100 †	2.25
8934-500 †	9.50
8935-100 †	1.88
8935-1000†	15.00
8936-100 †	1.50
8936-1000†	11.55
8937-100 †	1.38
8937-1000†	10.35
8938-100 †	2.95
8938-500 †	12.90
8941-25 †	.63
8941-100 †	1.62
8941-1000†	12.00
8942-100 †	2.20
8942-1000†	18.75
8943-25 †	.63
8943-100 †	1.65
8943-1000†	12.80
8945-25 †	.60
8945-100 †	1.73
8945-1000†	14.20
8947-25 †	.63
8947-100 †	1.88
8947-1000†	15.90
*8950-100 † Solid	3.30
*8950-500 † Solid	15.75
*8950-1000† Solid	30.75
*8950-100 † Striped ♦	3.45
*8950-500 † Striped ♦	16.35
*8950-1000† Striped ♦	31.90
*8951-100 † Solid	2.18
*8951-500 † Solid	10.50
*8951-1000† Solid	19.50
*8951-100 † Striped ♦	2.30
*8951-500 † Striped ♦	11.10
*8951-1000† Striped ♦	20.65
*8952-100 † Solid	1.65
*8952-500 † Solid	7.90
*8952-1000† Solid	15.00
*8952-100 † Striped ♦	1.77
*8952-500 † Striped ♦	8.50
*8952-1000† Striped ♦	16.15
*8953-100 † Solid	1.20
*8953-500 † Solid	5.85
*8953-1000† Solid	11.40
*8953-100 † Striped ♦	1.32
*8953-500 † Striped ♦	6.45
*8953-1000† Striped ♦	12.55
*8954-100 † Solid	.98
*8954-500 † Solid	4.50
*8954-1000† Solid	8.85
*8954-100 † Striped ♦	1.10
*8954-500 † Striped ♦	5.10
*8954-1000† Striped ♦	10.00
*8955-100 † Solid	.90
*8955-500 † Solid	4.15
*8955-1000† Solid	7.50
*8955-100 † Striped ♦	1.02
*8955-500 † Striped ♦	4.75
*8955-1000† Striped ♦	8.65
*8956-100 † Solid	3.75
*8956-500 † Solid	18.40
*8956-1000† Solid	36.00

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
*8956-100 † Striped ♦	3.87
*8956-500 † Striped ♦	19.00
*8956-1000† Striped ♦	37.15
*8957-100 † Solid	2.55
*8957-500 † Solid	12.40
*8957-1000 † Solid	24.00
*8957-100 † Striped ♦	2.67
*8957-500 † Striped ♦	13.00
*8957-1000 † Striped ♦	25.15
*8958-100 † Solid	2.03
*8958-500 † Solid	9.75
*8958-1000 † Solid	18.75
*8958-100 † Striped ♦	21.45
*8958-500 † Striped ♦	10.35
*8958-1000 † Striped ♦	19.90
*8959-100 † Solid	1.65
*8959-500 † Solid	7.25
*8959-1000 † Solid	15.00
8959-100 † Striped ♦	1.77
*8959-500 † Striped ♦	7.75
*8959-1000 † Striped ♦	16.15
*8960-100 † Solid	1.35
*8960-500 † Solid	6.40
*8960-1000 † Solid	12.00
*8960-100 † Striped ♦	1.47
*8960-500 † Striped ♦	7.00
*8960-1000 † Striped ♦	13.00
*8961-100 † Solid	1.28
*8961-500 † Solid	5.85
*8961-1000 † Solid	10.80
*8961-100 † Striped ♦	1.40
*8961-500 † Striped ♦	6.45
*8961-1000 † Striped ♦	11.95
*8963-100 † Solid	21.75
*8963-500 † Solid	106.50
*8963-1000 † Solid	210.00
*8963-100 † Striped ♦	21.90
*8963-500 † Striped †	107.10
*8963-1000 † Striped †	211.15
*8964-100 † Solid	18.75
*8964-500 † Solid	93.00
*8964-1000 † Solid	184.50
*8964-100 † Striped ♦	18.90
*8964-500 † Striped ♦	93.60
*8964-1000 † Striped †	185.65
*8965-100 † Solid	10.15
*8965-500 † Solid	49.50
*8965-1000 † Solid	97.50
*8965-100 † Striped ♦	10.25
*8965-500 † Striped ♦	50.10
*8965-1000 † Striped ♦	98.65
*8966-100 † Solid	7.20
*8966-500 † Solid	50.65
*8966-1000 † Solid	70.50
*8966-100 † Striped ♦	7.32
*8966-500 † Striped ♦	51.25
*8966-1000 † Striped ♦	71.65
*8967-100 † Solid	4.95
*8967-500 † Solid	24.40
*8967-1000 † Solid	48.00
*8967-100 † Striped ♦	5.10
*8967-500 † Striped ♦	25.00
*8967-1000 † Striped ♦	49.15
*8968-100 † Solid	3.60
*8968-500 † Solid	17.25
*8968-1000 † Solid	33.75
*8968-100 † Striped ♦	3.72
*8968-500 † Striped ♦	17.85
*8968-1000 † Striped ♦	34.90
*8969-100 † Solid	3.00
*8969-500 † Solid	14.65
*8969-1000 † Solid	28.50
*8969-100 † Striped ♦	3.12
*8969-500 † Striped ♦	15.25
*8969-1000 † Striped ♦	29.70
*8970-100 † Solid	2.40
*8970-500 † Solid	11.70
*8970-1000 † Solid	22.90
*8970-100 † Striped ♦	2.52
*8970-500 † Striped ♦	12.30

Trade Number Lgth. in Ft.	Sug. Dealers Price Each
*8970-1000 † Striped ♦	24.00
*8971-100 † Solid	2.10
*8971-500 † Solid	10.50
*8971-1000 † Solid	20.10
*8971-100 † Striped ♦	2.22
*8971-500 † Striped ♦	11.10
*8971-1000 † Striped ♦	21.10
*8972-100 † Solid	1.75
*8972-500 † Solid	8.25
*8972-1000 † Solid	16.15
*8972-100 † Striped ♦	1.85
*8972-500 † Striped ♦	8.85
*8972-1000 † Striped ♦	17.25

BELDENAMEL (E)

Size	Trade Number	Suggested Dealer Price Each
	¼ LB. SPOOLS	
28	8040	.54
30	8041	.57
32	8042	.59
34	8043	.60
36	8044	.69
38	8045	.90
40	8046	1.19
	½ LB. SPOOLS	
14	8047	.68
16	8048	.68
18	8049	.68
20	8050	.68
22	8051	.72
24	8052	.74
26	8053	.81
28	8054	.87
30	8055	.95
32	8056	.99
34	8057	1.02
36	8058	1.22

NYLCLAD (HNC)

Size	Trade Number	Suggested Dealer Price Each
	½ LB. SPOOLS	
14	8059	.68
16	8060	.68
18	8061	.68
20	8062	.68
22	8063	.72
24	8064	.77
26	8065	.83
28	8066	.90
30	8067	1.04
32	8068	1.11
34	8069	1.28
36	8070	1.58
38	8071	1.95
40	8072	2.81
	1 LB. SPOOLS	
14	8073	1.17
16	8074	1.17
18	8075	1.20
20	8076	1.25
22	8077	1.31
24	8078	1.38
26	8079	1.52
28	8080	1.65
30	8081	1.88
32	8082	2.06
34	8083	2.40
36	8084	3.00
38	8085	3.83
40	8086	5.63

* New Item. † Specify Color. (TBO) To Be Obsoleted. ALL SPOOLS ARE ONE PIECE UNLESS OTHERWISE INDICATED BY (•). • Spools may contain more than one piece, minimum length of any one piece is 25 ft. When priced per M ft. length may vary ±10% from length shown; all other lengths are exact. § Cut to Customer's Specified Length subject to available stock lengths — 199 ft. or less, plus 25′, minus 0; 200 ft. or over, plus 50′, minus 0. ♦ (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities of 10,000′ or more. Non-stock striped colors over stock solid colors in quantities of 1000′ to 9999′, add pro-rata set-up charge of $3.00 per color combination. Minimum order 1000′ per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool. △ (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000′ or more. Minimum order 1000′ per stripe color combination. Striping adders do not apply to braided tracers — Write for prices on non-stock tracer colors. ★ Patent Applied For.

Prices Subject to Change Without Notice

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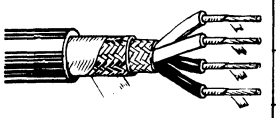
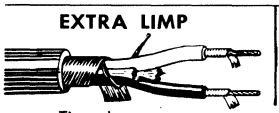
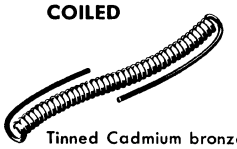
Belden rubber microphone and shielded power supply cables

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8410**	1	25(7x33)	.063	.025	.245	78	3000	52	33	—	15, 25, 50, 100, 250, 500
3 strands copper, 4 strands Copperweld† tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.												
MINIATURE 2 CONDUCTOR	**8413**	2	24(45x40)	.015	.025	.185	100	300	—	38	71	15, 25, 50, 100, 250, 500
MINIATURE 3 CONDUCTOR	**NEW 8406**	3	24(45x40)	.015	.025	.223	100	300	—	43	76	100, 250, 500
Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.												
MULTIPLE CONDUCTOR 	**8412**	2	20(26x34)	.020	.043	.268	85	600	—	42	68	15, 25, 50, 100, 250, 500
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 25, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	81	600	—	55	95	15, 25, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	**8426**	6	20(26x34)	.020	.040	.349	91	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	91	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	89	600	—	42	75	100, 250
NEOPRENE HEAVY DUTY	**8428**	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500
Tinned copper, cotton wrap, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black NEOPRENE jacket.												
EXTRA LIMP 	**8414**	2	20(26x34)	.020	.043	.256	100	600	—	45	80	50, 500
Tinned copper, cotton wrap, rubber insulated, cabled, conductive textile wrapped shield, stranded ground wire, black rubber jacket.												

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put Up
COILED 	**8415**	4 unshielded	23(21x36)	.015	.055	.250	No shield	—	11½"	6'	1
	NEW 8499	1 shielded	24(45x40)	.019	.043	.160	80%	285	7½"	4'	1
	NEW 8497	3 white cond. shielded	23(21x36)	.020	.046	.250	81%	480	11½"	6'	1

Tinned Cadmium bronze, rubber insulated, paper tape wrap, black Neoprene jacket. 8499 has a spiral tinned copper braid shield. 8497 has a BELDFOIL braid shield.

COLOR CODING OF INDIVIDUAL CONDUCTORS FOR CABLES ON THIS PAGE & PAGE 3

No. of Conductors	Color Coding							
	White	Black	Red	Green	Blue	Brown	Yellow	Orange
1	x							
2	x	x						
3	x	x	x					
4	x	x	x	x				
5	x	x	x	x	x			
6	x	x	x	x	x	x		
7	x	x	x	x	x	x	x	
8	x	x	x	x	x	x	x	x

Capacitance between conductors (8401, 8410, 8411 between conductor and shield).
†*Trademark of Copperweld Steel Company.*

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.

RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.

NEOPRENE CABLES RECOMMENDED FOR: Outside use. Resistant to effects of sun, oil, and ozone.

**Capacitance between 1 conductor and remaining conductors connected to shield.*
***Capacitance of shielded conductor*

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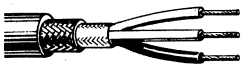
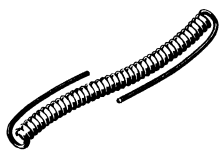
BELDEN PAGE 1

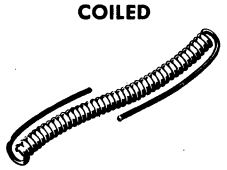
Belden vinyl microphone and shielded power supply cables

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR	**8411**	1	25(7x33)	.020	.020	.144	72	3500	52	34	—	15, 25, 50, 100, 250, 500
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	25	—	15, 25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld†, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.											
MINIATURE 2 CONDUCTOR	**8420**	2	24(45x40)	.015	.025	.178	77	500	—	20	35	15, 25, 50, 100, 250, 500
	Tinned cadmium bronze, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
MULTIPLE CONDUCTOR 	**8422**	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500
	8403	3	20(26x34)	.015	.033	.245	94	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	89	600	—	25	45	15, 100, 250, 500, 1000
Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	**8405**	5	20(26x34)	.015	.035	.275	84	600	—	25	45	250, 500, 1000
STRAIN GAUGE CABLE	**8434**	4	25(7x33) 3 copper 4 copper-weld	.013	.020	.169	100	400	—	25	40	100, 500, 1000
	Tinned conductors, polyethylene insulated, black and red conductors under BELDFOIL[1] aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar♦ shield, chrome vinyl jacket.											
	NEW 8723	4	22(7x30) copper	.008	.019	.165	100	400	—	35	62	100, 500, 1000
	Tinned conductors, polypropylene insulated black and red under a BELDFOIL Shield, green and white BELDFOIL Shield (each pair separate) chrome viny jacket.											

VINYL RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put Up
COILED 	**NEW 8498**	1 shielded	24(45x40)	.019	.053	.180	80%	285	7½"	4'	1
	NEW 8496	3 white cond. shielded	23(21x36)	.020	.046	.250	81%	480	11½"	6'	1
	Tinned cadmium bronze, rubber insulated, over-all vinyl jacket. 8498 has a spiral tinned copper braid shield. 8496 has a BELDFOIL braid shield.										

VINYL RETRACTILE (COILED) TELEPHONE CORDS

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Retracted Length	Extended Length	Standard put-up
COILED 	**NEW 8495**	3	23(21x36)	.020	.041	.220	10"	4½'	1
	NEW 8494	4	23(21x36)	.020	.043	.245	10"	4½'	1
	Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. One end stripped 7¾", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼" and spade terminals attached.								

** Capacitance between conductors (8401, 8411 between conductor and shield).*
***Capacitance between 1 conductor and remaining conductors connected to shield.*
****Capacitance of shielded conductor.*

†Trademark of Copperweld Steel Company
♦Dupont trademark
[1]Belden trademark

BELDEN PAGE 2

See Prices on four pages preceding Belden Page 1
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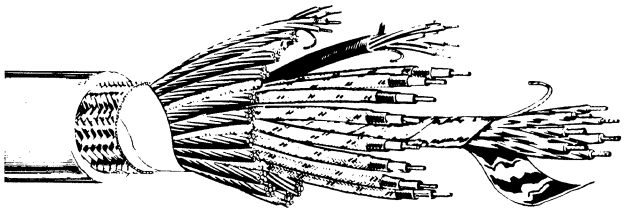
Belden tv camera cables and 75 ohm video cable

TV CAMERA CABLES

Preferred by TV camera operators requiring dependable service under all conditions in which lighter weight, lower coefficient of friction, greater flexibility, and easier termination are essential.

Correct electronic characteristics are assured at every stage from design engineering through final inspection.

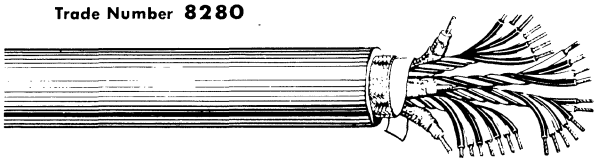
Trade Number 8283



82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire
8 coaxial cables. Nom. impedance 53.5 ohms, color coded
67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire
Tinned copper braid shield
Chrome vinyl plastic jacket. 1.22" Nom. O.D.
Specified Length 199' or less, plus 25', minus 0.
Specified Length 200' or over, plus 50', minus 0.

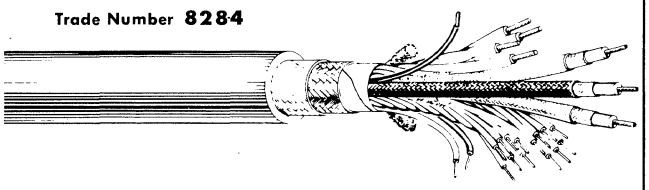
Trade Number 8280



28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded
3 coaxial cables. Nom. impedance 51 ohms, color coded
Tinned copper braid shield
Chrome vinyl jacket. .750" Nom. O.D.
Specified Length 199' or less, plus 25', minus 0.
Specified Length 200' or over, plus 50', minus 0.

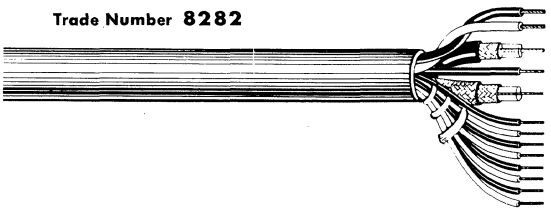
Trade Number 8284



24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded
3 coaxial cables. Nom. impedance 53.5 ohms, color coded
Tinned copper braid shield
Heavy cotton braid
Chrome vinyl plastic jacket. .800" Nom. O.D.
Specified Length 199' or less, plus 25', minus 0.
Specified Length 200' or over, plus 50', minus 0.

Trade Number 8282



13 Conductor TV Eye Cable

9-22 AWG (7x30) tinned copper, vinyl insulated, color coded
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red
1-RG-58A/U cable 50-ohm coax
1-72-ohm coax, stranded conductor, Mylar tape wrapped
Chrome vinyl jacket. .470" Nom. O.D.
Standard spool lengths 500', 1000'.

75 OHM VIDEO CABLE

TYPICAL APPLICATIONS: Video signal transmission in color and monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap (mmf/ft)	Nom. Attenuation mc	Nom. Attenuation db	Standard Spool Lengths in ft
	8281	20(Solid) copper	.304	93.5	75	65.2%	20.7	5	.55	500, 1000
								10	.8	
								20	1.3	
								100	2.7	
								300	5.1	
								500	6.8	
								700	8.4	
Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.										

As a service to users of 8281 video cable, we can furnish, without charge, adapters for use with the PL259 plug.

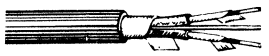
BELDEN PAGE 3

Belden broadcast audio cables and portable cordage

BROADCAST AUDIO CABLES

Spiral wrapped copper shields plus drain wire plus shield isolation eliminate current loops so often found troublesome in this service.

Free stripping jackets, fast shield termination, and small diameters cut installation time and costs.

Description	Trade Number	AWG & (Stranding) Inc. Drain Wire	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Suggested Working Voltage	Between Cond. (mmf/ft)	Nominal Capacitance Between one Cond. & other Cond. Tied to Shield (mmf/ft)	Standard Spool Lengths in ft
ABC TYPE	**8436**	22(Solid)-	.180	Blk, Red	90	100	31	52	500, 1000
Tinned copper, Celanese② wrap, Celanese braid lacquered, conductors cabled, tinned copper drain wire, tinned copper spiral wrapped shield, black vinyl jacket.									
CBS TYPE	**8437**	22(Solid)	.200	Blk, Red	88	200	48	85	500, 1000
	8441	22(16x34)	.210	Blk, Red	88	200	49	86	100, 500, 1000
Tinned copper, vinyl insulated, conductors cabled, tinned copper drain wire, tinned copper braid shield, black vinyl jacket.									
STANDARD 	**8440**	22(Solid)	.185	Blk, Red	90	100	50	90	500, 1000
Tinned copper, enameled, cotton wrap, cotton braid, conductors cabled, tinned copper drain wire, tinned copper spiral wrapped shield, chrome vinyl jacket.									

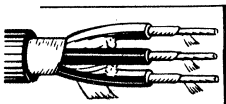
② Trademark of Celanese Corp.

MINIATURE BROADCAST AUDIO CABLES

Description	Trade Number	AWG & (Stranding) Inc. Drain Wire	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Suggested Working Voltage	Between Cond. (mmf/ft)	Nominal Capacitance Between one Cond. & other Cond. Tied to Shield (mmf/ft)	Standard Spool Lengths in ft
	8450	22(Solid)	.118	Blk, Red	100	200	40	76	100, 500, 1000
	8451	22(7x30)	.135	Blk, Red	100	200	56	110	100, 500, 1000
Tinned copper, Polypropylene insulated, conductors cabled, tinned copper drain wire, spiral wrap BELDFOIL shield, BLACK or CHROME VINYL JACKET.									

The new Belden miniature type Broadcast Audio Cables have 100% shield coverage against Electrostatic fields. The folded BELDFOIL Shield gives high cable reliability together with easy termination by means of the drain wire. A most important feature of these cables is that they occupy only one third to one half the space required for a Standard Broadcast Audio Cable.

RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
	8462	SP-1	Rubber	2	18 (41x34)	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031	Polarity Ribbed	—	.110 x .207	Brn, Ivory or Silver Gray	25, 100, 250
Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed											
 Stranded copper, rubber insulated, cabled with fillers, rubber jacket	**8452**	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245	Black	15, 25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.299	Black	25, 100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 50, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
	8453	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht Green	.031	.265	Black	15, 50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	15, 50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) Tinned 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

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Belden two and three conductor shielded cables

TWISTED PAIRS #22 thru #16 Gauge	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Pe cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
With Jacket	**8739**	22 (Solid)	.015	.025	.160	Blk, Red	90	38	66	350	100, 500, 1000
	8737	22 (7x30)	.015	.025	.170	Blk, Red	90	40	70	350	100, 500, 1000
	8759	20 (7x28)	.015	.025	.195	Blk, Red	90	47	79	350	100, 500, 1000
	8790	18 (7x26)	.020	.028	.231	Red, Wht	90	53	92	450	100, 500, 1000
	8780	16 (19x29)	.023	.030	.266	Blk, Wht	90	57	98	450	100, 500, 1000
	Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.										
	8761	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
	8762	20 (7x28)	.014	.028	.184	Blk, Wht	100	27	49	350	100, 500, 1000
	8760	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	500, 1000
	Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar wrapped shield, stranded tinned copper ground wire, chrome vinyl jacket.										
	8208	18 (16x30)	.020	.025	.270	Red, Wht	69	46	77	200	500, 500, 1000
	Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.										
With Cotton Braid	**8209**	18 (16x30)	.020	—	.258	Red, Wht	69	51	89	200	50, 100, 500, 1000
	Tinned copper, rubber insulated, braided tinned copper shield, white cotton braid, treated for weather resistance.										
Without Jacket	**8738**	22 (Solid)	.015	—	.130	Blk, Red	72	35	61	350	100, 500, 1000
	8758	20 (7x28)	.015	—	.165	Blk, Red	63	42	72	350	100, 500, 1000
	8789	18 (7x26)	.020	—	.205	Blk, Wht	74	50	89	450	500, 1000
	8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000
	Tinned copper, vinyl insulated, braided tinned copper shield.										
	8432	20 (10x30)	.016	—	.225	Blk, Red	90	46	86	150	500, 1000
	Tinned copper, rubber insulated, cotton braid, lacquered, cabled, braided tinned copper shield.										
	8799	18 (Solid)	—	—	.165	Blk, Wht	78	30	50	100	500, 1000
	Enameled copper, cotton wrap, cotton braid, cabled, braided tinned copper shield.										

See *Broadcast Audio Cables for additional 2 conductor shielded cables—Belden page 4.*

3 CONDUCTORS SHIELDED #22 thru #18 Gauge	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8731	22 (Solid)	.015	.025	.178	Blk, Red, Wht	90	36	63	350	500, 1000
	8791	18 (7x26)	.020	.028	.236	Blk, Red, Wht	90	47	84	450	100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.										
	8735	22 (7x30)	.015	.025	.199	Blk, Red, Wht	70	34	60	350	15, 50, 100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield, chrome vinyl jacket.										
	8771	22 (7x30)	.014	.025	.175	Blk, Red, Wht	100	23	41	350	500, 1000
	8772	20 (7x28)	.014	.028	.200	Blk, Red, Wht	100	27	51	350	500, 1000
	8770	18 (16x30)	.018	.028	.236	Blk, Red, Wht	100	24	48	450	500, 1000
	Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar wrapped shield, stranded tinned copper ground wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.										

*Capacitance between conductors.
**Capacitance between 1 conductor and other conductor connected to shield.

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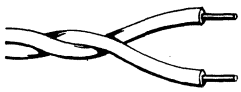
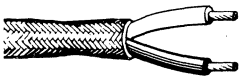
See Prices on four pages preceding Belden Page 1

Belden two and three conductor unshielded cables

TWO CONDUCTOR—TWISTED PAIR

Twisted Pairs 22 through 14 AWG	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
WITHOUT JACKET	**8481**	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.115	350	100, 500, 1000
	**8492**	19 (Solid) Available Brown and White	.025	—	1 cond. tinned copper	.170	600	100, 500, 1000
	8460	18 (7x26) tinned	.020	—	Blk, Wht	.175	450	100, 500, 1000
Copper, vinyl insulated, twisted.	**8470**	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
WITH JACKET	**8740**	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 500, 1000
	NEW 8442	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
	8205	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	25, 100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
	8471	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
Copper, vinyl insulated, cabled, chrome vinyl jacket.	**NEW 8473**	14 (19x29) tinned	.031	.035	Blk, Wht	.332	600	500, 1000
WITH COTTON BRAID	**8204**	18 (16x30)	.020	—	Red, Wht	.220	200	25, 100, 500, 1000
	*Tinned copper, rubber insulated, cabled, white cotton braid, treated for weather resistance.*							

For additional 2 conductor cables see PORTABLE CORDAGE pages 2 and 3 and COIN OPERATED PHONOGRAPH CABLE page 11.

THREE CONDUCTOR—UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
WITHOUT JACKET	**8483**	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
	8493	19 (Solid)	.025	—	Brn, 1 condr. tinned. 1 condr. insul. is ribbed	.170	600	1000
Bare copper, vinyl insulated, cabled.								
WITH JACKET	**8443**	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 500, 1000
	8487	19 (Solid) Bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000
Copper, vinyl insulated, cabled, chrome vinyl jacket.								

For additional 3 conductor cables see PORTABLE CORDAGE pages 2 and 3 and COIN OPERATED PHONOGRAPH CABLE page 11.

CONTROL CABLES

Through the wide coverage of cables shown in this catalog, Belden is a principal supplier of Control Cables for sound systems, business systems, machinery control or automation.

Control Cables are a Belden specialty. Where shielding is required, BELDFOIL shielding is particularly adaptable for complex cables.

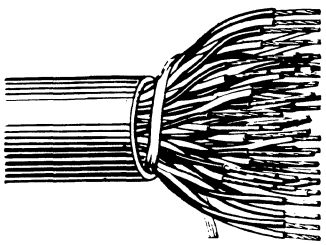
 © U.C.P., Inc.

Belden multiple pair unshielded intercom cable

TYPICAL APPLICATIONS: Balanced line intercom systems.

Made with 80C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone.
The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from crosstalk.

#22 Tinned copper, vinyl insulated, cabled in pairs, chrome vinyl jacket. 200 Volts suggested working voltage.



1 to 27 Pairs	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	8740	1	Solid	.015	.025	.150	100, 500, 1000
	8741	2	Solid	.015	.028	.201	100, 500, 1000
	8742	3	Solid	.015	.030	.240	100, 500, 1000
	8757	4	Solid	.015	.030	.255	500, 1000
	8743	6	Solid	.010	.035	.305	100, 500, 1000
	8747	6	7x30	.010	.035	.340	100, 500, 1000
	8744	9	Solid	.010	.037	.354	100, 500, 1000
	8748	9	7x30	.010	.037	.389	100, 500, 1000
	8753	11	Solid	.010	.037	.384	100, 500, 1000
	8754	13	Solid	.010	.037	.409	100, 500, 1000
	8745	15	Solid	.010	.040	.420	100, 500, 1000
	8749	15	7x30	.010	.040	.425	100, 500, 1000
	8755	19	Solid	.010	.040	.480	100, 500, 1000
	8756	23	Solid	.010	.040	.510	100, 500, 1000
	8746	27	Solid	.010	.045	.550	To customer's specified length. §
	8750	27	7x30	.010	.045	.595	To customer's specified length. §

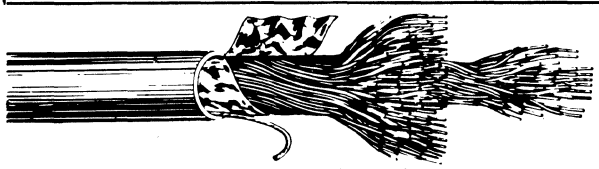
§ *Specified Length 199' or less, plus 25', minus 0.*
Specified Length 200' or less, plus 50', minus 0.

COLOR CODING FOR PAIRED INTERCOM CABLES

This color code chart applies to multiple pair unshielded and shielded intercom cables shown above and on page 9. It does not apply to 8751.

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

51 PAIR CABLE

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	**8751**	51	Solid Tinned Copper	.010	.060	.745	To customers' specified length

#22 tinned copper, vinyl insulated, cabled in pairs, BELDFOIL Aluminum-Mylar wrapped shield over cabled pairs, with foil side out, #22(7 x 30) stranded drain wire running under jacket and over foil, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.
§ *Specified Length 199' or less, plus 25', minus 0.*
Specified Length 200' or over, plus 25', minus 0.

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Belden multiple conductor and individually shielded pairs–intercom cable

MULTIPLE CONDUCTOR INTERCOM CABLES (NOT PAIRED)

Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
22 GAUGE	**8443**	3	22 (7x30)	.010	.025	.150	25, 100, 500, 1000
	8444	4	22 (7x30)	.010	.025	.168	25, 100, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	25, 100, 500, 1000
Tinned copper, vinyl plastic insulated, cabled, vinyl jacket. 200 Volts suggested working voltage.	**NEW 8456**	10	22 (7x30)	.010	.030	.260	100, 500, 1000
	NEW 8457	12	22 (7x30)	.010	.030	.260	100, 500, 1000
COMBINATION GAUGES 18 & 22	**8446**	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	15, 100, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	15, 100, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.251	15, 100, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	15, 100, 500, 1000
18 GAUGE	**NEW 8465**	5	18 (16x30)	.018	.030	.272	100, 500, 1000
	NEW 8467	7	18 (16x30)	.018	.035	.320	100, 500, 1000
	NEW 8469	9	18 (16x30)	.018	.035	.375	100, 500, 1000

400 volts suggested working voltage

COLOR CODING OF INDIVIDUAL CONDUCTORS FOR CABLES 8443 THROUGH 8469

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	5th	Brown	9th	Purple
2nd	Red	6th	Blue	10th	Gray
3rd	Green	7th	Orange	11th	Pink
4th	White	8th	Yellow	12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

MULTIPLE PAIR INDIVIDUALLY SHIELDED INTERCOM CABLE

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Standard Spool Lengths in ft
22 GAUGE	**8767**	3	Solid	.013	.030	.298	40	77	100, 500, 1000
	8768	6	Solid	.013	.037	.394	40	77	100, 500, 1000
	8764	9	Solid	.013	.040	.425	40	77	100, 500, 1000
	8765	11	Solid	.013	.040	.485	40	77	100, 500, 1000
	8766	15	Solid	.013	.045	.510	40	77	100, 500, 1000
	NEW 8769	19	7x30	.015	.055	.678	39	67	100, 500, 1000
	NEW 8773	27	7x30	.015	.070	.860	39	67	§Cut to customers specified lengths

#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.

Insulation resistance between shields.....1000 megohms/M'
Capacitance between adjacent shields.....115 mmf/ft
Voltage breakdown between adjacent shields.....1500 volts
Working voltage between adjacent shields.....50 volts

*Capacitance between conductors. **Capacitance between 1 conductor and other conductor connected to shield.

§Specified Length 199' or less, plus 25', minus 0.
Specified Length 200' or over, plus 50', minus 0.

BELDEN PAGE 8

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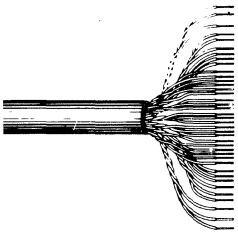
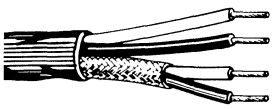
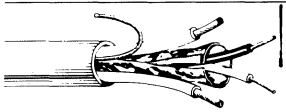
Belden special intercom and sound cables

TELEPHONE CABLES-CONDUCTORS IN TRIPLETS

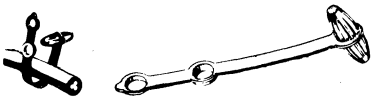
Description	Trade Number	Number of Triplets	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
	**NEW 8792**	13	Solid	.012	.045	.540	100, 500, 1000
	NEW 8793	27	Solid	.012	.060	.770	§To customer's specified lengths

No. 22 bare copper solid, vinyl insulated, cabled in triplets, chrome vinyl jacket, 200 volts suggested working voltage. Each set of three conductors (triplets) are color coded Red, Green and Yellow. The identification of each set of triplets is indicated by consecutive printed numbers on the yellow conductor of each group.

SPECIAL INTERCOM AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
	8734	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.												
	8763	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar wrapped shield over 2 conductors, #20 stranded tinned copper ground wire, chrome vinyl jacke												
	**8732**	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	Blk, Wht Blk, Wht	.015 .015	.030	.188x .296	62	350	21	37	100, 500, 1000
Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.												
	**8722**	2 shielded 2 unshielded	20 (7x28) 20 (7x28)	Blk, Red Grn, Wht	.015 .015	.028	.260	100	350	60	99	500, 1000
Tinned copper, vinyl insulated, BELDFOIL aluminum-Mylar wrapped shield over 2 conductors, #22 stranded tinned ground wire, chrome vinyl jacket.												
	NEW 8733	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.225	100	350	—	39	100, 500, 1000
Each conductor separately BELDFOIL shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL Z fold.												

BELDEN STRAPLOCKS (NYLON CABLE CLAMPS)

	Trade Number	Number per Box
	**8573**	25 Straplocks plus one installation tool in plastic box.

For tying down wires or cables in the quickest possible time. Straplocks require only a ¼" stamped, punched or drilled mounting hole for installation. Eliminate bundling or lacing.

See COIN OPERATED PHONOGRAPH CABLES for additional special constructions.
** Capacitance between conductors*
***Capacitance between 1 conductor and other conductor connected to shield*

§Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or less, plus 50′, minus 0.

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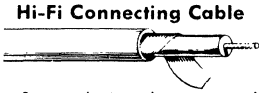
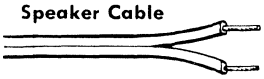
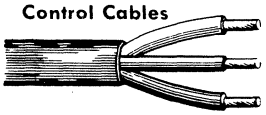
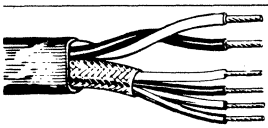
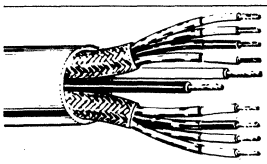
See Prices on four pages preceding Belden Page 1

Belden hi-fi, stereo and phonograph cables

HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf/ft)	Nom. Cap. condr. to other condr. & shield (mmf/ft)	Standard Spool Lengths in ft
Phono Pick-up Arm Cables	**8430**	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
	→	4	use two 8430s for maximum channel isolation, one for each channel.							
Tinned copper, vinyl insulated, twisted pair.										
	8429	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.063	Blk, Red Wht	30	50	10, 25, 250
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	→	4	use two 8429s for maximum channel isolation, one for each channel.							
	8431	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25, 100, 500
Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.										
Hi-Fi Connecting Cable	**8421**	1	25 (7x33)	.052	.025	.180	—	18	—	15, 25, 50, 100, 250
										
3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper, spiral wrapped shield, chrome vinyl jacket.										

COIN OPERATED PHONOGRAPH CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
Speaker Cable	**8782**	2	24 (7x32)	1 Conductor tinned	.017	—	.058x .115	300	25, 50, 100, 500, 1000
									
Copper conductors parallel, chrome vinyl insulated.									
Control Cables	**8783**	3	1—20 (10x30) 2—16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	450	100, 500
									
Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.									
	8785	5							
		(2 unshielded)	22 (7x30)	Blue, Yel	.015	.028	.211x .316	350	500
		(3 shielded)	22 (7x30)	Blk, Grn, Red	.015				
Tinned copper, vinyl insulated, 3 conductors twisted under tinned copper braid shield, 2 conductors twisted unshielded, chrome vinyl jacket.									
	**8786**	6							
		(2 unshielded)	22 (7x30)	Blu, Wht	.015	.028	.211x .316	350	100, 500
		(4 shielded)	24 (7x32)	Blk, Grn, Red, Yel	.015				
Tinned copper, vinyl insulated, 4 conductors twisted under tinned copper braid shield, 2 conductors twisted unshielded, chrome vinyl jacket.									
	**8787**	10							
		(4 shielded)	24 (7x32)	Gry, Wht, Blu, Grn	.012	.027	.330	350	500
		(4 shielded)	24 (7x32)	Red, Brn, Yel, Org	.012				
		(2 unshielded)	22 (7x30)	Wht, Blu	.012				
Tinned copper, polyethylene insulated, nylon covered; cabled in 2 quads individually tinned copper braid shielded; plus 2 unshielded conductors; paper tape; chrome vinyl jacket.									

See Prices on four pages preceding Belden Page 1

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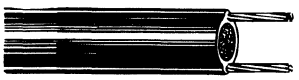
Belden 300 ohm transmission line cables

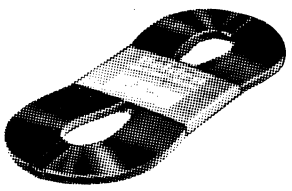
TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Package Lengths in ft
Permohm★ 8285 *Copperweld, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval jacket.*	22 (7x30)	Brown	.255 x .468	73.3%	5.3	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	50, 75, 100 coils in counter dispenser 500, 1000 spools
PERMOHM ★ Encapsulated twin lead for strong, clear signals on all channels despite salt spray, industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable.								
Celluline ★ 8275  *Copperweld; 2 conductors parallel, polyethylene jacket with inert gas filled unicellular polyethylene core.*	20 (7x28)	Brown	.300 x .400	80%	4.6	100 200 300 400 500 700 900	1.05 1.64 2.12 2.5 2.98 3.62 4.3	50, 75, 100 coils in counter dispenser 500, 1000 spools
CELLULINE ★ Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). *The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF picture.*								
8235 *Bare copper, 2 conductors parallel, polyethylene insulated.*	18 (7x26)	Brown	.185 x .520	77%	5.0	100 200 300 400 500 700 900	.85 1.35 1.80 2.20 2.60 3.25 3.85	100, 500 spools
Amateur transmitting and receiving twin lead—1 KW (RF) rated.								
Weldohm ▣ 8230 *Copperweld; 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.072 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
WELDOHM ▣ This cable is 1½ times stronger and 2½ times more flexible than the equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.								
8225 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.058 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
Brown polyethylene for the best weathering.								
8226 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Ivory	.058 x .400	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
Recommended for indoor use.								

▣ Belden Trademark, Reg. U.S. Pat. off.

★ Belden Trademark, Reg. U.S. Pat. off. and Belden Patents—U.S. 2,782,251 and 2,814,666.

BELDEN MERCHANDISERS



10 Pancake Coils per Box

300 ohm Line Package Coils
8225
8226 (New Indoor Ivory)
8230 (Weldohm)
Put-ups 25', 50', 75', 100'

Antenna Rotor Cable
8464 (4 conductor, flat)
Put-ups 50', 75', 100'

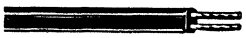
300 ohm Line Coils
8275 (Celluline)
8285 (Permohm)
Put-ups 50', 75', 100'

10 Coils per box

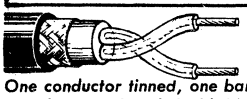
© U.C.P., Inc.

Belden transmission line cables and antenna rotor cables

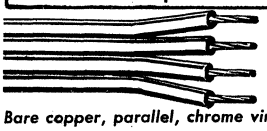
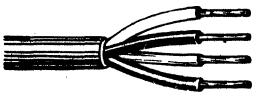
150 AND 72 OHM TRANSMISSION LINE CABLES

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′ mc	Nom. Attenuation per 100′ db	Standard Spool Lengths in ft
150 OHM LINE 	**8224**	20 (7x28)	.075 x .182	76%	9.5	100 200 300 400	2.8 4.2 5.4 6.4	100
72 OHM LINE	**8222**	20 (7x28)	.075 x .128	69%	20.3	100 200 300 400	7.7 11.0 13.6 15.9	100, 500
Bare copper, 2 conductors parallel, brown polyethylene insulated.								
72 OHM 1 KW (RF) RATED	**8210**	13 (7x21)	.166 x .278	68%	21.0	100 200 300 400 500 700 900	3.8 6.0 7.8 9.3 11.0 13.7 16.0	100, 500
Bare copper, 2 conductors parallel, brown polyethylene insulated.								

SHIELDED 100 OHM IMPEDANCE LINE

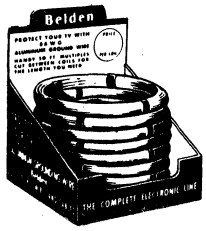
Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf/ft)	Nom. Attenuation Per. 100′ mc	Nom. Attenuation Per. 100′ db	Standard Spool Lengths in ft
	**8227**	20 (7x28)	.325	62%	83	15.5	100 200 300 400	4.1 6.4 8.4 10.2	100, 500
One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.									

ANTENNA ROTOR CABLE

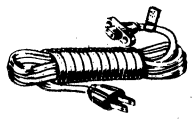
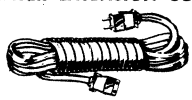
Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
	**8464**	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
Bare copper, parallel, chrome vinyl insulated.									
	**8484**	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
Bare copper, vinyl insulated, cabled, chrome vinyl jacket.	**8488**	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools

ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50′ connected coils, or spools of 500 ft. Wire on spools is marked every 100′ for easy measuring.

Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
	**8018**	.128	500 in 10-50 connected coils 500 spools
8 AWG solid, soft annealed aluminum.			

TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS 	**8874**	6	1 in polyethylene bag with description.
SP-1 brown rubber parallel cord with male plug and TV connector.			
	NEW 8895	6	1 in polyethylene bag with description.
SPT-1 brown plastic parallel cord with male plug and TV connector.			
CHEATER EXTENSION CORDS 	**8875**	6	1 in polyethylene bag with description.
SPT-1 red plastic parallel cord with male and female TV connectors.			

See Prices on four pages preceding Belden Page 1

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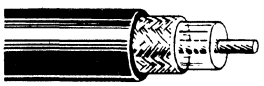
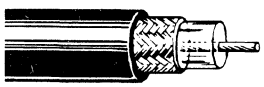
Belden transmission line cables

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf/ft.)	Nom. Attenuation per 100′ mc db	Standard Spool Lengths in ft.
	8264 JAN-C-17A	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 2.40 200 3.50 400 5.25	500 1000
	**8237** JAN-C-17A	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 2.10 200 3.30 400 4.50	100 250, 500 1000
	8267 MIL-C-17B	213/U formerly 8A/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 2.10 200 3.30 400 4.50	500 1000
	8242 JAN-C-17A	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated copper outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 2.10 200 3.30 400 4.50	100 1000
	**8238** JAN-C-17A	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 1.90 200 2.85 400 4.35	100 250, 500 1000, 1500
	8261 MIL-C-17B	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 1.90 200 2.85 400 4.35	100 500 1000
	8239 JAN-C-17A	54A/U	18(7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 3.10 200 4.40 400 6.70	500 1000
	8245 JAN-C-17A	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 4.10 200 6.20 400 9.50	500 1000
	8259 JAN-C-17A	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	28.5	100 5.30 200 8.20 400 12.60	25, 50 100, 500 1000
	8240 JAN-C-17A	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 4.10 200 6.20 400 9.50	25, 50, 100 250, 500 1000
	8262 MIL-C-17B	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 5.30 200 8.20 400 12.60	500 1000

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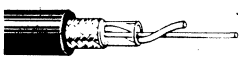
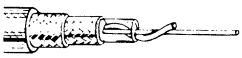
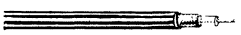
See Prices on four pages preceding Belden Page 1

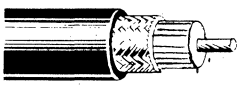
Belden transmission line cables and test prod wire

RG/U CABLES

Description	Trade Number	R.G. No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100′ mc	Nom. Attenuation per 100′ db	Standard Spool Length in ft.
	8241 JAN-C-17A	59/U	22 bare Copperweld	Polyethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 200 400	3.75 5.60 8.30	25, 50, 100 250, 500 1000
	8263 MIL-C-17B	59B/U	.023 bare Copperweld	Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 200 400	3.75 5.60 8.30	500 1000
	**8254** JAN-C-17A	62/U	22 bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	100 500 1000
	**8257** JAN-C-17A	71/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Clear Polyethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	**NEW 8216**	174/U	7x34 bare Copperweld	Polyethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 200 400	8.8 13.0 20.0	100, 500 1000

Production quantities of other RG/U types quoted on request.

FOAM CORE RG-8/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100′ mc	Nom. Attenuation per 100′ db	Standard Spool Lengths in ft
	**NEW 8214**	11 (7x19)	96.8%	.405	50	78%	26	50 100 200 300 400	1.20 1.80 2.60 3.30 3.80	100 500 1000

Conductor, cellular polyethylene insulated, bare copper braid shield, black polyethylene jacket.

Foam core RG-8/U type—for use in citizens' band and amateur radio as a 50 Ohm antenna cable.

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8899	18 (65x36)	.045	.144	20,000	5,000	10, 14*, 25, 100, 500, 1000 *7′ of red and 7′ of black.
	8898	18 (65x36)	.088	.230	29,000	10,000	10, 25, 100, 500

Tinned copper, separator, rubber insulated, red or black. Extreme limpness and flexibility combined with high dielectric strength.

COILED TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package
With Prods	**8878**	20 (42x36)	.063	.170	20,000	5,000	1 pair Red and Black

Tinned copper, rubber insulated, red or black. 7′ 9″ of cable. Retracted length 8″. Stretches to 5′.

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package
Without Prods	**8879**	20 (42x36)	.063	.170	20,000	5,000	1 pair Red and Black

Tinned copper, rubber insulated, red or black. 7′ 9″ of cable. Retracted length 8″. Stretches to 5′.

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Belden community tv antenna cables and cathode ray tube lead cable

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100' mc	Nom. Attenuation per 100' db	Standard Spool Lengths in ft
	8211	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	500, 1000, 2000
		Fits the same connectors as RG-59/U Foam core RG-59/U type								
Conductor, cellular polyethylene insulated, bare copper braid shield, black polyethylene jacket.	**8212**	20 (Solid) Copperweld	93.8	.242	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
		Foam core RG-59/U type								
	8213	14 (Solid) copper	96.8	.405	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
		Foam core RG-11/U type								
	NEW 8215	21 (Solid) Copperweld	96.6 (inner shield)	.332	75	66%	20.5	50 100 200 300 400	2.05 2.90 4.30 5.40 6.50	100, 500, 1000
Conductor, polyethylene insulated, two bare copper braid shields, black polyethylene jacket.		*RG-6A/U type*								
	8232	20 (Solid) Copperweld	93.8 (inner shield)	.315	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.	**8233**	14 (Solid) copper	92.5 (inner shield)	.475	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000

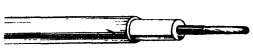
SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to imperfections in the cable acting as "Filter Traps" at some frequencies.

The Black Polyethylene Jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	**8868**	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	NEW 8869	22 (7x30)	.030	.015	.120	Blk	35,000	17,000	25, 100, 500

Tinned copper, conductive polyethylene, polyethylene insulated, vinyl jacket. The new construction greatly improves working and breakdown voltage, reduces corona, and adds service life.

**For use with non-conductive ceramic flyback cores.*

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Belden mil-W-76B-plastic wire

TYPE MW-VINYL—1000V—80C

Formerly Type SRIR JAN-C-76

Tinned copper, vinyl insulated, Medium wall. The extruded vinyl insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					25′	100′	500 or 1000′
8525	MW-C-24-(7)-U	24(7x32)	.017	.058	—	1 thru 30	1 thru 30
8524	MW-C-22-(7)-U	22(7x30)	.017	.064	1 thru 13	1 thru 30	1 thru 30
8523	MW-C-20-(10)-U	20(10x30)	.017	.070	1 thru 13	1 thru 30	1 thru 30
8522	MW-C-18-(16)-U	18(16x30)	.017	.080	1 thru 13	1 thru 22	1 thru 30
8521	MW-C-16-(26)-U	16(26x30)	.019	.098	—	1 thru 10	1 thru 30
8520	MW-C-14-(41)-U	14(41x30)	.020	.111	—	1 thru 30	1 thru 30
8527	MW-C-12-65-U	12(65x30)	.020	.130	—	1 thru 30	1 thru 30

SOLID CONDUCTOR

8530	MW-C-22-(1)-U	22 (Solid)	.017	.059	1 thru 13	1 thru 30	1 thru 30
8529	MW-C-20-(1)-U	20 (Solid)	.017	.066	1 thru 13	1 thru 30	1 thru 30
8528	MW-C-18-(1)-U	18 (Solid)	.017	.074	—	1 thru 30	1 thru 30
NEW 8531	MW-C-16-(1)-U	16 (Solid)	.017	.085	1 thru 30	1 thru 30	1 thru 30

Color Combinations

Stock colors. First color in stripe combination is body color and second or third colors are stripes (White/Black/Red).

Code No.	Color Combination	Code No.	Color Combination
1	Brown	16	White/Green
2	Red	17	White/Yellow
3	Orange	18	White/Blue
4	Yellow	19	White/Brown
5	Green	20	White/Orange
6	Light Blue	21	White/Gray
7	Violet (purple)	22	White/Violet
8	Gray (slate)	23	White/Black/Red
9	White	24	White/Black/Green
10	Black	25	White/Black/Yellow
11	Tan	26	White/Black/Blue
12	Pink	27	White/Black/Brown
13	Dark Blue	28	White/Black/Orange
14	White/Black	29	White/Black/Gray
15	White/Red	30	White/Black/Violet

TYPE MW-SHIELDED—1000V—80C

Tinned copper, vinyl insulation. Medium wall. Tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8887	MW-C-24-(7)-S	24(7x32)	.017	.082	1 thru 10	1 thru 10	1 thru 10
8883	MW-C-22-(7)-S	22(7x30)	.017	.088	1 thru 10	1 thru 10	1 thru 10
NEW 8886	MW-C-20-(10-S	20(10x30)	.017	.094	1 thru 10	1 thru 10	1 thru 10
NEW 8882	MW-C-18-(16)-S	18(16x30)	.017	.104	1 thru 10	1 thru 10	1 thru 10
8884	MW-C-16-(26)-S	16(26x30)	.019	.122	1 thru 10	1 thru 10	1 thru 10
NEW 8881	MW-C-14-(41)-S	14(41x30)	.020	.135	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8880	MW-C-12-(65)-S	12(65x30)	.020	.154	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black

TYPE MW-SHIELDED—NYLON JACKET—1000V—80C

Tinned copper, vinyl insulation. Medium wall. Tinned copper shield, nylon jacket.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8893	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
NEW 8896	MW-C-20-(10)-SJ	20(10x30)	.017	.101	9	9	9
NEW 8892	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
NEW 8894	MW-C-16-(26)-SJ	16(26x30)	.019	.131	9	9	9

Color Coding

Vinyl insulation. **White** only. (9)

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Belden mil-W-76B plastic wire

TYPE MW-GLASS BRAID—1000V—80C

Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8566	MW-C-22(7)-B	22(7x30)	.017	.076	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8565	MW-C-20-(10)-B	20(10x30)	.017	.084	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8564	MW-C-18(16)-B	18(16x30)	.017	.094	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8563	MW-C-16-(26)-B	16(26x30)	.019	.112	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8562	MW-C-14-(41)-B	14(41x30)	.020	.125	9, 124 thru 132	9, 124 thru 132	9, 124 thru 132
NEW 8561	MW-C-12-(65)-B	12(65x30)	.020	.144	9, 125, 132	9, 125, 132	9, 125, 132

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	135	White/Black
2	Red	125	White/Red
3	Orange	128	White/Green
4	Yellow	127	White/Yellow
5	Green	129	White/Blue
6	Light Blue	124	White/Brown
7	Violet (Purple)	126	White/Orange
8	Gray (Slate)	131	White/Gray
9	White	130	White/Violet
10	Black		

TYPE MW-GLASS BRAID-SHIELDED—1000V—80C

Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8863	MW-C-22-(7)-BS	22(7x30)	.017	.102	9	9	9
NEW 8862	MW-C-20-(10)-BS	20(10x30)	.017	.108	9	9	9
NEW 8861	MW-C-18-(16)-BS	18(16x30)	.017	.118	9	9	9
NEW 8860	MW-C-16-(26)-BS	16(26x30)	.019	.136	9	9	9
NEW 8859	MW-C-14-(41)-BS	14(41x30)	.020	.149	9	9	9
NEW 8858	MW-C-12-(65)-BS	12(65x30)	.020	.168	9	9	9

Color Coding

Vinyl insulation. **White** only. (9)

TYPE MW—NYLON JACKET—1000V—90C

Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8537	MW-C-22(7)-J	22(7x30)	.017	.069	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8536	MW-C-20-(10)-J	20(10x30)	.017	.075	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8535	MW-C-18(16)-J	18(16x30)	.017	.086	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8534	MW-C-16-(26)-J	16(26x30)	.019	.106	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8533	MW-C-14-(41)-J	14(41x30)	.020	.119	1, 3 thru 5, 9, 10	1, 3 thru 5, 9, 10	1, 3 thru 5, 9, 10
NEW 8532	MW-C-12-(65)-J	12(65x30)	.020	.139	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

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See Prices on four pages preceding Belden Page 1

Belden mil-W-76B—plastic wire

TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600—80C

Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8588	HW-C-22(7)-U	22(7x30)	.034	.098	1 thru 10	1 thru 10	1 thru 10
NEW 8587	HW-C-20-(10)-U	20(10x30)	.034	.104	1 thru 10	1 thru 10	1 thru 10
NEW 8586	HW-C-18(16)-U	18(16x30)	.034	.114	1 thru 10	1 thru 10	1 thru 10
NEW 8585	HW-C-16-(26)-U	16(26x30)	.034	.128	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8584	HW-C-14-(41)-U	14(41x30)	.048	.171	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8583	HW-C-12-(65)-U	12(65x30)	.048	.191	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8582	HW-C-10-(105)-U	10(105x30)	.048	.214	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8581	HW-C-8-(133)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8580	HW-C-6-(133)-U	6(133x27)	.048	.296	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black

TYPE HW—GLASS BRAID—600V—80C

Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8591	HW-C-10-(105)-B	10(105x30)	.048	.232	9, 125, 132	9, 125, 132	9, 125, 132
NEW 8590	HW-C-8-(133)-B	8(133x29)	.048	.279	9, 125, 132	9, 125, 132	9, 125, 132
NEW 8589	HW-C-6-(133)-B	6(133x27)	.048	.314	9, 125, 132	9, 125, 132	9, 125, 132

Color Coding

Code No.	Color Combination
9	White
132	White/Black
125	White/Red

TYPE LW—VINYL—300V—80C

Tinned copper, vinyl insulated. Light wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8572	LW-C-30-(7)-U	30(7x38)	.011	.034	1 thru 10	1 thru 10	1 thru 10
NEW 8571	LW-C-28(7)-U	28(7x36)	.011	.037	1 thru 10	1 thru 10	1 thru 10
NEW 8570	LW-C-26(7)-U	26(7x34)	.011	.041	14 thru 22	14 thru 22	14 thru 22
NEW 8569	LW-C-24(7)-U	24(7x32)	.011	.046	1 thru 19	1 thru 19	1 thru 19
NEW 8568	LW-C-22(7)-U	22(7x30)	.012	.054	1 thru 10	1 thru 10	1 thru 10
NEW 8567	LW-C-22-(10)-J	20(10x30)	.012	.060	14 thru 22	14 thru 22	14 thru 22

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE LW—NYLON JACKET—300V—90C

Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8579	LW-C-30-(7)-J	30(7x38)	.011	.039	1 thru 10	1 thru 10	1 thru 10
NEW 8578	LW-C-28(7)-J	28(7x36)	.011	.042	1 thru 10	1 thru 10	1 thru 10
NEW 8577	LW-C-26(7)-J	26(7x34)	.011	.046	14 thru 22	14 thru 22	14 thru 22
NEW 8576	LW-C-24(7)-J	24(7x32)	.011	.051	1 thru 19	1 thru 19	1 thru 19
NEW 8575	LW-C-24(7)-J	22(7x30)	.012	.059	1 thru 10	1 thru 10	1 thru 10
NEW 8574	LW-C-22-(10)-J	20(10x30)	.012	.065	14 thru 22	14 thru 22	14 thru 22

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

See Prices on four pages preceding Belden Page 1

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Belden mil-W-16878D plastic wire

TYPE B—VINYL—600V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8599	B-32	32(7x40)	.010	.029	1 thru 10	1 thru 10	1 thru 10
NEW 8598	B-30	30(7x38)	.010	.032	"	"	"
NEW 8597	B-28	28(7x36)	.010	.035	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8505	B-26	26(7x34)	.010	.039	"	"	"
8509	B-24	24(19x36)	.010	.045	9, 14-22	—	9, 14-22
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8508	B-22	22(19x34)	.010	.051	9, 14-22	—	9, 14-22
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8507	B-20	20(19x32)	.010	.059	9, 14-22	—	9, 14-22
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8506	B-18	18(19x30)	.010	.069	9, 14-22	—	9, 14-22
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8500	B-16	16(19x29)	.010	.077	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE B—VINYL-NYLON JACKET—600V—115C

Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8596	B-32	32(7x40)	.010	.035	1 thru 10	1 thru 10	1 thru 10
NEW 8595	B-30	30(7x38)	.010	.038	"	"	"
NEW 8594	B-28	28(7x36)	.010	.041	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8515	B-26	26(7x34)	.010	.045	"	"	"
8519	B-24	24(19x36)	.010	.051	"	—	"
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8518	B-22	22(19x34)	.010	.057	"	—	"
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8517	B-20	20(19x32)	.010	.065	"	—	"
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8516	B-18	18(19x30)	.010	.075	9, 14-22	—	9, 14-22
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8510	B-16	16(19x29)	.010	.083	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

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See Prices on four pages preceding Belden Page 1

Belden mil-W-16878D plastic wire

TYPE C VINYL—1000V—105C

Tinned copper, vinyl insulated

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8955	C-24	24(7x32)	.018	.060	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8954	C-22	22(7x30)	.018	.066	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8953	C-20	20(7x28)	.018	.074	"	"	"
NEW 8952	C-18	18(7x26)	.018	.084	"	"	"
NEW 8951	C-16	16(19x29)	.018	.093	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8950	C-14	14(19x27)	.018	.107	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE C—VINYL-NYLON JACKET—1000V—115C

Tinned copper, vinyl insulated, Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8961	C-24	24(7x32)	.018	.066	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8960	C-22	22(7x30)	.018	.072	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8959	C-20	20(7x28)	.018	.080	"	"	"
NEW 8958	C-18	18(7x26)	.018	.091	"	"	"
NEW 8957	C-16	16(19x29)	.018	.100	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8956	C-14	14(19x27)	.018	.114	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE D-VINYL—3000V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8972	D-24	24(7x32)	.030	.084	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8971	D-22	22(7x30)	.030	.090	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8970	D-20	20(7x28)	.030	.098	"	"	"
NEW 8969	D-18	18(7x26)	.030	.108	"	"	"
NEW 8968	D-16	16(19x29)	.030	.117	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8967	D-14	14(19x27)	.030	.131	"	"	"
NEW 8966	D-12	12(19x25)	.035	.160	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8965	D-10	10(37x26)	.035	.181	"	"	"
NEW 8964	D- 8	8(133x29)	.040	.245	"	"	"
NEW 8963	D- 6	6(133x27)	.040	.290	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

See Prices on four pages preceding Belden Page 1

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Belden mil-W-16878D

TYPE E—TFE TEFLON*—600V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			
				25′, 50′	100′, 250′	500′	1000′
8300	E-30	30(7x38)	.032	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8301	E-28	28(7x36)	.035	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8302	E-26	26(7x34)	.039	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8303	E-24	24(19x36)	.044	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8304	E-24	24(7x32)	.044	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8305	E-22	22(7x30)	.050	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8306	E-22	22(19x34)	.050	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8307	E-20	20(19x32)	.058	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8308	E-20	20(7x28)	.058	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8309	E-18	18(19x30)	.069	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8310	E-16	16(19x29)	.080	1 thru 10	1 thru 10	1 thru 10	1 thru 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black
		13	Dark Blue

TEFLON: Du Pont trade name for Tetrafluorethylene Resin.

TYPE EE—TFE TEFLON—1000V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			
				25′, 50′	100′, 250′	500′	1000′
8320	EE-30	30(7x38)	.042	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8321	EE-28	28(7x36)	.045	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8322	EE-26	26(7x34)	.049	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8323	EE-24	24(19x36)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8324	EE-24	24(7x32)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8325	EE-22	22(7x30)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8326	EE-22	22(19x34)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8327	EE-20	20(19x32)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8328	EE-20	20(7x28)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8329	EE-18	18(19x30)	.079	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8330	EE-16	16(19x29)	.089	1 thru 10	1 thru 10	1 thru 10	1 thru 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black
		13	Dark Blue

TEFLON: Du Pont trade name for Tetrafluorethylene Resin.

UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C

Tinned copper, vinyl insulated, cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8937*	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936*	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935*	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934*	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

See above chart for color coding.

** UL rated 600V for electronic circuits only—300V for other applications.*

UL-600V-105C (CSA 600V-90C)

Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

See above chart for color coding.

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mil-W-5086A & mil-C-7078A
aircraft power & lighting cables

MIL-W-5086A—TYPES 1 & 2—600V

Unshielded

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8541	AN-22	22(19x34)	.068	No. 1	9	9	9
NEW 8542	AN-20	20(19x32)	.078	No. 1	9	9	9
NEW 8543	AN-18	18(19x30)	.088	No. 1	9	9	9
NEW 8544	AN-16	16(19x29)	.098	No. 1	9	9	9
NEW 8545	AN-14	14(19x27)	.117	No. 1	9	9	9
NEW 8546	AN-12	12(19x25)	.137	No. 1	9	9	9
NEW 8559	AN-22	22(19x34)	.075	No. 2	9	9	9
NEW 8558	AN-20	20(19x32)	.085	No. 2	9	9	9
NEW 8557	AN-18	18(19x30)	.095	No. 2	9	9	9
NEW 8556	AN-16	16(19x29)	.105	No. 2	9	9	9
NEW 8555	AN-14	14(19x27)	.125	No. 2	9	9	9
NEW 8554	AN-12	12(19x25)	.143	No. 2	9	9	9
NEW 8553	AN-10	10(49x27)	.189	No. 2	9	9	9
NEW 8552	AN-8	8(133x29)	.240	No. 2	9	9	9
NEW 8551	AN-6	6(133x27)	.293	No. 2	9	9	9
NEW 8550	AN-4	4(133x25)	.355	No. 2	9	9	9
NEW 8549	AN-2	2(665x30)	.425	No. 2	9	9	9
NEW 8548	AN-0	0(1045x30)	.525	No. 2	9	9	9
NEW 8547	AN-00	00(1330x30)	.590	No. 2	9	9	9

Color Coding

White only

Additional Description

MIL-W-5086A-Type I AN-22 thru AN-12. Stranded tinned copper, white vinyl, clear nylon jacket insulation.

MIL-W-5086A-Type II AN-22 thru AN-12 Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.

MIL-W-5086A-Type II AN-10 thru AN-00 Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A—TYPE 1—600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)

Shielded

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8855	AN-22	22(19x34)	.092	No. 1	9	9	9
NEW 8854	AN-20	20(19x32)	.102	No. 1	9	9	9
NEW 8853	AN-18	18(19x30)	.112	No. 1	9	9	9
NEW 8852	AN-16	16(19x29)	.122	No. 1	9	9	9
NEW 8851	AN-14	14(19x27)	.141	No. 1	9	9	9
NEW 8850	AN-12	12(19x25)	.161	No. 1	9	9	9

Color Coding

White only

Additional Description

Stranded tinned copper, white vinyl insulation nylon jacket, braided tinned copper shield

See Prices on four pages preceding Belden Page 1

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Belden kits-general purpose hook up wire

KITS—HOOK-UP WIRE ON RACKS

R and D Labs
Engineers . . .
Servicemen . . .
Hobbyists . . .

Specify Trade Number 8800 for Rack only

Each kit contains an assortment of Hook-Up Wire colors and types plus a portable metal dispenser rack for workbench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area.

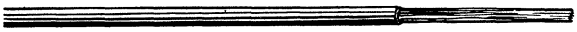
Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8818	8	25′	20 solid, cellulose acetate (8941-25)	1, 2, 3, 4, 5, 6, 9, 10
8819	5	100′	20 solid, cellulose acetate (8941-100)	2, 5, 6, 9, 10
8820	8	25′	20 stranded, cellulose acetate (8943-25)	1, 2, 3, 4, 5, 6 9, 10
8821	5	100′	20 stranded, cellulose acetate (8943-100)	2, 5, 6, 9, 10
8822	10	25′	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100′	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25′	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100′	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100′	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100′	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

GENERAL-PURPOSE HOOK-UP WIRES

Tinned copper, cellulose acetate wrap, cellulose acetate braid lacquered.
Nom. d-c Insulation Resistance—200 megohms/ft. Nom. Breakdown Voltage—1000.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8941	20(Solid)	.072	1, 2, 3, 4, 5, 6, 9, 10	25, 100, 1000
8943	20(10x30)	.076	1, 2, 3, 4, 5, 6, 9, 10	25, 100, 1000
8945	18(Solid)	.080	2, 4, 5, 6, 9, 10	25, 100, 1000
8947	18(16x30)	.087	2, 4, 5, 6, 9, 10	25, 100, 1000
8942	16(26x30)	.099	2, 5, 10	100, 1000
8938	14(41x30)	.115	2, 10	100, 500

INDOOR ANTENNA WIRE



Tinned copper, chrome vinyl insulated.

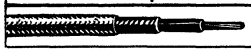
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8014	25(13x36)	.010	.044	25, 500

COLOR CODING

Stock Colors. First color in stripe combination is body color and second or third colors are stripes (White/Black/Red)

Code No.	Color Combination	Code No.	Color Combination
1	Brown	16	White/Green
2	Red	17	White/Yellow
3	Orange	18	White/Blue
4	Yellow	19	White/Brown
5	Green	20	White/Orange
6	Light Blue	21	White/Gray
7	Violet (purple)	22	White/Violet
8	Gray (slate)	23	White/Black/Red
9	White	24	White/Black/Green
10	Black	25	White/Black/Yellow
11	Tan	26	White/Black/Blue
12	Pink	27	White/Black/Brown
13	Dark Blue	28	White/Black/Orange
14	White/Black	29	White/Black/Gray
15	White/Red	30	White/Black/Violet

SHIELDED HOOK-UP and GRID WIRES

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Insulation Resistance megohms per 1000 feet	Cap. (mmf/ft)	Standard Spool Lengths in ft
	8885	20(10x30)	.015	.117	1500	4000	300	80	15, 25, 100, 500
Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.									
	8206	18(7x27)	.040	.156					15, 50, 100, 250
Tinned copper, rubber insulated, tinned copper braid shield.									

For additional shielded hook-up wires see Military Specification Types on Pages 17, 18 & 23.

© U.C.P., Inc.
See Prices on four pages preceding Belden Page 1

Belden shielding, bus bar and accessory wires

SHIELDING AND BONDING CABLES

Braided tin copper.

Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Standard Spool Lengths in ft
NEW 8676	16x36	400	1/32	10, 50, 250
NEW 8674	24x36	600	3/64	10, 50, 250
8660	96x34	3,800	1/8	10, 50, 250
8668	120x34	4,700	11/64	10, 50, 250
8663	160x34	6,300	1/4	10, 50, 250
8661	192x34	7,600	3/8	10, 50, 250
8669	336x34	13,300	1/2	10, 50, 250
NEW 8672	528x36	13,200	5/8	10, 50, 250
8662	576x34	22,900	25/32	10, 50, 250
NEW 8670	480x30	48,000	3/4	10, 50, 250
NEW 8671	832x36	20,800	1	10, 50, 250

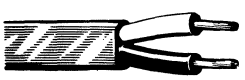
For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

LEAD-IN WIRE

Tinned copper, black rubber insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8200	18 (7x27)	.040	.126	100, 500, 1000

DUPLEX PRIMARY WIRE



Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	213 x .384	Brn, Red

BUS BAR WIRE

Solid Tinned Copper

Trade Number	AWG	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8027	34	.006	100, 1000
8026	32	.008	100, 1000
8025	30	.010	100, 1000
8024	28	.012	100, 1000
8023	26	.016	100, 1000
8022	24	.020	100, 1000
8021	22	.025	100, 1000
8020	20	.032	100, 1000
8019	18	.040	100, 1000
8013	16	.050	100, 1000
8012	14	.064	100, 1000
8011	12	.080	100

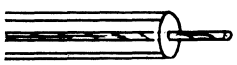
PRIMARY WIRE—MARINE AND AUTO

S.A.E. TYPE G.P.T.

Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100

7 MM IGNITION WIRE



Tinned Copperweld, POLYSIL* clear plastic insulation.
*Belden Trademark

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8666	20 (7x28)	.121	.274	Clear

See Prices on four pages preceding Belden Page 1

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Belden magnet wire

Nylclad magnet wire combines the most desirable features of Formvar with the well-known toughness and solvent resistance of Nylon enamel.

For difficult and exacting windings, these plus values may represent the difference between low and high rejections.

Nylclad will out-perform all other A.I.E.E., Class A, film-coated wires with respect to: (1) ability to withstand winding abuse and forming operations; (2) resistance to the solvent action of insulating varnishes and all types of thinners; (3) resistance to softening at elevated temperatures; (4) solvent crazing; (5) windability.

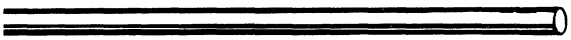
BELDENAMEL* (E)

Size	¼ Pound Spool Trade Number	¼ Pound Spool Approx. Length (Feet)	½ Pound Spool Trade Number	½ Pound Spool Approx. Length (Feet)	Turns per Linear Inch	Turns per Square Inch
14	.....	....	**8047**	40	15.2	231
16	.....	....	**8048**	63	19.1	365
18	.....	....	**8049**	100	23.9	571
20	.....	....	**8050**	160	29.9	894
22	.....	....	**8051**	254	37.4	1399
24	.....	....	**8052**	404	46.9	2200
26	.....	....	**8053**	645	59.0	3481
28	**8040**	510	**8054**	1020	73.8	5446
30	**8041**	807	**8055**	1615	92.2	8501
32	**8042**	1257	**8056**	2515	114.0	12996
34	**8043**	2030	**8057**	4060	144.0	20736
36	**8044**	3200	**8058**	6400	180.0	32400
38	**8045**	5070	.....	....	225.0	50625
40	**8046**	8050	.....	....	290.0	84100

NYLCLAD* (HNC)

Size	½ Pound Spool Trade Number	½ Pound Spool Approx. Length (Feet)	1 Pound Spool Trade Number	1 Pound Spool Approx. Length (Feet)	Turns per Linear Inch	Turns per Square Inch
14	**8059**	40	**8073**	80	14.9	222
16	**8060**	63	**8074**	126	18.6	346
18	**8061**	100	**8075**	199	23.2	538
20	**8062**	157	**8076**	315	28.9	835
22	**8063**	250	**8077**	501	36.0	1296
24	**8064**	396	**8078**	793	44.7	1998
26	**8065**	630	**8079**	1260	55.7	3102
28	**8066**	995	**8080**	1990	69.4	4816
30	**8067**	1570	**8081**	3140	86.2	7430
32	**8068**	2440	**8082**	4880	106.0	11236
34	**8069**	3930	**8083**	7860	133.0	17689
36	**8070**	6200	**8084**	12400	167.0	27889
38	**8071**	9700	**8085**	19400	206.0	42436
40	**8072**	16050	**8086**	32100	263.0	69169

SOLID FORMVAR ANTENNA WIRE



Copper, HF Formvar insulated.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8009	14 (Solid)	.067	100, 200, 500
8008	12 (Solid)	.084	100, 200, 500

STRANDED BARE ANTENNA WIRE

Stranded bare copper.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8002	16 (7x24)	.060	50, 75, 100, 1000
8000	14 (7x22)	.076	50, 75, 100, 1000

LITZ WIRE

Copper, Celenamel* insulated, nylon wrap.

Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8817	5x44	.008	100

VOICE COIL LEAD WIRE

Braided bare copper wire.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8127	25 (32x40)	.024	10, 500

*Belden Trademark Reg. U. S. Pat. Off.

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See Prices on four pages preceding Belden Page 1

Birnbach

INSULATING TUBING & SLEEVING
BIRACO, BIRFLEX, VINYL COATED FIBERGLASS

BIRACO PLASTIC TUBING
UL APPROVED FOR 105° C. OPERATION — MEETS MIL-I-631C SPECS.

A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

IN STOCK

The Birnbach Line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required Mil Specifications and ASTM and NEMA standards. We invite your inquiries on special problems and requirements.

BIRACO TUBING

Put up on convenient 100′ Spools or Coils.

LONGER LENGTHS AVAILABLE

Cat. No.	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
308BC..	24...	.022"...	100′
311BC..	22...	.027"...	100′
313BC..	20...	.034"...	100′
314BC..	18...	.042"...	100′
315BC..	16...	.053"...	100′
316BC..	14...	.066"...	100′
317BC..	12...	.085"...	100′
325BC..	10...	.106"...	100′
318BC..	8...	.135"...	100′
326BC..	6...	.166"...	100′
319BC..	4...	.208"...	100′
320BC..	2...	.263"...	100′
321BC.	5/16"..	.3125"..	100′
322BC..	3/8"..	.375"...	100′
323BC..	1/2"..	.500"...	100′
324BC..	5/8"..	.625"...	100′
*327BC..	3/4"..	.750"...	100′
*360BC..	7/8"..	.875"...	100′
*361BC..	1"..	1.000"...	100′
*362BC..	1 1/4"..	1.250"...	50′
*363BC..	1 1/2"..	1.500"...	50′
*328BC..	1 3/4"..	1.750"...	100′
*329BC..	2"..	2.000"...	50′
*364BC..	2 1/4"..	2.250"...	100′
*365BC..	2 1/2"..	2.500"...	100′

SPECIAL SPOOLS BIRACO TUBING

36" Lgths.	Cat. No.'s Spool	B & S Gauge Spec. Size No.	Approx. I.D.	Lgth. Spool
.....	308B	...24	.022"	25′
.....	311B	...22	.027"	25′
313...	313B	...20	.034"	25′
314...	314B	...18	.042"	25′
315...	315B	...16	.053"	25′
316...	316B	...14	.066"	25′
317...	317B	...12	.085"	25′
325...	325B	...10	.106"	15′
318...	318B	... 8	.135"	15′
326...	326B	... 6	.166"	15′
319...	319B	... 4	.208"	10′
320...	320B	... 2	.263"	10′
321...	——	... 5/16	.3125"	—
322...	——	... 3/8	.375"	—
323...	——	... 1/2	.500"	—
324...	——	... 5/8	.625"	—

Standard package 36" lengths 25 each color:

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 ..... 1,000′
Soft Wound Spools
#14 Thru #8 ..... 500′
Soft Wound Spools
#7 Thru #2 ..... 250′
Soft Wound Spools
#1 Thru #1 1/2 ... Coils ..... 250′
#3/16 Thru #7/8 ... Coils ..... 100′
Larger Sizes ..... Coils ..... 50-100′

COLORS AVAILABLE FROM STOCK:
Black, Red, Green, White, Yellow, Blue, Brown, Orange, Clear.

*Cat. Nos. 360BC, 361BC, 362BC, 363BC, 364BC, 328BC, 329BC, 365BC available in **Black, White and Clear** from stock.

DIMENSIONAL TOLERANCES OF BIRACO

Sz.	Approx. I.D., Ins.	ASTM Tolerances, Ins.		Wall Thickness Inches
24	.022	.020	— .027	.012±.002
22	.027	.025	— .032	.012±.002
20	.034	.032	— .039	.016±.003
19	.038	.044	— .036	.016±.003
18	.042	.040	— .049	.016±.003
17	.047	.054	— .045	.016±.003
16	.053	.051	— .061	.016±.003
15	.059	.067	— .057	.016±.003
14	.066	.064	— .072	.016±.003
13	.076	.080	— .072	.016±.003
12	.085	.081	— .089	.016±.003
11	.095	.101	— .091	.016±.003
10	.106	.102	— .112	.016±.003
9	.118	.124	— .114	.020±.003
8	.133	.129	— .141	.020±.003
7	.148	.158	— .144	.020±.003
6	.166	.162	— .178	.020±.003
5	.186	.198	— .182	.020±.003
4	.208	.204	— .224	.020±.003
3	.234	.249	— .229	.020±.003
2	.263	.258	— .278	.020±.003
1	.294	.311	— .289	.020±.003
0	.330	.347	— .325	.020±.003
5/16	.315	.3125	— .334	.025±.003
3/8	.375	.375	— .399	.025±.003
7/16	.438	.462	— .438	.025±.003
1/2	.500	.500	— .524	.025±.003
9/16	.562	.592	— .562	.030±.003
5/8	.625	.625	— .655	.030±.005
3/4"	.750	.750	— .786	.035±.005
7/8	.875	.875	— .911	.035±.005
1"	1.000	1.000	— 1.036	.035±.005
1 1/4"	1.250	1.250	—1.286	.040±.005
1 1/2"	1.500	1.500	—1.536	.045±.005
1 3/4"	1.750	1.812	—1.750	.055±.008
2"	2.000	2.000	—2.070	.060±.010
2 1/4"	2.250	2.250	—2.330	.065±.010
2 1/2"	2.500	2.500	—2.590	.070±.010

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES

BIRACO TUBING

Tensile Strength—2500 Psi (Minimum Average)

Flammability—Non-Flammable

Ultimate Elongation—340%

Recommended for Temperatures to—105° C

Cold Bend— -40° C.

Dielectric Strength .020" Wall—800 V/Mil

Varnish Baking—Good

Water Absorption

Weight Increase (1 Week)—0.1%

Oil Resistance—Indefinitely flexible when immersed in oil

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

BIRFLEX VINYL COATED FIBERGLASS TUBING
(ASTM, NEMA Grade B-B-1) MEETS MIL-I-3190 SPECS.

Quality Electronic and Electrical Tubing. It is Class B Insulation that combines the best features of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-I-3190 A, NEMA VSI, ASTM D 372.

SPECIAL SPOOLS VINYL COATED FIBERGLASS

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth. Spool
291V	20	.034	25′
293V	18	.042	25′
294V	16	.053	25′
295V	14	.066	25′
300V	12	.085	25′
307V	10	.106	20′
301V	8	.135	15′
302V	6	.166	10′
305V	4	.208	10′
306V	2	.263	10′

*VINYL COATED FIBERGLASS

30" Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
291....	20	.034
293....	18	.042
294....	16	.053
295....	14	.066
300....	12	.085
307....	10	.106
301....	8	.135
302....	6	.166
297....	3/16	.208
298....	1/4	.263

36" Lengths

*303...	5/16	.3125
*304...	3/8	.375
*299...	1/2	.500
*296...	5/8	.625

*VINYL COATED FIBERGLASS

Put up on convenient 100′ Spools or Coils.

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth. Spool
289VC	24	.022	100′
290VC	22	.027	100′
291VC	20	.034	100′
293VC	18	.042	100′
294VC	16	.053	100′
295VC	14	.066	100′
300VC	12	.085	100′
307VC	10	.106	100′
301VC	8	.135	100′
302VC	6	.166	100′
305VC	4	.208	100′
306VC	2	.263	100′
*303VC	5/16	.3125	100′
*304VC	3/8	.375	100′
*299VC	1/2	.500	100′
*296VC	5/8	.625	100′

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
4, 3/16	.208	.204-.224
2, 1/4	.263	.258-.278
1/16	.3125	.312-.328
3/8	.375	.375-.399
1/2	.500	.500-.524
5/8	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B
Grade B-1
Dielectric Strength.....4000 V.
Temperature Rating.....130° C.
Low Temp. Flexibility.....—30° C.
Non-Flammable
Ins. Resistance.....Over 1,000,000 MEGS.
Corrosion Resistance .....Excellent
Oil Resistance .....Good

COLORS:
Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

Additional Sizes Available

Other types of Biraco, Birflex, Birflon Tubing and sleeving available. Write for new Comprehensive Catalog on Tubing and Sleeving.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

See Pages 1553-1558 for Birnbach Prices for Above Items
© U.C.P., Inc.

Birnbach

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. Its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures. Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron — therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-3000 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F.		
1200 Lb/Sq. In., 24 Hrs.	D621-51	4-8%
2000 Lb/Sq. In., 24 Hrs.	D621-51	25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 66 Lb/Sq. In.	D648B-45T	250°F.
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	$3.6x10^{6}$ Megohms
Dielectric Constant, 60 to 10^{8} Cycles	D150-54T	2.00
Power Factor, 60 to 10^{8} Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

Thin Wall Birflon T-500 Teflon* Tubing Dimensional Specifications

AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness	AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness
32	.028"	.011"	.0085"	7	.178"	.148"	.015"
30	.030"	.012"	.009"	6	.196"	.166"	.015"
28	.033"	.015"	.009"	5	.216"	.186"	.015"
26	.038"	.018"	.010"	4	.238"	.208"	.015"
24	.042"	.022"	.010"	3	.264"	.234"	.015"
22	.047"	.027"	.010"	2	.293"	.263"	.015"
20	.058"	.034"	.012"	1	.324"	.294"	.015"
19	.062"	.038"	.012"	0	.360"	.330"	.015"
18	.066"	.042"	.012"	3/8"	.430"	.390"	.020"
17	.071"	.047"	.012"	7/16"	.493"	.453"	.020"
16	.077"	.053"	.012"	1/2"	.565"	.515"	.025"
15	.083"	.059"	.012"	9/16"	.633"	.583"	.025"
14	.090"	.066"	.012"	5/8"	.700"	.640"	.030"
13	.100"	.076"	.012"	3/4"	.825"	.765"	.030"
12	.109"	.085"	.012"	7/8"	.950"	.895"	.030"
11	.119"	.095"	.012"	1"	1.085"	1.025"	.030"
10	.130"	.106"	.012"	1⅛"	1.210"	1.150"	.030"
9	.148"	.118"	.015"	1¼"	1.335"	1.275"	.030"
8	.163"	.133"	.015"				

Tolerance — Nos. 32 thru 0 — ± .003" on Wall
Tolerance — Nos. ⅜" thru 1¼" — .020" on I.D., .006" on Wall

ADDITIONAL ADVANTAGES OF BIRFLON T-500 TEFLON*

- **ELECTRICAL:** Low power factor, low dielectric constant, high volume and surface resistivity, good dielectric strength (500 to 1000 volts/MIL) constant over wide ranges of temperatures and frequencies. Dielectric constant of 2.0 and dissipation factor of 0.0002 are lowest of any solid dielectric.
- **THERMAL:** No change of electrical properties with temperature (25°C. to 250°C.) or frequency (60 CPS to 100 MC). Class C insulation — capable of continuous service at temperatures to 250° C. Has color stability.
- **TOUGHNESS AND FLEXIBILITY:** Has high impact strength. Is tough and flexible over the broad temperature range of —90° C. to 250°C. Service range —320°F. to 500° F.
- **CHEMICAL INERTNESS:** Completely inert to all chemicals and solvents except molten alkali metals and fluorine at elevated temperatures and pressures. Non-corrosive to all metals.
- **MOISTURE ABSORPTION:** Zero moisture absorption. Completely sun and weather resistant.
- **NON-FLAMMABLE** • **LOWEST COEFFICIENT OF FRICTION**
- **FUNGI RESISTANCE:** Inert to all fungi growths.
- **SIZES:** Birflon T-500 Teflon Tubing available in sizes to fit B & S gauge wires. Thin wall available from stock, in sizes No. 32 thru 1¼" I.D. Additional sizes and wall thicknesses made to order.

Birflon T-500 is made from high molecular weight virgin "Teflon" and meets AMS 3651B, 3653, 3654, 3655, MIL-C-17B and MIL-I-22129

NOTE: When cutting Teflon Tubing, use single edge razor blade for clean unpinched cut.

*"Teflon"® DuPont Trade Name for Tetrafluoroethylene Resin

NO EXTRA CHARGE FOR SOLID COLORS
SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White. Nos. 8020 thru 8029 available in Natural. Additional Colors, Sizes Made To Order

Teflon Tubing can be ordered cut to your specifications.

Tracer Colors Available
We Invite Your Inquiries For Your Special Requirements

WIRE — CABLE — TUBING DIVISION

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8013	*1000'	32
8013	500'	32
8013	100'	32
8014	*1000'	30
8014	500'	30
8014	100'	30
8015	*1000'	28
8015	500'	28
8015	100'	28
8016	*1000'	26
8016	500'	26
8016	100'	26
8000	*1000'	24
8000	500'	24
8000	100'	24
8000	50'	24
8000	25'	24
8001	*1000'	22
8001	500'	22
8001	100'	22
8001	50'	22
8001	25'	22
8002	*1000'	20
8002	500'	20
8002	100'	20
8002	50'	20
8002	25'	20

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8003	*1000'	18
8003	500'	18
8003	100'	18
8003	50'	18
8003	25'	18
8004	*1000'	16
8004	500'	16
8004	100'	16
8004	50'	16
8004	25'	16
8005	1000'	14
8005	* 500'	14
8005	100'	14
8005	50'	14
8005	25'	14
8006	1000'	12
8006	* 500'	12
8006	100'	12
8006	50'	12
8006	25'	12
8007	1000'	10
8007	* 500'	10
8007	100'	10
8007	50'	10
8007	25'	10
8008	1000'	8
8008	* 500'	8
8008	100'	8
8008	50'	8
8008	25'	8

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8009	1000'	6
8009	* 500'	6
8009	100'	6
8009	50'	6
8009	25'	6
8010	1000'	4
8010	500'	4
8010	* 100'	4
8010	50'	4
8010	25'	4
8011	1000'	2
8011	500'	2
8011	* 100'	2
8011	50'	2
8011	25'	2
8012	1000'	0
8012	500'	0
8012	* 100'	0
8012	50'	0
8012	25'	0
8020	1000'	3/8"
8020	500'	3/8"
8020	* 100'	3/8"
8020	50'	3/8"
8021	1000'	7/16"
8021	500'	7/16"
8021	* 100'	7/16"
8021	50'	7/16"
8022	1000'	1/2"
8022	500'	1/2"
8022	* 100'	1/2"
8022	50'	1/2"
8022	25'	1/2"

Cat. No.	Spool or Coil Put-Up	Nom. I.D.
8023	1000'	9/16"
8023	500'	9/16"
8023	* 100'	9/16"
8023	50'	9/16"
8023	25'	9/16"
8024	1000'	5/8"
8024	500'	5/8"
8024	* 100'	5/8"
8024	50'	5/8"
8024	25'	5/8"
8025	1000'	3/4"
8025	500'	3/4"
8025	* 100'	3/4"
8025	50'	3/4"
8025	25'	3/4"
8026	1000'	7/8"
8026	500'	7/8"
8026	* 100'	7/8"
8026	50'	7/8"
8026	25'	7/8"
8027	1000'	1"
8027	500'	1"
8027	* 100'	1"
8027	50'	1"
8027	25'	1"
8028	1000'	1⅛"
8028	500'	1⅛"
8028	* 100'	1⅛"
8028	50'	1⅛"
8028	25'	1⅛"
8029	1000'	1¼"
8029	500'	1¼"
8029	* 100'	1¼"
8029	50'	1¼"
8029	25'	1¼"

*PREFERRED PUT-UP

Extruded virgin Teflon rod sizes ⅛" thru 3⅛" diam. available. Also "O" rings, washers, balls, etc.

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

BIRACO - BIRFLON HEAT SHRINKABLE PLASTIC TUBINGS

NEW FROM BIRNBACH

This Series of Birnbach Shrink Plastic Tubings are expanded materials which facilitate the fitting of tubing over regular contoured or irregular shapes and then, on application of heat, provide a snug fitting protective cover with outstanding heat stability, chemical resistance and electrical characteristics. Shrinking temperatures vary with the type of tubing used. No special training is required to apply these tubings. Long exposure to shrinking temperatures (5 to 7 times normal time-temperature cycle) does not impair their properties.

PROPERTIES CHART

	PO SERIES Shrinkable Polyethylene	TE SERIES Shrinkable "Teflon"
DIELECTRIC STRENGTH (20 Mil Wall)	800 Volts/Mil	850 Volts/Mil
DIELECTRIC CONSTANT	2.5	2.2
POWER FACTOR	0.003	.00
VOLUME RESISTIVITY	10^{16} Ohms/CM	10^{17} Ohms/CM
FUNGUS RESISTANCE	Inert	Inert
FLAMMABILITY	Self-Extinguishing Will	Not Support Combustion
FUEL and OIL RESISTANCE	Excellent	Superior
HYDRAULIC FLUID RESISTANCE	Excellent	Superior
SOLVENT RESISTANCE	Good	Superior
ACID and ALKALI RESISTANCE	Excellent	Superior
CORROSION RESISTANCE	Non-Corrosive	Excellent
TENSILE STRENGTH	1800 PSI	5000-7500 PSI
ULITMATE ELONGATION	250%	300-500%
WATER ABSORPTION	0.01%	Nil
LOW TEMPERATURE BRITTLE POINT	— 100°F	—66°F
HARDNESS	98 SHORE A	98 Shore A
SPECIFIC GRAVITY	1.28	2.2

HAG-1 Hot Air Gun For PO Series
HAG-2 Hot Air Gun For TE Series

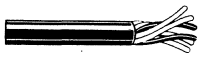
The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

SHRINK SERIES PO TUBING

HEAT SHRINKABLE POLYETHYLENE TUBING

Biraco Shrink Series PO Tubing is an irradiated, thermally stable Class B material. Simple to use, it insulates, jackets, splices, encapsulates, weatherproofs. It shrinks with application of heat approximately 275°F (135°C) and returns immediately to its predetermined size (approximately one-third smaller) to form a permanent tight-fitting mechanical bond even over irregularly shaped materials. The Biraco Shrink Series PO is an irradiated, flame retarded, thermally stable, modified polyolefin base product which permits controlled shrinkage with the result that there is less than 10% longitudinal contraction; no cracks; a definite wall thickness is achieved. It possesses hi-dielectricity and mechanical strength and resistance to chemicals; is tough and abrasion resistant; retains form stability at ambient temperatures. Controlled shrinking takes approximately seven seconds at 275°F to 300°F. Shrinkage starts at 235°F but at a slower rate. For a tight-fit, select the expanded size tubing which is larger than the object to be covered and whose recovered size is smaller.

DIMENSION CHART



BIRACO SHRINK SERIES PO TUBING

Birnbach No.	Size	Minimum I.D. Prior to Shrinking	Recovered I.D. After Shrinking	Nom. Wall Thickness
SK-275-24	24	.050″	.027″	.012″
SK-275-22	22	.055″	.032″	.012″
SK-275-20	20	.060″	.038″	.016″
SK-275-18	18	.076″	.049″	.016″
SK-275-16	16	.093″	.061″	.016″
SK-275-14	14	.120″	.072″	.016″
SK-275-12	12	.153″	.089″	.016″
SK-275-10	10	.191″	.112″	.016″
SK-275-8	8	.240″	.141″	.020″
SK-275-6	6	.302″	.178″	.020″
SK-275-4	4	.348″	.224″	.020″
SK-275-2	2	.430″	.275″	.020″
SK-275-5/16	5/16″	.500″	.334″	.025″
SK-275-3/8	3/8″	.600″	.399″	.025″
SK-275-7/16	7/16″	.693″	.462″	.025″
SK-275-1/2	1/2″	.787″	.524″	.025″
SK-275-5/8	5/8″	.982″	.655″	.030″
SK-275-3/4	3/4″	1.180″	.786″	.035″
SK-275-7/8	7/8″	1.365″	.911″	.035″
SK-275-1	1″	1.555″	1.036″	.035″

Standard Put-Up — 4 Foot Lengths

Standard Colors — #24 thru #4 Black, Red, Yellow, White
#2 thru 1″—Black
Other colors available to order

Standard package
#24 thru #4—100 Feet (25-4 Ft. Lengths)
#2 thru 1″—20 Feet (5-4 Ft. Lengths)

BIRFLON SHRINK SERIES TE TUBING

HEAT SHRINKABLE TEFLON* TUBING

Is a Class C material modified from polytetrafluorethylene. The tubing will shrink when heated to 621 F. (It should be heated until it turns semi-transparent, then the heating process immediately stopped. Overheating can cause splitting, therefore trial and error testing is recommended to establish the proper time and temperature for each application.) Correct procedure will result in a snug-fitting insulating wrap possessing hi-heat resistance, superior chemical resistance, and excellent electrical characteristics. The tubing is available in a full range of colors.

* Dupont Polytetrafluoroethelene

DIMENSIONS—BIRFLON SHRINK SERIES TE TUBING

Birnbach No.	Nominal Tubing Size	Minimum Expanded ID	Recovered Dimensions Maximum ID (1)	Recovered Dimensions Wall Thickness (2)
SK-621-26	26	.046″	.022″	.009″
SK-621-24	24*	.050″	.027″	.010″
SK-621-22	22*	.055″	.032″	.010″
SK-621-20	20*	.060″	.039″	.012″
SK-621-19	19	.065″	.043″	.012″
SK-621-18	18*	.076″	.049″	.012″
SK-621-17	17	.085″	.054″	.012″
SK-621-16	16*	.093″	.061″	.012″
SK-621-15	15	.110″	.067″	.012″
SK-621-14	14*	.120″	.072″	.012″
SK-621-13	13	.140″	.080″	.012″
SK-621-12	12*	.150″	.089″	.012″
SK-621-11	11	.170″	.101″	.012″
SK-621-10	10*	.191″	.112″	.012″
SK-621-9	9	.205″	.124″	.015″
SK-621-8	8*	.240″	.141″	.015″
SK-621-7	7	.270″	.158″	.015″
SK-621-6	6*	.302″	.178″	.015″
SK-621-5	5	.320″	.198″	.015″
SK-621-4	4*	.348″	.224″	.015″
SK-621-3	3	.360″	.249″	.015″
SK-621-2	2*	.375″	.278″	.015″
SK-621-1	1	.385″	.311″	.015″
SK-621-0	0*	.400″	.347″	.015″
SK-621-3/8	3/8″*	.560″	.399″	.020″
SK-621-7/16	7/16″*	.655″	.462″	.020″
SK-621-1/2	1/2″*	.750″	.524″	.020″

Standard Package—100 Feet
Standard Put-up—36″ Straight Lengths—One Foot Minimums
Wall Tolerances: 26 thru 22 ± .002
20 thru 10 ± .003
9 thru 0 ± .004

(1) Tubings made to Military Standards for American Wire Gages will return within the tolerances for that gage number.
(2) Nominal wall thickness after heating. Expanded wall thickness will be 20% to 30% less.
(*) Stock Sizes

See Pages 1553-1558 for Birnbach Prices for Above Items
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Birnbach COPPERWELD ENAMEL, TINNED AND BARE COPPER BUS BAR, BRAIDED TINNED COPPER SHIELDING

TINNED COPPER WIRE — BUS BAR

Pure Electrolytic, Copper, annealed, tinned for quick soldering

MIL—W—3861 type S, ASTM—B—33 specifications, QQ—N—343 types

Cat. No.	Put-Up	Size AWG	Area Circular Mils	O.D.
1433/4	100' Coil	4	41,740	.204"
1433/6	100' Coil	6	26,250	.162"
1433	100' Coil	8	16,510	.129"
1402	100' Coil	10	10,380	.103"
1403	1000' Spool	10	10,380	.103"
1406	100' Coil	12	6,530	.082"
1407	1000' Spool	12	6,530	.082"
1410	100' Coil	14	4,107	.065"
1411	1000' Spool	14	4,107	.065"
1414	100' Coil	16	2,583	.051"
1415	1000' Spool	16	2,583	.051"
1418	100' Coil	18	1,624	.040"
1419	1000' Spool	18	1,624	.040"
1422	100' Coil	20	1,022	.033"
1423	1000' Spool	20	1,022	.033"
1434	1000' Spool	22	624.4	.025"
1424	1000' Spool	24	404.0	.020"
1426	1000' Spool	26	254.1	.016"
1428	1000' Spool	28	159.8	.013"
1430	1000' Spool	30	100.5	.010"
1430/32	1000' Spool	32	63.21	.008"
1430/34	1000' Spool	34	39.75	.006"
1430/36	1000' Spool	36	25.00	.005"
1430/38	1000' Spool	38	15.72	.004"

See Magnet Wire Section For Additional Sizes

BUS BAR WIRE (Hard Drawn)

MIL—W—3861 type S, ASTM—B—33, ASTM—B—246—51 specifications

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

Cat. No.	No.		
2010	10	Round	Tinned
2012	12	Square	Tinned
2013	12	Round	Tinned
2014	14	Square	Tinned
2015	14	Round	Tinned
2016	16	Round	Tinned
2018	18	Round	Tinned

(100 to Std. Package)

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

EXTREMELY FLEXIBLE SHIELDING PER QQ—B—575 AVAILABLE TO ORDER

DESCRIPTION:

No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and **Rolled Flat.**

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and **Rolled Flat.**

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
853	12 x 2/36	1/32"	3/64"	1000'
854	12 x 2/36	3/64"	1/16"	1000'
855	16 x 3/36	1/16"	5/64"	50'
858	24 x 5/36	1/8"	5/32"	50'
859	24 x 5/36	3/16"	7/32"	50'
863	24 x 7/36	1/4"	9/32"	50'
864	48 x 4/36	3/8"	15/32"	50'
868	48 x 7/36	1/2"	19/32"	50'
865	48 x 8/36	5/8"	23/32"	50'
865/1	48 x 11/36	3/4"	13/16"	50'
857	48 x 19/36	25/32"	27/32"	50'
856	48 x 19/36	1"	1-1/16"	50'
856/1	48 x 19/36	1-3/8"	1-7/16"	50'
856/2	48 x 19/36	1-1/2"	1-9/16"	50'
856/3	48 x 27/30	1-3/4"	1-7/8"	50'
856/4	48 x 32/30	2"	2-1/4"	50'
856/6	48 x 45/30	2-1/2"	2-3/4"	50'
856/7	48 x 64/30	3"	3-1/4"	50'

BARE

860	24 x 10/36	1/4"	50'

For longer lengths and alternate put-ups—Specify.

COPPER WIRE—SOLID—STRANDED

STRANDED TINNED COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
495	100' Coil	12	7/20	.102"
1671	100' Coil	14	7/22	.076"
1638	1000' Spool	14	7/22	.076"
1674	100' Coil	15	7/23	.069"
1633	1000' Spool	15	7/23	.069"
1628	1000' Spool	16	7/24	.062"

#1671 meets H4.4—1940 type W—I

COIL LEAD, JUMPER CABLE

PURE ELECTROLYTIC, COPPER, annealed, tinned for quick soldering
MIL—W—3861 Type B, ASTM—B—33 Specifications

Cat. No.	Class Description	Put-Up	Size AWG	Strand	O.D.
1622	K	1000' Spool	22	7/30	.030"
1620	K	1000' Spool	20	10/30	.037"
1618	K	1000' Spool	18	16/30	.045"
1616	K	1000' Spool	16	26/30	.059"
1614	K	1000' Spool	14	41/30	.073"
1612	K	1000' Spool	12	65/30	.091"

BARE COPPER WIRE (Soft Drawn)

QQ—W—341A specifications

Cat. No.	Put-Up	Size AWG	Area Circular Mils	O.D.
1560	100' Coil	8	16,510	.1285"
1562	100' Coil	10	10,380	.102"
1563	1000' Spool	10	10,380	.102"
1566	100' Coil	12	6,530	.081"
1567	1000' Spool	12	6,530	.081"
1570	100' Coil	14	4,107	.064"
1571	1000' Spool	14	4,107	.064"
1574	100' Coil	16	2,583	.051"
1575	1000' Spool	16	2,583	.051"

SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

Cat. No.	Put-Up	Size AWG	Strand	Breaking Strength	O.D.
529*	100'	4	7/12	3670 lbs.	.240"
528*	100'	6	7/14	2140 lbs.	.190"
527	100'	8	7/16	1600 lbs.	.150"
499	100'	10	7/18	1000 lbs.	.122"
524	100'	12	7/20	650 lbs.	.100"
526	100'	14	7/22	420 lbs.	.075"

#528 and #499 meets MIL—W—13074; #524 meets MIL—W—13276

For longer lengths and alternate put-ups—Specify.

* 1000 feet on deposit reels

COPPERWELD ENAMEL ANTENNA WIRE

Used where high tensile strength is required as for short wave and transmitting aerials. Has low **R.F.** resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities.

Cat. No.	Put-Up	Size AWG	Tensile Strength	O.D.
710-100	100' Spool	10	1130 lbs.	.103"
710-250	250' Spool	10	1130 lbs.	.103"
710-500	500' Spool	10	1130 lbs.	.103"
710-1000	1000' Spool	10	1130 lbs.	.103"
710-2500	2500' Spool	10	1130 lbs.	.103"
712-100	100' Coil	12	720 lbs.	.082"
712-250	250' Coil	12	720 lbs.	.082"
712-500	500' Spool	12	720 lbs.	.082"
712-1000	1000' Spool	12	720 lbs.	.082"
712-2500	2500' Spool	12	720 lbs.	.082"
714-100	100' Coil	14	400 lbs.	.065"
714-250	250' Spool	14	400 lbs.	.065"
714-500	500' Spool	14	400 lbs.	.065"
714-1000	1000' Spool	14	400 lbs.	.065"
714-2500	2500' Spool	14	400 lbs.	.065"

SOLID ENAMEL COPPER WIRE

Cat. No.	Put-Up	Size AWG	O.D.
497	100' Coil	10	.103"
1497	1000' Spool	10	.103"
492	100' Coil	12	.083"
492A	150' Coil	12	.083"
492B	200' Coil	12	.083"
1492	1000' Spool	12	.083"
490	100' Coil	14	.066"
490A	150' Coil	14	.066"
490B	200' Coil	14	.066"
1490	1000' Spool	14	.066"

STRANDED BARE COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
493	100' Coil	12	7/20	.100"
1670	100' Coil	14	7/22	.075"
1639	1000' Spool	14	7/22	.075"
1673	100' Spool	15	7/23	.068"
1634	1000' Spool	15	7/23	.068"
1680	100' Coil	16	7/24	.060"
1647	1000' Spool	16	7/24	.060"
681	100' Coil	18	7/26	.050"
1648	1000" Spool	18	7/26	.050"
700	100' Coil	19	7/27	.041"
1741	1000' Spool	19	7/27	.041"

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

GOV'T. SPEC. HOOK-UP WIRE

SPEC. MIL-W-16878C TEFLON*

BIRNBACH

BIRFLON EXTRUDED & SPIRAL WRAPPED TEFLON* HOOK-UP WIRE

SPECIFICATION MIL-W-16878C — TYPE E—600 VOLT

HIGH TEMPERATURE RATING —90° TO +250°C (TYPE EE-1000V AVAILABLE)

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip. and guided missiles.

Description: single conductor silver plated copper wire concentrically stranded and insulated with extruded or Spiral Wrapped Teflon insulation.

Cat. Nos. Extruded	Cat. Nos. Wrapped	Spool	Size AWG	Mil Type Designation	Strand	Nom. Insul.	Volt Rating	Diameter Over Insulation Max.
8532	8552	1000′	32	E-32	7/40	010″	600	033″
8532-1	8552-1	100′	32	E-32	7/40	010″	600	033″
8530	8550	1000′	30	E-30	7/38	010″	600	036″
8530-1	8550-1	100′	30	E-30	7/38	010″	600	036″
8528	8548	1000′	28	E-28	7/36	010″	600	039″
8528-1	8548-1	100′	28	E-28	7/36	010″	600	039″
8526	8546	1000′	26	E-26	7/34	010″	600	043″
8526-1	8546-1	100′	26	E-26	7/34	010″	600	043″
8524	8544	1000′	24	E-24	19/36	010″	600	048″
8524-1	8544-1	100′	24	E-24	19/36	010″	600	048″
8522	8542	1000′	22	E-22	19/34	010″	600	054″
8522-1	8542-1	100′	22	E-22	19/34	010″	600	054″
8520	8540	1000′	20	E-20	19/32	010″	600	062″
8520-1	8540-1	100′	20	E-20	19/32	010″	600	062″
8518	8538	1000′	18	E-18	19/30	010″	600	074″
8518-1	8538-1	100′	18	E-18	19/30	010″	600	074″
8516	8536	1000′	16	E-16	19/29	010″	600	087″
8516-1	8536-1	100′	16	E-16	19/29	010″	600	087″
8514	8534	1000′	14	E-14	19/27	010″	600	097″
8514-1	8534-1	100′	14	E-14	19/27	010″	600	097″
8512		1000′	12	E-12	19/25	010″	600	120″
8512-1		100′	12	E-12	19/25	010″	600	120″
8510		(100′-1000′)	10	E-10	37/26	010″	600	139″

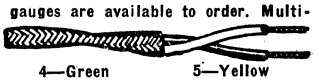
***Duponts Tetrafluoroethylene Resin. Cat. No's 8534 thru 8552 available Per MIL-W-7139A TEFLON AIRCRAFT SPEC./Per MIL-W-27300A (USAF), also NAS-703 Cable conforming to MIL-C-27500 SPEC.**

Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White. Additional special custom constructions available to order. Wrapped extruded with or without shielding, glass braid, nylon braid, silicone and in miniature multi-conductors. Price and delivery on request.

TEFLON* CABLES—Shielded and Unshielded

DESCRIPTION: One or more conductors, each conductor stranded silver plated concentrically stranded copper, type E extruded or spiral wrapped insulation. When shielded, a closely woven silver plated copper shield is braided over conductor(s). When braided, a Teflon* impregnated fiberglass is woven over the conductor(s) or shield. MIL-W-16878C spec.

Additional variations and gauges are available to order. Multi-conductor color code:
1—White
2—Black
3—Red
4—Green
5—Yellow



BIRNBACH CAT NUMBERS 1 Cond.	2 Cond.	3 Cond.	4 Cond.	5 Cond.	Size and Stranding		Outer Covering
8704	8704/2	8704/3	8704/4	8704/5	#24	19/36	Shield
8705	8705/2	8705/3	8705/4	8705/5	#24	19/36	Braid
8706	8706/2	8706/3	8706/4	8706/5	#24	19/36	Shield & Braid
8707	8707/2	8707/3	8707/4	8707/5	#22	19/34	Shield
8708	8708/2	8708/3	8708/4	8708/5	#22	19/34	Braid
8709	8709/2	8709/3	8709/4	8709/5	#22	19/34	Shield & Braid
8710	8710/2	8710/3	8710/4	8710/5	#20	19/32	Shield
8711	8711/2	8711/3	8711/4	8711/5	#20	19/32	Braid
8712	8712/2	8712/3	8712/4	8712/5	#20	19/32	Shield & Braid
8713	8713/2	8713/3	8713/4	8713/5	#18	19/30	Shield
8714	8714/2	8714/3	8714/4	8714/5	#18	19/30	Braid
8715	8715/2	8715/3	8715/4	8715/5	#18	19/30	Shield & Braid

TEFLON* CABLES • TEFLON* TAPE WRAP JACKET OVER SHIELD

DESCRIPTION: One or more conductors, each conductor stranded silver plated concentrically stranded copper, Type E extruded Teflon* TFE .010″ insulation, braided silver plated copper shield over conductor(s), 90% coverage; .010″ fused, double reversed wrapped Teflon* tape jacket.

Fused, double reversed wrapped Teflon tape jacket

Cat. No.	Conds.	Awg	Strand	Nom O.D.
8521	1	24	19/36	.084″
8521/2	2	24	19/36	.128″
8521/3	3	24	19/36	.135″
8521/4	4	24	19/36	.148″
8521/5	5	24	19/36	.162″
8523	1	22	19/34	.090″
8523/2	2	22	19/34	.140″
8523/3	3	22	19/34	.148″
8523/4	4	22	19/34	.162″
8523/5	5	22	19/34	.183″
8525	1	20	19/32	.099″
8525/2	2	20	19/32	.158″
8525/3	3	20	19/32	.167″
8523/4	4	20	19/32	.184″
8525/5	5	20	19/32	.204″
8527	1	18	19/30	.109″
8527/2	2	18	19/30	.178″
8527/3	3	18	19/30	.189″
8527/4	4	18	19/30	.208″
8527/5	5	18	19/30	.230″

MULTI-CONDUCTOR COLOR CODE: 1—White; 2—Black; 3—Red; 4—Green; 5—Yellow.

*TEFLON—Dupont Reg. TM for Tetrafluorethylene.

See Pages 1553-1558 for Birnbach Prices for Above Items

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Birnbach

SHIELDED PLASTIC HOOK-UP WIRE MIL-W-76B • SHIELDED • NYLON VINYL JACKETS • AIRCRAFT PLASTIC HOOK-UP WIRE MIL-W-5086A, MIL-C-7078A

BIRNBACH

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B — TYPE MW (Medium Wall) — SHIELDED

DESCR.: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

(Supersedes Jan-C-76 Type SRIR Shielded)

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074	1000′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7074-1	100′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7072	1000′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7072-1	100′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7070	1000′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7070-1	100′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7068	1000′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7068-1	100′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7067	1000′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
7067-1	100′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
*7066	1000′	14	MW-C 14(41)S	41/30	.017″	1000	.137″
*7065	1000′	12	MW-C 12(65)S	65/30	.017″	1000	.155″

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. *Nos. 7066, 7065, available from stock in Black, White or Red.
ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.
Also multiconductor can be formed to order twisted shielded, with or without plastic Jacket overall. *TEFLON—Dupont Reg. TM for Tetrafluorethylene.

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B — TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Temperature rating —40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074J	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.091″
7072J	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.100″
7070J	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.105″
7068J	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.115″
7067J	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.125″
7066J	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.138″
7065J	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.160″

Additional colors available to order.

SPECIFICATION MIL-W-76B — TYPE MW—SHIELDED—VINYL JACKET

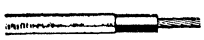
DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, black PVC (polyvinylchloride) jacket overall. Temperature rating —40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074VJ	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.095″
7072VJ	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.105″
7070VJ	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.112″
7068VJ	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.120″
7067VJ	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.133″
7066VJ	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.148″
7065VJ	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.170″

Additional colors available to order.

AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating) — NYLON JACKET



No. 7351

Used where a single conductor, 600-volt insulated wire, is required. This aircraft electrical wire is resistant to effects of salt water, oils, aircraft engine fuels, alcohol, fungus, heat, cold, salt water, abrasion, meets -65°F temperature test.

DESCRIPTION: Type I MIL-W-5086A One conductor stranded tinned copper with plastic insulation, nylon jacket overall. **Type 2 MIL-W-5086A**—one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White.

No. 7371

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A) — 600 Volt Rating

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7351	22	AN-22	No. 1	19/34	070″
7353	20	AN-20	No. 1	19/32	080″
7355	18	AN-18	No. 1	19/30	090″
7357	16	AN-16	No. 1	19/29	100″
7359	14	AN-14	No. 1	19/27	125″
7361	12	AN-12	No. 1	19/25	140″
7362	10	AN-10	No. 1	49/27	180″
7363	8	AN-8	No. 2	133/29	240″
†7364	6	AN-6	No. 2	133/27	297″
†7365	4	AN-4	No. 2	133/25	355″

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
†7365/2	2	AN-2	No. 2	665/30	412″
†7365/0	0	AN-0	No. 2	1045/30	518″
†7365/00	00	AN-00	No. 2	1330/30	588″
7351 NB	22	AN-22	No. 2	19/34	068″
7353 NB	20	AN-20	No. 2	19/32	078″
7355 NB	18	AN-18	No. 2	19/30	088″
7357 NB	16	AN-16	No. 2	19/29	098″
7359 NB	14	AN-14	No. 2	19/27	117″
7361 NB	12	AN-12	No. 2	19/25	137″
7362 NB	10	AN-10	No. 2	49/27	189″

† Nylon lacquered glass braid over plastic insulation. 1,000′ Spools Additional types to order.

MIL-C-7078A SHIELDED (Supersedes An-C-168)

7371	22	AN-22	No. 1	19/34	100″
7372	20	AN-20	No. 1	19/32	110″
7373	18	AN-18	No. 1	19/30	124″
7374	16	AN-16	No. 1	19/29	139″
7375	14	AN-14	No. 1	19/27	158″
7376	12	AN-12	No. 1	19/25	177″

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield. 1,000′ Spools. Additional types to order.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

GOV'T SPEC. HOOK-UP WIRE

SPECIFICATION MIL-W-16878 C

TYPES GLASS BRAID NYLON JACKET SHIELDED

BIRNBACH

PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-16878C — TYPE B — HIGH TEMPERATURE

TYPE B — NYLON JACKET

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated -55°C to +105°C high temperature thermoplastic light wall insulation.
The letter "N" after Catalog Number designates clear Nylon Jacket overall. 115° C.

Cat. No.	Spool	Size AWG	Mil-W-16878C Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7190	1000'	32	B-32	7/40	.010"	600	.028"
7191	1000'	30	B-30	7/38	.010"	600	.030"
7192	1000'	28	B-28	7/36	.010"	600	.033"
7193	1000'	26	B-26	7/34	.010"	600	.037"
7194	1000'	24	B-24	7/32	.010"	600	.043"
7195	1000'	22	B-22	7/30	.010"	600	.048"
7196	1000'	20	B-20	7/28	.010"	600	.057"
7197	1000'	18	B-18	7/26	.010"	600	.067"
7198	1000'	16	B-16	19/29	.010"	600	.077"
7190N	1000'	32	B-32	7/40	.010"	600	.032"
7191N	1000'	30	B-30	7/38	.010"	600	.036"
7192N	1000'	28	B-28	7/36	.010"	600	.039"
7193N	1000'	26	B-26	7/34	.010"	600	.042"
7194N	1000'	24	B-24	7/32	.010"	600	.047"
7195N	1000'	22	B-22	7/30	.010"	600	.053"
7196N	1000'	20	B-20	7/28	.010"	600	.065"
7197N	1000'	18	B-18	7/26	.010"	600	.075"
7198N	1000'	16	B-16	19/29	.010"	600	.085"

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple

White/Black, White/Red, White/Green, White/Yellow, White/Blue, White/Brown, White/Orange, White/Gray, White/Violet

SPECIFICATION MIL-W-16878C — TYPE C — HIGH TEMPERATURE

DESCRIPTION: One Conductor Similar To Type B—Heavier Wall Hi-Temp Thermoplastic Insulation

Cat. No.	Spool	Size AWG	Mil-W-16878C Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7170	1000'	24	C-24	7/32	.016"	1000	.058"
7171	1000'	22	C-22	7/30	.016"	1000	.064"
7172	1000'	20	C-20	7/28	.016"	1000	.073"
7173	1000'	18	C-18	7/26	.016"	1000	.085"
7174	1000'	16	C-16	19/29	.016"	1000	.095"
7175	1000'	14	C-14	19/27	.016"	1000	.109"

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.

SPECIFICATION MIL-W-16878C — TYPE C — NYLON JACKET

Description: Type C-NYLON—Same as above except extruded clear Nylon Jacket overall. 115°C.

Cat. No.	Spool	Size AWG	Type Designation	Min. Strand	Nom. Wall	Volt Rating	Nom. O.D.
7170N	1000'	24	C-24	7/32	.016"	1000	.065"
7171N	1000'	22	C-22	7/30	.016"	1000	.072"
7172N	1000'	20	C-20	7/28	.016"	1000	.079"
7173N	1000'	18	C-18	7/26	.016"	1000	.090"
7174N	1000'	16	C-16	19/29	.016"	1000	.099"
7175N	1000'	14	C-14	19/27	.016"	1000	.114"

SPECIFICATION MIL-W-16878C — TYPE D — HIGH TEMPERATURE

DESCRIPTION: One Conductor Stranded Similar To Type C—Heavier Wall Hi-Temp Thermoplastic Insulation.

Cat. No.	Spool	Size AWG	Mil-W-16878C Type Designation	Cond. Strand	Nom. Wall	Volt Rating	Nom. O.D.
7180	1000'	24	D-24	7/32	.032"	3000	.084"
7181	1000'	22	D-22	7/30	.032"	3000	.089"
7182	1000'	20	D-20	10/30	.032"	3000	.097"
7183	1000'	18	D-18	16/30	.032"	3000	.107"
7184	1000'	16	D-16	26/30	.032"	3000	.116"
7185	1000'	14	D-14	41/30	.032"	3000	.130"
7186	1000'	12	D-12	65/30	.040"	3000	.163"
7187	1000'	10	D-10	105/30	.040"	3000	.182"
7188	1000'	8	D- 8	133/29	.040"	3000	.247"
7189	1000'	6	D- 6	133/27	.040"	3000	.291"

MIL-W-16878B Type D Available with Nylon Jacket.

See Pages 1553-1558 for Birnbach Prices for Above Items

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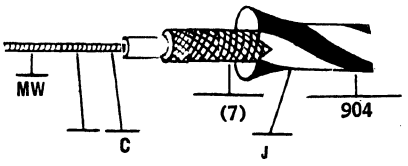
GOV'T SPEC. HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPES MW, LW, HW, GLASS BRAID



904 COLORS:

0 BLACK	4 YELLOW
1 BROWN	5 GREEN
2 RED	6 BLUE
3 ORANGE	7 VIOLET
	8 GRAY
	9 WHITE

MW C 22 (7) j

TYPE OF WIRE	CONDUCTOR MATERIAL	CONDUCTOR SIZE (AWG)	STRANDING	CONSTRUCTION
LW .... 300 Volt Light Wall	TINNED COPPER	30 thru 20	MINIMUM NUMBER OF STRANDS	SYMBOL — COVERING OVER INSULATED WIRE
MW ....1000 Volt Medium Wall	TINNED COPPER	24 thru 12		U ....None J ....Jacket B ....Braid S ....Shield JS ....Jacket and Shield BS ....Braid and Shield SJ ....Shield & Outer Jacket JSJ ....Jacket, Shield and Outer Jacket BSJ ....Braid, Shield and Outer Jacket
HW ....2500 Volt Heavy Wall	TINNED COPPER	22 thru 12		
HW .... 600 Volt Heavy Wall	TINNED COPPER	10 thru 6		

*SPECIFICATION MIL-W-76B TYPE MW (MEDIUM WALL) PLASTIC HOOK-UP WIRE TYPE MW 1000 VOLTS (FUNGUS PROOF) SUPERSEDES JAN-C-76 TYPE SRIR

STRANDED

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7024	1000′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-1	100′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-S	1000′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-1S	100′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7001	1000′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
7001-1	100′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
*† 7001-S	1000′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
*† 7001-1S	100′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
7003	1000′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
7003-1	100′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
*† 7003-S	1000′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
*† 7003-1S	100′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
7005	1000′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
7005-1	100′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
*7005-S	1000′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
*7005-1S	100′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
7007	1000′	16	MW-C 16(26)U	26/30	.017″	1000	.098″
7007-1	100′	16	MW-C 16(26)U	26/30	.017″	1000	.098″
7009	1000′	14	MW-C 14(41)U	41/30	.017″	1000	.114″
7009-1	100′	14	MW-C 14(41)U	41/30	.017″	1000	.114″
7011	1000′	12	MW-C 12(65)U	65/30	.017″	1000	.132″
7011-1	100′	12	MW-C 12(65)U	65/30	.017″	1000	.132″

SOLID

7000	1000′	22	MW-C 22(1)U	1	.017″	1000	.061″
7000-1	100′	22	MW-C 22(1)U	1	.017″	1000	.061″
7002	1000′	20	MW-C 20(1)U	1	.017″	1000	.068″
7002-1	100′	20	MW-C 20(1)U	1	.017″	1000	.068″
7004	1000′	18	MW-C 18(1)U	1	.017″	1000	.075″
7004-1	100′	18	MW-C 18(1)U	1	.017″	1000	.075″

STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).

***SINGLE SPIRAL TRACER COLORS AVAILABLE:**

White/Black	White/Orange	White/Blue
White/Brown	White/Yellow	White/Purple
White/Red	White/Green	White/Gray

†DOUBLE SPIRAL TRACER COLORS AVAILABLE:

White/Black/Red	White/Black/Blue	White/Black/Gray
White/Black/Green	White/Black/Brown	White/Black/Purple
White/Black/Yellow	White/Black/Orange	

Additional spiral tracer combination available, to order, for all numbers.

SPECIFICATION MIL-W-76B TYPE MW (Medium Wall)—NYLON JACKET 1000 VOLT (Fungus Proof) (Supersedes Jan-C-76 Types SRIR and WL Nylon Jacket)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7224	1000′	24	MW-C 24(16)J	16/36	.015″	1000	.068″
7224-1	100′	24	MW-C 24(16)J	16/36	.015″	1000	.068″
*7222	1000′	22	MW-C 22(7)J	7/30	.017″	1000	.075″
*7222-1	100′	22	MW-C 22(7)J	7/30	.017″	1000	.075″
*7220	1000′	20	MW-C 20(10)J	10/30	.017″	1000	.087″
*7220-1	100′	20	MW-C 20(10)J	10/30	.017″	1000	.087″
*7218	1000′	18	MW-C 18(16)J	16/30	.017″	1000	.100″
*7218-1	100′	18	MW-C 18(16)J	16/30	.017″	1000	.100″
7216	1000′	16	MW-C 16(26)J	26/30	.017″	1000	.112″
7216-1	100′	16	MW-C 16(26)J	26/30	.017″	1000	.112″
7214	1000′	14	MW-C 14(41)J	41/30	.017″	1000	.122″
7214-1	100′	14	MW-C 14(41)J	41/30	.017″	1000	.122″
7212	1000′	12	MW-C 12(65)J	65/30	.017″	1000	.140″
7212-1	100′	12	MW-C 12(65)J	65/30	.017″	1000	.140″
7210	1000′	10	HW-C 10(105)J	105/30	.045″	600	.240″
7210-1	100′	10	HW-C 10(105)J	105/30	.045″	600	.240″

STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue

White/Black	White/Red	White/Yellow	White/Blue	White/Gray	White/Black/Yellow	White/Black/Green	White/Black/Brown
White/Brown	White/Orange	White/Green	White/Purple	White/Black/Red	White/Black/Blue	White/Black/Orange	White/Black/Gray

*In addition Nos. 7218, 7220, 7222, available in Red/Black and Black/White. Nos. 7212, 7210 available solid colors only.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.

Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

GOV'T SPEC. HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPES MW, LW, HW, GLASS BRAID

PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B — TYPE LW (Light Wall) — TYPE LW — 300 VOLTS

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7330	1000′	30	LW-C 30(7)U	7/38	.010″	300	.033″
7330-1	100′	30	LW-C 30(7)U	7/38	.010″	300	.033″
7328	100′	28	LW-C 28(7)U	7/36	.010″	300	.035″
7328-1	1000′	28	LW-C 28(7)U	7/36	.010″	300	.035″
7326	1000′	26	LW-C 26(10)U	10/36	.010″	300	.040″
7326-1	100′	26	LW-C 26(10)U	10/36	.010″	300	.040″
7324	1000′	24	LW-C 24(7)U	7/32	.010″	300	.044″

SPECIFICATION MIL-W-76B — TYPE LW—NYLON JACKET

Description: Same as above except clear NYLON JACKET overall.

7330N	1000′	30	LW-C 30(7)J	7/38	.010″	300	.036″
7328N	1000′	28	LW-C 28(7)J	7/36	.010″	300	.039″
7326N	1000′	26	LW-C 26(7)J	7/34	.010″	300	.042″
7324N	1000′	24	LW-C 24(7)J	7/32	.010″	300	.047″

STOCK COLORS: Black, Brown, Red, White, Green, Orange, Yellow, Gray, Blue, Purple. Additional sizes, colors available to order.

SPECIFICATION MIL-W-76B TYPE HW (Heavy Wall) — 2500 VOLTS (Fungus Proof) (SUPERSEDES Jan-C-76 Type SRHV)

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7322	1000′	22	HW-C 22(7)U	7/30	.033″	2500	.105″
7322-1	100′	22	HW-C 22(7)U	7/30	.033″	2500	.105″
7320	1000′	20	HW-C 20(10)U	10/30	.033″	2500	.112″
7320-1	100′	20	HW-C 20(10)U	10/30	.033″	2500	.112″
7318	1000′	18	HW-C 18(16)U	16/30	.033″	2500	.122″
7318-1	100′	18	HW-C 18(16)U	16/30	.033″	2500	.122″
7316	1000′	16	HW-C 16(26)U	26/30	.033″	2500	.135″
7316-1	100′	16	HW-C 16(26)U	26/30	.033″	2500	.135″
7314	1000′	14	HW-C 14(41)U	41/30	.045″	600	.175″
7314-1	100′	14	HW-C 14(41)U	41/30	.045″	600	.175″
7312	1000′	12	HW-C 12(65)U	65/30	.045″	600	.195″
7312-1	100′	12	HW-C 12(65)U	65/30	.045″	600	.195″
*7013	1000′	10	HW-C 10(105)U	105/30	.045″	600	.217″
*7013-1	100′	10	HW-C 10(105)U	105/30	.045″	600	.217″
*7015	1000′	8	HW-C 8(133)U	133/29	.045″	600	.268″
*7015-1	100′	8	HW-C 8(133)U	133/29	.045″	600	.268″
*7017	1000′	6	HW-C 6(133)U	133/27	.045″	600	.315″
*7017-1	100′	6	HW-C 6(133)U	133/27	.045″	600	.315″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray. Additional sizes, colors available to order.

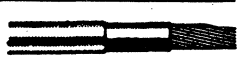
SPECIFICATION MIL-W-76B — TYPE MW (Medium Wall) — GLASS BRAID 1000 VOLTS (Supersedes Jan-C-76 Types SRIR and WL Glass Braid)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	volt Rating	Nom. O.D.
7022	1000′	22	MW-C 22(7)B	7/30	.017″	1000	.079″
7022-1	100′	22	MW-C 22(7)B	7/30	.017″	1000	.079″
7020	1000′	20	MW-C 20(10)B	10/30	.017″	1000	.084″
7020-1	100′	20	MW-C 20(10)B	10/30	.017″	1000	.084″
7018	1000′	18	MW-C 18(16)B	16/30	.017″	1000	.100″
7018-1	100′	18	MW-C 18(16)B	16/30	.017″	1000	.100″
7016	1000′	16	MW-C 16(26)B	26/30	.017″	1000	.116″
7016-1	100′	16	MW-C 16(26)B	26/30	.017″	1000	.116″
*7014	1000′	14	MW-C 14(41)B	41/30	.017″	1000	.129″
*7014-1	100′	14	MW-C 14(41)B	41/30	.017″	1000	.129″
*7012	1000′	12	MW-C 12(65)B	65/30	.017″	1000	.149″
*7012-1	100′	12	MW-C 12(65)B	65/30	.017″	1000	.149″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. * Nos. 7014, 7012, available stock in solid colors.

TYPE HW (Heavy Wall) — GLASS BRAID (Supersedes Jan-C-76 Type SRHV — Glass Braid)



Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7010	1000′	10	HW-C 10(105)B	105/30	.045″	600	.237″
7010-1	100′	10	HW-C 10(105)B	105/30	.045″	600	.237″
7008	1000′	8	HW-C 8(133)B	133/29	.045″	600	.293″
7008-1	100′	8	HW-C 8(133)B	133/29	.045″	600	.293″
7006	1000′	6	HW-C 6(133)B	133/27	.045″	600	.340″
7006-1	100′	6	HW-C 6(133)B	133/27	.045″	600	.340″

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.
ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS

See Pages 1553-1558 for Birnbach Prices for Above Items
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Birnbach

HIGH VOLTAGE, SILICONE HOOK-UP WIRE

KEL-F HOOK-UP, CATHODE RAY, 105° UL

200° C. BIRSIL SILICONE RUBBER HOOK-UP LEAD WIRE 600 VOLT

This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104° C. to +400° F. with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation appproaching mica. Approved by U. L. but consumer must apply for Underwriter's Laboratories approval for individual product.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	1000′	22	7/30	1/32″	600	11,500	105″
7622-1	100′	22	7/30	1/32″	600	11,500	105″
7620	1000′	20	10/30	1/32″	600	18,000	121″
7620-1	100′	20	10/30	1/32″	600	18,000	121″
7618	1000′	18	16/30	1/32″	600	21,000	128″
7618-1	100′	18	16/30	1/32″	600	21,000	128″
7616	1000′	16	26/30	1/32″	600	20,000	144″
7616-1	100′	16	26/30	1/32″	600	20,000	144″
7614	1000′	14	41/30	1/32″	600	15,500	165″
7614-1	100′	14	41/30	1/32″	600	15,500	165″
7612	1000′	12	65/30	1/32″	600	14,500	185″
7612-1	100′	12	65/30	1/32″	600	14,500	185″
7610	1000′	10	65/28	3/64″	600	20,000	240″
7610-1	100′	10	65/28	3/64″	600	20,000	240″

Additional sizes and colors available to order. **Types F and FF per MIL-W-16878C available to order.**

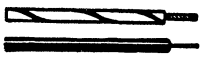
DESCRIPTION:
One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

BIRFLENE* KEL-F HOOK-UP WIRE

—125° C. to +175° C. MEETS MIL-W-12349-SPEC

PERFORMANCE SPECIFICATIONS:
Continuous: —60° to +175° C. **Operating Voltage:** 1000 volts RMS. **Spark Test:** 7500 volts. **Dielectric Strength:** 5000 volts at 60° C. for 1 minute. **Insulation Resistance:** Greater than 5000 Meg Ohms/1000 Ft. at 60° C. **Moisture Absorption:** Nil. **Flammability:** Non-flammable. **Resistance to Chemicals:** All solvents and acids. **Aging:** Outdoor, 1 year; no detectable change.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	1000′	30	7/38	.006″	.029″
7130-1	100′	30	7/38	.006″	.029″
7128	1000′	28	7/36	.006″	.032″
7128-1	100′	28	7/36	.006″	.032″
7126	1000′	26	7/34	.008″	.037″
7126-1	100′	26	7/34	.008″	.037″
7124	1000′	24	7/32	.008″	.043″
7124-1	100′	24	7/32	.008″	.043″
7122	1000′	22	7/30	.008″	.050″
7122-1	100′	22	7/30	.008″	.050″
7120	1000′	20	7/28	.010″	.060″
7120-1	100′	20	7/28	.010″	.060″
7118	1000′	18	16/30	.010″	.070″
7118-1	100′	18	16/30	.010″	.070″
7116	1000′	16	19/29	.010″	.079″
7116-1	100′	16	19/29	.010″	.079″



DESCRIPTION:
One conductor silver plated copper stranded, insulation — Monochlorotrifluoroethylene (Birflene Kel-F).

COLORS: White, Red, Green, Gray, Black, Orange, Dk. Blue, Lt. Blue, Brown, Yellow, Purple

Available in Spiral Tracers.

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.

HI-VOLTAGE and CATHODE RAY CABLE

Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Voltage	Nom. O.D.
UNSHIELDED						
7402	1000′	20	10/30	.047″	10,000	.125″
7402-1	100′	20	10/30	.047″	10,000	.125″
7412	1000′	20	10/30	.068″	20,000	.169″
7412-1	100′	20	10/30	.068″	20,000	.169″
7418	1000′	18	16/30	.047″	10,000	.135″
7418-1	100′	18	16/30	.047″	10,000	.135″
7428	1000′	18	16/30	.069″	20,000	.179″
7428-1	100′	18	16/30	.069″	20,000	.179″
7448	1000′	18	16/30	.095″	40,000	.231″
7448-1	100′	18	16/30	.095″	40,000	.231″
7449	1000′	18	16/30	.123″	60,000	.285″
7449-1	100′	18	16/30	.123″	60,000	.285″
SHIELDED						
7458	1000′	18	16/30	.095″	40,000	.256″
7458-1	100′	18	16/30	.095″	40,000	.256″

DESCRIPTION:

One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C

Shielded: Same as above with tinned copper braided shield overall.

Special constructions available to order.

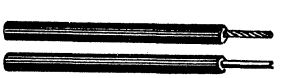
PLASTIC INSULATED HOOK-UP WIRE

Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or outside the chassis. UL approved for 105° C. (221° F.) operating temperature.

105° C. — 600 VOLT RATING UL APPROVED (CSA 600V-90°C)

Cat. No.	Spool	AWG	Stranding	Nom. Wall	Volt. Breakdown	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	1000′	22	7/30	.032″	18000	5000	.100″
7201-1	100′	22	7/30	.032″	18000	5000	.100″
7203	1000′	20	10/30	.032″	18000	5000	.104″
7203-1	100′	20	10/30	.032″	18000	5000	.104″
7205	1000′	18	16/30	.032″	18000	5000	.112″
7205-1	100′	18	16/30	.032″	18000	5000	.112″
7207	1000′	16	26/30	.032″	18000	5000	.129″
7207-1	100′	16	26/30	.032″	18000	5000	.129″
7202	1000′	22	Solid	.032″	18000	5000	.095″
7202-1	100′	22	Solid	.032″	18000	5000	.095″
7204	1000′	20	Solid	.032″	18000	5000	.102″
7204-1	100′	20	Solid	.032″	18000	5000	.102″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple



DESCRIPTION:

One Conductor stranded annealed copper tinned, plastic insulation.

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

MINIATURE, SUBMINIATURE, HIGH TEMP. SHIELDED & MULTICONDUCTOR

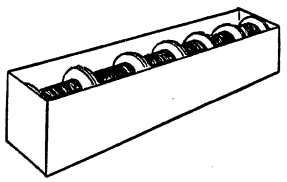
BIRNBACH

MINIATURIZATION HOOK-UP WIRE and CABLE

HIGH TEMPERATURE 105°C. — UNSHIELDED — ONE CONDUCTOR

Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.
For "Lab" requirements Miniaturization Hook-Up Wire and Cable assortments—WRITE for information.

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1000′	1	34	4/40	.010″	.027″
7534-500	500′	1	34	4/40	.010″	.027″
7532	1000′	1	32	7/40	.010″	.029″
7532-500	500′	1	32	7/40	.010″	.029″
7530	1000′	1	30	7/38	.010″	.030″
7530-500	500′	1	30	7/38	.010″	.030″
7529	1000′	1	29	5/36	.010″	.030″
7529-500	500′	1	29	5/36	.010″	.030″
7528-	1000′	1	28	7/36	.010″	.035″
7528-500	500′	1	28	7/36	.010″	.035″
7527	1000′	1	27	7/35	.010″	.037″
7527-500	500′	1	27	7/35	.010″	.037″
7526	1000′	1	26	10/36	.010″	.038″
7526-500	500′	1	26	10/36	.010″	.038″
7524	1000′	1	24	16/36	.015″	.055″
7524-500	500′	1	24	16/36	.015″	.055″



DESCRIPTION:
One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple

SUB-MINIATURE — MULTI-CONDUCTOR CABLE — (Super Flexible)

DESCRIPTION: Multi-Cond. tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.

NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7652	1000′	2	30	7/38	.010″	.059″
7652	500′	2	30	7/38	.010″	.059″
7653	1000′	3	30	7/38	.010″	.065″
7653	500′	3	30	7/38	.010″	.065″
7654	1000′	4	30	7/38	.010″	.072″
7654	500′	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7668	1000′	2	28	7/36	.010″	.079″
7668	500′	2	28	7/36	.010″	.079″
7669	1000′	3	28	7/36	.010″	.086″
7669	500′	3	28	7/36	.010″	.086″
7670	1000′	4	28	7/36	.010″	.095″
7670	500′	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

SUB-MINIATURE — SHIELDED HOOK-UP WIRE — (Super Flexible)

Cat No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7538	1000′	1	30	7/38	.010″	.053″
7538	500′	1	30	7/38	.010″	.053″
7535	1000′	1	28	7/36	.010″	.058″
7535	500′	1	28	7/36	.010″	.058″
7537	1000′	1	26	10/36	.010″	.061″
7537	500′	1	26	10/36	.010″	.061″
7536	1000′	1	24	16/36	.015″	.075″
7536	500′	1	24	16/36	.015″	.075″

STOCK COLOR: White (under shield)

DESCRIPTION:
One or multi-conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

SUB-MINIATURE — MULTI-CONDUCTOR CABLE SHIELDED — (Super Flexible)

DESCRIPTION: Multi-conductor, tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. Thermoplastic jacket used over tinned copper shield.

NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	1000′	2	24	16/36	.015″	.114″
7542/3	1000′	3	24	16/36	.015″	.123″
7542/4	1000′	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	1000′	2	28	7/36	.010″	.137″
7552/3	1000′	3	28	7/36	.010″	.145″
7552/4	1000′	4	28	7/36	.010″	.168″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

See Pages 1553-1558 for Birnbach Prices for Above Items
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Birnbach

PLASTIC and RUBBER MICROPHONE CABLE MULTI-CONDUCTOR — ARMORED CABLE

Microphone Cables with Birnbach's NEW "VI-CON" SHIELD

HI-FLEXIBILITY • LONG FLEX LIFE • EASY WORKING

This series of cable is Birnbach's new outstanding shield in combination with vinyl plastic that is conductive thereby providing 100% shield coverage. Easy handling; lighter in weight than comparative types; extremely flexible; #24 Stranded Bare Tinned Wire is used for grounding termination; this is in continuous contact with the "Vi-Con" Shield.

Cat. No.	Spool	Cond.	Size No. AWG	Stranding	Nom. O.D.
1800	500′	1	25	7/33	.125″
1801	500′	1	25	7/33	.160″
1802	500′	2	22	16/34	.225″

PLASTIC MICROPHONE CABLE

Designed to stand up under physical abuse and is resistant to oil, moisture and aging for long life. These cables have low capacitance, high insulation resistance and low attenuation at audio frequencies. Will not stain or mark.
#1839 is used for high impedance microphone, lapel, contact, crystal, ribbon, velocity and Hi-Fi interconnecting cable.
#1840 is used for high impedance lapel microphones.
#1841 is used for crystal, ribbon and other impedance microphones.
Above recommended for Hi-Fi installations because of low loss and low capacitance.

PLASTIC — ONE-CONDUCTOR MICROPHONE CABLE

DESCRIPTION:
Single Conductor Stranded
3 strands #33 copper tinned, and 4 strands #33 (steel-tinned 1840 and 1841) cellulose yarn braid, Polyethylene insulation, tinned copper shielded braid, with chrome vinyl plastic jacket overall.

Nos. 1839, 1840, 1841

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1839	500′	1	20	26/34	39MMF	.175″
1840	500′	1	25	7/33*	34MMF	.144″
1841	500′	1	25	7/33*	25MMF	.200″

*3X33 Copper, 4X33 Steel (All tinned)

SPIRAL SHIELDED MICROPHONE CABLE

Constructed with tinned copper spiral wrapped concentric shield. Extremely flexible, smaller size.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1835	500′	1	25	7/33	25MMF	.159″
1836	500′	1	25	7/33	33MMF	.125″

PLASTIC — MULTI-CONDUCTOR MICROPHONE CABLE

Used with carbon and all low impedance microphones.

DESCRIPTION:
Each conductor tinned copper, Polyethylene insulation—color coded. Multi conductors are cushioned with jute fillers, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.

No. 1842

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	500′	2	22	16/34	31MMF	.231″
1843	500′	3	20	26/34	39MMF	.295″
1844	500′	4	20	26/34	43MMF	.320″
1845	500′	5	20	26/34	48MMF	.345″
1846	500′	6	20	26/34	54MMF	.370″

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue

2 CONDUCTOR SHIELDED

(Twisted Pair)

Used for transmission line, P. A. and sound systems, school, hospital sound installations, industrial paging systems, broadcast and audio cable, paging and rack panel wiring.

DESCRIPTION:
Each conductor copper tinned, plastic insulation, color coded twisted, tinned copper shield overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
826/30	500′	2	30	7/38	.010″	.085″
826/28	500′	2	28	7/36	.010″	.090″
826/26	500′	2	26	7/34	.010″	.100″
826	500′	2	24	16/36	.015″	.120″
825	500′	2	22	7/30	.017″	.140″
972S	500′	2	20	10/30	.017″	.155″
827	500′	2	18	16/30	.017″	.180″
828	500′	2	16	26/30	.020″	.210″
829	500′	2	14	41/30	.020″	.235″
830	500′	2	12	65/30	.025″	.295″
830/10	500′	2	10	105/30	.025″	.375″

3 CONDUCTOR SHIELDED

973S	500′	3	20	10/30	.017″	.192″

2 CONDUCTOR SHIELDED WAXED COTTON BRAID OVER SHIELD

972B	500′	2	20	10/30	.017″	.180″

SOLID CONDUCTORS

1701	500′	2	22	Solid	1	.017″	.135″
1702	500′	2	20	Solid	1	.017″	.145″
1703	500′	2	18	Solid	1	.017″	.170″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

RUBBER MICROPHONE CABLE

Especially Designed for Heavy Studio Use

RUBBER CRYSTAL MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach #1870 is used widely for lapel microphones and phono pick ups.

DESCRIPTION:
Single Conductor, 26 Strands
#34 extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

No. 870

No. 872

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100′	1	20	26/34	40 Mmf	.175″
1870	250′	1	20	26/34	40 Mmf	.175″
872	100′	1	20	26/34	30 Mmf	.245″
1872	250′	1	20	26/34	30 Mmf	.245″

RUBBER OR NEOPRENE MICROPHONE CABLE

DESCRIPTION:
Each Conductor, extra flexible **stranded** tinned copper, insulated with a .022″ wall special low capacity rubber, color coded, conductors twisted, jute filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.

Nos. 772 to 778

Used for indoor and outdoor crystal, carbon and condenser microphones and for public address systems.

Cat. No.	RUBBER JACKET Spool	Cond.	Size Awg.	Strand.	Nom. Cap. Between 1-Cond. & Shield	Nom. Cap. Between 1-Cond. & Others Connected to Shield	Nom. Cap. Between 1-Cond. & Others	Nom. O.D.
772	100′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
1772	250′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
772/18	100′	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300″
773	100′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
1773	250′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
773/18	100′	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350″
774	100′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
1774	250′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
774/18	250′	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335″
775	100′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
1775	250′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
776	100′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
1776	250′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
777	100′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
1777	250′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
778	100′	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390″
778/10	100′	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440″

For longer lengths and alternate put-ups—Specify.

NEOPRENE JACKET

No.	Spool	Cond.	Size AWG	Strand.	Wall Thickness	Nom. Jacket	Nom. O.D.
1781	500′	1	18	41/34	.040″	.030″	.250″
1782	500′	2	18	41/34	.020″	.035″	.305″
1783	500′	3	18	41/34	.020″	.035″	.325″
1784	500′	4	18	41/34	.020″	.035″	.335″
1786	500′	6	18	41/34	.020″	.035″	.430″

MICROPHONE CABLE COLOR CODE CHART

1—Black	3—Red	5—Yellow	7—Brown
2—White	4—Green	6—Blue	8—Orange

ARMORED INDUSTRIAL CABLE

Used for P.A. systems on speaker extensions, oil burner installations, auto wiring, etc.

Two Conductors Parallel #18 16/30 Stranded Tinned Copper, rubber insulation, lacquered cotton braid color coded, spiral galvanized steel armor overall.

Cat. No.	Spool	Size AWG	Strand	O.D.
1111	250′	18	16/30	.155″ x .240″
1112	500′	18	16/30	.155″ x .240″
1113	1000′	18	16/30	.155″ x .240″

FOR LONGER LENGTHS AND ALTERNATE PUT-UPS—SPECIFY.

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

BROADCAST AUDIO — FLEXIBLE TWISTED PAIR INTER-COM—MULTI-COND.

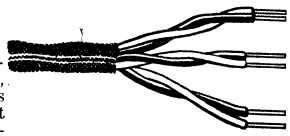
BIRNBACH

PLASTIC INTERCOMMUNICATING CABLES TWISTED PAIRS—SOLID CONDUCTORS

Used in connecting Intercommunicating and Sound Systems, Telephones, Annunciators, Nurses Hospital Call Systems, Electronic Computers, Guided Missiles.

DESCRIPTION:

Each Conductor #22 Solid Copper Tinned, .010" Wall Vinyl Plastic Insulation, conductors color coded, twisted pairs cabled, tubed gray Vinyl plastic jacket overall. Suitable for outdoor installations.



No. 4701 to 4729

Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Nom. Jkt.	Nom. O.D.
4701	500′	1	2	22 Solid	.020″	.145″
4702	500′	2	4	22 Solid	.020″	.205″
4703	500′	3	6	22 Solid	.020″	.215″
4706	500′	6	12	22 Solid	.020″	.250″
4709	500′	9	18	22 Solid	.020″	.310″
4711	500′	11	22	22 Solid	.020″	.350″
4711/13	500′	13	26	22 Solid	.025″	.385″
4715	500′	15	30	22 Solid	.025″	.390″
4716	500′	16	32	22 Solid	.025″	.405″
4727	500′	27	54	22 Solid	.035″	.495″
4727/31	500′	31	62	22 Solid	.035″	.555″
4727/41	500′	41	82	22 Solid	.035″	.630″
4729	500′	51	102	22 Solid	.045″	.750″
4729/76*	500′	76	152	22 Solid	.070″	.970″
4729/101*	500′	101	202	22 Solid	.080″	1.140″

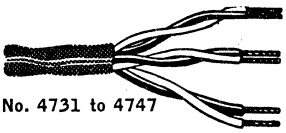
* Bare copper conductors.

For longer lengths and alternate put-ups—Specify.

TWISTED PAIRS—STRANDED CONDUCTORS

DESCRIPTION:

Each Conductor #22 7/30 Stranded Tinned Copper, .010" Vinyl plastic insulation, twisted pairs cabled, conductors color coded, tubed gray Vinyl plastic jacket overall.



No. 4731 to 4747

Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Strand	Nom. O.D.
4731	500′	1	2	22	7/30	.145″
4732	500′	2	4	22	7/30	.210″
4733	500′	3	6	22	7/30	.225″
4734	500′	4	8	22	7/30	.235″
4735	500′	5	10	22	7/30	.245″
4736	500′	6	12	22	7/30	.270″
4739	500′	9	18	22	7/30	.325″
4745	500′	15	30	22	7/30	.455″
4747	500′	27	54	22	7/30	.570″

For longer lengths and alternate put-ups—Specify.

For Conductor Color Code Chart for Paired Intercom Cables, See Page 1558

SHIELDED MULTI-CONDUCTOR CABLE

Used indoors for permanent or portable work to prevent interference pickup on P.A. systems, recording equipment, photo electric circuits, etc

TINNED COPPER SHIELD OVERALL

DESCRIPTION:

Each Conductor #20 10/30 Stranded Tinned Copper, 1/64" pvc wall, waxed cotton braid color coded, twisted conductors, tinned copper shield overall. No. 1972 with cotton braid overall.

Nos. 972 to 978

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	Nom. O.D.
972	100′	2	20	10/30	.1/64	65 Mmf	43 Mmf	.215″
973	100′	3	20	10/30	.1/64	68 Mmf	55 Mmf	.220″
974	100′	4	20	10/30	.1/64	69 Mmf	57 Mmf	.250″
975	100′	5	20	10/30	.1/64	70 Mmf	58 Mmf	.280″
976	100′	6	20	10/30	.1/64	71 Mmf	60 Mmf	.290″
977	100′	7	20	10/30	.1/64	72 Mmf	62 Mmf	.315″
978	100′	8	20	10/30	.1/64	74 Mmf	65 Mmf	.350″
1972	100′	2	20	10/30	.1/64	65 Mmf	43 Mmf	.225″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Brown, 6—Yellow, 7—Blue, 8—Orange

SHIELDED TWO WIRE SPEAKER CABLE

For master control sound systems, photo electric circuits, P.A. systems, etc.

TINNED COPPER SHIELD, PAPER WRAP OVERALL — No. 972A

Cat. No.	Spool	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	O.D.
972A	500′	16/30	1/32	65	43	.250″

WAXED COTTON BRAID OVER SHIELD

1972A	500′	16/30	1/32	65	43	.275″

CONDUCTOR COLOR CODE: Black and Red

For longer lengths and alternate put-ups—Specify.

SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed—with Spiral wrapped copper shield

Designed for P. A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.

DESCRIPTION:

Each conductor copper tinned, 1/64 plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
941	500′	2	22	7/30	.017″	.020″	.171″
941/1	500′	1	22	7/30	.017″	.020″	.120″
950	500′	2	22	1	.017″	.020″	.169″
942	500′	2	20	10/30	.017″	.020″	.190″
943	500′	3	20	10/30	.017″	.020″	.208″
944	500′	4	20	10/30	.017″	.020″	.222″
947	500′	2	18	16/30	.017″	.020″	.230″
948	500′	2	16	26/30	.017″	.020″	.250″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green

PLASTIC INTER-COM CABLE

4 CONDUCTORS (2 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a shielded twisted pair is indicated in order to eliminate cross talk.

DESCRIPTION:

No. 925 — 4 conductors #22 7/30 stranded tinned copper, vinyl plastic insulation color coded, tinned copper shield over one pair (2 cond.) One pair (2 cond.) unshielded. Tubed gray vinyl jacket overall.

CONDUCTOR COLOR CODE: Black/white shielded, Black/red unshielded

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
925	500′	4	22	7/30	.016″	.020″	.310″

3 CONDUCTORS (1 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a single shielded conductor is indicated in order to eliminate cross talk.

DESCRIPTION:

No. 924 — 3 conductors #22 7/30 stranded tinned copper, vinyl, plastic insulation color coded, tinned copper shield over one conductor, tubed gray vinyl jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
924	500′	3	22	7/30	.016″	.020″	.205″

CONDUCTOR COLOR CODE: Black/red unshielded — White shielded

SHIELDED BROADCAST AUDIO CABLE

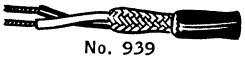
Designed to provide maximum performance on all equipment. Conductors twisted correctly assures quiet, clear operation which eliminates interference and cross talk. Used by Broadcast studios, for P. A. and sound systems, rack wiring, etc.

DESCRIPTION:

#938—#22 Solid Tinned Copper Conductor, enameled, heavy cellulose acetate yarn wrap, cotton braid waxed; cabled with #22 AWG solid tinned copper wire laid parallel to twisted pair under tinned copper braid shield; tubed-on Vinyl plastic jacket overall.

No. 938
CBS, ABC TYPE

#939—#22-7/30 Stranded Tinned Copper, plastic insulation, color coded, twisted, copper braid shield, tubed-on Vinyl plastic jacket overall.



No. 939

#940—2 Conductors #22 solid plastic insulation, color coded, twisted with #22 AWG solid tinned copper ground wire under tinned copper shield with vinyl plastic jacket overall.

No. 940

#940/1 same construction as #940 however with tinned copper spiral wrapped shield.

#822 and #824 have solid enameled copper wire, cotton wrap, cotton braid waxed twisted pair, bare copper braid overall.

Nos. 822 and 824

No. Cat.	Spool	Conds.	AWG Size No.	Strand	O.D. Nom.
938	500′	2	22	Solid	210″
939	500′	2	22	7/30	170″
940	500′	2	22	Solid	160″
940/1	500′	2	22	Solid	160″
822	500′	2	22	Solid	125″
824	500′	2	19	Solid	145″
927	500′	2	20	Solid	210″
928	500′	2	18	Solid	220″

CONDUCTOR COLOR CODE: Black and Red

For larger lengths and alternate put-ups—Specify.

See Pages 1553-1558 for Birnbach Prices for Above Items

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Birnbach

RUBBER JACKETED CABLE — JUKE BOX CABLE, SERVICE CORDS ANTENNA, COAXIAL, TV, DIATHERMY.

RUBBER JACKETED MULTI-CONDUCTOR CABLE
(NOT SHIELDED)

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses.

DESCRIPTION:
Each conductor, extra flexible stranded tinned copper, insulated with a .022" wa. special low capacity rubber, color coded. conductors twisted, jute filler, cotton wrap with tough weatherproof black rubber jacket overall.

CONDUCTOR COLOR CODE CHART

1—Black	3—Red	5—Yellow	7—Brown
2—White	4—Green	6—Blue	8—Orange

Cat. No.	Spool	Cond.	Size No. AWG	Strand	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	100'	2	20	26/34	40 Mmf	.275"
789	250'	2	20	26/34	40 Mmf	.275"
790	100'	3	20	26/34	50 Mmf	.285"
791	250'	3	20	26/34	50 Mmf	.285"
792	100'	4	20	26/34	53 Mmf	.305"
793	250'	4	20	26/34	53 Mmf	.305"
794	100'	5	20	26/34	56 Mmf	.335"
795	250'	5	20	26/34	56 Mmf	.335"
796	100'	6	20	26/34	58 Mmf	.355"
797	250'	6	20	26/34	58 Mmf	.355"
798	100'	7	20	26/34	60 Mmf	.370"
749	100'	8	20	26/34	63 Mmf	.395"
749/10	100'	10	20	26/34	65 Mmf	.435"

For longer lengths and alternate put-ups—Specify.

RIP-STRIP LAMP CORD
TYPE SP-1 (POSJ-64) — UL APPROVED
TYPE SPT-1 (POT) — UL APPROVED

All purpose approved cords SP-1 (rubber) SPT-1 (Plastic) for line cord on lamps, radios, clocks, small electronic instruments and appliances.

DESCRIPTION:
Two Conductors Parallel, #18—41/34 Extra Flexible Copper, rubber or plastic jacket slit for easy separation.

Cat. No.	Spool	Cond.	Size AWG	Strand	Insul. Type	UL Tpe	Nom. O.D.
570	100'	2	18	41/34	Rubber	SP-1 (POSJ)	.130" x .235"
572	250'	2	18	41/34	Rubber	SP-1 (POSJ)	.130" x .235"
573	500'	2	18	41/34	Rubber	SP-1 (POSJ)	.130" x .235"
569	500'	2	18	41/34	Plastic	SPT-1 (POT)	.130" x .235"

Colors: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory, Gray, Pink, Light Blue, Yellow, Green.

HEAVY DUTY SERVICE CORD—UL APPROVED

Used for heavy duty replacement on refrigerators, washing machines, machinery, tools and electronic devices.

DESCRIPTION:
Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded rubber plug one end, free end stripped and tinned for easy attachment—Hanked.

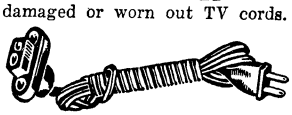
No. 346 and 347 Same as above with 3 prong plug.

Cat. No.	Length Ft.	Conds.	Size AWG	Type	Strand	O.D.	Std. Pkg.
348	8	2	16	S.J.	65/34	.325"	25
346	8	3	16	S.J.	65/34	.355"	25
347	8	3	18	S.J.	41/34	.330"	25
309	9	2	18	S.V.	41/34	.250"	25
312	12	2	18	S.V.	41/34	.250"	25

TV POWER SUPPLY CORD—UL APPROVED

Used extensively as replacement of damaged or worn out TV cords.

DESCRIPTION:
Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

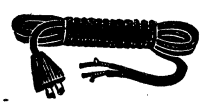


Cat. No.			Std. Pkg.
815	Television Power Supply Cord	6 Feet	100

SERVICE LINE CORDS—UL APPROVED

An all purpose approved power supply cord for radios, record players, lamps, and small appliances.

DESCRIPTION:
Two Conductors Rubber Parallel SP-1 (POSJ) with Molded-on Male Plug, double brass blades, conductor end stripped and tinned, hanked. Available in Black and Brown.



Cat. No.	Lgth. Ft.	Conds.	Size No. AWG	Strand	Nom. O.D.	Std. Pkge.
816	6	2	18	41/34	.130" x .235"	100
817	7½	2	18	41/34	.130" x .235"	100
819	10	2	18	41/34	.130" x .235"	50

RUBBER & NEOPRENE SERVICE CORD
(HEAVY DUTY) — UL APPROVED

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

DESCRIPTION:
Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.

Cat. No.	U/L Type	Cat. No.	U/L Type	Std. Put-ups	Size No. Conds.	AWG.	Strand	Amp Rating	Volt Rating	Nom. O.D.
701	SV	690	SVO	250'	2	18	41/34	7	300	.250"
*701/3	SV	690/3	SVO	250'	3	18	41/34	7	300	.265"
574	SJ.	691	SJO	250'	2	18	41/34	7	300	.300"
575	SJ.	692	SJO	250'	3	18	41/34	7	300	.330"
575/4	SJ.	692/4	SJO	250'	4	18	41/34	7	300	.360"
578	SJ.	693	SJO	250'	2	16	65/34	10	300	.325"
578/3	SJ.	693/3	SJO	250'	3	16	65/34	10	300	.365"
578/4	SJ.	693/4	SJO	250'	4	16	65/34	10	300	.395"
702	S.	694	SO	250'	2	18	41/34	7	600	.390"
702/3	S.	694/3	SO	250'	3	18	41/34	7	600	.405"
702/4	S.	694/4	SO	250'	4	18	41/34	7	600	.435"
703	S.	695	SO	250'	2	16	65/34	10	600	.410"
703/3	S.	695/3	SO	250'	3	16	65/34	10	600	.430"
703/4	S.	695/4	SO	250'	4	16	65/34	10	600	.485"
704	S.	696	SO	250'	2	14	41/30	15	600	.540"
704/3	S.	696/3	SO	250'	3	14	41/30	15	600	.560"
704/4	S.	696/4	SO	250'	4	14	41/30	15	600	.605"
705	S.	697	SO	250'	2	12	65/30	20	600	.605"
705/3	S.	697/3	SO	250'	3	12	65/30	20	600	.635"
705/4	S.	697/4	SO	250'	4	12	65/30	20	600	.665"
706	S.	698	SO	250'	2	10	103/30	25	600	.640"
706/3	S.	698/3	SO	250'	3	10	103/30	25	600	.690"
706/4	S.	698/4	SO	250'	4	10	103/30	25	600	.745"

Additional Conductors Available

* 701/3 has tinned copper wire

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432B SPEC

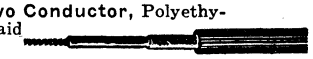
WITH CERTIFICATION — INSPECTION AVAILABLE

Cat. No.	MIL Type	Spec. Designation	Conds.	Awg. Size	Spec. No.	Nom. OD
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300"
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380"
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250"
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405"
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338"
M-214	CO-02	MGF	2	14	MIL-C-3432A	.400"
H-214	CO-02	HGF	2	14	MIL-C-3432A	.535"
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330"
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375"
H-312	CO-03	HOE	3	12	MIL-C-3432A	.635"

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED

RG/U COAXIAL TRANSMISSION CABLE

DESCRIPTION: One and Two Conductor, Polyethylene plastic insulation, copper braid shield, plastic jacket overall.



Cat. No.	Spool	Type	Nom. Imped.	Nom. Mmfd./ Ft.	Size AWG	Strand	Nom. O.D.
901	500'	RG-8/U	52	29.5	13	7/21 Bare	.405"
902	500'	RG-9/U	51	30	13	7/21S	.420"
903	500'	RG-11/U	75	20.5	18	7/26 Tinned	.405"
904F	500'	RG-11/U	75	16.5	15	Solid	.405"
904DS	500'	RG-11/U	75	20.5	18	7/26 T	.470"
904DSF	500'	RG-11/U	75	16.5	15	Solid	.470"
912	500'	RG-22/U	95.0	16.0	18	2 Cond. 7/.0152	.405"
907	1000'	RG-29/U	53.5	28.5	20	Solid	.174"
909	1000'	RG-54A/U	58	26.5	18	7/.0152"	.250"
905	1000'	RG-58A/U	50	29.0	20	19/.0068 Tinned	.195"
906	1000'	RG-58/U	53.5	28.5	20	Solid	.195"
910	1000'	RG-59/U	73	21.0	22	Solid Copperweld	.242"
914	1000'	RG-62/U	93	13.5	22	Solid	.242"
916	1000'	RG-108A/U	78	23.5	20	2 Cond. 7/28T	.235"

Additional RG numbers available including double shields, non-contaminating jackets—all conforming to MIL-C-17B specifications. Also, "TEFLON" dielectrics available for hi. temp. miniaturization.

No. 904F is RG-11/U with Poly-cell foam; No. 904 DSF has double shield Poly-cell dielectric constant of 1.50 solid Polyethylene 2.25.

DIATHERMY CABLE

Cat. No.	Spool	Size AWG	Strand	Ins.	Nom. O.D.
756	100'	14	104/34	3/64"	.300"
757	1000'	14	104/34	3/64"	.300"

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach — SHIELDED — MULTI — TWO WIRE SPEAKER CABLE TWISTED PAIR CABLES

Multiple Pair Individually Shielded Intercom Cable

Useful where several mikes are operated from a single cable. This series is helpful in reducing the bulk of required cables.

DESCRIPTION: Multi-pairs #22 solid tinned copper, vinyl insulated .013" cabled in pairs. Each pair and ground wire is under aluminum foil mylar shield overall grey vinyl jacket; Nom. Cap. between Conds. 40Mmft//ft; Nom. Cap. between 1 Cond. and others connected to shield—77Mmft/ft.

Cat. No.	Spool	Pairs	Cond.	Nom. Jkt.	Nom. O.D.
4800/3	500′	3	6	.030	.298
4800/6	500′	6	12	.037	.394
4800/9	500′	9	18	.040	.425
4800/11	500′	11	22	.040	.485
4800/15	500′	15	30	.045	.510

Multi-Conductor Industrial Cable

PLASTIC JACKET OVERALL

DESCRIPTION:
#18 solid tinned copper plastic insulation, color coded, twisted conductors. Gray vinyl jacket overall. Used for inter-com systems, speaker cable, alarm, signal, P. A. systems, thermostats, remote control circuits. Suitable for outdoor installations.

Cat. No.	Spool	Conds.	Size AWG	Insul.	Jacket	O.D.
4752	500′	2	18 solid	.017″	.020″	.185″
4753	500′	3	18 solid	.017″	.020″	.190″
4754	500′	4	18 solid	.017″	.020″	.235″
4755	500′	5	18 solid	.017″	.020″	.240″
4756	500′	6	18 solid	.017″	.020″	.275″

CONDUCTOR COLOR CODE:
1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue

Unshielded Audio Cable Stranded and Solid Cond. (2 & 3)

Widely used for connecting sound and inter-com systems, audio hookups, indoors—outdoors. Telephones, telemetering connections. For Baby Sitter Intercoms.

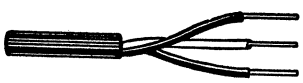
FOR INDOOR USE Without Outer Jacket

DESCRIPTION:
Stranded & Solid Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted.

Cat. No.	Spool	Conds.	Size AWG	Nom. Insul.	Nom. O.D.
931	1000′	2	22 Solid	.016″	.100″
933	1000′	3	22 Solid	.016″	.115″
981	1000′	2	20 Solid	.016″	.120″
983	1000′	3	20 Solid	.016″	.140″
985	1000′	2	18 Solid	.016″	.145″
987	1000′	3	18 Solid	.016″	.155″
989	1000′	2	16 Solid	.016″	.175″
989/3	1000′	3	16 Solid	.016″	.190″
990	1000′	2	22 Stranded 7/30	.016″	.125″
990/3	1000′	3	22 Stranded 7/30	.016″	.140″
991	1000′	2	20 Stranded 10/30	.016″	.145″
991/3	1000′	3	20 Stranded 10/30	.016″	.160″
992	1000′	2	18 Stranded 16/30	.016″	.165″
992/3	1000′	3	18 Stranded 16/30	.016″	.180″
993	1000′	2	16 Stranded 26/30	.016″	.190″
993/3	1000′	3	16 Stranded 26/30	.016″	.210″
994	1000′	2	14 Stranded 41/30	.016″	.220″
994/3	1000′	3	14 Stranded 41/30	.016″	.240″
995	1000′	2	12 Stranded 65/30	.016″	.250″
995/3	1000′	3	12 Stranded 65/30	.016″	.275″

FOR OUTDOOR USE With Plastic Jacket Overall

DESCRIPTION:
Solid and Stranded Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted with weatherproof plastic jacket overall.



Cat. No.	Spool	Conds.	Size AWG	Insul.	Jacket	O.D.
932	1000′	2	22 solid	.010″	.020″	.125″
934	1000′	3	22 solid	.010″	.020″	.130″
982	1000′	2	20 solid	.016″	.020″	.170″
984	1000′	3	20 solid	.016″	.020″	.180″
986	1000′	2	18 solid	.016″	.020″	.185″
988	1000′	3	18 solid	.016″	.020″	.190″
921	1000′	2	22 Stranded 7/30	.010″	.020″	.130″
921/3	1000′	3	22 Stranded 7/30	.010″	.020″	.140″
922	1000′	2	20 Stranded 10/30	.016″	.020″	.175″
922/3	1000′	3	20 Stranded 10/30	.016″	.020″	.185″
923	1000′	2	18 Stranded 16/30	.016″	.020″	.195″
923/3	1000′	3	18 Stranded 16/30	.016″	.020″	.205″

For longer lengths and alternate put-ups—Specify.
COLOR CODE: 1—Brown 2—Tan 3—Gray

Multi-Conductor Flexible Cable

RUBBER INSULATED — Cotton Braid Overall

DESCRIPTION:
Each Conductor, #20 — 10/30 Tinned Copper Stranded, 1/64″ low capacity rubber, cotton braid color coded, conductors twisted, closely woven brown cotton braid overall.

Used for multiple circuit hookups, connecting speakers, remote control units, analyzers, etc.

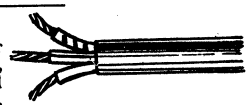
Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
172	100′	2	20	10/30	1/64″	.205″
173	100′	3	20	10/30	1/64″	.245″
174	100′	4	20	10/30	1/64″	.265″
175	100′	5	20	10/30	1/64″	.290″
176	100′	6	20	10/30	1/64″	.310″
177	100′	7	20	10/30	1/64″	.325″
178	100′	8	20	10/30	1/64″	.360″
179	100′	9	20	10/30	1/64″	.395″
180	100′	10	20	10/30	1/64″	.425″
182	100′	12	20	10/30	1/64″	.440″

CONDUCTOR COLOR CODE:

1—Black	5—Orange	9—White/Black Tracer
2—White	6—Blue	10—Red/Black Tracer
3—Red	7—Brown	11—Green/Black Tracer
4—Green	8—Yellow	12—Orange/Black Tracer

MULTI-CONDUCTOR FLEXIBLE CABLE
Plastic Jacket Overall

DESCRIPTION:
Each conductor #22 7/30 tinned copper stranded 1/64″ thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.

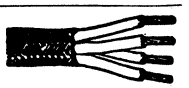


Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	500′	2	22	7/30	.010″	.020″	.140″
157	500′	3	22	7/30	.010″	.020″	.145″
158	500′	4	22	7/30	.010″	.020″	.170″
159	500′	5	22	7/30	.010″	.020″	.175″
160	500′	6	22	7/30	.010″	.020″	.185″
161	500′	7	22	7/30	.010″	.020″	.190″
162	250′	8	22	7/30	.010″	.020″	.200″
163	250′	9	22	7/30	.010″	.020″	.225″
164	250′	10	22	7/30	.010″	.020″	.235″
165	250′	12	22	7/30	.010″	.020″	.255″
165/15	250′	15	22	7/30	.010″	.020″	.280″

For longer lengths and alternate put-ups—Specify.
CONDUCTOR COLOR CODE:
1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue 7—Brown 8—Yellow 9—Violet 10—Slate 11—Pink 12—Tan 13—Red/Green 14—Red/Yellow 15—Red/Black

THERMO-PLASTIC INSULATED — Cotton Braid Overall

Each Conductor #22 — 7/30 Tinned Copper Stranded, 1/64″ Thermoplastic insulation, color coded, conductors twisted, closely woven brown cotton braid overall.



Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
263	100′	3	22	7/30	1/64″	.160″
264	100′	4	22	7/30	1/64″	.170″
265	100′	5	22	7/30	1/64″	.195″
266	100′	6	22	7/30	1/64″	.210″
267	100′	7	22	7/30	1/64″	.230″
268	100′	8	22	7/30	1/64″	.245″
269	100′	9	22	7/30	1/64″	.260″
270	100′	10	22	7/30	1/64″	.295″
272	100′	12	22	7/30	1/64″	.325″

For longer lengths and alternate put-ups—Specify.
CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Purple, 10—Pink, 11—Gray, 12—Dk. Blue

Twisted Pair Transmission Cable

WEATHERPROOF BRAID

DESCRIPTION:
No. 952—Two Conductors, #22-7/30 Tinned Copper Stranded, special low loss rubber insulation, color coded, twisted conductors, cotton braid overall with rugged weatherproof finish.

No. 919, 920—Two Conductors, #18-16/30 Tinned Copper Stranded, same construction as above.
Used for low loss transmission coupling between antenna and receiver as doublet twisted lead-in wire for inter-com. setup.

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
952	500′	22	7/32	1/32″	.180″
919	500′	18	16/30	1/32″	.195″
920	1000′	18	16/30	1/32″	.195″

For longer lengths and alternate put-ups—Specify.

See Pages 1553-1558 for Birnbach Prices for Above Items
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Birnbach

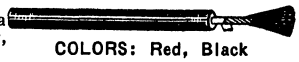
KINKLESS TEST LEAD WIRE — SHIELDED CABLE
PHONO PICKUP WIRE — SERVICE and POWER CORDS

KINKLESS TEST LEAD WIRE

Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limpness is required. Has excellent dielectric properties.

DESCRIPTION:

Nos. 61, 62—#20—41/36 extra flexible annealed tinned copper, stranded.



COLORS: Red, Black

Nos. 66, 67—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/64" special low capacity rubber, wax finish.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	100'	20	41/36	3/64"	20,000 Volts	.137"
62	500'	20	41/36	3/64"	20,000 Volts	.137"
66	100'	18	65/36	3/64"	22,000 Volts	.145"
67	500'	18	65/36	3/64"	22,000 Volts	.145"

Types WS-16/U Black, WS-17/U Red, per MIL-W-13169 Specification available same construction as Birnbach #67 except compound per specification.

HEAVY DUTY HI-VOLTAGE TYPE

DESCRIPTION:

Nos. 68, 69—#18—65/36 extra flexible annealed tinned copper; stranded; paper serve; 5/64" special low capacity rubber, wax finish.

Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	100'	18	65/36	5/64"	29,000 Volts	.210"
69	500'	18	65/36	5/64"	29,000 Volts	.210"

For longer lengths and alternate put-ups—Specify.

SHIELDED PHONO WIRE

Used where small diameter, limpness and extreme flexibility is necessary as for phono pickup arms and grid wire.

DESCRIPTION:

#1822—Single Conductor #22-7/30 Tinned Copper Strands, Vinyl plastic insulation, close tinned copper shield braided overall.

#1824—Single Conductor #24-16/36 Extremely Flexible Tinned Copper Strands, special plastic insulation, close tinned copper shield braided overall.

#1825—Same construction as #1824 except with fine cotton braid overall.

See Page 1542 and 1551 for miniature and subminiature shielded wires suitable for wiring phono arm from cartridge to amplifier.

TINNED COPPER SHIELD OVERALL

Cat. No.	Spool	Strand	Cond.	Size AWG	Insul.	Nom. O.D.
1824	500'	1	24	16/36	.010"	.080"
1824M	1000'	1	24	16/36	.010"	.080"
1822	100'	1	22	7/30	.010"	.080"
1822B	500'	1	22	7/30	.015"	.090"
1822C	1000'	1	22	7/30	.015"	.090"

COTTON BRAID OVER SHIELD

1825	500'	1	24	16/36	.010"	.095"
1825M	1000'	1	24	16/36	.010"	.095"

For longer lengths and alternate put-ups—Specify.

SHIELDED GRID LEAD WIRE

Used to reduce loss in grid lead use, also to reduce interference caused by motors, high tension wires, X-ray machines, etc.

DESCRIPTION:

#820—Single Conductor #20—10/30, #818—16/30 Stranded Tinned Copper, low loss rubber insulation, cotton braid lacquered, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins. Under Shield	Cap./Ft. Mmf.	Nom. O.D.
820	100'	20	10/30	.085"	70	.140"
818	100'	18	16/30	.085"	75	.150"

For longer lengths and alternate put-ups—Specify.

7MM HIGH TENSION CABLE

Used as hi voltage leads in electronic equipment and instruments, photo electric cell leads, automotive, etc.

DESCRIPTION:

#1600 — Unshielded One Conductor #16-19/29 stranded tinned copper wire, rubber insulation, cotton braid highly lacquered.

No. 1600

DESCRIPTION:

#781 — Shielded Same construction as #1600 plus a closely woven tinned copper shield overall.

No. 781

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
1600	100'	16	19/29	3/32"	.275"
781	100'	16	19/29	3/32"	.295"

Used for auto and aircraft ignition systems where grounding is required for elimination of interference.

For longer lengths and alternate put-ups—specify.

New Plastic Kinkless Test Lead Wire

New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —80°C to +115°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.

DESCRIPTION: one conductor tinned copper stranded, special formulation vinyl insulation. **COLORS:** Black, Red, Yellow, Green, White, Blue.

Cat. No.	Size AWG	Strand.	Ins.	Nom. O.D.
1922	22	26/36	.032"	.100"
1920	20	26/34	.032"	.104"
1918	18	65/36	.032"	.112"
1916	16	65/34	.032"	.129"

Standard Package: 100', 500', 1000' spools.

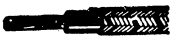
For portable test equipment; as test leads for instrumentation exceeds the requirements for Mil-I-3930A type JP(PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.

HI VOLTAGE LACQUERED WIRE

Used as primary wiring as for automobiles, tail, dashboard, horn, etc. Instrument leads, high voltage and primary voltage requirements.

DESCRIPTION:

One Conductor tinned copper annealed stranded, rubber insulation, highly lacquered braid, oil, heat, and moisture resistant.



Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture V.	Nom. O.D.
2818	100'	18	16/30	.022"	9500	.117"
2816	100'	16	19/29	.022"	9500	.127"
2814	100'	14	19/27	.022"	9500	.148"
2812	100'	12	19/25	.027"	9500	.171"
2810	100'	10	19/23	.031"	9500	.202"

For longer lengths and alternate put-ups—Specify.

LACQUERED HOOK-UP WIRE

Used in transformers, amplifiers, hook-ups, leads, etc. Strips easily for soldering.

DESCRIPTION:

No. 3462—#20-10/30 **Single Conductor** stranded tinned copper, low loss free stripping rubber insulation, cotton braid highly lacquered.

No. 3600—#18-16/30 **Single Conductor** stranded tinned copper, 1/32" low loss free stripping rubber insulation, rayon braid highly lacquered.

Cat. No.	Spool	Size AWG	Strand	Insul.	Punct. Volt.	DC Ins. Res./Ft. Meg.	Nom. O.D.
3461	100'	20	10/30	1/64"	7000	390	.090"
3462	500'	20	10/30	1/64"	7000	390	.090"
3460	100'	18	16/30	1/32"	9000	460	.125"
3600	500'	18	16/30	1/32"	9000	460	.125"

COLORS: Black, Red, Green, Yellow, Brown, Blue, White, Orange, Grey, Purple.

For longer lengths and alternate put-ups—Specify.

SHIELDED HOOK-UP & LEAD-IN WIRE

Used to prevent and reduce interference caused by motors, hi-tension cables, X-ray machines and various units radiating electrical impulses. Useful in grid circuits.

TINNED COPPER SHIELD OVER RUBBER INSULATION

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss rubber insulation, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins.	Cap./Ft. Mmf.	Nom. O.D.
810	500'	20	10/30	.015"	105	.095"
803	250'	18	16/30	.015"	125	.125"
802	250'	16	26/30	.031"	90	.145"

TINNED COPPER SHIELD OVER LACQUERED BRAID

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss Vinyl insulation, highly lacquered glass braid, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand.	Wall Thickness	Nom. O.D.
831	1000'	22	7/30	.016"	.095"
832	1000'	20	10/30	.016"	.105"
833	1000'	18	16/30	.016"	.125"
834	1000'	16	26/30	.016"	.135"
835	1000'	14	41/30	.016"	.155"
835/12	1000'	12	65/30	.016"	.175"
835/10	1000'	10	105/30	.025"	.200"

For longer lengths and alternate put-ups—Specify.

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See Pages 1553-1558 for Birnbach Prices for Above Items

PUSHBACK — HEAVY FORMVAR — MAGNET WIRE PLAIN ENAMEL — DCC — DNC — SOLID TINNED

Birnbach

ALL BIRNBACH MAGNET WIRES PER MIL-W-583A SPECIFICATIONS. MIL-W-19583 AVAILABLE.

HEAVY FORMVAR, PLAIN ENAMEL, DOUBLE COTTON, DOUBLE NYLON, SOLID TINNED MAGNET WIRE

HEAVY FORMVAR

Has new tough abrasion resisting film. Replaces enamel and fabric insulations for certain applications requiring exceptional abrasion resistance. Stable under heat. High dielectric strength. Infinite resistance to water and moisture. Does not fail after two hours at 105°C. Takes up less winding space. **Symbol HF Type T2**

ALL MAGNET WIRE AVAILABLE IN LARGER PUT-UPS

¼ lb. SPOOL Size B&S	Ft.	½ lb. SPOOL Size B&S	Ft.	1 lb. SPOOL Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	39	14	78
16	31	16	62	16	124
18	49	18	99	18	198
20	78	20	156	20	313
22	125	22	250	22	501
24	200	24	399	24	798
26	300	26	600	26	1200
28	500	28	1000	28	1999
30	800	30	1600	30	3200
32	1225	32	2450	32	4900
34	1988	34	3975	34	7950
36	3200	36	6400	36	12800
38	5050	38	10100	38	20200
40	7975	40	15850	40	31700
42	12375	42	24750	42	49500
44	14500	44	29000	44	58000

PLAIN ENAMEL

Symbol PE Type T1

¼ lb. SPOOL Size B&S	Ft.	½ lb. SPOOL Size B&S	Ft.	1 lb. SPOOL Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	40	14	80
16	32	16	63	16	126
18	50	18	100	18	201
20	80	20	160	20	320
22	127	22	254	22	508
24	201	24	403	24	806
26	320	26	640	26	1280
28	507	28	1015	28	2030
30	805	30	1610	30	3220
32	1282	32	2564	32	5128
34	2037	34	4075	34	8150
36	3221	36	6443	36	12887
38	5132	38	10246	38	20492
40	8143	40	16286	40	32573
42	12803	42	25605	42	51211
44	20455	44	40910	44	81819

DOUBLE NYLON

Symbol DN

¼ lb. SPOOL Size B&S	Ft.	½ lb. SPOOL Size B&S	Ft.	1 lb. SPOOL Size B&S	Ft.
12	12	12	24	12	49
14	19	14	39	14	78
16	31	16	62	16	125
18	49	18	99	18	198
20	78	20	157	20	314
22	123	22	247	22	495
24	195	24	390	24	781
26	303	26	606	26	1212
28	478	28	956	28	1912
30	739	30	1479	30	2958
32	1136	32	2272	32	4545
34	1712	34	3424	34	6849
36	2551	36	5102	36	10204
38	3770	38	7541	38	15082
40	5040	40	10080	40	20161

DOUBLE COTTON

Symbol DC

¼ lb. SPOOL Size B&S	Ft.	½ lb. SPOOL Size B&S	Ft.	1 lb. SPOOL Size B&S	Ft.
10	8	10	16	10	31
12	12	12	24	12	49
14	19	14	39	14	78
16	31	16	62	16	123
18	48	18	97	18	194
20	78	20	157	20	304
22	119	22	238	22	477
24	134	24	269	24	538
26	284	26	568	26	1136
28	435	28	871	28	1742
30	641	30	1284	30	2569
32	976	32	1953	32	3906
34	1365	34	2735	34	5470
36	1827	36	3654	36	7309
38	2738	38	5476	38	10952
40	3405	40	6811	40	13623

SOLID TINNED (Soft Drawn)

Symbol TC

¼ lb. SPOOL Size B&S	Ft.	½ lb. SPOOL Size B&S	Ft.	1 lb. SPOOL Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	40	14	80
16	32	16	63	16	126
18	50	18	100	18	201
20	80	20	160	20	320
22	127	22	254	22	508
24	201	24	403	24	806
26	320	26	640	26	1280
28	507	28	1015	28	2030
30	805	30	1610	30	3220
32	1282	32	2564	32	5128
34	2037	34	4075	34	8150
36	3221	36	6443	36	12887
38	5132	38	10246	38	20492
40	8143	40	16286	40	32573

ALL SOLID TINNED COPPER AVAILABLE IN 1000 FT. SPOOLS
BARE COPPER — SOFT DRAWN AVAILABLE FROM STOCK

BIRNBACH DOUBLE BRAID SLIPBACK HOOK-UP WIRE

Has a double cotton braid over the conductor, brightly color coded, saturated with paraffin. This construction will not cause the cotton insulation to fray or bunch up when pushed back. Has high dielectric strength and will withstand all climatic changes without breakdown.

COLORS: Black, Red, Blue, Yellow, Green, White, Brown, Orange.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
380	100′ Spool	20	Solid	2000	.090″
382	100′ Spool	18	Solid	2100	.098″
384	100′ Coil	16	Solid	2100	.108″
386	100′ Spool	14	Solid	2100	.122″
388	100′ Spool	12	Solid	2200	.135″
580	1000′ Spool	20	Solid	2000	.090″
582	1000′ Spool	18	Solid	2100	.098″
584	1000′ Spool	16	Solid	2100	.108″
586	1000′ Spool	14	Solid	2100	.122″
588	1000′ Spool	12	Solid	2200	.135″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
381	100′ Spool	20	10/30	2100	.093″
383	100′ Spool	18	16/30	2200	.103″
385	100′ Spool	16	26/30	2200	.118″
387	100′ Spool	14	41/30	2200	.135″
389	100′ Spool	12	65/30	2300	.155″
581	1000′ Spool	20	10/30	2100	.093″
583	1000′ Spool	18	16/30	2200	.103″
585	1000′ Spool	16	26/30	2200	.118″
587	1000′ Spool	14	41/30	2200	.135″
589	1000′ Spool	12	65/30	2300	.155″

BIRNBACH BIRNTEX SLIPBACK WIRE

This wire is constructed of quality materials and carefully insulated with a cotton wrap over which a cotton braid is closely woven, and then saturated with paraffin. Pushes back easily.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
72	100′ Spool	22	Solid	1500	.060″
76	1000′ Spool	22	Solid	1500	.060″
84	100′ Spool	20	Solid	1500	.065″
86	100′ Spool	18	Solid	1500	.075″
92	1000′ Spool	20	Solid	1500	.065″
94	1000′ Spool	18	Solid	1500	.075″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
73	100′ Spool	22	7/30	1500	.065″
77	1000′ Spool	22	7/30	1500	.065″
85	100′ Spool	20	10/30	1500	.070″
87	100′ Spool	18	16/30	1500	.080″
93	1000′ Spool	20	10/30	1500	.070″
95	1000′ Spool	18	16/30	1500	.080″

See Pages 1553-1558 for Birnbach Prices for Above Items
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Birnbach RETRACTILE KINKLESS CORD SETS

BIRNBACH COILED RETRACTILE (KINKLESS) CORD AND CORD SETS

This series of Birnbach Coiled Kinkless Retractile Cords are permanently coiled into a spring-like shape without the use of metal springs or elastic bands. They have inherent "Recovery" properties. These Retractile cords extend approximately six times its retracted length, returning to its exact original shape and length when released. Always as long as you need them and no longer, they will not kink, tangle, trail, knot or dangle on the floor or bench and cause accidents.

RETRACTILE TEST LEAD WIRE

Stretch coiled kinkless test lead wire description: 12" coil—stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 OD. Colors: Red, Black.

Cat. No.			Std. Pkge.
64	12" Retracted—Approx.	6' Extended	6
65	24" Retracted—Approx.	12' Extended	6

RETRACTILE (KINKLESS) POWER CORD RUBBER, NEOPRENE AND PLASTIC

DESCRIPTION 2, 3, 4 conductor UL approved, retractile (kinkless) power cords supplied in 36" long mandrel lengths, which customer cuts to desired length.

Std. Pkg. 5

Additional conductors and sizes available.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	UL Type	Strand	Amp. Rating	Volt Rating	Nom O.D.
886	36"	18 FT.	2	18	SVO	41/34	7	300	.250"
887	36"	18 FT.	2	18	SVT	41/34	7	300	.250"
889	36"	18 FT.	2	18	SJO	41/34	7	300	.310"
889/3	36"	18 FT.	3	18	SJO	41/34	7	300	.330"
889/4	36"	18 FT.	4	18	SJO	41/34	7	300	.360"
890	36"	18 FT.	2	18	SJT	41/34	7	300	.310"
891	36"	18 FT.	2	16	SJO	65/34	10	300	.330"
891/3	36"	18 FT.	3	16	SJO	65/34	10	300	.365"
891/4	36"	18 FT.	4	16	SJO	65/34	10	300	.395"
893	36"	18 FT.	2	14	SO	41/30	15	600	.535"
893/3	36"	18 FT.	3	14	SO	41/30	15	600	.560"
893/4	36"	18 FT.	4	14	SO	41/30	15	600	.605"
894	36"	18 FT.	2	12	SO	65/30	20	600	.605"
894/3	36"	18 FT.	3	12	SO	65/30	20	600	.635"
894/4	36"	18 FT.	4	12	SO	65/30	20	600	.665"

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green, 4-Red

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems.

2 and 3 conductors SVO and SJO Retractile Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped and tinned ready for application.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	UL Type	Strand	Std. Pkg.
880	18"	9 FT.	2	18	SVO	41/34	10
881	18"	9 FT.	2	18	SJO	41/34	10
881/3	18"	9 FT.	3	18	SJO	41/34	10
882	18"	9 FT.	2	16	SJO	65/34	10
882/3	18"	9 FT.	3	16	SJO	65/34	10

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green

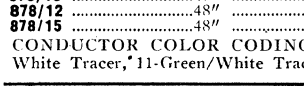
RETRACTILE COILED COMMUNICATION CORD

Multi-conductors stranded communication cord No. 23 AWG. Tinned copper wire neoprene jacketed. Long lengths can be cut to exact requirement. Nom. cond. resistance .022 ohms per linear foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	Strand	OD	Std. Pkg.
875	36"	18 FT.	2	23	21/36	.200"	10
876	36"	18 FT.	3	23	21/36	.210"	10
877	36"	18 FT.	4	23	21/36	.240"	10
878	36"	18 FT.	5	23	21/36	.285"	10
878/6	36"	18 FT.	6	23	21/36	.305"	10
878/7	36"	18 FT.	7	23	21/36	.320"	10
878/8	48"	25 FT.	8	23	21/36	.360"	10
878/10	48"	25 FT.	10	23	21/36	.380"	10
878/12	48"	25 FT.	12	23	21/36	.410"	10
878/15	48"	25 FT.	15	23	21/36	.470"	10

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-Black/White Tracer, 10-Red/White Tracer, 11-Green/White Tracer, 12-Blue/White Tracer, 13-Yellow/White Tracer, 14-Brown/White Tracer, 15-Orange/White Tracer.

RETRACTILE (KINKLESS) COILED SHIELDED MICROPHONE CABLES



DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene jacketed. This cable remains neat and compact with no danger of tripping or of the wire becoming entangled in equipment. Also suitable for stereo and additional speaker extensions. Shield can be pigtailed for soldering.

Cat. No.	Retracted Length	Approx. Length Extended	Cond.	Size AWG	Nom. O.D.	Std. Pkg.
895	48"	25'	1	No. 24 Shielded	.160"	10
895A	12"	6'	1	No. 24 Shielded	.160"	10
895B	6"	3'	1	No. 24 Shielded	.160"	10
896	48"	25'	2	1-No. 23 1-No. 24 Shielded	.200"	10
896A	12"	6'	2	1-No. 23 1-No. 24 Shielded	.200"	10
897	48"	25'	3	2-No. 23 1-No. 24 Shielded	.240"	10
897A	12"	6'	3	2-No. 23 1-No. 24 Shielded	.240"	10
899	48"	25'	2	2-No. 24 Shielded	.210"	10
899A	12"	6'	2	2-No. 24 Shielded	.210"	10
898	48"	25'	4	2-No. 23 2-No. 24 Shielded	.270"	10
898A	12"	6'	4	2-No. 23 2-No. 24 Shielded	.270"	10

Additional conductors and sizes available. CONDUCTORS ARE COLOR CODED.

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See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

LACING CORD AND TAPES 1000°F HOOK-UP WIRE

BIRNBACH BB-1000 HOOK-UP WIRE

Continuous Service at

1000°F

This superior insulation is unharmed at temperatures which cause glass to melt and asbestos to pulverize.

This combination of inorganic material offers good abrasion resistance; can be handled without special precautions; does not become carbonaceous, conducting or embrittled at elevated temperatures; offers continuous service at 1000°F, intermittent service up to 1800°F (depending on application), braid and fiberous insulation withstands 2000°F without decomposing or melting.

CABLE IS NOT ADVERSELY AFFECTED BY HIGH INTENSITY NUCLEAR RADIATION.

DESCRIPTION: Each conductor stranded stainless steel clad copper, wall of "Refrasil" fused quartz, color coded (solid colors) available.

Cat. No.	Put-Ups	Size Awg	Strand	Nom. O.D.
7710	1000′	10	105/30	.208″
7710	250′	10	105/30	.208″
7712	1000′	12	65/30	.172″
7712	250′	12	65/30	.172″
7714	1000′	14	41/30	.152″
7714	250′	14	41/30	.152″
7716	1000′	16	26/30	.128″
7716	250′	16	26/30	.128″
7718	1000′	18	19/30	.123″
7718	250′	18	19/30	.123″
7720	1000′	20	10/30	.105″
7720	250′	20	10/30	.105″
7722	1000′	22	7/30	.096″
7722	250′	22	7/30	.096″
7724	1000′	24	4/30	.088″
7724	250′	24	4/30	.088″

ADDITIONAL DATA— Weight: 17 lbs./1000 ft.
Dielectric Strength: 9000 Volts
After 5 hrs. at 1600°F.: 3500 Volts

FLAT BRAIDED LACING TAPE

NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

Put up on 500 yards per tube.

Cat. No.		Class	Width	Thickness	Test Lbs.	Yard/Lb
1035	Natural White	—	.200″	.014″	150	250
1035B	Black	—	.200″	.014″	150	250
1036	Natural White	1	.120″	.014″	80	550
1036B	Black	1	.120″	.014″	80	550
1037	Natural White	2*	.090″	.014″	50	750
1037B	Black	2*	.090″	.014″	50	750
1038	Natural White	3	.062″	.010″	30	1500
1038B	Black	3	.062″	.010″	30	1500
1039	Natural White	4	.046″	.010″	15	2400
1039B	Black	4	.046″	.010″	15	2400

DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability Will not cut insulation. **Put up on 500 yards per tube.**

Cat. No.		Width	Thickness	Test Lbs.	Yard/Lb.
1041	Natural White	.120″	.014″	80	450
1041B	Black	.120″	.014″	80	450
1042	Natural White	.090″	.014″	48	600
1042B	Black	.090″	.014″	48	600
1043	Natural White	.060″	.010″	35	850
1043B	Black	.060″	.010″	35	850
1044	Natural White	.046″	.010″	25	1100
1044B	Black	.046″	.010″	25	1100

TEFLON-FIBERGLASS

Flat Braided Fiberglass, teflon coated and bonded for hi-temperature application (550°F). Engineered to stay flat—for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color White. **Put up on 500 yards per spool.**

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1045	.170″	.025″	150	200
1046	.120″	.020″	90	200
1047	.080″	.020″	70	280

TEFLON*

Flat Braided Teflon for hi-temperature applications (550°F.) Engineered to stay flat Will not cut or damage insulation. Color: Brown. **Put up on 500 yards per spool**

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.
1048	.100″	.016″	35	325
1049	.075″	.010″	15	700

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished—compounded with a fungicide to resist mildew.

Put up on 1 lb. Tubes

	Cat. Nos. Color Natural	Black	Yds.	Diam.	Breaking Strength
Class 1	1070	1070B	600	.039″	70 Lbs.
Class 2	1071	1071B	800	.029″	48 Lbs.
Class 3	1072	1072B	1140	.025″	32 Lbs.
Class 4	1072/1	1072/1B	2400	.020″	20 Lbs.

ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 oz. Tube Cat. No.	Yds.	8 oz. Tube Cat. No.	Yds.	1 lb. Tubes. Cat. No. Natural	Cat. No. Black	Yds.	Class	Ply	Diam.	Lb Tes
1073	210	1074	425	1075	1075B	850	—	4	.036″	22
1076	150	1077	300	1078	1078B	600	3	6	.044″	33
1082	115	1083	235	1084	1084B	470	2	8	.051″	50
1079	100	1080	200	1081	1081B	400	—	9	.054″	56
1085	75	1086	150	1087	1087B	300	1	12	.063″	72

See Pages 1553-1558 for Birnbach Prices for Above Items

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Birnbach

STEREO MONAURAL WIRE AND CABLE

NEW STEREO MONAURAL WIRE AND CABLE

The following items were specifically developed for use in recording and playback equipment including all stereo cartrdges; ceramic, magnetic, crystal and tone arms. Designed for extremely low hum and noise pickup. Individual conductors are #32 AWG, 7 strands #40 AWG tinned copper, .010" wall. Special formulation PVC +80° C to —40° C operation allowing ease of stripping and soldering. When shielded ..#40 AWG tinned copper, 30% coverage for maximum flexibility, minimum weight and diameter and for quick pushback.

TWISTED — UNSHIELDED

CAT NO.	SPOOL	COND.	SIZE AWG	STRAND	NOM. WALL	NOM. O. D.
7571	1000′	1	32	7/40	.010″	.028″
7571	500′	1	32	7/40	.010″	.028″
7572	1000′	2	32	7/40	.010″	.047″
7572	500′	2	32	7/40	.010″	.047″
7573	1000′	3	32	7/40	.010″	.053″
7573	500′	3	32	7/40	.010″	.053″
7574	1000′	4	32	7/40	.010″	.061″
7574	500′	4	32	7/40	.010″	.061″
7575	1000′	5	32	7/40	.010″	.069″
7575	500′	5	32	7/40	.010″	.069″

TWISTED — SHIELDED

7581	1000′	1	32	7/40	.010″	.040″
7581	500′	1	32	7/40	.010″	.040″
7582	1000′	2	32	7/40	.010″	.067″
7582	500′	2	32	7/40	.010″	.067″
7583	1000′	3	32	7/40	.010″	.072″
7583	500′	3	32	7/40	.010″	.072″
7584	1000′	4	32	7/40	.010″	.080″
7584	500′	4	32	7/40	.010″	.080″
7585	1000′	5	32	7/40	.010″	.089″
7585	500′	5	32	7/40	.010″	.089″
7580	1000′	2	32 (Ind. Shielded)	7/40	.010″	.080″

CONDUCTOR COLOR CODE: 1-WHITE, 2-RED, 3-BLACK, 4-GREEN, 5-YELLOW.

NEW Sound Cable with "VI-CON" Shield

"VI-CON" Shield is the new Birnbach conductive vinyl plastic shield that provides:

● HI-FLEXIBILITY ● LONG FLEX LIFE ● EASY WORKING ● 100% SHIELDING COVERAGE

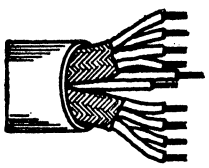
No. 24 Solid Tinned ground wire used for ground termination

Cat. No.	Spool	Conds.	AWG Size No.	Strand	Nom. O.D.
1812	500′	2	22	7/30	.160
1313	500′	2	20	7/28	.190
1814	500′	2	18	16/30	.220

STEREO VOLUME CONTROL CABLE

ESPECIALLY DESIGNED FOR STEREO COIN OPERATED MACHINES

Description: Ten conductors containing 2 quads individually shielded with tinned copper braid; 2 conductors not shielded; chrome vinyl jacket overall.



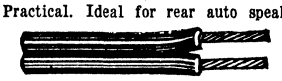
4 Shielded #24 (7 x 32)
4 Shielded #24 (7 x 32)
2 Unshielded #22 (7 x 30)

Cat. No.	Spool	Nom. Jacket	Nom. O.D.
4520	500′	.025″	.325″

CONDUCTOR COLOR CODE: GRAY, WHITE, BLUE, GREEN (SHIELDED), RED, BROWN, YELLOW, ORANGE (SHIELDED), WHITE, BLUE (UNSHIELDED)

JUKE BOX SPEAKER CABLE

Small, compact diamter. Useful. Practical. Ideal for rear auto speaker extension cable



DESCRIPTION:

Composed of 7 strand #32-1 Bare—copper conductor, 1 tinned copper conductor, 2 conductors parallel chrome vinyl plastic insulation.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. O.D.
4500	1000′	2	24	7/32	.015″	.058″ x .115″

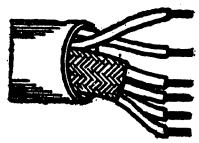
Additional colors available to order.

SHIELDED JUKE BOX CONTROL CABLE

DESCRIPTION:

5 Conductor cable. Three cond. twisted color coded, black, green red with tinned copper shielded braid overall. Two conductor twisted color coded blue, yellow and chrome vinyl jacket overall.

6 Conductor Cable: 4 cond. twisted tinned copper shielded braid, conductor color code black, green, red, yellow; 2 cond. unshielded color code white, blue.



Cat. No.	Spool	Conds.	Size AWG #22	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4515	500′	5	3 (shielded) 2 (unshielded)	7/30	.015″	.020″	.200″x.300″
4516	500′	6	2 unshielded #22 (7 x 30) 4 shielded #24 (7 x 32)		.015″	.025″	.205″x.310″

JUKE BOX CONTROL CABLE

Used as replacement cable in Juke Boxes.

DESCRIPTION:

Two Conductors #16 stranded vinyl insulation tinned copper, color coded green-orange. One conductor #20 stranded tinned copper, vinyl insulation. Color coded Blue; 3 conductors cable with .020″ chrome vinyl plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4510	500′	3	2—#16 1—#20	26/30 10/30	.020″ .020″	.020″	.240″

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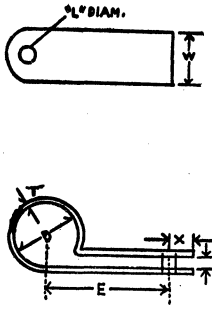
See Pages 1553-1558 for Birnbach Prices for Above Items

Birnbach

NYLON CABLE • TUBING CLAMPS • PLASTIC CABLE
ALUMINUM CABLE • PUSH BUTTON WIRE TIES
ANTENNA CONTROL ROTOR CABLE

NYLON CABLE AND TUBING CLAMPS

MEETS MIL-P-26093

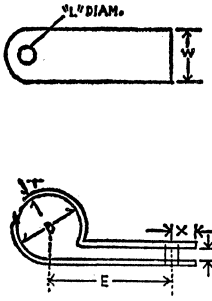


MADE OF DUPONT NYLON FORMULA FM 10001

Used as a clamp, strain relief, clip hanger, fastener, strap, these nylon cable clamps are light and tough. Have smooth, non-abrasive surfaces, rounded edges will not chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, hydraulic fluids, alkalies, acids. Temperature resistant from -60°F to +300°F. Do not support combustion. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and are self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693 specs. Fungus resistant.

CAT. NO.	PUT-UP	TO FIT SIZE	D	E	W	T	L	X	A
725	100	1/8"	.125	.316	3/8	.050	.177	.227	.062
726	100	3/16"	.187	.378	3/8	.050	.177	.277	.062
727	100	1/4"	.250	.409	3/8	.050	.177	.227	.062
728	100	5/16"	.312	.441	3/8	.050	.177	.277	.062
729	100	3/8"	.375	.471	3/8	.050	.177	.277	.062
730	100	7/16"	.437	.519	3/8	.050	.177	.277	.062
731	100	1/2"	.500	.550	3/8	.050	.177	.277	.062
731A	100	9/16"	.563	.625	1/2	.060	.177	.227	.062
732	100	5/8"	.625	.634	1/2	.060	.177	.227	.062
732A	100	11/16"	.687	.752	1/2	.060	.177	.227	.062
733	100	3/4"	.750	.718	1/2	.060	.177	.227	.062
734	100	7/8"	.875	.760	1/2	.060	.177	.227	.062
735	100	1"	1.000	.802	1/2	.060	.177	.227	.062
736	100	1 1/8"	1.125	.968	1/2	.062	.204	.250	.125
737	100	1 1/4"	1.250	1.156	1/2	.062	.204	.250	.125
738	100	1 1/2"	1.500	1.188	5/8	.070	.204	.250	.125

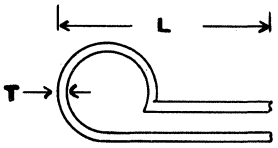
ETHYL CELLULOSE
PLASTIC CABLE AND TUBING CLAMPS



Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from —60° to +175° F. Approved 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkge. 100, 1000.

CAT. NO.	TO FIT SIZE	D	E	W	T	L	X	A
715	1/8"	.125	.325	1/2	.060	.204	7/32	.062
715A	3/16"	.188	.390	1/2	.060	.204	7/32	.062
715B	1/4"	.250	.421	1/2	.060	.204	7/32	.062
715C	5/16"	.313	.457	1/2	.060	.204	7/32	.062
715D	3/8"	.375	.483	1/2	.060	.204	7/32	.062
715E	7/16"	.438	.531	1/2	.060	.204	7/32	.062
716	1/2"	.500	.562	1/2	.060	.204	7/32	.062
716A	9/16"	.563	.625	1/2	.060	.204	7/32	.062
716B	5/8"	.625	.610	1/2	.060	.204	7/32	.062
716C	11/16"	.688	.666	1/2	.060	.204	7/32	.062
716D	3/4"	.750	.766	1/2	.060	.204	7/32	.062
716E	7/8"	.875	.813	1/2	.060	.204	7/32	.062
717	1"	1.000	.906	1/2	.060	.204	7/32	.062
717A	1 1/8"	1.125	.969	1/2	.060	.204	7/32	.062
717B	1 1/4"	1.250	1.156	1/2	.060	.204	7/32	.062
717C	1 1/2"	1.5	1.0625	5/8	.070	.204	7/32	.062
717D	2"	2.0	1.313	5/8	.070	.204	7/32	.062
717E	2 1/2"	2.5	1.563	5/8	.070	.204	7/32	.062

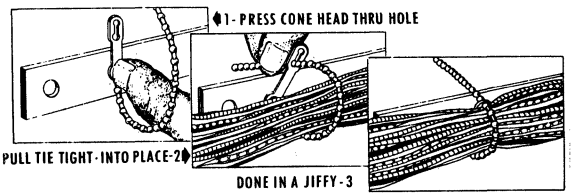
BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS



These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The 1/8" thru 5/8" clamps have a clearance for No. 10 Screw. The 3/4" to the 1 1/4" clamps have a clearance for 1/4" bolts.

Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std. Pkg.
51A	1/8"	1/2"	13/16"	.050"	100
51	1/4"	1/2"	7/8"	.050"	100
52	5/16"	1/2"	15/16"	.050"	100
53	3/8"	1/2"	1"	.050"	100
54	1/2"	1/2"	1 1/8"	.050"	100
54A	5/8"	1/2"	1 1/4"	.050"	50
55	3/4"	3/4"	1 5/16"	.090"	50
57	7/8"	3/4"	1 5/8"	.090"	50
56	1"	3/4"	1 3/4"	.090"	50
56A	1 1/8"	3/4"	1 7/8"	.090"	50
56B	1 1/4"	3/4"	2"	.090"	50

PUSH BUTTON WIRE TIES (PAT. PENDING)



Push Button Wire Ties useful for harnessing wires fast; saves labor; eliminates screws and usual time required for string tying. Measures 4½" in length and is adjustable to 30 different diameters. Insert the tie in the hole for anchoring; wires can be replaced or added by loosening the tie and pulling tight again. Constructed of tough Polyethylene; chemically inert, heat resistant; breaking point 45 to 95 lbs. Push button ties are designed to fit a .250"—.265" hole in a .031 to .140 thick panel.

Cat. No.	Color (Specify)	Std Pkge
PBT-4	Red, Blue, Yellow	100, 1000

MATERIAL CONFORMS TO SPEC. LP 590

ANTENNA CONTROL ROTOR CABLE

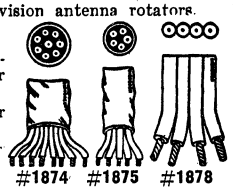
Developed for remote control of television antenna rotators.

DESCRIPTION:

#1874—4 Conductors flat parallel polyethylene plastic insulation — One outer conductor tinned, balance bare copper.

#1875 — 5 Conductors twisted, color coded. Vinyl plastic jacket overall.

#1878 — 8 Conductors twisted, color coded. Vinyl plastic jacket overall.



Cat. No.	Spool	Cond.	Size AWG	Strand.	Nom. O.D.
1874	1000'	4	20	7/28	.072" x .390"
1874A	500'	4	20	7/28	.072" x .390"
1875	1000'	5	20	7/28	.180"
1875A	500'	5	20	7/28	.180"
1878	1000'	8	22	7/30	.205".
1878A	500'	8	22	7/30	.205"

CONDUCTOR COLOR CODE CHART FOR #1875, #1878

1—Black 2—White 3—Red 4—Green 5—Yellow 6—Blue 7—Brown 8—Orange

See Pages 1553-1558 for Birnbach Prices for Above Items

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Birnbach PRICE LIST

Cat. No.	Sug. List Price
00-C	18.50/C
GL-1-C	5.50/Ea.
GL-1-E	27.25/Ea.
GL-1-M	54.00/Ea.
GL-1-F	134.00/Ea.
GL-2-C	10.75/Ea.
GL-2-E	53.30/Ea.
GL-2-M	106.00/Ea.
GL-2-F	264.00/Ea.
GL-3-C	20.40/Ea.
GL-3-E	102.30/Ea.
GL-3-M	204.00/Ea.
GL-3-F	509.00/Ea.
TK-1	91.75/Ea.
1-M	10.73/M
1-C	1.32/Ea.
1-50	.66/Ea.
TK-2	84.25/Ea.
2-M	10.73/M
2-C	1.32/Ea.
2-50′	.66/Ea.
3-M	10.73/Ea.
3-C	1.32/Ea.
3-50	.66/Ea.
3-A-M	10.73/Ea.
4-M	41.25/M
5-M	55.00/M
6-C	13.20/C
T-6-C	20.00/C
T-7	.50/Ea.
8	13.75/C
10	13.75/C
T-10	8.00/C
11	19.25/C
T-14	.70/Ea.
T-14-A	.80/Ea.
15	7.70/C
T-15	25.00/C
T-15-A	40.00/C
T-15-C	2.50/C
16	27.50/C
T-16	25.00/C
T-16-A	25.00/C
17	60.00/C
T-17	24.00/C
18	100.00/C
T-18	24.00/C
19	.45/Ea.
T-19-¾	9.50/C
T-19-1″	9.50/C
T-19-1½	13.50/C
20	.90/Ea.
20-A	.75/Ea.
T-20	.80/Ea.
21-M	13.75/M
21-C	1.65/Ea.
21-35	.66/Ea.
22-M	32.45/M
22-15	.66/Ea.
22-C	3.52/Ea.
23	16.00/C
24	17.00/C
26	17.00/C
27	11.00/C
27-C	21.00/C
27-R	19.50/C
28	11.00/C
29	17.00/C
30	36.15/C
31	15.00/C
31-C	21.00/C
31-MB	11.00/C
31-MC	15.00/C
31-MS	14.00/C
31-R	11.00/C
31-S	16.00/C
32	3.00/C
32-A	2.25/C
33	14.00/C
35	1.40/Ea.
34	1.40/Ea.
35	1.40/Ea.
36	1.40/Ea.
37	1.40/Ea.
38	1.40/Ea.
39	1.40/Ea.
41	1.40/Ea.
T-42	7.00/M
T-44	18.00/C
45	1.40/Ea.
T-46	28.00/C
47	1.40/Ea.
T-48	48.00/C
49	1.40/Ea.
D-50	4.95/M
51	17.50/C
51-A	17.50/C
52	17.50/C
53	17.50/C
54	17.50/C
54-A	18.00/C
55	20.00/C
56	22.50/C
56-A	30.00/C
56-B	32.50/C
57	22.50/C
58	1.50/Ea.
59	1.80/Ea.
61-C	4.00/Ea.
62-E	17.50/Ea.
62-M	35.00/Ea.
64	1.40/Ea.
65	2.50/Ea.
66-C	5.50/Ea.
67-E	25.50/Ea.
67-M	51.00/Ea.
68-C	7.50/Ea.
69-E	35.00/Ea.
69-M	70.00/Ea.
72C	2.60/Ea.
73C	3.05/Ea.
76M	23.65/Ea.
77M	26.70/Ea.
84C	3.05/Ea.
85C	3.35/Ea.
86C	3.65/Ea.
87C	4.00/Ea.
92M	26.65/Ea.
93M	29.75/Ea.
94M	32.45/Ea.
95M	6.30/Ea.
96M	11.83/M
96-40	.66/Ea.
96C	1.32/Ea.
97M	11.83/M
97-40	.66/Ea.
97C	1.32/Ea.
98M	13.75/M
98-35	.66/Ea.
98C	1.65/Ea.
99M	13.75/M
99-35	.66/Ea.
99C	1.54/Ea.
100M	22.00/M
100-20	.66/Ea.
100C	2.47/Ea.
R-100	5.60/M
T-100	10.00/C
T-101	10.00/C
T-102	10.00/C
102	.90/Ea.
103	.90/Ea.
104	1.50/Ea.
105	1.50/Ea.
106	.90/Ea.
T-105/14	22.50/Ea.
T-105/16	22.50/Ea.
T-105/17	22.50/Ea.
T-105/19R	27.50/Ea.
T-105/20	27.50/Ea.
T-105/24	27.50/Ea.
T-105/27	27.50/Ea.
107	1.50/Ea.
108	2.05/Ea.
109	2.75/Ea.
113	125.00/C
114	11.00/C
115	12.00/C
116	13.00/C
117	27.50/C
118	25.00/C
119	22.00/C
120	2.75/Ea.
121	.60/Ea.
122	.90/Ea.
123	1.00/Ea.
124	1.15/Ea.
125	2.75/Ea.
126	2.30/Ea.
127	2.75/Ea.
128	3.35/Ea.
130	.70/Ea.
131	.85/Ea.
132	.40/Ea.
133	.45/Ea.
134	.60/Ea.
135	.45/Ea.
136	.35/Ea.
149	6.75/Ea.
151	.60/Ea.
155H	45.00/Ea.
156E	18.00/Ea.
157E	25.00/Ea.
158E	32.50/Ea.
159E	41.25/Ea.
160E	50.00/Ea.
161E	55.00/Ea.
162D	30.00/Ea.
163D	35.00/Ea.
164D	40.00/Ea.
165D 250	47.50/Ea.
165/15-D	60.00/Ea.
166	2.00/Ea.
172C	8.50/Ea.
172E	42.50/Ea.
172M	85.00/Ea.
173C	11.75/Ea.
173E	58.75/Ea.
173M	117.50/Ea.
174C	16.00/Ea.
174E	80.00/Ea.
174M	160.00/Ea.
175C	18.75/Ea.
175E	93.75/Ea.
175M	187.50/Ea.
176C	21.00/Ea.
176E	105.00/Ea.
176M	210.00/Ea.
177C	26.50/Ea.
178C	32.50/Ea.
179C	37.50/Ea.
180C	40.00/Ea.
182C	48.00/Ea.
184	27.00/C
185	23.00/C
186	25.00/C
193	15.00/M
194	15.00/M
195	15.00/M
196	18.00/M
200	10.00/M
201-1000	13.75/M
201-35	.66/Ea.
201-100	1.54/Ea.
202	8.50/M
203	.65/Ea.
203A	3.75/Ea.
203H	3.75/Ea.
204	.65/Ea.
204A	3.75/Ea.
204H	3.75/Ea.
205	.65/Ea.
205H	3.75/Ea.
206	.65/Ea.
206A	3.75/Ea.
206H	3.75/Ea.
207	.65/Ea.
207H	3.75/Ea.
208	.65/Ea.
208H	3.75/Ea.
209	.65/Ea.
209H	3.75/Ea.
212A	3.75/Ea.
220	8.00/Ea.
220A	6.75/Ea.
221	1.80/Ea.
221A	1.40/Ea.
226	4.00/Ea.
231MC	35.00/C
232FC	53.00/C
233CC	38.00/C
234CLC	60.00/C
239FC2	6.20/Ea.
245MFC	6.20/Ea.
246	40.00/C
248	8.00/C
248S	8.00/C
249	11.00/C
T-250	16.00/C
T-251	20.00/C
251	80.00/C
252	120.00/C
253	110.00/C
257	50.00/C
258	57.00/C
259	60.00/C
260	75.00/C
263C	9.00/Ea.
263E	44.50/Ea.
263M	89.00/Ea.
264C	11.60/Ea.
264E	57.50/Ea.
264M	115.00/Ea.
265C	14.00/Ea.
265E	69.50/Ea.
265M	139.00/Ea.
266C	16.30/Ea.
266E	81.00/Ea.
266M	162.00/Ea.
267C	18.50/Ea.
267E	91.00/Ea.
267M	182.00/Ea.
268C	20.50/Ea.
268E	102.00/Ea.
268M	204.00/Ea.
269C	23.75/Ea.
269E	118.25/Ea.
269M	236.50/Ea.
270C	26.25/Ea.
270E	130.75/Ea.
270M	261.50/Ea.
272C	32.55/Ea.
272E	162.25/Ea.
272M	324.50/Ea.
274	60.00/C
275	70.00/C
276	70.00/C
278	40.00/C
279	30.00/C
287	.49/Ea.
288	12.25/Ea.
289VCC	6.00/Ea.
290VCC	6.00/Ea.
291	.22/Ea.
291V 25′	1.90/Ea.
291VCC	6.60/Ea.
293	.22/Ea.
293V 25′	1.95/Ea.
293VCC	7.05/Ea.
294	.22/Ea.
294V 25′	2.00/Ea.
294VCC	7.50/Ea.
295	.22/Ea.
295V 25′	2.05/Ea.
295VCC	7.75/Ea.
296	2.10/Ea.
296VCC	60.00/Ea.
297	.48/Ea.
298	.55/Ea.
299	1.75/Ea.
299VCC	50.00/Ea.
300	.22/Ea.
300V 25′	2.15/Ea.
300VCC	8.35/Ea.
301	.40/Ea.
301V 15′	1.95/Ea.
301VCC	11.00/Ea.
302	.45/Ea.
302V 10′	1.55/Ea.
302VCC	13.20/Ea.
303	.75/Ea.
303VCC	25.00/Ea.
304	.90/Ea.
304VCC	30.00/Ea.
305V 10′	1.75/Ea.
305VCC	14.25/Ea.
306V 10′	1.85/Ea.
306VCC	18.25/Ea.
307	.30/Ea.
307V 20′	1.85/Ea.
307VCC	9.00/Ea.
308B 25′	.75/Ea.
308BCC	2.75/Ea.
309	1.70/Ea.
310	18.00/C
310C	23.00/C
310S	19.00/C
310B	35.00/C
311B 25′	.75/Ea.
311BCC	2.75/Ea.
312	2.00/Ea.
313	.17/Ea.
313B 25′	.75/Ea.
313BCC	2.75/Ea.
314B 25′	.75/Ea.
314BCC	2.75/Ea.
315	.18/Ea.
315BC	.75/Ea.
315BCB	2.75/Ea.
316 10′	.19/Fa.
316B 25′	.80/Ea.
316BCC	3.00/Ea.
317	.19/Ea.
317B 25′	.80/Ea.
317BCC	3.00/Ea.
318 10′	.40/Ea.
318B 15′	.75/Ea.
318BCC	4.70/Ea.
319	.45/Ea.
319B 10′	.75/Ea.
319BCC	6.75/Ea.
320	.50/Ea.
320B 10′	.75/Ea.
320BCC	6.75/Ea.
321	.60/Ea.
321BCC	8.50/Ea.
322	.65/Ea.
322BCC	14.00/Ea.
323	1.00/Ea.
323BCC	22.50/Ea.
324	1.10/Ea.
324BCC	27.50/Ea.
325	.35/Ea.
325B 15′	.75/Ea.
325BCC	4.40/Ea.
326	.40/Ea.
326B 15′	.75/Ea.
326BCC	5.00/Ea.
327BCC	29.00/Ea.
328BCC	80.00/Ea.
329BCC	108.25/Ea.
330	25.00/C
330A	22.00/C
331	25.00/C
331A	17.00/C
332	18.00/C
332A	2.00/C
333	27.00/C
334	55.00/C
335	65.00/C
336	65.00/C
337	70.00/C
340	11.00/C
341	65.00/C
341B	100.00/C
342	475.00/C
342B	525.00/C
343	.60/Ea.
343A	20.00/C
344	.55/Ea.
345	.60/Ea.
345A	25.00/C
346	3.00/Ea.
347	3.60/Ea.
348	2.00/Ea.
350	2.00/Ea.
351	2.00/Ea.
352	2.00/Ea.
353	2.00/Ea.
354	10.00/Ea.
359	2.00/Ea.
360BC	32.50/Ea.
361BCC	35.00/Ea.
362BC 50′	22.50/Ea.
363BC 50′	30.00/Ea.
364BCC	127.50/Ea.
365BCC	138.00/Ea.
366	17.00/C
367	22.00/C
368	2.50/C
369	2.50/C
370	5.00/C
371	3.00/C
372	2.50/C
373	6.50/C
377	.48/Ea.
378	.63/Ea.
379	.68/Ea.
380C	3.46/Ea.
381C	3.85/Ea.
382C	3.85/Ea.
383C	4.25/Ea.
384C	4.75/Ea.
385C	5.25/Ea.
386C	6.40/Ea.
387C	7.60/Ea.
388C	10.30/Ea.
389C	10.90/Ea.
391	25.00/C
392	77.00/C
392A	55.00/C
392B	110.00/C
393	70.00/C
393A	70.00/C
394	50.00/C
395	50.00/C
396	50.00/C
396B	90.00/C
397	55.00/C
397B	95.00/C
398	50.00/C
398B	85.00/C
399	50.00/C
399A	55.00/C
400	25.00/C
400A	25.00/C
400B	40.00/C
401	25.00/C
401B	40.00/C
402	4.40/C
402A	5.50/C
402B	11.50/C
403	17.00/C
404	35.00/C
404A	30.00/C
404B	45.00/C
404BC	60.00/C
404CB	50.00/C
404S	30.00/C
405	.165/Ea.
406	22.00/C
407	22.00/C
408	3.15/Ea.
409	25.00/C
410	.55/Ea.
411	1.32/Ea.
412	33.00/C
413	1.75/Ea.
414	25.00/C
415	25.00/C
416	22.00/C
417	.55/Ea.
418	.60/Ea.
419	40.00/C
420	1.45/Ea.
420A	22.00/C
421	1.45/Ea.
422	1.45/Ea.
423	1.45/Ea.
426	27.00/C
426A	27.00/C
430	.36/Ea.
431	.44/Ea.
431J	.64/Ea.
432	.80/Ea.
432J	1.25/Ea.
433	1.56/Ea.
433J	2.25/Ea.
434	3.50/Ea.
435	2.65/Ea.
436	.60/Ea.
437	.65/Ea.
438	.75/Ea.
439	.40/Ea.
440	25.00/C
440A	29.00/C
440B	34.00/C
440C	39.00/C
440E	46.00/C
440F	49.00/C
441	17.25/C
441A	17.25/C
441B	17.25/C
442	17.20/C
442A	18.00/C
443	20.00/C
443A	24.00/C
444	21.00/C
444A	25.00/C
444B	25.00/C
444C	30.00/C
445	21.00/C
445A	25.00/C
445B	30.00/C
445C	30.00/C
445D	34.00/C
445E	39.00/C
445F	46.00/C
445G	54.00/C
446	23.75/C
446A	23.75/C
446B	39.00/C
446C	46.00/C
447	23.75/C
447B	64.00/C
447D	79.00/C
447E	89.00/C
448	33.35/C
449	55.00/C
450	.59/Ea.
450J	.71/Ea.
451	.71/Ea.
451J	.77/Ea.
452	.77/Ea.

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Birnbach PRICE LIST

Cat. No.	Sug. List Price
452J	1.00/Ea.
453	1.37/Ea.
453J	1.58/Ea.
454	1.80/Ea.
454J	2.15/Ea.
455	30.00/C
455BC	40.00/C
457	.75/Ea.
458	.32/Ea.
462	.27/Ea.
463	.50/Ea.
464	.40/Ea.
465	30.00/C
465B	50.00/C
466	30.00/C
466A	40.00/C
467	50.00/C
467B	70.00/C
468	.55/Ea.
469	.60/Ea.
470	1.00/Ea.
471	1.40/Ea.
472	.45/Ea.
473	.23/Ea.
474	.20/Ea.
475	1.47/Ea.
476	1.10/Ea.
478	.45/Ea.
478J	.54/Ea.
479	.78/Ea.
479J	.95/Ea.
490C	3.15/Ea.
490M	31.50/Ea.
490A 150'	4.72/Ea.
490B 200'	6.30/Ea.
492M	46.00/Ea.
492A 150'	6.90/Ea.
492B 200'	9.20/Ea.
493C	4.50/Ea.
493M	45.00/Ea.
495C	5.00/Ea.
495M	50.00/Ea.
497C	7.95/Ea.
497M	79.00/Ea.
499C	14.60/Ea.
499M	139.00/Ea.
501	4.20/Ea.
503	3.90/Ea.
505	3.35/Ea.
506	.39/Ea.
507	.40/Ea.
508	.41/Ea.
510	.40/Ea.
511	.40/Ea.
512	.40/Ea.
514	.39/Ea.
515	.39/Ea.
516	.41/Ea.
518	.40/Ea.
519	.41/Ea.
520	.49/Ea.
521	.50/Ea.
522	.56/Ea.
523	.75/Ea.
524C	10.00/Ea.
524M	93.50/Ea.
526C	7.50/Ea.
526M	68.25/Ea.
527C	21.75/Ea.
527M	211.25/Ea.
528C	32.50/Ea.
528M	319.00/Ea.
529C	51.60/Ea.
529M	489.50/Ea.
531	27.00/C
531A	40.00/C
532	27.00/C
533	27.00/C
534	27.00/C
535	27.00/C
536	27.00/C
537	27.00/C
538	33.00/C
538A	30.00/C
539	33.00/C
540	.33/Ea.
541	.66/Ea.
542	.50/Ea.
543	.25/Ea.
544	.50/Ea.
545	.60/Ea.
546	.40/Ea.
546A	.40/Ea.
547	.55/Ea.
550	.25/Ea.
550A	.25/Ea.
550B	.30/Ea.
550C	.30/Ea.
551	.55/Ea.
552	.65/Ea.
553	.75/Ea.
554	1.00/Ea.
555	2.50/Ea.
556	1.95/Ea.
557	2.50/Ea.
558	.95/Ea.
559	1.45/Ea.
559A	.80/Ea.
560	2.50/Ea.
561	2.50/Ea.
562	6.60/Ea.
564	4.85/Ea.
569E	21.00/Ea.
570C	5.60/Ea.
572D	13.00/Ea.
573E	25.00/Ea.
574D	25.25/Ea.
575D	36.00/Ea.
575/4D	63.70/Ea.
578D	34.00/Ea.
578/3D	46.50/Ea.
578/4D	73.50/Ea.
580M	32.00/Ea.
581M	35.20/Ea.
582M	37.00/Ea.
583M	39.60/Ea.
584M	42.35/Ea.
585M	53.35/Ea.
586M	53.35/Ea.
587M	60.50/Ea.
588M	96.00/Ea.
589M	106.50/Ea.
590	30.00/C
591	35.00/C
592	30.00/C
593	1.50/C
595	25.00/C
597	12.00/C
598	11.00/C
600	11.00/C
601	50.00/C
603	40.00/C
604	30.00/C
605	40.00/C
606	30.00/C
607	90.00/C
608	100.00/C
609	110.00/C
610	120.00/C
611	22.50/C
613	15.00/C
616	1.40/Ea.
617	30.00/C
618	2.25/Ea.
619	.45/Ea.
621	.35/Ea.
625	23.00/C
626	.56/Ea.
628	.28/Ea.
629	8.50/C
631	25.00/C
632	25.00/C
633	25.00/C
634	25.00/C
635	25.00/C
636	25.00/C
650	.50/Ea.
653-8	1.45/Ea.
653-12	1.55/Ea.
654-24	1.65/Ea.
653-36	1.75/Ea.
655-8	1.50/Ea.
655-12	1.50/Ea.
655-24	1.60/Ea.
655-36	1.70/Ea.
663	22.80/Ea.
664	19.50/Ea.
666	18.50/C
667	45.00/Ea.
668	.35/Ea.
669	18.00/C
675	95.00/C
676	105.00/C
677	120.00/C
678	135.00/C
681C	1.45/Ea.
690D	27.00/Ea.
690/3D	42.00/Ea.
691D	32.50/Ea.
692D	45.00/Ea.
692/4D	69.50/Ea.
693D	41.75/Ea.
693/3D	52.50/Ea.
693/4D	82.00/Ea.
694D	52.50/Ea.
694/3D	62.50/Ea.
694/4D	95.00/Ea.
695D	59.00/Ea.
695/3D	75.90/Ea.
695/4D	114.00/Ea.
696D	85.00/Ea.
696/3D	122.60/Ea.
696/4D	173.50/Ea.
697D	122.50/Ea.
697/3D	152.50/Ea.
697/4D	220.00/Ea.
698D	162.50/Ea.
698/3D	227.50/Ea.
698/4D	274.00/Ea.
700C	1.25/Ea.
701D	21.00/Ea.
701/3D	34.50/Ea.
702D	44.00/Ea.
702/3D	62.00/Ea.
702/4D	85.00/Ea.
703D	50.00/Ea.
703/3D	75.00/Ea.
703/4D	100.00/Ea.
704D	79.50/Ea.
704/3D	117.50/Ea.
704/4D	170.00/Ea.
705D	112.50/Ea.
705/3D	160.00/Ea.
705/4D	200.00/Ea.
706D	158.00/Ea.
706/3D	210.00/Ea.
706/4D	245.00/Ea.
710C	12.96/Ea.
710D	31.98/Ea.
710E	63.90/Ea.
710M	121.98/Ea.
710F	299.57/Ea.
712C	8.40/Ea.
712D	20.10/Ea.
712E	40.08/Ea.
712M	77.94/Ea.
712F	193.74/Ea.
714C	5.10/Ea.
714D	12.48/Ea.
714-E	24.96/Ea.
714M	48.48/Ea.
714F	118.56/Ea.
715	3.90/C
715	32.00/M
715A	4.00/C
715A	33.00/M
715B	4.30/C
715B	36.00/M
715C	4.75/C
715C	40.00/M
715D	5.00/C
715D	42.00/M
715E	5.50/C
715E	46.00/M
716	6.00/C
716	50.00/M
716A	7.00/C
716A	57.00/M
716B	7.50/C
716B	66.00/M
716C	8.00/C
716C	71.00/M
716D	8.50/C
716C	7.50/C
716D	74.00/M
716E	9.00/C
716E	80.00/M
717	9.50/C
717	86.00/M
717A	10.00/C
717A	91.00/M
717B	10.50/C
717B	97.00/M
717C	22.50/C
717C	180.00/M
717D	24.50/C
717D	200.00/M
717E	28.00/C
717E	240.00/M
725-100	6.50/Ea.
725-500	29.25/Ea.
725-1000	58.00/Ea.
726-100	7.50/Ea.
726-500	33.75/Ea.
726-1000	67.00/Ea.
727-100	8.50/Ea.
727-500	38.25/Ea.
727-1000	76.00/Ea.
728-100	8.95/Ea.
728-500	40.25/Ea.
728-1000	80.00/Ea.
720-100	9.35/Ea.
729-500	42.00/Ea.
729-1000	84.00/Ea.
730-100	9.90/Ea.
730-500	45.00/Ea.
730-1000	90.00/Ea.
731-100	10.50/Ea.
731-500	47.50/Ea.
731-1000	95.00/Ea.
732-100	14.00/Ea.
732-500	63.00/Ea.
732-1000	125.00/Ea.
733-100	15.00/Ea.
733-500	67.50/Ea.
733-1000	135.00/Ea.
734-100	16.00/Ea.
734-500	72.00/Ea.
734-1000	144.00/Ea.
735-100	17.50/Ea.
735-500	78.75/Ea.
735-1000	157.50/Ea.
736-100	20.00/Ea.
736-500	90.00/Ea.
736-1000	180.00/Ea.
737-100	23.00/Ea.
737-500	100.00/Ea.
737-1000	200.00/Ea.
738-100	48.00/Ea.
738-500	215.00/Ea.
738-1000	430.00/Ea.
749C	34.50/Ea.
749E	165.00/Ea.
749-M	330.00/Ea.
756C	22.50/Ea.
756E	110.00/Ea.
757M	210.00/Ea.
762	20.00/C
763-3	30.00/Ea.
763-5	38.00/Ea.
763-7	85.00/Ea.
764	.35/Ea.
765	.90/Ea.
766	.59/Ea.
766J	.88/Ea.
768	.70/Ea.
769	1.40/Ea.
770	2.50/Ea.
771	16.75/Ea.
772C	14.75/Ea.
772D	35.75/Ea.
772E	71.25/Ea.
772M	142.50/Ea.
772/18C	20.00/Ea.
772/18D	49.00/Ea.
772/18E	95.00/Ea.
772-18M	190.00/Ea.
773C	17.00/Ea.
773D	42.50/Ea.
773E	83.50/Ea.
773M	167.00/Ea.
773/18C	31.25/Ea.
773/18D	76.50/Ea.
773/18E	150.00/Ea.
773/18M	300.00/Ea.
774C	21.00/Ea.
774D	49.50/Ea.
774E	97.50/Ea.
774M	195.00/Ea.
774/18C	34.50/Ea.
774/18D	85.00/Ea.
774/18E	170.00/Ea.
774/18M	338.00/Ea.
775C	26.00/Ea.
775D	60.00/Ea.
775E	120.00/Ea.
775M	240.00/Ea.
776C	31.00/Ea.
776D	73.00/Ea.
776E	145.00/Ea.
776M	290.00/Ea.
777C	34.00/Ea.
777D	80.00/Ea.
777E	159.00/Ea.
777M	319.00/Ea.
778C	40.00/Ea.
778D	97.50/Ea.
778E	195.00/Ea.
778M	385.00/Ea.
778/10C	55.00/Ea.
778/10D	140.00/Ea.
778/10E	275.00/Ea.
778/10M	545.00/Ea.
781C	23.50/Ea.
786	30.00/Ea.
787	43.00/Ea.
788C	12.50/Ea.
788D	30.50/Ea.
788E	60.00/Ea.
788M	120.00/Ea.
789D	30.50/Ea.
790C	14.25/Ea.
790D	35.25/Ea.
790E	69.00/Ea.
790M	138.00/Ea.
791D	35.25/Ea.
792C	17.40/Ea.
792D	42.50/Ea.
792E	83.50/Ea.
792M	167.00/Ea.
793D	42.50/Ea.
794C	20.65/Ea.
794D	50.65/Ea.
794E	100.00/Ea.
794M	200.00/Ea.
795D	50.65/Ea.
796C	26.50/Ea.
796D	63.00/Ea.
796E	125.00/Ea.
796M	248.50/Ea.
797D	63.00/Ea.
798C	32.50/Ea.
798D	79.40/Ea.
798E	156.25/Ea.
798M	312.50/Ea.
799C	
800C	
802D	26.40/Ea.
803D	22.00/Ea.
810E	39.00/Ea.
811	2.25/Ea.
812	75.00/C
813	16.75/C
813T	75.00/C
814	15.00/Ea.
814T	.90/Ea.
815	.84/C
816	.57/Ea.
817	.72/Ea.
818C	14.60/Ea.
818E	73.00/Ea.
818M	146.00/Ea.
819	.75/Ea.
820C	12.65/Ea.
820E	63.25/Ea.
820M	126.50/Ea.
822E	44.00/Ea.
824E	52.25/Ea.
825E	31.60/Ea.
826M	75.00/Ea.
826/30E	44.00/Ea.
826/28E	42.50/Ea.
826/26E	40.00/Ea.
827E	50.00/Ea.
828E	74.00/Ea.
829E	91.00/Ea.
830E	160.00/Ea.
830/10E	
831C	7.25/Ea.
831E	35.00/Ea.
831M	70.00/Ea.
832C	8.00/Ea.
832E	38.50/Ea.
832M	77.50/Ea.
833C	9.00/Ea.
833E	43.75/Ea.
833M	87.50/Ea.
834C	11.00/Ea.
834E	52.50/Ea.
834M	105.00/Ea.
835C	14.00/Ea.
835E	66.00/Ea.
835/12M	
835M	130.00/Ea.
835/10M	
853E	25.00/Ea.
853M	48.50/Ea.
854C	5.25/Ea.
854E	25.00/Ea.
854M	48.50/Ea.
855-50'	2.90/Ea.
855C	5.50/Ea.
855E	25.65/Ea.
855M	50.00/Ea.
856-50'	25.00/Ea.
856C	48.50/Ea.
856E	241.00/Ea.
856M	478.00/Ea.
856/1-50'	28.00/Ea.
856/1C	54.00/Ea.
856/1E	265.00/Ea.
856/1M	525.00/Ea.
856/2-50'	47.00/Ea.
856/2C	90.50/Ea.
856/2E	360.00/Ea.
856/2M	710.00/Ea.
856/3-50'	
856/4-50'	
856/6-50'	
856/7-50'	
857-50'	24.00/Ea.
857C	47.00/Ea.
857E	233.00/Ea.
857M	463.00/Ea.
858-50'	3.25/Ea.
858C	6.50/Ea.
858E	30.50/Ea.
858M	61.00/Ea.
859-50'	3.50/Ea.
859-C	6.75/Ea.
859E	33.00/Ea.
859M	64.50/Ea.
860-50'	4.45/Ea.
860C	8.90/Ea.
860E	44.25/Ea.
860M	88.50/Ea.
863-50'	5.25/Ea.
863C	10.50/Ea.
863E	50.00/Ea.
863M	100.00/Ea.
865-50'	11.50/Ea.
864C	16.50/Ea.
864E	80.00/Ea.
864M	160.00/Ea.
86550'	11.50/Ea.
865C	23.00/Ea.
865E	110.00/Ea.
865M	220.00/Ea.
865/1-50'	24.00/Ea.
865/1C	46.50/Ea.
865/1E	230.00/Ea.
865/1M	458.00/Ea.
866	.265/Ea.
866J	.35/Ea.
866SJ	.81/Ea.
867	.42/Ea.
867J	.53/Ea.
868-50'	10.00/Ea.
868C	19.75/Ea.
868E	96.00/Ea.
868M	192.00/Ea.
870C	11.00/Ea.
870D	26.50/Ea.
870E	52.50/Ea.
870M	103.00/Ea.
872C	13.50/Ea.
872D	32.50/Ea.
872E	63.75/Ea.
872-M	127.00/Ea.
875	4.50/Ea.
876	5.50/Ea.
877	6.75/Ea.
878	8.00/Ea.
878/6	11.10/Ea.
878/7	14.50/Ea.
880	5.50/Ea.
881	6.25/Ea.
881/3	9.15/Ea.
882	6.75/Ea.
882/3	10.10/Ea.
885	5.50/Ea.
886	6.25/Ea.
887	7.25/Ea.
888	7.25/Ea.
889	9.00/Ea.
889/3	11.50/Ea.
889/4	13.60/Ea.
890	9.50/Ea.
891	8.35/Ea.
853C	5.25/Ea.
891/3	14.50/Ea.
891/4	14.75/Ea.
893	25.00/Ea.
893/3	27.00/Ea.

Trade Discount Applies To List Prices Only
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Birnbach PRICE LIST

Cat. No.	Sug. List Price
893/4	31.00/Ea.
894	32.00/Ea.
894/3	36.00/Ea.
894/4	41.00/Ea.
895	12.75/Ea.
895-A	3.50/Ea.
895-B	2.00/Ea.
896	26.50/Ea.
896-A	7.50/Ea.
897	27.75/Ea.
897-A	7.75/Ea.
898	28.50/Ea.
898-A	8.70/Ea.
899	28.25/Ea.
899-A	11.25/Ea.
901-E	135.00/Ea.
902-E	200.00/Ea.
903-E	125.00/Ea.
904F-E	130.00/Ea.
904DSF-E	210.00/Ea.
904DS-E	97.25/Ea.
905-M	97.25/Ea.
906-M	97.00/Ea.
907-M	110.00/Ea.
909-M	167.50/Ea.
910-M	97.00/Ea.
912-E	210.00/Ea.
914-M	150.00/Ea.
916-M	200.00/Ea.
919-E	42.50/Ea.
920-M	85.00/Ea.
921-M	38.00/Ea.
921/3-M	53.00/Ea.
922/3-M	51.00/Ea.
922/3-M	88.00/Ea.
923-M	65.00/Ea.
923/3-M	88.00/Ea.
924-C	8.50/Ea.
924-E	40.00/Ea.
924-M	79.00/Ea.
925-C	11.25/Ea.
925-E	53.00/Ea.
925-M	105.00/Ea.
931-E	11.00/Ea.
931-M	21.00/Ea.
932-E	17.50/Ea.
932-M	35.00/Ea.
933-E	18.75/Ea.
933-M	37.50/Ea.
934-E	23.50/Ea.
934-M	47.00/Ea.
935-E	15.00/Ea.
935-M	30.00/Ea.
936-E	15.00/Ea.
936-M	30.00/Ea.
938-C	11.50/Ea.
938-E	48.80/Ea.
938-M	97.35/Ea.
939-C	9.25/Ea.
939-E	42.50/Ea.
939-M	87.50/Ea.
940-E	44.50/Ea.
940/1-E	35.00/Ea.
941-E	35.00/Ea.
941/1-E	29.50/Ea.
942-E	36.50/Ea.
943-E	51.50/Ea.
944-E	77.00/Ea.
947-E	52.50/Ea.
948-E	75.50/Ea.
950-E	
952-E	32.50/Ea.
963	14.00/C
964	19.50/C
965	.20/Ea.
966	.20/Ea.
966-J	.26/Ea.
967	45.00/C
972-C	15.75/Ea.
972A-C	15.50/Ea.
972A-E	76.00/Ea.
972A-M	150.00/Ea.
972B-C	15.25/Ea.
972BE	75.50/Ea.
972B-M	150.00/Ea.
972S-C	12.50/Ea.
972S-E	55.00/Ea.
972S-M	110.00/Ea.
973-C	18.00/Ea.
973-S-C	14.00/Ea.
973S-E	66.00/Ea.
973S-M	132.00/Ea.
974-C	23.00/Ea.
975-C	31.50/Ea.
976-C	34.50/Ea.
977-C	41.00/Ea.
978-C	46.00/Ea.
981-M	32.75/Ea.
982-M	42.50/Ea.
983-M	49.50/Ea.
984-M	64.50/Ea.
985-M	42.50/Ea.
986-M	53.00/Ea.
987-M	63.50/Ea.
988-M	74.50/Ea.
989-M	67.50/Ea.
989/3-M	89.50/Ea.
990-M	27.50/Ea.
990/3-M	41.00/Ea.
991-M	36.50/Ea.
991/3-M	53.50/Ea.
992-M	49.00/Ea.
992/3-M	75.00/Ea.
993-M	72.50/Ea.
993/3-M	110.00/Ea.
994-M	109.00/Ea.
994/3-M	160.00/Ea.
995-M	155.00/Ea.
995/3-M	240.00/Ea.
1013	2.75/Ea.
1014	5.25/Ea.
1015	10.00/Ea.
1017-M	38.50/M
1017-C	4.24/Ea.
1017-10	.66/Ea.
1025	1.35/Ea.
1035	55.00/Ea.
1035-B	60.00/Ea.
1036	25.00/Ea.
1036-B	30.00/Ea.
1037	17.50/Ea.
1037-B	22.50/Ea.
1038	17.50/Ea.
1038-B	22.50/Ea.
1039	17.50/Ea.
1039-B	22.50/Ea.
1041	32.50/Ea.
1041-B	37.50/Ea.
1042	23.15/Ea.
1042-B	28.15/Ea.
1043	23.15/Ea.
1043-B	28.15/Ea.
1044	23.15/Ea.
1044-B	28.15/Ea.
1045	200.00/Ea.
1046	150.00/Ea.
1047	105.00/Ea.
1048	270.00/Ea.
1049	150.00/Ea.
1050	2.50/Ea.
1051	4.50/Ea.
1052	35.00/Ea.
1053	.75/Ea.
1054	1.40/Ea.
1055	2.75/Ea.
1056	21.00/Ea.
1057	1.45/Ea.
1058	2.90/Ea.
1059	5.00/Ea.
1060	40.00/Ea.
1070	15.00/Ea.
1070-B	18.00/lb.
1071	15.00/Ea.
1071-B	18.50/lb.
1072	16.00/Ea.
1072-B	19.00/lb.
1072/1B	19.75/lb.
1073	2.95/Ea.
1074	5.15/Ea.
1075	9.75/Ea.
1075-B	10.00/lb.
1076	2.75/Ea.
1077	4.75/Ea.
1078	9.00/Ea.
1078-B	10.00/lb.
1079	2.95/Ea.
1080	4.75/Ea.
1081	9.00/Ea.
1081-B	10.00/lb.
1082	2.95/Ea.
1083	4.75/Ea.
1084	9.00/Ea.
1084-B	10.00/lb.
1085	2.95/Ea.
1086	4.75/Ea.
1087	9.00/Ea.
1087-B	10.00/lb.
1101	5.00/Ea.
1111-D	37.50/Ea.
1112-E	75.00/Ea.
1113-M	145.00/Ea.
1120	5.50/C
1121	3.00/C
1122	6.00/C
1123	2.50/C
1124	2.50/C
1125	5.50/C
1125-T	6.50/C
1126	7.25/C
1126-T	8.25/C
1127	8.80/C
1127-T	10.00/C
1128	10.50/C
1128-T	12.00/C
1129	12.00/C
1129-T	13.75/C
1130	5.50/C
1130-T	6.50/C
1131	7.25/C
1131-T	8.25/C
1132	8.80/C
1132-T	10.00/C
1133	10.50/C
1133-T	12.00/C
1134	12.00/C
1134-T	13.75/C
1135	8.80/C
1136	10.50/C
1137	12.00/C
1138	13.75/C
1139	15.50/C
1140	8.80/C
1141	10.50/C
1142	12.00/C
1143	13.75/C
1144	15.50/C
1145	6.50/C
1146	8.25/C
1147	10.00/C
1148	12.00/C
1149	6.50/C
1150	8.25/C
1151	10.00/C
1152	12.00/C
1153	1.50/C
1154	1.80/C
1155	2.00/C
1156	2.25/C
1157	2.50/C
1160	35.00/C
1161	40.00/C
1162	45.00/C
1163	50.00/C
1164	35.00/C
1165	40.00/C
1166	45.00/C
1167	50.00/C
1168	30.00/C
1169	25.00/C
1170	28.00/C
1171	42.00/C
1172	30.00/C
1173	35.00/C
1174	40.00/C
1175	45.00/C
1177	42.00/C
1179	60.00/C
1180	50.00/C
1182	60.00/C
1184	55.00/C
1190	65.00/C
1192	90.00/C
1194	70.00/C
1220	16.60/Ea.
1220-A	12.50/Ea.
1260	25.00/C
1261	25.00/C
1262	25.00/C
1263	44.00/C
1264	50.00/C
1265	60.00/C
1266	69.00/C
1352	4.00/C
1352-A	4.50/C
1352-B	5.50/C
1352-C	5.25/C
1353	5.50/C
1353-A	6.00/C
1354	6.50/C
1354-A	6.90/C
1354-B	7.50/C
1355	8.75/C
1355-A	8.75/C
1355-B	9.50/C
1356	10.00/C
1356-A	10.25/C
1356-B	11.00/C
1357	11.00/C
1358	11.00/C
1359	13.00/C
1360	13.50/C
1372	13.00/C
1373	18.00/C
1374	22.00/C
1375	30.00/C
1376	35.00/C
1377	38.00/C
1378	42.00/C
1379	44.00/C
1380	48.00/C
1382	3.00/C
1382-A	3.25/C
1382-B	3.90/C
1382-C	5.55/C
1383	4.00/C
1383-A	4.00/C
1384	5.50/C
1384-A	5.90/C
1384-B	6.10/C
1385	6.25/C
1385-A	6.50/C
1385-B	7.25/C
1386	8.25/C
1386-A	9.00/C
1386-B	10.75/C
1387	10.75/C
1388	9.75/C
1389	10.75/C
1390	10.95/C
1402-C	7.90/Ea.
1403-M	72.50/Ea.
1406-C	4.25/Ea.
1407-M	40.00/Ea.
1410-C	2.90/Ea.
1411-M	26.25/Ea.
1414-C	2.00/Ea.
1415-M	17.75/Ea.
1418-C	1.55/Ea.
1419-M	13.25/Ea.
1422-C	1.10/Ea.
1423-M	8.30/Ea.
1424-M	6.00/Ea.
1426-M	5.80/Ea.
1428-M	5.60/Ea.
1430-M	5.25/Ea.
1430/32-M	
1430/34-M	
1430/36-M	
1430/38-M	
1433-C	12.00/Ea.
1433-M	112.50/Ea.
1443/4-C	30.00/Ea.
1433/4-M	290.00/Ea.
1433/6-C	19.00/Ea.
1433/6-M	185.00/Fa.
1434-M	6.25/Ea.
1490-M	31.50/Ea.
1492-M	46.00/Ea.
1497-M	79.00/Ea.
1516	28.50/Ea.
1560-C	14.85/Ea.
1560-M	148.50/Ea.
1562-C	7.65/Ea.
1563-M	70.00/Ea.
1566-C	4.85/Ea.
1567-M	46.00/Ea.
1570-C	3.30/Ea.
1571-M	30.00/Ea.
1574-C	2.15/Ea.
1575-M	19.30/Fa.
1600-C	14.75/Ea.
1600-M	147.00/Ea.
1618-M	15.75/Ea.
1620-M	10.40/Ea.
1622-M	8.25/Ea.
1628-M	21.50/Ea.
1633-M	27.00/Ea.
1634-M	22.50/Ea.
1638-M	33.50/Ea.
1639-M	27.25/Ea.
1647-M	17.15/Ea.
1648-M	15.25/Ea.
1670-C	3.00/Ea.
1671-C	3.60/Fa.
1673-C	2.35/Ea.
1674-C	2.75/Ea.
1680-C	1.90/Ea.
1701-E	28.25/Ea.
1702-E	33.00/Ea.
1703-E	42.00/Ea.
1716	42.00/Ea.
1741-M	12.50/Ea.
1772-D	35.75/Ea.
1773-D	42.50/Ea.
1774-D	49.50/Ea.
1775-D	60.00/Ea.
1776-D	73.00/Ea.
1777-D	80.00/Ea.
1781-E	98.00/Ea.
1782-E	138.00/Ea.
1783-E	195.50/Ea.
1784-E	223.60/Ea.
1786-E	389.50/Ea.
1822-C	7.10/Ea.
1822B-E	31.50/Ea.
1822C-M	58.80/Ea.
1824-C	5.75/Ea.
1824-E	27.50/Ea.
1824M-M	54.00/Ea.
1825-C	6.00/Ea.
1825-E	29.00/Ea.
1825M-M	56.50/Ea.
1835-E	32.50/Ea.
1836-E	23.50/Ea.
1839-E	45.00/Ea.
1839-M	90.00/Ea.
1840-C	7.00/Ea.
1840-E	33.40/Ea.
1840-M	66.75/Ea.
1841-C	9.25/Ea.
1841-E	44.00/Ea.
1841-M	88.00/Ea.
1842-C	13.00/Ea.
1842-E	63.00/Ea.
1842-M	126.00/Ea.
1843-C	17.50/Ea.
1843-E	82.50/Ea.
1843-M	165.00/Ea.
1844-C	17.00/Ea.
1844-E	84.00/Ea.
1844-M	167.00/Ea.
1845-E	110.00/Ea.
1845-M	215.00/Ea.
1846-E	150.00/Ea.
1846-M	300.00/Ea.
1870-D	26.50/Ea.
1872-D	32.50/Ea.
1874-M	60.00/Ea.
1874A-E	36.10/Ea.
1875-M	86.10/Ea.
1875A-E	45.00/Ea.
1878-M	111.00/Ea.
1878A-E	58.35/Ea.
1916C	9.25/Ea.
1916-E	42.25/Ea.
1916-M	82.50/Ea.
1918-C	6.00/Ea.
1918-E	27.75/Ea.
1918-M	53.50/Ea.
1920-C	5.25/Ea.
1920-E	24.75/Ea.
1920-M	47.50/Ea.
1922-C	4.25/Ea.
1922-E	19.75/Ea.
1922-M	37.50/Ea.
1963	6.00/C
1964	10.00/C
1965	10.00/C
1967	20.00/C
1968	10.00/Ea.
1972-C	20.00/Fa.
1972-D	49.00/Ea.
1972-E	97.25/Ea.
1972-M	194.50/Ea.
1972A-C	22.00/Ea.
1972A-E	107.00/Ea.
1972A-M	213.00/Ea.
2000-M	15.00/Ea.
2010	15.30/Ea.
2012	12.70/Ea.
2013	10.90/Ea.
2014	9.90/Ea.
2015	8.10/Fa.
2016	6.60/Ea.
2018	6.25/Ea.
2025-25'	1.35/Ea.
2050-50'	2.50/Ea.
2051-C	4.50/Ea.
2052-M	28.00/Ea.
2100	1.65/Ea.
2125	.45/Ea.
2500-E	7.50/Ea.
2611	45.00/C
2617	60.00/C
2650	.56/Ea.
2810-C	15.68/Ea.
2810-E	78.25/Ea.
2812-C	10.50/Ea.
2812-E	52.00/Ea.
2814-C	7.30/Ea.
2814-E	36.00/Ea.
2816-C	6.05/Ea.
2816-E	30.00/Ea.
2818-C	5.00/Ea.
2818-E	24.50/Ea.
3000	
TO	
3024	1.55/Ea.
3025	1.35/Ea.
3050	2.50/Ea.
3051	4.50/Ea.
3052	28.00/Ea.
3460-C	5.23/Ea.
3461-C	3.85/Ea.
3462-E	18.15/Ea.
3600-E	24.75/Ea.
4025	.85/Ea.
4050	1.60/Ea.
4051	2.80/Ea.
4052	25.00/Ea.
4125	.50/Ea.
4125-J	.58/Ea.
4175	1.15/Ea.
4175-J	1.65/Ea.
4176	.73/Ea.
4176-J	.97/Ea.
4200-C	34.00/Ea.
4200-M	300.00/Ea.
4201-C	96.00/Ea.
4101-M	875.00/Ea.
4202-C	160.00/Ea.
4202-M	1,430./Ea.
4203-C	540.00/Ea.
4204-C	29.00/Ea.
4204-M	264.00/Ea.
4205-C	32.50/Ea.
4205-M	297.00/Ea.
4206-C	29.00/Ea.
4206-M	264.00/Ea.
4207-C	45.00/Ea.
4207-M	405.00/Ea.
4208-C	130.00/Ea.
4208-M	1,150./Ea.
4209-C	460.00/Ea.
4215-C	12.00/Ea.
4215-M	110.00/Ea.
4233	1.15/Ea.
4234	1.25/Ea.
4235	2.95/Ea.
4236	3.25/Ea.
4237	3.45/Ea.
4238	4.50/Ea.
4275	.70/Ea.
4275-J	1.16/Ea.
4276	1.50/Ea.
4276-J	1.75/Ea.
4450	1.38/Ea.
4450-J	1.80/Ea.
4451	1.17/Ea.
4451-J	1.55/Ea.
4452	2.15/Ea.
4452-J	2.50/Ea.
4500-M	21.00/Ea.
4510-E	50.00/Ea.
4515	56.00/Ea.
4516-E	62.50/Ea.
4520-E	215.00/Ea.
4701-C	4.00/Ea.
4701-E	17.50/Ea.
4701-M	32.50/Ea.
4702-C	6.00/Ea.
4702-E	25.00/Ea.
4702-M	50.00/Ea.
4703-C	8.00/Ea.
4703-E	35.00/Ea.
4703-M	70.00/Ea.
4706-C	14.00/Ea.
4706-E	70.00/Ea.
4706-M	137.50/Ea.
4709-C	22.50/Ea.
4709-E	100.00/Ea.
4709-M	200.00/Ea.
4711-C	26.25/Ea.
4711-E	125.00/Ea.

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Trade Discount Applies To List Prices Only

Birnbach PRICE LIST

Cat. No.	Sug. List Price
4711-M	235.00/Ea.
4711-13E	126.25/Ea.
4715-C	30.00/Ea.
4715-E	145.00/Ea.
4715-M	290.00/Ea.
4716-C	32.40/Ea.
4716-E	160.00/Ea.
4716-M	320.00/Ea.
4727-C	51.75/Ea.
4727-E	258.75/Ea.
4727-M	515.00/Ea.
4727-E	365.00/Ea.
4727/41E	485.00/Ea.
4729-E	790.00/Ea.
4729/76E	132.00/Ea.
4729/101E	1675.00/Ea.
4731-C	5.00/Ea.
4731-E	17.75/Ea.
4731-M	35.35/Ea.
4732-C	8.10/Ea.
4732-E	37.50/Ea.
4732-M	75.00/Ea.
4733-C	10.60/Ea.
4733-E	50.00/Ea.
4733-M	100.00/Ea.
4734-C	13.50/Ea.
4734-E	62.50/Ea.
4734-M	125.00/Ea.
4735-C	16.00/Ea.
4735-E	76.25/Ea.
4735-M	152.50/Ea.
4736-C	20.00/Ea.
4736-E	90.00/Ea.
4736-M	180.00/Ea.
4739-C	26.00/Ea.
4739-E	126.00/Ea.
4739-M	252.50/Ea.
4745-C	36.00/Ea.
4745-E	175.00/Ea.
4745-M	350.00/Ea.
4747-C	72.50/Ea.
4747-E	350.00/Ea.
4747-M	700.00/Ea.
4752-C	6.25/Ea.
4752-E	27.50/Ea.
4752-M	55.00/Ea.
4753-C	8.00/Ea.
4753-E	38.50/Ea.
4753-M	77.00/Ea.
4754-C	10.75/Ea.
4754-E	51.00/Ea.
4754-M	100.00/Ea.
4755-C	13.50/Ea.
4755-E	65.00/Ea.
4755-M	130.00/Ea.
4756-C	16.00/Ea.
4756-E	76.00/Ea.
4756-M	152.00/Ea.
4800/3-E	
4800/6-E	
4800/9-E	
4800/11-E	
4800/15-E	
5000	1.65/Ea.
5002	1.75/Ea.
5003	2.40/Ea.
5004	.75/Ea.
5005	.85/Ea.
5006	1.50/Ea.
5007	.90/Ea.
5008	1.25/Ea.
5009	1.50/Ea.
5010	4.25/Ea.
5011	4.25/Ea.
5012	6.00/Ea.
5013	6.00/Ea.
5040	.23/Ea.
5041	.23/Ea.
5042	.24/Ea.
5043	.24/Ea.
5044	.24/Ea.
5045	.24/Ea.
5046	.24/Ea.
5047	.23/Ea.
5050	.35/Ea.
5051	.55/Ea.
5052	.60/Ea.
5053	.50/Ea.
5070	.50/Ea.
5071	.50/Ea.
5075	.30/Ea.
5076	.30/Fa.
5080	.50/Ea.
5081	.50/Ea.
5085	.50/Ea.
5086	.50/Ea.
5090	.55/Ea.
5091	.55/Ea.
5095	.36/Ea.
5096	.35/Ea.
5105	.45/Ea.
5106	.60/Ea.
5110	.60/Ea.
5111	.60/Ea.
5130	.20/Ea.
5131	.20/Ea.
5132	.25/Ea.
5133	.25/Ea.
5134	.25/Ea.
5140	.25/Ea.
5141	.40/Ea.
5142	.25/Ea.
5143	.60/Ea.
5160	.23/Ea.
5161	.25/Ea.
5165	.30/Ea.
5166	.30/Ea.
5170	.50/Ea.
5171	.30/Ea.
5180	.55/Ea.
5181	.55/Ea.
5185	.30/Ea.
5190	.17/Ea.
5191	.17/Ea.
5195	.55/Ea.
5200	.55/Ea.
5201	.55/Ea.
5300	1.15/Ea.
5301	1.35/Ea.
5302	1.45/Ea.
5304	1.55/Ea.
5305	2.10/Ea.
5306	2.40/Ea.
5307	2.60/Ea.
5308	1.40/Ea.
5309	1.60/Ea.
5310	1.85/Ea.
5311	2.75/Ea.
5312	3.15/Ea.
5313	3.35/Ea.
5314	1.15/Ea.
5315	1.35/Ea.
5316	1.75/Ea.
5317	2.05/Ea.
5318	3.65/Ea.
5319	4.50/Ea.
5320	1.35/Ea.
5321	1.60/Ea.
5322	2.10/Ea.
5323	2.60/Ea.
5324	4.25/Ea.
5325	5.40/Ea.
5326	1.60/Ea.
5327	1.80/Ea.
5328	1.80/Ea.
5329	1.35/Ea.
5330	2.10/Ea.
5331	4.50/Ea.
5332	1.60/Ea.
5333	2.60/Ea.
5334	5.40/Ea.
5335	1.40/Ea.
5336	1.60/Ea.
5337	.80/Ea.
5338	.90/Ea.
5339	.60/Ea.
5340	.65/Ea.
5341	2.20/Ea.
5342	2.20/Ea.
5343	3.85/Ea.
5344	3.85/Ea.
5345	5.40/Ea.
5346	7.15/Ea.
5347	8.60/Ea.
5360	2.80/Ea.
5361	3.10/Ea.
5362	3.10/Ea.
5363	3.40/Ea.
5364	3.40/Ea.
5365	3.65/Ea.
5366	3.65/Ea.
5367	3.65/Ea.
5370	2.10/Ea.
5371	2.30/Ea.
5372	2.30/Ea.
5373	2.45/Ea.
5374	2.45/Ea.
5375	2.70/Ea.
5376	2.70/Ea.
5377	2.70/Ea.
5380	3.75/Ea.
5381	4.50/Ea.
5382	4.50/Ea.
5383	4.50/Ea.
5384	4.50/Ea.
5385	4.90/Ea.
5386	4.90/Ea.
5387	4.90/Ea.
5390	2.50/Ea.
5391	2.80/Ea.
5391A	2.80/Ea.
5392	2.80/Ea.
5393	2.80/Ea.
5394	3.25/Ea.
5395	3.25/Ea.
5396	3.25/Ea.
5400	6.45/Ea.
5401	7.70/Ea.
5402	7.70/Ea.
5410	8.30/Ea.
5411	7.40/Ea.
5412	11.15/Ea.
5413	10.40/Ea.
5414	9.45/Ea.
5415	10.40/Ea.
5416	9.45/Ea.
5417	12.45/Ea.
5418	12.45/Fa.
5420	8.25/Ea.
5421	7.60/Ea.
5422	10.30/Ea.
5423	9.35/Ea.
5424	10.30/Ea.
5425	9.35/Ea.
5426	11.15/Ea.
5427	10.55/Ea.
5428	11.15/Ea.
5429	10.55/Ea.
5430	12.40/Ea.
5431	11.50/Ea.
5432	12.40/Ea.
5433	11.50/Ea.
5434	12.40/Fa.
5435	11.50/Ea.
5460	15.75/Ea.
5461	15.75/Ea.
5462	15.75/Ea.
5463	15.75/Ea.
5464	15.75/Ea.
5465	15.75/Ea.
5466	15.75/Ea.
5470	21.50/Ea.
5471	21.50/Ea.
5472	21.50/Ea.
5473	21.50/Ea.
5474	21.50/Ea.
5475	21.50/Ea.
5476	21.50/Ea.
5480 K1	10.10/Ea.
5480 K2	11.40/Ea.
5480 K3	11.40/Ea.
5480 K4	10.10/Ea.
5480 K5	10.10/Ea.
5480 K6	11.40/Ea.
5480 K7	10.10/Ea.
5481 K1	12.60/Ea.
5481 K2	14.70/Ea.
5481 K3	14.70/Ea.
5481 K4	12.60/Ea.
5481 K5	12.60/Ea.
5481 K6	14.70/Ea.
5481 K7	12.60/Ea.
6100	.65/Ea.
6102	.70/Ea.
6103	.84/Ea.
6104	.88/Ea.
6105	3.10/Ea.
6110	2.20/Ea.
6111	2.50/Ea.
6112	3.15/Ea.
6113	3.45/Ea.
6114	.35/Ea.
6115	.35/Ea.
6180	2.55/Ea.
6184	2.25/Ea.
6184A	2.25/Ea.
6185A	2.60/Ea.
6185	2.60/Ea.
6186	3.10/Ea.
6190	1.85/Ea.
6191	1.85/Ea.
6192	2.15/Ea.
6193	2.80/Ea.
6194	2.80/Ea.
6195	3.10/Ea.
6200	1.15/Ea.
6201	1.40/Ea.
6202	1.45/Ea.
6202A	1.55/Ea.
6203	1.80/Ea.
6204	2.10/Ea.
6205	2.40/Ea.
6206	2.40/Ea.
6207	2.65/Ea.
6208	.09/Ea.
6208A	.09/Ea.
6210	1.45/Ea.
6211	1.95/Ea.
6212	1.75/Ea.
6213	2.30/Ea.
6214	2.40/Ea.
6215	2.90/Ea.
6216	2.70/Ea.
6217	3.30/Ea.
6220	1.15/Ea.
6221	1.45/Ea.
6221A	1.55/Ea.
6222	2.10/Ea.
6223	2.40/Ea.
6224	1.60/Ea.
6225	2.20/Ea.
6225A	2.20/Ea.
6225B	2.20/Ea.
6225C	2.20/Ea.
6226	3.30/Ea.
6227	8.15/Ea.
6228	12.55/Ea.
6229	16.75/Ea.
6230	2.55/Ea.
6231A	3.10/Ea.
6231	3.10/Ea.
6231B	3.45/Ea.
6232	.40/Ea.
6233	1.28/Ea.
6234	1.39/Ea.
6235	1.78/Ea.
6236	2.39/Ea.
6238	3.30/Ea.
6238B	3.50/Ea.
6238C	3.50/Ea.
6238D	3.30/Ea.
6239	.10/Ea.
6240	2.50/Ea.
6241	2.20/Ea.
6242	3.45/Ea.
6244	1.30/Ea.
6244A	1.30/Ea.
6244B	1.65/Ea.
6244C	1.65/Ea.
6244D	1.70/Ea.
6244E	1.70/Ea.
6245	.25/Ea.
6245S	.40/Ea.
6246	.25/Ea.
6246S	.48/Ea.
6247	.36/Ea.
6248	.36/Ea.
6249	2.45/Ea.
6250	2.05/Ea.
6251	2.34/Ea.
6251C	2.70/Ea.
6251V	2.40/Ea.
6252	2.95/Ea.
6252M	3.55/Ea.
6253	3.20/Ea.
6261	2.80/Ea.
6262	3.15/Ea.
6263	3.45/Ea.
6270	2.10/Ea.
6271	2.45/Ea.
6272	2.50/Ea.
6273	2.80/Ea.
6274	2.80/Ea.
6280	1.55/Ea.
6280A	2.20/Ea.
6281	1.85/Ea.
6281A	2.50/Ea.
6282	2.25/Ea.
6282A	3.15/Ea.
6283	2.60/Ea.
6283A	3.45/Ea.
6284	1.90/Ea.
6300	6.25/M
6301	6.75/M
6302	7.00/M
6303	8.10/M
6304	7.00/M
6305	7.50/M
6306	8.50/Ea.
6307	7.40/M
6307	7.40/M
6308	7.40/M
6309	8.40/M
6310	32.00/M
6311	55.00/M
6312	10.50/M
6313	10.75/M
6314	11.50/M
6315	14.50/M
6316	26.00/M
6317	29.10/M
6318	32.00/M
6318A	38.25/M
6319	38.50/M
6319A	73.00/M
6320	52.00/M
6320A	95.00/M
6320B	120.00/M
6320C	136.00/M
6321	6.25/M
6322	6.75/M
6323	7.25/M
6324	8.00/M
6325	8.65/M
6326	9.30/M
6327	11.00/M
6328	11.50/M
6329	16.50/M
6330	9.00/M
6331	9.00/M
6332	8.60/M
6333	8.80/M
6334	9.70/M
6335	11.50/M
6336	20.00/M
6337	27.50/M
6337A	20.00/M
6338	35.00/M
6339	50.00/M
6350	10.00/M
6350A	10.00/M
6351	10.00/M
6351A	10.00/M
6352	10.00/M
6352A	10.00/M
6353	11.00/M
6353A	11.00/M
6354	13.50/M
6354A	13.50/M
6355	8.25/M
6356	7.70/M
6357	7.70/M
6358	5.50/M
6359	5.50/M
6360	5.75/M
6361	6.00/M
6362	7.75/M
6363	13.00/M
6400	10.00/M
6401	12.00/M
6402	13.25/M
6403	16.00/M
6404	19.50/M
6405	14.00/M
6406	14.00/M
6407	15.00/M
6408	16.50/M
6409	19.00/M
6410	26.40/M
6410A	29.50/M
6411	30.00/M
6412	33.50/M
6413	19.50/M
6414	21.50/M
6415	25.00/M
6416	28.50/M
6417	35.00/M
6418	36.00/M
6420	6.75/M
6421	7.30/M
6422	7.75/M
6423	8.25/M
6424	8.75/M
6425	10.00/M
6426	8.35/M
6427	8.27/M
6428	9.60/M
6429	10.00/M
6430	11.15/M
6431	12.65/M
6432	16.50/M
6433	9.60/M
6434	10.00/M
6435	11.20/M
6436	12.50/M
6437	13.25/M
6438	15.00/M
6439	19.00/M
6440	10.30/M
6441	12.00/M
6442	10.30/M
6443	16.50/M
6444	18.50/M
6445	15.90/M
6446	21.00/M
6447	27.50/M
6448	8.75/M
6449	9.25/M
6450	9.50/M
6460	3.70/Gr
6461	3.96/Gr
6462	4.90/Gr
6463	5.50/Gr
6464	7.65/Gr
6465	8.55/Gr
6466	9.40/Gr
6470	2.30/Gr
6471	2.50/Gr
6471A	2.55/Gr
6472	2.60/Gr
6473	2.70/Gr
6474	3.00/Gr
6475	3.70/Gr
6476	4.00/Gr
6477	3.30/Gr
6478	3.30/Gr
6479	4.80/M
6480	5.50/M
6480A	4.80/M
6481	6.00/M
6482	9.10/M
6483	15.00/M
6484	4.95/M
6485	4.65/M
6486	5.20/M
6487	5.20/M
6488	7.50/M
6490	5.50/M
6491	5.50/M
6492	6.00/M
6493	7.75/M
6494	13.00/M
6494/1	13.00/M
6494/2	13.00/M
6500	2.00/Gr.
6501	2.50/Gr.
6502	2.75/Gr.
6503	3.05/Gr.
6504	3.35/Gr.
6505	3.60/Gr.
6506	3.90/Gr.
6507	4.25/Gr.
6510	2.75/Gr.
6511	2.80/Gr.
6512	3.20/Gr.
6513	3.20/Gr.
6514	3.20/Gr.
6515	3.35/Gr.
6516	3.50/Gr.
6517	3.60/Gr.
6518	3.20/Gr.
6519	3.90/Gr.
6525	1.55/Gr.
6526	1.55/Gr.
6527	1.55/Gr.
6528	1.55/Gr.
6529	1.55/Gr.
6530	1.55/Gr.
6531	1.55/Gr.
6532	1.55/Gr.
6533	1.55/Gr.
6534	3.35/Gr.
6540	3.05/Gr.
6541	2.65/Gr.
6542	3.75/Gr.
6543	3.90/Gr.
6549	35.00/M
6549A	35.00/M
6549B	37.00/M
6549C	40.00/M
6549D	45.00/M
6550	6.30/C
6550	56.50/M

Trade Discount Applies To List Prices Only

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Birnbach PRICE LIST

Cat. No.	Sug. List Price
6551	6.30/C
6551	56.50/M
6551A	6.30/C
6551A	56.50/M
6552	5.75/C
6552	52.00/M
6552A	5.75/C
6552A	52.00/M
6552B	5.75/C
6552B	52.00/M
6553	5.60/M
6553	51.00/M
6554	5.60/C
6554	51.00/M
6555	5.60/C
6555	51.00/M
6556	5.60/C
6556	51.00/M
6557	5.75/C
6557	52.00/M
6558	5.75/C
6558	52.00/M
6559	5.75/C
6559	52.00/M
6560	5.75/C
6560	52.00/M
6561	32.00/C
6561	296.00/M
6562	5.75/C
6562	52.00/M
6563	5.75/C
6563	52.00/M
6564	5.75/C
6564	52.00/M
6565	5.75/C
6566	52.00/M
6666	5.75/C
6566	52.00/M
6567	5.75/C
6567	52.00/M
6568	5.75/C
6568	52.00/M
6569	5.75/C
6569	52.00/M
6560	52.00/M
6570	31.00/C
6570	295.00/M
6571	31.00/C
6571	295.50/M
6572	6.00/C
6572	50.00/M
6572A	6.00/C
6572A	50.00/M
6572B	6.00/C
6573	41.00/C
6573	370.00/M
6573A	41.00/C
6573A	370.00/M
6574	22.50/C
6574	196.50/M
6575	27.50/C
6575	245.00/M
6576	27.50/C
6576	249.00/M
6577	27.75/C
6577	239.50/M
6578	35.00/C
6578	35.00/C
6578	325.00/M
6579	35.00/C
6585	12.50/C
6585	100.00/M
6585M	129.50/M
6586	12.50/C
6586	100.00/M
6587	12.50/C
6587	100.00/M
6588	12.50/C
6588	95.00/M
6589	100.00/M
6589	12.50/C
6590	12.50/C
6590	100.00/M
6592	3.00/C
6592	25.00/M
6593	3.00/C
6593	25.00/M
6594	3.10/C
6594	26.00/M
6595	3.40/C
6595	28.00/M
6596	3.70/C
6596	30.00/M
6597	5.00/C

Cat. No.	Sug. List Price
6597	44.00/M
6600	6.00/M
6601	7.00/M
6602	8.00/M
6603	9.75/M
6604	8.00/M
6605	9.75/M
6606	10.25/M
6607	12.25/M
6608	9.75/M
6609	10.25/M
6610	12.00/M
6611	12.00/M
6611A	14.50/M
6612	11.00/M
6613	11.00/M
6614	12.00/M
6640	6.00/C
6640	54.00/M
6640A	6.00/C
6640A	54.00/M
6640B	6.00/C
6640B	54.00/M
6441	6.25/C
6641	55.50/M
6641A	6.25/C
6641A	55.50/M
6641B	6.25/C
6641B	55.50/M
6643	5.50/C
6643	50.00/M
6643A	5.50/C
6643A	50.00/M
6643B	5.50/C
6643B	50.00/M
6644	5.60/C
6644	51.00/M
6644A	5.60/C
6644A	51.00/M
6644B	5.60/C
6644B	51.00/M
6646	5.60/C
6646	51.00/M
6646A	5.60/C
6646A	51.00/C
6646B	5.60/C
6646B	51.00/M
6648	5.95/C
6648	53.00/M
6648A	5.95/C
6648A	53.00/M
6648B	5.95/C
6648B	53.00/M
6650	5.60/C
6650	51.00/M
6650A	5.60/C
6650A	51.00/M
6650B	5.60/C
6650B	51.00/M
7000-1000'M8	10.60/Ea.
7000-1-100'C8	1.33/Ea.
7001-1000'M	13.30/Ea.
7001-1C	1.59/Ea.
7001-SM	15.15/Ea.
7001-1SC	1.72/Ea.
7002M	14.15/Ea.
7002-1C	1.70/Ea.
7003M	17.30/Ea.
7003-1C	2.00/Ea.
7003SM	19.15/Ea.
7003-1S	2.12/Ea.
7004M	20.00/Ea.
7004-1C	2.30/Ea.
7005M	24.40/Ea.
7005-1C	2.72/Ea.
7005SM	26.25/Ea.
7005-1SC	2.83/Ea.
7006M	190.50/Ea.
7006-1C	50.00/Ea.
7007M	35.80/Ea.
7007-1C	3.85/Ea.
7008M	349.50/M
7008-1C	35.00/Ea.
7009M	54.00/Ea.
7009-1C	5.65/Ea.
7010M	202.75/Ea.
7010-1C	20.90/Ea.
7011M	90.00/Ea.
7011-1C	9.25/Ea.
7012M	133.15/Ea.
7012-1C	13.97/Ea.
7013M	182.25/Ea.
7013-1C	18.80/Ea.

Cat. No.	Sug. List Price
7014-1000'-M	85.00/Ea.
7014-1C	8.60/Ea.
7015M	320.00/Ea.
7015-1C	32.50/Ea.
7016M	55.45/Ea.
7016-1C	5.75/Ea.
7017M	449.00/Ea.
7017-1C	45.00/Ea.
7018M	40.70/Ea.
7018-1C	4.30/Ea.
7020M	32.20/Ea.
7020-1C	3.45/Ea.
7022M	26.50/Ea.
7022-1C	2.90/Ea.
7024M	15.00/Ea.
7024-1C	1.70/Ea.
7024-SM	17.00/Ea.
7024-1SC	2.00/Ea.
7028	3.00/Ea.
7029	5.00/Ea.
7030	45.00/Ea.
7032	.95/Ea.
7033	5.95/Ea.
7034	15.00/C
7036	10.00/C
7037	10.00/C
7038	9.00/C
7043-1	7.50/C
7043-1½	7.75/C
7043-2	8.00/C
7043-3	10.00/C
7049	.85/Ea.
7049A	.85/Ea.
7049B	.85/Ea.
7050	.90/Ea.
7061	1.55/Ea.
7062	3.00/Ea.
7063	14.00/Ea.
7064	25.00/Ea.
7065M	165.00/Ea.
7065-1C	17.50/Ea.
7066M	115.00/Ea.
7066-1C	11.55/Ea.
7067M	85.00/Ea.
7067-1C	8.90/Ea.
7068M	70.00/Ea.
7068-1C	7.90/Ea.
7070M	58.50/Ea.
7070-1C	6.65/Ea.
7072M	50.00/Ea.
7072-1C	6.00/Ea.
7074M	49.50/Ea.
7074-1C	5.50/Ea.
7080	1.68/Ea.
7081	1.68/Ea.
7082	2.10/Ea.
7083	4.75/Ea.
7084	2.10/Ea.
7086	2.10/Ea.
7088	2.10/Ea.
7089	4.00/Ea.
7116M	280.00/Ea.
7116-1C	31.00/Ea.
7118M	225.00/Ea.
7118-1C	25.00/Ea.
7120M	185.00/Ea.
7120-1C	20.50/Ea.
7122M	125.00/Ea.
7122-1C	13.75/Ea.
7124M	110.00/Ea.
7124-1C	12.10/Ea.
7126M	100.00/Ea.
7126-1C	11.00/Ea.
7128M	75.00/Ea.
7128-1C	8.50/Ea.
7130M	74.00/Ea.
7130-1C	8.40/Ea.
7171NM	22.50/Ea.
7172NM	27.90/Ea.
7173NM	35.30/Ea.
7174NM	45.00/Ea.
7175NM	67.90/Ea.
7170M	13.90/Ea.
7170-1C	1.60/Ea.
7170NM	19.80/Ea.
7171M	16.00/Ea.
7171-1C	1.85/Ea.
7172M	20.00/Ea.
7172-1C	2.30/Ea.
7173M	27.75/Ea.
7173C	3.00/Ea.
7174M	33.50/Ea.
7174-1C	3.65/Ea.

Cat. No.	Sug. List Price
7175M	52.75/Ea.
7175-1C	5.55/Ea.
7180M	20.00/Ea.
7180-1C	2.40/Ea.
7181M	24.50/Ea.
7181-1C	2.70/Ea.
7182M	29.50/Ea.
7182-1C	3.20/Ea.
7183M	35.00/Ea.
7183-1C	4.00/Ea.
7184M	42.50/Ea.
7184-1C	4.50/Ea.
7185M	64.00/Ea.
7185-1C	6.90/Ea.
7186M	97.00/Ea.
7187M	125.00/Ea.
7188M	250.00/Ea.
7189M	340.00/Ea.
7190M	15.00/Ea.
7190-1-C	1.75/Ea.
7190NM	20.50/Ea.
7191-M	13.50/Ea.
7191-C	1.45/Ea.
7191NM	19.50/Ea.
7192M	13.50/Ea.
7192-1-C	1.45/Ea.
7192NM	18.25/Ea.
7193-1000'-M	13.00/Ea.
7193-1-C	1.50/Ea.
7193NM	17.35/Ea.
7194-M	13.25/Ea.
7194NM	16.20/Ea.
7194-1-C	1.60/Ea.
7195-M	14.50/Ea.
7195NM	18.00/Ea.
7195-1-C	1.70/Ea.
7196-M	19.00/Ea.
7196NM	20.00/Ea.
7196-C	2.15/Ea.
7197NM	23.25/Ea.
7197-M	25.00/Ea.
7197-1-C	2.75/Ea.
7198-M	32.50/Ea.
7198NM	29.10/Ea.
7198-1-C	3.50/Ea.
7201-M	26.50/Ea.
7201-1-C	3.10/Ea.
7202-M	23.75/Ea.
7202-1-C	2.75/Ea.
7203-M	30.25/Ea.
7203-1-C	3.65/Ea.
7204-M	26.75/Ea.
7204-1-C	3.15/Ea.
7205-M	39.25/Ea.
7205-1-C	4.60/Ea.
7207-M	52.75/Ea.
7207-1-C	6.00/Ea.
7210-M	175.00/Ea.
7210-1-C	20.50/Ea.
7212-M	117.00/Ea.
7212-1-C	12.10/Ea.
7214-M	73.50/Ea.
7214-1-C	8.00/Ea.
7216-M	50.50/Ea.
7216-1-C	6.00/Ea.
7218-M	39.50/Ea.
7218-1-C	4.50/Ea.
7220-M	30.00/Ea.
7220-1-C	3.50/Ea.
7222-M	25.00/Ea.
7222-1-C	2.75/Ea.
7224-M	29.00/Ea.
7224-1-C	3.25/Ea.
7312-M	118.25/Ea.
7312-1-C	12.65/Ea.
7314-M	90.00/Ea.
7314-1-C	9.50/Ea.
7316-M	57.50/Ea.
7316-1-C	6.00/Ea.
7318-M	40.00/Ea.
7318-1-C	4.35/Ea.
7320-M	31.50/Ea.
7320-1-C	3.35/Ea.
7322-M	26.25/Ea.
7322-1-C	2.85/Ea.
7324-N-M	18.20/Ea.
7326-N-M	16.65/Ea.
7326-M	15.25/Ea.
7326-1-C	2.20/Ea.
7328-N-M	17.10/Ea.
7330-N-M	17.65/Ea.
7328-M	14.65/Ea.
7328-1-C	1.90/Ea.

Cat. No.	Sug. List Price
7330-M	14.25/Ea.
7330-1-C	1.75/Ea.
7351-M	36.75/Ea.
7351NBM	30.50/Ea.
7351-1-C	3.75/Ea.
7353-M	40.00/Ea.
7353NBM	33.75/Ea.
7353-1-C	4.15/Ea.
7355-M	46.00/Ea.
7355NBM	42.40/Ea.
7355-1-C	4.85/Ea.
7357-M	65.00/Ea.
7357NBM	46.50/Ea.
7357-1-C	6.88/Ea.
7359-M	85.00/Ea.
7359NBM	67.50/Ea.
7359-1-C	9.40/Ea.
7361-M	112.50/Ea.
7361NBM	90.30/Ea.
7361-1C	11.50/Ea.
7362-M	160.00/Ea.
7362NBM	170.50/Ea.
7362-1-C	17.50/Ea.
7363-M	260.00/Ea.
7363-1-C	28.50/Ea.
7364-M	400.00/Ea.
7365-M	625.00/Ea.
7365/2-M	1000.00/Ea.
7365/0-1000'	1500.00/Ea.
7365/00-1000'	2000.00/Ea.
7371-M	75.00/Ea.
7371-1-100'-C	8.25/Ea.
7372-1000'-M	85.00/Ea.
7372-1-100'C	9.00/Ea.
7373-1000'-M	92.50/Ea.
7373-1-100'-C	9.50/Ea.
7374-1000'-M	138.90/Ea.
7374-1-100'-C	14.50/Ea.
7375-1000'-M	162.50/Ea.
7376-1000'-M	195.00/Ea.
7389-A	252.50/Ea.
7390-D	145.00/Ea.
7390	1525.00/Ea.
7398-1-M	35.00/Ea.
7398-2-M	175.00/Ea.
7398-3-M	59.00/Ea.
7400	625.00/Ea.
7400-D	45.00/Ea.
7402-M	37.50/Ea.
7402-1-C	3.95/Ea.
7412-M	57.00/Ea.
7412-1-C	6.00/Ea.
7418-M	60.50/Ea.
7418-1-C	6.70/Ea.
7428-M	93.50/Ea.
7428-1-C	9.90/Ea.
7448-M	112.50/Ea.
7448-1-C	11.50/Ea.
7449-M	135.00/Ea.
7449-1-C	17.50/Ea.
7458-M	210.00/Ea.
7458-1-C	22.00/Ea.
7524-M	14.50/Ea.
7524-E	7.50/Ea.
7526-M	13.50/Ea.
7526-E	7.00/Ea.
7527-M	13.00/Ea.
7527-E	6.75/Ea.
7528-M	12.50/Ea.
7528-E	6.50/Ea.
7529-M	18.00/Ea.
7529-E	9.50/Ea.
7530-M	12.00/Ea.
7530-E	6.25/Ea.
7532-M	15.00/Ea.
7532-E	7.75/Ea.
7534-M	18.00/Ea.
7534-E	9.50/Ea.
7535-M	60.00/Ea.
7535-E	30.50/Ea.

Cat. No.	Sug. List Price
7536-M	65.00/Ea
7536-E	33.25/Ea
7537-M	62.50/Ea
7537-E	32.00/Ea
7538-M	59.00/Ea
7538-E	30.00/Ea
7542-M	70.00/Ea
7542/3-M	87.50/Ea
7542/4-M	105.00/Ea
7552-M	76.50/Ea
7552/3-M	97.50/Ea
7552/4-M	116.00/Ea
7571-M	15.75/Ea
7571-E	9.00/Ea
7572-M	47.75/Ea
7572-E	25.00/Ea
7573-M	71.00/Ea
7573-E	36.75/Ea
7574-M	90.50/Ea
7574-E	46.50/Ea
7575-M	130.00/Ea
7575-E	72.50/Ea
7580-M	136.00/Ea
7581-M	60.00/Ea
7581-E	31.50/Ea
7582-M	89.00/Ea
7582-E	46.25/Ea
7583-M	110.00/Ea
7583-E	58.25/Ea
7584-M	130.00/Ea
7584-E	68.50/Ea
7585-M	179.00/Ea
7585-E	94.00/Ea
7610-M	550.00/Ea
7610-1-C	60.00/Ea
7612-M	320.00/Ea
7612-1-C	35.00/Ea
7614-M	250.00/Ea
7614-1-C	27.50/Ea
7716-M	195.00/Ea
7616-1-C	22.50/Ea
7618-M	165.00/Ea
7618-1-C	17.50/Ea
7620-M	142.50/Ea
7620-1-C	15.75/Ea
7622-M	125.00/Ea
7622-1-C	13.50/Ea
7652-M	37.00/Ea
7652-E	19.00/Ea
7653-M	65.00/Ea
7653-E	33.00/Ea
7654-M	85.00/Ea
7654-E	43.00/Ea
7668-M	35.00/Ea
7668-500'-E	17.75/E
7669-M	50.00/E
7669-E	25.00/E
7670-M	60.00/E
7670-E	30.00/E
7710-D	
7710-M	
7712-D	
7712-M	
7714-D	
7714-M	
7716-1000'	2250.00/E
7716-250'	625.00/E
7718-1000'	2050.00/E
7718-250'	550.00/E
7720-1000'	1825.00/E
7720-250'	510.00/E
7722-1000'	1725.00/E
7722-250'	475.00/E
7724-1000'	1625.00/E
7724-250'	435.00/E
8000-M	159.00/E
8000-E	80.00/E
8000-C	16.00/E
8000-50'	10.00/E
8000-25'	6.00/E
8000-M	178.00/E
8001-E	93.00/E
8001-C	20.00/E
8001-50'	11.00/E
8001-25'	6.50/E
8002-M	265.00/E
8002-E	136.50/E
8002-C	28.50/E
8002-50'	15.00/E
8002-25'	8.00/E
8003-M	325.00/E
8003-E	165.00/E
8003-C	35.75/E
8003-50'	19.00/E

Birnbach PRICE LIST

Cat. No.	Sug. List Price
8003-25′	10.00/Ea.
8004-M	365.00/Ea.
8004-E	185.00/Ea.
8004-C	40.00/Ea.
8004-50′	22.00/Ea.
8004-25′	13.00/Ea.
8005-M	407.50/Ea.
8005-E	209.00/Ea.
8005-C	48.00/Ea.
8005-50′	27.20/Ea.
8005-25′	15.50/Ea.
8006-M	475.00/Ea.
8006-E	242.00/Ea.
8006-C	57.00/Ea.
8006-50′	32.00/Ea.
8006-25′	18.00/Ea.
8007-M	625.00/Ea.
8007-E	317.50/Ea.
8007-C	66.00/Ea.
8007-50′	36.75/Ea.
8007-25′	20.50/Ea.
8008-M	1045.10/Ea.
8008-E	527.50/Ea.
8008-C	106.00/Ea.
8008-50′	61.50/Ea.
8008-25′	32.50/Ea.
8009-M	1240.00/Ea.
8009-E	625.00/Ea.
8009-C	125.00/Ea.
8009-50′	74.00/Ea.
8009-25′	40.00/Ea.
8010-1000′-M	1490.00/Ea.
8010-E	750.00/Ea.
8010-C	150.00/Ea.
8010-50′	88.50/Ea.
8010-25′	46.50/Ea.
8011-M	1800.00/Ea.
8011-E	907.50/Ea.
8011-C	181.50/Ea.
8011-50′	106.50/Ea.
8011-25′	56.00/Ea.
8012-M	2250.00/Ea.
8012-E	1130.00/Ea.
8012-C	226.00/Ea.
8012-50′	124.25/Ea.
8012-25′	65.00/Ea.
8013-M	155.50/Ea.
8013-E	80.55/Ea.
8013-C	17.00/Ea.
8014-M	155.50/Ea.
8014-E	80.55/Ea.
8014-C	17.00/Ea.
8015-M	163.90/Ea.
8015-E	85.00/Ea.
8015-C	18.00/Ea.
8016-M	167.50/Ea.
8016-E	87.50/Ea.
8016-C	18.50/Ea.
8020-M	3000.00/Ea.
8020-E	1500.00/Ea.
8020-C	310.00/Ea.
8020-50′	165.00/Ea.
8021-M	3500.00/Ea.
8021-E	1750.00/Ea.
8021-C	360.00/Ea.
8021-50′	190.00/Ea.
8022-M	4750.00/Ea.
8022-E	2375.00/Ea.
8022-C	485.00/Ea.
8022-50′	252.50/Ea.
8022-25′	127.50/Ea.
8023-M	5500.00/Ea.
8023-E	2750.00/Ea.
8023-C	560.00/Ea.
8023-50′	290.00/Ea.
8023-25′	146.50/Ea.
8024-M	6800.00/Ea.
8024-E	3400.00/Ea.
8024-C	690.00/Ea.
8024-50′	355.00/Ea.
8024-25′	178.50/Ea.

Cat. No.	Sug. List Price
8025-M	8100.00/Ea.
8025-E	4050.00/Ea.
8025-C	820.00/Ea.
8025-50′	420.00/Ea.
8025-25′	211.50/Ea.
8026-M	8675.00/Ea.
8026-E	4337.50/Ea.
8026-C	877.50/Ea.
8026-50′	448.75/Ea.
8026-25′	225.50/Ea.
8027-M	11250.00/Ea.
8027-E	5625.00/Ea.
8027-C	1135.00/Ea.
8027-50′	577.75/Ea.
8027-25′	290.00/Ea.
8028-M	11650.00/Ea.
8028-E	5825.00/Ea.
8028-C	1175.00/Ea.
8028-50′	597.50/Ea.
8028-25′	300.00/Ea.
8029-M	12900.00/Ea.
8029-500′-E	6450.00/Ea.
8029-100′-C	1300.00/Ea.
8029-50′	660.00/Ea.
8029-25′	331.50/Ea.
8512-M	
8512-1-C	
8514-M	425.00/Ea.
8514-1-C	51.00/Ea.
8516-M	348.50/Ea.
8516-1-C	41.75/Ea.
8518-M	266.00/Ea.
8518-1-C	31.90/Ea.
8520-M	221.00/Ea.
8520-1-C	26.50/Ea.
8522-M	172.50/Ea.
8522-1-C	20.60/Ea.
8524-M	148.25/Ea.
8524-1-C	17.75/Ea.
8526-M	133.25/Ea.
8526-1-C	16.00/Ea.
8528-M	130.00/Ea.
8528-1-C	15.50/Ea.
8530-M	125.00/Ea.
8530-1-C	15.00/Ea.
8532-M	127.00/Ea.
8532-1-100′-C	15.25/Ea.
8534-M	600.00/Ea.
8534-1-C	65.00/Ea.
8536-M	500.00/Ea.
8536-1-C	55.00/Ea.
8538-M	375.00/Ea.
8538-1-C	40.00/Ea.
8540-M	320.00/Ea.
8540-1-C	35.00/Ea.
8542-M	260.00/Ea.
8542-1-C	28.50/Ea.
8544-M	225.00/Ea.
8544-1-C	24.00/Ea.
8546-M	175.00/Ea.
8546-1-C	20.50/Ea.
8548-M	155.00/Ea.
8548-1-C	18.00/Ea.
8550-M	145.00/Ea.
8550-1-C	17.50/Ea.
8552-M	145.00/Ea.
8552-1-C	17.50/Ea.
8704-M	272.50/Ea.
8704/2-M	575.00/Ea.
8704/3-M	825.00/Ea.
8704/4-M	1070.00/Ea.
8704/5-M	1390.00/Ea.
8705/1-M	330.00/Ea.
8705/2-M	600.00/Ea.
8705/3-M	905.00/Ea.
8705/4-M	1180.00/Ea.
8705/5-M	1490.00/Ea.
8706-M	439.50/Ea.
8706/2-M	712.50/Ea.

Cat. No.	Sug. List Price
8706/3-M	1095.00/Ea.
8706/4-M	1260.00/Ea.
8706/5-M	1550.00/Ea.
8707-M	300.00/Ea.
8707/2-M	630.00/Ea.
8707/3-M	877.50/Ea.
8707/4-M	1208.00/Ea.
8707/5-M	1527.50/Ea.
8708-M	355.00/Ea.
8708/2-M	660.00/Ea.
8708/3-M	985.00/Ea.
8708/4-M	1320.00/Ea.
8708/5-M	1655.00/Ea.
8709-M	465.00/Ea.
8709/2-M	798.00/Ea.
8709/3-M	1205.00/Ea.
8709/4-M	1510.00/Ea.
8709/5-M	1815.00/Ea.
8710-M	365.00/Ea.
8710/2-M	767.50/Ea.
8710/3-M	1090.00/Ea.
8710/4-M	1425.00/Ea.
8710/5-M	1785.00/Ea.
8711-M	438.00/Ea.
8711/2-M	820.00/Ea.
8711/3-M	1210.00/Ea.
8711/4-M	1520.00/Ea.
8711/5-M	1865.00/Ea.
8712-M	550.00/Ea.
8712/2-M	905.00/Ea.
8712/3-M	1400.00/Ea.
8712/4-M	1757.50/Ea.
8712/5-M	2120.00/Ea.
8713-M	
8713/2-M	
8713/3-M	
8713/4-M	
8713/5-M	

MAGNET & TINNED WIRE SPECIAL SPOOLS

HF HEAVY FORMVAR MAGNET WIRE

Size	Ft.	List Price Each
¼ Lb. Spools		
10	8	$ .88
12	12	.89
14	20	.90
16	31	.91
18	49	.95
20	78	.98
22	125	1.00
24	200	1.05
26	300	1.10
28	500	1.20
30	800	1.25
32	1225	1.50
34	1988	1.70
36	3200	1.95
38	5050	2.35
40	7975	3.05
42	12375	4.00
44	14500	6.95
½ Lb. Spools		
10	16	$1.45
12	25	1.46
14	39	1.47
16	62	1.50
18	99	1.68
20	156	1.78
22	250	1.80
24	399	1.90
26	600	2.10
28	1000	2.30
30	1600	2.40
32	2450	2.90
34	3975	3.25
36	6400	3.80
38	10100	4.40
40	15850	5.80
42	24750	7.70
44	29000	13.25
1 Lb. Spools		
10	32	$2.68
12	50	2.69
14	78	2.70
16	124	2.75
18	198	3.00
20	313	3.15
22	501	3.40
24	798	3.60
26	1200	3.90
28	1999	4.25
30	3200	4.50
32	4900	5.50
34	7950	6.25
36	13800	7.25
38	20200	8.50
40	31700	11.25
42	49500	14.50
44	29000	25.50

PE PLAIN ENAMEL MAGNET WIRE

Size	Ft.	List Price Each
¼ Lb. Spools		
10	8	$ .68
12	12	.69
14	20	.70
16	32	.71
18	50	.72
20	80	.73
22	127	.79
24	201	.79
26	320	.82
28	507	.87
30	805	.89
32	1282	.94
34	2037	1.00
36	3221	1.10
38	5132	1.30
40	8143	1.70
42	12803	4.00
44	20455	5.65
½ Lb. Spools		
10	16	$1.25
12	25	1.26
14	40	1.27
16	63	1.28
18	100	1.28
20	160	1.30
22	254	1.35
24	403	1.40
26	640	1.45
28	1015	1.55
30	1610	1.60
32	2564	1.70
34	4075	1.85
36	6443	2.05
38	10246	2.60
40	16286	3.40
42	25605	7.65
44	40910	10.90
1 Lb. Spools		
10	32	$2.34
12	50	2.35
14	80	2.36
16	126	2.36
18	201	2.38
20	320	2.50
22	508	2.65
24	806	2.70
26	1280	2.85
28	2030	3.00
30	3220	3.10
32	5128	3.30
34	8150	3.60
36	12887	4.10
38	20492	4.95
40	32573	6.75
42	51211	15.00
44	81819	22.50

DNC DOUBLE NYLON MAGNET WIRE

Size	Ft.	List Price Each
SOLID TINNED WIRE		
¼ Lb. Spools		
10	8	$ .68
12	12	.69
14	20	.71
16	32	.71
18	50	.72
20	80	.73
22	127	.79
24	201	.79
26	320	.82
28	507	.87
30	805	.89
32	1282	.94
34	2037	1.00
36	3221	1.10
38	5132	1.30
40	8143	1.70
42	12803	4.00
44	20455	5.65
½ Lb. Spools		
10	16	$1.25
12	25	1.26
14	40	1.27
16	63	1.28
18	100	1.28
20	160	1.30
22	254	1.35
24	403	1.40
26	640	1.45
28	1015	1.55
30	1610	1.60
32	2564	1.70
34	4075	1.85
36	6443	2.05
38	10246	2.60
40	16286	3.40
42	25605	7.65
44	40910	10.90
1 Lb. Spools		
10	32	$2.34
12	50	2.35
14	80	2.36
16	80	2.36
18	201	2.38
20	320	2.50
22	508	2.65
24	806	2.70
26	1280	2.85
28	2030	3.00
30	3220	3.10
32	5128	3.30
34	8150	3.60
36	12887	4.10
38	20492	4.95
40	32573	6.75
42	51211	15.00
44	81819	22.50

DCC DOUBLE COTTON MAGNET WIRE

Size	Ft.	List Price Each
¼ Lb. Spools		
10	8	$1.01
12	12	1.01
14	19	1.03
16	31	1.09
18	48	1.18
20	78	1.34
22	110	1.50
24	134	1.66
26	284	1.86
28	435	2.16
30	641	2.64
32	976	3.18
34	1365	4.68
36	1827	5.46
38	2738	9.60
40	3405	13.80
½ Lb. Spools		
10	16	$1.60
12	24	1.60
14	39	1.62
16	62	1.70
18	97	1.90
20	157	2.30
22	220	2.64
24	235	2.82
26	568	3.30
28	871	4.20
30	1284	5.04
32	1953	6.00
34	2735	8.70
36	3654	10.46
38	5476	15.71
40	6811	23.52
1 Lb. Spools		
10	31	$2.80
12	49	2.80
14	78	3.00
16	123	3.25
18	194	3.60
20	304	4.28
22	477	4.98
24	538	5.52
26	1136	6.30
28	1742	7.80
30	2569	9.30
32	3906	11.40
34	5470	16.20
36	7309	19.65
38	10952	29.40
40	13623	43.68

CONDUCTOR COLOR CODE CHART FOR PAIRED INTERCOMMUNICATING CABLES ON PAGE 1544

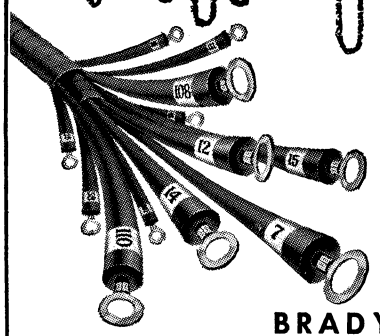
Pair No.	Color
1	Black with Red
2	Black with White
3	Black with Green
4	Black with Blue
5	Black with Brown
6	Black with Yellow
7	Black with Orange
8	Red with Green
9	Red with White
10	Red with Blue
11	Red with Yellow
12	Red with Brown
13	Red with Orange
14	Green with Blue
15	Green with White
16	Green with Brown
17	Green with Orange
18	Green with Yellow
19	White with Blue
20	White with Brown
21	White with Orange
22	White with Yellow
23	Blue with Brown
24	Blue with Orange
25	Blue with Yellow
26	Brown with Orange
27	Brown with Yellow
28	Purple with Red
29	Purple with White
30	Purple with Green
31	Purple with Blue
32	Purple with Brown
33	Purple with Yellow
34	Purple with Orange
35	Purple with Slate
36	Purple with Black
37	Slate with Red
38	Slate with White
39	Slate with Green
40	Slate with Blue
41	Slate with Brown
42	Slate with Yellow
43	Slate with Orange
44	Slate with Black
45	White/Black with Red
46	White/Black with Green
47	White/Black with Blue
48	White/Black with Brown
49	White/Black with Yellow
50	White/Black with Orange
51	White/Black with Purple

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

BRADY Self-Sticking WIRE MARKERS

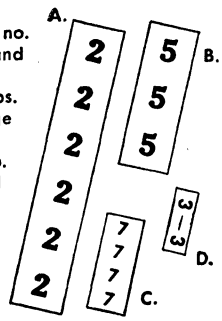
• COMMUNICATION • INSTALLATION • REPAIR



Quick, permanent "around-the-wire" identification in a wide variety of materials that resist heat, moisture, chemicals . . . in vinyl-cloth, all-vinyl, aluminum foil, acetate cloth or glass cloth. Markers stick tight to all wires—tell which wire goes where. Ask your jobber for Bulletin 130 listing over 2000 stock markers. Specials made to order.

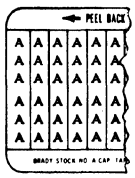
FOUR SIZES:

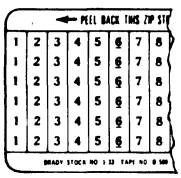
A. 1½" long for no. 10 gauge wires and larger.
B. ¾" long for nos. 12, 14 and 16 gauge wires.
C. ½" long for no. 18 gauge wires and smaller.
D. 5/16" long — only 5/16" x 5/64" — for flagging sub-miniature components.



BRADY PERMA-CODE WIRE MARKERS

SOLID NUMBERS


SOLID CAP LETTERS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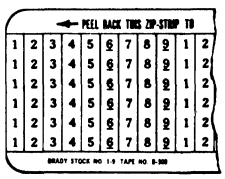
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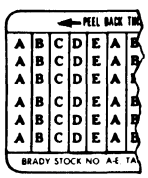
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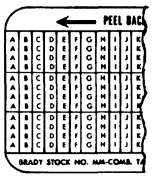

MINIATURE MARKERS

MICRO-MARKERS

VINYL-CLOTH MARKERS (#B-500)

Stock No.	Legend	Markers Per Card ¾"	Markers Per Card 1½"
Solid Numbers			
0	0	72	36
1	1	72	36
2	2	72	36
3	3	72	36
and so on thru			
97	97	72	36
98	98	72	36
99	99	72	36
100	100	50	25
101	101	50	25
102	102	50	25
103	103	50	25
and so on thru			
598	598	50	25
599	599	50	25
600	600	50	25
Solid Capital Letters			
A-CAP	A	72	36
B-CAP	B	72	36
C-CAP	C	72	36
and so on thru			
Z-CAP	Z	72	36
Consecutive Numbers			
1-33	1–33	66	33
34-66	34–66	66	33
67-99	67–99	66	33
and so on thru			
225-249	225–249	50	25
250-274	250–274	50	25
275-299	275–299	50	25
300-324	300–324	50	25
and so on thru			
1975-1999	1975–1999	50	25

VINYL-CLOTH MARKERS (CON'T.)

Stock No.	Legend	Markers Per Card ¾"	Markers Per Card 1½"
Consecutive Numbers Repeated			
1-3	1–3	72	36
1-4	1–4	72	36
1-5	1–5	70	35
1-6	1–6	72	36
1-8	1–8	64	32
1-9	1–9	64	32
0-9	0–9	54	27
1-10	1–10	60	30
0-10	0–10	60	30
1-12	1–12	72	36
1-16	1–16	64	32
1-18	1–18	72	36
19-36	19–36	72	36
Consecutive Letters Repeated			
A-E	A thru E	70	35
F-J	F thru J	70	35
K-O	K thru O	70	35
P-T	P thru T	70	35
U-Z	U thru Z	72	36

MINIATURE MARKERS (#B-395)

Stock No.	Legend	½" long
Solid Numbers		
MM-0	0	150
MM-1	1	150
MM-2	2	150
and so on thru		
MM-99	99	150
MM-100	100	99
MM-101	101	99
and so on thru		
MM-498	498	99
MM-499	499	99
MM-500	500	99

MINIATURE MARKERS (CON'T.)

Stock No.	Legend	½"
Solid Capital Letters		
MM-A-CAP	A	150
MM-B-CAP	B	150
MM-C-CAP	C	150
and so on thru		
MM-Z-CAP	Z	150
Consecutive Numbers		
MM-0-49	0 thru 49	150
MM-50-99	50 thru 99	150
MM-100-132	100 thru 132	99
MM-133-165	133 thru 165	99
MM-166-198	166 thru 198	99
MM-199-231	199 thru 231	99
MM-232-264	232 thru 264	99
MM-265-297	265 thru 297	99
MM-298-330	298 thru 330	99
MM-331-363	331 thru 363	99
MM-364-396	364 thru 396	99
MM-397-429	397 thru 429	99
MM-430-462	430 thru 462	99
MM-463-495	463 thru 495	99

Combination Card—Stock No. MM-Comb.

Includes Numbers 0-15; Letters A-Z; and Symbols below, all on one card:

FIL GRD B+ PRI SEC PLA

You get 3 complete sets on each card.

VINYL MICRO-MARKERS (#B-330)

Stock No.	Legend	5/16" long
Solid Numbers		
MXM-0	0	250
MXM-1	1	250
MXM-2	2	250
MXM-3	3	250
and so on thru		
MXM-24	24	250
MXM-25	25	250
Consecutive Numbers		
MXM-0-49	0, 1, 2, 3, thru 49	250
MXM-50-99	50, 51, 52 thru 99	250
Consecutive Numbers Repeated		
MXM-1-5	1 thru 5	250
MXM-1-10	1 thru 10	250
MXM-11-20	11 thru 20	250
MXM-1-25	1 thru 25	250

NET PRICES

QUANTITY	VINYL-CLOTH #B-500 STOCK CARDS NET PRICE	MINIATURE #B-395 STOCK CARDS NET PRICE	VINYL MICRO-MARKERS (#B-330) STOCK CARDS NET PRICE
25 to 99 Cards	$20.00/C	$27.00/C	$50.00/C
100 to 499 Cards	16.00/C	21.60/C	40.00/C
500 to 999 Cards	14.00/C	18.90/C	35.00/C
1000 to 2499 Cards	13.00/C	17.55/C	32.50/C
2500 to 4999 Cards	12.50/C	16.88/C	31.25/C
5000 to 9999 Cards	12.00/C	16.20/C	30.50/C
Over 10000 Cards	Write for Quotation	Write for Quotation	Write for Quotation
	Specify 1½" or ¾" marker length.	*Markers are ½" long.*	*Markers are 5/16" long.*

W. H. BRADY CO. Manufacturers of Quality Pressure-Sensitive Tape Products. Est. 1914

70B

Columbia

PERMALINE TV TRANSMISSION LINES

COLUMBIA is first to offer a television transmission line with an insulation so good that it can be GUARANTEED IN WRITING to give a service life far beyond the normal life of brown Polyethylene television lines. PERMALINE is a high molecular weight Polyethylene containing carbon black for maximum resistance to sunlight, which has been proven the chief factor in deterioration of ordinary television lines. The insulation value of 50 Mils of PERMALINE is equal to over 150 Mils of conventional brown Polyethylene.

Electrical characteristics of PERMALINE are very similar to Brown Polyethylene television lines but as there is no deterioration. Attenuation remains constant instead of increasing as is the case with brown Polyethylene, which becomes brittle and cracks. This is truly the first new development in television transmission lines in ten years.

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT NO.	
5050M	1,000 Ft. Metal Spool
5050D	500 Ft. Metal Spool
5050C	100 Ft. Coil } 12 coils come packed in FREE counter
5050S	65 Ft. Coil } display

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

5150M	1,000 Ft. Metal Spool
5150D	500 Ft. Metal Spool
5150C	100 Ft. Coil } 12 coils come packed in FREE counter
5150S	65 Ft. Coil } display

Highly resistant to:

• SUNLIGHT • MOISTURE • FAR BELOW ZERO TEMP. • CHEMICAL FUMES • OIL REFINERY FUMES • SALT AIR & SALT SPRAY • ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMALINE VHF-UHF TV TRANSMISSION LINE

Since the introduction of this cable in May, 1956 it has been proven beyond any doubt that this cable has no equal for reliability over the entire range of VHF and UHF channels under the most adverse conditions, such as salt spray, sunlight, extremes of heat and cold, stress cracking, chemical fumes, whipping in high winds, etc. In many areas throughout the country where other cables have failed due to salt deposits on transmission lines, this cable has given satisfactory reception at all times. Foam polyethylene tubes provide excellent low loss dielectric and require no sealing. 22 gauge solid copperweld conductors mean high tensile strength so necessary where whipping of cable is a problem. Heavy duty jacket of high molecular weight BLACK PERMALINE POLYETHYLENE is a protection against all hazards. We believe this is the finest all-purpose television transmission line available today. Impedance is 270 ohms, nominal attenuation is 3.2 D/B at 500 M/C and 4.6 D/B at 900 M/C. Cable size is approximately .295 x .402.

15 Year Written Guarantee Certificate

CAT. NO.	
5684C	100 Ft. Carton
5684D	500 Ft. Spool
5684M	1000 Ft. Spool

PERMAFOAM LOW LOSS COAXIAL CABLES

PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE

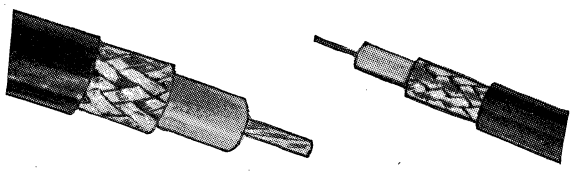
R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft. 1000 Ft.	5035D 5035M
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft. 1000 Ft.	5025D 5025M
RG 34 D/U	72	.780 DB.	10 Solid	.675	1000 Ft.	5088
RG 35 D/U	72	.675 DB.	8 Solid	.870	1000 Ft.	5094

PERMAFOAM 52-53 OHM COAXIAL CABLE

R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft. 500 Ft. 1000 Ft.	5045C 5045D 5045M
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft. 500 Ft. 1000 Ft.	5015C 5015D 5015M
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft. 500 Ft. 1000 Ft.	5090C 5090D 5090M

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.



R.G. No.	Nom. Imp.	Nom. Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl .240 O.D.	100 Ft. 500 Ft. 1000 Ft.	1104C 1104D 1104M
RG 8 U	52.0	29.5	7/21	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1154C 1154D 1154M
RG 11 U	75.0	20.5	7/26	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1160C 1160D 1160M
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl .195 O.D.	100 Ft. 500 Ft. 1000 Ft.	1166C 1166D 1166M
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl .159 O.D.	100 Ft. 500 Ft. 1000 Ft.	1178C 1178D 1178M

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

© U.C.P., Inc.

Columbia

FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

			250 Ft. Spool	500 Ft. Spool
Crystal Size	(.190" O.D.)	16 MMF Per Ft.	No. 1399T	1399D
Lapel Size	(.140" O.D.)	19 MMF Per Ft.	No. 1379T	1379D

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size	(.190" O.D.)	16 MMF Per Ft.	No. 1389T	1389D
Lapel Size	(.140" O.D.)	19 MMF Per Ft.	No. 1369T	1369D
Miniature	(.085" O.D.)	35 MMF Per Ft.	No. 1359T	1359D

TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D.

250 Ft. Spool	22 Ga.	16/34 Stranding	1322T
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D

Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.

CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

CAT. NO.		
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.

HEAVY DUTY MICROPHONE CABLE

Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

		CAT. NO.
100 Ft. Spool	Color—Black	3302C
500 Ft. Spool	Color—Black	3302D

Nominal Capacitance 75 MMF. Per Ft.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White

.180" x .090"
2 COND. 21 GA. STR. 10/31

No. 1360C	100 Ft. Spool
No. 1360D	500 Ft. Spool
No. 1360M	1000 Ft. Spool

COLUMBIA SUPER-FLEX

ULTRA FLEXIBLE FOAM COAXIAL CABLE

All Super-Flex Coaxial Cables have extra flexible stranded center conductors and *Flexlife* extra flexible non contaminating jackets—the same jacket as used on Columbia *Flexfoam* microphone cable. The dielectric is foam polyethylene, the same as is used on Columbia *Permafoam* Coaxial Cable. The foam polyethylene in addition to increasing the flexibility of the cable, also reduces the attenuation approximately 25%.

SUPER-FLEX RG 58 A/U

Extra flexibility is obtained by the 19/.0068 tinned copper conductor which combined with our *Flexlife* non contaminating jacket provides a remarkably limp cable. Inner dielectric is foam polyethylene for lower losses.

Impedance 50 OHMS .195 O.D.

No. 1188C—100' Spool No. 1188D—500' Spool
No. 1188M—1000' Spool

SUPER-FLEX RG 8/U

An outstanding development is our new Super-Flex RG 8/U cable with much greater flexibility than any other BG 8/U heretofore available. *Flexlife* insulation in addition to being non-contaminating will not become rigid in extreme cold as is the case with ordinary Vinyls. Center conductor is 19/24 copper. Inner dielectric is low loss foam polyethylene. For use with standard RG 8/U connectors. .52 OHM impedance .405 O.D.

No. 1198C—100' Spool No. 1198D—500' Spool
No. 1198M—1000' Spool

SUPER-FLEX RG 58 A/U and RG 8/U are ideal for use with citizens band equipment or any other 52 ohm application where super flexibility is desired.

SUPER-FLEX RG 59/U

Center conductor is 7 strands of 31 gauge soft copper. Regular RG 59/U has a solid copperweld conductor. Jacket is silver gray non-contaminating *Flexlife*. Dielectric is low loss foam polyethylene.

No. 1135C—100' Spool No. 1135D—500' Spool
No. 1135M—1000' Spool

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

See Following Pages for Specifications — CHICAGO, ILLINOIS

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each
637	100′	1.25
637	500′	5.60
637	1000′	10.00
642	100′	1.50
642	500′	6.35
642	1000′	11.00
647	100′	1.85
647	500′	8.50
647	1000′	15.75
667	100′	1.35
667	500′	6.35
667	1000′	12.00
672	100′	1.65
672	500′	7.80
672	1000′	13.75
677	100′	2.10
677	500′	9.35
677	1000′	16.75
707	100′	.70
707	500′	3.00
707	1000′	4.65
717	100′	.90
717	500′	4.15
717	1000′	7.65
727	100′	1.20
727	500′	5.70
727	1000′	10.25
737	100′	.80
737	500′	3.90
737	1000′	7.15
747	100′	1.05
747	500′	4.95
747	1000′	9.30
757	100′	1.45
757	500′	6.90
757	1000′	13.00
801	25′	.30
801	100′	.90
801	500′	4.15
801	1000′	7.85
811	25′	.35
811	100′	1.05
811	500′	4.85
811	1000′	9.00
821	25′	.35
821	100′	1.05
821	500′	4.85
821	1000′	9.00
831	25′	.43
831	100′	1.20
831	500′	6.00
831	1000′	11.75
841	25′	.46
841	100′	1.65
841	500′	7.50
841	1000′	14.00
846	25′	.51
846	100′	1.70
846	500′	7.85
846	1000′	15.00
851	25′	.42
851	100′	1.50
851	500′	6.60
851	1000′	12.35
856	25′	.50
856	100′	1.85
856	500′	7.65
856	1000′	14.50
861	25′	.60
861	100′	2.15
861	500′	9.90
861	1000′	19.00
866	25′	.55
866	100′	1.90
866	500′	7.65
866	1000′	14.50
871	25′	.61
871	100′	2.20
871	500′	8.70
871	1000′	16.85
876	25′	.70
876	100′	2.55
876	500′	10.55
876	1000′	20.50
881	100′	3.20
881	500′	15.00
881	1000′	29.75
901	25′	.33
901	100′	1.20
901	500′	5.65
901	1000′	10.55
911	25′	.38
911	100′	1.42
911	500′	6.60
911	1000′	12.50
921	25′	.38
921	100′	1.42
921	500′	7.00
921	1000′	13.85
931	25′	.51
931	100′	1.60
931	500′	7.85
931	1000′	15.45
1001	10′	.35
1001	100′	1.88
1001	250′	4.50
1001	500′	8.50
1001	1000′	16.50
1006	10′	.50
1006	100′	3.30
1006	250′	7.85
1006	500′	15.35
1006	1000′	30.35
1386	50′	1.35
1386	100′	2.63
1386	250′	5.40
1386	500′	10.50
1386	1000′	20.25
1387	50′	1.42
1387	100′	2.70
1387	250′	6.78
1387	500′	12.38
1387	1000′	24.00
1388	50′	1.50
1388	100′	2.85
1388	250′	6.75
1388	500′	13.13
1388	1000′	25.50
1389	50′	1.57
1389	100′	2.92
1389	250′	7.12
1389	500′	13.87
1389	1000′	27.37
1390	50′	1.62
1390	100′	3.07
1390	250′	7.27
1390	500′	14.25
1390	1000′	27.10
1391	50′	1.87
1391	100′	3.52
1391	250′	9.00
1391	500′	17.62
1391	1000′	34.50
1392	50′	2.48
1392	100′	4.80
1392	250′	12.00
1392	500′	23.60
1392	1000′	46.85
1393	50′	3.22
1393	100′	6.35
1393	250′	14.50
1393	500′	28.50
1393	1000′	56.25
1394	50′	4.85
1394	100′	9.35
1394	250′	24.00
1394	500′	47.25
1394	1000′	93.00
1395	50′	5.55
1395	100′	10.80
1395	250′	27.00
1395	500′	53.60
1395	1000′	106.50
1396	50′	12.35
1396	100′	24.30
1396	250′	60.00
1396	500′	119.25
1396	1000′	237.00
1397	50′	7.95
1397	100′	15.75
1397	250′	39.00
1397	500′	77.25
1397	1000′	153.75
1398	50′	12.25
1398	100′	26.25
1398	250′	65.25
1398	500′	127.50
1398	1000′	247.50
1399	50′	14.60
1399	100′	28.85
1399	250′	71.60
1399	500′	142.50
1399	1000′	281.25
1453	100′	15.00
1453	500′	126.00M′
1453	1000′	120.00M′
1454	100′	31.50
1454	500′	307.50M′
1454	1000′	300.00M′
1455	15′	2.70
1455	50′	8.25
1455	100′	16.50
1455	250′	40.50
1455	500′	162.00M′
1455	1000′	162.00M′
1456	15′	1.50
1456	25′	2.55
1456	50′	4.88
1456	100′	9.45
1456	250′	93.00M′
1456	500′	90.00M′
1456	1000′	90.00M′
1457	9′	.50
1457	10′	.60
1457	25′	1.08
1457	50′	2.10
1457	100′	3.82M′
1457	250′	36.50M′
1457	500′	35.25M′
1457	1000′	35.25M
1458	8′	.60
1458	15′	.98
1458	25′	1.50
1458	50′	2.85
1458	100′	5.15
1458	250′	51.75M′
1458	500′	50.25M′
1458	1000′	50.25M′
1459	25′	1.35
1459	50′	2.55
1459	100′	4.95
1459	250′	47.50M′
1459	500′	46.00M′
1459	1000′	46.00M′
1460	15′	1.20
1460	25′	1.88
1460	50′	3.52
1460	100′	6.60
1460	250′	63.75M′
1460	500′	61.75M′
1460	1000′	61.75M′
1461	10′	.43
1461	15′	.57
1461	25′	.90
1461	50′	1.50
1461	100′	2.85
1461	250′	27.75M′
1461	500′	25.50M′
1461	1000′	25.50M′
1462	15′	1.28
1462	25′	2.10
1462	50′	3.90
1462	100′	7.50
1462	250′	75.00M′
1462	500′	68.25M′
1462	1000′	68.25M′
1463	15′	1.50
1463	25′	2.40
1463	50′	3.65
1463	100′	8.70
1463	250′	21.00
1463	500′	84.00M′
1463	1000′	84.00M′
1464	15′	1.72
1464	25′	2.85
1464	50′	5.25
1464	100′	10.00
1464	250′	24.25
1464	500′	97.50M′
1464	1000′	97.50M′
1465	15′	2.03
1465	25′	3.38
1465	50′	6.30
1465	100′	12.30
1465	250′	30.00
1465	500′	120.00M′
1465	1000′	120.00M′
1466	15′	2.55
1466	25′	4.13
1466	50′	7.72
1466	100′	15.50
1466	250′	37.50
1466	500′	150.00M′
1466	1000′	150.00M′
1467	15′	2.78
1467	25′	4.58
1467	50′	8.48
1467	100′	16.50
1467	250′	40.00
1467	500′	160.50M′
1467	1000′	160.50M′
1471	100′	4.13
1471	250′	9.00
1471	500′	35.25
1471	1000′	33.75
1472	100′	4.13
1472	250′	9.75
1472	500′	37.50
1472	1000′	37.50
1473	100′	7.88
1473	250′	18.75
1473	500′	72.75
1473	1000′	70.75
1474	100′	9.75
1474	250′	23.63
1474	500′	89.25
1474	1000′	87.75
1475	100′	11.17
1475	250′	9.27
1475	500′	106.50
1475	1000′	105.00
1476	100′	15.75
1476	250′	37.50
1476	500′	144.00
1476	1000′	142.50
1477	100′	18.75
1477	250′	45.00
1477	500′	168.75
1477	1000′	168.75
1481	100′	3.00
1481	250′	27.00
1481	500′	25.50
1481	1000′	25.50
1482	100′	3.22
1482	250′	30.00
1482	500′	28.50
1482	1000′	28.50
1483	100′	4.50
1483	250′	42.00
1483	500′	40.50
1483	1000′	40.50
1484	100′	5.48
1484	250′	52.88
1484	500′	51.38
1484	1000′	51.38
1485	100′	6.75
1485	250′	65.63
1485	500′	64.78
1485	1000′	64.78
1486	100′	8.25
1486	250′	80.10
1486	500′	78.60
1486	1000′	78.60
1487	100′	9.98
1487	250′	96.75
1487	500′	95.25
1487	1000′	95.25
1488	100′	11.55
1488	250′	110.25
1488	500′	105.75
1488	1000′	105.75
1489	100′	12.91
1489	250′	125.55
1489	500′	124.05
1489	1000′	124.05
1490	100′	14.78
1490	250′	144.00
1490	500′	142.50
1490	1000′	142.50
1494	100′	16.88
1494	250′	165.00
1494	500′	163.50
1494	1000′	163.50
1495	100′	17.48
1495	250′	171.00
1495	500′	169.50
1495	1000′	169.50
1501	100′	21.00
1501	250′	190.50
1501	500′	189.00
1501	1000′	189.00
1502	100′	22.13
1502	250′	211.50
1502	500′	210.00
1502	1000′	210.00
2000		.43
2010		.43
3815	100′	1.05
3815	1000′	9.00
3816	100′	.75
3816	1000′	6.75
3817	100′	.54
3817	1000′	4.13
3818	100′	.48
3818	1000′	3.38
3819	100′	.38
3819	1000′	2.63
3821	100′	1.47
3821	1000′	13.20
3831	100′	2.03
3831	1000′	20.25
3841	100′	4.20
3841	1000′	39.00
3845	100′	6.45
3845	1000′	60.00
3846	100′	.36
3846	1000′	2.48
3847	100′	.35
3847	1000′	2.33
3848	100′	.33
3848	1000′	2.18
4072	25′	.72
4072	50′	1.35
4072	100′	2.70
4072	250′	23.63M′
4072	500′	23.25M′
4072	1000′	23.25M′
4074	25′	1.65
4074	50′	3.15
4074	100′	5.75
4074	250′	55.00M′
4074	500′	54.00M′
4074	1000′	53.00M′
4077	25′	.60
4077	50′	1.20
4077	100′	2.32
4077	250′	18.00M′
4077	500′	17.90M′
4077	1000′	17.50M′
4079	25′	1.75
4079	50′	2.45
4079	100′	4.50
4079	250′	43.50M′
4079	500′	42.75M′
4079	1000′	42.00M′
4087	100′	6.65
4087	250′	64.25M′
4092	100′	5.75
4092	250′	54.35M′
4202	25′	1.20
4202	50′	2.25
4202	100′	4.45
4202	250′	40.25M′
4207	25′	1.50
4207	50′	2.55
4207	100′	4.90
4207	250′	44.50M′
4212	25′	2.15
4212	50′	3.45
4212	100′	7.70
4212	250′	72.50M′
4214	25′	3.75
4214	50′	7.00
4214	100′	13.50
4214	250′	127.50M′
4217	25′	1.80
4217	50′	3.30
4217	100′	6.30
4217	250′	58.50M′
4222	25′	2.70
4222	50′	4.50
4222	100′	9.65
4222	250′	92.25M′
4224	25′	4.20
4224	50′	8.25
4224	100′	16.20
4224	250′	150.00M′
4227	25′	2.45
4227	50′	4.45
4227	100′	8.35
4227	250′	79.25M′
4232	25′	3.20
4232	50′	6.00
4232	100′	11.50
4232	250′	110.50M′
4234	25′	4.72
4234	50′	9.00
4234	100′	16.95
4234	250′	165.00M′
4237	25′	3.00
4237	50′	5.40
4237	100′	10.30
4237	250′	98.55M′
4242	25′	3.97
4242	50′	7.50
4242	100′	14.00
4242	250′	135.95M′
4244	25′	5.75
4244	50′	10.80
4244	100′	20.70
4244	250′	202.50M′
4247	25′	3.90
4247	50′	7.45
4247	100′	13.95
4247	250′	135.00M′
4252	25′	5.85
4252	50′	11.30
4252	100′	21.60
4252	250′	211.90M′
4254	25′	7.15
4254	50′	15.75
4254	100′	30.45
4254	250′	300.00M′
4257	25′	6.20
4257	50′	12.00
4257	100′	22.50
4257	250′	225.00M′

For Single Spiral Stripe No. 637-876 Incl., add $1.50 per 1,000 ft.—Minimum quantity 1,000′ per Color.

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

See Following Pages for Specifications

CHICAGO, ILLINOIS

No.	Unit Pkg. or Length	Net Price Each
4262	25′	7.50
4262	50′	14.25
4262	100′	27.20
4262	250′	267.75M′
4264	25′	9.95
4264	50′	19.05
4264	100′	37.20
4264	250′	367.50M′
4267	25′	7.50
4267	50′	14.25
4267	100′	27.75
4267	250′	267.25M′
4272	25′	9.35
4272	50′	17.50
4272	100′	32.55
4272	250′	321.15
4274	25′	12.00
4274	50′	22.75
4274	100′	44.25
4274	250′	435.00M′
4307	25′	1.72
4307	50′	3.15
4307	100′	6.00
4307	250′	54.00M′
4312	25′	2.10
4312	50′	3.90
4312	100′	7.50
4312	250′	71.75M′
4314	25′	3.67
4314	50′	7.05
4314	100′	13.70
4314	250′	134.60M′
4317	25′	2.02
4317	50′	3.67
4317	100′	7.05
4317	250′	64.50M′
4322	25′	2.78
4322	50′	5.25
4322	100′	10.20
4322	250′	97.50M′
4324	25′	4.27
4324	50′	8.15
4324	100′	16.12
4324	250′	157.50M′
4327	25′	2.70
4327	50′	5.10
4327	100′	9.80
4327	250′	95.25M′
4332	25′	3.30
4332	50′	6.20
4332	100′	12.20
4332	250′	119.25M′
4334	25′	5.10
4334	50′	9.60
4334	100′	18.65
4334	250′	184.10M′
4337	25′	3.00
4337	50′	5.70
4337	100′	11.10
4337	250′	108.00M′
4342	25′	4.05
4342	50′	7.65
4342	100′	15.00
4342	250′	145.85M′
4344	25′	5.85
4344	50′	11.40
4344	100′	22.50
4344	250′	222.00M′
4347	25′	3.85
4347	50′	7.49
4347	100′	19.65
4347	250′	163.85M′
4352	25′	6.20
4352	50′	12.00
4352	100′	23.75
4352	250′	234.35M′
4354	25′	8.77
4354	50′	17.17
4354	100′	33.98
4354	250′	336.75M′
4357	25′	7.05
4357	50′	12.90
4357	100′	23.75
4357	250′	234.00M′
4362	25′	8.49
4362	50′	15.83
4362	100′	30.38
4362	250′	241.75M′
4364	25′	11.85
4364	50′	22.50
4364	100′	43.88
4364	250′	276.25M′
4367	25′	9.07
4367	50′	16.87
4367	100′	32.62
4367	250′	314.25M′
4372	25′	12.15
4372	50′	23.02
4372	100′	45.00
4372	250′	435.00M′
4374	25′	14.40
4374	50′	27.60
4374	100′	54.93
4374	250′	527.50M′
4401	100′	53.25M′
4401	500′	51.75M′
4401	1000′	48.75M′
4401	3000′	47.25M′
4401	10000′	46.50M′
4402	100′	53.25M′
4402	500′	51.75M′
4402	1000′	48.75M′
4402	3000′	47.25M′
4402	10000′	46.50M′
4405	100′	45.00M′
4405	500′	43.50M′
4405	1000′	41.25M′
4405	3000′	39.75M′
4405	10000′	39.00M′
4415	100′	117.75M′
4415	500′	116.25M′
4415	1000′	114.00M′
4415	2500′	111.75M′
4415	10000′	111.00M′
4419	100′	114.00M′
4419	500′	111.00M′
4419	1000′	108.00M′
4419	2500′	105.38M′
4419	10000′	105.00M′
4431	100′	120.00M′
4431	500′	117.75M′
4431	1000′	112.50M′
4432	100′	262.50M′
4432	500′	255.00M′
4432	1000′	247.50M′
4433	100′	183.00M′
4433	500′	179.25M′
4433	1000′	171.75M′
4434	100′	112.50M′
4434	500′	109.87M′
4434	1000′	105.00M′
4435	100′	135.00M′
4435	500′	133.50M′
4435	1000′	130.50M′
4435	2500′	129.00M′
4435	10000′	127.50M′
4436	100′	279.75M′
4436	500′	276.75M′
4436	1000′	264.75M′
4437	100′	342.00M′
4437	500′	336.00M′
4437	1000′	322.50M′
4438	100′	361.50M′
4438	500′	358.50M′
4438	1000′	342.00M′
4439	100′	234.00M′
4439	500′	229.50M′
4439	1000′	217.50M′
4440	100′	129.00M′
4440	500′	127.50M′
4440	1000′	124.50M′
4440	2500′	121.50M′
4440	10000′	120.00M′
4441	100′	225.00M′
4441	500′	222.00M′
4441	1000′	212.25M′
4442	100′	177.25M′
4442	500′	175.05M′
4442	1000′	168.00M′
4443	100′	195.00M′
4443	500′	192.00M′
4443	1000′	183.75M′
4444	100′	255.00M′
4444	500′	252.00M′
4444	1000′	241.50M′
4445	100′	300.00M′
4445	500′	297.00M′
4445	1000′	283.50M′
4446	100′	54.25M′
4446	500′	53.25M′
4446	1000′	51.00M′
4446	5000′	50.25M′
4447	100′	87.75M′
4447	500′	86.25M′
4447	1000′	83.25M′
4447	2000′	80.25M′
4448	100′	120.00M′
4448	500′	118.50M′
4448	1000′	115.50M′
4448	4000′	114.00M′
4449	100′	51.00M′
4449	500′	49.50M′
4449	1000′	47.62M′
4449	3000′	46.12M′
4449	10000′	45.37M′
4450	100′	56.25M′
4450	500′	54.37M′
4450	1000′	53.62M′
4450	3000′	51.37M′
4450	10000′	50.62M′
4451	100′	62.25M′
4451	500′	60.75M′
4451	1000′	59.25M′
4451	6000′	57.75M′
4451	10000′	56.25M′
4452	100′	57.00M′
4452	500′	55.50M′
4452	1000′	52.50M′
4452	6000′	51.00M′
4452	10000′	50.25M′
4453	100′	63.75M′
4453	500′	63.00M′
4453	1000′	61.50M′
4453	6000′	60.75M′
4453	10000′	60.00M′
4454	100′	117.75M′
4454	500′	116.25M′
4454	1000′	113.25M′
4454	10000′	111.00M′
4455	100′	150.00M′
4455	500′	147.25M′
4455	1000′	138.75M′
4456	100′	94.50M′
4456	500′	93.00M:
4456	1000′	90.00M′
4456	3000′	87.75M′
4456	10000′	87.00M′
4457	100′	52.50M′
4457	500′	51.00M′
4457	1000′	48.75M′
4457	4000′	48.00M′
4459	100′	45.75M′
4459	500′	44.62M′
4459	1000′	42.37M′
4459	3000′	41.25M′
4459	10000′	40.50M′
4460	100′	103.50M′
4460	500′	102.00M′
4460	1000′	100.50M′
4460	3500′	99.75M′
4460	10000′	99.00M′
4461	100′	172.50M′
4461	500′	171.00M′
4461	1000′	168.00M′
4461	2000′	166.50M′
4461	10000′	162.00M′
4462	100′	243.00M′
4462	500′	240.00M′
4462	1000′	238.5M′
4462	10000′	232.50M′
4463	100′	126.62M′
4463	500′	123.27M′
4463	1000′	118.87M′
4463	3000′	118.12M′
4463	10000′	117.00M′
4464	100′	72.75M′
4464	500′	71.25M′
4464	1000′	68.25M′
4464	3000′	67.50M′
4465	100′	78.75M′
4465	500′	77.25M′
4465	1000′	74.62M′
4465	3000′	73.50M′
4466	100′	101.75M′
4466	500′	99.75M′
4466	1000′	96.75M′
4466	3000′	93.75M′
4467	100′	300.00M′
4467	1000′	262.50M′
4468	100′	300.00M′
4468	1000′	262.50M′
4469	100′	102.00M′
4469	500′	100.50M′
4469	1000′	90.00M′
4469	2000′	85.50M′
4470	100′	62.25M′
4470	500′	60.75M′
4470	1000′	59.25M′
4470	6000′	57.75M′
4471	100′	142.50M′
4471	500′	138.75M′
4471	1000′	135.00M′
4472	100′	63.75M′
4472	500′	63.00M′
4472	1000′	61.50M′
4473	100′	892.50M′
4473	500′	825.00M′
4473	1000′	825.00M′
4474	100′	56.25M′
4474	500′	54.37M′
4474	1000′	53.62M′
4474	3000′	51.37M′
4475	100′	285.50M′
4475	500′	262.50M′
4475	1000′	256.50M′
4500	100′	1.28
4500	500′	9.98M′
4500	1000′	9.98M′
4503	100′	1.65
4503	500′	14.70M′
4503	1000′	14.70M′
4504	100′	1.73
4504	500′	14.15M′
4504	1000′	14.15M′
4506	100′	1.87
4506	500′	15.25M′
4506	1000′	15.25M′
4507	100′	3.00
4507	500′	28.85M′
4507	1000′	28.85M′
4508	100′	1.85
4508	500′	14.85M′
4508	1000′	14.85M′
4509	100′	2.70
4509	500′	24.30M′
4509	1000′	24.30M′
4510	100′	2.60
4510	500′	20.50M′
4510	1000′	20.50M′
4515	100′	2.62
4515	500′	23.50M′
4515	1000′	23.50M′
4521	100′	4.20
4521	500′	40.50M′
4521	1000′	39.75M′
4523	100′	5.62
4523	500′′	52.50M′
4523	1000′	52.50M′
4527	100′	2.25
4527	500′	19.00M′
4527	1000′	19.00M′
5103	1000′	32.62M′
5123	500′	41.25M′
5123	1000′	40.50M′
5124	500′	54.00M′
5124	1000′	53.25M′
5135	500′	50.25M′
5135	1000′	50.25M′
5201	100′	1.65
5201	500′	6.60
5201	1000′	13.20M′
5205	100′	2.78
5205	500′	12.38
5205	1000′	24.75M′
5211	100′	3.82
5211	500′	17.25
5211	1000′	33.75M′
5221	100′	5.47
5221	500′	25.13
5221	1000′	50.25M′
5226	100′	5.55
5226	500′	26.25
5226	1000′	52.50M′
5231	100′	9.37
5231	500′	45.00
5231	1000′	90.00M′
5236	100′	9.75
5236	500′	47.25
5236	1000′	94.50M′
5241	100′	7.95
5241	500′	37.50
5241	1000′	75.00M′
5251	100′	10.95
5251	500′	54.75
5251	1000′	109.50M′
5271	100′	13.88
5271	500′	67.50
5271	1000′	135.00M′
5286	100′	25.50
5286	500′′	127.50
5286	1000′	255.00M′
5400	10′	.30
5400	25′	.65
5400	100′	2.15
5400	500′	9.00
5400	1000′	18.00M′
5401	10′	.35
5401	25′	.75
5401	100′	2.33
5401	500′	9.75
5401	1000′	19.50M′
5406	25′	.90
5406	100′	2.85
5406	500′	12.75
5406	1000′	25.00
5411	25′	1.05
5411	100′	3.45
5411	500′	15.75
5411	1000′	31.50
5416	15′	.90
5416	100′	4.88
5416	500′	22.85
5416	1000′	45.75M′
5421	15′	.98
5421	100′	5.25
5421	500′	24.75
5421	1000′	49.50
5426	15′	1.05
5426	100′	5.62
5426	500′	26.25
5426	1000′	52.50M′
5431	15′	1.13
5431	100′	6.23
5431	500′	29.25
5431	1000′	58.50M′
5434	100′	8.25
5434	500′	37.50
5434	1000′	75.00M′
5501	100′	3.00
5501	500′	13.50
5501	1000′	25.62M″
5506	100′	4.50
5506	500′	20.25
5506	1000′	40.50M′
5511	100′	2.93
5511	500′	12.20
5511	1000′	24.45
5516	100′	4.50
5516	500′	21.45
5516	1000′	42.75
5521	100′	4.35
5521	500′	19.50
5521	1000′	39.00M′
5526	100′	3.38
5526	500′	16.50
5526	1000′	32.25
5531	100′	6.53
5531	500′	30.00
5531	1000′	60.00M′
5536	100′	4.50
5536	500′	21.00
5536	1000′	42.00M′
5538	100′	4.65
5538	500′	22.50
5538	1000′	45.00M′
5541	50′	3.08
5541	100′	5.63
5541	500′	27.00
5541	1000′	52.50M′
5543	100′	3.90
5543	500′	16.50
5543	1000′	33.00M′
5547	25′	.35
5547	50′	.68
5547	100′	1.28
5547	250′	3.20
5547	500′	8.55M′
5547	1000′	8.25M′
5551	10′	.45
5551	25′	.90
5551	50′	1.50
5551	100′	2.85
5551	500′	12.75
5551	1000′	25.50M′
5556	100′	1.50
5556	500′	6.53
5556	1000′	12.53M′
5561	100′	1.95
5561	500′	9.38
5561	1000′	18.00M′
5566	500′	15.60
5566	1000′	30.75M′
5568	100′	3.30
5568	250′	8.25
5568	500′	15.00
5568	1000′	30.00M′
5569	50′	2.25
5569	100′	4.25
5569	500′	19.10
5569	1000′	38.00M′
5601	100′	6.68
5601	250′	62.25M′
5606	100′	13.13
5606	250′	126.38M′
6006		204.25M′
6012		295.20M′
6018		382.50M′
6025		478.50M′
6050		897.75M′
6075		1264.50M′
6100		1608.38M′
6150		2310.00M′
6200		2988.75M:
6300		4992.38M′
6400		6277.13M′

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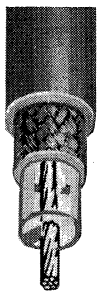
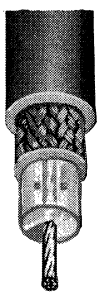
Net

CONSOLIDATED WIRE AND ASSOCIATED COMPANIES
SEND FOR COMPLETE CATALOG
CHICAGO, ILLINOIS

RG TYPE COAXIAL CABLES





Non-Contaminating Low Temperature Black Jacket		Vinyl & Poly. Jackets				Shields							
No. RG/U	Cat. No.	No. RG/U	Cat. No.	Jacket O. D.	Vinyl Jacket	Outer	Inner	Dielectric O. D.	Center Conductor	V. P. %	Cap. Mmfd./Ft.	Ma. Oper. Volts Rms.	Nom. Imp. Ohms
		5	4431	.332	Black	C	C	.185	16	65.9	28.5	3000	52.5
5B	4432			.332	Black	S	S	.185	.053S	65.9	29.5	3000	50
6A	4433			.332	Black	C	S	.185	21CW	65.9	20	2700	75
		7	4434	.370	Black	—	C	.250**	19	84	12.5	1000	97
		8	4415	.405	Black	—	C	.285	7/21	65.9	29.5	4000	52
8A	4435			.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		9	4436	.420	Grey	C	S	.280	7/21S	65.9	30	4000	51
9A	4437			.420	Grey	S	S	.280	7/21S	65.9	30	4000	51
9B	4438			.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50
10A	4439			.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		11	4419	.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
11A	4440			.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
12A	4441			.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
		13	4442	.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
13A	4443			.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
14A	4467			.545	Grey	C	C	.370	10	65.9	29.5	5500	52
14A	4468			.545	Black	C	C	.370	.106	65.9	30	5500	50
		21	4444	.322	Grey	S	S	.185	16N	65.9	29	2700	53
21A	4445			.332	Black	S	S	.185	.053N	65.9	30	2700	50
		29	4446	.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5
		54A	4469	.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58
		55	4447	.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
55A	4448			.216	Black	S	S	.116	.035S	65.9	29.5	1900	50
55B	4490			.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
		58	4405	.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58A	4449			.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58C	4450			.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
		59	4401	.242	Black	—	C	.146	22CW	65.9	21	2300	73
59A	4451			.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
59B	4470			.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
		62	4452	.242	Black	—	C	.146**	22CW	84	13.5	750	93
62A	4453			.242	Black	—	C	.146**	22CW	84	13.5	750	93
		63	4454	.405	Black	—	C	.285**	22CW	84	10	1000	125
63B	4455			.405	Black	—	C	.285**	22CW	84	10	1000	125
		71	4456	.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93
71A	4466			.245	Black	T	T or C	.146**	22CW	84	13.5	750	93
71B	4482			.250	Poly	T	T	.146SSP	22CW	84	13.5	750	93
		108	4464	.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78
108A	4465			.235	Black	—	T	.079 ea.	Two 7/287	65.9	23.5	1000	78
122	4457			.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50
212	4483			.332	Black	S	S	.185	.0556	65.9	29.5	3000	50
213	4484			.405	Black	—	C	.285	7/.02956	65.9	29.5	5000	50
214	4485			.425	Black	S	S	.285	7/.0296S	65.9	29.5	5000	50
216	4486			.425	Black	C	C	.285	7/26T	65.9	20.5	5000	75
217	4487			.545	Black	C	C	.370	.106	65.9	29.5	7000	50
222	4488			.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50
223	4489			.216	Black	S	S	.116	.035S	65.9	29.5	1900	50

C—Copper
CW—Copperweld
N—Nichrome
**—Semi-Solid Dielectric
SSP—Semi-Solid Polyethylene
S—Silvered Copper
T—Tinned Copper

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. No. RG/U	Cat. No.	Jacket O.D.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O.D.	Center Conductor	V. P. %	Nom. Imp. Ohms
174	**4459**	.105	Black	—		.060**	7/.0063CW	30	50

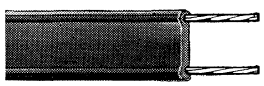
FOAM POLYETHYLENE COAXIAL CABLE

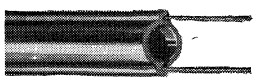
Non-Contaminating Low Temperature Black Jacket No. RG/U	Cat. No.	Jacket O. D.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O. D.	Center Conductor	V. P. %	Cap. Mmfd./Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
11	**4476**	.405	Poly	—	C	.285FP	14	80	16.5	3000	75
8	**4477**	.405	Black	—	C	.285FP	7/19	80	24.5	1500	50
59	**4478**	.195	Black	—	C	.107FP	22CW	80	17	500	72
62	**4479**	.242	Black	—	C	.146FP	.023CW	80	14.5	700	93
11TRI	**4480**	.460	Poly	C	C	.285FP	14	80	16.5	3000	75
59TRI	**4481**	.242	Poly	C	C	.107FP	22CW	80	17	500	72

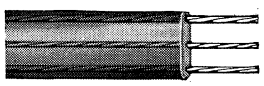
TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

Non-Contaminating Low Temp. No. RG/U	Cat. No.	Vinyl & Poly. Jackets No. RG/U	Cat. No.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O.D.	Center Conductor	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Imp. Ohms
Triaxial 58A	**4463**	50	.285	Black	T	T	.116	19.007IT	65.9	28.5	1,900
Triaxial 59	**4460**	73	.325	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	**4461**	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	**4462**	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

TELEVISION CABLE







No.	Type	Size & Strand-ing	Specifications and General Applications	Nominal Diameter (in.)	Nominal Electrical Properties: Fre-quency (mc)	Atten-uation Per 100 ft.	Imped-ance (ohms)	Velocity of Propa-gation (%)	Capaci-tance Per Ft. (mmf)
4500	2 condr.	22 7x30	**USE:** Receiving antenna at high frequencies.	.055 x .365	50 100 200 300 400 500	.72 1.1 1.7 2.2 2.7 3.1	300	85	4.6
4503	2 condr.	20 7x28	Same as 4500	.072 x .400	Same as 4500	Same as 4500	300	85	4.6
4504	2 condr.	20 7x28	Same as 4500	.080 x .400	Same as 4500	Same as 4500	300	85	4.6
4506	2 condr.	20 7x28	Same as 4500	.100 x .400	Same as 4500	Same as 4500	300	85	4.6
4527	2 condr. round	20 7x28	**USE: For UHF and VHF.**	.350			300	84	5.6
4507	3 condr.	20 7x28	**USE: Same as 4503.**	.072 x .365	Same as 4500	Same as 4500	300	85	4.6
4508	4 condr.	22 7x30	**USE: Rotor Aerials.**	.072 x .345	Same as 4500	Same as 4500	300	85	4.6
4509	4 condr.	20 7x28	Same as 4508 Except brown vinyl plastic.	.072 x .400	Same as 4500	Same as 4500	300	85	4.6
4510	4 condr.	20 7x28	Same as 4508	.072 x .400	Same as 4500	Same as 4508	300	85	4.6
4515	4 condr.	22 7x30	Color coded with gray jacket overall. **USE: Rotor Aerials.**	.160					
4521	8 condr.	22 7x30	Same as 4515	2.05					

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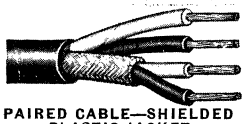
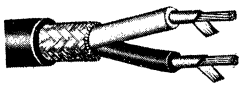
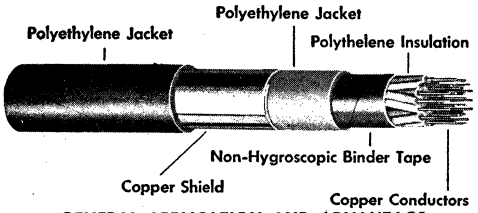
INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size & Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
STATION-TO-STATION EXTENSION WIRING SHIELDED	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together condr. red 1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 550+condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
EXTENSION WIRING SHIELDED—PLASTIC JACKET	5511	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a **spiral** tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
 PAIRED CABLE—SHIELDED PLASTIC JACKET	5516	2 Pair 4 Condr	22 7x30	.015	Stranded tinned copper vinyl plastic insulation. 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.168x.276
EXTENSION-SPEAKERS SHIELDED FOR LONG RUNS	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
 EXPANSION-SPEAKERS SHIELDED—PLASTIC JACKET	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation. 2 condrs.—cabled black and red—tinned copper **spiral** wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, whiet—tinned copper spiral shield —chrome vinyl plastic jacket.	.193
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red. 1 condr. white. **Spiral** tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
JUKE BOX SPEAKER CABLE	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper —2 condrs. parallel gray vinyl plastic insulation.	.058x.115
HIGH IMPEDANCE LAPEL MICROPHONES	5551	1 Condr.	24 16x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
INTER COMMUNICATING SOUND SYSTEM	5556	2 Condr.	19 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
INTER COMMUNICATING WEATHER-PROOF	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.131x.203

TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE



FULLY COLOR CODED

GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in **direct burial installations** provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrically varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethlene jacket.

NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS INNER	NOMINAL JACKET THICKNESS, MILS OUTER	NOMINAL O. D. (Inches)
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

PAIRED PLASTIC CONDUCTORS

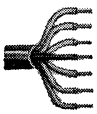
SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010" vinyl plastic insulation. Cabled .202" gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

MULTIPLE CONDUCTORS FULLY COLOR CODED

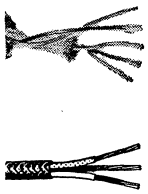
SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010" vinyl plastic insulation. Cabled .020" gray vinyl plastic Jacket overall



NO.	TYPE		NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 / 7x30	
5401	3 Condr.	22 / 7x30	.140
5406	4 Condr.	22 / 7x30	.158
5411	5 Condr.	22 / 7x30	.170
5416	6 Condr.	22 / 7x30	.212
5421	7 Condr.	22 / 7x30	.230
5426	8 Condr.	22 / 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 / 7x30	

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.



TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with 1/64" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 1/64" thermoplatic insulation. 1 condr. No. 18 1/32" thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 condr. No. 22 with 1/64" thermoplastic insulation; 3 condr. twisted together with a braided tinned copper shield; 2 condr. twisted; all condr. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 condr. color coded gray plastic jacket overall.	Solid	.225

MICROPHONE CABLE

CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED; Weatherproof rubber jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Grey vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high Impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34	.200	25.
					26 x 34	.175	40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087" O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Same as 1465	Same as 1460; color coded	26 x 34	.386	

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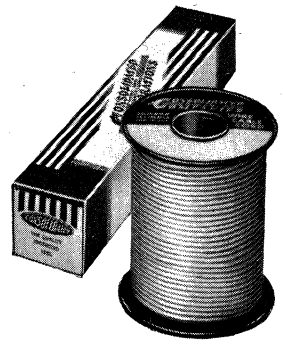
CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MAGNET WIRE



Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000 VARIOUS OTHER INSULATIONS

Film	Technical Classification
ENAMEL	oleoresinous
FORMVAR	poly vinyl acetal
SODEREZE	polyurethane
THERMALEZE	epoxide polyester
NYFORM	formvar, nylon sheath
NYLON	
BONDEZE	
GRIPEZE	
LECTRON	acrylic
ISONSEL	terephthalic polyester
ALKANVAR	terephthalic polyester
SYLKYD ENAMELED	
COTTON AND COMBINATIONS	
SILK AND COMBINATIONS	
CELANESE AND COMBINATIONS	
GLASS AND COMBINATIONS	
PAPER AND COMBINATIONS	

Larger Quantities At Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

PLAIN ENAMEL MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.45	$0.75	$1.39
15	.45	.80	1.40
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.60	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.63	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.66	$1.12	$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.20
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.37	6.00
38	2.55	3.75	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.73	$1.24	$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	3.17	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.33

DOUBLE COTTON COVERED MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.55	$0.95	$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.53	$0.97	$1.54
15	.57	1.00	1.60
16	.60	1.10	1.83
17	.62	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.67	$1.13	$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.25	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

BARE NICKEL CHROMIUM WIRE

No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	¼ Lb.	1 Lb.
14	....	$1.52	$5.56
15	....	1.56	5.65
16	....	1.58	5.73
17	....	1.63	5.80
18	....	1.67	5.87
19	....	1.71	6.02
20	$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96

Size	1 Oz.	¼ Lb.	1 Lb.
28	$0.92	$2.84	$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20

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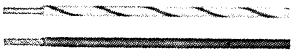
CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

THERMOPLASTIC INSULATED HOOK-UP WIRE
SPECIFICATION MIL-W-76A (SUPERSEDES JAN. C-76)



This specification has been approved by the Departments of the Army, Navy, and Air Force. Insulation possesses high dielectric strength. Impervious to oils, acids, alkalies, moisture and flame. The following types and colors are available for shipment from stock—
*See other sizes, types and covering over insulated wire.

SPECIFICATION MIL-W-76A

TYPE HW — Single Conductor, Solid or Stranded Conductor as indicated. Tinned Copper. Thermoplastic Insulation. No further covering. (SUPERSEDING SRIR—SPECIFICATION JAN-C-76). Ins. Nom., .016"; Max. R.M.S. Voltage, 1000; Stand. Spool, 1000 ft.

TYPE MW — Single Conductor, Solid or Stranded Conductor as indicated. Tinned Copper. Thermoplastic Insulation. No further covering. (SUPERCEDING SRHV—SPECIFICATION JAN-C-76). Ins. Nom., .031"; Max. R.M.S. Voltage, 2500 Stand. Spool, 1000 ft.

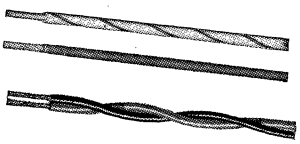
CAT. NO.	MIL-W-76A TYPE DESIGNATION	SIZE	STRANDING	O.D.	MAX. COLORS
707	MW-C 22(1) U	22	Solid	.062"	1 thru 13
717	MW-C 20(1) U	20	Solid	.069"	1 thru 13
727	MW-C 18(1) U	18	Solid	.077"	1 thru 13
737	MW-C 22(7) U	22	7/.010	.070"	1 thru 22
747	MW-C 20(7) U	20	7/.0216	.078"	1 thru 22
757	MW-C 18(16) U	18	19/.0092	.089"	1 thru 22
637	HW-C 22(1) U	22	Solid	.098"	1 thru 13
642	HW-C 20(1) U	20	Solid	.105"	1 thru 13
647	HW-C 18(1) U	18	Solid	.113"	1 thru 13
667	HW-C 22(7) U	22	7/.010	.106"	1 thru 22
672	HW-C 20(7) U	20	7/.0126	.114"	1 thru 22
677	HW-C 18(16) U	18	19/.0092	.125"	1 thru 22

AVAILABLE COLORS—(COLOR CODE)
***COVERING OVER INSULATED WIRE**

		Symbol	Type
1—Black (0)	12—Pink		
2—Brown (1)	13—Dark Blue	U	None
3—Red (2)	14—White/Black Tr. (90)	J	Jacket (Nylon)
4—Orange (3)	15—White/Red (92)	B	*Braid
5—Yellow (4)	16—White/Green (95)	S	*Shield
6—Green (5)	17—White/Yellow (94)	JS	Jacket and Shield (Nylon)
7—Blue (6)	18—White/Blue (96)	BS	**Braid and Shield
8—Violet (Purple) (7)	19—White/Brown (91)	SJ	Shield and Outer Jacket (Nylon)
9—Gray (Slate) (8)	20—White/Orange (93)	JSJ	Jacket, Shield, Outer Jacket
10—White (9)	21—White/Gray (98)	BSJ	**Braid, Shield, Outer Jacket
11—Tan			**Specify, Synthetic, or Glass Yarn

*Other color combinations and sizes on special production order. *Available on factory order: Spec. MIL-W-76A, Types LW & HF with above coverings. We are also prepared to furnish wires to Military Specifications MIL-W-1687A—Types B, C, D, E, EE, FF, N. Quoted on request. Write for the Rome Cable Corporation TR-5 catalogue, complete with Military Specifications for Electronic Instrumentation and Sub-Miniature Wires, Multi-Conductor and Co-Axial Cables. Underwriter's Laboratory Approved—Rome High Temp®—Rome Synthinol®—Registered®.

Rome Synthinol . . . . A ROME CABLE PRODUCT
THERMOPLASTIC INSULATED HOOK-UP WIRE



Rome Synthinol is a polyvinyl chloride type of thermoplastic insulation impervious to oils, acids, alkalies, moisture and flame, and Approved by Underwriters' Laboratories where exposed to temperatures not exceeding 80° Centigrade.

U/L Voltage Rating — 300 Volts Max.
Single and Two-Conductor Twisted Cable:
Color Coded

Rome Synthinol is specially designed for the chassis and sub-chassis wiring of radio and television receivers and transmitters as well as all other types of electronic equipment. It has physical and electrical characteristics of unusual permanency.

Typical Test Results

Breakdown Voltage:
1/64" Synthinol .....over 10000 volts
1/32" Synthinol .....over 18000 volts
Insulation Resistance:
1/32" Synthinol .....over 5000 megohms feet

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT. Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow.

CAT. NO.	SIZE AWG.	STRANDING	NOM. INS. THCKNS.	VOLTS	MAX. DIA. INCHES
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
851	22	Solid	1/32	600	.097

CAT. NO.	SIZE AWG.	STRANDING	NOM. INS. THCKNS.	VOLTS	MAX. DIA. INCHES
856	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	0 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119
881	20—2 condr.	10 x No. 30	.025	300	.170

Rome Hi-Temp . . . . A ROME CABLE PRODUCT
RUBBER INSULATED HOOK-UP WIRE

Underwriters' approved and labeled* for 75°C.—300 volts

The result of extensive laboratory development and proved by a decade of service—Rome Hi-Temp is offered for radio and electronic circuits where resistance to moisture and heat is required.

SPECIFICATIONS

Conductors: Annealed tinned, solid or stranded copper conforming to A.S.T.M. Specification B 33 and/or Underwriters' Standards.
In order to provide maximum flexibility and prevent unraveling of the strands a short lay stranding is used as follows:
No. 22 Awg. .33 inch max.
No. 20 Awg. .50 inch. max.

Insulation: Rome Hi-Temp—a high quality, free-stripping heat-resistant rubber insulation approved by Underwriters' Laboratories.

Typical Test Results

Breakdown Voltage (1/32" Hi-Temp).....10500 volts
Insulation Resistance.....Over 10000 megohms feet
*Only factory length reels are furnished with U/L's labels.

STANDARD SPOOL PUT-UP:
25 FT., 100 FT., 500 FT., 1000 FT.

CAT. NO.	SIZE	STRANDING	INSULATION THICKNESS	DIAMETER (INCHES)
901	No. 22	Solid	1/32"	.075
911	No. 20	Solid	1/32"	.086
921	No. 22	7 x No. 30	1/32"	.085
931	No. 20	10 x No. 30	1/32"	.090

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG — CHICAGO, ILLINOIS

MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS, BATTERY HOOK-UP, ETC.

SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness 1/64"

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 condr.	.150	1487	7 condr.	.275
1482	2 condr.	.175	1488	8 condr.	.300
1483	3 condr.	.200	1489	9 condr.	.310
1484	4 condr.	.275	1490	10 condr.	.325
1485	5 condr.	.250	1494	11 condr.	.335
1486	6 condr.	.260	1495	12 condr.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE

SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30—1/64" plastic Insulation, color coded, Braided tinned copper shield.

TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

	TYPE	SIZE	STRAND-ING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 condr.	2-14	41 x 30	1/64	.300
		6-18	16 x 30		
1502	9 cnodr.	2-14	41 x 30	1/64	.320
		7-18	16 x 30		

TEST PROD WIRE

A Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; live rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE

DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	1/32"	24 x 36	24	7
1387	3/64"	24 x 36	23	7
1388	3/32"	48 x 36	19	12
1389	7/64"	72 x 36	18	14
1390	1/8"	96 x 36	18	15
1391	3/16"	120 x 36	15	23
1392	1/4"	168 x 36	14	30
1393	3/8"	288 x 36	11	50
1394	1/2"	386 x 36	10	55
1395	5/8"	396 x 36	10	61
1396	3/4"	832 x 36	7	80
1397	25/32"	832 x 36	7	80
1398	1"	832 x 36	7	84
1399	1 3/8"	912 x 36	7	105

TINNED COPPER BUS BAR WIRE

SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129"	8	16510
3841	.102"	10	10380
3831	.082"	12	6530
3821	.064"	14	4110
3815	.051"	16	2583
3816	.040"	18	1624
3817	.032"	20	1022
3818	.025"	22	642
3819	.020"	24	404
3846	.016"	26	254.1
3847	.013"	28	159.8
3848	.010"	30	100.5

LEAD COVERED CABLE

FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNESS.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	1/32	240 x .200
1454	3 cond.	18	Solid	1/32	.420

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

ELECTRICAL CORDAGES
UNDERWRITERS APPROVED

SUPPLIED ON ATTRACTIVE TRI-COLOR LITHOGRAPHED METAL SPOOLS

RUBBER HANDYCORD CENTERSTRIP

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000FF.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64″	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

PLASTIC HANDYCORD CENTERSTRIP

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64″	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

RUBBER SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250″
4207	2	18	SJ	5 Amps.	300	.310″
4212	3	18	SJ	5 Amps.	300	.345″
4214	4	18	SJ	5 Amps.	300	.360″
4217	2	16	SJ	7 Amps.	300	.340″
4222	3	16	SJ	7 Amps.	300	.375″
4224	4	16	SJ	7 Amps.	600	.395″
4227	2	18	S	5 Amps.	600	.390″
4232	3	18	S	5 Amps.	600	.405″
4234	4	18	S	5 Amps.	600	.435″
4237	2	16	S	7 Amps.	600	.410″
4242	3	16	S	7 Amps.	600	.430″
4244	4	16	S	7 Amps.	600	.485″
4247	2	14	S	15 Amps.	600	.540″
4252	3	14	S	15 Amps.	600	.560″
4254	4	14	S	15 Amps.	600	.605″
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635″
4264	4	12	S	20 Amps.	600	.665″
4267	2	10	S	25 Amps.	600	.640″
4272	3	10	S	25 Amps.	600	.690″
4274	4	10		25 Amps.	600	.745″

SPECIFICATIONS AND APPLICATION

Extra flexible bare copper cotton served. 1/32″ rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

NEOPRENE SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

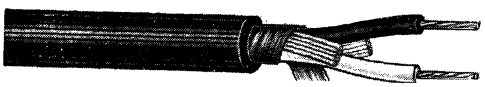
4307	2	18	SJO	5 Amps.	300	.310″
4312	3	18	SJO	5 Amps.	300	.345″
4314	4	18	SJO	5 Amps.	300	.360″
4317	2	16	SJO	7 Amps.	300	.340″
4322	3	16	SJO	7 Amps.	300	.375″
4324	4	16	SO	7 Amps.	600	.395″
4327	2	18	SO	5 Amps.	600	.390″
4332	3	18	SO	5 Amps.	600	.405″
4334	4	18	SO	5 Amps.	600	.435″
4337	2	16	SO	7 Amps.	600	.410″
4342	3	16	SO	7 Amps.	600	.430″
4344	4	16	SO	7 Amps.	600	.485″
4347	2	14	SO	15 Amps.	600	.540″
4352	3	14	SO	15 Amps.	600	.560″
4354	4	14	SO	15 Amps.	600	.605″
4357	2	12	SO	20 Amps.	600	.605″
4362	3	12	SO	20 Amps.	600	.635″
4364	4	12	SO	20 Amps.	600	.665″
4367	2	10	SO	25 Amps.	600	.640″
4372	3	10	SO	25 Amps.	600	.690″
4374	4	10	SO	25 Amps.	600	.745″

SPECIFICATIONS AND APPLICATION

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD



STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32″	.275
4092	2	18	HPD	41 x 34	1/32″	.250

Colors: Black and White Marker.

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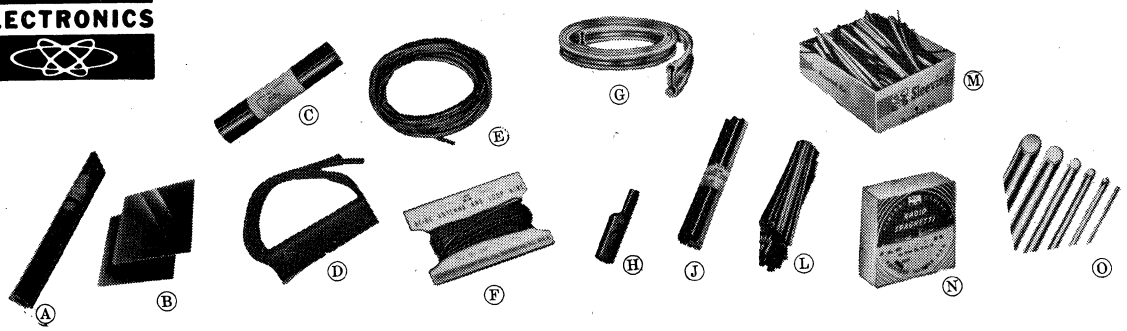
GC ELECTRONICS ELECTRONIC COMPONENTS



(A) G-C INSULATING CAMBRIC—Dry yellow varnished cambric for field coils, transformers, chokes, resistors, motors, etc.
Cat. No. 549 .010"—Roll over 210 sq. in. Net $ **.78**

(B) G-C LAMINATED PHENOLIC PLASTIC PANELS—Black laminated panels. 1/16" thick stock. Black color.
Cat. No. 590 6"x6"x1/16" Net $ **.42**
591 6"x12"x1/16" **.82**
592 12"x12"x1/16" **1.58**

(C) G-C FYBEROID FISH PAPER—Fish paper has many uses around the shops for repair jobs where electrical insulation is required.
Cat. No. 560 .010"-240 sq. in. roll Net $ **.45**

(D) G-C BATTERY CONNECTOR STRIP—Used for connecting 67½ volt "B" batteries, such as Eveready 455, 466; Burgess XX30, XX45.
Cat. No. 8115 Net $ **.18**

(E) G-C SHIELDED PHONO PICK-UP WIRE—Handy packages of shielded phono pick-up wire, very handy for new installations or replacements.
Cat. No. 1738-E Envelope Net $ **.38**

(F) G-C AC-DC INDOOR ANTENNA WIRE—Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.
Cat. No. 840 25 Ft. coil Net $ **.37**

(G) G-C 300-OHM LINE PROTECTIVE TUBING—Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.
Cat. No. 625 Box of 8 ft. Net $ **.75**
626 250 ft. coil **15.90**
627 1000 ft. **59.33**

(H) G-C ALLIGATOR-CLIP INSULATORS—High quality vinyl plastic insulators fit all alligator clips. Positive insulation against grounding and shock.
Cat. No. 9376 Red Net $ **.07**
9376-C **4.50**
9377 Black **.07**
9377-C **4.50**

(J) G-C GENFLEX PLASTIC TUBING—High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8,000 volts. Colors: Black, Red, Green and Clear (Specify Color).

Cat. No. 603	18	B-S Gauge, .042 I.D., 20 ft. Package	Net $ **.82**
605	16	B-S Gauge, .053 I.D., 20 ft. Package	Net $ **.82**
607	14	B-S Gauge, .066 I.D. 20 ft. Package	Net $ **.82**
609	12	B-S Gauge, .085 I.D., 20 ft. Package	Net $ **.82**
611	10	B-S Gauge, .106 I.D., 15 ft. Package	Net $ **.82**
613	8	B-S Gauge, .133 I.D., 15 ft. Package	Net $ **.82**
616	6	B-S Gauge, .166 I.D., 10 ft. Package	Net $ **.82**
617	4	B-S Gauge, .208 I.D., 10 ft. Package	Net $ **.82**
620	2	B-S Gauge, .263 I.D., 10 ft. Package	Net $ **.82**

G-C PLASTIC TUBING KITS—Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen.
Cat. No. 635 Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing. Net $ **.82**

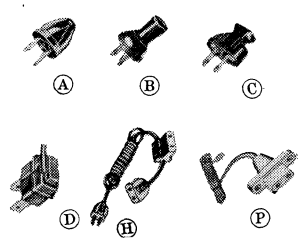
(L) G-C ASSORTED SPAGHETTI KIT—An assortment of 7½" lengths of spaghetti sleeving. 26 lengths to the kit. Sizes include from No. 17 wire to 3/8" I.D.
Cat. No. 550 Kit of 26 Lengths. Net $ **.40**

(M) SPAGHETTI AND SLEEVING ASSORTMENT—A variety of sizes and colors are included of high grade varnish tubing. Put up in attractive box.
Cat. No. 551 Net $ **.90**

(N) G-C SPAGHETTI IN BOXES—Best grade varnished tubing put in convenient 20-ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.
Cat. No. 499 Net $ **1.23**

(O) G-C RADIO SPAGHETTI—High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A. S. T. M. Colors: Black, Brown, Red, Green and Yellow (Specify Color). 30" Lengths.

Cat. No. 500	No. 20, fit 20 wire	Net $ **.13**
503	No. 17, fit 18 wire	**.15**
506	No. 14, fit 14 wire	**.17**
508	No. 12, fit 12 wire	**.17**
512	1/8" I.D.	**.23**
515	3/16" I.D.	**.23**
518	1/4" I.D.	**.37**
521	3/8" I.D. (resist. size)	**.63**
522	7/16" I.D. Red & Black	**.73**
523	1/2" I.D. Red & Black	**.97**



(A) G-C STREAMLINE ATTACHMENT CAP—Made of rubber. Brass blades. Spring type. U.L. approved.
Cat. No. 865 Net $ **.23**

(B) G-C SPRING ACTION CAP—Heavy-duty type. Made of rubber. Brass blades. U.L. approved.
Cat. No. 861 Net $ **.17**

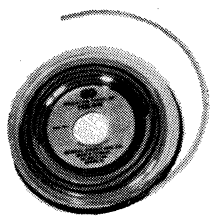
(C) G-C SPRING ACTION CAP—Flat plastic type. Brass blades. U.L. approved. Cat. No. 860 Net $ **.17**

(D) G-C ANGLE PLUG—Plastic angle plug that assembles in a jiffy. It has no screws and requires no soldering.
Cat. No. 8360-E Brown Net $ **.30**
8361-E Ivory **.30**

(E) SERVICEMAN'S CHEATER CORD—Special "cheater cord" for extending the standard interlock safety cord supplied with the TV set.
Cat. No. 8948 Net $ **.87**

(F) INTERLOCK CABLE CORD—Replacement cord for RCA, Philco, G-E, Admiral and others.
Cat. No. 8200 Reg. TV Cord Net $ **.48**
8201 Spec. Zenith Cord **.70**

NEW G-C INSULATING TUBING OF TEFLON*



—Exceptionally tough and flexible. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dielectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark Du Pont Co.

Part No.	Feet Per Spool	Color	Gauge	I.D. (Inches)	Wall Thickness	Dlr. Net Per Spool
7980-7	10	Nat	24	.022	.010	$ 1.33
7980-7C	100	Nat	24	.022	.010	9.75
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	9.75
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	9.75
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	12.43
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	12.43
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	12.43
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.28
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.28
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.28
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	39.53
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	39.53
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	39.53

© U.C.P., Inc.

SPIRAL WRAP

Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

Spiral Wrap is spirally cut plastic tubing with many uses. It is ideal for bundling wires into compact and flexible cables. Spiral Wrap is also used to prevent abrasion, to insulate, and to hold wires, cables and tubing, etc. Spiral Wrap is available in 5 types of plastic—each with properties for specific applications. For general purpose applications Polyethylene Spiral Wrap (SWP) is recommended. It will withstand temperatures to 220°F. Nylon Spiral Wrap (SWN) is tough and has excellent abrasion characteristics along with excellent temperature characteristics to 300°F. Rulan Spiral Wrap (SWR) is intended for applications where a flame-retardant material is required. Both Irradiated Polyethylene (SWI) and Teflon Spiral Wrap (SWT) have extremely good temperature characteristics. SWT will stand temperatures to 500°F. Teflon Spiral Wrap also has chemical inertness and is non-burning

NEW NO.	OLD NO.	OD	WALL	COLOR	NET/FT 1-99'	NET/100 FT 100-999'	NET/100 FT 1000-UP
POLYETHYLENE							
SWP-1/8	197-2	1/8	.031	1	.05	3.60	3.00
3/16	-3	3/16	.031	1	.07	5.30	4.95
-1/4	-4	1/4	.058	1,2,3,4	.08	6.00	5.55
-1/4XT	-4A	1/4	.032	1	.08	5.80	5.25
-3/8	-6	3/8	.058	1,2,3,4	.13	9.50	8.40
-1/2*	-8	1/2	.058	1	.16	14.50	13.00
NYLON							
SWN-1/8	193-2	1/8	.016	1	.09	7.50	6.90
-1/4	-4	1/4	.030	1	.16	15.50	14.60
-3/8	-6	3/8	.030	1	.38	36.40	35.10
-1/2*	-8	1/2	.030	1	.45	44.00	43.00
FLAME RETARDANT (RULAN)							
SWR-1/4	198-4	1/4	.058	1,2	.10	9.00	7.90
-3/8	-8	3/8	.058	1,2	.15	13.00	11.40
IRRADIATED POLYETHYLENE							
SWI-1/4	196-4	1/4	.058	2	.58	54.00	44.60
TEFLON**							
SWT-1/8	199-2	1/8	.030	1	1.35	117.00	
-1/4	-4	1/4	.030	1	1.50	139.00	
-3/8	-6	3/8	.030	1	2.95	261.00	
-1/2	-8	1/2	.030	1	4.20	380.00	

AGGREGATION: Sizes, colors and types may be aggregated.

AVAILABLE IN 3' (10/Box), 25' (1/Box), 100' Spool, 500' Spool

COLOR: 1-Natural (white), 2-Black, 3-Red, 4-Blue.
Black polyethylene is excellent for outdoor use.
Additional colors and sizes available on request.

**Available in 3' and 25' lengths subject to plus or minus 10%
*1/2" o.d. available in 3', 25', 100' and 250' spool.

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VINYL SLEEVING

Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

PROPERTIES

Temperature rating .....105°C
Flexibility (low temp.).....–30°C
Dielectric Strength .....800 V/Mil
Flammability .....non-flammable
Tensile Strength.....2500 PSI

STANDARD COLORS:

Clear, Black, Red, Yellow, Green, Blue, Brown, White, Orange, Violet.

SLV-105 conforms to spec. MIL-1-631C, grade C, ASTM-D876, ASTM-D9222 and is U/L approved.

Sizes #24 thru #1 available in all standard colors
Sizes 0 thru 2 1/2" available in clear and black.

QUANTITY PRICE
IF PURCHASED IN LENGTHS SHOWN, SIZES MAY BE AGGREGATED

OLD# V105			SHORT LENGTHS NET PER LENGTH					NET PER 1000 FT		
CAT # SIZE	ID	WALL	25'	50'	100'	500'		LESS THAN 1000'	1000'-4999'	5000'- & over
SLV 105 - 24	.022	.012			1.96	8.80	1000	16.10	13.00	10.80
- 22	.027	.012			1.97	8.85	1000	16.20	13.10	10.90
- 20	.034	.016			2.01	8.98	1000	16.60	13.40	11.10
- 19	.038	.016			2.06	9.30	1000	17.10	13.50	11.30
- 18	.042	.016			2.08	9.40	1000	17.30	13.80	11.40
- 17	.047	.016			2.11	9.55	1000	17.60	14.00	11.50
- 16	.053	.016			2.20	9.85	1000	18.50	14.60	12.10
- 15	.059	.016			2.27	9.90	1000	19.20	14.90	12.30
- 14	.066	.016			2.34	9.95	500	19.90	15.40	12.80
- 13	.076	.016		1.37	2.39	10.20	500	20.40	16.00	13.10
- 12	.085	.016		1.42	2.49	10.70	500	21.40	16.60	13.80
- 11	.095	.016		1.46	2.56	11.05	500	22.10	17.20	14.50
- 10	.106	.016		1.51	2.66	11.55	500	23.10	18.50	15.50
- 9	.118	.020		1.92	3.49	15.70	500	31.40	24.60	20.80
- 1/8	.125	.020		2.00	3.65	16.85	500	33.85	26.55	22.25
- 8	.133	.020		2.05	3.74	16.95	500	33.90	26.60	22.30
- 7	.148	.020		2.16	3.97	18.10	500	36.20	28.30	23.50
- 6	.166	.020		2.31	4.26	19.55	500	39.10	30.20	25.10
- 5	.186	.020		2.47	4.58	21.15	200	42.30	32.30	26.80
- 4	.208	.020		2.64	4.93		200	45.80	34.70	28.40
- 3	.234	.020		2.80	5.25		200	49.00	36.90	30.40
- 1/4	.250	.020		2.95	5.55		200	53.35	39.95	33.15
- 2	.263	.020		3.02	5.69		200	53.40	40.00	33.20
- 1	.294	.020		3.24	6.12		200	57.70	43.10	35.60
- 5/16	.312	.025		4.07	7.79		200	62.30	46.40	38.90
- 0	.330	.020		3.47	6.58		200	74.40	55.40	46.40
- 3/8	.375	.025	2.40	4.65	8.59		100	85.90	64.10	54.90
- 7/16"	.438	.025	2.66	5.18	9.65		100	96.50	72.50	62.00
- 1/2	.500	.025	2.91	5.67	10.64		100	106.40	80.70	68.70
- 9/16	.562	.030	3.79	7.44			50	141.70	107.70	90.70
- 5/8	.625	.030	4.08	8.00			50	153.00	117.30	98.30
- 3/4	.750	.035	5.53	10.91			50	211.20	160.90	134.40
- 7/8	.875	.035	6.19	12.22			50	237.40	183.80	153.10
- 1"	1.000	.035	6.88	13.62			50	265.30	205.20	170.00
- 1 1/8	1.125	.040	8.70				25	347.90	265.10	219.70
- 1 1/4	1.250	.040	9.20				25	367.80	285.80	238.90
- 1 3/8	1.375	.040	9.83				25	393.10	302.90	253.30
- 1 1/2	1.500	.045	11.92				25	476.70	367.80	311.10
- 1 3/4	1.750	.055	14.86				25	594.30	461.10	392.70
- 2"	2.000	.060	20.42				25	816.70	626.20	531.20
- 2 1/4	2.250	.065	24.28				25	971.00	738.80	628.20
- 2 1/2	2.500	.070	28.78				25	1,151.20	873.00	740.60

SLV 105-S1 25 Assorted 1' Lengths, Assorted colors (up to "0")..... .99
SLV 105-S2 10 Assorted 1' Lengths, Assorted colors (1/4 to 1")..... 1.49

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TEFLON SLEEVING

Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

Illumitronic Teflon sleeving is used extensively where temperature extremes exist. This material will withstand temperatures of from minus 450° to 500°F. The material is chemically inert—is completely weatherproof—has excellent dielectric strength (480)—extremely low water absorption—is non-burning—and has a low coefficient of friction.

NO.	ID	WALL*	SHORT LENGTHS COST PER LENGTH 10FT	50FT	100FT	MIN. LGTH. TO AGGREGATE	STANDARD FULL LENGTHS NET/100 FT 200'-499'	500'- & Over
SLT-30	.012	.009	1.24	4.95	8.25	200	5.50	4.65
-28	.015	.009	1.31	5.22	8.70	200	5.80	5.05
-26	.018	.009	1.31	5.22	8.70	200	5.80	5.20
-24	.022	.012	1.31	5.22	8.70	200	5.80	5.20
-22	.027	.012	1.67	6.66	11.10	200	7.40	6.30
-20	.034	.012	2.45	9.81	16.35	200	10.90	9.25
-19	.038	.012	2.68	10.67	17.78	200	11.85	10.00
-18	.042	.012	3.01	12.02	20.03	200	13.35	11.40
-17	047	.012	3.25	13.01	21.68	200	14.45	12.40
-16	.053	.012	3.58	14.31	23.85	200	15.90	12.90
-15	.059	.012	3.66	14.63	24.38	200	16.25	13.55
-14	.066	.012	3.93	15.71	26.18	200	17.45	14.55
-13	076	.012	4.29	17.15	28.58	200	19.05	15.75
-12	.085	.012	4.61	18.45	30.75	200	20.50	16.95
-11	.095	.012	5.11	20.43	34.05	200	22.70	18.80
-10	.106	.012	5.32	21.29	35.48	200	23.65	19.40
- 9	.118	.015	6.41	25.65	42.75	200	28.50	26.10
- 8	.133	.015	7.08	28.31	47.18	200	31.45	28.85
- 7	.148	.015	7.70	30.78	51.30	200	34.20	31.60
- 6	.166	.015	8.33	33.30	55.50	200	37.00	33.95
- 5	.186	.015	9.15	36.59	60.98	100	40.65	37.35
- 4	.208	.015	10.01	40.05	66.75	100	44.50	40.80
- 3	.234	.015	10.93	43.70	72.83	100	48.55	44.80
- 2	.263	.015	12.41	49.64	82.73	100	55.15	50.65
- 1	.294	.015	13.86	55.44	92.40	100	61.60	56.50
- 0	.330	.015	15.35	61.38	102.30	100	68.20	62.50

Aggregation: Sizes may be aggregated if purchased in standard full lengths shown above.

*Tolerances: #30-#22 .002"
#20-#10 .003"
9-# 0 .004"

**May not be continuous

Standard Color: Natural (White) - other colors on request.

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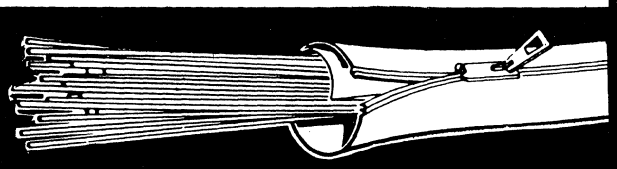
ZIPPER TUBING



- **MAKE YOUR OWN CUSTOM CABLES**
  As many conductors and types as you want—group them together —zip it up.
  No expensive minimums.
  You can make exactly what you want!

- **MAKE YOUR OWN SHIELDED CABLES**
  Provides a jacket and a shield for wires in one application.
  Gives 100% coverage and provides equal or better than any other type of shielding. Ideal for Hi-Fi shielding.

- **CUTS TIME**
  Applies in seconds.
  No pulling — tugging.

available from 3/8" through 4" diameter in the following types:

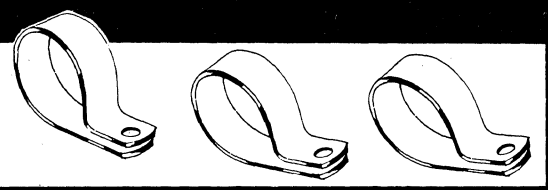
Type Z-63 meets MIL-I-631C available in both 020" wall and 040" wall

Type Z-74 meets MIL-I-7444 available in both 020" wall and 040" wall

Type ZVA—a Vinyl Aluminum Shielded Zipper Tubing

Type ZVG—a Vinylglass Zipper Tubing

PLASTIC CLAMPS



ETHYL CELLULOSE CLAMPS

The Ethylene Cellulose Clamps are tough and will withstand moisture, age and vibration and eliminate corrosion. They can be used within a temperature range of from −40°F to +185°F.

NEW # DIA.	OLD#	100 PAK NET/100	BULK PAK (NET/1000)*
ETHYL CELLULOSE			
CLE - 1/8	241E - 1/8	1.48	12.40
- 3/16	- 3/16	1.53	12.85
- 1/4	- 1/4	1.63	13.70
- 5/16	- 5/16	1.80	15.15
- 3/8	- 3/8	1.89	15.90
- 7/16	- 7/16	2.07	17.45
- 1/2	- 1/2	2.20	18.55
- 9/16	- 9/16	2.57	21.70
- 5/8	- 5/8	2.67	22.55
- 11/16	- 11/16	2.95	24.90
- 3/4	- 3/4	3.18	26.75
- 7/8	- 7/8	3.32	27.95
- 1	- 1	3.58	30.20
- 1 1/8	- 1 1/8	3.82	32.25
- 1 3/16	- 1 3/16	4.01	33.80
- 1 1/4	- 1 1/4	4.09	34.45
- 1 5/16	- 1 5/16	4.92	41.40
- 1 3/8	- 1 3/8	5.48	46.10
- 1 7/16	- 1 7/16	5.68	47.65
- 1 1/2	- 1 1/2	6.09	50.84
CLE - S1 (Assortment) 50 Pak		2.00/Pak	

NYLON CLAMPS

Molded of DuPont "Zytel" 101 Nylon Resin, the Nylon Clamps will withstand severe temperature and mechanical conditions. The wide temperature range is from −60°F to +300°F, along with strength and toughness and the fact that they do not support combustion, allow Illumitronic Nylon Clamps to meet the most rigid specifications.

NYLON			
CLN -1/8	241N - 1/8	2.24	18.75
- 3/16	- 3/16	2.38	19.93
- 1/4	- 1/4	2.58	21.75
- 5/16	- 5/16	2.85	23.90
- 3/8	- 3/8	3.00	25.22
- 7/16	- 7/16	3.16	26.66
- 1/2	- 1/2	3.36	28.36
- 9/16	- 9/16	4.18	35.25
- 5/8	- 5/8	4.90	41.25
- 11/16	- 11/16	5.26	44.30
- 3/4	- 3/4	5.56	46.80
- 7/8	- 7/8	6.16	51.80
- 1	- 1	6.35	53.50
CLN - S1 (Assortment) 50 Pak		2.50/Pak	

*MINIMUM TO AGGREGATE - 500 EA SIZE

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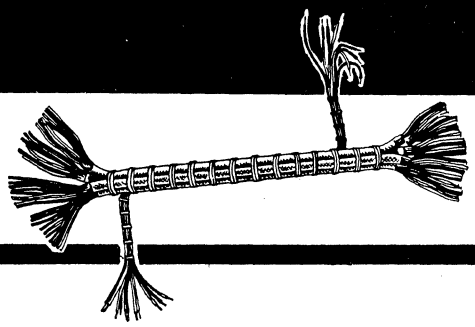
LACING CORD



Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

CAT. #	WIDTH	CLASS	TEST	YDS/SPOOL	COST PER THOUSAND YDS.
FLAT NYLON TAPE (500 YD. SPOOLS)					
* LTN-2 WHITE	3/32	2	48#	500 YDS.	10.86
* LTN-2 BLACK	3/32	2	48#	500 YDS.	11.86
	DIAM.	CLASS	TEST	YDS/PER #	COST PER ONE POUND SPOOLS
ROUND NYLON CORD (1# SPOOLS)					
* LCN-1 WHITE	.050	1	70#	550 YDS.	5.40
* LCN-1 BLACK	.050	1	70#	550 YDS.	6.40
* LCN-2 WHITE	.035	2	48#	750 YDS.	5.40
* LCN-2 BLACK	.035	2	48#	750 YDS.	6.40
* LCN-3 WHITE	.030	3	32#	1100 YDS.	5.40
* LCN-3 BLACK	.030	3	32#	1100 YDS.	6.40
ROUND LINEN CORD (1# SPOOLS)					
* LCL-2 WHITE	.035	2	48#	450 YDS.	3.75
* LCL-2 BLACK	.035	2	48#	450 YDS.	3.95
ROUND VINYL CORD (1# SPOOLS)					
** LCV BLACK	.060	-	-	600 FEET	3.95

* MEETS MIL-T-713A

** ARMY-NAVY APPROVAL UNDER CERT. #ANEESA-13004, SPEC. 1-1-57

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POLYSTRIP LOW VOLTAGE WIRING

SPECIFICATIONS FOR POLYSTRIP CABLE

INSULATION—IRC Type SE self-extinguishing, serviceable to 85°C.

CONDUCTOR SIZE—.002" x .062" copper (equivalent to AWG 28).

OVERALL WIDTH—P1003—.330"
P1005—.630"

NOMINAL THICKNESS—.009" - .010"

CURRENT CARRYING CAPACITY—2 amps maximum

VOLTAGE RATING—28 volts

RESISTANCE—.066 ohms/conductor foot

Dealer Kit #205 . . . everything needed for one or more profit-proving installations.

1—75-foot roll of 5 conductor POLYSTRIP cable

1—75-foot roll of 3-conductor POLYSTRIP cable

6—5PWR (splicing type) connectors for 5-conductor cable

2—5PWA (wirelead type) connectors for 5-conductor cable

6—3PWR connectors for 3-conductor cable

2—3PWA connectors for 3-conductor cable

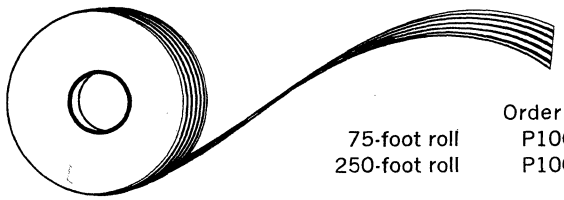
1—50-foot roll of double-backed pressure tape

1—Stripping tool

POLYSTRIP CABLE AND ACCESSORIES

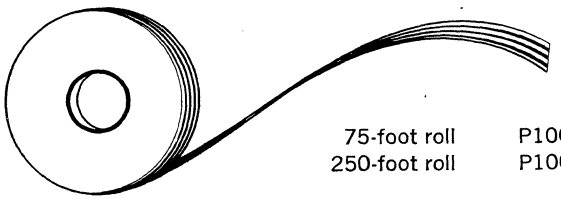
All items in the Dealer Kit can be ordered individually. Savings are possible through quantity orders.

5-CONDUCTOR POLYSTRIP CABLE



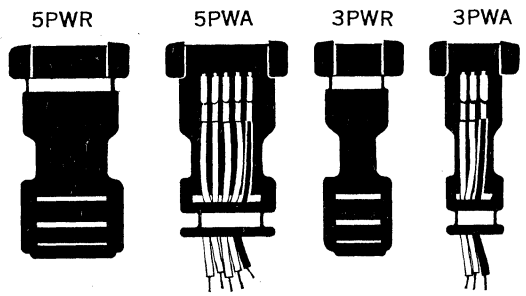
	Order Number
75-foot roll	P1005-75
250-foot roll	P1005-250

3-CONDUCTOR POLYSTRIP CABLE



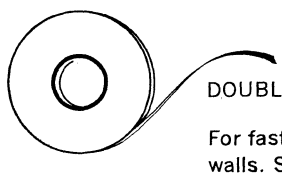
75-foot roll	P1003-75
250-foot roll	P1003-250

CONNECTORS



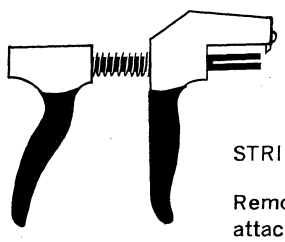
Specially designed and manufactured to speed installation of POLYSTRIP.

Supplied in packages of 10 and 100.



DOUBLE-BACKED TAPE

For fast neat installations without marring walls. Supplied in 50-foot rolls.



STRIPPING TOOL

Removes insulation quickly for connector attachment.

INSULATION REMOVAL

There are several methods of removing Polystrip insulation utilizing heat, cutting or abrasion techniques.

1. The stripping tool is a fast, convenient insulation cutter.
2. A de-soldering iron is an effective stripping tool which uses the heat technique.
3. A similar heat method requires a 240°F. hot plate.
4. Polystrip insulation may be cut with a sharp knife or razor blade.

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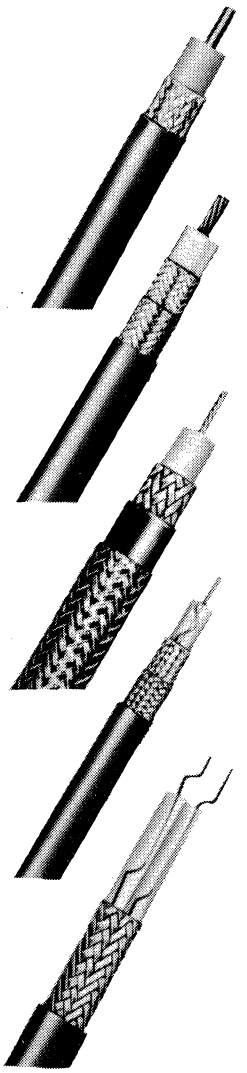
ITT RG Coaxial Cables

ITT Polyethylene Dielectric RG Coaxial Cables are produced to meet rigid military specifications. The superiority and consistent uniformity of these cables are the result of high engineering and quality control standards applied through each step of production—from micrometer gauging of the center conductors to the final outer jacket.

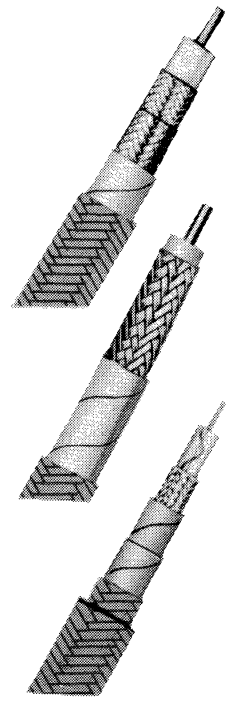


Type	Nom. O.D.	Nom. Imp. Ohms	RMS Test Volts (X 1000)	Center Cond.■	Type	Nom. O.D.	Nom. Imp. Ohms	RMS Test Volts (X 1000)	Center Cond.■
COAXIAL CABLE									
RG-6/U	.335	76	7	CW	RG-59/U	.242	73	7	CW
RG-8/U	.405	52	10	C	RG-59A/U	.242	75	7	CW
RG-8A/U	.405	50	10	C	RG-59B/U	.246	75	7	CW
RG-9A/U	.420	51	10	S	RG-62/U	.242	93	3	CW
RG-9B/U	.425	50	10	S	RG-62A/U	.242	93	3	CW
RG-10/U	.475	50	10	C	RG-62B/U	.242	93	3	CW
RG-10A/U	.475	50	10	C	RG-63/U	.405	125	3	CW
RG-11/U	.405	75	10	T	RG-63B/U	.405	125	3	CW
RG-11A/U	.405	75	10	T	RG-65A/U	.405	950	3	C
RG-12/U	.475	75	10	T	RG-71/U	.250	93	3	CW
RG-12A/U	.475	75	10	T	RG-71A/U	.250	93	3	CW
RG-13A/U	.425	75	10	T	RG-71B/U	.250	93	3	CW
RG-14A/U	.545	50	12	C	RG-74A/U	.615	50	12	C
RG-17/U	.870	52	22	C	RG-79B/U	.475	125	3	CW
RG-17A/U	.870	50	22	C	RG-108A/U	.235	78	2	T
RG-18A/U	.945	50	22	C	RG-122/U	.160	50	5	T
RG-22/U	.405	95	2	C	RG-174/U	.100	50	4.5	CW
RG-55/U	.201	53.5	5	S	RG-213/U	.412	50	10	C
RG-55A/U	.216	50	5	S	RG-214/U	.412	50	10	S
RG-55B/U	.206	53.5	5	S	RG-218/U	.870	50	22	C
RG-58/U	.195	53.5	5	C	RG-219/U	.945	50	22	C
RG-58A/U	.195	52	5	T	RG-223/U	.216	50	5	S
RG-58C/U	.195	50	5	T					

■—S—Silvered Copper; CW—Copperweld;
C—Copper; T—tinned copper;

ITT Teflon Coaxial Cables

Teflon dielectric cable exhibits high dielectric strength and low dielectric constant. Teflon's ability to withstand high temperature and exposure to gases and liquids accounts for its use where other cables prove inadequate. Fiberglas or Teflon jackets add to this cable's resistance to abrasion, moisture and temperature.



MIL Number	Nom. Imp. Ohms	Jacket Dia.	Type Jacket*	Shield 1st	Shield 2nd	O.D. of Dielectric†	Center Conductor#	Cap. μμf/ft.	Max. Op. Volts RMS
RG-87A/U	50	.440"	V(2)	S	S	.285"TF	7/20S	29.5	5000
RG-140/U	75	.241"	V	S		.146"TF	.025SCW	21.0	2300
RG-141/U	50	.195"	V	S		.116"TF	.0359SCW	28.5	1900
RG-141A/U	50	.195"	V	S		.116"TF	.039SCW	28.5	1900
RG-142/U	50	.206"	V	S	S	.116"TF	.0359SCW	28.5	1900
RG-142A/U	50	.206"	V	S	S	.116"TF	.039SCW	28.5	1900
RG-143/U	50	.325"	V(2)	S	S	.185"TF	.057SCW	28.5	3000
RG-187/U	75	.110"	VII	S		.063"TF	7/38SCW	19.5	1200
RG-188/U	50	.110"	VII	S		.060"TF	7/.0067SCW	29.0	1200
RG-195/U	95	.155"	VII	S		.102"TF	7/38SCW	15.0	1500
RG-196/U	50	.080"	VII	S		.034"TF	7/38SCW	29.0	1000
RG-211/U	50	.745"	V(2)	C		.620"TF	.190C	29.0	7000
RG-225/U	50	.435"	V(2)	S	S	.285"TT	7/.0312S	29.5	5000

Note: Operating Temperature Limits: Fiberglas, —55° C to +250° C; Teflon, —55° C to + 200° C; *V—Fiberglas Braid; VII—Teflon. †TT—Teflon Tape; TF-Teflon. #S—Silver-coated copper; C—Copper; CW—Copperweld; SCW—Silver-coated Copperweld.

ITT DISTRIBUTOR PRODUCTS DIVISION
INTERNATIONAL TELEPHONE & TELEGRAPH CORPORATION

We reserve the right to change specifications without notice.

In inventory at your local ITT Distributor at OEM prices.

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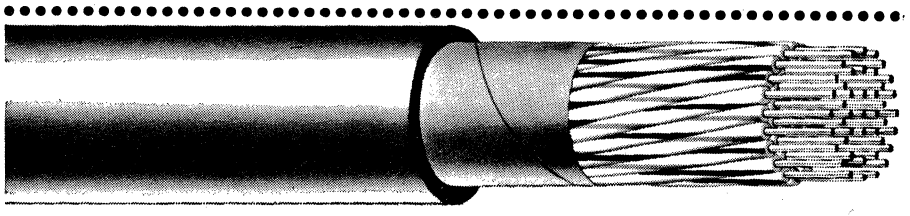
NATIONAL

LOS ANGELES, CALIF.

WIRE & CABLE CORPORATION

See "File-O-Matic" for our complete line

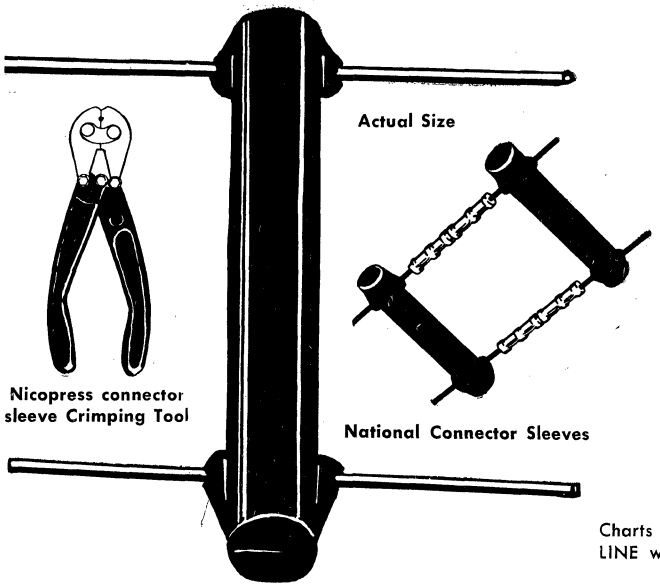
MULTIPLE CONDUCTOR CONTROL CABLES



NATIONAL Multiple Conductor Cables are engineered and constructed to give maximum service and satisfaction. Conductors are of tinned copper strand with primary insulation of 105°C Military Specification Thermoplastic. Insulated for 1000 volts working voltage.
Conductors are color coded using 10 standard basic colors plus spiral tracers on white.
All conductors are planetary cabled and contra-helically laid with a Mylar tape serve over the cable complex to a 50% overlap.
The overall jacket is a 105°C black Thermoplastic.
Construction of conductors is to MIL-W 16878C Type C Specification.

SHIELDED CABLES

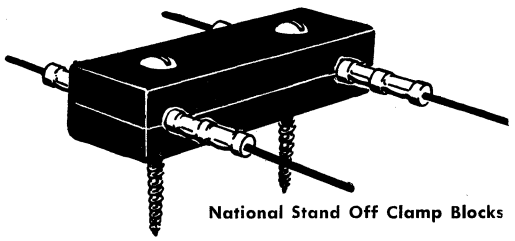
NATIONAL Multiple Conductor SHIELDED CABLES are to same specifications as above with addition of tinned copper braided shield over cable complex to 85-90% coverage to MIL-C-7078A.
STANDARD PUT-UPS: 500 Ft. and 1000 Ft. No Deposit Reels.
Prices on Request . . .



Actual Size

Nicopress connector sleeve Crimping Tool

National Connector Sleeves



National Stand Off Clamp Blocks

NATIONAL OPENLINE DOMESTIC TELEVISION LEAD-IN

SOLID COPPER, FORMVAR COATED.

Catalog #N-470-1

1 inch spacing between conductors . . . Spreaders at 6 inch intervals . . . Impedance 470 ohms . . . Standard put-up 250 feet reels, 12 reels per carton
Shipping weight 50 lbs.

Catalog #N-300½

½ inch spacing between conductors . . . Spreaders at 6 inch intervals . . . Impedance 300 ohms (approx.) . . . Standard put-up 250 foot reels, 20 reels per carton. Shipping weight 75 lbs.

NATIONAL 1 inch and ½ inch OPENLINE is available on 100, 75, 60 and 50 foot reels and is also available in Copperweld.

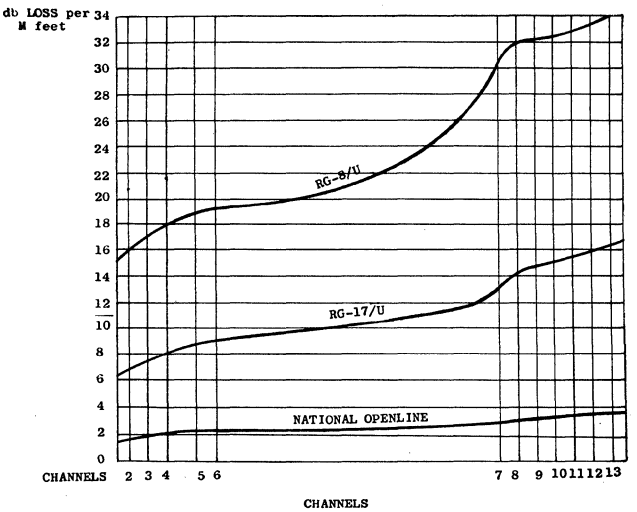
NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 or 14 ga. copperweld . . . 470 or 500 ohm impedance . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB per 100 FEET. Velocity factor O.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance . . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

CATALOG #N-470-300: TAPERED LINE impedance matching transformer for 2 inch OPENLINE. Matches 470 ohm line to 300 ohms. (Not Shown)

Charts showing the db loss per 1000 feet of NATIONAL OPENLINE with comparison to RG-8/U and RG-17/U.



CHANNELS

2	3	4	5	6	7	8	9	10	11	12	13
1.67	1.82	1.90	2.03	2.11	2.94	3.09	3.14	3.19	3.25	3.30	3.34
16.	17.	18.	19.	19.5	30.	32.	32.4	32.6	33.	33.5	34.
7.	7.3	8.	8.75	9.	13.	14.5	14.75	15.	15.5	16.	16.25

SEND FOR COMPLETE INFORMATION AND PRICES ON OPEN LINE ACCESSORIES.

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NATIONAL WIRE & CABLE CORPORATION

LOS ANGELES, CALIF.

Immediate source for "MIL and Jan-Spec" wires!

MIL-W-16878

Type B

Type B-Nylon

Type C

Type C-Nylon

Type D

Type D-Nylon

TEFLON

Type E
Type EE

MIL-W-7078 & 7078A
Type I & II

MIL-W-5086 Type I, II, III

MIL-W-76

Type MW *(Medium Wall)*

Type MW-B *(Medium Wall — Braided)*

Type MW-S *(Medium Wall — Shielded)*

Type MW-J *(Medium Wall — Nylon Jacket)*

Type MW-JS *(Medium Wall — Jacketed and Shielded)*

Type HW *(Heavy Wall)*

Type HW-J *(Heavy Wall — Nylon Jacket)*

Type LW *(Light Wall)*

Type LW-J *(Light Wall — Nylon Jacket)*

H.Q.

FOR ALL YOUR WIRE AND CABLE NEEDS!

National has the largest electronic and aircraft wire and cable inventory west of Chicago. Your immediate source for "Mil & Jan-Spec" wires, co-axial cables and vinyl sleeving.

Special color coded, shielded, shielded and jacketed combinations of hookup wire and multi-conductor cables made to your specifications and delivered promptly without delay.

PHONE, WRITE or WIRE FOR FAST SERVICE

NATIONAL WIRE & CABLE CORP.

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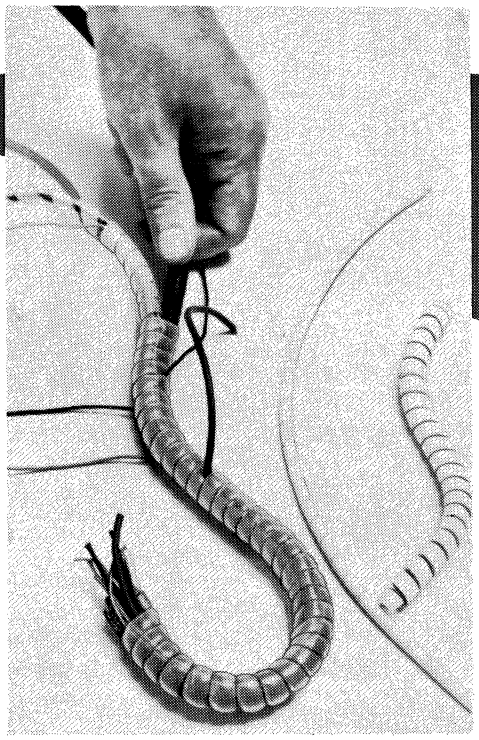

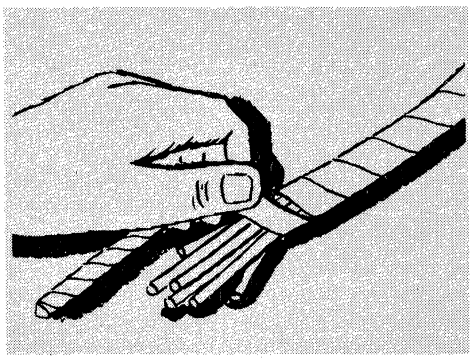

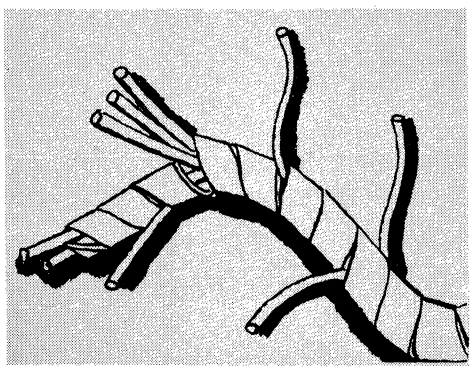

Heli-Tube®

FOR BINDING WIRES AND CABLES QUICKLY AND ECONOMICALLY!

A spirally-cut, shape-retaining polyethylene or nylon tubing perfect for holding wires and cables together tightly. Individual wires, taps, or lead-offs can be made at any point. Unwinds easily for adding or removing wires — eliminates lacing cord and spaghetti tubing. Resists all chemicals and solvents; impermeable to moisture; non-staining and non-toxic; high dielectric constant.

Available in 5 Forms . . .

- **Clear** for general applications . . . material meets MIL-P-3803.
- **Nylon** — wide temperature range . . . very light weight . . . material meets MIL-P-17091.
- **Ultraviolet-Resistant** for outdoor use.
- **Fire-Resistant** for switchboard conduits, etc.
- **Type 275°F** . . . for high ambient temperature environments.

Each form in 3 diameters . . .

- **Instrument Size:** 1/8" O. D. — for bundles up to 1/2" dia.
- **Harness Size:** 1/4" O. D. — for bundles up to 2" dia.
- **Giant Cable Size:** 1/2" O. D. — for bundles up to 4" dia.

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M. M. NEWMAN CORPORATION

Marblehead, Massachusetts

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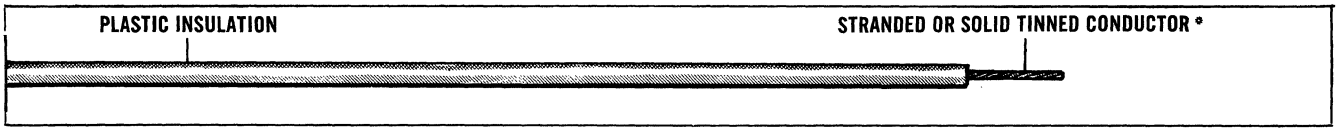
Hook-up Wire

PLASTIC TYPE



SOLID CONDUCTOR

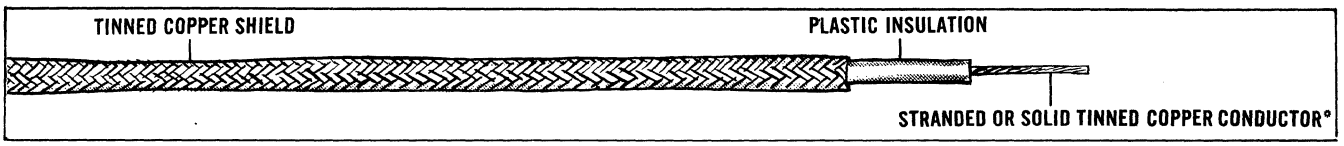
SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1AD22	22	Solid	.016"	.061"	$4.50
1AD20	20	Solid	.016"	.064"	5.10
1AD18	18	Solid	.016"	.072"	9.95

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1A24	24	7 x 32	.016"	.056"	$4.75
1A22	22	7 x 30	.016"	.062"	4.98
1A20	20	10 x 30	.016"	.067"	6.55
1A18	18	16 x 30	.016"	.077"	9.85
1A16	16	26 x 30	.016"	.092"	16.50
1A14	14	41 x 30	.016"	.106"	26.00

Shielded Hook-up Wire

PLASTIC TYPE

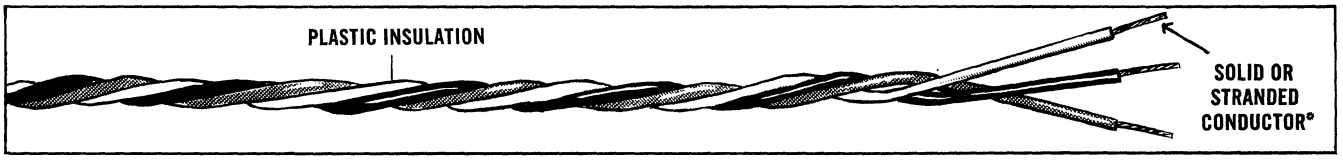


STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1AS22	22	7 x 30	.016"	.090"	$23.80
1AS20	20	10 x 30	.016"	.100"	25.90
1AS18	18	16 x 30	.016"	.120"	30.10
1AS16	16	26 x 30	.016"	.130"	36.40
1AS14	14	41 x 30	.016"	.150"	49.00
1AS12	12	65 x 30	.016"	.170"	103.25
1AS10	10	105 x 30	.025"	.195"	148.40

Unshielded Audio Cable

2 AND 3 CONDUCTOR
NO OUTER JACKET



SOLID CONDUCTOR

SAXTON NUMBER	NO.	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2AD22	2	22	Solid	.016"	.100"	$9.45
3AD22	3	22	Solid	.016"	.115"	14.35
2AD20	2	20	Solid	.016"	.120"	15.82
3AD20	3	20	Solid	.016"	.135"	22.96
2AD18	2	18	Solid	.016"	.145"	20.96
3AD18	3	18	Solid	.016"	.160"	30.52
2AD16	2	16	Solid	.016"	.175"	33.52
3AD16	3	16	Solid	.016"	.190"	43.40

STRANDED CONDUCTOR

SAXTON NUMBER	NO.	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2A22	2	22	7 x 30	.016"	.125"	$12.81
3A22	3	22	7 x 30	.016"	.140"	18.90
2A20	2	20	10 x 30	.016"	.145"	17.36
3A20	3	20	10 x 30	.016"	.160"	25.83
2A18	2	18	16 x 30	.016"	.165"	17.43
3A18	3	18	16 x 30	.016"	.180"	29.36
2A16	2	16	26 x 30	.016"	.190"	22.36
3A16	3	16	26 x 30	.016"	.210"	38.85

saxton wire and cable division — NEW YORK, N. Y.

Bare conductors available.

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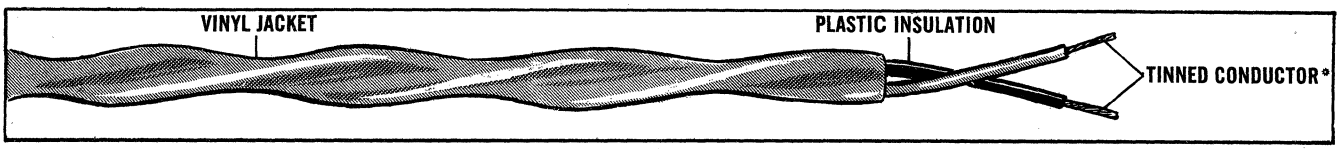
Multi-Conductor Jacketed Cable

PLASTIC JACKET
.020" Wall Thickness



SOLID CONDUCTOR

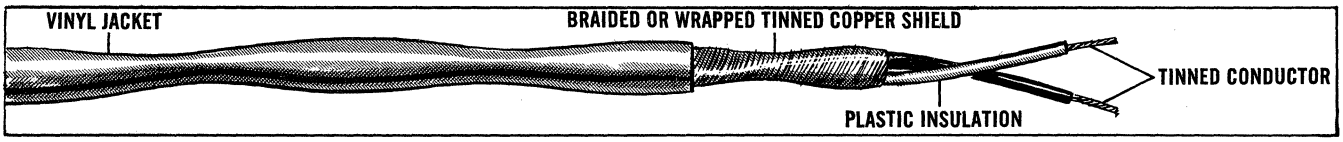
SAXTON NUMBER	CONDUCTOR NUMBER	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	PRICE Per M'
JD22	2	22	Solid	.015"	.140"	$12.39
JD22	3	22	Solid	.015"	.150"	18.48
JD22	4	22	Solid	.015"	.170"	23.80
JD22	5	22	Solid	.015"	.185"	29.26
JD22	6	22	Solid	.015"	.190"	36.54
JD22	7	22	Solid	.015"	.200"	46.76
JD22	8	22	Solid	.015"	.210"	54.56
JD22	9	22	Solid	.015"	.240"	60.34
JD22	10	22	Solid	.015"	.250"	69.58
JD22	12	22	Solid	.015"	.270"	91.70
JD22	15	22	Solid	.015"	.300"	122.85
JD20	2	20	Solid	.015"	.155"	18.48
JD20	3	20	Solid	.015"	.165"	29.75
JD20	4	20	Solid	.015"	.195"	38.85
JD20	5	20	Solid	.015"	.220"	50.05
JD20	6	20	Solid	.015"	.230"	71.82
JD20	7	20	Solid	.015"	.240"	80.50
JD20	8	20	Solid	.015"	.285"	97.44
JD20	9	20	Solid	.015"	.300"	109.20
D20	10	20	Solid	.015"	.315"	118.44
D20	20	20	Solid	.015"	.330"	140.00
D20	15	20	Solid	.015"	.345"	182.00
D20	20	20	Solid	.015"	.400"	245.00
D18	2	18	Solid	.015"	.188"	26.60
D18	3	18	Solid	.015"	.208"	37.80
D18	4	18	Solid	.015"	.223"	51.80
D18	5	18	Solid	.015"	.233"	66.50
D18	6	18	Solid	.015"	.263"	79.80

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR NUMBER	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	PRIC Per M
2J22	2	22	7 x 30	.015"	.145"	$15.9
3J22	3	22	7 x 30	.015"	.160"	18.5
4J22	4	22	7 x 30	.015"	.185"	24.1
5J22	5	22	7 x 30	.015"	.190"	29.7
6J22	6	22	7 x 30	.015"	.195"	35.7
7J22	7	22	7 x 30	.015"	.215"	41.7
8J22	8	22	7 x 30	.015"	.225"	47.60
9J22	9	22	7 x 30	.015"	.245"	55.30
10J22	10	22	7 x 30	.015"	.260"	64.36
12J22	12	22	7 x 30	.015"	.285"	74.16
15J22	15	22	7 x 30	.015"	.340"	110.88
2J20	2	20	10 x 30	.015"	.175"	18.48
3J20	3	20	10 x 30	.015"	.185"	31.78
4J20	4	20	10 x 30	.015"	.205"	42.00
5J20	5	20	10 x 30	.015"	.230"	54.25
6J20	6	20	10 x 30	.015"	.250"	77.00
7J20	7	20	10 x 30	.015"	.260"	84.70
8J20	8	20	10 x 30	.015"	.305"	103.60
9J20	9	20	10 x 30	.015"	.320"	114.80
10J20	10	20	10 x 30	.015"	.325"	132.44
12J20	12	20	10 x 30	.015"	.345"	154.00
15J20	15	20	10 x 30	.015"	.365"	196.00
20J20	20	20	10 x 30	.015"	.420"	266.00
2J18	2	18	16 x 30	.015"	.210"	25.20
3J18	3	18	16 x 30	.015"	.230"	38.85
4J18	4	18	16 x 30	.015"	.245"	52.15
5J18	5	18	16 x 30	.015"	.260"	72.10
6J18	6	18	16 x 30	.015"	.275"	84.56

Multi-Conductor Shielded Cable

PLASTIC JACKET
.020" Wall Thickness



SAXTON NUMBER	TYPE SHIELD	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SSJ22	Wrap	2	22	7 x 30	.016"	.020"	.175"	$30.73
2SSJD22	Wrap	2	22	Solid	.016"	.020"	.170"	25.13
1SSJ22	Wrap	1	22	7 x 30	.016"	.020"	.135"	25.06
2SSJ20	Wrap	2	20	10 x 30	.016"	.020"	.195"	35.00
3SSJ20	Wrap	3	20	10 x 30	.016"	.020"	.210"	49.70
4SSJ20	Wrap	4	20	10 x 30	.016"	.020"	.225"	72.38
2SSJ18	Wrap	2	18	16 x 30	.016"	.020"	.230"	42.00
2SSJ16	Wrap	2	16	26 x 30	.016"	.020"	.250"	63.70
2SJ22	Braid	2	22	7 x 30	.016"	.020"	.183"	33.74
2SJ20	Braid	2	20	10 x 30	.016"	.020"	.195"	45.50
2SJ18	Braid	2	18	16 x 30	.016"	.020"	.235"	51.10

Bare conductors available. For additional constructions see page 4.

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wire and cable division
NEW YORK, N. Y.

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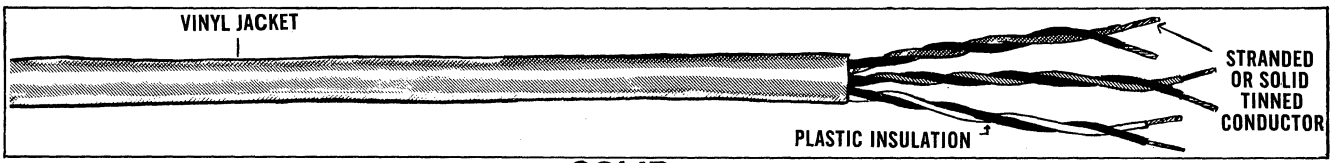
Intercom Cable

TWISTED PAIRS WITH PLASTIC JACKET



SOLID

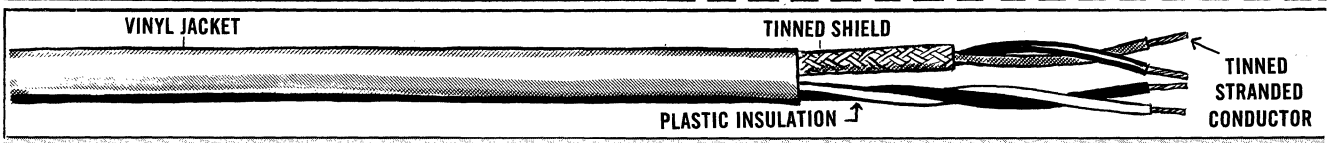
SAXTON NUMBER	NUMBER PAIRS	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M'
2PD22	1	2	22	Solid	.015"	.020"	.128"	$12.18
4PD22	2	4	22	Solid	.015"	.020"	.205"	22.47
6PD22	3	6	22	Solid	.015"	.020"	.230"	31.78
12PD22	6	12	22	Solid	.015"	.020"	.330"	47.60
14PD22	7	14	22	Solid	.015"	.020"	.345"	58.80
18PD22	9	18	22	Solid	.015"	.020"	.370"	69.02
22PD22	11	22	22	Solid	.015"	.020"	.385"	97.30
26PD22	13	26	22	Solid	.015"	.025"	.415"	112.00
30PD22	15	30	22	Solid	.015"	.025"	.450"	127.40
32PD22	16	32	22	Solid	.015"	.025"	.470"	168.00
54PD22	27	54	22	Solid	.015"	.035"	.605"	231.00
62PD22	31	62	22	Solid	.015"	.035"	.630"	287.00
82PD22	41	82	22	Solid	.015"	.035"	.710"	401.80
102PD22	51	102	22	Solid	.015"	.045"	.845"	520.80

STRANDED

SAXTON NUMBER	NUMBER PAIRS	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M'
2P22	1	2	22	7 x 30	.015"	.020"	.155"	$16.76
4P22	2	4	22	7 x 30	.015"	.020"	.220"	30.76
6P22	3	6	22	7 x 30	.015"	.020"	.245"	49.00
8P22	4	8	22	7 x 30	.015"	.020"	.275"	63 70
10P22	5	10	22	7 x 30	.015"	.020"	.320"	67.62
12P22	6	12	22	7 x 30	.015"	.020"	.340"	73.78
18P22	9	18	22	7 x 30	.015"	.020"	.375"	105.56
22P22	11	22	22	7 x 30	.015"	.020"	.415"	128.80
30P22	15	30	22	7 x 30	.015"	.025"	.485"	168.00
54P22	27	54	22	7 x 30	.015"	.035"	.645"	322.00

Audio Cable

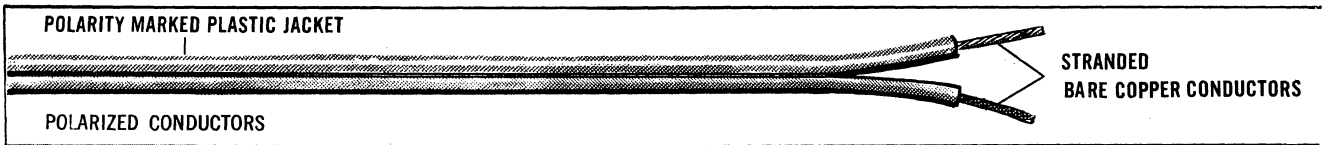
COMBINATION SHIELDED & JACKETED



SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M
4SJ22	4 (2 Conductors Shielded . . . 2 Unshielded)	22	7 x 30	.016"	.020"	.315"	$39.0
3SJ22	3 (1 Conductor Shielded . . . 2 Unshielded)	22	7 x 30	.016"	.020"	.200"	29.8

Unshielded Speaker Wire

PLASTIC TYPE



SAXTON NUMBER	NO.	CONDUCTORS AWG	STRANDING	WALL THICKNESS	NOMINAL O.D.	PRICE Per M'
2F24*	2	24	7 x 32	.016"	.061" x .137"	$10.95
2F20	2	20	10 x 30	.016"	.105" x .210"	13.30
2F18	2	18	41 x 34	.016"	.130" x .215"	17.15
2F18A	2	18	16 x 30	.016"	.130" x .215"	17.01
2F18B	2	18	41 x 34	.032"	.150" x .285"	28.70
3F18	3	18	41 x 34	.032"	.120" x .330"	36.40
2F16	2	16	65 x 34	.032"	.160" x .300"	40.04

SAXTON PAGE 3

* 2F24—Clear—$12.09 Colors— 11.26

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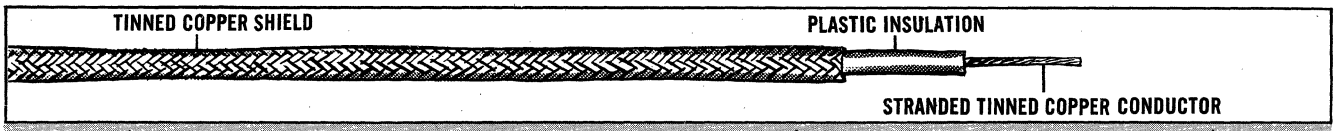
Net

Phono Wire

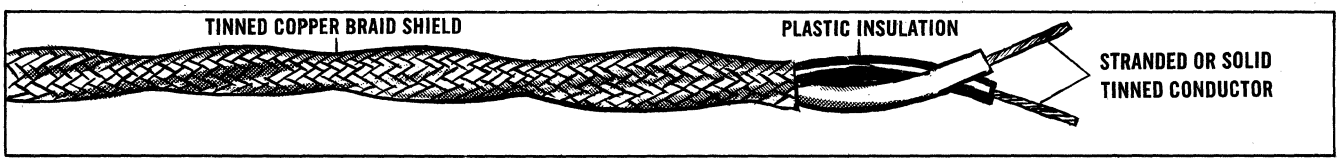
1 AND 2 CONDUCTOR SHIELDED - UNJACKETED



SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1S24	1	24	16 x 36	.016	.080	$18.20
2S24	2	24	16 x 36	.016	.125	23.10

Audio Cable

2 CONDUCTOR SHIELDED - UNJACKETED



SOLID

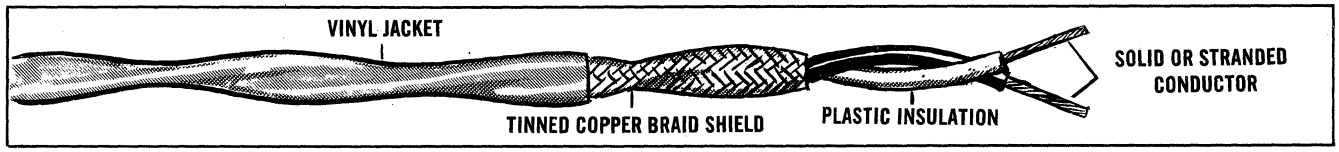
SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SD22	2	22	Solid	.016"	.132"	$19.53
2SD20	2	20	Solid	.016"	.148"	25.13
2SD18	2	18	Solid	.016"	.175"	32.62

STRANDED

SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2S24	2	24	16 x 36	.016"	.125"	$ 23.10
2S22	2	22	7 x 30	.016"	.140"	24.50
2S20	2	20	10 x 30	.016"	.155"	25.55
2S18	2	18	16 x 30	.016"	.170"	36.33
2S16	2	16	26 x 30	.020"	.210"	66.95
2S14	2	14	41 x 30	.020"	.225"	94.08
2S12	2	12	65 x 30	.025"	.295"	161.00

Audio Cable

2 CONDUCTOR SHIELDED & JACKETED



SOLID

SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SDJ22	2	22	Solid	.016"	.020"	.172"	$25.90
2SDJ20	2	20	Solid	.016"	.020"	.208"	31.64
2SDJ18	2	18	Solid	.016"	.020"	.218"	43.40

STRANDED

SAXTON NUMBER	NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SJ22	2	22	7 x 30	.016"	.020"	.183"	$33.74
2SJ20	2	20	10 x 30	.016"	.020"	.195"	45.50
2SJ18	2	18	16 x 30	.016"	.020"	.235"	51.10

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wire and cable division
NEW YORK, N. Y.

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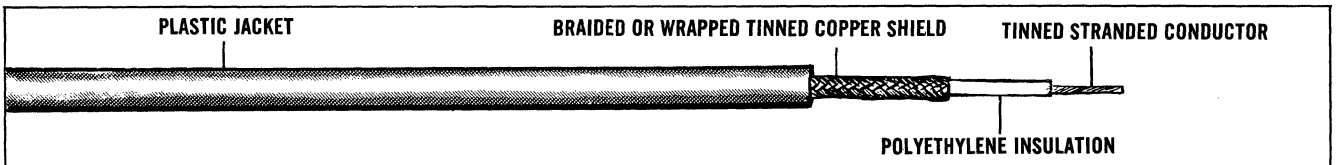
Audio Cable

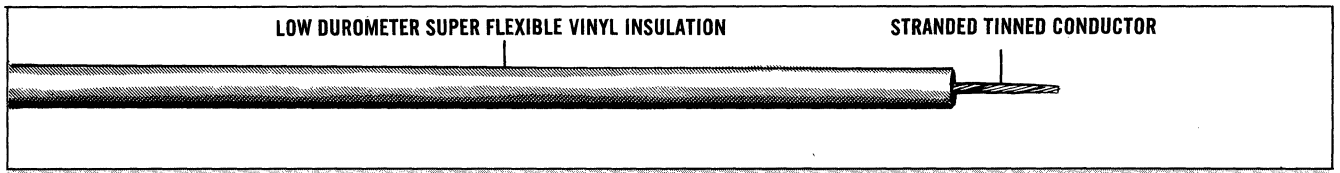
LOW LOSS - MICROPHONE AND INPUT CABLE



SAXTON NUMBER	NOMINAL CAPACITANCE/FT.	SHIELD TYPE	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1SSJC26	38 mmf.	Wrap	1	26	7 x 34 Copperweld	.016"	.020"	.125"	$24.50
1SJC24	35 mmf.	Braid	1	24	10 x 34	.016"	.030"	.145"	24.92
1SJC24A	23 mmf.	Braid	1	24	10 x 34	.040"	.030"	.200"	33.60
1SJC20	36 mmf.	Braid	1	20	26 x 34	.030"	.030"	.175"	47.60
2SJC22	31 mmf.	Braid	2	22	16 x 34	.025"	.030"	.230"	47.60
3SJC20	34 mmf.	Braid	3	20	26 x 34	.025"	.035"	.290"	61.60
4SJC20	36 mmf.	Braid	4	20	26 x 34	.025"	.035"	.315"	70.00
5SJC20	45 mmf.	Braid	5	20	26 x 34	.025"	.035"	.340"	91.00

Test Lead Wire

SUPER FLEXIBLE VINYL INSULATION *



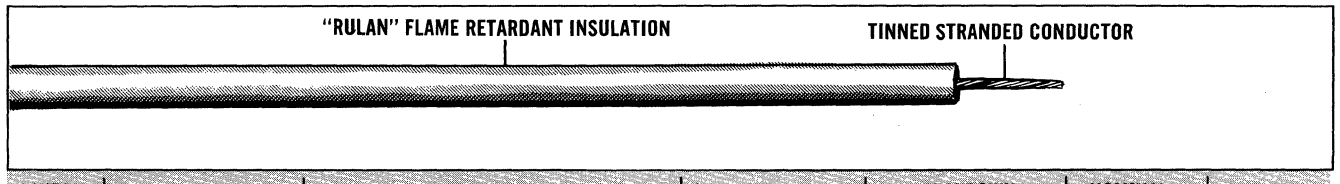
SAXTON NUMBER	TYPE	CONDUCTORS AWG	CONDUCTORS STRANDING	WALL THICKNESS	BREAKDOWN VOLTAGE	NOMINAL O.D.	NET PRICE Per M'
1C20	Standard	20	41 x 36	.040	5,000 V.	.120	$12.67
1C20A	Standard	20	41 x 36	.044	8,500 V.	.130	13.23
1C20B	Standard	20	41 x 36	.047	10,000 V.	.135	14.98
1C18	Standard	18	41 x 34	.047	12,000 V.	.140	16.80
1C18A	Heavy Duty	18	41 x 34	.109	22,000 V.	.245	27.44

Specify Color—Red or Black

*In stock and available in rubber—red, black, or green—18 or 20 gauge—to mil spec.

Hi Voltage Wire

FLAME RETARDANT RULAN INSULATION



SAXTON NUMBER	TYPE	CONDUCTORS AWG	CONDUCTORS STRANDING	WALL THICKNESS	BREAKDOWN VOLTAGE	NOMINAL O.D.	NET PRICE Per M'
1R20	Unshielded	20	10 x 30	.047	10,000 V.	.120	$17.15
1R20A	Unshielded	20	10 x 30	.063	20,000 V.	.170	25.06
1R18	Unshielded	18	16 x 30	.095	40,000 V.	.240	46.34

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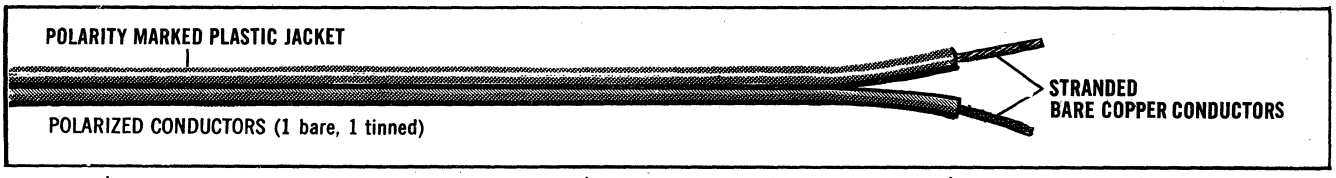
E-Z Zip Cord

2 AND 3 CONDUCTOR

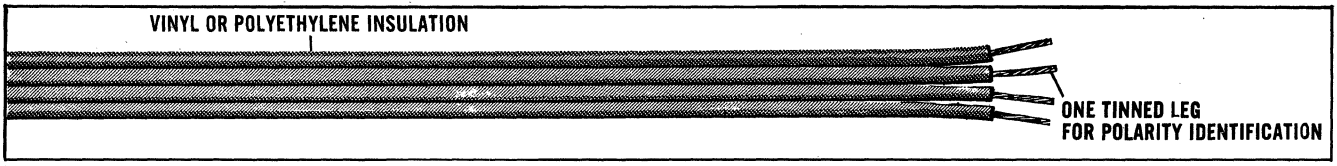


SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	WALL THICKNESS	U/L TYPE	NOMINAL O.D.	NET PRICE Per M'
2F24*	2	24	7 x 32	.016	—	.061 x .137	$10.95
2F20	2	20	10 x 30	.016	—	.105 x .210	13.30
2F18	2	18	41 x 34	.016	SPT-1	.130 x .215	17.15
2F18A	2	18	16 x30	.016		.130 x .215	17.01
2F18B	2	18	41 x 34	.032	SPT-2	.150 x .285	28.70
2F18C	3	18	41 x 34	.016	SPT-1	.120 x .330	36.40
2F16	2	16	65 x 34	.032	SPT-2	.160 x .300	40.04

Rotor Cable

LOW LOSS FLAT TYPE

(FOR ROUND CONSTRUCTION—SEE PAGES 3 & 4)



SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION MATERIAL	NOMINAL O.D.	NET PRICE Per M'
4FC2	4	22	7 x 30	Polyethylene	.085 x .360"	$15.19
4FC2A	4	22	7 x 30	Polyvinyl Chloride	.090 x .430"	17.08
4FC3	4	20	10 x 30	Polyethylene	.085 x .360"	18.55
4FC3A	4	20	10 x 30	Polyvinyl Chloride	.090 x .430"	20.93

MIL-C-3432A MIL-C-3884

WITH CERTIFICATION

SAXTON NUMBER	SPECIFICATION DESIGNATION		CONSTRUCTION	SPECIFICATION No.	NOMINAL O.D.
2M18 †	CO-02	MGF	2/18 SJO (Shielded)	MIL-C-3432A	0.375
2M18A †	CO-02	MGF	2/18	MIL-C-3432A	0.300
2M18B †	CO-02	HGF	2/18	MIL-C-3432A	0.380
2M18C †	CO-02	LGF	2/18	MIL-C-3432A	0.250
2M16 †	CO-02	HGF	2/16	MIL-C-3432A	0.405
2M16A †	CO-02	MGF	2/16	MIL-C-3432A	0.338
2M14 †	CO-02	MGF	2/14	MIL-C-3432A	0.400
2M14A †	CO-02	HGF	2/14	MIL-C-3432A	0.535
3M18 †	CO-03	MGF	3/18	MIL-C-3432A	0.330
3M16 †	CO-03	MGF	3/16 SJO (Shielded)	MIL-C-3432A	0.360
3M16A †	CO-03	MGF	3/16	MIL-C-3432A	0.375
3M12 †	CO-03	HOE	3/12	MIL-C-3432A	0.635
5M20 †	CO-05	MGF	5/20	MIL-C-3432A	0.400
2M18D †	COS		2/18	MIL-C-3884	0.290
3M18A †	COS		3/18	MIL-C-3884	0.290
2M20 †	COS		2/20	MIL-C-3884	0.280
3M20 †	COS		3/20	MIL-C-3884	0.280

† All Prices on Request.

* 2F24 Clear—$12.09 Colors— 11.26

We carry — in stock — one of the most comprehensive inventories of MIL-C-3432A and MIL-3884 on the Eastern Seaboard. It is impossible to list all but the popular types. Your inquiries will receive prompt attention and service.

saxton wire and cable division NEW YORK, N. Y.

SAXTON PAGE 6

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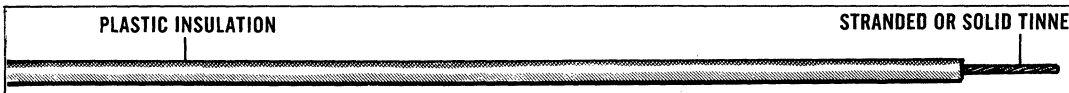
MIL-W-76B

WITH CERTIFICATION



TYPE MW - UNCOVERED PLASTIC - MEDIUM WALL - 1000V. RATING

SOLID

SAXTON NUMBER	SPECIFICATION DESIGNATION	AWG No.	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1MD22	MW-C 22(1)U	22	.016"	.061"	$4.55
1MD20	MW-C 20(1)U	20	.016"	.064"	5.18
1MD18	MW-C 18(1)U	18	.016"	.072"	9.50
1MD16	MW-C 16(1)U	16	.016"	.083"	16.10

STRANDED

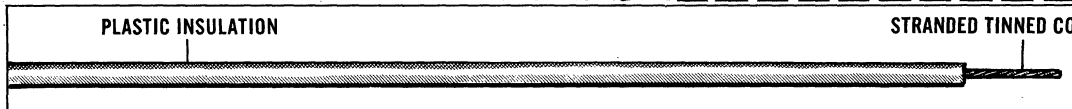
SAXTON NUMBER	SPECIFICATION DESIGNATION	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M24	MW-C 24(7)U	24	7 x 32	.016"	.056"	$4.90
1M22	MW-C 22(7)U	22	7 x 30	.016"	.062"	5.39
1M20	MW-C 20(10)U	20	10 x 30	.016"	.067"	6.65
1M18	MW-C 18(16)U	18	16 x 30	.016"	.077"	8.75
1M16	MW-C 16(26)U	16	26 x 30	.016"	.092"	16.10
1M14	MW-C 14(41)U	14	41 x 30	.016"	.106"	26.50
1M12	MW-C 12(65)U	12	65 x 30	.016"	.127"	36.50

TYPE HW - UNCOVERED PLASTIC - HEAVY WALL

SAXTON NUMBER	SPECIFICATION DESIGNATION	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22A	HW-C 22(7)U	22	7 x 30	.032"	.094"	$12.56
1M20A	HW-C 20(10)U	20	10 x 30	.032"	.099"	16.03
1M18A	HW-C 18(16)U	18	16 x 30	.032"	.109"	20.96
1M16A	HW-C 16(26)U	16	26 x 30	.032"	.122"	27.68
1M14A	HW-C 14(41)U	14	41 x 30	.045"	.165"	45.50
1M12A	HW-C 12(65)U	12	65 x 30	.045"	.185"	62.02

MIL-W-16878C

WITH CERTIFICATION

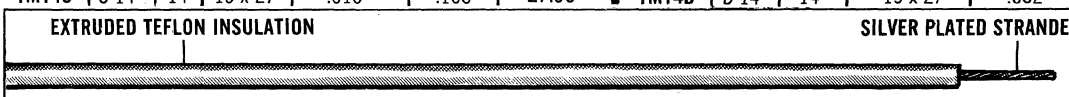


TYPE C UNCOVERED PLASTIC—1000 VOLT RATING

SAXTON NUMBER	SPEC DES	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22C	C-22	22	7 x 30	.016"	.065"	$8.05
1M20C	C-20	20	7 x 28	.016"	.073"	10.36
1M18C	C-18	18	7 x 26	.016"	.081"	13.72
1M16C	C-16	16	19 x 29	.016"	.092"	17.50
1M14C	C-14	14	19 x 27	.016"	.103"	27.96

TYPE D UNCOVERED PLASTIC—3000 VOLT RATING

SAXTON NUMBER	SPEC DES	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22D	D-22	22	7 x 30	.032"	.097"	13.65
1M20D	D-20	20	7 x 28	.032"	.105"	15.96
1M18D	D-18	18	7 x 26	.032"	.113"	20.72
1M16D	D-16	16	19 x 29	.032"	.124"	24.50
1M14D	D-14	14	19 x 27	.032"	.135"	29.75



TYPE E EXTRUDED TEFLON—600 VOLT RATING

SAXTON NUMBER	SPEC DES	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M30E	E-30	30	7 x 38	.010"	.033"	$38.50
1M28E	E-28	28	7 x 36	.010"	.036"	39.90
1M26E	E-26	26	7 x 34	.010"	.041"	45.50
1M24E	E-24	24	19 x 36	.010"	.046"	49.70
1M22E	E-22	22	19 x 34	.010"	.052"	59.50
1M20E	E-20	20	19 x 32	.010"	.060"	71.40
1M18E	E-18	18	19 x 30	.010"	.072"	89.60
1M16E	E-16	16	19 x 29	.010"	.084"	128.59
1M14E	E-14	14	19 x 27	.010"	.098"	187.60

TYPE EE EXTRUDED TEFLON—1000 VOLT RATING

SAXTON NUMBER	SPEC DES	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M30EE	EE-30	30	7 x 38	.015"	.043"	$57.19
1M28EE	EE-28	28	7 x 36	.015"	.046"	60.90
1M26EE	EE-26	26	7 x 34	.015"	.050"	54.46
1M24EE	EE-24	24	19 x 36	.015"	.056"	64.40
1M22EE	EE-22	22	19 x 34	.015"	.062"	72.94
1M20EE	EE-20	20	19 x 32	.015"	.070"	86.80
1M18EE	EE-18	18	19 x 30	.015"	.081"	107.52
1M16EE	EE-16	16	19 x 29	.015"	.090"	154.35
1M14EE	EE-14	14	19 x 27	.015"	.104"	215.60

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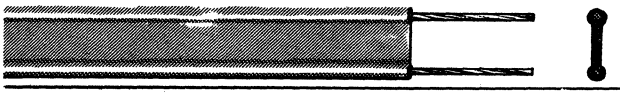
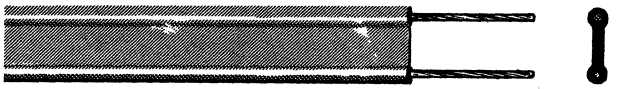
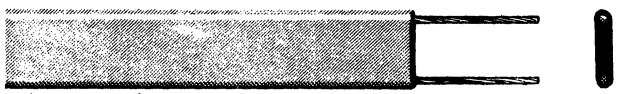
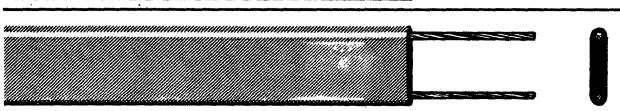
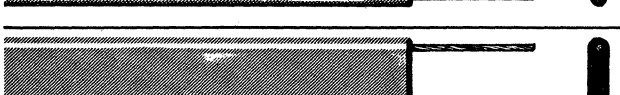
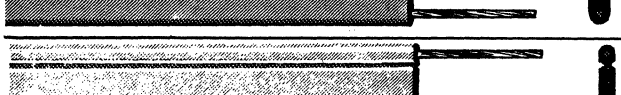
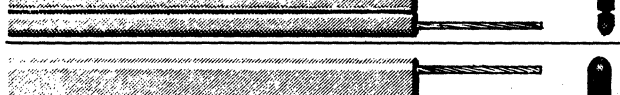
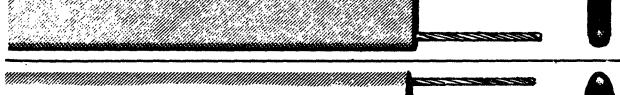
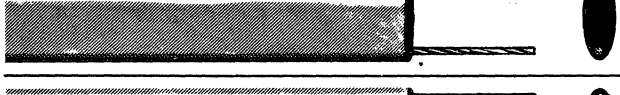
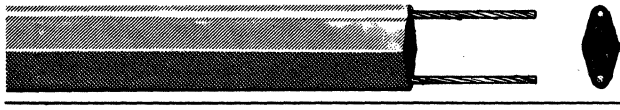
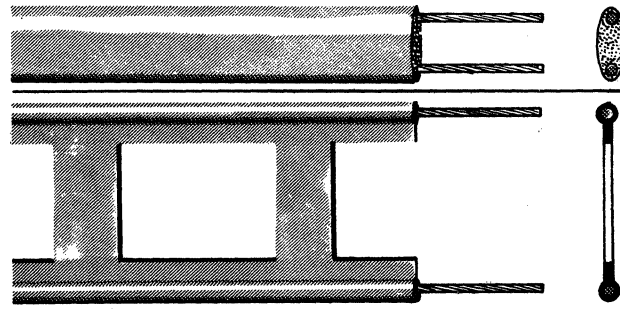
300 Ohm Twin Lead

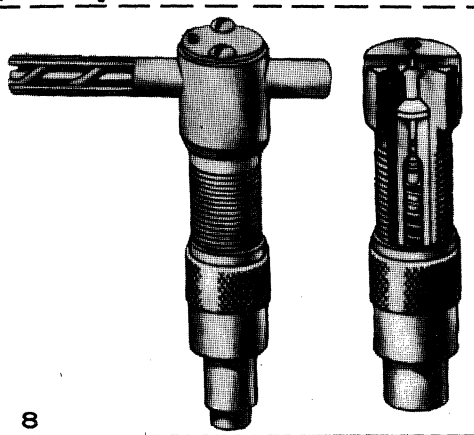
VHF-UHF TRANSMISSION LINE**

	CATALOG NO.	NAME	STRANDING	NOMINAL SIZE WEB - WIDTH	NET PRICE PER M'
	TL-40	Economy	7	0.040 x 0.0375	$7.63*
	TL-55	Signal Sender	7	0.055 x 0.385	8.33*
	TL-80	Trophy Line	10	0.080 x 0.385	9.73*
	TL-100	Crusader	10	0.093 x 0.355	9.45*
	TL-100DL	Top Notch	10	0.095 x 0.383	10.15*
	TL-100EZ	E-Z Strip	10	0.080 x 0.370	10.50*
	TL-100SDL	Double Ten	20	0.100 x 0.400	14.35*
	TL-125	Classic	41	0.125 x 0.415	22.05*
	TL-150	Hi-Fidelity	20	0.150 x 0.385	17.15*
	OTL	Oval Twin Lead	10	0.160 x 0.445	15.33*
	1016	Saxton Spongee	7x28	0.230 x 0.365	26.50*
	INS-500	Ladder Line	41	0.075 x 0.975	35.00*

**For tubular wire (TTL), shielded twin lead (1118), or Sea Coaster Marine Type (1017), please see Saxton page 12.

* For clear Silver, or Gold, Add $1.67 Per M' to Net Price.
Hanks—banded with open spade lugs at one end only:
50'—Add $2.50 Per M' to Net.
75'—Add $2.09 Per M' to Net.
100'—Add $1.67 Per M' to Net.

Tee-Tap Co-Axial Cable Connector



The Saxton Tee Tap allows quick, electrically perfect connections to coaxial cables without cutting the distribution lines and without necessity for re-insulation.

SAXTON NUMBER	DESCRIPTION	NET PRICES PER M'
59T59	From RG-59/U to RG-59/U	$2.76
11T59	From RG-11/U to RG-59/U	2.76

SAXTON PAGE 8

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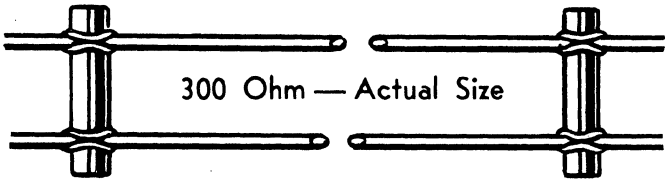
Open Wire Transmission Line

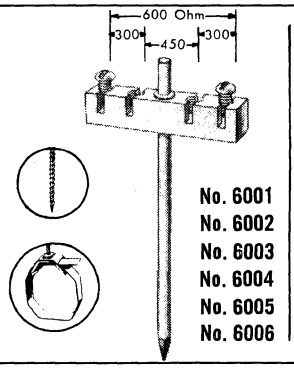
LOW LOSS AIR DIELECTRIC



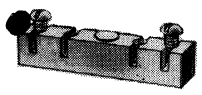
SAXTON NUMBER	CONDUCTOR	CONDUCTOR SPACING	IMPEDANCE	AWG No.	INSULATOR SPACING	NET PRICE PER M'
2500	40% Copper Weld	1"	450 Ohm	18	6"	23.59
2501	40% Copper Weld	1"	450 Ohm	18	12"	18.89
2502	40% Copper Weld	7/16"	300 Ohm	18	6"	23.59
2507	Solid Copper	1"	450 Ohm	18	6"	29.40
2515	Solid Copper Formvar	1"	450 Ohm	18	6"	29.75
2517	Solid Copper Formvar	7/16"	300 Ohm	18	6"	29.75
2520	Solid Copper Formvar	1"	450 Ohm	16	6"	39.55
2525	40% Copper Weld	Two Inch	475 Ohm	14	Random Spaced	56.00
2526	40% Copper Weld	Two Inch	450 Ohm	12	Random Spaced	66.50

Open Line Accessories

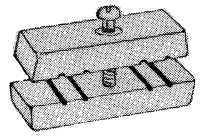
STANDOFFS & STRESS INSULATORS



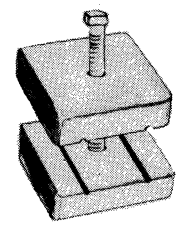
No. 6001
No. 6002
No. 6003
No. 6004
No. 6005
No. 6006



No. 6000



No. 6010



No. 6011

"TAPPEE" STANDOFF INSULATOR

A Standoff which is especially designed for use with open line transmission wire installations. To take up slack in line, tighten screws in slots after pulling taut. For use as ordinary spacer—partially tighten set screws (see illustrations). This will permit free movement of wire in the slots, thereby doing away with potential wire breaks due to backward and forward motion caused by wind. Ideal also for use as anchor point or spacer for "Fence Wire" installations. For use in 600 Ohm installations, use outside two slots. Particularly good for community installations, where random spacing of open line is desirable to avoid tuned circuits created by regular spacing. Permits inexpensive, time saving, trouble free installations. For use with gauges from No. 12 to No. 18. Block is high impact polystyrene; hardware is double dip galvanized steel.

	Net Price ea.
Saxton No. 6001 5½" Nail Type	$ .10
Saxton No. 6002 7½" Nail Type	.14
Saxton No. 6003 5" Wood Screw Type	.15
Saxton No. 6004 7½" Wood Screw Type	.15
Saxton No. 6005 5" Pole Clamp Type	.19
Saxton No. 6006 7½" Pole Clamp Type	.20

"TAPPEE"— Heads

	Net Price
Saxton No. 6000	.10

Blocks only without drive in hardware. Complete with two Parker Kalon plated screws for use as spacer block in making your own Open Line installations.

HEAVY DUTY OPEN LINE STRESS INSULATORS

	Net Price
Saxton No. 6010	.39

Plastic blocks, slotted on either one or two inch centers complete with plated screw. For taking up slack and for use as anchor points in Open Line installations.

	Net Price
Saxton No. 6011	.59

Same as above—Heavy duty. 2" spacing to accommodate #12 AWG wires.

saxton
wire and cable division
NEW YORK, N. Y.

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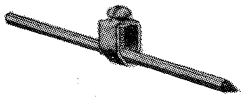
Antenna Accessories

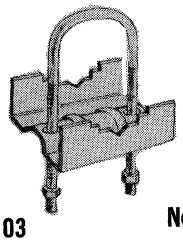
AERIAL KITS & MAST EQUIPMENT



GROUND RODS **Net Price**

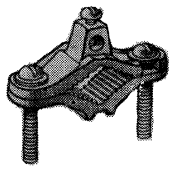
No. 1064 4 Foot Overall length .46

No. 1065 6 Foot Overall length .77



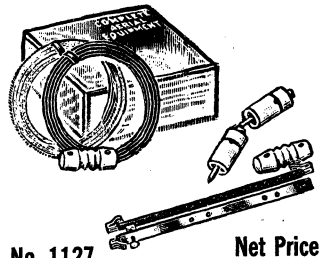
No. 1103 **Net Price** .175

"U" BOLTS AND SADDLES



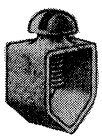
No. 1100 **Net Price** .36

GROUND MAST CLAMP



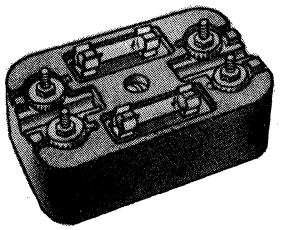
No. 1127 **Net Price** 2.57

DELUXE AERIAL KIT



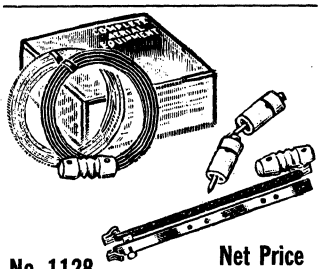
No. 1102 **Net Price** .14

GROUND ROD CLAMP



No. 1098 **Net Price** 1.40

LIGHTNING ARRESTOR



No. 1128 **Net Price** 1.19

STANDARD AERIAL KIT

No. 1154

ANTENNA STRAIN INSULATORS

Net Price .06

No. 1126

ANTENNA WINDOW STRAP

Antenna Wire

BARE, TINNED & ENAMELED COPPER

SAXTON NUMBER	AWG	STRANDING	CONDUCTOR TREATMENT	NOMINAL O.D.	NET PRICE PER M
A18	18	7 x 26	Bare	.045	$8.05
A16	16	7 x 24	Bare	.060	8.75
A14	14	7 x 22	Bare	.075	13.50
AT14	14	7 x 22	Tinned	.075	20.65
ED14	14	Solid	Enameled	.065	$16.50
ED12	12	Solid	Enameled	.081	24.50

Available on 1,000 ft. spools or 50 ft. & 100 ft. interconnected coils of 1,000 ft. total.

WE STOCK OR FABRICATE CABLES

under the following Mil Specs:

Mil C 3432A (CO-O constructions)
Mil C 5756B
Mil C 3884
Mil S 2486
Mil C 10392

Mil B 10255
Mil W 13169
Mil W 7139A
Mil C 13077
Mil W 5086A

Mil W 16878C
Mil W 76B
Mil W 16878C Teflon Open Wire Transmission Line*
—Plus many other types—

* Extra Low Loss

Special Service on Small or Large Orders

saxton wire and cable division NEW YORK, N. Y.

SAXTON PAGE 10

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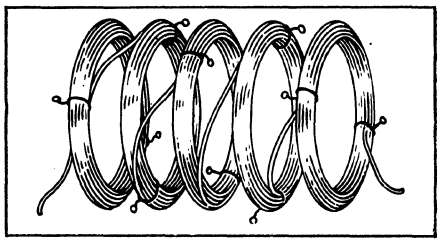
Copperweld Uninsulated

40% COPPERWELD



SAXTON NUMBER	AWG	CONDUCTOR	NOMINAL O.D.	NET PRICE
5300	18 Solid	40% Copperweld	.0403	$4.41
5301	16 Solid	40% Copperweld	.0508	10.50
5302	14 Solid	40% Copperweld	.0641	15.50
5303	12 Solid	40% Copperweld	.0808	18.06
5304	10 Solid	40% Copperweld	.1019	21.70
5305	8 Solid	40% Copperweld	.1285	39.90
5306	6 Solid	40% Copperweld	.1620	69.30

Saxton Copperweld available on 1,000 ft. spools. **5300** to **5303** also in 50 ft. & 100 ft. interconnected coils of 1,000 ft. total.

Guy Wire and Messenger Cables

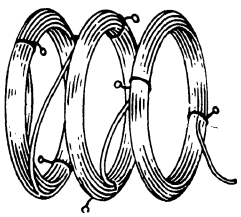
HEAVY GALVANIZED STEEL ALUMINUM AND COPPERWELD

SAXTON NUMBER	SPECIFICATION DESIGNATION	STRANDING	MATERIAL	STRENGTH TEST—p.s.i.	STRENGTH YIELD PER C FT.	NET PRICE
5100	GW-4/20	4 x 20	Heavy Galvanized Steel	215	4%	$4.17
5101	GW-6/20	6 x 20	Heavy Galvanized Steel	335	3.6%	5.50
5102	GW-7/20	7 x 20	Heavy Galvanized Steel	418	2.8%	6.48
5103	GW-6/18	6 x 18	Heavy Galvanized Steel	515	3%	8.39
5104	GW-7/18	7 x 18	Heavy Galvanized Steel	585	3%	9.79
5105	AL-7/18	7 x 18	EC Quality Aluminum—Aircraft Temper	370	4.5%	18.13
5106	ASL-7/18	6 x 18 Aluminum 1 x 18 Steel	EC Quality Aluminum—Aircraft Temper	410	3.5%	17.15
5107*	CO-6/20	6 x 20	30% Copperweld	600	2.7%	28.80
5108*	CO-6/18	6 x 18	30% Copperweld	1100	2.5%	32.20
5109*	CO-8/18	8 x 18	30% Copperweld	1450	1.8%	51.10
5110*	CO-3/18	3 x 18	30% Copperweld	550	2.5%	17.15
5111	GW-12/20	12 x 20	Heavy Galvanized Steel	655	—	16.80
5112	Tiller Cable	7 x 7 (49 Strands)	3/32" Cable—Vinyl Jacket 3/16" OD	2100	—	63.00

NOTE: Most Guy wires are available on 1,000 ft. spools or in 50 ft. & 100 ft. interconnected coils of 1,000 ft. total.
* Available annealed at no extra cost upon specification.

PRE-PACKAGED WIRE

ANTENNA WIRE



SAXTON NUMBER	STRANDING	MATERIAL	PACKING	NET PRICE
1275	Solid	No. 12 AWG Enameled Solid Copper	1000' Interconnected coils of 100' ea.	$24.50 /M'
1280	Solid	No. 14 AWG Enameled Solid Copper	1000' Interconnected coils of 100' ea.	16.50/M'
1285	7 x 22	Bare Copper	1000' Interconnected coils of 50' ea.	.79 ea.
1286	7 x 22	Bare Copper	1000' Interconnected coils of 100' ea.	1.45 ea.
1287	7 x 24	Bare Copper	1000' Interconnected coils of 50' ea.	.75 ea.
1288	7 x 24	Bare Copper	1000' Interconnected coils of 100' ea.	1.20 ea.
1289	7 x 26	Bare Copper	1000' Interconnected coils of 50' ea.	.69 ea.

Note: Copper wire also listed on Page 10.

ALUMINUM GROUND WIRE

				NET PRICE PER M'
No. 1240	No. 8 AWG	Solid Dead Soft Aluminum	1000 Ft. Spool	$12.25
No. 1245	No. 8 AWG	Solid Dead Soft Aluminum	1M' Interconnected coils of 50' ea.	.73
No. 1250	No. 8 AWG	Solid Dead Soft Aluminum	1M' Interconnected coils of 100' ea.	1.40
No. 1255	No. 6 AWG	Solid Dead Soft Aluminum	1000 Ft. Spool	25.00
No. 1260	No. 6 AWG	Solid Dead Soft Aluminum	1M' Interconnected coils of 50' ea.	1.35
No. 1265	No. 6 AWG	Solid Dead Soft Aluminum	1M' Interconnected coils of 100' ea.	2.20

HOOK-UP WIRE KITS

Five 40 foot rolls of hook up wire, assorted wire sizes and colors, solid and stranded. In attractive acetate boxes for easy identification.

No. 1440 **Net Price $1.59 ea.**

50 foot rolls of PVC covered hook up wire in plasticene bag. Assorted wire sizes and colors. Both solid and stranded.

No. 1450 **Net Price $ .40 ea.**

SAXTON PAGE 11

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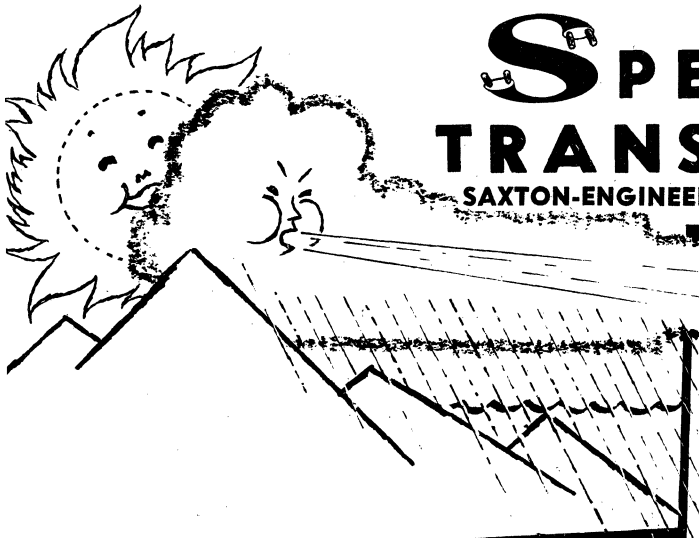


SPECIAL PURPOSE TRANSMISSION LINES

SAXTON-ENGINEERED TO MEET THE TOUGHEST OPERATING NEEDS

SOLVES CORROSIVE AND CHEMICAL PROBLEMS

SAXTON "SEACOASTER"

#1017

300 Ohm–20 gauge (7/28) copper conductors encased in low loss foam polyethylene. Tough, brown, outer jacket designed to resist air-borne corrosives and chemical reactions.

100' coil ..... $ 4.29
1 M' spool 39.50

POPULAR COAXIAL CABLE TYPES

MADE TO MIL SPEC

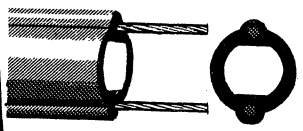
Saxton No.	Impedance	Mil Type	100' coil	1 M' spool
1X58	52 ohms	RG58U	$ 3.95	$ 39.50
1X58B		RG58AU	4.29	38.50
1X59	73 ohms	RG59U	3.95	39.50
1X59B		RG59AU	4.29	38.50
1X11	75 ohms	RG11U	10.95	99.95
1X11B		RG11AU	11.19	109.50
1X8	52 ohms	RG8U	12.95	119.95
1X8B		RG8AU	13.95	134.95

Low loss polyethylene foam dielectric—add 10%

FOR U.H.F. USE

SAXTON LOW-LOSS TUBULAR TWIN LEAD

TYPE TTL

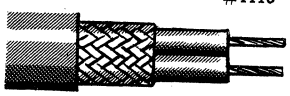


Heavy duty–brown polyethylene recommended for UHF applications.

100' coil ..... $ 1.99
1 M' spool 16.99

CUT NOISE

SHIELDED 300 OHM TWIN LEAD #1118



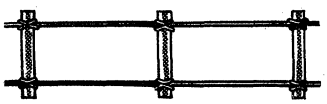
300 ohm – noise resistant – tinned copper shielded – twin lead wire. Each conductor 20 gauge – heavy – abrasion proof black vinyl jacket. Delivers noise free signal from antenna to set efficiently.

100' coil ..... $ 9.95
1 M' spool 89.95

PEN WIRE STANDOFFS

pecifically
esigned for
pen wire.
akes up slack, used for
ither 300 or 450 ohms.
se to make simple ef-
cient matching stub.
:6000 – 5" Nail type–
4c ea., 10 for.....$1.29
:6003–5" wood screw
pe–15c ea.,
) for $1.39
:6005 – 5" pole type
/clamp – 19c ea.,
) for $1.49

OPEN WIRE TRANSMISSION LINE



LOWEST LOSS OF ALL LINES—air dielectric – styrene spacers – hilly areas—long runs.

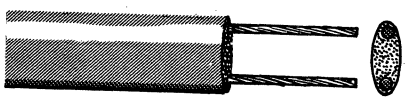
#2500 Copperweld—450 Ohm

100' spool $2.79
250' spool 5.99
500' spool 11.95

#2502 Copperweld—300 Ohm

100' spool $2.79
250' spool 5.99
500' spool 11.95

SAXTON "SPONGEE" LOW-LOSS TWIN LEAD

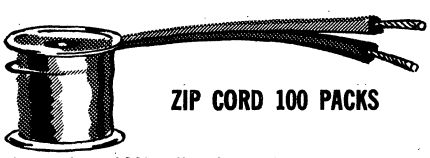


SPECIALLY DESIGNED FOR UHF TRANSMISSION

300 ohm 20 gauge stranded copper conductors encased in porous, low loss, polyethylene foam–stronger signals on VHF–excellent for UHF.

100' coil ..... $ 2.99
1M' spool 26.50

SAXTON ZIP CORD—IDEAL FOR ELECTRICAL LEADS



ZIP CORD 100 PACKS

Convenient 100' rolls of parallel cord. Speaker extension, lamp cord, etc. Colors–black, brown, white.

100' 20 gauge designate color #1055HP...1.89
100' 18 gauge designate color #1555HP 2.29
75' 20 gauge CLEAR–Polarized #1055HC 1.89
75' 18 gauge CLEAR–Polarized #155HC 2.29

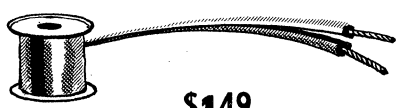
SAXTON MINIATURE ZIP CORD

Polarized–7 colors–brown, black, blue, green, white, grey, clear. Super flexible–24 gauge. Low voltage application–SPEAKER CORD.

2F24–500' roll clear 5.99
2F24–1000' roll clear 11.95
2F24–designate color 500' 5.49
2F24–designate color 1M' 10.95

MINI-ZIP/MINI-SPOOLS/IN COLORS

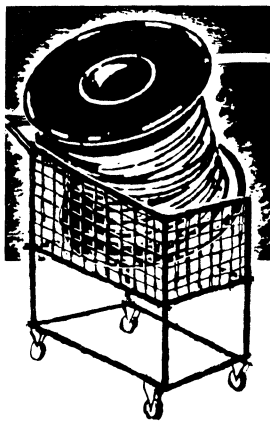
#1159HP



$1.49

Mini-Zip on convenient MINI spools–in color–80' on roll–grey, green, blue, white, black, brown, clear – SPEAKER LEADS – low voltage application, intercom, etc. 24 gauge.

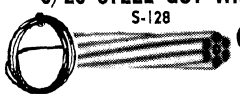
© U.C.P., Inc.



WIRE SUPERMARKET 99¢

BY SAXTON PRODUCTS, INC.

6/20 STEEL GUY WIRE
S-128



99¢

100 feet — 6 strands — 20 gauge — Bright galvanized.

ALUMINUM GUY WIRE
S-127

40 feet—7 strand—each 18 gauge—flexible—rust free—long lasting.

RG58U—COAXIAL CABLE
S-138

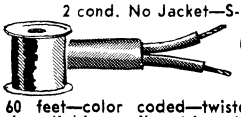
99¢

20 feet— 52 ohm—citizens band, ham usage.

RG59U—COAXIAL CABLE
S-139

20 feet—72 ohm — ham — community system—apt. house antenna, etc.

INTERCOM WIRE
2 cond. No Jacket—S-102



99¢

60 feet—color coded—twisted—sturdy—pliable—easily stripped.

INTERCOM WIRE
2 cond. W. jacket—S-103

35 feet twisted pair—overall jacket—color coded.

INTERCOM WIRE

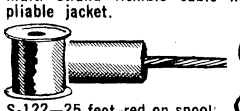
99¢

Twisted easily stripped—sturdy, pliable color coded.

S-104—3 conductor—no jacket ..... 40 ft.
S-105—3 conductor—With jacket ..... 28 ft.

TEST PROD WIRE

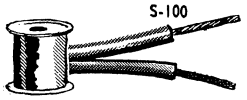
Multi strand flexible cable with extra pliable jacket.



99¢

S-122—25 feet-red on spool
S-123—25 feet-black on spool

MINIATURE PARALLEL CABLE
S-100



99¢

53 feet — SPEAKER EXTENSIONS — hi fi leads—juke box wiring—low voltage applications. 24 gauge—7 colors—clear, black, white, blue, green, gray, brown. Polarized.

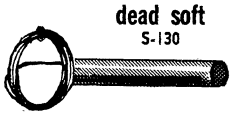
AERIAL WIRE

99¢

7 strand — closely twisted — pre-stretched copper.

7/22—50' coil S-124
7/24—60' coil S-125
7/26—70' coil S-126

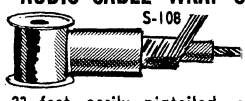
GROUND WIRE—Aluminum dead soft
S-130



99¢

40 feet — #8 annealed — grounding systems of all kinds—excellent rust free laundry line.

AUDIO CABLE—WRAP SHIELD
S-108

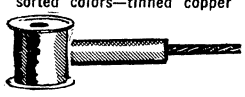


99¢

23 feet—easily pigtailed, extra pliable, vinyl jacket.

HOOK UP WIRE

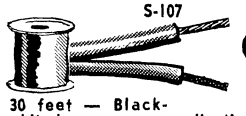
Plastic — P.V.C.— easily stripped — assorted colors—tinned copper



99¢

No. 115—18 gauge, solid ..... 60 ft.
No. 115A—18 gauge, stranded ..... 57 ft.
No. 116—20 gauge, stranded ..... 75 ft.
No. 116A—20 gauge, solid ..... 80 ft.
No. 117—22 gauge, solid ..... 100 ft.
No. 117A—22 gauge, stranded ..... 90 ft.

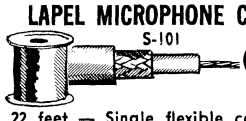
ZIP CORD—VINYL—18 GA.
S-107



99¢

30 feet — Black-white-brown many applications.

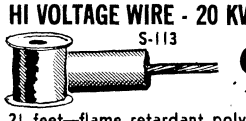
LAPEL MICROPHONE CABLE
S-101



99¢

22 feet — Single flexible conductor — braid shield — smooth plastic jacket.

HI VOLTAGE WIRE - 20 KV rating
S-113



99¢

21 feet—flame retardant polyethylene insulated, cathode ray—power supply leads.

SHIELDED GRID OR PHONO WIRE
S-112

99¢

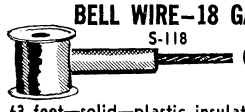
30 feet — Braid shield — flexible — tinned copper.

PHONO PICKUP WIRE
Extra flexible

99¢

S-145—Single cond. shield—no jacket ..... 20 ft.
S-146—Single cond. shield—jacket ..... 22 ft.
S-147—Two cond. twisted—no jacket—no shield ..... 25 ft.
S-148—Three cond. twisted—no shield ..... 20 ft.
S-151—4 cond. twisted—no shield ..... 15 ft.
S-149—3 cond. twisted—w. shield ..... 18 ft.

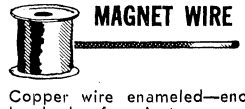
BELL WIRE—18 GA.
S-118



99¢

63 feet—solid—plastic insulated. Low voltage applications.

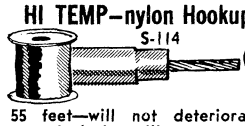
MAGNET WIRE



99¢

Copper wire enameled—enough for hundreds of projects.
S-109, 22 gauge; S-109A, 24 gauge; S-109B, 26 gauge; S-109C, 28 gauge.
Experimental work — coilwinding — school science projects, etc.

HI TEMP—nylon Hookup wire
S-114



99¢

55 feet—will not deteriorate—used extensively by military.

COPPERWELD WIRE

99¢

Hard drawn and shiny—hi conductivity copper over steel—unlimited application—will not stretch—electric fences antennas, etc.

S-135—18 gauge ..... 100 feet
S-136—12 gauge ..... 40 feet
S-137—14 gauge ..... 50 feet

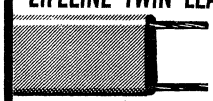
TINNED "BUS WIRE"
Pure copper

99¢

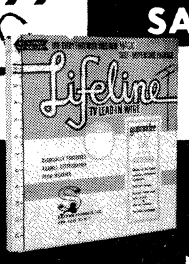
S-152—22 ga. ..... 150 ft.
S-153—20 ga. ..... 120 ft.
S-154—18 ga. ..... 90 ft.
S-155—16 ga. ..... 60 ft.
S-158—12 ga. ..... 30 ft.

SAXTON QUALITY TWIN LEAD & ROTOR CABLE

LIFELINE TWIN LEAD

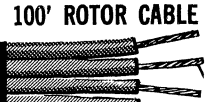


Heavy duty—full size — deluxe twin lead. Made of finest materials and chemically protected against deterioration. GUARANTEE PERFECT RECEPTION FOR THE LIFE OF YOUR ANTENNA.
LTL 100 ft. $1.98



SPECIAL DISPENSER PACKAGE
- Dustproof
- Tangle Free
- Economical

LIFELINE 100' ROTOR CABLE



Extra heavy duty 4 Conductor "Lifeline" type rotor cable. SUPER DELUXE in every respect. 1 leg polarized for easy reference — sold in exclusive Magic Dispenser carton.
L4FC
100 feet
$2.49

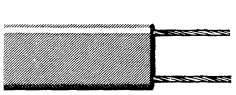
TWIN LEAD ZIP CORD

$1.49

ZIPS BACK and strips back in seconds—CLEANLY!

100' hanks—100EZTL ..... $ 1.49
1000' spool—1000EZTL 10.95

ECONOMY TWIN LEAD



$1.19

TWIN LEAD of good quality at an excellent price. 55 mil with — strands (22 gauge) copper.

100' coil—TL-55 ..... $1.1
1000' spool—TL-55 ..... 7.9
100' Dispenser Package 1.1

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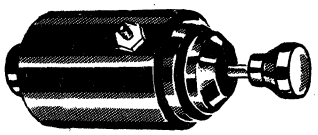
STOP ACCIDENTS IN THE DARK
IN THE HOME ON THE FARM AND IN INDUSTRY

DELAYED ACTION SAFETY SWITCH — HOUSE TYPE

THE LIGHTS GO OUT — **60 seconds later.** Get where you're going SAFELY — before they go out. Replaces ANY wall switch in seconds. Use in house, barn, porch —ANYWHERE. U.L. approved — fully guaranteed.

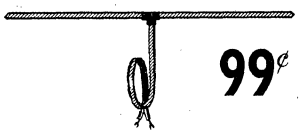
S560 IVORY	$2.19
S561 BROWN	2.19

DELAYED ACTION AUTO SWITCH



Install in minutes under dash of car. Complete with directions and hardware. Keeps car lights on for safe departure AFTER switch has been turned off. Shuts lights off, 60 seconds later—AUTOMATICALLY. Fully guaranteed. S563..... **$2.19**

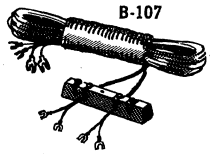
FM INDOOR ANTENNA
B-106



99¢

300 Ohm Folded Dipole with 42" lugged lead in. Center tap protected in lasting, molded plastic. For use on your FM or TV receiver. Easily concealed.

STEREO HARNESS
B-107



$1.49

Two 20 foot polarized leads—complete with adjustable mounting block and polarized lug attaching arrangement. Allows 40 feet of separation for efficient hook up of stereo speaker systems.

PATIO SPEAKER BAFFLE

B-1205

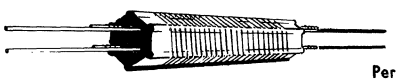
Made of unbreakable hi-impact styrene — mahogany — complete with hardware and mounting instructions. For use with 6 x 9 speaker. Ideal for paging and monitoring, patio and stereo extensions, or wherever an extension speaker can be used.

Less speaker **$2.49**

B-1206

$3.98 6 x 9 speaker, volume control and control knob—complete directions—complete kit, including cabinet.

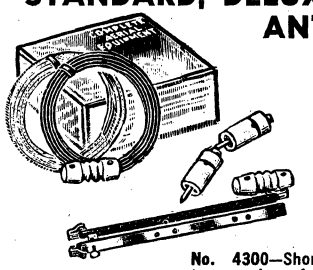
TV ANTENNA MATCHING BALUN COILS
1121



Per pair **99¢**

Efficiently match 72 to 150 ohms—72 to 450 ohms—150 to 300 ohms—150 to 450 ohms—300 to 450 ohms—75 to 300 ohms—Eliminates standing waves—use as set coupler—impedance transformer, line matching, etc.
Directions included.

STANDARD, DELUXE and SHORT WAVE ANTENNA KITS



No. 1128—Standard Kit includes 50' stranded 7/28 copper wire, 1 coil 25' insulated lead wire, 2 nail knobs, 1 lead strap, 2 insulators. **$1.19**

No. 1127—Deluxe Kit includes 75' 7/22 heavy antenna wire, 1 coil 50' heavy duty lead wire, 2 nail knobs, 1 lead strap, 2 insulators. **$2.57**

No. 4300—Short Wave Kit includes 66'—heavy duty antenna wire, 1 transposition block, 50' heavy duty twisted lead cable, 3 insulators, 2 window straps, 2 nail knobs. **$4.19**

All kits include complete directions.

HEAVY DUTY SUPER GUY WIRE & MESSENGER CABLE
#5112

Super flexible — (49 strand wire rope) steel galvanized wire — super strength 2100 lbs. breaking strength —with overall clear vinyl jacket — Ideal tiller or rudder cable on boats.

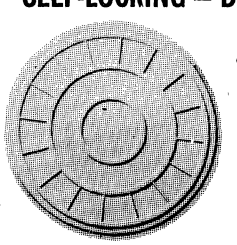
100' coil **$6.95**

NON STRETCH, HARD DRAWN COPPERWELD

75' or 150' coils—12 and 14 gauge. Ham antennas, commercial installations, rhombics, electric fences.

#5303	
12 ga.—75'	$1.79
12 ga.—100'	2.19
12 ga.—1 M' spool	19.95
#5302	
14 ga.—75'	$1.59
14 ga.—100'	1.99
14 ga.—1 M' spool	15.50

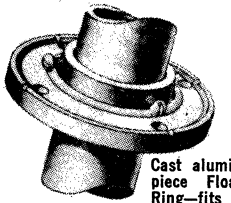
SELF-LOCKING — DUST PROOF TAPE STORAGE CANS
1230



- Accommodates 5" and 7" reels.
- Unique twist lock insures dust free—moisture proof Tape Storage.
- Made of high impact styrene.
- Center and locking studs prevent reel movement and possible damage.
- Ideal shipping container.
- Built in interlock for horizontal stacking.
- Can be used for film storage by eliminating locking stud.

1—49c; 2—90c; 10—$4.50; 100—$39.00

FLOATING GUY RING



79¢

#1099

Cast aluminum — 2 piece Floating Guy Ring—fits masts up to 1½" in diameter. Individually packed complete with hardware in individual plastic bags.

FIBRE GLASS GUY WIRE
#7000

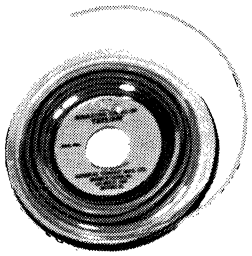
Non-radiating, non-absorptive, hi strength "wireless" guy wire. Vinyl jacket — 500 lb. breaking strength.

100' coil **$1.99**

© U.C.P., Inc.

Walsco ELECTRONICS INSULATING TUBING

WALSCO INSULATING TUBING OF TEFLON



TEFLON "spaghetti" has unsurpassed electrical and mechanical qualities. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. A big feature is the low co-efficient of friction.

Part No.	Feet Per Spool*	Color	Gauge	I.D. (Inches)	Wall Thickness	Dlr. Net Per Spool
690-1	10	Nat	24	.022	.010	$ 1.33
690-1C	100	Nat	24	.022	.010	9.75
690-4	10	Red	24	.022	.010	1.33
690-4C	100	Red	24	.022	.010	9.75
690-5	10	Blue	24	.022	.010	1.33
690-5C	100	Blue	24	.022	.010	9.75
691-1	10	Nat	22	.027	0.12	1.47
691-1C	100	Nat	22	.027	.012	12.43
691-4	10	Red	22	.027	.012	1.47
691-4C	100	Red	22	.027	.012	12.43
691-5	10	Blue	22	.027	.012	1.47
691-5C	100	Blue	22	.027	.012	12.43
692-1	10	Nat	20	.034	.012	1.83
692-1C	100	Nat	20	.034	.012	18.27
692-4	10	Red	20	.034	.012	1.83
692-4C	100	Red	20	.034	.012	18.27
692-5	10	Blue	20	.034	.012	1.83
692-5C	10	Blue	20	.034	.012	18.27
693-1	10	Nat	18	.042	.012	2.23
693-1C	100	Blue	20	.034	.012	20.88
693-4	10	Red	18	.042	.012	2.23
693-4C	100	Red	18	.042	.012	20.88
693-5	10	Blue	18	.042	.012	2.23
693-5C	100	Blue	18	.042	.012	20.88
694-1	10	Nat	16	.053	.012	2.65
694-1C	100	Nat	16	.053	.012	25.02
694-4	10	Red	16	.053	.012	2.65
694-4C	100	Red	16	.053	.012	25.02
694-5	10	Blue	16	.053	.012	2.65
694-5C	100	Blue	16	.053	.012	25.02
695-1	10	Nat.	14	.066	.012	2.92
695-1C	100	Nat	14	.066	.012	28.38
695-4	10	Red	14	.066	.012	2.92
695-4C	100	Red	14	.066	.012	28.38
695-5	10	Blue	14	.066	.012	2.92
695-5C	100	Blue	14	.066	.012	28.38
696-1	5	Nat	12	.085	.014	1.83
696-1C	100	Nat	12	.085	.014	34.28
696-4	5	Red	12	.085	.014	1.83
696-4C	100	Red	12	.085	.014	34.28
696-5	5	Blue	12	.085	.014	1.83
696-5C	100	Blue	12	.085	.014	34.28
697-1	5	Nat	10	.106	.014	2.17
697-1C	100	Nat	10	.106	.014	39.53
697-4	5	Red	10	.106	.014	2.17
697-4C	100	Red	10	.106	.014	39.53
697-5	5	Blue	10	.106	.014	2.17
697-5C	100	Blue	10	.106	.014	39.53

Std. Pack 10' and 5' Spools: 12 * BULK PRICES QUOTED ON REQUEST
Std. Pack 100' Spools: 1

WALSCO RAYOFLEX

Rayoflex combines the mechanical strength of synthetic lacquer to produce a tough, of fibreglas with the protective properties rugged insulating tubing. Rayoflex is more flexible and less affected by aging than conventional varnished tubing. Has a dielectric strength of 4,000 to 5,000 volts.

Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
630-(color)	18	.042	1	10 ft.
631-(color)	15	.059	1.5	8 ft.
632-(color)	12	.085	2	8 ft.
633-(color)	9	.118	3	5 ft.
634-(color)	6	.166	4	5 ft.

AVAILABLE IN BLACK, RED, BLUE and YELLOW COLORS. To specify COLOR add suffix to above catalog number as follows: -03 for Black, -04 for Red, -05 for blue and -06 for Yellow. Example:—630-03 is 18 gauge, Black.

WALSCO FLEXITUBE

Walsco Flexitube is the ideal supplemental insulation for most electronic and electrical applications. Flexitube is impervious to water, oil, alcohol, most acids and alkalies. Has an outstanding dielectric strength of 15,000 volts (average) before breakdown. Is not affected by temperature extremes.

Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	mm	Quantity Per Spool
600-(color)	18	.042	1	20 ft.
601-(color)	16	.053	1.4	20 ft.
602-(color)	14	.066	1.6	18 ft.
603-(color)	12	.085	2	16 ft.
604-(color)	10	.106	2.7	14 ft.
605-(color)	8	.133	3.5	12 ft.
606-(color)	6	.166	4	10 ft.
607-(color)	4	.208	5	6 ft.
608-(color)	2	.263	6.5	6 ft.

AVAILABLE IN CLEAR, GREEN, BLACK and RED COLORS. To specify COLOR add suffix to above catalog number as follows: -01 for Clear, -02 for Green, -03 for Black and -04 for Red. Example: 600-01 for 18 gauge, Clear.

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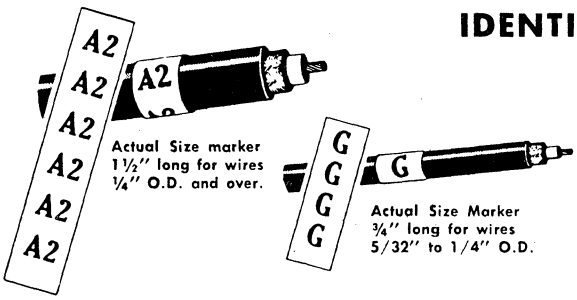
E-Z-CODE® *self-adhering* WIRE MARKERS

IDENTIFY WIRE AND CABLES OF ANY SIZE

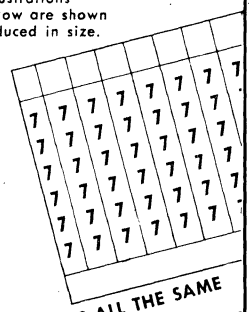


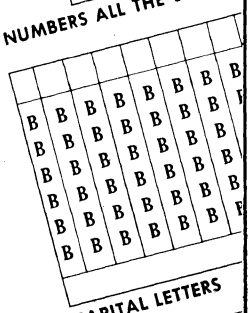
Identification applied around-the-wire without ever touching adhesive side of marker . . . "with E-Z-Codes you grab the tab—not the adhesive" . . . Available in popular Vari-Temp cloth listed below, Aluminum-foil, Vinyl-plastic, Polyester-film. Ask for complete Westline stock list (form EZ8-1) of thousands of markers . . . specials available too.

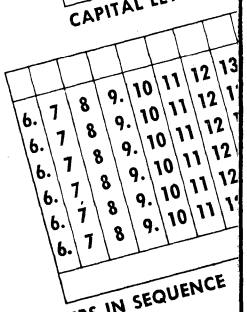
VARI-TEMP CLOTH MARKERS (WBC)

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS ALL THE SAME		
0	72	36
1	72	36
2	72	36
and so on thru		
98	72	36
99	72	36
100	52	26
and so on thru		
598	52	26
599	52	26
600	52	26
CAPITAL LETTERS		
A	72	36
B	72	36
and so on thru		
Y	72	36
Z	72	36
NUMBERS IN SEQUENCE		
1-33	66	33
34-66	66	33
67-99	66	33
and so on thru		
225-249	50	25
250-274	50	25
275-299	50	25
and so on thru		
1975-1999	50	25
NUMBERS IN REPEATED SEQUENCE		
0-9	60	30
0-10	66	33
1-3	72	36
1-4	72	36
1-5	70	35
1-6	72	36
cont'd.		
1-8	64	32
1-9	72	36
1-10	66	33
1-12	64	32
1-18	72	36
19-36	72	36
LETTERS IN REPEATED SEQUENCE		
A-Z	72	36
plus A-J		
A-Z	72	36
plus 0-9		
A-E	70	35
F-J	70	35
K-O	70	35
P-T	70	35
U-Z	72	36

Illustrations below are shown reduced in size.

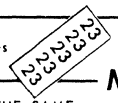

NUMBERS ALL THE SAME


CAPITAL LETTERS


NUMBERS IN SEQUENCE

Also available: Numbers repeated, Letters in Sequence, lower case letters, Color Codes, Colors with numbers, Symbol, phase & cycle markers, etc.

for miniature wires under 5/32"


Actual Size

MINI-MARKERS (Miniature) WBC

NUMBERS ALL THE SAME	
0	100 markers per card
1	100 markers per card
and so on thru	
24	100 markers per card
25	100 markers per card
(higher numbers also available)	
A	100 markers per card
B	100 markers per card
and so on thru	
Y	100 markers per card
Z	100 markers per card

NUMBERS IN SEQUENCE	
0-49	100 markers per card
50-99	100 markers per card
100-132	66 markers per card
133-165	66 markers per card
166-198	66 markers per card
199-231	66 markers per card
232-264	66 markers per card
265-297	66 markers per card
(higher numbers in sequence also available)	

COMBINATION CARD

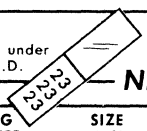
Two rows: Each row consisting of one marker A thru Z and 0 thru 15 and FIL, GRD, B+, PRI, SEC, PLA. (96 markers per card).

Also available: Sub-Miniature Markers from stock—write for form #EZ8-1.

NET PRICES

QUANTITY	VARI-TEMP (WBC) CLOTH	MINI-MARKERS (WBC)	(NEW WSL) SELF-LAMINATING MARKERS
30-99 cards	$20.00/c	$18.00/c	$22.50/c
100-499 cards	16.00/c	14.40/c	18.00/c
500-999 cards	14.00/c	12.60/c	15.75/c
1000-2499 cards	13.00/c	11.70/c	14.63/c
2500-4999 cards	12.50/c	11.25/c	14.06/c
5000-9999 cards	12.00/c	10.80/c	13.50/c
over 10,000 write for quotation		write for quote	write for quote
Specify 1½" or ¾" marker length		½" long marker	Specify A-SL or B-SL Size (below)

for wires under 5/32" O.D.


for wires 5/32" to 1/4" O.D.

NEW SELF-LAMINATING MARKERS (WSL)

PRINTING ON MARKER	SIZE A-SL	SIZE B-SL
NUMBERS ALL THE SAME		
0	100	36
1	100	36
and so on thru		
50	100	36
and so on thru		
99	*	36
100	*	26
and so on thru		
300	*	26

*Size A-SL available as stock from 0 thru 50 only.

PRINTING ON MARKER	SIZE A-SL	SIZE B-SL
CAPITAL LETTERS		
(all the same)		
A	100	36
B	100	36
and so on thru		
X	100	36
Y	100	36
Z	100	36

NUMBERS IN SEQUENCE	
Size A-SL	
0 thru 49	(100 markers per card)
50 thru 99	(100 markers per card)
Size B-SL	
1 thru 33	(33 markers per card)
34 thru 66	(33 markers per card)
67 thru 99	(33 markers per card)
and so on thru	
450 thru 474	(25 markers per card)
475 thru 499	(25 markers per card)

Also available in Machine Tool Markers, D.C. Motor & Generator Markers, Letters and numbers, Combination Letters & numbers, Blank Write-on Markers.

Size A-SL: ⅜" pre-coded marker plus a self contained clear laminated extension of ⅜".

Also Longer length B-SL size: ¾" pre-coded marker with added ¾" clear self-contained laminated extension. Ask for Complete stock list form SL4-4.

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